FIBL & IFOAM – ORGANICS INTERNATIONAL

THE WORLD OF ORGANIC AGRICULTURE

STATISTICS & EMERGING TRENDS 2017

OCEANIA 22.8 MILLION HA

EUROPE 12.7 MILLION HA

LATIN AMERICA 6.7 MILLION HA

ASIA 4.0 MILLION HA

NORTH AMERICA 3.0 MILLION HA

AFRICA 1.7 MILLION HA

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Technology Innovation Platform of IFOAM – Organics International (TIPI)

A Global Vision and Strategy for Organic Farming Research

Condensed Version

Vision 2030 for the future development of organic farming:

- Organic contributes to the resolution of the future challenges of global agriculture.
- Organic agriculture becomes the preferred land use system in rural areas worldwide.
- Organic agriculture secures food and ecosystems through eco-functional intensification.
- Organic agriculture produces healthy food in a fair way for the well-being of all.

IFOAM TECHNOLOGY INNOVATION PLATFORM TIPI

IFOAM ORGANICS INTERNATIONAL

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The World of Organic Agriculture Statistics and Emerging Trends 2017

Edited by Helga Willer and Julia Lernoud

For PDF version, corrigenda and supplementary material see http://www.organic-world.net/yearbook/yearbook-2017.html

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Cover picture: Campo Laguna Blanca in Entre Ríos Province, Argentina, is a project of the Tompkins Conservation, comprising almost 3'000 hectares. Laguna Blanca is a model of diversified organic agriculture in the region. More information is available at http://www.tompkinsconservation.org/farm_laguna_blanca.htm

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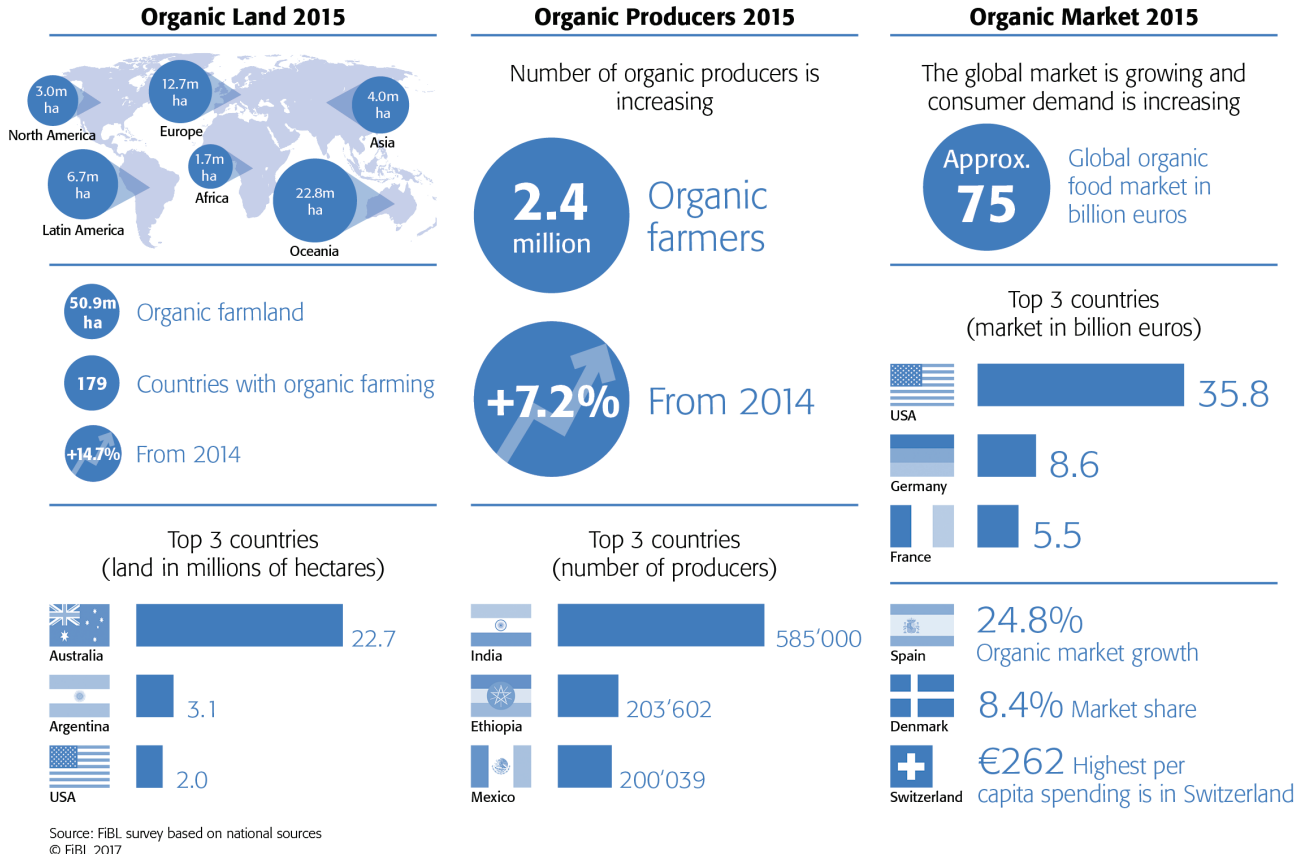
FiBL & IFOAM – Organics International (2017): Frick and Bonn, 2017-02-20

Glossary

€/person: Per capita consumption in euros
AMI: Agrarmarkt-Informationsgesellschaft - Agricultural Market Information Company, Germany
ASOA: Association of Southeast Asian Nations (ASEAN) Standard for Organic Agriculture
CAP: Common Agricultural Policy of the European Union
CIHEAM: Centre international de hautes études agronomiques méditerranéennes
CNCA: China National Certification and Accreditation Administration
COROS: Common Objectives and Requirements of Organic Standards (COROS) are the Standards Requirements of IFOAM – Organics International
COTA: Canada Organic Trade Association, Canada
CPC: Candidates and Potential Candidates for the European Union
CTAB: Technical Center of Organic Agriculture, Tunisia
DGAB: Direction Génerale de l'Agriculture Biologique, Tunisia
EACCE: Etablissement Autonome de Contrôle et Coordination et des Exportations
EFTA: European Free Trade Association
EIP-AGRI: European Innovation Partnership for Agricultural Productivity and Sustainability
EOA: Ecological Organic Agriculture; Ecological Organic Agriculture Initiative for Africa
EU: European Union
EU-13: The countries that became a member of the European Union in or after May 1, 2004
EU-15: Member countries in the European Union prior to the accession of ten candidate countries on 1 May 2004
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
GATS: USDA's Global Agriculture Trade System, United States of America
GMO: Genetically Modified Organisms
GOTS: Global Organic Textile Standard
Ha: Hectares
Hivos: Dutch Humanist Institute for Cooperation
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
ISOFAR: International Society of Organic Agriculture Research, Germany
ITC: International Trade Centre, Switzerland
MAEP: Ministry of Agriculture and Environmental Protection, Serbia
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
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
OTA: Organic Trade Association, United States of America
OWC: Organic World Congress of IFOAM – Organics International
PGS: Participatory Guarantee Systems
POETcom: Pacific Organic and Ethical Trade Community
SECO: State Secretariat for Economic Affairs, Switzerland
SÖL: Stiftung Ökologie & Landbau – Foundation Ecology & Agriculture, Germany
SPC: Secretariat of the Pacific Community
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
VCO: Virgin Coconut Oil
VSS: Voluntary Sustainability Standards



Infographic 1: Organic agriculture worldwide: Key indicators 2015

Source: FiBL survey 2017

Foreword from SECO and ITC

This book provides a clear statement on the resilience of the organic market trend. On the consumer side, organic products with a total value of almost 82 billion US dollars were sold globally in 2015. High growth rates were recorded in the advanced markets for organic products. A growth rate of 20 percent and more of organic retail sales value was noticed for Spain, Ireland, and Sweden in 2015. In Switzerland, where the market has been evolving over several years with high growth rates, it grew by 5 percent. The production side is also keeping pace: The latest data show that organic farmland has grown in many countries, and the total organic area increased to 50.9 million hectares, managed by over 2.4 million producers. In particular, for some crops such as coffee, cocoa, cereals, and temperate fruits, area growth rates of 15 percent and more were reached in 2015. "New" countries have joined the community of organic producers, so there are now 179.

One challenge is assessing global organic production compared to the overwhelming majority of "conventional" production. Currently, organic agriculture represents just over 1 percent of the global agricultural land. However, some crops reached far higher shares. For coffee, the organic area represented almost 9 percent, and for olives, 6.5 percent of the total world area for these crops was organic.

On the other hand, the importance of other sustainability standards is increasing. Data on the performance of these Voluntary Sustainability Standards (VSS) are still scarce; therefore, collecting timely and accurate market data to facilitate policy and investment decisions is important for policymakers, market actors, and donors. The Research Institute of Organic Agriculture (FiBL), the State of Sustainability Initiatives (SSI) of the International Institute of Sustainable Development (IISD), and the International Trade Centre (ITC) have partnered with the support of SECO in a joint data publication effort to ensure continuous, accurate, and relevant reporting. Since 2014, this partnership has been collecting data from 14 VSS with a special focus on nine selected commodities. The new data will be published in June 2017, in the new edition of The State of Sustainable Markets.

It is essential for the organic community to gather relevant information on organic market trends in order to continue attracting various stakeholders. Transparent information enables credibility and informed decisions on the costs and benefits of organic production for both the producer and the buyer. This book makes a major contribution to such transparency.

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

Monica Rubiolo
Head of the Division for Trade Promotion
Swiss State Secretariat for Economic Affairs (SECO)
Bern, Switzerland

Joseph Wozniak
Manager of the Trade for Sustainable Development (T4SD) Programme
International Trade Centre (ITC)
Geneva, Switzerland

Foreword from FiBL and IFOAM – Organics International

Data collection is a major and constant concern of the Research Institute of Organic Agriculture (FiBL) and IFOAM – Organics International. The comprehensive data provided in this publication serve as an important tool for stakeholders, policymakers, authorities, and the industry, as well as for researchers and extension professionals. The information provided here has proven useful in development programs and supporting strategies for organic agriculture and markets, and crucial for monitoring the impact of these activities. The data collection on organic farming worldwide has become one of the most frequently quoted literature in scientific, technical and descriptive papers and reports on organic agriculture.

With this edition, FiBL and IFOAM – Organics International are presenting "The World of Organic Agriculture" for the 18th time. The data and information compiled in this volume document the latest statistics, recent developments, and trends in global organic farming. As in previous editions, regional reports and topic specific articles were also compiled.

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.

We are grateful to Swiss State Secretariat for Economic Affairs (SECO) and the International Trade Centre (ITC) for their support.

Furthermore, we are happy to count on the continuous support of NürnbergMesse, the organizers of the BIOFACH, the World's leading trade fair for organic food.

Frick and Bonn, February 2017

Prof. Dr. Urs Niggli
Director
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Organic Agriculture FiBL
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Markus Arbenz
Executive Director
IFOAM – Organics International
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Foreword from the Editors

In the 18th edition of The World of Organic Agriculture, we are presenting, like in the past, the latest available data on organic agriculture worldwide – data on area, operators, and retail sales. This data is provided by a large number of data suppliers from all over the world, to whom we are very grateful!

Knowledgeable authors have contributed articles on their regions, their countries, or their fields of expertise. As in the past, we have the global market report from Organic Monitor, regional reports on Africa, Asia, Europe, Latin America and the Caribbean, and the Pacific Region, as well as country reports on Australia, Canada, Kenya, and the United States.

Furthermore, we have included an article on organic cotton from the Textile Exchange and a chapter on the global Fairtrade and organic markets. In the "Better Data" section we have included background information on the FiBL survey on organic agriculture.

Our section "Standards, Regulations & Policy", in addition to the annual update on regulations and Participatory Guarantee Systems, presents some results from the survey of IFOAM – Organics International on policy support for organic agriculture.

We maintain our Organic-World.net website, where key data are available as interactive tables and maps. The news section of the website offers information about major developments in the field of organic agriculture, and via our Twitter account at www.twitter.com/FiBLStatistics, we keep our readers informed about the latest data on organic agriculture.

Helga Willer and Julia Lernoud

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Organic Agriculture: Key Indicators and Top Countries

Indicator	World	Top countries
Countries with organic activities[1]	2015: 179 countries	New countries: Brunei Darussalam, Cape Verde, Hong Kong, Kuwait, Monaco, Sierra Leone, and Somalia
Organic agricultural land	2015: 50.9 million hectares (1999: 11 million hectares)	Australia (22.7 million hectares) Argentina (3.1 million hectares) United States (2 million hectares)
Organic share of total agricultural land	2015: 1.1 %	Liechtenstein (30.2 %) Austria (21.3 %) Sweden (16.9%)
Wild collection and further non-agricultural areas	2015: 39.7 million hectares (1999: 4.1 million hectares)	Finland (12.2 million hectares) Zambia (6.6 million hectares) India (3.7 million hectares)
Producers	2015: 2.4 million producers (1999: 200'000 producers)	India (585'200) Ethiopia (203'602) Mexico (200'039)
Organic market	2015: 81.6 billion US dollars (approx. 75 billion euros) (2000: 17.9 billion US dollars)	US (39.7 billion US dollars; 35.8 billion euros) Germany (9.5 billion US dollars; 8.6 billion euros) France (6.1 billion US dollars; 5.5 billion euros)
Per capita consumption	2015: 11.1 US dollars (10.3 euros)	Switzerland (291 US dollars; 262 euros) Denmark (212 US dollars; 191 euros) Sweden (196 US dollars; 177 euros)
Number of countries with organic regulations	2016: 87 countries	
Number of affiliates of IFOAM – Organics International	2016: 833 affiliates from 121 countries	Germany - 91 affiliates India - 73 affiliates China - 55 affiliates United States - 49 affiliates

Source: FiBL survey 2017, based on national data sources and data from certifiers
Global market: Organic Monitor 2017

[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.

The World of Organic Agriculture 2017: Summary

Helga Willer[1] and Julia Lernoud[2]

Key data on organic agriculture

According to the latest FiBL survey on certified organic agriculture worldwide, as of the end of 2015, data on organic agriculture was available from 179 countries (172 in 2014).

There were 50.9 million hectares of organic agricultural land in 2015, including in-conversion areas. The regions with the largest areas of organic agricultural land are Oceania (22.8 million hectares, which is almost 45 percent of the world's organic agricultural land) and Europe (12.7 million hectares, 25 percent). Latin America has 6.7 million hectares (13 percent) followed by Asia (4 million hectares, 8 percent), North America (3 million hectares, 6 percent), and Africa (1.7 million hectares, 3 percent). The countries with the most organic agricultural land are Australia (22.7 million hectares), Argentina (3.1 million hectares), and the United States (2 million hectares). See page 40 for the detailed results of the FiBL survey.

Currently, one percent of the world's agricultural land is organic. The highest organic shares of the total agricultural land, by region, are in Oceania (5.4 percent) and in Europe (2.5 percent). In the European Union, 6.2 percent of the farmland is organic. However, some countries reach far higher shares: Liechtenstein (30.2 percent) and Austria (21.3 percent). In eleven countries, 10 percent of the agricultural land or more is organic.

It was reported that there were almost 6.5 million hectares more of organic agricultural land in 2015 than in 2014. This is mainly because 4.4 million additional hectares were reported from Australia. However, many other countries reported an important increase thus contributing to the global growth, such as the United States (30 percent increase) and India (64 percent increase), both with an additional 0.5 million hectares, and Spain and France, both with an additional 0.3 million hectares. There has been an increase in organic agricultural land in all regions with the exception of Latin America; in Europe, the area grew by almost 1 million hectares (8.2 percent increase). In Africa, the area grew by almost 33.5 percent or an additional 0.4 million hectares; in Asia, the area grew by 11 percent or almost 0.4 million hectares, and in North America by more than 21 percent or over 0.5 million additional hectares. Only in Latin America did the area of organic land decrease, mainly due to a decrease of almost 300'000 hectares in organic grazing areas in the Falkland Islands (Malvinas). A major relative increase of organic agricultural land was noted in many African countries, such as Kenya, Madagascar, Zimbabwe, and Côte d'Ivoire.

Apart from land dedicated to organic agriculture, there are further areas of organic land dedicated to other activities, most of these being areas of wild collection and beekeeping.

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Other areas include aquaculture, forests, and grazing areas on non-agricultural land. The areas of non-agricultural land constitute more than 39.7 million hectares (see page 55).

There were almost 2.4 million producers in 2015.[1] Thirty-five percent of the world's organic producers are in Asia, followed by Africa (30 percent) and Latin America (19 percent). The countries with the most producers are India (585'200), Ethiopia (203'602), and Mexico (200'039) (see page 62). There has been an increase in the number of producers of over 160'000, or over 7 percent, compared with 2014.

A quarter of the world's organic agricultural land (12.8 million hectares) and more than 89 percent (2.1 million) of the producers were in developing countries and emerging markets in 2015 (see page 74).

Land use details were available for over 90 percent of the organic agricultural land. Unfortunately, some countries with very large organic areas, such as Australia, Brazil, and India, had little or no information on their land use (see page 82).

Over two-thirds of the agricultural land was grassland/grazing areas (33.1 million hectares, an increase of 17 percent compared to 2014). With a total of almost 10 million hectares, arable land constitutes 20 percent of the organic agricultural land. An increase of almost 13 percent over 2014 was reported. Most of this category of land was used for cereals including rice (3.9 million hectares), followed by green fodder from arable land (2.5 million hectares), oilseeds (1.2 million hectares), textile crops (0.4 million hectares), and dry pulses (0.4 million hectares). Permanent crops account for eight percent of the organic agricultural land, amounting to 4 million hectares. Compared with the previous survey, an increase of more than 640'000 hectares, or 18.9 percent, was reported The most important permanent crop is coffee (with almost one million hectares, constituting over 20 percent of the organic permanent cropland), followed by olives (almost 0.7 million hectares), nuts (0.4 million hectares), tropical and subtropical fruits (almost 0.3 million hectares), and grapes (0.3 million hectares) (see page 78).

Detailed information on organic cotton was provided by Textile Exchange, showing that during the 2014/15 growing season, 112'488 metric tons of organic cotton fibre was produced globally by 193'840 farmers on 350'033 hectares of land. There are currently 19 countries producing certified organic cotton, but 92 percent of the global supply comes from just five countries. India remains by far the largest producer, accounting for two-thirds of total production, followed by China, Turkey, Kyrgyzstan, and the United States. For more information including the situation of cotton production in individual countries and regions, see the chapter by Truscott et al. on page 129.

Global market

Global retail sales of organic food and drink reached 81.6 billion US dollars[2] in 2015 according to Organic Monitor, expanding about ten percent compared to the previous

[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.

[2] One Euro was 1.1095 US dollars in 2015 according to the Central European Bank (average annual exchange rate).

year. North America and Europe generate the most organic product sales (90 percent of organic food and drink sales). However, their global share of organic food sales is decreasing slightly as regional markets take root in Asia, Latin America, and Africa. Many of the organic crops grown in those regions are destined for exports. The global market for organic food and drink has expanded over almost four-fold between 2000 (18 billion US dollars) and 2015, and Organic Monitor projects growth to continue. However, there are a number of challenges: demand concentration in Europe and North America, the fact that in most countries, only a small consumer base is responsible for most organic food purchases, the challenge of marketing organic food according to consumer preferences in the various countries, and the concern about supply. Looking forward, positive growth in the organic products market is expected to continue in the coming years (See the chapter by Amarjit Sahota, page 138).

In 2015, the countries with the largest organic markets were the United States (35.8 billion euros), Germany (8.6 billion euros), and France (5.5 billion euros). The largest single market was the United States (approximately 47 percent of the global market), followed by the European Union (27.1 billion euros, 35 percent), and China (4.7 billion euros, 6 percent). The highest per-capita consumption with more than 170 euros was found in Switzerland, Denmark, Luxembourg, and Sweden. The highest organic market shares were reached in Denmark (8.4 percent), Switzerland (7.7 percent), and Luxembourg (7.5 percent) (See the chapter on the FiBL survey on the global market, page 68).

A comparison of the global organic and Fairtrade market is provided by Lernoud and Willer on page 143. According to Fairtrade International, global Fairtrade sales reached 7.3 billion euros 2015. About 90 percent of the sales of organic and Fairtrade products are in Europe and North America. For organic, North America is the largest market with over 50 percent of the global organic market, while for Fairtrade products, Europe represents almost 80 percent of Fairtrade retail sales.

Africa

There were almost 1.7 million hectares of certified organic agricultural land in Africa in 2015, which constitutes three percent of the world's organic agricultural land. Comparing with 2014, Africa reported an increase of over 400'000 hectares, a 33 percent increase and the largest growth since 2008. There were more than 700'000 producers. The United Republic of Tanzania was the country with the largest organic area (with almost 270'000 hectares), and Ethiopia was the country with the largest number of organic producers (more than 200'000). The country with the highest share of organic agricultural land was the island state Sao Tome and Principe, with 13.8 percent of its agricultural area being organic. The majority of certified organic produce in Africa is destined for export markets. Key crops are coffee, olives, nuts, cocoa, oilseeds, and cotton. In Africa, only Morocco and Tunisia have an organic regulation; seven countries are drafting one, and eleven countries have a national standard but not a national legislation (see page 169).

The policy brief of United Nations Conference on Trade and Development (UNCTAD) "*Financing Organic Agriculture in Africa: Exploring the Issues*" (UNCTAD 2016) was published as a support to elevate financing of the sector in the continent. According to this report, organic agriculture is a rapidly growing sector in Africa, with strong links to

economic and sociocultural development. Organic conferences in Eastern, Western, Central and Southern Africa have become a success, and the most recent Eastern Africa conference was held in 2016, in Entebbe, Uganda. These conferences marked significant milestones for mainstreaming organic agriculture in policies, strategies, and programmes. For more information see the article by Gama on page 162).

In Kenya, the compilation of organic sector data for 2015 showed an impressive growth compared to the 2011 figures. The demand for organic food has continued to grow with the urban rich, providing huge market opportunities, as shown by a recent study. If the trend continues towards 2016/2017, the projection is that more farmers are likely to convert to organic farming as the demand for organic products such as coffee and tea will be unmet and on the rise. More information about organic farming in Kenya is available in the article by Ngunjiri on page 165.

Asia

The total area dedicated to organic agriculture in Asia was almost 4 million hectares in 2015. There were more than 0.8 million producers; most of these were in India. The leading countries by area were China (1.6 million hectares) and India (almost 1.2 million hectares); Timor-Leste had the highest proportion of organic agricultural land (6.6 percent). Nineteen countries have regulations on organic agriculture, and five countries are in the process of drafting one (see page 188).

Asia's share of organic food sales continues to rise. China has the largest market in the region. The spate of food scares in Asia has been a major driver of organic food sales (see the chapter by Amarjit Sahota, page 138). India, aside from being an exporter, has a growing domestic market for organic products. The rise in the income of the urban middle class has fuelled an increase in the demand for organic food, particularly in the cities.

Many countries now support organic agriculture such as China, which signed the first bilateral organic certification agreement with New Zealand. Furthermore, the Chinese central government has now also decided to incorporate the organic industry into its "National Plan for the Construction of Ecological Civilization." National organic policies have been approved in Bangladesh and Kyrgyzstan in 2016, and in South Korea checkoff funds are now mandatory. Participatory Guarantee Systems (PGS) reported a steady growth in Asia, and some governments have accepted PGS as an alternative form of certification for organic products. Understanding the importance of the role of local governments in the adoption and implementation of organic agriculture practices, IFOAM Asia initiated the "Asian Local Governments for Organic Agriculture". An annual summit brings together representatives from both the public and private sectors to discuss issues related to the development of organic agriculture in Asia. The second Organic Asia Congress will be held in May 2017 in China. For more information including country reports, see the chapter from IFOAM Asia (page 179).

Europe

As of the end of 2015, 12.7 million hectares of agricultural land in Europe (European Union 11.2 million hectares) were managed organically by almost 350'000 producers (European Union almost 270'000). In Europe, 2.5 percent of the agricultural area was organic (European Union: 6.2 percent). Twenty-five percent of the world's organic land

is in Europe. Organic farmland has increased by approximately one million hectares compared to 2014. The countries with the largest organic agricultural areas were Spain (almost 2 million hectares), Italy (1.5 million hectares), and France (1.4 million hectares). In nine countries at least 10 percent of the farmland is organic: Liechtenstein has the lead (30.2 percent), followed by Austria (21.3 percent) and Sweden (16.9 percent). Retail sales of organic products totalled approximately 29.8 billion euros in 2015 (European Union: 27.1 billion euros), an increase of 13 percent over 2014. The largest market for organic products in 2015 was Germany, with retail sales of 8.6 billion euros, followed by France (5.5 billion euros), and the UK (2.6 billion euros) (see the article by Willer et al., page 207). Despite the dynamic market growth, current trends indicate that production in Europe is not moving at the same speed, which presents several challenges for the future development of organic in Europe.

In Europe, all countries have an organic regulation or are drafting one. The revision of the European Union (EU) regulation on organic farming, which applies in all EU countries, was an important topic in 2016; twelve months after the start of trilogue negotiations on the European Commission's legislative proposal between the European Parliament, Agriculture Council, and European Commission, talks remained deadlocked at the end of 2016. Positions amongst the EU Institutions and the member states themselves continue to diverge on key topics. The EU Common Agricultural Policy (CAP) and similar programmes in other countries remain a key policy for the development of agriculture in Europe, including organic farming. Under the current CAP for the period 2014-2020 organic farming is supported by Pillar 1 (direct payments) and Pillar 2 (Rural Development Programmes). On the research end, in 2016, the European Technology Platform for Organic Food and Farming Research (TP Organics) published priority topics for the Work Programme 2018/2020 of Horizon 2020, the current research framework programme of the European Union. For more information see the chapter by Willer et al. on page 198.

Latin America and the Caribbean

In Latin America, almost 460'000 producers managed 6.7 million hectares of agricultural land organically in 2015. This constituted 13 percent of the world's organic land and almost one percent of the region's agricultural land. The leading countries were Argentina (3.1 million hectares), Uruguay (1.3 million hectares), and Brazil (0.75 million hectares, 2014). The highest shares of organic agricultural land were in the Falkland Islands/Malvinas (12.5 percent), Uruguay (9 percent), and French Guiana (9 percent). Many Latin American countries remain important exporters of organic products such as bananas, cocoa, and coffee; in countries such as Argentina and Uruguay, temperate fruit and meat are key export commodities. Twenty-three countries in this region have an organic regulation or are drafting one. In May 2016, the European Union and Chile concluded negotiations of an agreement on trade in organic products to mutually recognize the equivalence of their organic production rules and control systems (see page 250).

Organic production in the region largely depends on cooperation between smallholders, especially in coffee, cacao, banana, mango, Andean grains, and ginger value chains. The capacity of Latin American countries to develop their organic sectors can be improved with incentives and governmental support, and local governments are taking the lead in

several national and decentralized initiatives (for instance Argentina) including support for Participatory Guarantee Systems PGS (for instance Peru). For more information, see the chapter by Flores on page 246.

North America

In North America, almost 3 million hectares of farmland were managed organically in 2015. Of these, 2 million were in the United States and 0.9 million in Canada, representing 0.7 percent of the total agricultural area in the region and 6 percent of the world's organic agricultural land (page 270).

The booming organic industry in the United States continues to set new records, with total organic product sales hitting 43.3 billion US dollars[1] by the end of 2015, up 11 percent from the 2014 record level and outstripping the overall food market's growth rate of 3 percent, according to the Organic Trade Association. Of the 43.3 billion dollars in total organic sales, 39.7 billion dollars were organic food sales. The United States Department of Agriculture (USDA) in mid-January 2017 officially proposed a nationwide research and promotion check-off program for the organic industry to comment on and ultimately vote on. The USDA proposal estimates the organic check-off could raise over 30 million US dollars a year to spend on research to make farmers successful, technical services to accelerate the adoption of organic practices, and consumer education and promotion of the organic brand. In 2016, the Organic Farming Research Foundation released a report analyzing organic farming and food research in the United States, and the report found that about three-quarters of the funding supported research on organic crop production, with the remainder going to livestock, crop-livestock systems, and general topics. For more information, see the article by Barbara Haumann, page 258.

Organic products continue to enjoy a robust demand in Canada. The domestic consumer demand is estimated at 4.7 billion Canadian dollars[2] in retail sales in 2015, a 1.2 billion Canadian dollar increase from 2012. In the past decade, Canada's organic market has been experiencing a double-digit annual growth rate, and growth is expected to continue. Canada is one of the few countries that tracks imported organic products using Harmonized System (HS) codes (limited mainly to imported fresh fruit and vegetables, coffee and tea, and dairy products). According to this data, in 2015, Canada imported 652 million Canadian dollars' worth of the 65 tracked organic products, representing a 37 percent increase from 2012. For more information, see article by Levert and Guerra on page 264.

Oceania

This region includes Australia, New Zealand, and the Pacific Island states. Altogether, there were over 22'000 producers, managing 22.8 million hectares. This constituted 5.4 percent of the agricultural land in the region and 45 percent of the world's organic land. More than 99 percent of the organic land in the region is in Australia (22.7 million hectares, 97 percent of which is estimated to be extensive grazing land), followed by

[1] The European Central Bank reference exchange rate US dollar/Euro was 1.1069 in 2016.
[2] One euro corresponded to 1.4186 Canadian dollars (CAD) in 2015 (average annual exchange rate according to the European Central Bank).

New Zealand (more than 74'000 hectares), and Samoa (almost 28'000 hectares). The highest organic shares of all agricultural land were in Samoa (9.8 percent), followed by Tonga (8 percent), Australia (5.6 percent), the Solomon Islands (5.2 percent), and Vanuatu (5.1 percent). Growth in the organic industry in Australia, New Zealand, and the Pacific Islands has been strongly influenced by a rapidly growing overseas demand; domestic sales are also growing. In Australia, the domestic market was valued at 1.3 billion Australian dollars (data from 2014[1]) and in New Zealand at 197 million New Zealand dollars in 2015[2] (page 290).

The area of land in Australia under certified organic management continues to grow; the majority of the organic area is used for beef cattle production in the semi-arid rangelands, where individual pastoral operations typically occupy tens of thousands of hectares each. The regulatory framework for organic certification in Australia has remained stable with little change in 2016. However, the organic industry and Australian Government continue to respond to global organic developments through review of the National Standard for Organic and BioDynamic Produce (National Standard), which was revised in 2016. Most Australian shoppers – 59 percent of all shoppers in 2016 – are aware that certification marks are used on organic products as a guarantee of authenticity. For more information about Australia, see the report by Lawson et al. on page 276.

In 2016, the value of organic agriculture as a development tool was recognized by the Pacific Communities governing body, the Council of Regional Governments and Administrations, which consists of the ministries of foreign affairs and trade of the 26 Pacific Community member states. Important developments in 2016 included the Pacific Organic Tourism and Hospitality Standard, which was developed with the assistance of the European Union Pacific Agriculture Policy Project during 2016, and an organic policy toolkit for government policy- and decision-makers. Most of the organically certified products from the region are for export; however, there are indications of growing local markets (see the chapter by Karen Mapusua, page 282).

Standards, regulations, and policy support

According to the FiBL survey on organic rules and regulations, the number of countries with organic standards is 87. Seventeen countries are in the process of drafting legislation.

In Europe, the dominating topic in 2016 continued to be the European Commission's proposal for a new organic regulation. Despite intensive negotiations between the European Council, the European Parliament, and the European Commission, no compromise could be achieved on the most conflicting themes, such as pesticide residues, and cultivation under glass and seeds. At the beginning of December 2016, the negotiations came to a halt, and it was not clear how the process will continue. On the international level, the governments of the key organic markets, such as the United

[1] One euro corresponded to 1.4777 Australian Dollar (AUD) in 2015 (average annual exchange rate according to European Central Bank)
[2] One euro corresponded to 1.5930 New Zealand dollars in 2015 (average annual exchange rate according to European Central Bank)

States and European Union, have started to explore options for multilateral recognition of each other's organic control systems – realizing that bilateral agreements can be handled well among a few governments but get very complex when more countries are expected to be involved. As regards the work on the Codex Alimentarius, in 2016 it was 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 non-use or limited use of hormones, and conversion periods (See contribution by Huber and Schmid, page 150).

Participatory Guarantee Systems (PGS) are locally focused quality assurance systems. Acting as a low-cost alternative certification method that is particularly suitable for small-scale farmers and local markets, PGS is an increasingly popular model that is growing on all continents. In 2016, there were more than 250 PGS initiatives in 73 countries worldwide, with a total number of over 130'000 producers involved. The highest number of PGS producers can be found in India with 43'000, followed by Peru (22'000), and Kenya (12'000). For more information, see chapter by Katto and Kirchner, on page 157.

In the past few years, there has been a worldwide trend of emergence of diverse policy support for organic agriculture. In 2016, IFOAM-Organics International conducted a global study on policies implemented by various levels of governments (local and national governments) to promote organic agriculture. Some examples of the latest pro-organic policy developments of 2016 are presented in the chapter by Katto on page 159.

Motions and more

In 2017, the Organic World Congress and General Assembly of IFOAM – Organics International will be held in in India. Preparations are underway for important decisions that will pave the way for the future. Members of IFOAM – Organics International are invited to bring forward motions of strategic importance for the global organic movement. Motions are the most important tools for making far-reaching decisions in the General Assembly. The World Board plans to present four strategic motions for the membership to decide on: 1) Organic 3.0 (Organic 3.0 is about bringing organic out of its current niche into the mainstream), 2) aquaculture, 3) new breeding techniques, and 4) membership revisions in IFOAM – Organics International. For more information, see the chapter by Arbenz on page 308.

Better data

In this year's edition of "The World of Organic Agriculture" we present the metadata of the annual FiBL survey on organic agriculture, covering topics such as release policy, frequency of dissemination, accessibility and clarity, quality management, relevance, accuracy, timeliness and punctuality, coherence and comparability, data revision, and statistical processing (page 296).

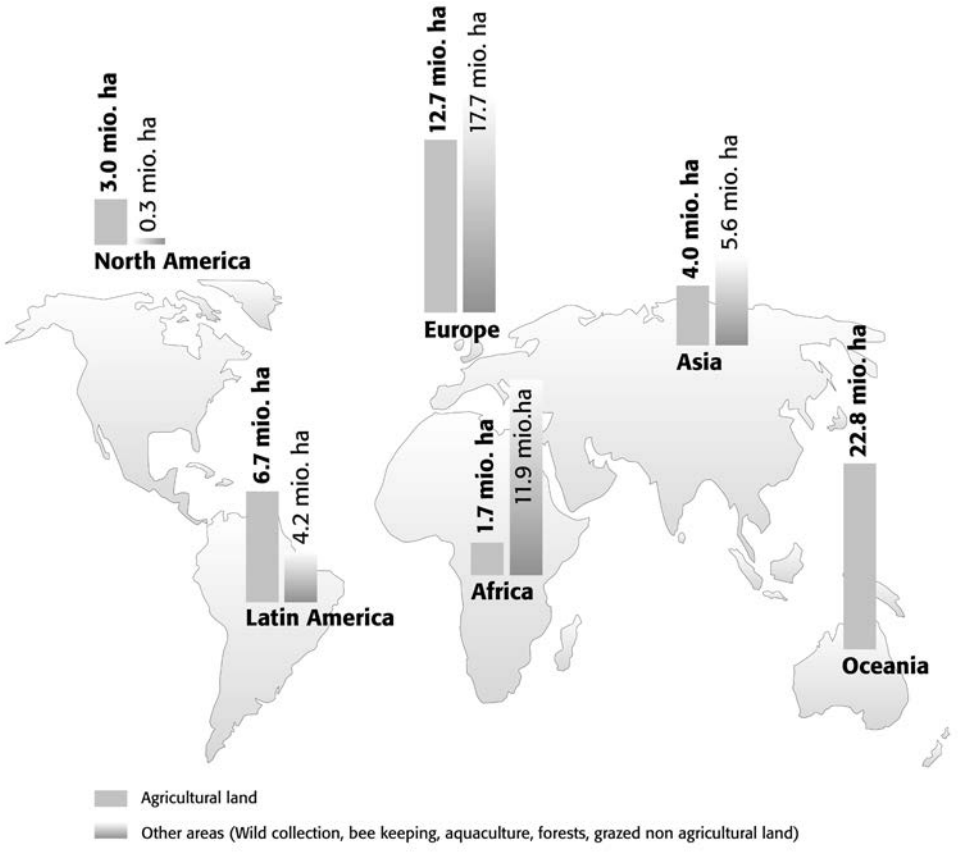
Next FiBL survey on organic agriculture worldwide

The next global organic survey will start in mid-2017; data will be published in February 2018 and presented at the Biofach Organic Trade Fair in Nuremberg, Germany. We

would be very grateful if data could be sent to us, and we will contact all experts. 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 2018 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

Organic Agriculture Worldwide: Current Statistics



Map 1: Organic agricultural land and other non-agricultural areas in 2015
Source: FiBL survey 2017

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

Julia Lernoud[1] and Helga Willer[2]

Introduction

The 18th 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. 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). In total, data was provided by more than 200 experts. This survey, as were the past surveys, was supported by the Swiss State Secretariat for Economic Affairs (SECO), the International Trade Centre (ITC),[3] and NürnbergMesse.[4]

As in previous years, 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, Institute for Marketecology (IMO), LACON, Quality Certification Services (QCS), and the Soil Association. A list of all contributors is provided in the annex.

In total, data from 179 countries/territories was available. Brunei Darussalam, Cape Verde, Hong Kong, Kuwait, Monaco, Sierra Leone, and Somalia, are new to the list of countries with organic data. For Angola, data had been available in the past, but for 2015, data has not been received.

Updated data on the organic area was available for 161 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. In such cases, data from the previous survey were used. Furthermore, for those countries for which FiBL compiles the data among certifiers, not all certifiers provided updated data.

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[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
[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] 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 2015

Region	Countries* with data on organic agriculture	Countries per region[1]	Share of countries that provided data (%)
Africa	41	56	73%
Asia	41	49	84%
Europe	48	49	98%
Latin America and Caribbean	33	46	72%
North America	3	5	60%
Oceania	13	25	52%
World	179	230	78%

Source: FiBL survey 2017
*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 at the Better Data chapter on page 296.

More information on www.organic-world.net

Tables with more details on crops, markets, and international trade, as well as explanations for certain data can be found on www.organic-world.net.

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 Joelle Katto-Andrighetto and Cornelia Kirchner on page 157).

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 316).

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 become better, 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 on the FiBL survey on organic agriculture worldwide are available on page 296.

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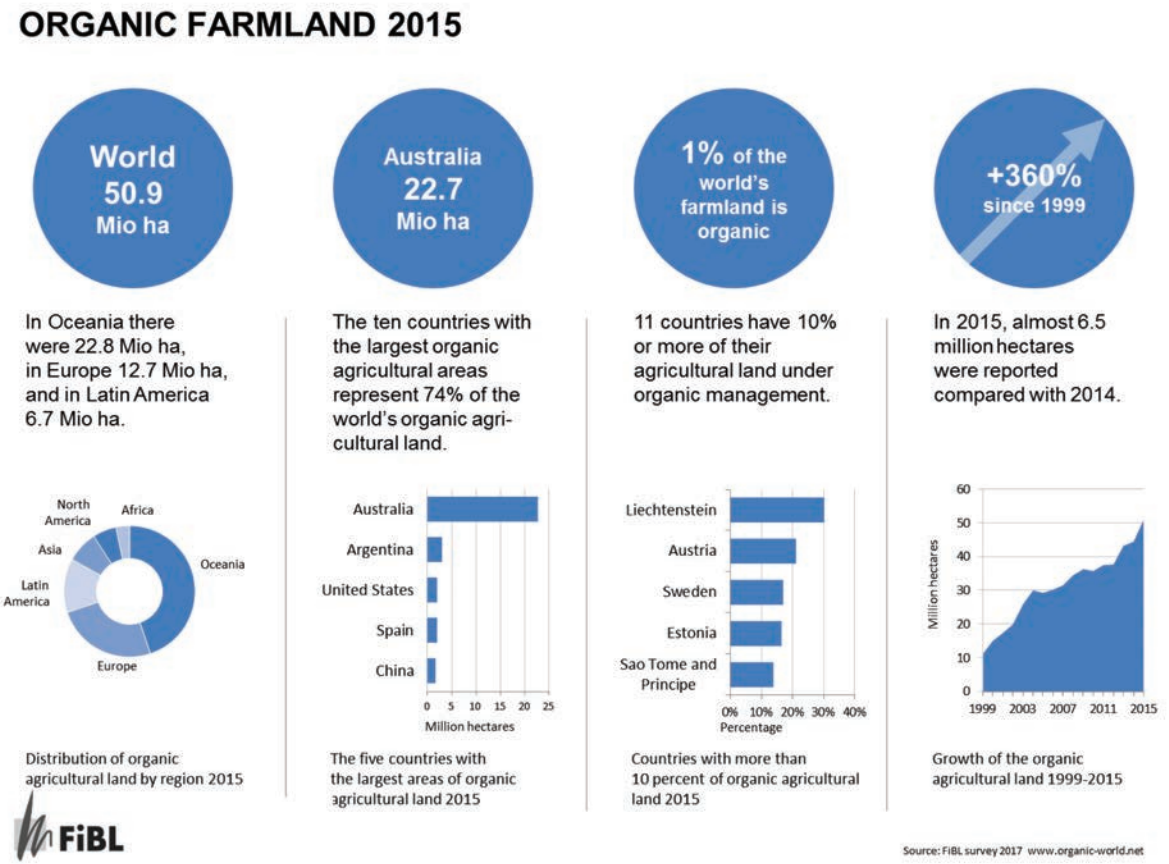
[1] The definition of organic agriculture is available at the website of IFOAM – Organics International www.ifoam.bio/en/organic-landmarks/definition-organic-agriculture

[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



Infographic 2: Organic farmland 2015

Source: FiBL survey 2017

Organic agricultural land

Currently, 50.9 million hectares are under organic agricultural management worldwide (end of 2015 for most data).[1]

The region with the most organic agricultural land is Oceania, with 22.8 million hectares followed by Europe with 12.7 million hectares, Latin America (6.7 million hectares), Asia (almost 4 million hectares), North America (almost 3 million hectares), and Africa (1.7 million hectares).

Oceania has 45 percent of the global organic agricultural land. Europe, a region that has had a very constant growth of organic land over the years, has a quarter of the world's organic agricultural land followed by Latin America with 13 percent (Table 2, Figure 1).

Australia, which experienced a major growth of organic land in 2015 (+4.4 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 3, Figure 2). The 10 countries with the largest organic agricultural areas have a combined total of 37.8 million hectares and constitute almost 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 39.7 million hectares.

Table 2: World: Organic agricultural land (including in-conversion areas) and regions' shares of the global organic agricultural land 2015

Region	Organic agricultural land [hectares]	Regions' shares of the global organic agricultural land
Africa	1'683'482	3%
Asia	3'965'289	8%
Europe	12'716'969	25%
Latin America	6'744'722	13%
North America	2'973'886	6%
Oceania	22'838'513	45%
Total*	**50'919'006**	**100%**

Source: FiBL survey 2017. 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 on the conversion status were 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.

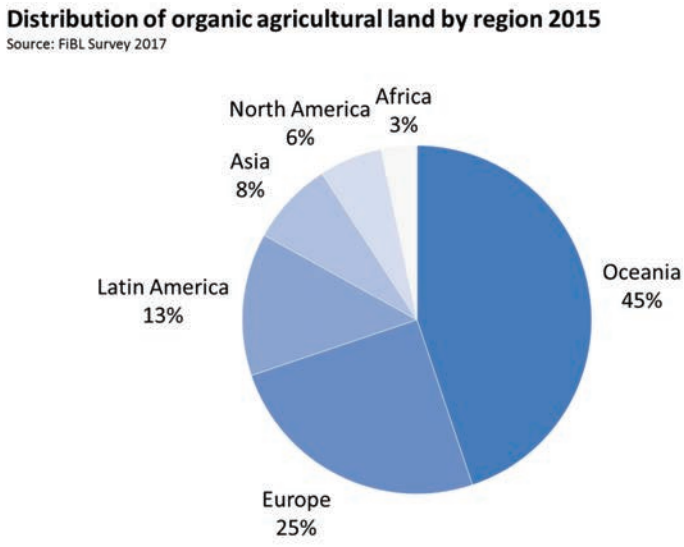


Figure 1: World: Distribution of organic agricultural land by region 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

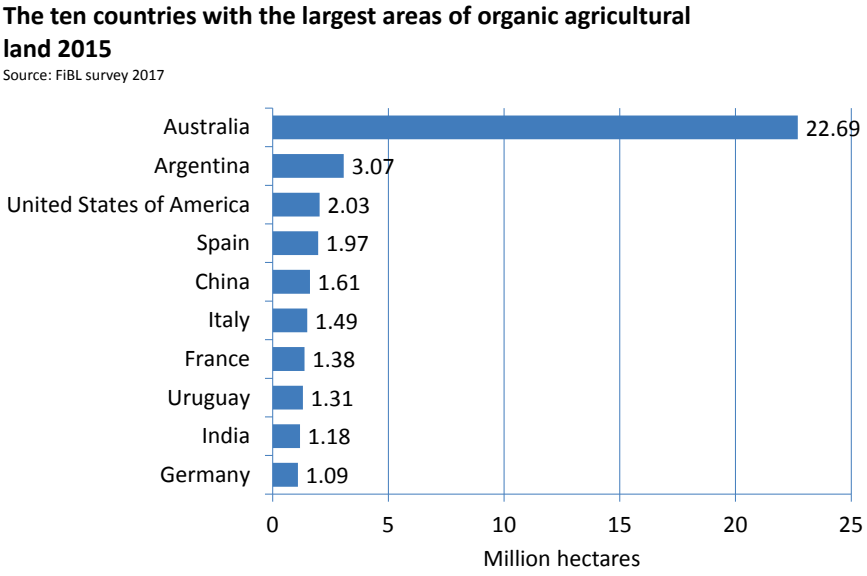


Figure 2: World: The ten countries with the largest areas of organic agricultural land 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

Table 3: World: Organic agricultural land (including in-conversion areas) by country 2015 (sorted)

For an alphabetical country list (including information on data year), see page 312.

Country	Hectares
Australia	22'690'000
Argentina	3'073'412
United States of America	2'029'327
Spain	1'968'570
China	1'609'928
Italy	1'492'579
France	1'375'328
Uruguay	1'307'421
India	1'180'000
Germany	1'088'838
Canada	944'558
Brazil	750'000
Mexico	584'093
Poland	580'731
Austria	553'570
Sweden	518'983
United Kingdom	495'929
Turkey	486'069
Czech Republic	478'033
Ukraine	410'550
Greece	407'069
Russian Federation	385'140
Peru	327'245
Kazakhstan	303'381
Tanzania, United Republic of	268'729
Romania	245'924
Portugal	241'375
Uganda	241'150
Philippines	234'642
Latvia	231'608
Finland	225'235
Lithuania	213'579
Ethiopia	186'155
Slovakia	181'882
Denmark	166'788
Dominican Republic	163'936
Estonia	155'806
Kenya	150'479
Tunisia	145'629
Falkland Islands (Malvinas)	139'041
Switzerland	137'234
Indonesia	130'384
Sudan	130'000
Hungary	129'735
Madagascar	121'011
Bulgaria	118'552
Bolivia	114'306

Country	Hectares
Sri Lanka	96'318
Congo, D.R.	94'386
Egypt	85'000
Viet Nam	76'666
Croatia	75'883
New Zealand	74'134
Ireland	73'037
Belgium	68'818
Paraguay	64'097
Netherlands	49'273
Norway	47'640
Ecuador	45'818
Thailand	45'587
Slovenia	42'188
Côte d'Ivoire	40'078
Azerbaijan	37'630
Saudi Arabia	36'487
Pakistan	34'209
South Africa	34'203
Nicaragua	33'621
Colombia	31'621
Namibia	30'127
Moldova	28'729
Samoa	27'656
Honduras	26'892
Timor-Leste	25'232
Burkina Faso	23'923
Ghana	23'380
Syrian Arab Republic	19'987
Chile	19'932
Republic of Korea	18'136
Mozambique	16'176
Papua New Guinea	15'829
Sierra Leone	15'347
Togo	15'324
Serbia	15'298
Panama	15'183
Iran	14'574
El Salvador	13'728
Guatemala	13'380
Tajikistan	12'659
Cambodia	12'058
Mali	11'919
Fiji	10'939
Japan	10'043
Iceland	9'797
Vanuatu	9'474

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends. FiBL & IFOAM – Organics International (2017): Frick and Bonn, 2017-02-20

Country	Hectares
Nepal	9'361
Morocco	9'330
Zambia	8'138
Costa Rica	7'819
Kyrgyzstan	7'565
Senegal	7'047
Bhutan	6'950
Bangladesh	6'860
Sao Tome and Principe	6'706
Taiwan	6'490
Palestine, State of	6'014
Israel	5'758
Myanmar	5'626
Solomon Islands	5'612
Nigeria	5'021
Cyprus	4'699
Cuba	4'338
United Arab Emirates	4'286
Haiti	4'250
Luxembourg	4'216
Guinea-Bissau	3'403
Montenegro	3'289
French Guiana (France)	2'746
Tonga	2'629
Benin	2'364
Macedonia, FYROM	2'174
Armenia	1'832
Jordan	1'706
Kiribati	1'600
Comoros	1'534
Georgia	1'452
Lao, P.D.R.	1'445
Algeria	1'400
Lebanon	1'222
Rwanda	1'169
Liechtenstein	1'107
Zimbabwe	980
Belize	840
Réunion (France)	718
Malaysia	603
Bosnia and Herzegovina	576
Swaziland	571
Lesotho	548
Albania	515
Cape Verde	495
New Caledonia	411
Cameroon	380
Martinique (France)	279
Niger	262
Faroe Islands	253
Dominica	240
Malawi	207
Burundi	184
Channel Islands	180
Jamaica	167
French Polynesia	167
Kosovo	160
Guadeloupe (France)	104
Grenada	85
Afghanistan	81
Iraq	58
Niue	52
Bahamas	49
Suriname	39
Oman	38
Malta	30
United States Virgin Islands	26
Kuwait	20
Puerto Rico	14
Cook Islands	10
Mayotte	9
Andorra	2
Mauritius	1
Belarus (Wild collection only)	
Bermuda (Processing)	
Brunei Darussalam (Aquaculture only)	
Chad (Wild collection only)	
Guyana (Wild collection only)	
Hong Kong (Processing)	
Monaco (Processing)	
San Marino(Processing)	
Singapore (Processing)	
Somalia (Wild collection only)	
Uzbekistan (Wild collection only)	
Venezuela (Processing)	
World*	**50'919'006**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

*Total includes correction value for French overseas departments

Organic share of total agricultural land by region and country

The share of the world's agricultural land that is organic is 1.1 percent.

The highest organic share of total agricultural land, by region, is in Oceania (5.4 percent) followed by Europe with 2.5 percent. In the European Union, the organic share of the total agricultural land is 6.2 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 eleven countries, 10 percent or more of the agricultural land is used for organic production. Most of these countries are in Europe. The country with the highest organic share of agricultural land is Liechtenstein, with more than 30 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 the Falkland Islands (Malvinas) and Samoa.

However, 60 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 shares of total agricultural land by region 2015

Region	Organic agr. land [ha]	Share of total agri. land
Africa	1'683'482	0.1%
Asia	3'965'289	0.2%
Europe	12'716'969	2.5%
Latin America	6'744'722	0.9%
North America	2'973'886	0.7%
Oceania	22'838'513	5.4%
Total*	**50'919'006**	**1.1%**

Source: FiBL survey 2017.
* Total includes correction value for French overseas departments.

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

Please note that the calculation of the organic shares based on the 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

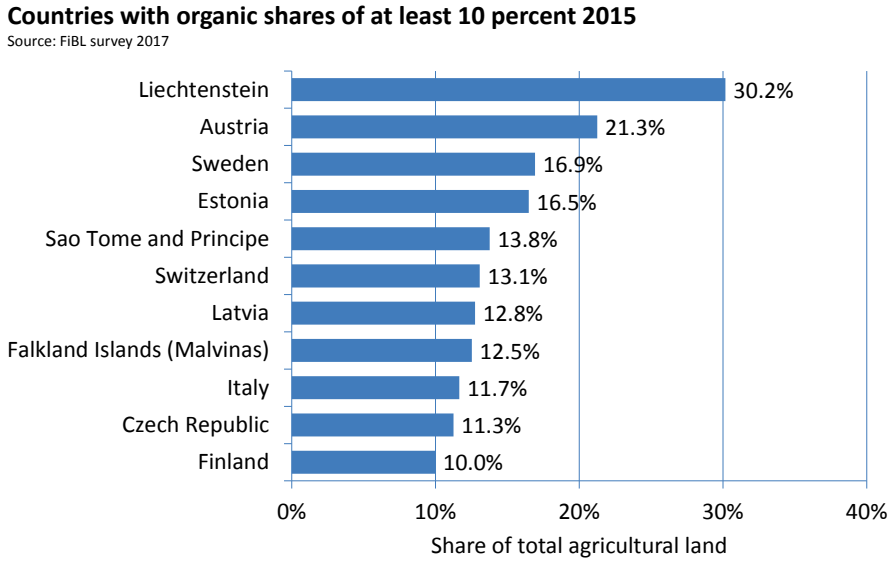


Figure 3: World: Countries with an organic share of at least 10 percent 2015

Source: FiBL survey 2017, 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 316

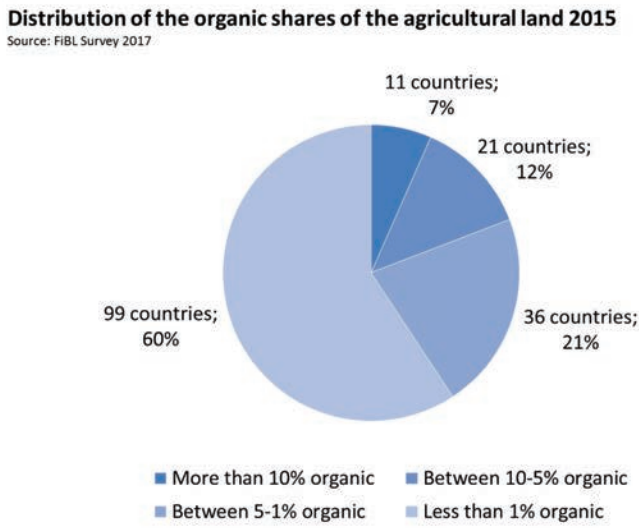


Figure 4: World: Distribution of the organic shares of the agricultural land 2015

Source: FiBL survey 2017, 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 316

Table 5: World: Organic shares of total agricultural land by country 2015 (sorted)

For an alphabetical country list (including information on data year), see page 312.

Country	Organic share
Liechtenstein	30.2%
Austria	21.3%
Sweden	16.9%
Estonia	16.5%
Sao Tome and Principe	13.8%
Switzerland	13.1%
Latvia	12.8%
Falkland Islands (Malvinas)	12.5%
Italy	11.7%
Czech Republic	11.3%
Finland	10.0%
Samoa	9.8%
Slovakia	9.6%
Slovenia	9.1%
Uruguay	9.0%
French Guiana (France)	9.0%
Faroe Islands	8.4%
Tonga	8.0%
Spain	7.9%
Lithuania	7.4%
Portugal	7.2%
Dominican Republic	7.0%
Timor-Leste	6.6%
Germany	6.5%
Denmark	6.3%
Australia	5.6%
Solomon Islands	5.2%
Belgium	5.2%
Vanuatu	5.1%
Croatia	5.0%
France	5.0%
Greece	5.0%
Kiribati	4.7%
Norway	4.4%
Cyprus	4.3%
Bulgaria	3.9%
Poland	3.8%
Sri Lanka	3.5%
Luxembourg	3.2%
United Kingdom	2.9%
Fiji	2.6%
Netherlands	2.6%
Hungary	2.4%
Egypt	2.3%
Argentina	2.1%
Palestine, State of	2.0%
Channel Islands	1.9%
Philippines	1.9%
Ireland	1.8%
Romania	1.8%

Country	Organic share
Uganda	1.7%
Réunion (France)	1.5%
Canada	1.4%
Tunisia	1.4%
Montenegro	1.4%
Peru	1.3%
Papua New Guinea	1.3%
Bhutan	1.3%
Turkey	1.3%
Moldova	1.2%
Comoros	1.2%
United Arab Emirates	1.1%
Israel	1.1%
Grenada	1.1%
Republic of Korea	1.0%
Niue	1.0%
Ukraine	1.0%
Dominica	1.0%
Martinique (France)	0.9%
El Salvador	0.9%
Honduras	0.8%
Ecuador	0.8%
Taiwan	0.8%
Azerbaijan	0.8%
Viet Nam	0.7%
Tanzania	0.7%
Panama	0.7%
New Zealand	0.7%
Cook Islands	0.7%
Nicaragua	0.7%
India	0.7%
United States Virgin Islands	0.7%
United States of America	0.6%
Cape Verde	0.6%
Mexico	0.5%
Kenya	0.5%
Belize	0.5%
Iceland	0.5%
Ethiopia	0.5%
Serbia	0.4%
Costa Rica	0.4%
Togo	0.4%
Sierra Leone	0.4%
French Polynesia	0.4%
Congo, D.R.	0.4%
Guatemala	0.4%
Bahamas	0.3%
China	0.3%
Bolivia	0.3%
Paraguay	0.3%

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Country	Organic share
Madagascar	0.3%
Malta	0.3%
Tajikistan	0.3%
Brazil	0.3%
Haiti	0.2%
Indonesia	0.2%
Nepal	0.2%
New Caledonia	0.2%
Japan	0.2%
Cambodia	0.2%
Guinea-Bissau	0.2%
Thailand	0.2%
Burkina Faso	0.2%
Guadeloupe (France)	0.2%
Côte d'Ivoire	0.2%
Sudan	0.2%
Lebanon	0.2%
Russian Federation	0.2%
Macedonia, FYROM	0.2%
Jordan	0.2%
Ghana	0.1%
Syrian Arab Republic	0.1%
Kazakhstan	0.1%
Chile	0.1%
Armenia	0.1%
Pakistan	0.1%
Senegal	0.1%
Namibia	0.1%
Bangladesh	0.1%
Mayotte	0.1%
Kyrgyzstan	0.1%
Colombia	0.1%
Cuba	0.1%
Rwanda	0.1%
Benin	0.1%
Lao, P.D.R.	0.1%
Georgia	0.1%
Swaziland	0.05%
Myanmar	0.04%
Kosovo	0.04%
Suriname	0.04%
Albania	0.04%
Jamaica	0.04%
South Africa	0.04%
Zambia	0.03%
Mozambique	0.03%
Iran	0.03%
Morocco	0.03%
Mali	0.03%
Bosnia and Herzegovina	0.03%
Lesotho	0.02%
Saudi Arabia	0.02%
Kuwait	0.01%
Andorra	0.01%

Country	Organic share
Burundi	0.01%
Malaysia	0.01%
Puerto Rico	0.01%
Nigeria	0.01%
Zimbabwe	0.01%
Cameroon	0.004%
Malawi	0.004%
Algeria	0.003%
Oman	0.003%
Mauritius	0.002%
Iraq	0.001%
Niger	0.001%
Afghanistan	0.0002%
Belarus (Wild collection only)	
Bermuda (Processing)	
Brunei Darussalam (Aquaculture only)	
Chad (Wild collection only)	
Guyana (Wild collection only)	
Hong Kong (Processing)	
Monaco (Processing)	
San Marino(Processing)	
Singapore (Processing)	
Somalia (Wild collection only)	
Uzbekistan (Wild collection only)	
Venezuela (Processing)	
World	**1.1%**

Source: FiBL survey 2017, 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 316

Development of the organic agricultural land

Compared with 1999, when 11 million hectares were organic, organic agricultural land has increased almost five-fold. In 2015, 6.5 million hectares, or almost 15 percent, more were reported compared with 2014. This is mainly due to the fact that 4.4 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 the United States (30 percent increase according updated figures) and India (64 percent increase), both with an additional 0.5 million hectares, and Spain and France, both with an additional 0.3 million hectares. Furthermore, the total organic agricultural area for 2014, reported in the 2016 edition, has been updated due to an update of the total organic farmland in Australia and in the United States.

In 2015, the area of organic agricultural land increased in all regions except Latin America (Table 6). The highest absolute growth was in Oceania (+23.2 percent, +4.3 million hectares). In Latin America, the area decreased by 1.3 percent, as the Falkland Islands (Malvinas) reported 264'000 hectares less in 2015 (grassland/grazing areas).

Ninety-eight countries experienced an increase in the area of their organic agricultural land, while a decrease was reported in 32 countries. In 35 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. More information is available in the annex on page 316.

Table 6: World: Organic agricultural land (including in-conversion areas) by region: growth 2014-2015

Region	Organic agr. land [ha] 2014	Organic agr. land [ha] 2015	1 year growth [ha]	10 years growth [ha]
Africa	1'260'619	1'683'482	+422'863	+1'012'844
Asia	3'567'578	3'965'289	+397'711	+965'736
Europe	11'757'176	12'716'969	+959'793	+5'403'552
Latin America	6'830'577	6'744'722	-85'855	+1'795'194
North America	2'458'466	2'973'886	+515'420	+1'181'314
Oceania	18'532'416	22'838'513	+4'306'098	+10'406'693
Total*	**44'403'835**	**50'919'006**	**+6'515'171**	**+20'761'478**

Source: FiBL survey 2017, based on data from government bodies, the private sector, and certifiers. For detailed data sources see annex, page 316
* Total includes correction value for French Overseas Departments.

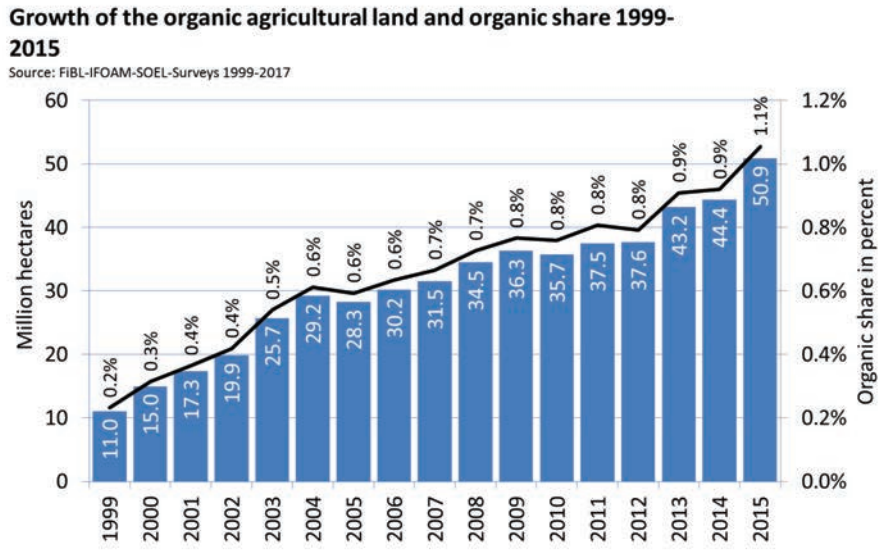

Figure 5: World: Growth of the organic agricultural land and organic share 1999-2015

Source: FiBL-IFOAM-SOEL surveys 2000-2017

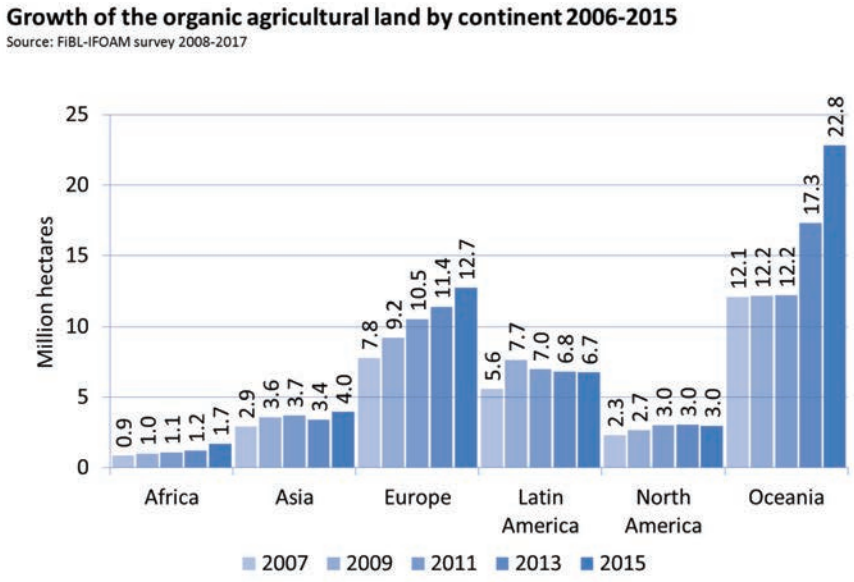

Figure 6: World: Growth of the organic agricultural land by continent 2007 to 2015

Source: FiBL-IFOAM-SOEL surveys 2009-2017

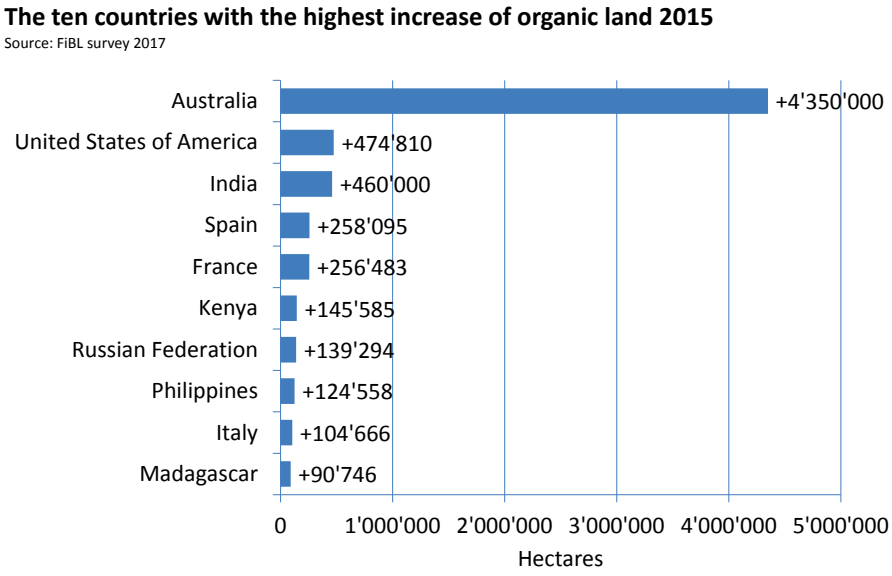

Figure 7: World: The ten countries with the highest increase of organic agricultural land 2015

Source: FiBL survey 2017, based on data from government bodies, the private sector, and certifiers. For detailed data sources see annex, page 316

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Table 7: World: Development of organic agricultural land by country 2012-2015

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 316). At www.organic-world.net data back to 2000 is available.[1]

Country	2012 [ha]	2013[ha]	2014 [ha]	2015 [ha]	1 year growth [ha]	10 years growth [ha]
Afghanistan	61	61		81	+81	+81
Albania	560	515	515	515	-	+373
Algeria	700	700	700	1'400	+701	-150
Andorra		1	4	2	-2	+2
Angola	2'486	2'486			-	-
Argentina	3'637'466	3'281'193	3'061'965	3'073'412	+11'447	+715'037
Armenia	810	1'000	1'000	1'832	+832	+1'597
Australia	12'001'724	17'150'000	18'340'000	22'690'000	+4'350'000	+10'344'686
Austria	561'611	558'623	551'062	553'570	+2'508	+27'103
Azerbaijan	23'740	23'331	23'331	37'630	+14'299	+16'851
Bahamas		49	49	49	-	+49
Bangladesh	6'860	6'860	6'860	6'860	-	+6'860
Belarus			Wild collection only			
Belgium	59'718	62'529	66'704	68'818	+2'114	+39'510
Belize	753	802	892	840	-52	+108
Benin	2'628	1'987	2'344	2'364	+21	+1'539
Bermuda			Processing only			
Bhutan	6'156	6'726	6'829	6'950	+120	+6'889
Bolivia	145'894	145'894	114'306	114'306	-	+73'302
Bosnia and Herzegovina	343	292	353	576	+223	-150
Brazil	705'233	705'233	750'000	750'000	-	-130'000
Brunei Darussalam			Aquaculture only			
Bulgaria	39'137	56'287	74'351	118'552	+44'201	+113'860
Burkina Faso	15'000	16'689	20'110	23'923	+3'813	+19'885
Burundi	550	550	148	184	+36	+184
Cambodia	9'055	9'889	9'889	12'058	+2'169	+10'607
Cameroon	663	663	380	380	-	-151
Canada	833'883	869'239	903'948	944'558	+40'610	+340'154
Cape Verde				495	+495	+495
Chad			Wild collection only			
Channel Islands	260	240	180	180	-	+180
Chile	22'636	23'469	19'932	19'932	-	+11'157
China	1'900'000	2'094'000	1'925'000	1'609'928	-315'072	-690'072
Colombia	34'060	31'621	31'621	31'621	-	-19'139
Comoros	2'642	2'642	1'723	1'534	-189	+1'534
Congo, D.R.	51'838	51'838	89'058	94'386	+5'328	+85'598
Cook Islands	20	20	10	10	-	+10
Costa Rica	9'360	7'449	7'832	7'819	-13	-2'892
Côte d'Ivoire	19'457	19'263	19'548	40'078	+20'530	+26'767
Croatia	31'904	40'641	50'054	75'883	+25'829	+69'738
Cuba	5'280	7'389	2'979	4'338	+1'359	-11'105
Cyprus	3'923	4'303	3'887	4'699	+812	+2'720
Czech Republic	468'670	474'231	472'663	478'033	+5'370	+196'498

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

Country	2012 [ha]	2013[ha]	2014 [ha]	2015 [ha]	1 year growth [ha]	10 years growth [ha]
Denmark	175'113	169'298	165'773	166'788	+1'015	+28'709
Dominica	240	240	240	240	-	+240
Dominican Republic	168'978	180'609	166'220	163'936	-2'284	+78'724
Ecuador	56'303	42'781	45'818	45'818	-	-1'429
Egypt	85'801	85'801	85'801	85'000	-801	+85'000
El Salvador	6'736	6'736	6'736	13'728	+6'992	+6'259
Estonia	144'150	151'256	155'560	155'806	+246	+82'920
Ethiopia	164'777	160'987	160'987	186'155	+25'168	+73'554
Falkland Islands (Malvinas)	403'212	403'212	403'212	139'041	-264'171	+139'041
Faroe Islands	253	253	253	253	-	+241
Fiji	2'164	2'164	9'218	10'939	+1'721	+10'839
Finland	197'751	206'170	212'653	225'235	+12'582	+80'568
France	1'032'941	1'060'756	1'118'845	1'375'328	+256'483	+822'504
French Guiana (France)	2'407	2'702	2'014	2'746	+732	+2'746
French Polynesia	2'469	2'469	93	167	+73	+167
Gambia						-86
Georgia	1'999	1'999	1'292	1'452	+160	+1'205
Germany	1'034'355	1'044'955	1'047'633	1'088'838	+41'205	+263'300
Ghana	28'161	28'201	15'563	23'380	+7'817	+1'104
Greece	462'618	383'606	362'826	407'069	+44'243	+104'805
Grenada	85	85	85	85	-	+85
Guadeloupe (France)	164	193	69	104	+35	+104
Guatemala	13'380	13'380	13'380	13'380	-	+1'270
Guinea-Bissau		1'843	1'843	3'403	+1'560	+3'403
Guyana	4'249		Wild collection only		-	-109
Haiti	806	2'878	2'878	4'250	+1'371	+4'250
Honduras	24'950	24'950	24'950	26'892	+1'942	+19'349
Hong Kong			Processing only			
Hungary	130'609	131'018	124'841	129'735	+4'894	+6'970
Iceland	8'240	9'710	11'174	9'797	-1'377	+4'795
India	500'000	510'000	720'000	1'180'000	+460'000	+747'741
Indonesia	88'247	65'688	113'638	130'384	+16'746	+89'965
Iran	42'634	12'156	11'601	14'574	+2'973	+14'559
Iraq		40	51	58	+7	+58
Ireland	52'793	53'565	51'871	73'037	+21'166	+33'090
Israel	6'187	6'289	6'640	5'758	-883	+1'700
Italy	1'167'362	1'317'177	1'387'913	1'492'579	+104'666	+344'417
Jamaica	542	542	27	167	+140	-269
Japan	10'611	9'889	9'937	10'043	+106	+3'969
Jordan	2'895	2'898	2'371	1'706	-665	+682
Kazakhstan	291'203	291'203	291'203	303'381	+12'178	+300'988
Kenya	4'894	4'894	4'894	150'479	+145'585	+147'581
Kiribati			1'600	1'600	-	+1'600
Kosovo	111	114	114	160	+46	+160
Kuwait				20	+20	+20
Kyrgyzstan	2'696	2'856	6'929	7'565	+636	+5'025
Lao, P.D.R.	5'990	6'442	6'275	1'445	-4'830	+1'445
Latvia	195'658	200'433	203'443	231'608	+28'165	+81'592
Lebanon	3'303	2'571	1'079	1'222	+143	-2'300
Lesotho	617	560	560	548	-12	+548
Liechtenstein	1'086	1'137	1'135	1'107	-28	+80

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends. FiBL & IFOAM – Organics International (2017): Frick and Bonn, 2017-02-20

Country	2012 [ha]	2013[ha]	2014 [ha]	2015 [ha]	1 year growth [ha]	10 years growth [ha]
Lithuania	156'539	166'330	164'390	213'579	+49'189	+116'862
Luxembourg	4'130	4'447	4'490	4'216	-274	+586
Macedonia, FYROM	12'731	3'146	3'146	2'174	-972	+1'665
Madagascar	30'265	30'265	30'265	121'011	+90'746	+111'555
Malawi	35	265	102	207	+105	-118
Malaysia	603	603	603	603	-	-1'764
Mali	14'927	3'727	11'919	11'919	-	+9'588
Malta	37	7	34	30	-4	+10
Martinique (France)	200	269	248	279	+31	+279
Mauritius	16	16	6	1	-4	+1
Mayotte		5	5	9	+4	+9
Mexico	487'393	501'364	501'364	584'093	+82'729	+276'401
Moldova	22'102	22'102	22'102	28'729	+6'627	+17'324
Mongolia		12'922			-	-
Montenegro	3'068	3'068	3'289	3'289	-	-21'762
Morocco	16'600	8'660	8'660	9'330	+670	+5'114
Mozambique	3'840	13'998	15'421	16'176	+755	+15'448
Myanmar	897	897	5'320	5'626	+306	+5'626
Namibia	14'123	23'086	30'082	30'127	+45	+30'127
Nepal	10'273	9'361	9'361	9'361	-	+1'598
Netherlands	48'038	49'394	49'159	49'273	+114	+848
New Caledonia			411	411	-	+411
New Zealand	106'753	106'753	106'753	74'134	-32'619	+10'251
Nicaragua	33'621	33'621	33'621	33'621	-	-26'379
Niger	106	106	262	262	-	+181
Nigeria	9'521	250	5'021	5'021	-	+1'979
Niue	61	61	164	52	-112	-107
Norway	55'260	51'662	49'827	47'640	-2'187	+3'016
Oman	38	38	38	38	-	+38
Pakistan	22'397	22'397	23'828	34'209	+10'381	+9'208
Palestine, State of	6'354	6'354	6'896	6'014	-882	+2'419
Panama	4'576	15'183	15'183	15'183	-	+9'939
Papua New Guinea	11'798	20'939	19'796	15'829	-3'966	+13'332
Paraguay	51'190	62'274	54'444	64'097	+9'653	+46'392
Peru	197'837	388'448	263'012	327'245	+64'233	+225'568
Philippines	80'974	86'155	110'084	234'642	+124'558	+228'951
Poland	661'956	669'863	657'902	580'731	-77'171	+352'722
Portugal	200'151	197'295	212'346	241'375	+29'029	+26'347
Puerto Rico			14	14	-	+14
Republic of Korea	25'467	21'210	18'306	18'136	-170	+9'577
Réunion (France)	594	595	659	718	+59	+718
Romania	288'261	301'148	289'252	245'924	-43'328	+138'346
Russian Federation	146'251	144'254	245'846	385'140	+139'294	+381'948
Rwanda	3'705	3'705	2'248	1'169	-1'079	+657
Samoa	33'515	33'515	40'477	27'656	-12'821	+20'413
Sao Tome and Principe	4'051	4'051	6'706	6'706	-	+3'789

Country	2012 [ha]	2013[ha]	2014 [ha]	2015 [ha]	1 year growth [ha]	10 years growth [ha]
San Marino			Processing only			
Saudi Arabia	13'569	36'595	37'563	36'487	-1'076	+20'487
Senegal	6'736	6'929	6'929	7'047	+118	+6'917
Serbia	6'340	8'228	9'548	15'298	+5'750	+14'558
Sierra Leone				15'347	+15'347	+15'347
Singapore			Processing only			
Slovakia	166'700	157'848	180'307	181'882	+1'575	+61'473
Slovenia	35'101	38'665	41'237	42'188	+951	+15'357
Solomon Islands	1'307	1'307	5'302	5'612	+310	+1'984
Somalia			Wild collection only			
South Africa	43'170	37'466	19'501	34'203	+14'702	-15'797
Spain	1'593'197	1'610'129	1'710'475	1'968'570	+258'095	+1'231'631
Sri Lanka	19'517	19'517	62'560	96'318	+33'758	+79'318
Sudan	54'845	130'000	130'000	130'000	-	+130'000
Suriname			39	39	-	-211
Swaziland	8	3	8	571	+563	+571
Sweden	477'685	500'996	501'831	518'983	+17'152	+293'552
Switzerland	121'788	128'140	133'973	137'234	+3'261	+19'418
Syrian Arab Republic	19'987	19'987	19'987	19'987	-	-10'506
Taiwan	5'850	5'937	5'993	6'490	+497	+6'490
Tajikistan	12'659	12'659	12'659	12'659	-	+12'659
Tanzania	186'537	186'537	186'537	268'729	+82'192	+244'997
Thailand	32'577	33'840	37'684	45'587	+7'903	+23'037
Timor-Leste	24'690	24'690	25'479	25'232	-247	+1'643
Togo	3'889	4'638	15'321	15'324	+3	+12'986
Tonga	398	398	1'997	2'629	+632	+2'629
Tunisia	137'188	139'087	139'087	145'629	+6'542	-9'164
Turkey	523'627	461'396	491'977	486'069	-5'908	+385'794
Uganda	231'157	230'232	240'197	241'150	+953	-5'617
Ukraine	272'850	393'400	400'764	410'550	+9'786	+168'516
United Arab Emirates	3'905	4'150	4'286	4'286	-	+4'286
United Kingdom	590'009	558'718	521'475	495'929	-25'546	+108'642
United States	2'178'471	2'178'471	1'554'517	2'029'327	+474'810	+841'160
US Virgin Islands			26	26	-	+26
Uruguay	930'965	930'965	1'307'421	1'307'421	-	+376'456
Uzbekistan	213	213	Wild collection only		-	-
Vanuatu	4'106	4'106	6'594	9'474	+2'880	+478
Venezuela	59	47	Processing only		-	-
Viet Nam	36'285	37'490	43'007	76'666	+33'659	+54'799
Zambia	7'310	7'552	7'552	8'138	+586	+5'771
Zimbabwe	626	374	474	980	+506	+980
Total	**37'645'028**	**43'196'160**	**44'403'835**	**50'919'006**	**+6'515'171**	**+20'761'478**

Source: FiBL survey 2017, 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 316
*Total includes correction value for French overseas departments.

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All organic areas, including non-agricultural 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. Other areas are used for aquaculture, and some are forests or grazing areas on non-agricultural land. These areas totalled 39.7 million hectares, and all the organic areas together summed up to 90.6 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 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 94 and 91. More information on the use of the wild collection areas is available in the corresponding chapter, page 86.

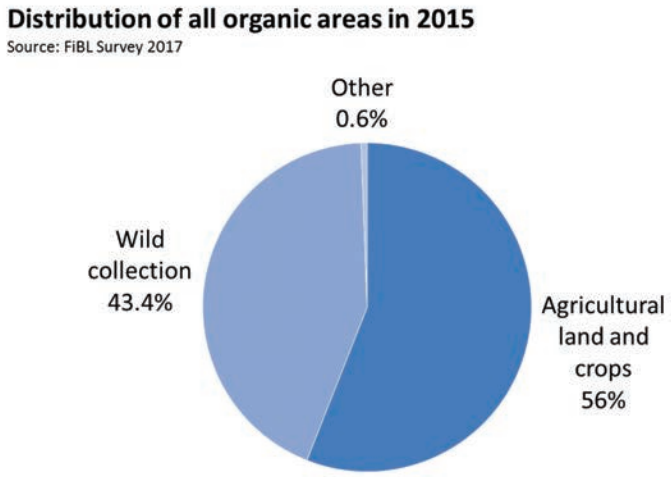

Figure 8: World: Distribution of all organic areas 2015. Total: 90.6 million hectares

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

Table 8: World: Organic areas: Agricultural land (including conversion areas) and further organic areas by region in 2015

Region	Agri-culture [ha]	Aqua-culture [ha]	Forest [ha]	Grazed non agri. land [ha]	Wild collection [ha]*	Other non agri. land [ha]	Total [ha]
Africa	1'683'482		38'448		11'905'017		13'626'947
Asia	3'965'289	27'489	123		5'522'891	1'507	9'517'298
Europe	12'716'969		19'533	8'112	17'658'757		30'403'371
Latin America	6'744'723	3'791			4'221'072	10'321	10'979'906
North America	2'973'886		208'729		54'551		3'237'166
Oceania	22'838'513				765		22'839'278
Total**	**50'919'006**	**31'279**	**266'833**	**8'112**	**39'363'053**	**11'828**	**90'600'111**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316
Blank cells: No data available.
*Wild collection and beekeeping areas
**Total includes correction value for French overseas departments.

Table 9: World: All organic areas by country 2015

Country	Agriculture [ha]	Aqua-culture [ha]	Forest [ha]	Grazed non agri. land [ha]	Wild collection [ha]*	Other non agri. land [ha]	Total [ha]
Afghanistan	81						81
Albania	515				467'783		468'298
Algeria	1'400						1'400
Andorra	2						2
Argentina	3'073'412				359'475	10'321	3'443'208
Armenia	1'832				12'000		13'832
Australia	22'690'000						22'690'000
Austria	553'570						553'570
Azerbaijan	37'630	123	123		1'063		38'939
Bahamas	49						49
Bangladesh	6'860	9'338					16'198
Belarus					2'742		2'742
Belgium	68'818				3		68'821
Belize	840						840
Benin	2'364				4'505		6'869
Bermuda				Processing only			
Bhutan	6'950				6'315		13'265
Bolivia	114'306				922'991		1'037'297
Bosnia and Herzegovina	576				50'250		50'826
Brazil	750'000				1'209'773		1'959'773
Brunei Darussalam		29					29
Bulgaria	118'552				901'617		1'020'169
Burkina Faso	23'923				80'068		103'991
Burundi	184						184
Cambodia	12'058						12'058
Cameroon	380						380
Canada	944'558		3'574		54'551		1'002'684
Cape Verde	495						495

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Country	Agriculture [ha]	Aqua-culture [ha]	Forest [ha]	Grazed non agri. land [ha]	Wild collection [ha]*	Other non agri. land [ha]	Total [ha]
Chad					654'000		654'000
Channel Islands	180						180
Chile	19'932				81'054		100'986
China	1'609'928				596'975		2'206'903
Colombia	31'621				7'320		38'941
Comoros	1'534				63		1'597
Congo, D.R.	94'386						94'386
Cook Islands	10						10
Costa Rica	7'819	664					8'483
Côte d'Ivoire	40'078				344		40'422
Croatia	75'883				8		75'891
Cuba	4'338						4'338
Cyprus	4'699						4'699
Czech Republic	478'033						478'033
Denmark	166'788				2'648		169'436
Dominica	240						240
Dominican Republic	163'936						163'936
Ecuador	45'818	3'123			1'260		50'201
Egypt	85'000				60'000		145'000
El Salvador	13'728						13'728
Estonia	155'806				40'579		196'385
Ethiopia	186'155				9'033		195'188
Falkland Islands (Malvinas)	139'041						139'041
Faroe Islands	253						253
Fiji	10'939				653		11'592
Finland	225'235				12'200'000		12'425'235
France	1'375'328						1'375'328
French Guiana (France)	2'746						2'746
French Polynesia	167						167
Georgia	1'452				215	1'507	3'174
Germany	1'088'838						1'088'838
Ghana	23'380				33'592		56'972
Greece	407'069				317'053		724'122
Grenada	85						85
Guadeloupe (France)	104						104
Guatemala	13'380				5		13'385
Guinea-Bissau	3'403						3'403
Guyana					54'000		54'000
Haiti	4'250						4'250
Honduras	26'892						26'892
Hong Kong				Processing only			
Hungary	129'735						129'735
Iceland	9'797				212'699		222'496
India	1'180'000				3'710'000		4'890'000

Country	Agriculture [ha]	Aqua-culture [ha]	Forest [ha]	Grazed non agri. land [ha]	Wild collection [ha]*	Other non agri. land [ha]	Total [ha]
Indonesia	130'384	3'320			10'615		144'319
Iran	14'574				27'532		42'106
Iraq	58						58
Ireland	73'037						73'037
Israel	5'758						5'758
Italy	1'492'579				70'254		1'562'833
Jamaica	167				36		204
Japan	10'043						10'043
Jordan	1'706						1'706
Kazakhstan	303'381				863		304'244
Kenya	150'479				121'625		272'104
Kiribati	1'600						1'600
Kosovo	160				179'580		179'740
Kuwait	20						20
Kyrgyzstan	7'565						7'565
Lao, P.D.R.	1'445				16'786		18'231
Latvia	231'608						231'608
Lebanon	1'222				395		1'617
Lesotho	548				50'000		50'548
Liechtenstein	1'107						1'107
Lithuania	213'579						213'579
Luxembourg	4'216						4'216
Macedonia, FYROM	2'174			8'112	556'600		566'886
Madagascar	121'011				15'241		136'252
Malawi	207				6'585		6'791
Malaysia	603						603
Mali	11'919				8'146		20'065
Malta	30						30
Martinique (France)	279						279
Mauritius	1						1
Mayotte	9						9
Mexico	584'093				1'290'000		1'874'093
Moldova	28'729						28'729
Monaco			Processing only				
Montenegro	3'289				139'809		143'097
Morocco	9'330		35		164'965		174'330
Mozambique	16'176				145'930		162'106
Myanmar	5'626						5'626
Namibia	30'127				2'037'104		2'067'231
Nepal	9'361				24'422		33'783
Netherlands	49'273						49'273
New Caledonia	411						411
New Zealand	74'134						74'134
Nicaragua	33'621				11'463		45'084
Niger	262						262
Nigeria	5'021		150		1'000		6'171
Niue	52				112		164
Norway	47'640						47'640

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Country	Agriculture [ha]	Aqua-culture [ha]	Forest [ha]	Grazed non agri. land [ha]	Wild collection [ha]*	Other non agri. land [ha]	Total [ha]
Oman	38						38
Pakistan	34'209				44'620		78'829
Palestine, State of	6'014						6'014
Panama	15'183						15'183
Papua New Guinea	15'829						15'829
Paraguay	64'097				3'067		67'164
Peru	327'245	4			280'627		607'877
Philippines	234'642						234'642
Poland	580'731						580'731
Portugal	241'375		19'533		40'000		300'908
Puerto Rico	14						14
Republic of Korea	18'136						18'136
Réunion (France)	718						718
Romania	245'924				1'787'548		2'033'472
Russian Federation	385'139				35'383		420'522
Rwanda	1'169				12		1'181
Samoa	27'656						27'656
San Marino				Processing only			
Sao Tome and Principe	6'706						6'706
Saudi Arabia	36'487						36'487
Senegal	7'047				22'000		29'047
Serbia	15'298				1'550		16'848
Sierra Leone	15'347						15'347
Singapore				Processing only			
Slovakia	181'882						181'882
Slovenia	42'188				13'238		55'426
Solomon Islands	5'612						5'612
Somalia					873'000		873'000
South Africa	34'203				147'681		181'884
Spain	1'968'570				38'184		2'006'754
Sri Lanka	96'318						96'318
Sudan	130'000				84'130		214'130
Suriname	39						39
Swaziland	571						571
Sweden	518'983						518'983
Switzerland	137'234						137'234
Syrian Arab Republic	19'987				8'000		27'987
Tajikistan	12'659				1'055'890		1'068'549
Tanzania	268'729				15'040		283'769
Thailand	45'587						45'587
Timor-Leste	25'232						25'232
Togo	15'324				242		15'566
Tonga	2'629						2'629
Tunisia	145'629		38'263		45'499		229'391

Country	Agriculture [ha]	Aqua-culture [ha]	Forest [ha]	Grazed non agri. land [ha]	Wild collection [ha]*	Other non agri. land [ha]	Total [ha]
Turkey	486'069				61'230		547'299
Uganda	241'150				158'328		399'478
Ukraine	410'550				540'000		950'550
United Arab Emirates	4'286						4'286
United Kingdom	495'929						495'929
United States	2'029'327		205'155				2'234'483
US Virgin Islands	26						26
Uruguay	1'307'421						1'307'421
Uzbekistan					5'000		5'000
Vanuatu	9'474						9'474
Venezuela				Processing only			
Viet Nam	76'666	14'679					2'200
Zambia	8'138				6'617'380		6'625'518
Zimbabwe	980				549'504		550'484
Taiwan	6'490						6'490
Total**	**50'919'006**	**31'279**	**266'833**	**8'112**	**39'363'053**	**11'828**	**90'600'111**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316
Blank cells: No data available.
*Wild collection and beekeeping areas
**Total includes correction value for French overseas departments.

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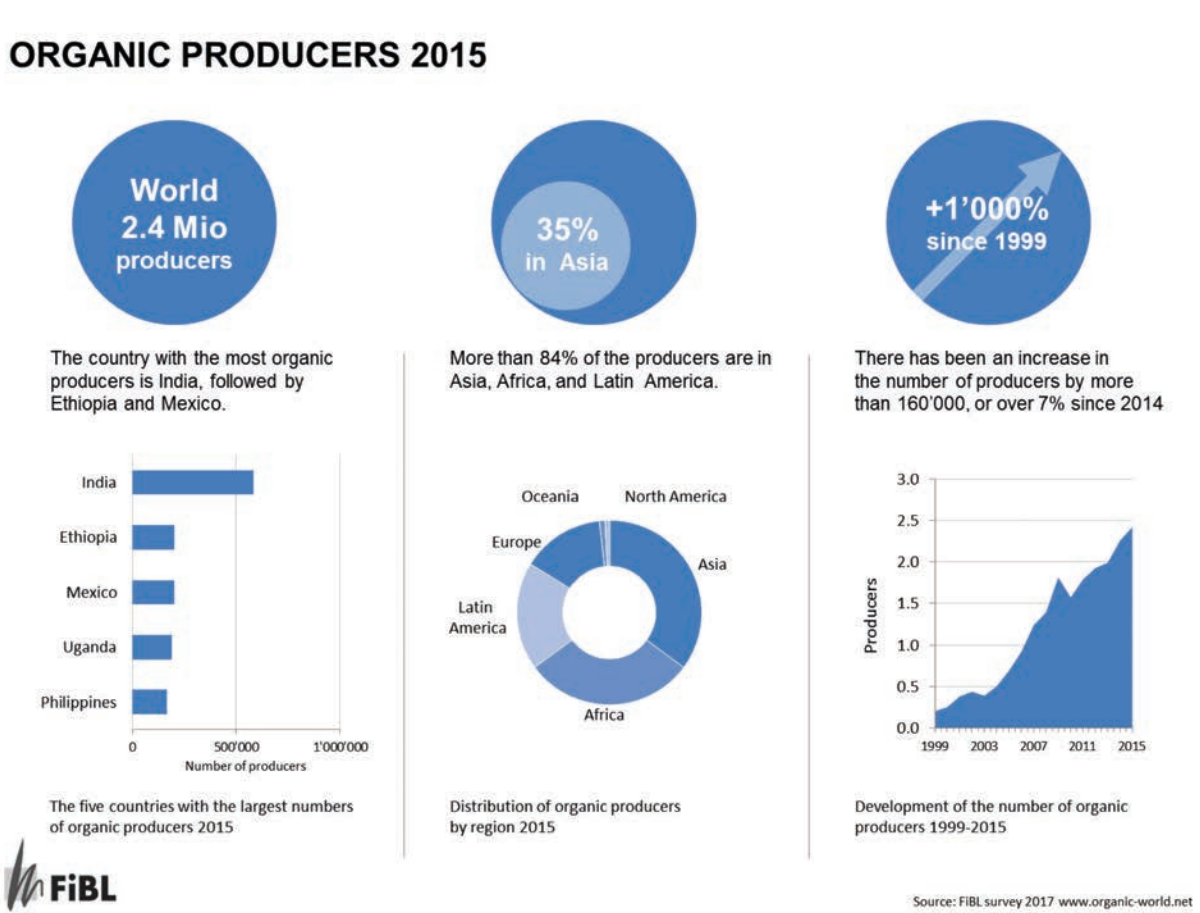

Infographic 3: Organic producers 2015

Source: FiBL survey 2017

Organic producers and other operator types

Producers

There were almost 2.4 million organic producers worldwide. According to the data obtained, more than three-quarters of the producers are in Asia, Africa, and Latin America (Figure 9). The country with the most organic producers is India, followed by Ethiopia and Mexico (Figure 10).

There has been an increase in the number of producers of over 160'000, or over 7 percent, compared with 2014. In 2015, Ethiopia, the Democratic Republic of Congo, Peru, Mexico, and Kenya 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 2014 to 2015

Region	2014 [no.]	2015 [no.]	Change 2014-2015 [ha]	Change 2014-2015 [%]
Africa	593'049	719'720	+126'671	+21.4%
Asia	901'578	851'016	-50'562	-5.6%
Europe	337'773	349'261	+11'488	+3.4%
Latin America	384'852	457'677	+72'825	+18.9%
North America	17'062	19'138	+2'076	+12.2%
Oceania	22'115	22'021	-94	-0.4%
Total	**2'256'429**	**2'417'414**	**+160'985**	**+7.1%**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

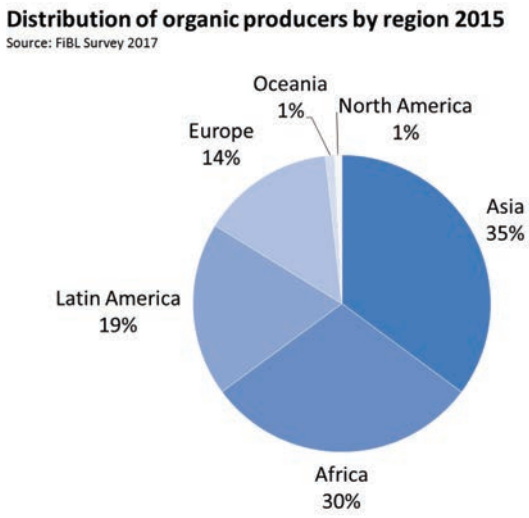

Figure 9: World: Distribution of organic producers by region 2015 (Total: 2.4 million producers)

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

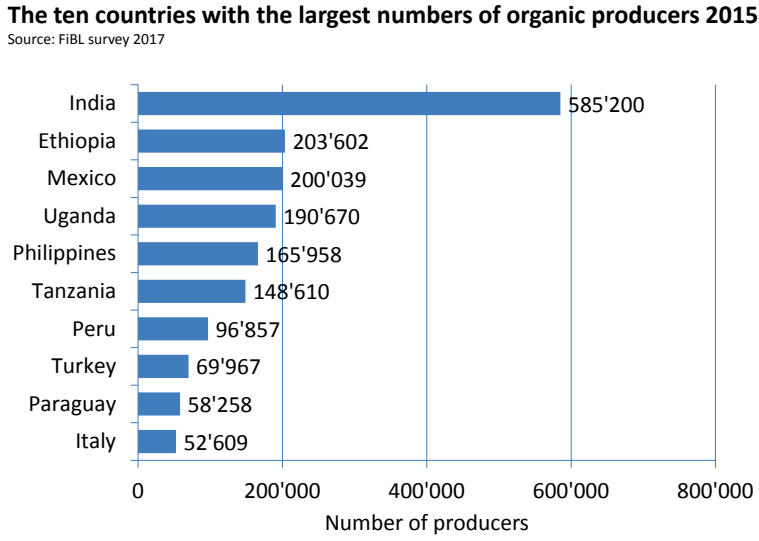

Figure 10: World: The ten countries with the largest numbers of organic producers 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

Further operator types

Regarding data on further operator types, there are over 72'000 processors and at least 4'000 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 2015

We are doing our best to ensure that this overview table will be more comprehensive in the future. 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
Albania (2012)	39	22	4	25
Algeria	72	3		
Andorra		3		
Argentina	1'074	289		125
Armenia	20	13		
Australia	1'876	719		
Austria	20'976	2'198	29	8
Azerbaijan	305	50	50	
Bangladesh (2011)	9'335			
Belgium	1'733	1'014	164	37
Belize	820	820		3
Benin (2014)	3'159	8		8
Bhutan	2'680			
Bolivia (2014)	12'114	273		
Bosnia and Herzegovina	36	8		10
Brazil	10'323	31		31
Brunei Darussalam		Aquaculture only		
Bulgaria	5'919	161	8	9
Burkina Faso	9'035	37		35
Burundi	35			
Cambodia	6'753			
Cameroon (2014)	193	6		17
Canada	4'267	1'520		
Chile (2014)	446	197		88
China (2014)	9'990	2'707	66	1'198
Colombia (2014)	4'775	47		45
Comoros	1'540			3
Congo, D.R.	36'571	6		7
Cook Islands	50			
Costa Rica	3'000	61		12
Côte d'Ivoire	492	8		10
Croatia	3'061	320	4	6
Cuba	7	9		4

[1] Some countries report only the numbers of companies, projects or growers groups, which my each compromise a number of producers. See also explanation on page 60.

Country	Producers[1]	Processors	Importers	Exporters
Cyprus	1'032	62	3	3
Czech Republic	4'121	558	139	70
Denmark	2'991	908	78	80
Dominican Republic	36'463	152		27
Ecuador (2014)	10'287	22		
Egypt	900	242		
El Salvador	2'000	9		
Estonia	1'629	118	16	
Ethiopia	203'602	23		40
Falkland Islands (Malvinas)	5			5
Fiji	627			
Finland	4'328	453	79	13
France	28'884	11'842	273	
French Guiana (France)	49	4		
French Polynesia	270			
Georgia	1'075			
Germany	25'078	14'280	1'452	775
Ghana	2'679	26		16
Greece	19'604	1'526	14	42
Grenada (2010)	3			
Guadeloupe (France)	31	6		
Guatemala (2011)	3'008	23		92
Haiti	1'210			
Honduras	5'411	31		25
Hungary	1'971	235	21	
Iceland	36	29	3	
India	585'200	699		669
Indonesia	5'789	195		
Iran (Islamic Republic of)	3'873	16		33
Ireland	1'709	254	10	6
Israel	303	303	41	40
Italy	52'609	14'658	310	621
Jamaica (2009)	80			
Japan (2012)	2'130	1'805	193	
Jordan	27	7		4
Kazakhstan	29	29	7	7
Kenya	33'155	22	15	30
Kiribati	900			
Kosovo	100	5		
Kyrgyzstan	1'035			
Lao, P.D.R (2011)	1'342			
Latvia	3'634	75	10	
Lebanon	48	58		3
Lesotho	4	4		3
Liechtenstein	38			
Lithuania	2'672	74	8	
Luxembourg	83	79	6	
Macedonia, FYROM (2014)	460	7		6
Madagascar (2014)	22'850			
Malawi	7	7		6
Malaysia (2013)	119			
Mali (2014)	12'619	6		8
Malta	11	7	12	
Martinique (France)	44	6		
Mauritius	20			

Country	Producers[1]	Processors	Importers	Exporters
Mayotte	4			
Mexico	200'039	154		44
Moldova	50	11		9
Monaco				
Montenegro (2014)	167	9		
Morocco	121			
Mozambique	11	10		8
Myanmar	10	10		
Namibia	25	6		3
Nepal (2013)	687			
Netherlands	1'472	990	314	73
New Caledonia	75			
New Zealand	842	285	17	88
Nicaragua	10'060	30		4
Nigeria (2014)	101	80		80
Niue	49			
Norway	2'113	358	74	
Oman (2013)	4			
Pakistan	111	26		
Palestine, State of (2014)	1'096	38		
Panama (2013)	1'300			
Papua New Guinea	14'485	8		
Paraguay	58'258	22		23
Peru	96'857			153
Philippines	165'958	27		35
Poland	22'277	562	92	107
Portugal	4'142	604		
Puerto Rico	5			
Republic of Korea	11'611			
Réunion (France)	170	20		
Romania	11'869	139	3	
Russian Federation	82	37		11
Rwanda	4'010	7		7
Samoa	736	3		
Sao Tome and Principe (2014)	3'738	5		5
Saudi Arabia	151			
Senegal	18'395	4		9
Serbia	264	37	30	3
Sierra Leone	1'394			
Singapore		5		
Slovakia	420	48	11	
Slovenia	3'412	279	12	
Solomon Islands	1'063			
South Africa	198	138		87
Spain	34'673	3'436	166	72
Sri Lanka	8'695	189		311
Sudan (2014)	354	4		
Sweden	5'709	855	201	32
Switzerland	6'244			
Syrian Arab Republic (2010)	2'458	9		
Taiwan	2'598			
Tajikistan (2012)	10'486	15		
Tanzania (2013)	148'610			28
Thailand	13'154	218		51
Timor-Leste	73			3

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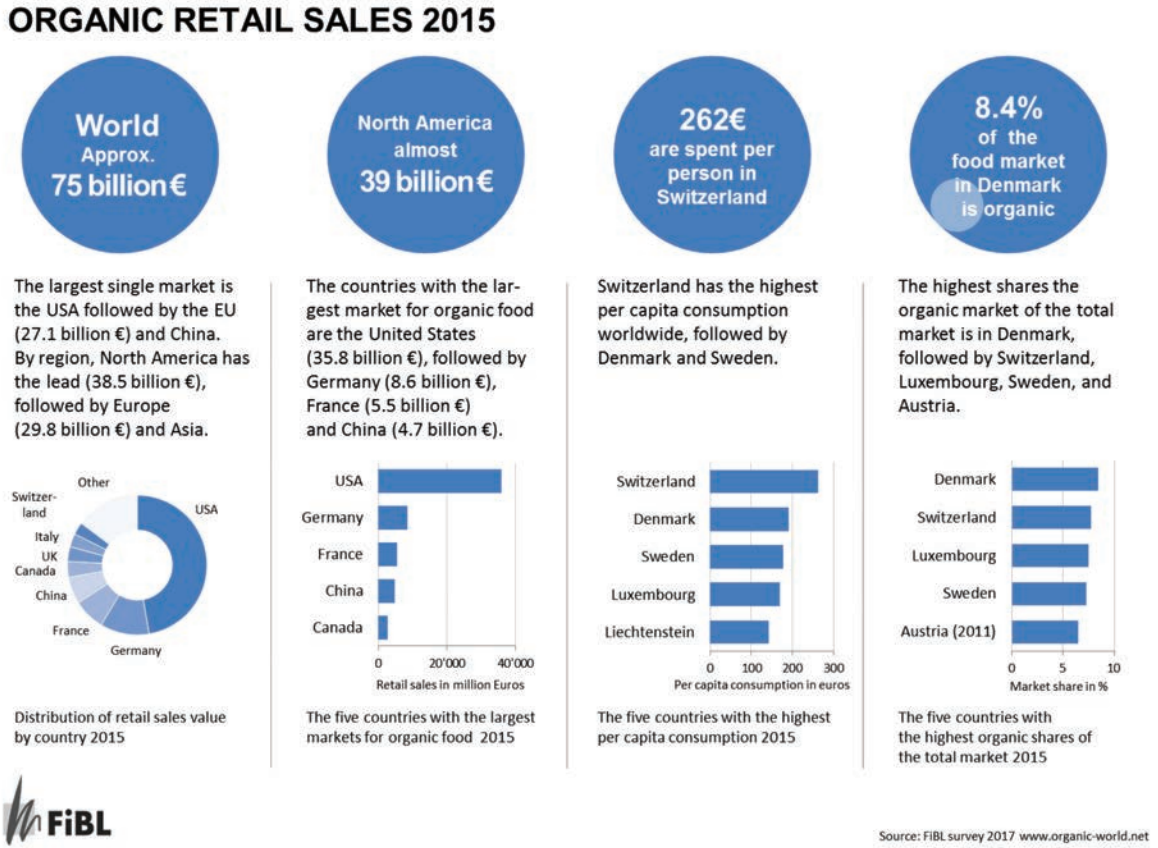
Country	Producers[1]	Processors	Importers	Exporters
Togo	9'933	15		20
Tonga	856			
Tunisia	2'987	147	20	66
Turkey	69'967	1'064	44	42
Uganda	190'670			
Ukraine	210	110	50	30
United Arab Emirates	53	6		7
United Kingdom	3'434	2'625	37	
United States of America	14'871			
Uruguay	4	10		3
Vanuatu	192	4		
Viet Nam	3'816			
Zambia	10'057	5		5
Zimbabwe	2'003	7		7
Total*	**2'417'414**	**72'131**	**4'097**	**5'778**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316
Blank cells: No data available.
* Total number includes data for countries with less than three operators.



Infographic 4: Organic retail sales 2015
Source: FiBL survey 2017

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Retail sales and international trade data

Retail sales

Whereas Amarjit Sahota presents global trends for the organic market along with much background information (page 138), 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 more than 50 countries, which means that for many countries with organic farming activities such data is missing.[1]

The country with the largest market for organic food is the United States (35.8 billion euros), followed by Germany (8.6 billion euros), France (5.5 billion euros) and China (4.7 billion euros). The largest single market is the United States followed by the European Union (27.1 billion euros), and China. By region, North America has the lead (38.5 billion euros), followed by Europe (29.8 billion euros) and Asia (Table 12).

Market growth was noted in all countries for which 2015 data was available, and in some cases, it was in the double digits. In Spain, the country that registered the biggest growth, the market increased by 25 percent. In Ireland, the market increased by 23 percent, and in Sweden the market grew by 20 percent.

Whereas the highest per capita consumption by continent is in North America (108 euros), by country it is highest in European countries. In 2015, Switzerland had the highest per capita consumption (262 euros) worldwide, followed by Denmark (191 euros), and Sweden (177 euros) (Table 13).

Looking at the shares the organic market has of the total market, the leader is Denmark (8.4 percent), followed by Switzerland (7.7 percent), Luxembourg (7.5 percent), Sweden (7.3 percent) and Austria (6.5 percent in 2011) (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 40 countries provided data on export values. It should be noted that retail sales and export values are not strictly comparable due to differences in data collection methods (Table 13).

[1] 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 2015

Region	Retail sales [Million €]	Per capita consumption [€]
Africa	17*	-
Asia	6'255	1.5
Europe	29'781	36.4
Latin America	31	0.05
North America	38'539	107.7
Oceania	1'085	27.6
World	**75'709**	**10.3**

Source: FiBL-AMI survey 2017, based on data from government bodies, the private sector, and market research companies. For data sources see annex, page 316.
* Data from Ethiopia and Kenya.

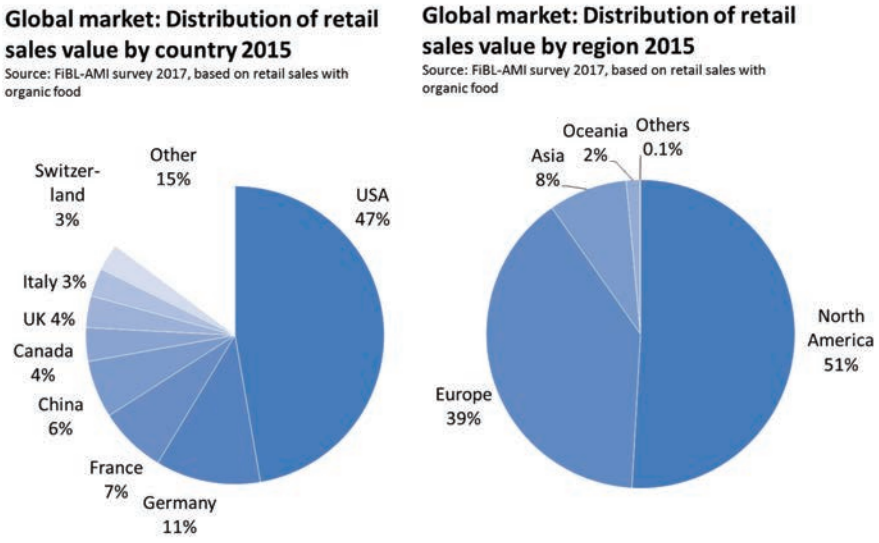

Figure 11: Global market for organic food: Distribution of retail sales by country 2015
Figure 12: Global market for organic food: Distribution of retail sales by region 2015

Source: FiBL-AMI survey 2017, based on data from government bodies, the private sector, and market research companies. For data sources see annex, page 316

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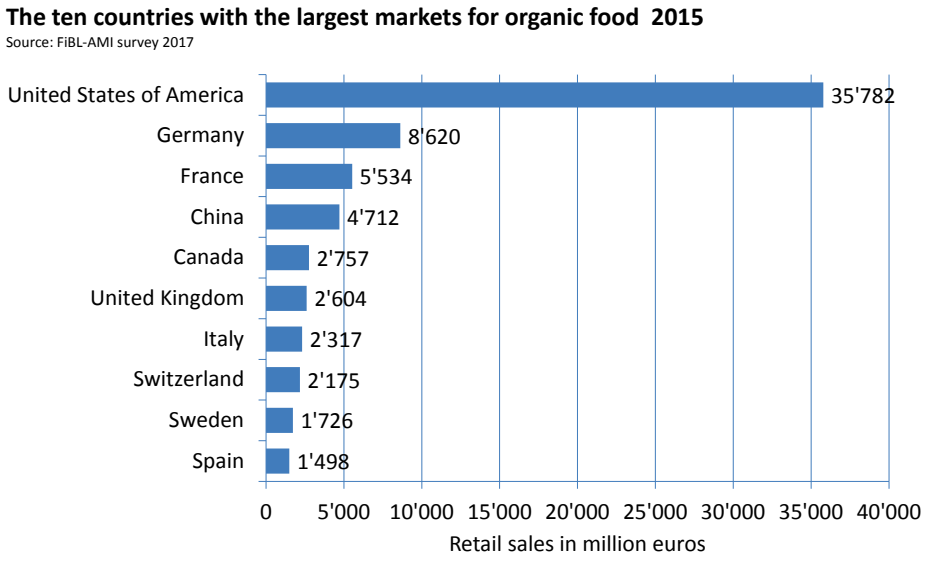

Figure 13: Global market: The countries with the largest markets for organic food 2015

Source: FiBL-AMI survey 2017, based on data from government bodies, the private sector, and market research companies. For data sources see annex, page 316

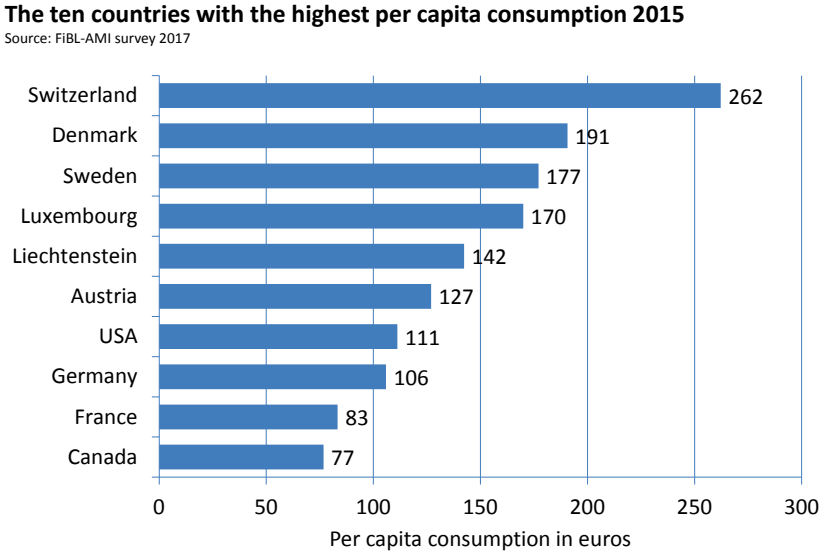

Figure 14: Global market: The ten countries with the highest per capita consumption 2015

Source: FiBL-AMI survey 2017, based on data from government bodies, the private sector, and market research companies. For data sources see annex, page 316

Table 13: Global market data: Retail sales, organic share of all retail sales, per capita consumption, and exports by country 2015

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 €]	Organic share [%]	€/person	Exports [Million €]
Argentina	2009				122
Australia	2013	962		42	248
Austria	2011	1'065	6.5	127	80
Azerbaijan	2011	3		0.3	
Belgium	2015	514	2.7	46	
Belize	2015	0.1		0.2	0.3
Bolivia	2011				179
Bosnia and Herzegovina	2015	0.3		0.03	2
Bulgaria	2010	7		1	
Cambodia	2009				1
Canada	2013		2.8		
	2015	2'757		77	420
Chile	2009	2		0.1	
	2014				152
China	2014				467
	2015	4'712		3	
Colombia	2007				13
Costa Rica	2008	1		0.3	
	2009				19
Croatia	2011				3
	2014	99	2.2	23	
Cyprus	2006	2		2	
Czech Republic	2014	74	0.7	7	43
Denmark	2015	1'079	8.4	191	266
Ecuador	2014				43
Ethiopia	2015	13		0.1	181
Falkland Islands (Malvinas)	2013				2
Finland	2014				10
	2015	240	1.8	44	
France	2015	5'534	2.9	83	435
Germany	2015	8'620	4.8	106	
Greece	2010	60		5	
Hungary	2009				20
	2015	30		3	
India	2012	130		0.1	
	2015				269
Ireland	2011		0.7		
	2015	142		31	
Italy	2015	2'317	2.5	38	1'650
Japan	2009	1'000		8	
	2010		1.0		
Kazakhstan	2015				9
Kenya	2015	4		0.1	
Kosovo	2015				6
Latvia	2011	4	0.2	2	
Liechtenstein	2015	6		142	

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Country	Data year	Retail sales [Million €]	Organic share [%]	€/person	Exports [Million €]
Lithuania	2011	6	0.2	2	
Luxembourg	2015	94	7.5	170	
Mexico	2013	14		0	373
Moldova	2011				15
Montenegro	2010	0.1		0.2	
Netherlands	2014				928
	2015	1'072	4.3	63	
New Zealand	2015	124		27	151
Norway	2015	352	1.5	68	
Paraguay	2011				71
Peru	2010	14		0.5	
	2014				255
Poland	2015	167		4	
Portugal	2011	21	0.2	2	
Republic of Korea	2015	281		6	
Romania	2011	80	0.7	4	200
Russian Federation	2009				4
	2012	120		1	
Samoa	2010				0.1
Senegal	2012				1
Serbia	2015				20
Slovakia	2010	4	0.2	1	
Slovenia	2009				0.1
	2013	49	1.8	27	
Spain	2015	1'498	1.5	32	778
Sri Lanka	2015				259
Sweden	2015	1'726	7.3	177	
Switzerland	2015	2'175	7.7	262	
Thailand	2014	12		0.2	28
Tunisia	2015				170
Turkey	2009	4		0.05	
	2015				62
Uganda	2015				50
Ukraine	2015	18		3	50
United Arab Emirates	2015	113		12	
United Kingdom	2015	2'604	1.4	40	
United States of America	2014				2'409
	2015	35'782	5.0	111	
Viet Nam	2015	5		0.05	817

Source: FiBL-AMI survey 2017, based on data from government bodies, the private sector, and market research companies. For data sources see annex, page 316
Blank cells: No data available

Organic farming in developing countries and emerging markets

The recipients of Official Development Assistance (ODA) from the Organization for Economic Cooperation and Development (OECD) are studied in this section.[1] More than 2.1 million producers from the DAC countries were counted (87 percent of all organic producers). A quarter of the world's organic agricultural land, 12.8 million hectares, is located in countries listed on the DAC list. If wild collection and beekeeping areas are included, the total area is 35.9 million hectares. Most of the agricultural land is located in Latin American countries (6.6 million hectares), with Asia (3.9 million) and Africa (1.7 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 with the highest percentages of organic agricultural land are Sao Tome and Principe (13.8 percent), Samoa (9.8 percent), and Uruguay (9 percent). Argentina, with by far the largest area under organic cultivation (with 3.1 million hectares), is ranked thirteen 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 10 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 25 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; crop data is missing for some of the world's largest producing countries (India and Brazil). Available statistics show that organic grassland/grazing areas constitutes 35 percent of the organic agricultural land, organic arable land 24 percent, and organic permanent crops 21 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, etc. For Africa, coffee and olives, for Asia, cereals and oilseeds, for Latin America, coffee and cocoa, are the most important crops.

Table 14: Countries on the DAC list: Development of organic agricultural land 2010-2015

Region	2010 [ha]	2011 [ha]	2012 [ha]	2013 [ha]	2014 [ha]	2015[ha]
Africa	1'075'556	1'072'848	1'148'867	1'210'048	1'259'955	1'682'755
Asia	2'377'369	3'629'476	3'150'217	3'321'944	3'482'483	3'882'363
Europe	432'006	479'120	546'781	476'759	508'942	508'080
Latin America	7'138'843	6'564'681	6'542'592	6'407'154	6'424'945	6'602'464
Oceania	17'141	50'691	53'370	62'511	85'159	73'802
Total	11'040'915	11'796'815	11'441'827	11'478'416	11'761'483	12'749'463

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

[1] The list is available at http://www.oecd.org/dac/stats/documentupload/DAC%20List%20of%20ODA%20Recipients%202014%20final.pdf

The ten countries on the DAC list with the largest areas of organic agricultural land 2015

Source: FiBL survey 2017

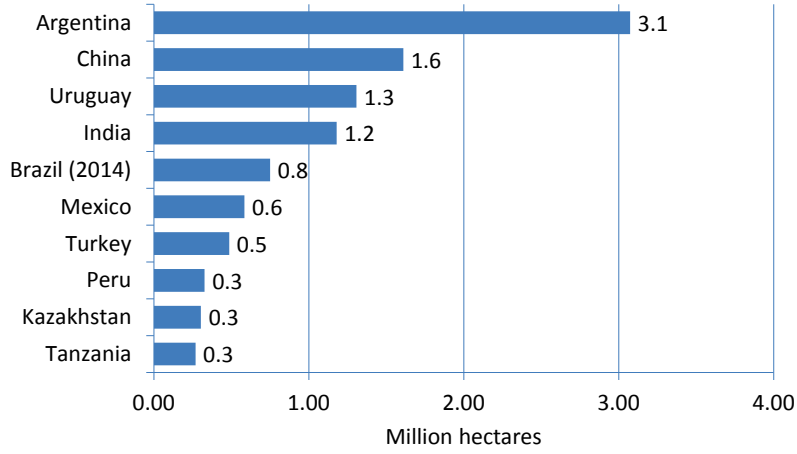

Figure 15: Countries on the DAC list: The ten countries with the largest areas of organic agricultural land in 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

The ten countries on the DAC list with the highest organic shares of the total agricultural land 2015

Source: FiBL survey 2017

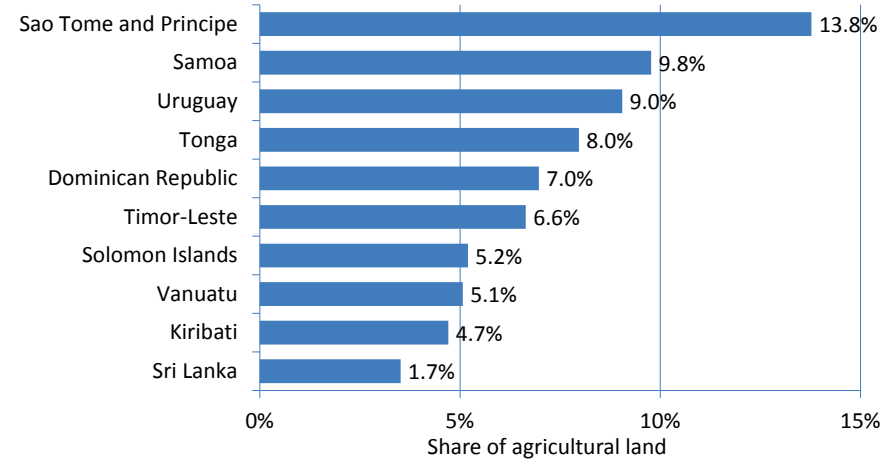

Figure 16: Countries on the DAC list: The ten countries with the highest organic shares of the total agricultural land in 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

Land use and commodities

Land use and commodities in organic agriculture

JULIA LERNOUD[1] AND HELGA WILLER[2]

Land use

Almost two-thirds of the 50.9 million hectares of organic agricultural land in 2015 were grassland/grazing areas (33.1 million hectares). The cropland area (arable land with almost 10 million hectares and permanent crops with 4 million hectares) constituted 14 million hectares, and almost one third 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.[3]

The FAO classification[4] 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 (see chapter on metadata, page 296). 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 included in these land use types, 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 about 80 percent of the organic agricultural land in Africa. More than half of the agricultural land is used for permanent crops. The main permanent crops are cash crops, such as coffee and olives. For land use details in Africa, see page 167.
- Asia: Land use details are known for almost three-quarters of the organic agricultural land in Asia. Arable land is mainly used for cereals, including rice. Furthermore, oilseeds are important. For land use details in Asia, see page 188.
- Europe: In Europe, the agricultural land use is well known, and the main crop categories are well documented. Permanent pastures and arable land have approximately equal shares of the organic agricultural area. Arable land is mainly used for the cultivation of cereals (2.2 million hectares) followed by green fodder (almost 2.1 million hectares). Permanent crops account for eleven percent of the organic agricultural land. More than one-third of this land was used for olives, followed by grapes, nuts, and fruits. For land use details in Europe, see page 198.

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[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
[3] 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.
[4] 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

– Latin America and the Caribbean: Nearly 80 percent of the organic agricultural land in Latin America for which information was available is permanent pasture. Permanent crops account for 12 percent of the total organic agricultural area. More than half 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 250.
– 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 270.
– Oceania: Most of the land in Australia is used for extensive grassland/grazing, and a minimal amount of information is available on the remaining land. A wide range of crops are grown in the Pacific region. For details, see page 290.

Table 15: World: Land use in organic agriculture by region (including in-conversion areas) 2015

Land use	Africa [ha]	Asia [ha]	Europe [ha]	Latin America [ha]	North America [ha]	Oceania [ha]	Total [ha]
Arable crops	413'604	2'232'176	5'661'759	314'609	1'360'567	594	9'983'309
Permanent crops	937'583	748'164	1'397'140	827'550	62'614	69'188	4'042'239
Permanent grassland	30'276	28'059	5'344'614	4'325'855	1'350'294	22'056'465	33'135'564
Total*	1'683'482	3'965'289	12'716'969	6'744'723	2'973'886	22'838'513	50'919'006

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316
*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.

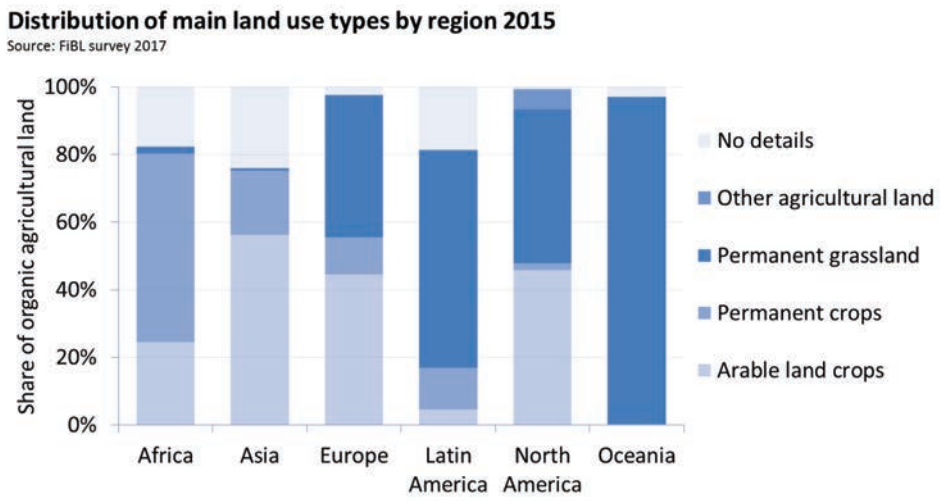

Figure 17: World: Distribution of main land use types by region 2015
Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

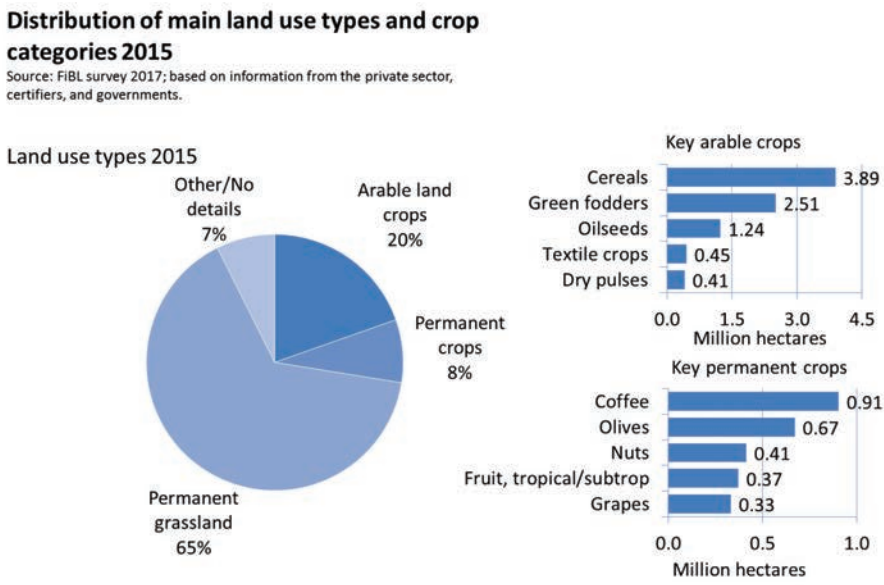

Figure 18: World: Distribution of main land use types and crop categories 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316

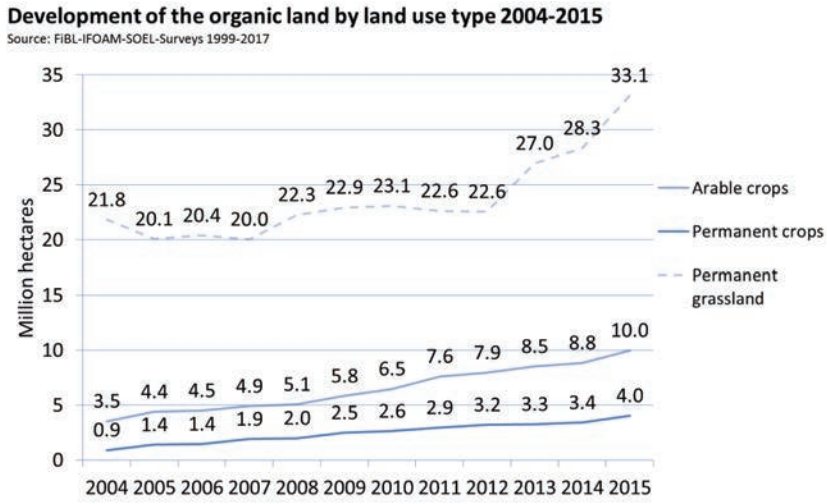

Figure 19: World: Development of organic arable land, permanent cropland and permanent grassland/grazing areas 2004-2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends.
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Table 16: World: Land use and crop categories in organic agriculture worldwide 2015

Land use	Crop group	Area [ha]
Agricultural land, no details		3'536'905
Arable land crops	Arable crops, no details	16'924
	Cereals	3'889'353
	Dry pulses	408'421
	Fallow land, crop rotation	513'082
	Flowers and ornamental plants	6'547
	Green fodders from arable land	2'506'838
	Hops	327
	Industrial crops	10'183
	Medicinal and aromatic plants	108'805
	Mushrooms and truffles	1'250
	Oilseeds	1'235'778
	Root crops	49'072
	Seeds and seedlings	195
	Strawberries	5'985
	Sugarcane	91'734
	Textile crops	449'390
	Tobacco	1'167
	Vegetables	353'577
	Arable crops, other	335'529
Arable land crops total		***9'984'160***
Other agricultural land	Hedges	753
	Home gardens	6'044
	Other agricultural land, no details	198'466
	Unutilised land	14'876
Other agricultural land total		***220'138***
Permanent crops	Berries	49'883
	Citrus fruit	70'798
	Cocoa	302'406
	Coconut	290'786
	Coffee	903'878
	Flowers and ornamental plants, permanent	291
	Fruit, no details	2'793
	Fruit, temperate	288'502
	Fruit, tropical and subtropical	374'769
	Grapes	332'905
	Medicinal and aromatic plants, permanent	72'385
	Nurseries	2'659
	Nuts	414'558
	Olives	672'033
	Tea/mate, etc.	102'804
	Permanent crops, other	160'788
Permanent crops total		***4'042'239***
Permanent grassland		33'135'564
Total		**50'919'006**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316

Arable land

With a total of almost 10 million hectares, organic arable land constitutes 20 percent of the world's organic agricultural land and 0.7 of the world's arable cropland.[1]

An increase of 12.9 percent over 2014 was reported, and there was an increase in almost all crop categories with the exception of crops such as flowers, industrial crops, and tobacco, which decreased by 31.6 percent, 59.5 percent, and 38.7 percent, respectively (Table 17).

Almost 60 percent of the arable land is located in Europe, followed by Asia (22 percent), and North America (14 percent) (Figure 20).

Most of the arable cropland is used for cereals including rice (3.9 million hectares), green fodder (2.5 million hectares), and oilseeds (1.2 million hectares) (Figure 20).

Table 17: Use of organic arable land (including in-conversion areas), 2014 and 2015 compared

Crop group	2014 [ha]	2015 [ha]	Change [ha]	Organic share [%]*
Cereals	3'288'991	3'889'353	+600'362	0.5%
Dry pulses	348'890	408'421	+59'532	0.5%
Fallow land, crop rotation	397'433	512'231	+114'799	-
Flowers and ornamental plants	9'578	6'547	-3'031	-
Green fodders from arable land	2'507'545	2'506'838	-707	4.2%
Hops	234	327	+93	0.4%
Industrial crops	25'145	10'183	-14'961	-
Medicinal and aromatic plants	117'825	108'805	-9'020	7.8%
Mushrooms and truffles	688	1'250	+562	4.9%
Oilseeds	952'990	1'235'778	+282'788	0.6%
Root crops	56'480	49'072	-7'408	0.1%
Seeds and seedlings	150	195	+46	-
Strawberries	4'050	5'985	+1'935	1.7%
Sugarcane	70'005	91'734	+21'729	0.3%
Textile crops	261'785	449'390	+187'605	1.2%
Tobacco	1'902	1'167	-735	0.03%
Vegetables	312'922	353'577	+40'655	0.6%
Total**	**8'843'395**	**9'983'309**	**+1'139'914**	**0.7%**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316
Not all countries included in the FiBL survey provided data on land use or crop areas.
*The organic crop group share is calculated with 2013 FAO data, while the organic share of total arable crops is calculated with 2014 FAO data.
**Total includes arable crop groups for which no further details were available.

[1] There were 1'417'152'640 hectares of arable cropland in 2014, 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

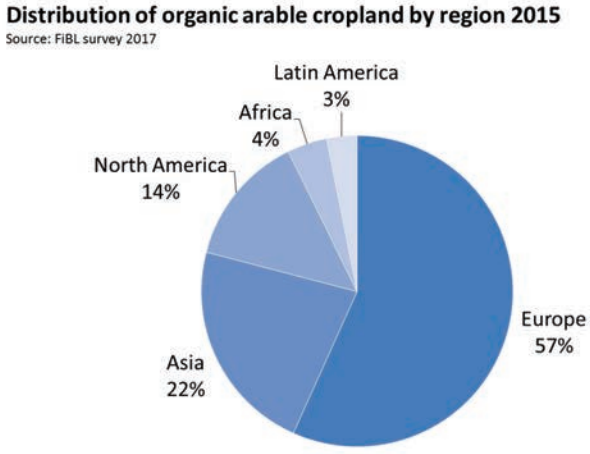

Figure 20: World: Distribution of organic arable cropland by region 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

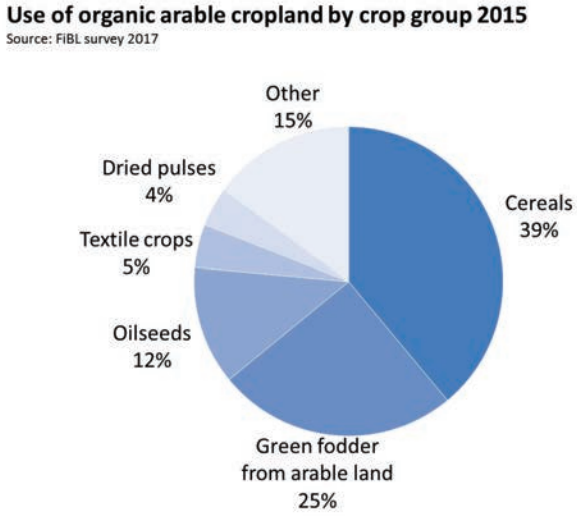

Figure 21: World: Use of arable cropland by crop group 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

Permanent crops

Permanent crops account for more than 4 million hectares, which is 2.5 percent of the world's permanent cropland.[1]

Compared with the previous survey, an increase of more than 640'000 hectares, or 18.9 percent, was reported.

Eight percent of the 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 approximately 3 percent of the total.

Most of the permanent cropland is in Europe (1.4 million hectares), followed by Africa (0.9 million hectares), and Latin America (0.8 million hectares) (Table 15 and Figure 22).

The most important crop is coffee, with more than 0.9 million hectares constituting almost one-quarter of the organic permanent cropland, followed by olives (almost 0.7 million hectares), nuts (0.4 million hectares), tropical and subtropical fruits (almost 0.4 million hectares), and grapes (0.3 million hectares)(Figure 23).

Table 18: Use of organic permanent cropland (including in-conversion areas), 2014 and 2015 compared

Crop group	2014 [ha]	2015 [ha]	Change [ha]	Organic share [%]*
Berries	52'716	49'883	-2'833	10.1%
Citrus fruit	71'617	70'798	-819	0.6%
Cocoa	249'194	302'406	+53'212	3.0%
Coconut	156'412	290'786	+134'374	2.4%
Coffee	761'178	903'878	+142'700	8.9%
Flowers and ornamental plants, permanent	24	291	+267	-
Fruit, no details	25'217	2'793	-22'424	-
Fruit, temperate	186'486	288'502	+102'016	2.3%
Fruit, tropical and subtropical	226'283	374'769	+148'486	1.5%
Grapes	311'866	332'905	+21'039	4.7%
Medicinal and aromatic plants, permanent	28'804	72'385	+43'581	2.8%
Nurseries	2'704	2'659	-45	-
Nuts	276'138	414'558	+138'420	3.3%
Olives	627'008	672'033	+45'024	6.5%
Permanent crops, other	355'988	160'788	-195'200	-
Tea/mate, etc.	69'025	102'804	+33'779	2.6%
Total**	**3'400'661**	**4'042'239**	**+641'578**	**2.5%**

Source: FiBL survey 2017, based on data from governments, the private sector, and certifiers. For detailed data sources see annex, page 316
***The organic crop group share is calculated with 2013 FAO data, while the organic share of total permanent crops is calculated with 2014 FAO data.**
***Total includes permanent crop groups, for which no further details were available.**

[1] There were 164'650'440 hectares of permanent cropland in 2014 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

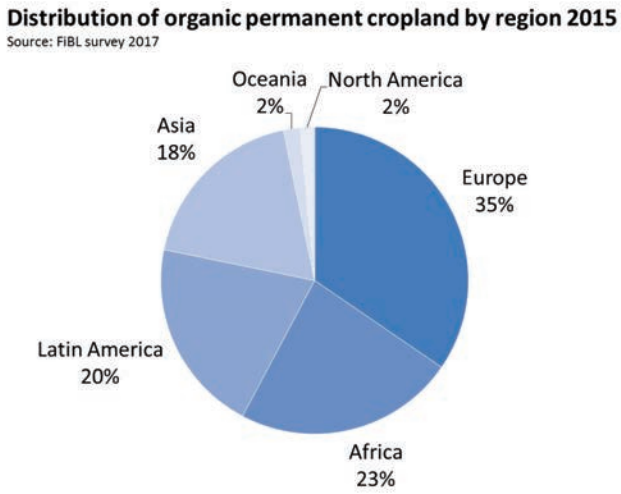

Figure 22: World: Distribution of permanent cropland by region 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

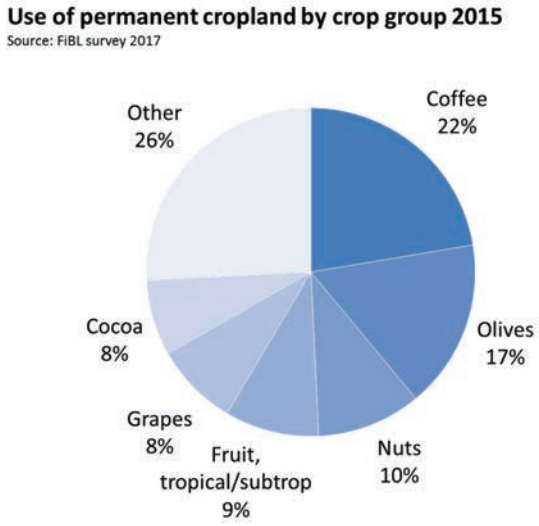

Figure 23: World: Use of permanent cropland by crop group 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

Wild collection and beekeeping areas

The collection of wild harvested crops is defined in the IFOAM Norms (IFOAM 2014), and wild collection activities are also regulated by organic laws. A collection area (including beekeeping) of 39.4 million hectares was reported in 2015. 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 (beekeeping), and India (Figure 25).

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).

Table 19: Wild collection and beekeeping areas by region 2014 and 2015 compared

Region	2014 [ha]	2015 [ha]	Change 2014-2015 [ha]	Change 2014-2015 [%]
Africa	11'790'601	11'905'017	+114'415	+1.0%
Asia	6'300'019	5'522'891	-777'128	-12.3%
Europe	16'293'965	17'658'757	+1'364'792	+8.4%
Latin America	3'007'369	4'221'072	+1'213'702	+40.4%
North America	63'954	54'551	-9'402	-14.7%
Oceania	765	765	-	-
Total	**37'456'673**	**39'363'053**	**+1'906'380**	**+5.1%**

Source: FiBL survey 2017, based on data from governments, the private sector, and certifiers.
For detailed data sources see annex, page 316

Table 20: Wild collection and beekeeping areas by crop group 2015

Land use	Area [ha]
Apiculture	6'514'478
Berries, wild	12'222'218
Fruit, wild	104'444
Medicinal and aromatic plants, wild	3'298'249
Mushrooms, wild	201'006
Nuts, wild	1'262'415
Oil plants, wild	964'844
Palm sugar	1'087
Palmito, wild	143'867
Rose hips, wild	170'471
Seaweed	200'672
Wild collection, no details	13'183'293
Wild collection, other	1'096'009
Total	**39'363'053**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316

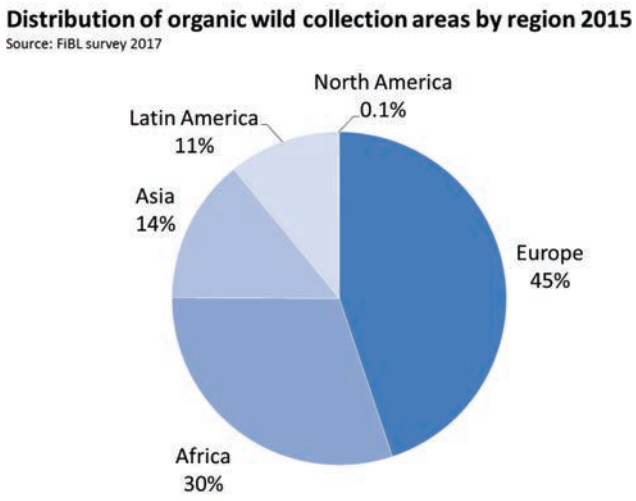

Figure 24: World: Distribution of organic wild collection and beekeeping areas by region in 2015

Source: FiBL survey 2017, based on data from government bodies, the private sector, and certifiers. For detailed data sources see annex, page 316

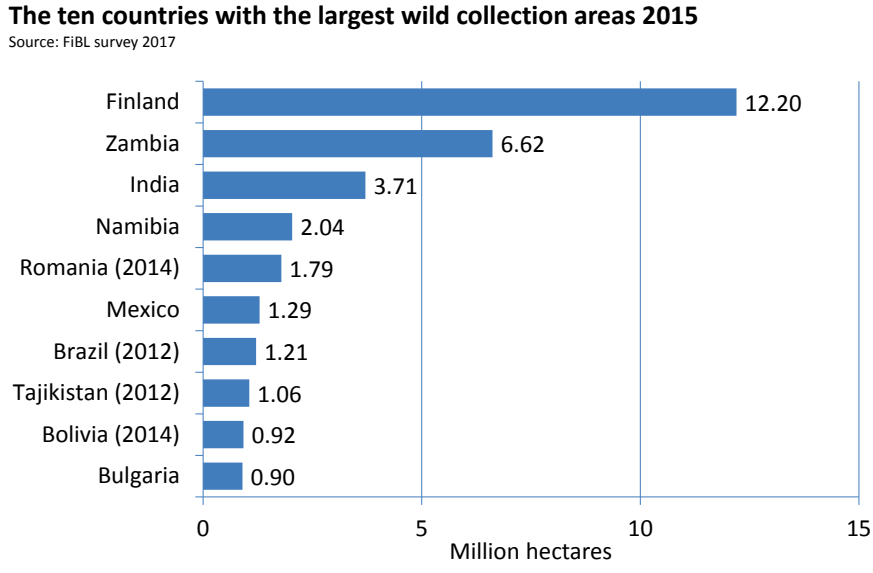

Figure 25: World: The ten countries with the largest organic wild collection and beekeeping areas in 2015

Source: FiBL survey 2017, based on data from government bodies, the private sector, and certifiers. For detailed data sources see annex, page 316

Table 21: Wild collection and beekeeping areas by country 2015

Country	Land use	Area [ha]
Albania	Medicinal and aromatic plants, wild	467'783
Argentina	Apiculture	358'400
	Wild collection, no details	1'075
Armenia	Wild collection, no details	12'000
Azerbaijan	Berries, wild	161
	Fruit, wild	541
	Medicinal and aromatic plants, wild	56
	Nuts, wild	179
	Wild collection, no details	126
Belarus	Berries, wild	100
	Mushrooms, wild	2'642
Belgium	Wild collection, no details	3
Benin	Nuts, wild	500
	Wild collection, no details	4'005
Bhutan	Medicinal and aromatic plants, wild	6'315
Bolivia	Nuts, wild	922'991
Bosnia and Herzegovina	Wild collection, no details	50'250
Brazil	Wild collection, no details	1'209'773
Bulgaria	Rose hips, wild	1'588
	Wild collection, no details	900'029
Burkina Faso	Nuts, wild	65'581
	Wild collection, no details	14'487
Canada	Wild collection, no details	54'551
Chad	Oil plants, wild	78'000
	Wild collection, no details	576'000
Chile	Berries, wild	17'708
	Rose hips, wild	58'440
	Wild collection, no details	4'906
China	Fruit, wild	48'446
	Medicinal and aromatic plants, wild	41'920
	Mushrooms, wild	197'104
	Nuts, wild	4'000
	Nuts, wild, other	21'239
	Oil plants, wild	118'798
	Seaweed	640
	Wild collection, no details	164'828
Colombia	Palmito, wild	6'800
	Wild collection, no details	520
Comoros	Oil plants, wild	63
Côte d'Ivoire	Nuts, wild	344
Croatia	Rose hips, wild	0.3
	Wild collection, no details	7
Denmark	Wild collection, no details	2'648
Ecuador	Mushrooms, wild	1'260
Egypt	Wild collection, no details	60'000
Estonia	Wild collection, no details	40'579
Ethiopia	Apiculture	116
	Wild collection, no details	8'917
Fiji	Fruit, wild	653
Finland	Berries, wild	12'200'000
Georgia	Wild collection, no details	215
Ghana	Nuts, wild	31'631
	Wild collection, no details	1'961

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Country	Land use	Area [ha]
Greece	Wild collection, no details	317'053
Guatemala	Apiculture	5
Guyana	Palmito, wild	54'000
Iceland	Medicinal and aromatic plants, wild	12'668
	Seaweed	200'032
India	Wild collection, no details	3'710'000
Indonesia	Apiculture	9'007
	Oil plants, wild	137
	Palm sugar	1'087
	Wild collection, no details	384
Iran	Apiculture	5'482
	Wild collection, no details	22'050
Italy	Wild collection, no details	70'254
Jamaica	Wild collection, no details	36
Kazakhstan	Medicinal and aromatic plants, wild	863
Kenya	Bee pastures	121'625
Kosovo	Wild collection, no details	179'580
Lao. P.D.R.	Wild collection, no details	16'786
Lebanon	Wild collection, no details	395
Lesotho	Wild collection, no details	50'000
Macedonia, FYROM	Wild collection, no details	556'600
Madagascar	Oil plants, wild	1'246
	Wild collection, no details	13'995
Malawi	Fruit, wild	266
	Wild collection, no details	6'319
Mali	Nuts, wild	1'446
	Wild collection, no details	6'700
Mexico	Apiculture	90'000
	Fruit, wild	5'000
	Medicinal and aromatic plants, wild	30'000
	Wild collection, no details	1'165'000
Montenegro	Medicinal and aromatic plants, wild	139'809
Morocco	Fruit, wild	40'700
	Medicinal and aromatic plants, wild	56'670
	Oil plants, wild	66'600
	Wild collection, no details	995
Mozambique	Wild collection, no details	145'930
Namibia	Medicinal and aromatic plants, wild	2'037'104
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	Nuts, wild, other	167'843
	Palmito, wild	80'000
	Wild collection, no details	32'784
Portugal	Wild collection, no details	40'000
Romania	Wild collection, no details	1'787'548
Russian Federation	Wild collection, no details	35'383
Rwanda	Wild collection, no details	12
Senegal	Wild collection, no details	22'000
Serbia	Wild collection, no details	1'550
Slovenia	Wild collection, no details	13'238
Somalia	Wild collection, no details	873'000

Country	Land use	Area [ha]
South Africa	Medicinal and aromatic plants, wild	25'048
	Rose hips, wild	108'700
	Wild collection, no details	13'933
Spain	Wild collection, no details	38'184
Sudan	Wild collection, no details	84'130
Syrian Arab Republic	Wild collection, no details	8'000
Tajikistan	Wild collection, no details	1'055'890
Tanzania	Wild collection, no details	15'040
Togo	Wild collection, no details	242
Tunisia	Medicinal and aromatic plants, wild	20'013
	Wild collection, no details	25'486
Turkey	Berries, wild	4'248
	Fruit, wild	8'726
	Mushrooms, wild	0
	Nuts, wild	2'040
	Rose hips, wild	1'743
	Wild collection, no details	44'472
Uganda	Wild collection, no details	158'328
Ukraine	Wild collection, no details	540'000
Uzbekistan	Wild collection, no details	5'000
Viet Nam	Wild collection, no details	2'200
Zambia	Apiculture	5'910'000
	Bee pastures	7'380
	Oil plants, wild	700'000
Zimbabwe	Medicinal and aromatic plants, wild	460'001
	Wild collection, no details	89'503
Total		**39'363'053**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends.
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Beehives

There were over 2 million organic beehives in 2015, representing almost 2.5 percent of the world's beehives, according to FAO data from 2014.[1] Organic beehives are concentrated in Latin America (45 percent) and Europe (40 percent) (Figure 26). The country with the largest number of organic beehives is Brazil (734'306), followed by Italy (195'341), and Bulgaria (178'331) (Figure 28). Their numbers have increased four-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 increase from 2014 to 2015 is due to the fact that data for some countries such as Brazil was available for the first time.

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 on 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, IFOAM – Organics International created a new beekeeping platform, the IFOAM Apiculture Forum (IAF). The main aims of the IAF are to advance the development of organic beekeeping and to encourage the traditional practices employed by sustainable beekeeping.[2]

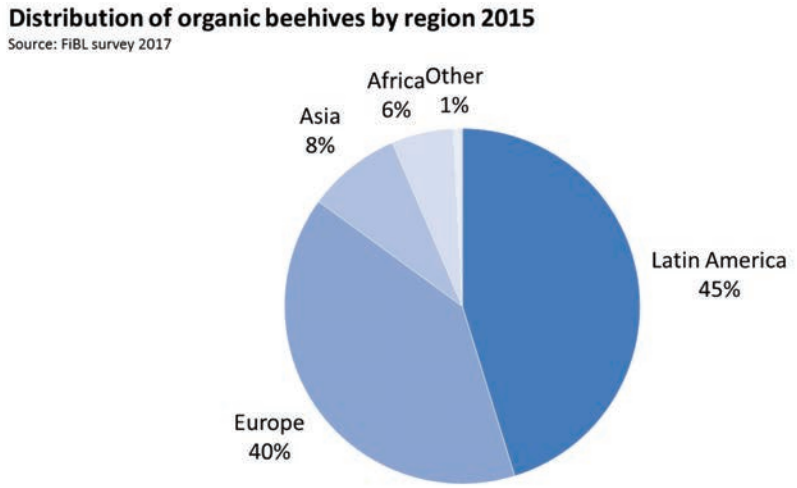

Figure 26: World: Distribution of organic beehives by region in 2015

Source: FiBL survey 2017, based on data from government bodies, the private sector, and certifiers. For detailed data sources see annex, page 316

[1] According to FAO, there were 83'446'397 beehives in 2014. 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 http://www.organicbeekeeping.info/home.html

Development of the organic beehives 2007-2015

Source: FiBL-IFOAM-SOEL 2006-2017

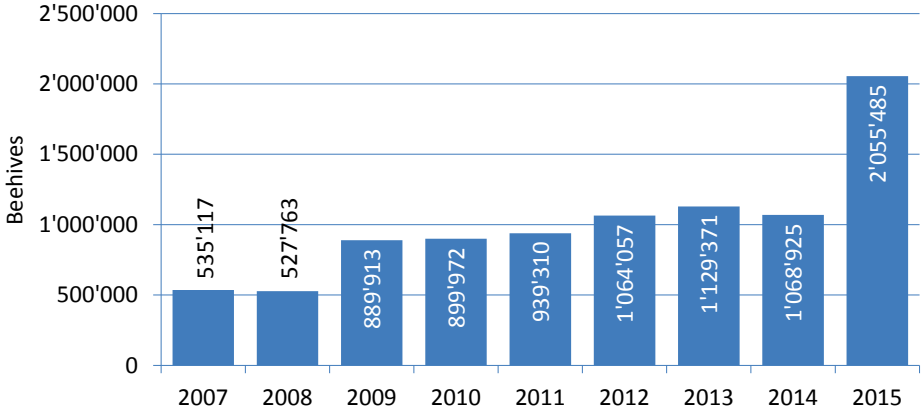

Figure 27: Development of the organic beehives 2007-2015

Source: FiBL-IFOAM-SOEL surveys 2006-2017. For detailed data sources see annex, page 316
Note: In 2014, the data for Bulgaria was counted twice by mistake; so please note that the global total for 2014 was changed.

The ten countries with the largest number of organic beehives 2015

Source: FiBL survey 2017

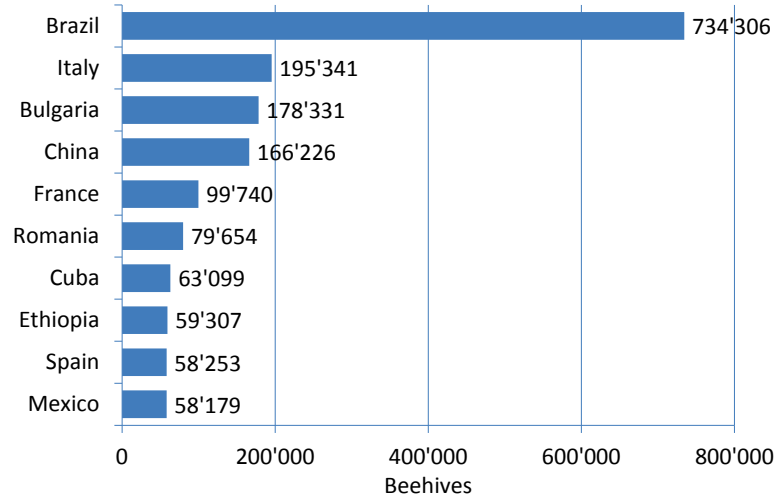

Figure 28: The ten countries with the largest number of organic beehives in 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends.
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Table 22: Number of organic beehives by country 2015

Country	2015
Argentina	14'680
Armenia	800
Australia	6'475
Austria	25'000
Azerbaijan	932
Belgium	24
Bhutan	177
Bosnia and Herzegovina	238
Brazil	734'306
Bulgaria	178'331
Burkina Faso	11
Canada	10'199
Chile	20'587
China	166'226
Croatia	3'418
Cuba	63'099
Czech Republic	27
Denmark	50
Dominican Republic	11'055
Estonia	1'139
Ethiopia	59'307
Finland	4'456
France	99'740
French Guiana (France)	21
Georgia	570
Germany	35'000
Guadeloupe (France)	36
Iran	4'120
Iraq	200
Italy	195'341
Kosovo	40
Latvia	24'167
Lebanon	478
Liechtenstein	1
Lithuania	790
Luxembourg	44
Macedonia, FYROM	6'104
Madagascar	935
Martinique (France)	120
Mexico	58'179
Montenegro	1'057
Morocco	1'242
Nicaragua	18'620
Norway	1'507
Poland	2'442
Portugal	55'167
Réunion (France)	505
Romania	79'654
Saudi Arabia	1'952
Senegal	32
Serbia	471
Slovakia	354
Slovenia	1'400
South Africa	257
Spain	58'253
Sweden	2'182
Switzerland	3'014
Tunisia	1'238
Turkey	38'296
Ukraine	300
Uruguay	9'141
Zambia	51'978
Total	2'055'485

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

Aquaculture

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

A production volume of almost 400'000 metric tons of organic aquaculture was reported in 2015. According to the available data, aquaculture production is concentrated in Asia (80 percent, mainly China) and Europe (20 percent). The largest production volume was found in China (over 300'000 metric tons), followed by Ireland (over 31'000 metric tons, mainly salmon), and Norway (almost 17'000 metric tons, mainly salmon) (Table 24). The aquaculture production volume has doubled since 2014. However, it is important to note that some of the increases can be attributed to the continually improving data availability. In particular, the data provided by Eurostat have increased. Unfortunately, some of the countries with a large aquaculture production, such as Brazil, Indonesia, Thailand, and Viet Nam, 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 less than 20 percent of the total production. According to the available data, organic salmon is the most produced species (almost 38'000 metric tons), followed by mussels (almost 19'000 metric tons), carp (almost 4'000 metric tons), and shrimps (over 3'500 metric tons).

Table 23: Organic aquaculture: Production volume by species 2015

Main species	Production [MT]
Aquaculture, no details	316'834
Aquatic plants	406
Carps	3'892
Mussels	18'620
Rainbow trouts	1'248
Salmon	37'752
Sea bass	238
Sea trout	150
Seabream	317
Shrimps	3'587
Sturgeon	1'007
Trout	15
Total	**384'065**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316

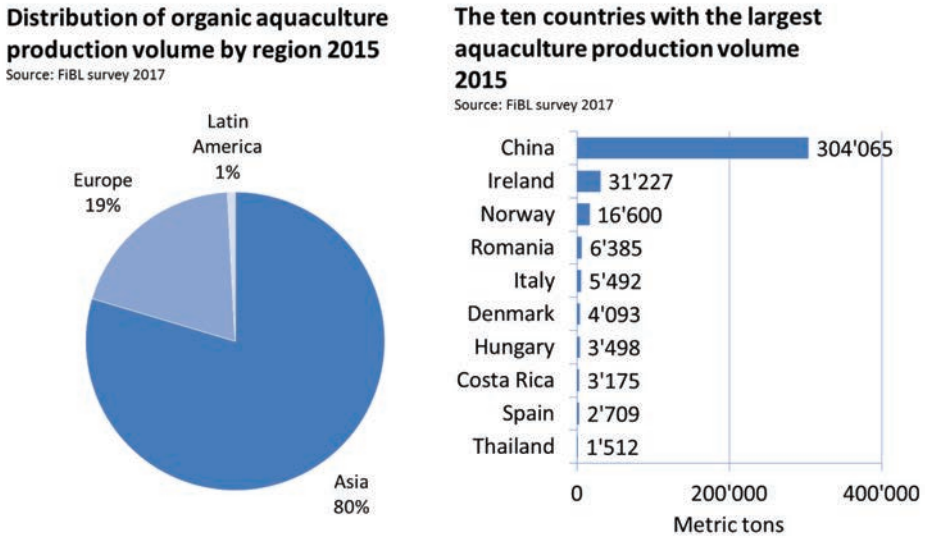

Figure 29: Organic aquaculture production volume: Distribution by continent and top 10 countries 2015

Source: FiBL-survey 2017; based on national data sources and certifier data. For detailed data sources see annex, page 316

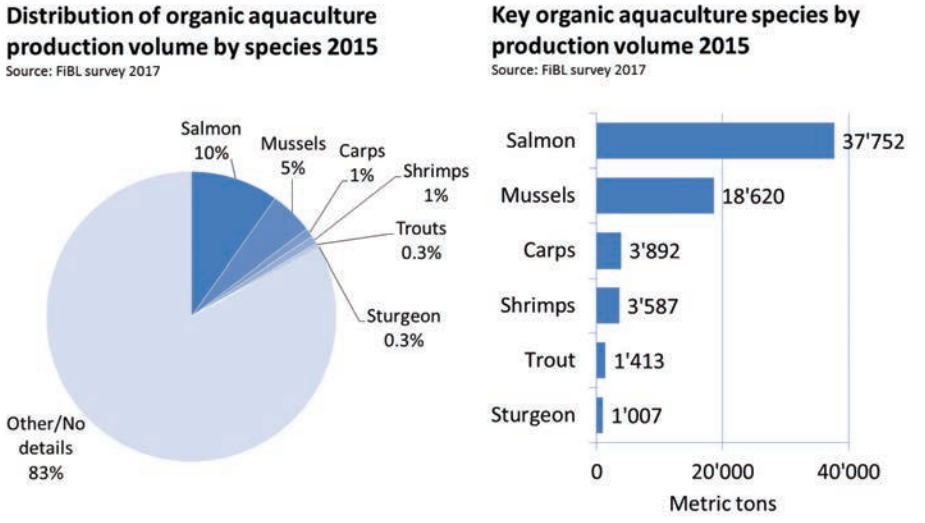

Figure 30: Organic aquaculture production volume: Distribution by species and key species 2015

Source: FiBL-survey 2017; based on national data sources and certifier data. For detailed data sources see annex, page 316

Table 24: Organic aquaculture: Production volume by country 2015

Country	Production [MT]
Austria	9
Brunei Darussalam	203
Bulgaria	80
China	304'065
Costa Rica	3'175
Croatia	300
Czech Republic	1
Denmark	4'093
Ecuador	3
Estonia	156
Germany	621
Greece	720
Hungary	3'498
Ireland	31'227
Italy	5'492
Latvia	7
Lithuania	1'300
Norway	16'600
Poland	18
Portugal	1'300
Romania	6'385
Slovenia	32
Spain	2'709
Thailand	1'512
Turkey	559
World	**384'065**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316

References and further reading

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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 2013 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 www.organic-world.net. At this website, slides on key crops with more graphs than shown here are available.

Table 25: Selected key crop groups and crops in organic agriculture 2015 (overview): Land under organic management (including conversion areas)

Crop	Africa [ha]	Asia [ha]	Europe [ha]	Latin America [ha]	North America [ha]	Oceania [ha]	Total [ha]
Cereals	72'361	900'352	2'232'921	124'849	558'870		3'889'353
Citrus fruit	6'586	7'293	42'520	10'383	4'017		70'798
Cocoa	110'067	2'332		187'242		2'765	302'406
Coffee	303'167	110'488		476'909		13'314	903'878
Dry pulses	15'988	18'554	328'870	6'666	38'343		408'421
Fruit, temperate	644	120'957	141'517	5'239	19'146	1'000	288'502
Fruit, tropical and subtropical	154'237	40'534	26'455	119'766		33'778	374'769
Grapes	1'538	16'745	292'753	7'224	12'623	2'022	332'905
Oilseeds	155'899	637'581	298'856	42'337	101'105		1'235'778
Olives	128'297	7'739	532'083	3'913			672'033
Vegetables	7'766	53'945	157'964	17'950	115'951		353'577

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

› Cereals

Table 26 shows that at least 3.9 million hectares of cereals were under organic management in 2015. Comparing the organic figure with FAO's figure for the world's harvested cereal area of 723 million hectares in 2013 (FAOSTAT),[1] 0.5 percent of the total cereal area is under organic management.

Cereals include wheat, spelt, barley, oats, grain maize, rice, rye, and triticale (Figure 32).

The key cereal producers worldwide, according to FAO, are India (99.3 million hectares), China (94.1 million hectares), the United States (59.6 million hectares), and the Russian Federation (40.3 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. China (over 688'000 hectares) and the United States (almost 315'000 hectares) are the largest organic cereal producers. In China, 0.7 percent of the total cereal area was organic, and in the United States, the organic cereal area represented 0.5 percent of the total cereal area. The United States was followed by Canada (over 244'000 hectares) and Italy (more than 226'000 hectares).

Some countries reach organic shares that are far higher than the global organic cereal share of 0.5 percent. For example, Austria (12 percent), Sweden (9.8 percent), Estonia (9 percent), and Bolivia (7.7 percent, 2014 data) greatly exceed the global share.

As some of the world's large cereal producers (such as India and the Russian Federation) provided little or no land use and crop details, it can be assumed that the cereal area is larger than what is shown here.

The organic cereal area has almost doubled since 2004 (1.3 million hectares), and in 2015, it increased by 600'000 hectares or 18 percent, mainly due to the fact that more detailed data were delivered by China.

The available data on the conversion status indicate that at least 13 percent of the organic cereal area was in conversion in 2015 (more than half a million 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

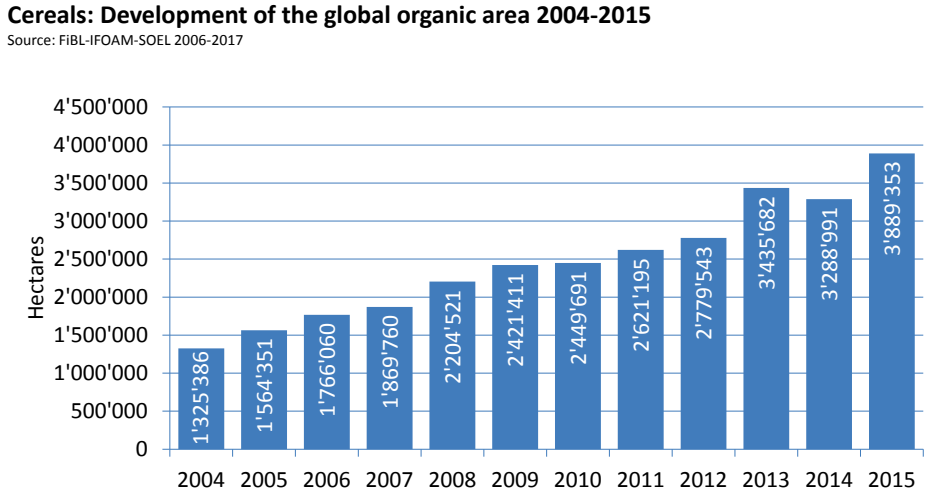

Figure 31: Cereals: Development of the global organic area 2004-2015
Source: FiBL-IFOAM-SOEL 2006-2017

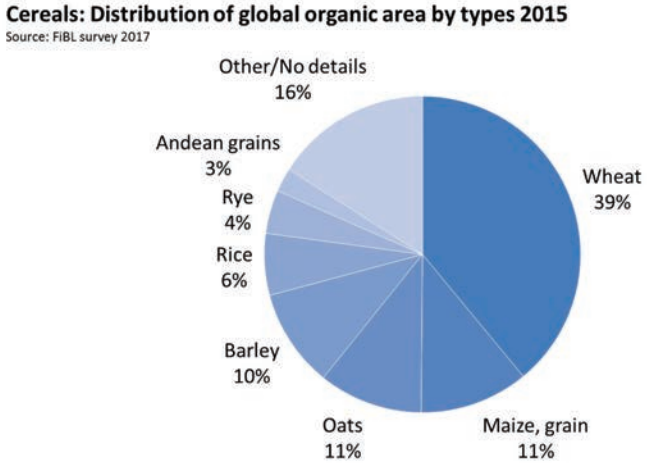

Figure 32: Cereals: Distribution of global organic area by types 2015
Source: FiBL survey 2017

Table 26: Cereals: Organic area by country 2015

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Argentina	26'512	0.2%	26'512	
Austria	95'742	12.0%		
Azerbaijan	1'598	0.2%		1'598
Bangladesh	101	0.001%		
Belgium	8'680	2.6%	6'914	1'766
Bhutan	753	1.4%	753	
Bolivia	87'545	7.7%	72'981	14'564
Bosnia and Herzegovina	17	0.01%	17	
Bulgaria	22'190	1.2%	3'650	18'541
Burkina Faso	57	0.001%	57	
Cambodia	11'674	0.4%	7'292	3'000
Canada	244'421	1.5%	244'421	
Chile	269	0.05%	269	
China	688'404	0.7%	615'299	73'105
Colombia	100	0.01%	98	2
Costa Rica	55	0.1%		
Croatia	9'688	1.7%	4'277	5'411
Cyprus	653	1.4%	397	256
Czech Republic	27'904	2.0%	23'395	4'509
Denmark	52'064	3.6%	47'944	4'120
Ecuador	3'261	0.4%	2'899	362
El Salvador	3	0.001%		
Estonia	28'168	9.0%	24'225	3'942
Finland	50'442	4.6%	43'589	6'853
France	183'988	1.9%	123'517	60'471
Germany	224'000	3.4%		
Greece	41'173	5.0%	38'351	2'822
Hungary	24'325	0.9%	19'669	4'656
Iceland	2	-		
Indonesia	1'364	0.01%	1'364	
Iran	167	0.002%	165	2
Ireland	1'606	0.5%	1'317	289
Israel	556	0.7%	527	29
Italy	226'043	6.5%	172'128	53'915
Japan	2'863	0.1%	2'863	
Jordan	24	0.04%	24	
Kazakhstan	130'882	0.8%	101'210	25'000
Kenya	221	0.01%		
Kyrgyzstan	1'166	0.2%	851	315
Lao, P.D.R.	218	0.02%		
Latvia	36'909	6.4%	25'860	11'050
Lebanon	1	0.002%	1	
Liechtenstein	82	-	82	
Lithuania	89'906	7.4%	54'871	35'035
Luxembourg	907	3.1%	836	72
Macedonia, FYROM	902	0.5%	606	295
Madagascar	249	0.02%		
Mali	43	0.001%	43	
Malta	2	0.1%	2	
Mexico	658	0.01%		
Moldova	11'840	1.3%	9'864	164

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends.
FiBL & IFOAM – Organics International (2017): Frick and Bonn, 2017-02-20

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Morocco	565	0.01%	515	50
Namibia	177	0.1%	144	33
Netherlands	3'592	1.7%	3'213	379
Nigeria	1'012	0.01%		
Norway	6'597	2.3%	6'079	517
Pakistan	18'607	0.1%	18'607	
Palestine, State of	55	0.3%	55	
Paraguay	427	0.03%		
Peru	6'019	0.5%	8	
Philippines	554	0.01%	508	
Poland	101'436	1.4%	89'336	12'100
Portugal	6'723	2.2%	4'795	1'928
Republic of Korea	1'686	0.2%		
Romania	81'439	1.5%	58'741	22'698
Russian Federation	150'272	0.4%	140'234	870
Saudi Arabia	10'748	4.6%	245	10'503
Senegal	3'689	0.3%	113	3'576
Serbia	4'252	0.2%	2'183	2'069
Slovakia	17'814	2.3%	13'187	4'626
Slovenia	2'044	2.0%	1'469	576
South Africa	595	0.01%	595	
Spain	209'001	3.4%	139'869	69'132
Sweden	95'286	9.8%	84'913	10'373
Switzerland	7'847	3.0%		
Taiwan	1'780	0.6%	1'780	
Tanzania	50'850	0.8%	50'850	
Thailand	26'930	0.2%		
Tunisia	14'774	1.9%	14'774	
Turkey	172'477	1.5%	135'895	36'582
Ukraine	197'360	1.3%		
United Kingdom	39'549	1.3%	38'505	1'044
United States of America	314'449	0.5%		
Viet Nam	220	0.002%		
Zambia	128	0.01%		
Total	**3'889'353**	**0.5%**	**2'501'378**	**509'472**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316
Blank cells: No data available.

› Citrus fruit

The area of organic citrus fruits is shown in Table 27; it includes oranges (20 percent of the organic citrus fruit), grapefruit and pomelos (6 percent), lemons and limes (4 percent), and tangerines (1 percent); for 69 percent of the organic citrus area, no crop detail was available (Figure 33). According to this data, almost 71'000 hectares of citrus fruit are grown organically worldwide. This constitutes 0.6 percent of the world's total citrus area of 11.1 million hectares in 2013 (FAOSTAT).[1]

As no crop details for the organic area were available for some of the world's leading citrus producers - India (1 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 almost 32'000 hectares, constituting 20.3 percent of Italy's harvested citrus fruit area, followed by Spain (over 8'000 hectares, 2.7 percent), and Mexico (7'000 hectares, 1.2 percent). Since 2004, when 28'500 hectares of organic citrus were grown, the area more than doubled.

Burkina Faso has the highest organic share of citrus fruit with almost 33 percent of the harvested citrus fruit area according to the available data being organic. It is followed by Italy and Ghana (16.4 percent).

The available data on the conversion status indicates that at least 20 percent of the organic citrus area was in-conversion in 2015 (almost 15'000 hectares).

The drop of 13 percent of organic citrus fruit area since 2013 (Figure 33), can be attributed to the spread of the Citrus Greening Disease that is transmitted by the vector Citrus Psyllid, Diaphorina citri. One of the reasons for this drop is that Caribbean countries have decided to abandon producing organic citrus fruit and re-convert to conventional farming, where chemical pesticides are used as a measure to control the disease. In the state of Florida in the United States, a drop of more than 70 percent in organic yields has been reported, resulting in a drastic drop of organic citrus fruit production, with organic farmers converting to conventional farming. It is estimated that 99 percent of Florida's citrus trees are infected with the deadly disease. In Mexico, a key organic citrus producer, FiBL is developing an integrated organic management strategy to control the vector and regulate the greening.[2,3]

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

[2] Personal communication from Dr. Salvador Garibay, Research Institute of Organic Agriculture (FiBL), January 2017.

[3] FiBL is organizing the first conference on managing the greening disease in organic citrus, to take place in September 2017 in Mexico. The conference will present the latest research and findings on practical solutions for organic farmers. For further information, contact Dr. Salvador Garibay, salvador.garibay@fibl.org.

Citrus fruit: Development of the global organic area 2004-2015
Source: FiBL-IFOAM-SOEL 2006-2017

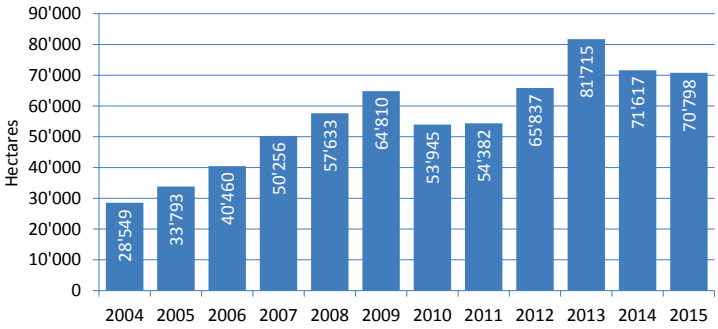

Figure 33: Citrus fruit: Development of the global organic area 2004-2015

Source: FiBL survey 2017

Table 27: Citrus fruit: Organic area by country 2015

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Argentina	1'047	0.7%	1'047	
Azerbaijan	21	0.7%	2	19
Burkina Faso	77	32.9%	49	28
Chile	223	1.5%	223	
China	6'916	0.2%	4'823	2'093
Colombia	3	0.003%	2	1
Côte d'Ivoire	3	0.02%	3	
Croatia	9	0.3%		8
Cuba	231	1.1%	231	
Cyprus	75	2.3%	44	31
Dominican Republic	1'064	4.4%		
El Salvador	7	0.2%	7	
France	343	8.1%	295	47
Ghana	3'991	16.4%	3'991	
Greece	1'295	2.6%	1'094	201
Guinea-Bissau	10	0.5%	10	
Indonesia	49	0.1%	49	
Iran	2	0.001%	2	
Israel	220	1.3%	160	59
Italy	31'869	20.3%	23'012	8'857
Jordan	8	0.1%	8	
Lebanon	16	0.2%	5	11
Madagascar	25	0.2%		
Mexico	7'346	1.2%		
Morocco	1'511	1.3%	1'311	200
Palestine, State of	1	0.04%	1	
Paraguay	386	3.5%		
Peru	75	0.1%	56	
Portugal	330	1.7%	221	109
Republic of Korea	60	0.3%		
Senegal	16	0.2%	3	13
South Africa	919	1.2%	919	
Spain	8'245	2.7%	5'125	3'120
Tunisia	30	0.1%	30	
Turkey	354	0.3%	218	136
United States	4'017	1.2%		
Total	**70'798**	**0.6%**	**42'942**	**14'933**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316. Blank cells: No data available.

› Cocoa beans

More than 300'000 hectares of cocoa were under organic management in 2015. This constitutes 3 percent of the world's harvested cocoa bean area of 10 million hectares 2013 (FAOSTAT).[1]

The world's leading producers are Côte d'Ivoire (2.5 million hectares), Indonesia (1.8 million hectares), Ghana (1.6 million hectares), and Nigeria (almost 1.2 million hectares).

The largest organic cocoa areas are found in the Dominican Republic (120'315 hectares), the Democratic Republic of Congo (37'039 hectares), and the United Republic of Tanzania (29'013 hectares). Over 60 percent of the world's organic cocoa area is in Latin America, and over 36 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 almost six-fold since 2004 and thus faster than most other crops/crop groups. However, part of the increase can be attributed to the continually improving data availability.

The available data on the conversion status indicate that six percent of the organic cocoa area was in conversion in 2015 (over 20'000 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 2004-2015
Source: FiBL-IFOAM-SOEL 2006-2017

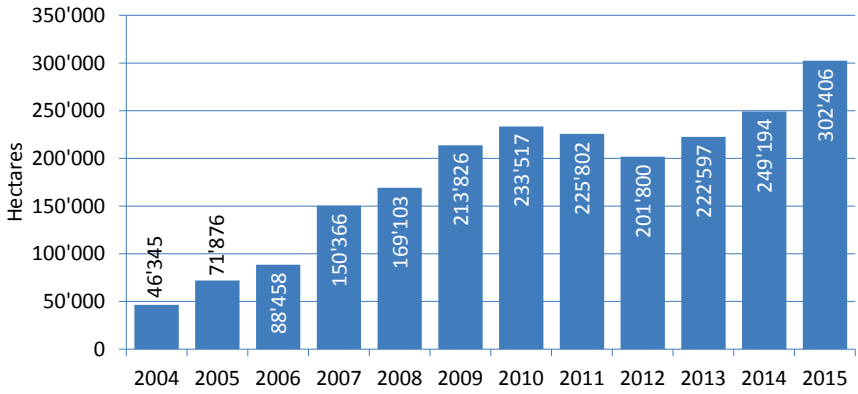

Figure 34: Cocoa beans: Development of the global organic area 2004-2015
Source: FiBL survey 2017

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

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends. FiBL & IFOAM – Organics International (2017): Frick and Bonn, 2017-02-20

Table 28: Cocoa beans: Organic area by country 2015

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Belize	840	-	780	60
Benin	1	-		
Bolivia	4'595	51.9%	3'976	619
Colombia	381	0.4%	370	11
Costa Rica	131	2.8%		
Côte d'Ivoire	111	0.004%	107	4
Congo, D.R.	37'039	-	30'620	6'419
Dominican Republic	120'315	79.7%		
Ecuador	13'643	3.4%	12'667	976
Ghana	10'006	0.6%	10'006	
Grenada	65	5.0%		
Haiti	3'247	14.8%	3'247	
Honduras	753	44.3%		
Indonesia	22	0.001%	22	
Madagascar	5'719	54.5%		
Nicaragua	3'666	56.4%	1'521	2'146
Nigeria	500	0.04%		
Panama	14'021	-	4'224	436
Peru	25'587	26.2%		
Philippines	10	0.1%	10	
Sao Tome and Principe	6'401	26.1%	6'383	18
Sierra Leone	15'277	36.4%	15'277	
Tanzania	29'013	-	19'748	9'266
Togo	2'249	2.8%	1'736	513
Uganda	3'750	7.8%		
Vanuatu	2'765	-	2'765	
Viet Nam	2'300	-		
Total	**302'406**	**3.0%**	**113'458**	**20'467**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316
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 2015".[1]

[1] Lernoud, Julia, Jason Potts, Gregory Sampson, Vivek Voora, Helga Willer and Joseph Wozniak (2015): The State of Sustainable Markets – Statistics and Emerging Trends 2015. ITC, Geneva. Available at: http://www.vss.fibl.org/de/vss.html

› Coffee

More than 905'000 hectares of coffee were grown organically in 2015. This constituted 8.9 percent of the world's harvested coffee area of 10.2 million hectares in 2013, according to FAOSTAT.[1]

The world's leading producers are Brazil (2.1 million hectares), Indonesia (1.2 million hectares), Colombia (0.8 million hectares), Mexico (0.7 million hectares), and Vietnam (almost 0.6 million hectares). Data on organic production was available for all of these countries with the exception of Brazil and Vietnam. More than 50 percent of the world's organic coffee area is in Latin America, and almost 34 percent is in Africa.

In organic farming, the largest areas were in Mexico (almost 281'000 hectares), Ethiopia (161'000 hectares), and Peru (110'000 hectares). Nepal had the highest organic share, with almost 46 percent organic coffee, followed by Timor-Leste (45 percent), the United Republic of Tanzania (40 percent), and Mexico (40 percent).

The organic coffee area has more than quadrupled since 2004. Compared with 2014, the organic coffee area grew by almost 19 percent, more than 140'000 hectares in 2015, mainly due to updated data from Mexico and Ethiopia.

Coffee: Development of the global organic area 2004-2015

Source: FiBL-IFOAM-SOEL 2006-2017

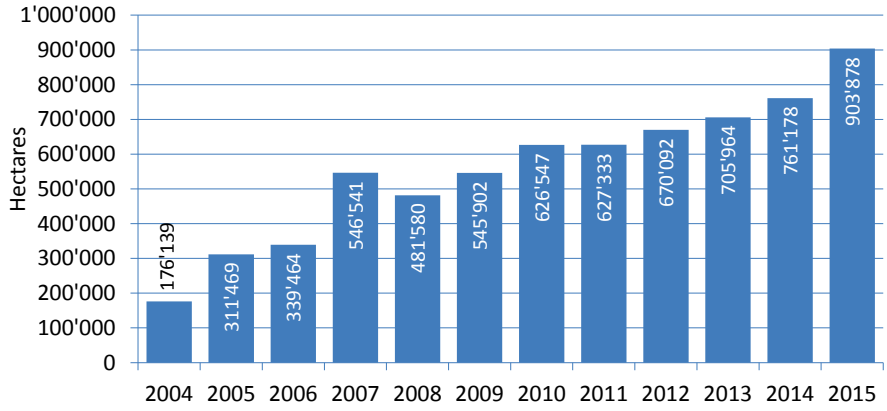

Figure 35: Coffee: Development of the global organic area 2004-2015

Source: FiBL-IFOAM-SOEL surveys 2006-2017; based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

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

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends. FiBL & IFOAM – Organics International (2017): Frick and Bonn, 2017-02-20

Table 29: Coffee: Organic area by country 2015

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Bolivia	11'185	37.3%	9'709	1'476
Cameroon	70	0.03%	70	
Cape Verde	495	-	495	
Colombia	10'495	1.4%	7'973	2'523
Costa Rica	706	0.8%		
Congo, D.R.	28'626	33.7%	22'620	6'006
Dominican Republic	1'774	2.4%		
Ecuador	3'092	5.0%	2'747	345
El Salvador	13'532	9.7%	13'532	
Ethiopia	161'113	31.0%	159'866	1'247
Guatemala	8'425	3.4%	6'925	1'500
Honduras	23'500	8.5%		
Indonesia	82'556	6.7%	82'556	
Jamaica	2	0.03%		2
Kenya	251	0.2%		
Lao, P.D.R.	250	0.4%		
Madagascar	603	0.5%		
Malawi	91	3.5%	49	42
Mexico	280'919	40.1%		
Myanmar	62	0.5%	62	
Nepal	804	45.9%	804	
Nicaragua	12'257	11.3%	10'433	1'824
Panama	953	4.3%	227	
Papua New Guinea	13'314	19.0%	10'820	2'494
Peru	110'070	27.6%		
Rwanda	398	0.9%		
Sao Tome and Principe	245	24.5%	245	
South Africa	15	-	15	
Sri Lanka	52	0.6%	52	
Tanzania	93'539	40.2%	79'270	14'270
Thailand	1'532	3.0%		
Timor-Leste	25'232	45.1%	25'232	
Uganda	17'721	5.7%		
Total	**903'878**	**8.9%**	**433'700**	**31'727**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316
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 2015".[1]

[1] Lernoud, Julia, Jason Potts, Gregory Sampson, Vivek Voora, Helga Willer and Joseph Wozniak (2015): The State of Sustainable Markets – Statistics and Emerging Trends 2015. ITC, Geneva. Available at: http://www.vss.fibl.org/de/vss.html

› Dry pulses[1]

The total area under organic dry pulses is more than 400'000 hectares, which is 0.5 percent of the total area of dry pulses grown in the world (almost 86.5 million hectares in 2013, 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 Nigeria. India (30 million hectares) was by far the largest grower, representing over 35 percent of the global area used to grow dry pulses.

The countries with the largest organic dry pulses areas are France, Spain, Canada, Italy, Germany, and Lithuania. Overall organic shares can be high as dry pulses play an important role in organic farming, particularly in Europe.

The dry pulses area has more than quadrupled from 79'000 to 408'000 hectares since 2004 when data on land use and crops was collected for the first time. However, some of the increase can be attributed to the continually improving availability of crop data. In 2015, the dry pulses area grew - compared to 2014 - by more than 59'000 hectares, or by 19 percent. 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 at least 16 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.

Dry pulses: Development 2004-2015
Source: FiBL-IFOAM-SOEL 2006-2017

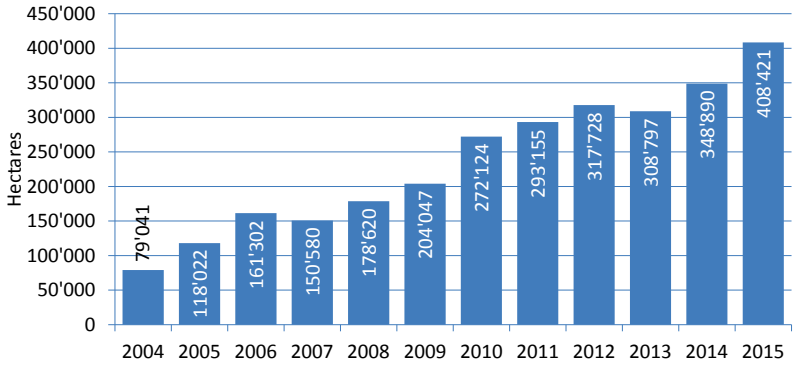

Figure 36: Dry pulses: Development of the global organic area 2004-2015
Source: FiBL-IFOAM-SOEL surveys 2006-2017

[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

Table 30: Dry pulses: Organic area by country 2015

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Argentina	3'083	1.3%	3'083	
Austria	13'516	70.3%		
Azerbaijan	6	0.04%	2	4
Belgium	1'792	-	1'417	375
Benin	0.4	0.0002%		
Bulgaria	1'257	25.3%	292	965
Canada	38'343	1.6%	38'343	
Colombia	1	0.001%	1	
Croatia	36	2.6%	22	14
Czech Republic	2'301	9.6%	2'114	186
Denmark	4'962	49.0%	3'948	1'014
Estonia	4'321	31.8%	3'852	469
Finland	15'036	-	12'289	2'747
France	67'042	30.6%	54'397	12'645
Germany	33'500	42.0%		
Greece	8'442	40.1%	8'011	431
Hungary	1'742	8.3%	1'541	201
Ireland	96	2.1%	79	17
Israel	60	0.7%	60	
Italy	37'379	51.5%	28'971	8'408
Jordan	8	0.8%	8	
Kazakhstan	18'399	21.6%	14'099	4'300
Kenya	15'677	1.0%		
Kyrgyzstan	16	0.02%	15	1
Latvia	5'122	75.7%	3'819	1'304
Lebanon	1	0.03%	1	
Lithuania	32'669	62.8%	23'881	8'788
Luxembourg	94	27.1%	94	
Madagascar	15	0.01%		
Mexico	1'602	0.1%		
Moldova	1'005	5.9%	1'005	
Namibia	36	0.1%	33	3
Netherlands	94	3.3%	74	20
Paraguay	1'977	2.2%		
Peru	3	0.001%	3	
Poland	10'403	4.3%	7'006	3'397
Portugal	748	2.7%	428	320
Republic of Korea	64	0.3%		
Romania	1'834	3.5%	1'418	417
Russian Federation	1'684	0.1%	834	
Senegal	228	0.2%		228
Slovakia	911	16.2%	866	45
Slovenia	48	6.4%	35	13
South Africa	1	0.001%	1	
Spain	39'555	14.3%	29'993	9'562
Sweden	12'909	-	11'101	1'808
Switzerland	658	6.9%		
Turkey	6'594	0.8%	4'732	1'863
Ukraine	19'000	7.5%		
United Kingdom	4'121	1.7%	4'058	63
Zambia	30	0.02%		
Total	**408'421**	**0.5%**	**261'925**	**59'608**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316
Blank cells: No data available.

For some of the countries in this table, the organic dry pulses share was very high and not plausible; the corresponding figures were, therefore, eliminated.

> Fruit: Temperate fruit

The total area under organic temperate fruit production recorded here (over 288'000 hectares), is 2.3 percent of the total area of temperate fruit grown in the world (12.5 million hectares in 2013, according to FAOSTAT).[1]

Of the seven most important temperate fruit growing countries in the world (China, India, Turkey, Serbia, Iran, Russia, and the United States), only five (China, Turkey, Serbia, Russia,[2] and the United States), provided data on the area of organic temperate fruits in 2015. It can, therefore, be assumed that the organic temperate fruit area is higher.

The countries with the largest organic temperate fruit areas are China (119'000 hectares), Poland (30'400 hectares), Germany (23'300 hectares),[3] Italy (18'000 hectares), the United States (almost 18'000 hectares), Turkey (almost 16'000 hectares), and France (over 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 almost tripled. However, some of the increase can be attributed to the continually improving crop data availability.

The key temperate fruits are apples, with one quarter of the temperate fruit area, followed by apricots, plums, cherries, and pears (Table 31). Poland has one-third of the total organic apple area.

The available data on the conversion status indicate that more than 20 percent of the total temperate fruit area is in conversion. If this is indicative, there could be a considerable increase in the supply of organic temperate fruit in the near future.

Table 31: Temperate fruit: Organic area by crop 2015

Main crop	Area [ha]	Organic share [%]
Fruit, temperate, no details	105'633	-
Apples	72'751	1.4%
Apricots	18'201	3.6%
Cherries	12'200	1.9%
Peaches and nectarines, no details	9'838	0.6%
Pears	10'076	0.6%
Plums	12'984	0.5%
Pome fruit, no details	3'941	-
Quinces	61	0.1%
Stone fruit, no details	10'268	-
Fruit, temperate, other	32'547	-
Total	**288'502**	**2.3%**

Source: FiBL survey 2017

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

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

[3] Please note that for Germany, extensive fruit areas were included.

Temperate fruit: Use of organic temperate fruit area 2015
Source: FiBL survey 2017

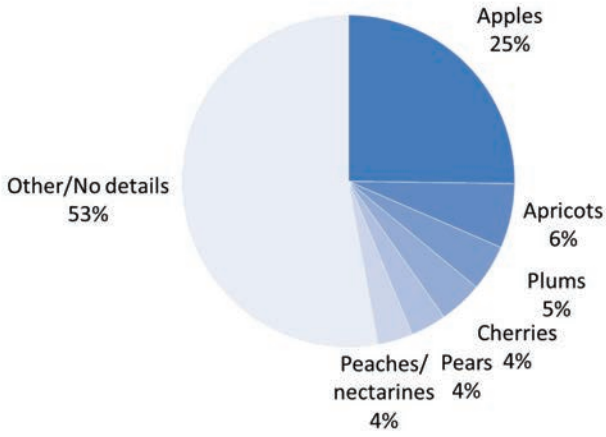

Figure 37: Temperate fruit: Use of organic temperate fruit area 2015
Source: FiBL survey 2017

Temperate Fruit: Development of the global organic area 2004-2015
Source: FiBL-IFOAM-SOEL 2006-2017

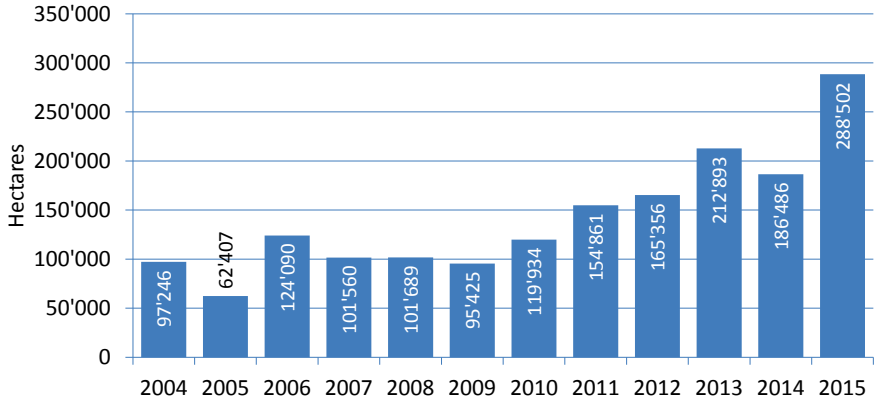

Figure 38: Temperate fruit: Development of the global organic area 2004-2015
Source: FiBL-IFOAM-SOEL surveys 2006-2017

Table 32: Temperate fruit: Organic area by country 2015

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Albania	123	0.8%		
Argentina	3'080	2.5%	3'080	
Austria	2'910	8.9%		
Azerbaijan	754	1.5%	112	642
Belgium	321	1.8%	269	52
Bulgaria	5'283	20.2%	1'504	3'778
Canada	1'290	6.0%	1'290	
Chile	1'389	1.4%	1'389	
China	119'058	1.9%	92'961	26'097
Colombia	1	0.02%		1
Croatia	1'768	9.3%	790	978
Cyprus	108	4.6%	71	37
Czech Republic	4'740	29.3%	4'095	645
Denmark	394	12.8%	343	51
Estonia	494	13.7%	414	81
Finland	57	8.2%	53	4
France	12'516	12.9%	9'890	2'624
Georgia	855	2.7%	855	
Germany	23'316	-		
Greece	533	0.7%	434	99
Hungary	2'299	3.4%	1'226	1'073
Iran	2	0.001%		2
Ireland	47	2.6%	42	4
Israel	65	0.7%	65	
Italy	18'151	7.9%	13'754	4'398
Jordan	26	0.4%	26	
Latvia	805	23.8%	504	301
Lebanon	61	0.2%	43	18
Lesotho	543	-	543	
Liechtenstein	2	-	2	
Lithuania	977	5.2%	840	136
Luxembourg	42	14.0%	39	3
Macedonia, FYROM	208	0.8%	70	139
Mexico	1	0.001%		
Moldova	373	0.4%		48
Netherlands	335	1.9%	327	8
New Zealand	1'000	8.5%		
Norway	190	9.2%	169	20
Oman	4	-		
Palestine, State of	1	0.1%		1
Peru	768	4.2%	692	
Poland	30'401	11.1%	28'505	1'896
Portugal	1'417	3.5%	902	515
Republic of Korea	130	0.2%		
Romania	5'993	4.2%	3'910	2'083
Russian Federation	31	0.01%		31
Serbia	1'692	0.5%	1'108	584
Slovakia	749	8.4%	495	254
Slovenia	171	2.0%	116	56
South Africa	101	0.2%	101	
Spain	4'782	2.3%	3'404	1'378
Sweden	210	11.1%	181	29

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends.
FiBL & IFOAM – Organics International (2017): Frick and Bonn, 2017-02-20

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Switzerland	581	6.6%		
Turkey	15'756	3.9%	5'226	10'530
Ukraine	2'400	1.3%		
United Kingdom	1'342	7.1%	1'326	16
United States of America	17'855	6.2%		
Total	**288'502**	**2.3%**	**181'167**	**58'612**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316
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 (almost 375'000 hectares) is 1.5 percent of the total area of tropical and subtropical fruit grown in the world (24.5 million hectares in 2013, according to FAOSTAT data).[1]

Of the five most important tropical and subtropical fruit growing countries in the world (India, China, Uganda, Brazil, and the Philippines, all with more than one million hectares), only China and the Philippines provided data on the area used for growing organic tropical and subtropical fruit in 2015.

The largest organic growers for which data on the organic area was available were Kenya (88'516 hectares), Mexico (almost 57'000 hectares), Madagascar (almost 47'000 hectares), and the Dominican Republic (30'000 hectares). These countries also report very high organic shares of tropical and subtropical fruit, more than the ten percent of their countries' total for these crops. In the case of Kenya, this is mainly due to a high share of avocados; 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 Kenya (63 percent), Burkina Faso (36.5 percent), and the Dominican Republic (27 percent). By area, the key tropical and subtropical fruits are avocados, bananas, and mangos (Figure 39).

Since 2004, when data on land use and crops was collected for the first time, the tropical fruit area has increased eight-fold (Figure 40). However, some of the increase can be attributed to the continually improving data availability. The strong increase in 2015 is due to more complete data from Kenya and Madagascar.

The available data on the conversion status indicates that at least 6 percent of the total tropical and subtropical fruit area is in conversion. This suggests that a slight increase in the 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 2015".[2]

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

[2] Lernoud, Julia, Jason Potts, Gregory Sampson, Vivek Voora, Helga Willer and Joseph Wozniak (2015): The State of Sustainable Markets – Statistics and Emerging Trends 2015. ITC, Geneva. Available at: http://www.vss.fibl.org/de/vss.html

Table 33: Tropical and subtropical fruit: Organic area by crop 2015

Main crop	Area [ha]	Organic share [%]
Fruit, tropical and subtropical, no details	75'223	-
Avocados	125'488	24.2%
Bananas	62'586	0.6%
Camu camu	140	-
Carobs	392	0.5%
Dates	8'749	0.8%
Figs	15'551	4.3%
Guava	8	-
Kiwis	1'017	0.4%
Litchi	125	-
Mangos	30'307	0.6%
Noni	486	-
Opuntia	15'000	-
Papayas	115	0.02%
Passion fruit	96	-
Persimmons	279	0.03%
Pineapples	5'082	0.5%
Pitaya	281	-
Pomegranate	2'860	-
Fruit, tropical and subtropical, other	30'985	-
Total	**374'769**	**1.5%**

Source: FiBL survey 2017

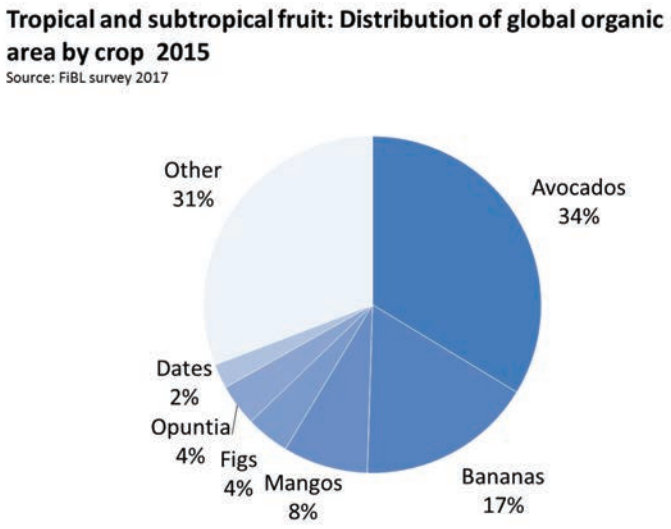

Figure 39: Tropical and subtropical fruit: Distribution of global organic area by crop 2015
Source: FiBL survey 2017

Tropical and subtropical fruit: Development 2004-2015

Source: FiBL-IFOAM-SOEL 2006-2017

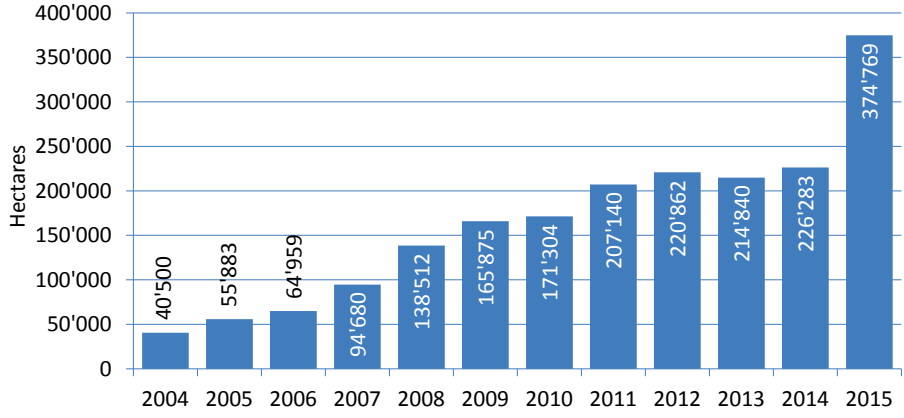

Figure 40: Tropical and subtropical fruit: Development of the global organic area 2004-2015

Source: FiBL-IFOAM-SOEL surveys 2006-2017

Table 34: Tropical and subtropical fruit: Organic area by country 2015

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
Algeria	502	0.2%	496	6
Argentina	161	1.6%	161	
Azerbaijan	495	4.8%	180	315
Bangladesh	10	0.003%		
Benin	3	0.02%		
Bolivia	40	0.1%	38	2
Bulgaria	27	-	7	20
Burkina Faso	8'182	53.6%	8'080	73
Burundi	165	0.1%		
Cambodia	120	0.3%	120	
Cameroon	304	0.1%	304	
Canada	1	20.8%	1	
Chile	522	1.1%	522	
China	129	0.004%		
Colombia	1'746	0.3%	1'723	22
Cook Islands	10	10.8%	10	
Costa Rica	3'447	3.1%		
Côte d'Ivoire	540	0.1%	540	
Croatia	39	4.9%	9	30
Cuba	904	0.7%	904	
Cyprus	7	0.3%	3	4
Dominican Republic	30'110	27.0%		
Ecuador	18'650	5.5%	14'512	4'139
El Salvador	2	0.01%	2	
Fiji	1'060	-	1'060	
France	89	2.1%	43	46
French Guiana (France)	71	4.8%	49	22

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends. FiBL & IFOAM – Organics International (2017): Frick and Bonn, 2017-02-20

Country	Organic area [ha]	Organic share [%]	Area fully converted [ha]	Area under conversion [ha]
French Polynesia	162	34.7%	162	
Ghana	218	0.1%	218	
Greece	776	4.1%	551	225
Grenada	19	1.3%		
Guadeloupe (France)	10	0.3%	7	3
Guatemala	35	0.03%	35	
Guinea-Bissau	120	0.6%	120	
Indonesia	590	0.1%	590	
Iran	2'281	1.2%	1'864	417
Israel	745	2.8%	699	46
Italy	5'136	14.5%	3'739	1'397
Jordan	178	5.3%	174	4
Kenya	88'516	63.4%		
Lebanon	3	0.1%	3	1
Madagascar	46'784	22.1%		
Mali	553	1.1%	530	23
Martinique (France)	135	1.7%	69	66
Mayotte	1	-	1	
Mexico	56'578	11.5%		
Montenegro	3	0.2%		
Morocco	1'049	0.8%	369	680
Mozambique	1	0.001%	1	
New Zealand	600	3.5%		
Niue	52	20.5%	52	
Pakistan	878	0.2%	878	
Peru	7'297	2.6%	1'236	
Philippines	9'910	0.9%	9'909	
Portugal	541	0.5%	247	294
Réunion (France)	186	3.1%	149	37
Rwanda	48	0.01%	48	
Samoa	27'412	-	27'412	
Saudi Arabia	12'884	7.6%	10'057	2'828
Senegal	1'169	5.1%	959	210
Slovenia	20	24.4%	15	5
South Africa	659	1.8%	482	
Spain	2'561	3.2%	1'691	871
Sri Lanka	8'424	9.8%	8'424	
Suriname	39	1.2%	39	
Taiwan	1'206	1.4%	1'206	
Tanzania	1'739	0.2%	1'739	
Thailand	2'282	0.2%		
Togo	369	17.3%	351	1
Tunisia	3'130	3.8%	3'130	
Turkey	17'256	17.5%	7'798	9'457
United Arab Emirates	400	0.8%	400	
Vanuatu	4'481	-	4'481	
Total	**374'769**	**1.5%**	**118'598**	**21'243**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316
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› Grapes

Almost 333'000 hectares of organic grapes are grown, which constitutes 4.7 percent of the world's grape-growing area (7.2 million hectares in 2013, according to FAOSTAT).[1] In Europe, almost 293'000 hectares (7.3 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, for example in Turkey. All of the five most important grape-growing countries in the world (Spain, France, China, Italy, and Turkey) provided data on the area under organic grapes in 2015.

The countries with the largest organic grape areas are Spain, Italy, and France; each with more than 60'000 hectares of organic grapes. 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 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 more than trebled. However, some of the increase can be attributed to the continually improving availability of crop data.

The available data indicate that a large part of the total grape area (at least 24 percent) is in conversion. Thus, a considerable increase in the supply of organic grapes may be expected, particularly from Italy, Spain, and France.

Grapes: Development 2004-2015

Source: FiBL-IFOAM-SOEL 2006-2017

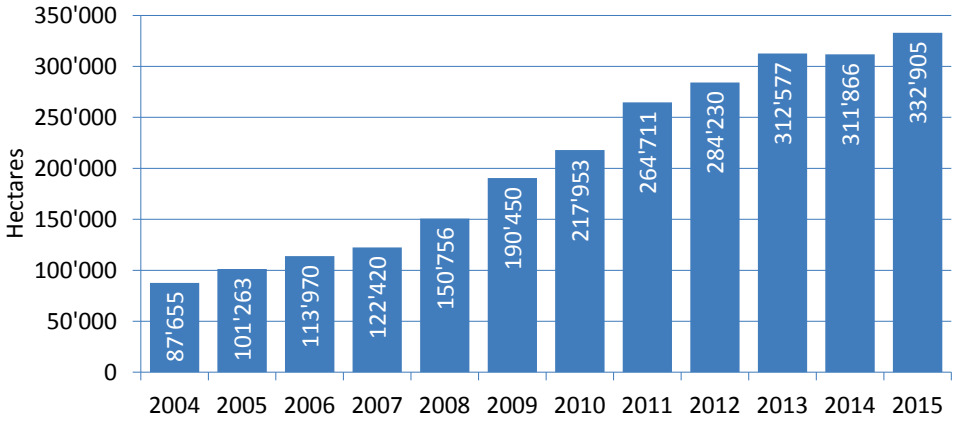

Figure 41: Grapes: Development of the global organic area 2004-2015
Source: FiBL-IFOAM-SOEL surveys 2006-2017

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

Table 35: Grapes: Organic area by country 2015

Country	Organic area [ha]	Organic area [%]	Area fully converted [ha]	Area under conversion [ha]
Albania	14	0.2%		
Algeria	205	0.3%	205	
Andorra	2	-	2	
Argentina	3'484	1.5%	3'484	
Austria	5'100	11.7%		
Azerbaijan	41	0.3%	1	40
Belgium	18	-	12	7
Bulgaria	4'199	8.4%	1'234	2'965
Canada	1'001	8.7%	1'001	
Chile	3'740	1.7%	3'740	
China	14'156	1.9%	11'201	2'956
Croatia	913	3.3%	430	483
Cyprus	242	3.7%	191	51
Czech Republic	1'021	6.5%	848	174
Denmark	24	-	16	8
Estonia	2	-	2	1
France	68'579	9.0%	57'606	10'972
Georgia	130	0.2%	55	75
Germany	8'100	8.1%		
Greece	5'431	5.4%	4'803	628
Hungary	1'325	1.8%	858	467
Iran	1'954	0.9%	1'772	182
Israel	29	0.4%	27	2
Italy	83'643	11.9%	53'901	29'742
Jordan	13	0.3%	13	1
Kazakhstan	20	0.1%	20	
Lebanon	332	3.5%	331	
Liechtenstein	4	-	1	3
Luxembourg	80	6.5%	28	52
Macedonia, FYROM	60	0.3%	10	50
Madagascar	0.3	0.01%		
Malta	10	0.7%	7	3
Moldova	8	0.01%	5	3
Montenegro	3	0.03%		
New Zealand	2'022	5.4%		
Poland	278	-	229	49
Portugal	2'719	1.5%	2'019	700
Republic of Korea	70	0.4%		
Romania	2'160	1.2%	1'299	861
Russian Federation	16	0.03%		16
Serbia	26	0.1%	5	21
Slovakia	118	1.2%	72	45
Slovenia	495	3.1%	272	223
South Africa	1'333	1.1%	1'202	131
Spain	96'591	10.2%	72'530	24'061
Switzerland	626	4.7%		
Turkey	10'645	2.3%	4'259	6'386
Ukraine	210	0.3%		
United Kingdom	91	17.7%	86	5
United States	11'622	2.9%		
Total	**332'905**	**4.7%**	**223'777**	**81'361**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316
Blank cells: Not data

› Oilseeds

More than 1.2 million hectares were used for growing organic oilseeds in 2015. This is approximately 0.6 percent of the world's total harvested oilseed area (more than 216 million hectares according to FAOSTAT).[1]

The main countries in which oilseeds are grown are the United States, India, Brazil, 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, Kazakhstan, Ukraine, the United States, and Romania.

The highest organic shares are in Peru (20 percent, mainly sesame), Togo (15 percent, mainly soybeans), Austria (15 percent, mainly soybeans), Finland (6 percent, rapeseed), and Croatia (almost 6 percent, mainly soy and sunflower seed).

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. The increase in the organic area in 2015 is mainly due to the strong increase in the organic soybean area in China.

Almost fifty percent of the organic oilseed area is for soybeans, and another twenty percent is for sunflower seeds and rapeseed (Figure 43).

The data available for a breakdown of the total fully converted and in conversion area shows that, if the relative figures are indicative of the proportions of the total area, approximately 15 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 2015

Main crop	Area [ha]	Organic share [%]
Oilseeds, no details	65'962	-
Jojoba	554	-
Linseed (oil flax)	40'888	1.8%
Mustard	7'780	1.1%
Oil pumpkin	6'294	-
Peanuts	77'856	0.3%
Poppy seed	97	0.1%
Rape and turnip rape	93'409	0.3%
Sacha inchi	295	-
Safflower	5'956	0.7%
Sesame	68'021	0.7%
Soybeans	604'243	0.5%
Sunflower seed	132'423	0.5%
Oilseeds, other	132'000	-
Total	**1'235'778**	**0.6%**

Source: FiBL survey 2017

[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 2004-2015

Source: FiBL-IFOAM-SOEL 2006-2017

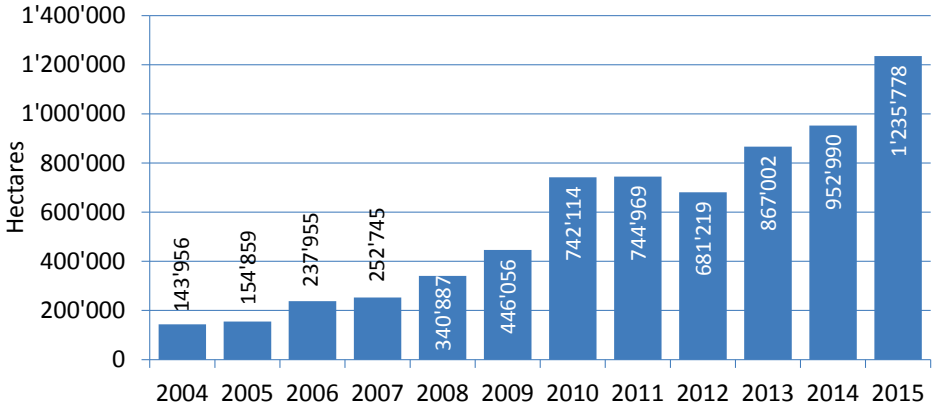

Figure 42: Oilseeds: Development of the global organic area 2004-2015

Source: FiBL-IFOAM-SOEL surveys 2006-2017

Oilseeds: Use of organic oilseeds area 2015

Source: FiBL survey 2017

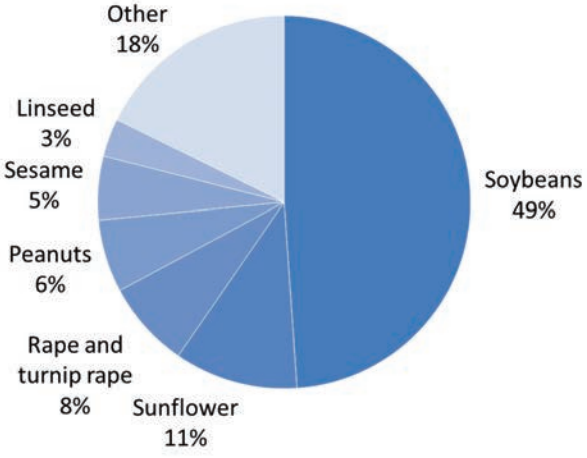

Figure 43: Organic oilseed area: Use of oilseed area 2015

Source: FiBL survey 2017

Table 37: Oilseeds: Organic area by country 2015

Country	Organic area [ha]	Organic area [%]	Area fully converted [ha]	Area under conversion [ha]
Argentina	18'965	0.1%	18'965	
Austria	22'057	15.1%		
Azerbaijan	126	0.7%	50	76
Belgium	68	0.3%	34	35
Benin	278	0.1%	278	
Bolivia	4'038	0.3%	4'038	
Bosnia and Herzegovina	83	1.5%	83	
Bulgaria	9'281	0.9%	1'695	7'585
Burkina Faso	4'067	0.6%	3'861	
Canada	44'309	0.4%	44'309	
China	421'704	2.0%	411'449	10'255
Colombia	0	0.001%		
Côte d'Ivoire	14	0.01%	14	
Croatia	6'290	5.8%	3'140	3'149
Czech Republic	2'056	0.4%	1'619	437
Denmark	1'387	0.8%	1'322	65
Estonia	3'581	4.2%	3'045	536
Ethiopia	24'936	3.1%	24'936	
Finland	3'240	6.1%	2'738	502
France	47'436	2.1%	28'058	19'376
Germany	8'460	0.6%		
Greece	1'881	3.0%	1'804	77
Guatemala	342	0.6%		342
Hungary	7'991	0.9%	6'914	1'077
India	130'000	0.5%		
Iran	1'250	0.3%	550	700
Ireland	42	0.3%	42	
Israel	336	4.3%	336	
Italy	15'404	4.6%	11'980	3'424
Kazakhstan	82'493	4.4%	66'227	16'266
Kenya	715	0.4%		
Kyrgyzstan	40	0.1%	12	28
Latvia	436	0.3%	205	231
Liechtenstein	8	-	8	
Lithuania	8'019	3.0%	4'202	3'816
Luxembourg	4	0.1%	4	
Madagascar	1'104	1.8%		
Mali	9'945	2.5%	9'940	5
Mexico	3'290	0.9%		
Moldova	6'913	2.0%	5'480	92
Namibia	33	3.6%	33	
Nepal	122	0.03%		122
Nicaragua	2'500	4.4%	2'500	
Norway	19	0.6%	1	18
Pakistan	1'504	0.2%	1'504	
Palestine, State of	6	1.1%	5	
Paraguay	11'760	0.4%		
Peru	1'442	20.2%	1'419	
Poland	1'820	0.2%	783	1'037
Portugal	162	0.9%	151	11
Romania	50'612	3.5%	36'158	14'454
Russian Federation	7'214	0.1%	4	7'210

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends.
FiBL & IFOAM – Organics International (2017): Frick and Bonn, 2017-02-20

Country	Organic area [ha]	Organic area [%]	Area fully converted [ha]	Area under conversion [ha]
Senegal	1'312	0.2%	925	387
Serbia	2'598	0.7%	1'382	1'216
Slovakia	2'899	1.1%	2'272	627
Slovenia	393	5.9%	241	152
South Africa	286	0.02%	286	
Spain	12'131	1.3%	6'957	5'175
Sudan	86'000	-	3'000	83'000
Sweden	5'127	4.0%	4'610	517
Switzerland	877	1.7%		
Togo	12'506	15.4%	11'169	1'337
Turkey	3'746	0.5%	2'612	1'133
Uganda	14'633	1.3%	14'633	
Ukraine	66'545	0.9%		
United Kingdom	78	0.01%	72	6
United States of America	56'796	0.2%		
Zambia	70	0.02%		
Total	**1'235'778**	**0.6%**	**748'054**	**184'476**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316
Blank cells: no data.

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 2015".[1]

[1] Lernoud, Julia, Jason Potts, Gregory Sampson, Vivek Voora, Helga Willer and Joseph Wozniak (2015): The State of Sustainable Markets – Statistics and Emerging Trends 2015. ITC, Geneva. Available at: http://www.vss.fibl.org/de/vss.html

› Olives

More than 672'000 hectares of olives were reported to be under organic production in 2015. This represents 6.5 percent of the world's total harvested olive area (10.3 million hectares according to FAOSTAT).[1]

The main countries in which olives are grown are the countries around the Mediterranean. Spain is by far the largest grower with 2.5 million hectares, followed by Tunisia (1.8 million hectares) and Italy (1.1 million hectares). Greece and Morocco, both with 0.9 million hectares, are also important producers. For all these countries, data for the organic area was available. Spain has the largest area of organic olives (more than 197'000 hectares), followed by Italy (almost 180'000 hectares), and Tunisia (over 127'000 hectares). Almost 80 percent of the world's organic olive area is in Europe, followed by northern Africa with 20 percent of the world's organic olive area.

In Italy, the percentage of area under organic production is relatively high (almost 16 percent). In Spain, almost 8 percent of the olive area is organic, and in Tunisia 7 percent. France has the highest organic share with 27.6 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 doubled. 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 total olive area, 24 percent, is in conversion. If this is indicative, an increase in the supply of organic olives may be expected.

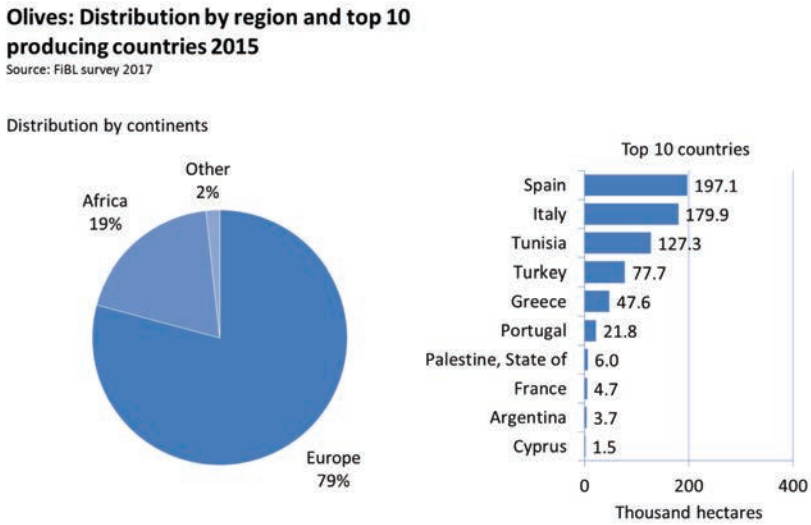

Figure 44: Organic olive area: Distribution by region and top 10 producing countries 2015

Source: FiBL-survey 2017; based on national data sources and certifier data. For detailed data sources see annex, page 316

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

Olives: Development of the global organic area 2004-2015

Source: FiBL-IFOAM-SOEL 2006-2017

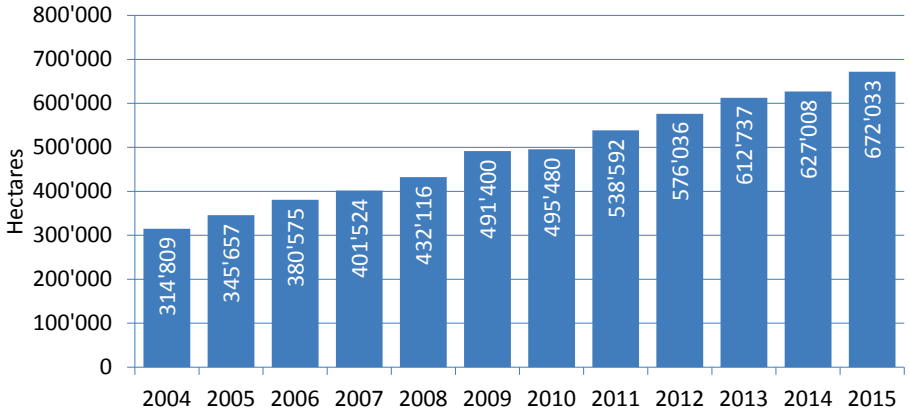

Figure 45: Olives: Development of the global organic area 2004-2015

Source: FiBL-IFOAM-SOEL surveys 2006-2017; based on national data sources and certifier data. For detailed data sources see annex, page 316

Table 38: Olives: Organic area by country 2015

Country	Organic area [ha]	Organic area [%]	Area fully converted [ha]	Area under conversion [ha]
Albania	198	0.4%		
Argentina	3'727	5.9%	3'727	
Azerbaijan	13	0.8%	5	8
Chile	92	0.5%	92	
Croatia	1'334	7.2%	549	785
Cyprus	1'457	14.0%	1'005	452
France	4'746	27.6%	3'755	992
Georgia	70	-		70
Greece	47'605	5.1%	36'803	10'802
Iran	190	0.9%	100	90
Israel	557	1.6%	503	54
Italy	179'886	15.7%	134'255	45'632
Jordan	683	1.1%	666	17
Lebanon	249	0.5%	212	37
Macedonia, FYROM	1	0.02%	1	
Malta	9	-	9	
Montenegro	2	0.1%		
Morocco	1'035	0.1%	1'035	
Palestine, State of	5'977	11.7%	5'328	649
Peru	95	0.6%	89	
Portugal	21'765	6.3%	14'795	6'970
Slovenia	214	23.8%	150	64
South Africa	12	-	12	
Spain	197'136	7.9%	149'591	47'544
Tunisia	127'250	7.0%	127'250	
Turkey	77'731	9.4%	29'149	48'581
Total	**672'033**	**6.5%**	**509'081**	**162'747**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316
Blank cells: No data available.

› Vegetables

The total area under organic vegetable production (almost 354'000 hectares) is 0.6 percent of the total area of vegetables grown in the world (58 million hectares in 2013, according to FAOSTAT).[1]

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

The countries with the largest organic vegetable areas are the United States, China, Poland, and Italy (each with areas over 20'000 hectares). The United States reported over 100'000 hectares of organic vegetables.

The highest organic shares of the total vegetable areas are in Denmark, Austria, Poland, Switzerland, and Germany. These are also the countries in Europe that, with the exception of Poland, have the largest organic market shares for organic food. Furthermore, Canada and the United States reported high 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 has more trebled from 105'000 hectares to the current 354'000 hectares. However, part of the increase can be attributed to the continually improving availability of crop data.

A breakdown into individual vegetable groups is available for only half of the organic vegetable area. A large part (72'000 hectares) is for pulses (fresh beans and peas), followed by fruit vegetables, and leafy and stalked vegetables (salads). The data available for a breakdown of the fully converted and in conversion area shows that more than three-quarters of the total organic vegetable area is fully converted. If the relative figures are indicative of the proportions of the total area, we can conclude that about 10 percent of the area is in conversion.

Vegetables: Development 2004-2015

Source: FiBL-IFOAM-SOEL 2006-2017

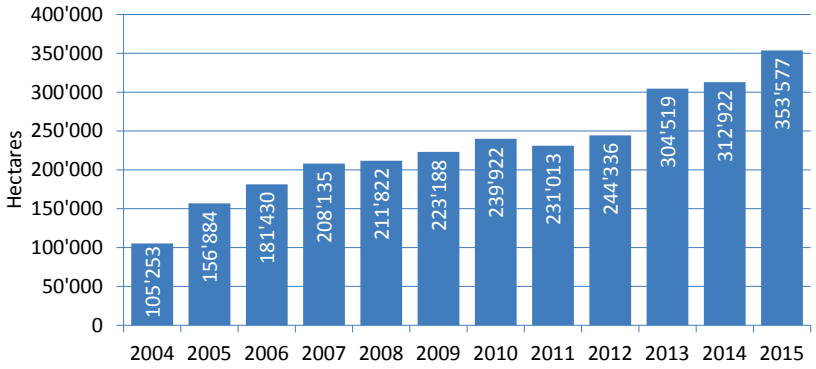

Figure 46: Vegetables: Development of the global organic area 2004-2015

Source: FiBL-IFOAM-SOEL surveys 2006-2017

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

Table 39: Vegetables: Organic area by country 2015

Country	Organic area [ha]	Organic area [%]	Area fully converted [ha]	Area under conversion [ha]
Albania	3	0.01%		
Argentina	1'930	1.1%	1'930	
Austria	3'050	23.0%		
Azerbaijan	213	0.2%	55	158
Bangladesh	157	0.03%		
Belgium	1'211	1.9%	1'013	198
Benin	4	0.01%		
Bhutan	140	1.3%	140	
Bosnia and Herzegovina	6	0.005%	3	3
Bulgaria	1'605	6.1%	757	852
Burkina Faso	4	0.01%		
Cambodia	79	0.1%	46	33
Canada	14'488	22.5%	14'488	
Chile	1'155	2.3%	1'155	
China	45'324	0.2%	38'086	7'238
Colombia	22	0.02%	19	4
Costa Rica	352	2.5%		
Croatia	337	3.6%	192	145
Cyprus	37	1.3%	27	10
Czech Republic	226	1.8%	160	67
Denmark	2'596	32.6%	2'557	39
Ecuador	759	0.4%	746	13
Estonia	90	3.6%	77	12
Finland	229	0.4%	197	32
France	16'820	7.5%	15'702	1'118
French Guiana (France)	18	1.6%	16	2
Georgia	8	0.04%	8	
Germany	10'914	9.3%		
Greece	1'719	1.9%	1'434	284
Guadeloupe (France)	7	0.2%	6	1
Guatemala	565	0.6%	485	80
Hungary	1'628	3.7%	1'326	302
Iceland	12	-		
Indonesia	457	0.1%	457	
Iran	89	0.01%	89	
Iraq	48	0.02%		
Ireland	225	4.1%	207	18
Israel	1'236	2.1%	1'204	32
Italy	29'363	5.9%	22'859	6'504
Jamaica	57	0.3%	56	
Japan	1'170	0.3%	1'170	
Kenya	4'786	2.9%		
Kyrgyzstan	66	0.1%	41	24
Lao, P.D.R.	205	0.1%		
Latvia	268	3.6%	212	58
Lebanon	111	0.3%	107	4
Liechtenstein	14	-	14	
Lithuania	256	2.3%	154	101
Luxembourg	38	-	38	
Macedonia, FYROM	86	0.2%	42	44
Madagascar	66	0.1%		
Malta	5	0.1%	5	

Country	Organic area [ha]	Organic area [%]	Area fully converted [ha]	Area under conversion [ha]
Martinique (France)	25	1.1%	25	
Mauritius	1	0.03%	1	
Mexico	11'849	1.9%		
Moldova	473	1.2%	457	3
Morocco	580	0.3%	530	50
Mozambique	0	0.0005%	0	
Namibia	114	1.8%	103	11
Netherlands	6'231	7.9%	6'185	46
Nicaragua	1	0.01%	1	
Norway	435	8.4%	406	28
Oman	16	0.1%		
Palestine, State of	1	0.01%	1	
Panama	209	1.6%	20	
Paraguay	0	0.0005%		
Peru	1'001	0.5%	45	
Philippines	6	0.001%	6	
Poland	40'564	30.2%	31'330	9'235
Portugal	1'445	1.6%	1'136	309
Republic of Korea	310	0.1%		
Réunion (France)	126	1.7%	117	9
Romania	1'189	0.4%	695	494
Russian Federation	96	0.01%	87	5
Saudi Arabia	1'214	1.3%	257	957
Senegal	168	0.4%	43	125
Serbia	156	0.1%	113	43
Slovakia	308	1.5%	212	97
Slovenia	271	5.6%	219	51
South Africa	945	0.8%	945	
Spain	13'423	4.0%	9'997	3'425
Sri Lanka	1	0.001%	1	
Sweden	1'784	7.5%	1'691	93
Switzerland	2'285	8.9%		
Taiwan	2'439	1.8%	2'439	
Thailand	506	0.1%		
Tunisia	445	0.3%	445	
Turkey	3'281	0.3%	1'733	1'549
Ukraine	8'105	1.5%		
United Kingdom	7'180	5.7%	6'965	215
United States of America	101'462	12.8%		
Viet Nam	151	0.02%		
Zambia	525	1.0%	225	300
Total	**353'577**	**0.6%**	**173'711**	**34'488**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends.
FiBL & IFOAM – Organics International (2017): Frick and Bonn, 2017-02-20

Organic Cotton[1]

LIESL TRUSCOTT,[2] EVONNE TAN,[3] LISA EMBERSON[4] AND AMISH GOSAI[5]

In the 2014/15[6] growing season, 112'488 metric tons of organic cotton fibre were produced globally by 193'840 farmers on 350'033 hectares of land.[7]

There are currently 19 countries producing certified organic cotton, but 92 percent of the global supply comes from just five countries. India remains by far the largest producer, accounting for two-thirds of total production, followed by China, Turkey, Kyrgyzstan, and the United States of America.

Trends

Following a rise in organic cotton production between 2012/13 and 2013/14 of 10 percent, 2014/15 saw a small downturn in production of 3.8 percent. This is understood to be the result of a combination of factors, particularly the reaction of farmers, especially in India, to the constantly depressed prices for cotton and, in contrast, a healthier market for organic food, spices, flowers, and pharmaceutical extracts. There were also decreases in production in East Africa and Latin America due to poor rainfall and drought and in Turkey as a result of political instability in the southeast, alongside continuing unfavourable market conditions and competition from Asian imports.

However, the future looks brighter for 2017/18, when a number of conversion programs in India will come online. In 2014/15, there were 85'671 hectares of land in conversion to organic globally, which will reach certification over the next few years.

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[1] This article is a condensed version of the Organic Cotton Market Report 2016 produced by Liesl Truscott, Evonne Tan, Lisa Emberson and Amish Gosai, with production data collected by: Atila Ertem, Regional Ambassador for Turkey, Textile Exchange, Izmir, Turkey; Silvere Tovignan, Regional Ambassador for Africa, Textile Exchange, Abomey-Calavi, Benin; Allen You, Regional Ambassador for China, Textile Exchange, Beijing, China; Silvio Moraes, Regional Ambassador for Latin America, Textile Exchange, Porto Alegre, Brazil; Amish Gosai, Country Program Manager for India, Textile Exchange, Bangalore, India.
More information about Textile Exchange's Organic Cotton Market Report 2016 is available here: www.textileexchange.org/publications
More information about Textile Exchange is available here: www.textileexchange.org.uk
More information about organic cotton is available here: www.aboutorganiccotton.org

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[5] Amish Gosai, Country Program Manager for India, Textile Exchange, Bangalore, India

[6] The International Cotton Advisory Council (ICAC) set the cotton-growing year from August 1 to July 31.

[7] 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 report 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.

Figure 47 illustrates the trend in organic cotton production over the previous ten years. Between 2004/05 and 2009/10, growth in production was nine-fold as interest in more sustainable textile production started to accelerate. However, in 2010/11, in connection with the financial crisis, production fell significantly and continued to fall gradually until a small peak in 2013/14. There are many factors attributing to the no-growth/low growth scenario that organic cotton is experiencing, but the primary causes are thought to be the difficulty of finding good quality non-GMO seed, the continued complexities of supply chain management, volatile and uncertain cotton prices and trade restrictions, and the shift towards new sustainable cotton initiatives that offer a lower entry point. There are, however, a number of great initiatives that are working to find solutions to overcome these barriers and help to grow the organic cotton sector. Examples include the Organic Cotton Round Table, the Organic Cotton Accelerator, and the Chetna Coalition.

Organic cotton fibre lint: Production trend since 2004/05

Source: Textile Exchange 2015

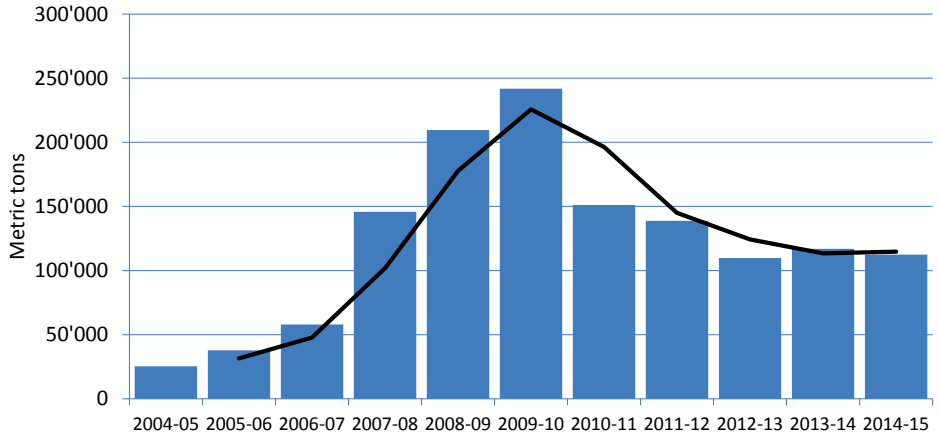

Figure 47: Organic cotton fibre lint: Production trend since 2004/05

Source: Textile Exchange Organic Cotton Market Report 2016

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends. FiBL & IFOAM – Organics International (2017): Frick and Bonn, 2017-02-20

Table 40: Organic cotton producers, area and production volume 2014/2015

Country	No of farmers	Land area [ha]	Production seed cotton [MT]	Production fibre lint [MT]	Share of organic fibre lint production [%]
Benin	2'682	2'065	936	377	0.34%
Burkina Faso	8'382	4'928	2'668	1'067	0.95%
Ethiopia	(no data)	11'000	308	145	0.13%
Madagascar	12	27	12	5	0.004%
Mali	2'057	2'691	1'537	526	0.47%
Senegal	258	92	33	13	0.01%
Tanzania	4'214	16'816	5'691	2'146	1.91%
Uganda	12'500	6'187	1'750	795	0.71%
Africa total	*30'105*	*43'805*	*12'935*	*5'074*	*4.51%*
Kyrgyzstan	711	5'136	16'287	5'543	4.93%
Tajikistan	1'200	3'800	4'000	1'000	0.89%
Central Asia total	*1'911*	*8'936*	*20'287*	*6'543*	*5.82%*
China total	2'862	6'742	30'394	13'145	11.69%
Brazil	112	160	66	22	0.02%
Columbia	4	18	2	1	0.001%
Peru	221	661	1'470	553	0.49%
Latin America total	*337*	*839*	*1'538*	*576*	*0.51%*
Egypt	570	1'222	5'513	2'150	1.91%
Israel	1	100	44	14	0.01%
MENA total	*571*	*1'322*	*5'557*	*2'164*	*1.92%*
India total	157'721	276'736	212'692	75'251	66.90%
Turkey total	295	3'718	18'348	7'304	6.49%
USA total	38	7'936	6'948	2'432	2.16%
Global total	**193'840**	**350'033**	**308'699**	**112'488**	**100%**

Source: Textile Exchange Organic Cotton Market Report 2016

Geography of production

As evident in Table 40, the top five organic cotton-producing countries account for 92.16 percent of global production and include India (66.90 percent), China (11.69 percent), Turkey (6.49 percent), Kyrgyzstan (4.93 percent), and the United States (2.16 percent). The remaining 7.84 percent is produced by Egypt (1.91 percent), Tanzania (1.91 percent), Burkina Faso (0.95 percent), Tajikistan (0.89 percent), Uganda (0.71 percent), Peru (0.49 percent), Mali (0.47 percent), Benin (0.34 percent), Ethiopia (0.13 percent), Brazil (0.02 percent), Israel (0.01 percent), Senegal (0.01 percent), Madagascar (0.004 percent), and Colombia (0.001 percent).

Africa

The eight organic cotton-producing countries of Africa produced a combined total of 5'074 metric tons of organic cotton in 2014/15, a decrease of 14 percent from the previous year. This is largely a result of very poor rains in Tanzania, the largest organic cotton producing country on the continent and (entirely rain fed), which caused a 43 percent drop in the country's production. In total, there were 30'105 certified farmers

(20 percent of whom were women) active in producing organic cotton on 43'805 hectares of land.

Ethiopia joined the existing line-up of organic cotton producers in East Africa with a new project in the Omo Valley reaching certification.

Central Asia

Production of organic cotton in Central Asia currently takes place in two countries: Kyrgyzstan and Tajikistan. In 2014/15, Kyrgyzstan produced 5'543 metric tons of organic cotton whilst Tajikistan produced 1'000 metric tons.

It is important to note that the significant increase in the production figure reported for Kyrgyzstan for 2014/15 is due to improved data collection and disclosure, rather than a large expansion in production. The Akasya Tarim organic producers certified by Control Union, based in Osh and Jalal-Abad, have been growing organic cotton for 4-5 years on around 4'400 hectares of land, but this is the first year that Textile Exchange is reporting on their production.

In Tajikistan, the sharp (459 percent) increase in production does reflect an expansion and is the result of large areas of the cooperative Bio-Kishovarz's in-conversion cotton becoming fully certified in 2014/15.

China

Organic cotton production in China increased seven percent in 2014/15, to 13'145 metric tons, along with a 13 percent increase in land area. The slight disparity in the rates of these increases is thought to be due not to a decrease in yield but to the fact that farmers are increasingly diversifying the portfolio of crops that they grow, a trend also seen in India, and which has many environmental and socio-economic benefits.

India

India is by far the largest producer of organic cotton globally, accounting for two-thirds of total production (66.9 percent). Despite an increase in both land area and number of farmers in 2014/15, production volumes of organic cotton actually declined by 13.4 percent, from 86'853 to 75'251 metric tons of fibre. This was largely due to the trend of farmers - both organic and conventional - moving away from cotton and introducing a higher proportion of grains, vegetables, and flowers, which offer higher returns, into their production systems, with flowers for wet markets and pharmaceuticals becoming increasingly lucrative for organic farmers.

However, based on current in-conversion data, we can see that there is significant investment in organic cotton production taking place, which will likely result in growth in the country's total production over the next few years.

Latin America

Large parts of Latin America suffered severe drought in the 2014/15 season, which severely impacted the region's organic cotton production. Paraguay, Nicaragua, and some producer groups in Peru experienced a complete loss of harvest. In Peru, the region´s largest organic cotton producer, 221 farmers managed to successfully harvest their organic cotton, resulting in the production of 553 metric tons of fibre on 661

hectares of land. In Brazil, which accounts for a much smaller share of the region's overall production, the total land area under organic cotton had actually increased 142 percent to 160 hectares, but the drought severely affected yields, meaning that production increased at a much slower rate of 39 percent, totalling 22 metric tons.

In Colombia, a pilot project in the Tolima state planted 18 hectares with organic cotton but, due to a number of setbacks, only harvested 0.8 metric tons.

Middle East and North Africa

It is important to note that the sharp increase in Egypt's total fibre production in 2014/15, from 459 to 2'150 metric tons, is in part due to improved data collection and disclosure and does not reflect an equally sharp increase in production. Having said that, a new initiative is being piloted near Damietta, and SEKEM, Egypt's long-standing organic cotton producer that is growing to biodynamic standards, experienced a 34 percent rise in production.

In Israel, there is only one organic cotton farmer, who grows extra-long staple Pima cotton and, in 2014/15, harvested 14 metric tons.

Turkey

In recent years, particularly in 2014/15, political and socioeconomic volatility in the southeast of the region has severely affected daily activities, including agricultural production. As a result, the upward growth trend in organic cotton production that began in 2013/14 and was expected to continue, was not realized. Over the last couple of years, there has been a geographic shift in production from the more politically unsettled Southeast Anatolia to the Aegean region, the latter of which actually saw a 25 percent growth in production in 2014/15 and now accounts for 45 percent of the national production.

However, nationally, the total land area planted with organic cotton dropped 10 percent in 2014/15, and total production dropped eight percent, totalling 7'304 metric tons. Alongside political influences, another key factor affecting production is price, which continues to be driven down by competition from Asian imports.

Despite this, the size and strength of the Turkish economy, in addition to its deep-rooted and dynamic textile industry, continue to drive cotton production. Coupled with the Ministry of Food, Agriculture and Livestock's firm stance against GMO-based agriculture, organic cotton production maintains and looks set to continue its importance in Turkey.

USA

Despite Texas experiencing its fourth year of drought in 2014/15, late May and early June rains led to a 12 percent increase in production for the Texas Organic Cotton Marketing Cooperative (TOCMC), which accounts for 91 percent of the USA's total organic cotton production. TOCMC expects to see an even larger increase in 2015/16, as an additional 415 hectares of in-conversion cotton reach certification. However, production in the other organic cotton producing states declined by 51 percent, meaning that overall, the United States saw only a one percent increase in its total organic cotton production. No production data was reported from Arizona and California in 2014/15,

meaning that New Mexico was the only state, other than Texas, that reported any organic cotton production that year.

Market value

The organic cotton sector has experienced years of steady growth, as more brands and retailers enter the sector or expand their organic cotton collections. In 2014/15, the value of the organic cotton market remained stable at an estimated 15.76 billion US dollars.

For brands, organic cotton represents a strong, clearly understood, and well-established mark of sustainability, whose popularity as spread from the organic food, health, and beauty sectors to fibres and textiles. This trend is also now emerging in newer growth economies, such as India and China.

Voluntary organic supply chain standards

Organic cotton is subject to the national laws governing organic production, including the European Union Organic Regulation 834/2007 in Europe, 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. GOTS covers the processing, manufacturing, packaging, labelling, trading and distribution of all textiles made from at least 70 percent certified organic natural fibres. OCS relies on third-party certification to verify that a final product contains the accurate amount of a given organically grown material.

In 2014/15, GOTS experienced a slight increase in its number of certified facilities, from 3'663 to 3'814, whilst OCS experienced a minor decrease, from 3'170 to 3'126 (though this follows a significant growth the previous year of 26 percent). GOTS currently has certification units in 68 countries and OCS in 48 countries.

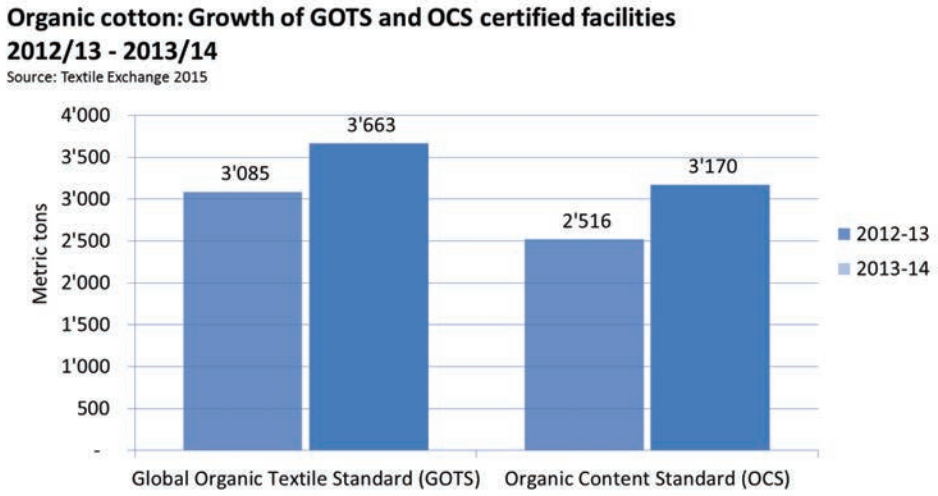

Figure 48: Growth of GOTS and OCS certified facilities 2012/13 - 2014/15
Source: Textile Exchange Organic Cotton Market Report 2016

Challenges and opportunities for organic cotton

Challenges and opportunities for organic cotton include:

- Building supply through the development and implementation of responsible business models that share risk and reward through the supply network and that enable farmers to prosper.
- Going "beyond certification" and protecting integrity in the long-term through: deeper interrogation of the root causes of non-compliance; investment and availability of good quality, non-GMO seed suitable for organic conditions; and ensuring that all organic cotton products are segregated and tracked through the textile processing stages so that integrity is preserved.
- Full cost-benefit accounting - while organic agriculture results in significant environmental benefits, such as clean water, improved soil fertility, and protection of biodiversity, there is work to be done in the marketplace to better reward organic farmers, as well as to acknowledge the costs of environmental harm caused by chemical agriculture.

Reference and further reading

Textile Exchange (2016): Organic Cotton Market Report 2016. Textile Exchange, Lubbock. Available at http://www.textileexchange.org/resource-center/

Lernoud, Julia, Jason Potts, Gregory Sampson, Vivek Voora, Helga Willer and Joseph Wozniak (2015): The State of Sustainable Markets – Statistics and Emerging Trends 2015. ITC, Geneva

Global Market

The Global Market for Organic Food & Drink[1,2]

AMARJIT SAHOTA[3]

Introduction

Global sales of organic food and drink expanded by about 10 percent to 81.6 billion in 2015. The highest growth was observed in North America, which now accounts for over half of international sales.

Although organic farming is practiced in 179 countries, two regions generate the bulk of sales: Europe and North America. However, their global share of organic food sales is decreasing slightly as regional markets take root in Asia, Latin America, and Africa.

North America

North America has the largest market for organic food and drink in the world. Valued at 43.3 billion US dollars, the market accounts for 53 percent of global sales.

The largest market for organic foods is in the United States where the market share of total food sales is almost 5 percent. Fresh produce is the largest category. Over 10 percent of all fruit and vegetable sales in the United States are organic products. Organic dairy is the second largest category, with milk and yoghurt the most popular products.

Organic food supply is not keeping pace with demand, with imports coming into the United States from almost every continent. Apart from organic fruits and vegetables, significant levels of organic ingredients are imported; they include grains, oilseeds, herbs, spices, and sugar.

Exports of organic foods are also rising from the United States and Canada. Both countries have entered a number of trade arrangements to facilitate international trade. The United States government has entered organic equivalency agreements with the European Union, Switzerland, Taiwan, Japan, and South Korea.

Organic foods are established in mainstream retailers in North America, with large food retailers now generating most sales. All major supermarkets are offering organic foods under their private labels. O Organics (Safeway) and PC Organics (Loblaws) are the leading private labels for organic foods in the United States and Canada, respectively.

Investment continues to pour into the organic food industry. Whitewave Foods, the largest organic food enterprise in North America, was acquired by the French

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[1] This chapter has been prepared by ongoing research by Organic Monitor on the "The Global Market for Organic Food & Drink". No part of this chapter maybe reproduced or used in other commercial publications without written consent from Organic Monitor. To request permission, write to:
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[2] Please note that due to differences in the methodology some of the figures presented in this chapter differ from those collected in the framework of the FiBL survey (page 69).

[3] Amarjit Sahota is the president of Organic Monitor, a specialist research, consulting & training firm that focuses on global sustainable product industries. More details are on www.organicmonitor.com

multinational Danone for 12.5 billion US dollars in July 2016. Whitewave Foods owns several organic food brands, such as Silk, Earthbound Farm, Provamel, Alpro, So Delicious, and Wallaby Organic. Annie's, another leading organic food company, was purchased by General Mills in 2014.

Europe

The European market for organic food and drink expanded by more than ten percent to 31.1 billion US dollars in 2015. (Note, the market size is smaller in US dollars compared to 2014 because of the depreciation of the Euro in the foreign exchange.)

Germany has the largest market, valued at 9.5 billion US dollars. The French market is the next largest, followed by the UK, Italian, and Swiss markets. These five country markets generate three-quarters of the European sales. Other important markets for organic products are in Austria, Sweden, Denmark, Spain, and the Netherlands. The biggest consumers of organic foods, as will be shown later in this book, are Scandinavian and Alpine countries. The highest market share is in Denmark, where organic foods comprise 8.4 percent of the total food sales.

As in North America, most organic food sales are now from mainstream retailers. All leading supermarkets are offering organic foods under their private labels. In Germany (the largest country market), supermarkets, drugstores, discounters, and organic food shops have developed private label ranges.

The network of organic food shops continues to expand. Most chained outlets are in Germany, France, and Italy. The organic food company Dennree operates over 200 Denn's Bio organic supermarkets in Germany and Austria. The Biocoop chain has almost 390 organic food shops in France, whilst there are over 300 Collobora B'io stores in Italy. Some large conventional supermarkets are also opening organic supermarkets; for instance, Rewe (with its Temma chain) and Auchan (with its Coeur de Nature store).

Mergers and acquisitions are also continuing in the European organic food industry. Royal Wessanen, one of the largest organic food enterprises, continues to acquire brands. In 2016, it purchased Piramide Tea, Mrs Crimble's, and IneoBio. It is one of the few companies with a pan-European presence, with a portfolio of brands that include Bjorg, Kallø Foods, Clipper, Allos, Isola Bio, Whole Earth, Tartex, and Alter Eco.

Central and Eastern Europe (CEE) has a small but growing market for organic products. Important consumer markets are in the Czech Republic, Poland, and Hungary. In general, this region is a significant producer and exporter of organic primary crops like cereals and grains. Such organic crops are exported to Western Europe, whilst finished organic goods are mainly imported in from the same region.

Other regions

Organic food sales in Asia, Australasia, and other regions amounted to about 7.2 billion US dollars in 2015.

Asia's share of organic food sales continues to rise. China has the largest market in the region. The country is experiencing a shift, with production moving from an export focus to domestic orientation. Initially, the country was a large grower of organic commodities, such as oilseeds, herbs, and related ingredients. Many organic processed foods and beverages are now produced in the country. Japan, South Korea, and Taiwan also have sizeable markets for organic products.

The spate of food scares in Asia has been a major driver of organic food sales. China has a large market 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. The biggest food scandal was in 2008 when the industrial chemical melamine was discovered in infant formula and dairy products. Sales of organic infant formula and organic baby food products have soared in China since then.

Brazil has the largest market for organic products in Latin America. The Brazilian market is showing sluggish growth in recent years because of the political and economic crises. Other Latin American countries, such as Argentina, Peru, Chile, and Colombia, have largely export-oriented organic food markets.

Australia has a large and growing market for organic products. Distribution of organic foods in supermarkets and major food retailers is increasing. Producers in Australia and New Zealand have a high export focus, with many targeting Asian countries.

The Middle East has a small but growing market for organic foods. Most demand is concentrated in the big cities, such as Dubai, Abu Dhabi, Cairo, and Riyadh.

Challenges and growth outlook

Organic food and drink sales have increased from roughly 18 billion US dollars to almost 82 billion US dollars over 15 years. Healthy growth is expected to continue, however there are challenges on the horizon. Some of these challenges involve consumers.

Demand concentration is the first challenge. With 179 countries involved in producing organic crops, production has become global. However, over 90 percent of organic food, and drink sales are from North America and Europe. In many parts of Africa, Asia, and Latin America, organic foods are produced exclusively for export markets. Even in Australia and New Zealand, many organic food producers have a high export orientation. There needs to be more regional – if not local – markets for organic products for the industry to more sustainable.

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends.
FiBL & IFOAM – Organics International (2017): Frick and Bonn, 2017-02-20

In Europe and North America, various studies show that a small consumer base is responsible for most organic food purchases. Figure 49 shows that although 89 percent of French consumers buy organic foods, only 37 percent of this segment purchases them on a frequent basis (weekly or daily). The majority of organic foods is bought on an irregular basis. More consumers need to buy organic products on a regular basis if the market is to become mainstream.

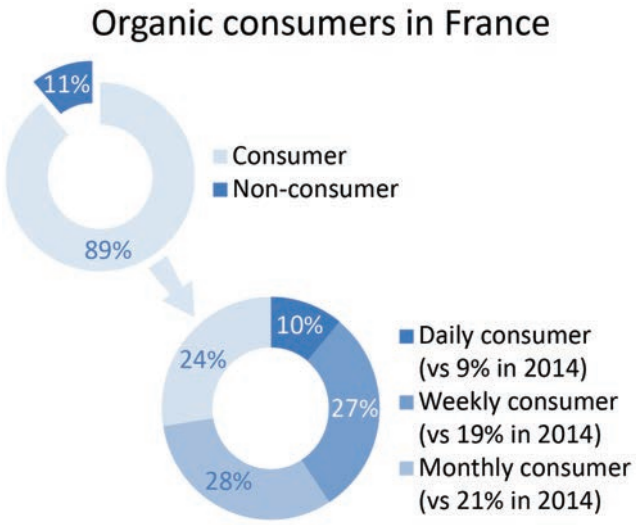

Figure 49: Frequency of organic food purchases in France
Source: Agence Bio

Consumer behaviour varies between regions and between countries. In many countries, personal health (or concerns about health) is the major driver of organic food purchases. For instance, 63 percent of French consumers buy organic foods because of personal health reasons (Agence Bio). Statista research found that a key reason why German consumers buy organic foods is because they create less pollution (environmental concerns). Concern for animal welfare is a major driver of organic meat and dairy product purchases in Denmark, whilst avoiding genetically modified organisms is the primary factor for some American consumers. Although positive that organic foods are meeting the diverse needs of these consumers, this raises marketing questions: how should organic foods be marketed? Or rather, what values should organic foods represent?

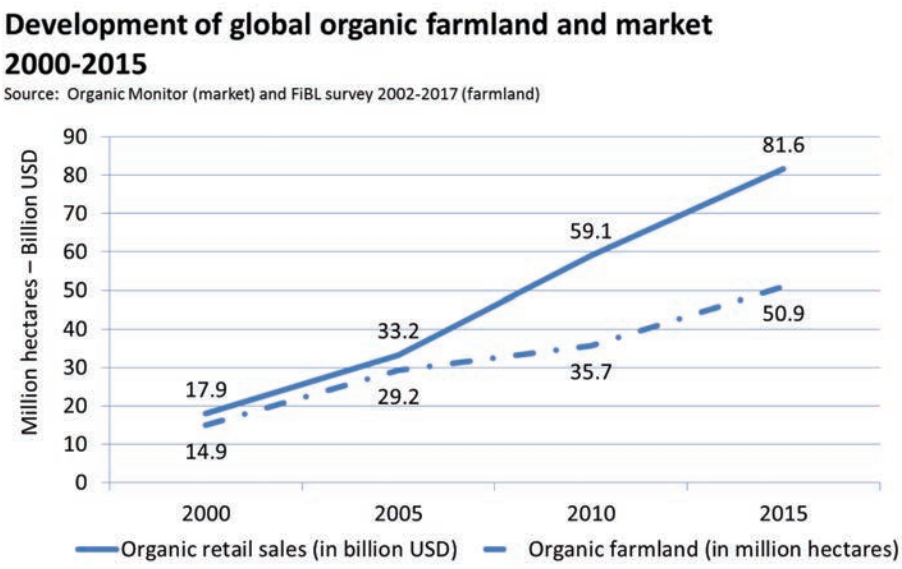

Figure 50: Growth in organic food and drink sales and farmland, 2000-2015

Source: The global Market for organic Food and Drink (Organic Monitor) and The World of Organic Agriculture (FiBL). Note: All figures are rounded

There are also growing concerns about supply. Organic food sales have grown exponentially over the last 15-20 years, however supply is not keeping pace with demand. The amount of international organic farmland has increased from 14.9 million hectares to 50.9 million hectares between 2000 and 2015 a rise of 240 percent. Over these 15 years, global organic food and drink sales have expanded by 356 percent. The difference is most marked in North America where the amount of organic farmland has only increased from 1 million hectares to 2.9 million hectares over 15 years. In comparison, organic food and drink sales have expanded almost five-fold from 9.1 billion US dollars to 43.3 billion US dollars. With the growth in organic farmland slowing in parts of Europe and North America, there are concerns about supply shortfalls (Figure 50).

Looking forward, positive growth in the organic products market is expected to continue in the coming years. However, the magnitude of growth will be influenced by political and economic factors. Macro factors such as political shocks and/or economic repercussions could dampen market growth rates.

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends.
FiBL & IFOAM – Organics International (2017): Frick and Bonn, 2017-02-20

The Organic and Fairtrade Market 2015[1]

Julia Lernoud[2] and Helga Willer[3]

In this chapter, an overview of the global organic and Fairtrade market is presented. The data shown here were taken from the Fairtrade International Annual Report (Fairtrade International 2016) and the annual FiBL survey on organic agriculture (page 69).

Since 2000, when the global market for organic food was at approximately 16.5 billion euros (for more information on the organic market, see article from Amarjit Sahota, page 138), it has more than quadrupled, reaching almost 76 billion euros in 2015, reflecting a major increase in the demand for organic products in just 15 years. According to Fairtrade International, global Fairtrade sales reached 7.3 billion euros 2015.

About 90 percent of the sales of organic and Fairtrade products are in Europe and North America. North America is the largest organic market, with over 50 percent of the global organic market, while Europe represents almost 80 percent of Fairtrade retail sales.

Data on total organic retail sales value is available for more than 50 countries, most of these developed countries, which means that for many countries with organic farming activities (179 in 2015), such data is missing. For Fairtrade, retail sales data is available for 32 countries, most of them in Europe

When analyzing retail sales data of organic and Fairtrade products, it is important to take into account that the variety of Fairtrade products is smaller than that of organic products. Currently, consumers can find almost all food products in organic quality, while the scope of Fairtrade products is smaller. When considering processed foods, another big difference emerges between organic and Fairtrade products. For a processed product to be labelled as organic, at least 95 percent of the ingredients of the final product need to be from organic-certified raw materials (IFOAM – Organics International 2014). In comparison, for a Fairtrade composite food product to carry the Fairtrade label, the product needs to have at least 50 percent of its ingredients Fairtrade-certified (Fairtrade International 2003).

[1] All of the statements and results contained in this chapter have been compiled by the authors and are to the best of their knowledge correct and have been checked by the Research Institute of Organic Agriculture (FiBL). However, the possibility of mistakes cannot be ruled out entirely. Authors are responsible for the content of this article. Their opinions do not necessarily express the views of Fairtrade International.

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Highlights and key data

Market size:

The global market for organic food (expressed in retail sales) was 75.7 billion euros in 2015. In 2015, Fairtrade retail sales were at 7.3 billion euros.

The country with by far the largest market for organic food is the United States (35.8 billion euros), followed by Germany (8.6 billion euros), France (5.5 billion euros), and China (4.7 billion euros). The countries with the largest market for Fairtrade-certified products were the United Kingdom (2.1 billion euros), Germany (978 million euros), and the United States (917 million euros)(Figure 52).

Comparing organic markets worldwide by single market, the United States has the lead: 43 percent of global organic retail sales are in this country (27.1 billion euros), followed by the European Union and China. For Fairtrade products, the European Union took the lead with over 70 percent of the global market, followed by the United States (almost 13 percent) and Switzerland (almost 7 percent).

On a regional level, North America continues to be the largest organic market (39.5 billion euros) followed by Europe (29.8 billion euros) and Asia (6.2 billion euros). Europe reported the largest market for Fairtrade-certified products with almost 80 percent of the global market, followed by North America with over 16 percent (Figure 51).

It is not possible to report a single global figure for Fairtrade and organic due to the fact that many products are double certified. Fairtrade International reports an up to 60 percent overlap in some commodities, for example coffee, and for bananas there is a 55 percent overlap.

Market growth

The organic market has more than quadrupled in only 15 years, and it has grown each year since 1999, even though a slow-down was noted for some countries during the financial crisis in 2008. The market for Fairtrade certified products has grown six-fold since 2004 according to the data collected from Fairtrade International annual reports.

In 2015, organic market growth was noted in all countries, and in some cases, growth was double-digit. For example, in Spain, the market grew by twenty-five percent, representing the biggest growth. In Ireland, the market grew by 23 percent, and, in Sweden, the market grew by 20 percent (page 69). Retail sales of Fairtrade certified products grew in almost all countries from which data was available. Some countries experienced growth rates of over 20 percent, such as Estonia (47 percent), the United States (33 percent), and Norway (25 percent).

Per capita consumption

Globally, 10.3 euros were spent per person on organic food, and 1 euro was spent per person on Fairtrade certified products.

The highest per capita consumption of organic products was registered in European countries: In 2015, Switzerland had the highest per capita consumption worldwide (262 euros), followed by Denmark (191 euros) and Sweden (177 euros). Switzerland also had the highest per capita expenditure on Fairtrade certified products in 2015 (57.7 euros)

followed by Ireland (54.2 euros), Sweden (36.1 euros), and the United Kingdom (33.9 euros) (Figure 53).

Market share

Unfortunately, values for total retail sales are not available for all countries. Using the data available, we see that the countries where organic products have the highest share of the total market are Denmark (8.4 percent), Switzerland (7.7 percent), Luxembourg (7.5 percent), and Sweden (7.3 percent). Regarding Fairtrade products, in 2015, Switzerland and Sweden were the countries with the highest share of the market, accounting for 1.7 percent and 1.5 percent of their total market, followed by Finland (1.3 percent) and Ireland (1.2 percent).

Table and Graphs

Table 41: Global market data: Organic and Fairtrade retail sales, share of all retail sales, per capita consumption, and market share, 2015

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 www.organic-world.net/statistics/statistics-data-revisions.html and included into the FiBL database.

		Retail sales: [Million €]		Retail sales: [€/person]		Retail sales: Growth value 1 year [%]		Retail sales: Share value [%]	
Region	**Country**	**Fair-trade**	**Organic**	**Fair-trade**	**Organic**	**Fair-trade**	**Organic**	**Fair-trade**	**Organic**
Africa	Ethiopia		13		0.1				
	Kenya	0.1	4	0.003	0.1	16.0			
	South Africa	19		0.3		-11.0			
Africa total		*19*	*17*						
Asia	Azerbaijan		3		0.3				
	China		4'712		3				
	Hong Kong	3		0.4		16.0			
	India	1	130	0.001	0.1	16.0			
	Japan	74	1'000	0.6	7.8	7.0		0.1	1.0
	Republic of Korea	5	281	0.1	5.6	16.0			
	Thailand		12		0.2				
	United Arab Emirates		113		12.3				
	Viet Nam		5		0.1				
Asia total		*83*	*6'255*	*0.02*	*1.5*				
Europe	Austria	185	1'065	21.6	127.0	24.0		1.1	6.5
	Belgium	115	514	10.2	45.7	10.0	18.0	0.6	2.7
	Bosnia and Herzegovina		0.3		0.03				
	Bulgaria		7		0.9				
	Croatia		99		23.4				2.2
	Cyprus		2		1.9				
	Czech Republic	9	74	0.8	7.0	16.0		0.0	0.7
	Denmark	102	1'079	18.1	190.7	9.0	12.0	0.80	8.4
	Estonia	3		2.5		47.0			
	Finland	174	240	31.7	43.9	7.0	6.7	1.3	1.8
	France	442	5'534	6.7	83.3	13.0	14.6	0.2	2.9
	Germany	978	8'620	12.0	105.9	18.0	11.1	0.5	4.8
	Greece		60		5.3				
	Hungary		30		3.0				
	Ireland	251	142	54.2	30.7	10.0	23.0	1.2	0.7

		Retail sales: [Million €]		Retail sales: [€/person]		Retail sales: Growth value 1 year [%]		Retail sales: Share value [%]	
Region	Country	Fair-trade	Organic	Fair-trade	Organic	Fair-trade	Organic	Fair-trade	Organic
	Italy	99	2'317	1.6	38.1	10.0	15.0	0.1	2.5
	Latvia	1	4	0.4	2.0	-27.0		0.04	0.2
	Liechten-stein		6		142.4				
	Lithuania	1	6	0.3	2.0	25.0		0.02	0.2
	Luxem-bourg	11	94	19.2	170.0	1.0	4.0	0.9	7.5
	Montenegro		0.1		0.2				
	Netherlands	223	1'072	13.2	63.4	4.0	11.5	0.9	4.3
	Norway	81	352	15.6	68.1	25.0	15.0	0.3	1.5
	Poland		167		4.4				
	Portugal	28	21	2.7	2.0	11.0		0.3	0.2
	Romania		80		3.7				0.7
	Russian Federation		120		0.8				
	Slovakia	1	4	0.2	0.7	16.0		0.1	0.2
	Slovenia		49		26.6				1.8
	Spain	28	1'498	0.6	32.3	11.0	24.8	0.03	1.5
	Sweden	349	1'726	36.1	177.1	19.0	20.3	1.5	7.3
	Switzerland	475	2'175	57.7	262.2	9.0	5.2	1.7	7.7
	Turkey		4		0.1				
	Ukraine		18		2.6				
	United Kingdom	2'193	2'604	33.9	40.2	-5.0	4.9	1.2	1.4
Europe total		*5'749*	*29'781*	*7.0*	*36.4*				
Latin America	Belize		0.1		0.2				
	Brazil	0.1		0.001		16.0			
	Chile		2		0.1				
	Costa Rica		1		0.3				
	Mexico		14		0.1				
	Peru		14		0.5				
Latin America total		*0.1*	*31*			*16.0*			
Northern America	Canada	273	2'757	7.6	76.7	16.0		0.3	2.8
	United States of America	917	35'782	2.9	111.2	33.0	11.0	0.1	5.0
Northern America total		*1'189*	*38'539*	*3.3*	*107.7*				
Oceania	Australia	218	962	9.6	41.6	3.0			
	New Zealand		124		27.4				
Oceania total		*218*	*1'085*	*5.5*	*27.6*				
Other world		43							
World		**7'300**	**75'709**	**1.0**	**10.3**				

Source: Fairtrade data: Fairtrade International, Annual Report 2015-2016; Organic data: FiBL-AMI survey 2017.
*Note: please note that the organic retail sales data for the following countries is not from 2015: Australia, 2013; Austria 2011; Azerbaijan, 2011; Bulgaria, 2010; Chile, 2009; Costa Rica, 2008; Croatia, 2014; Cyprus, 2006; Czech Republic, 2014; Greece, 2010; India, 2012; Japan, 2009; Latvia, 2011; Lithuania, 2011; Mexico, 2013; Montenegro, 2010;Peru, 2010; Portugal, 2011; Romania, 2011; Russia Federation, 2012; Slovakia, 2010; Slovenia, 2013; Thailand, 2014; Turkey, 2009

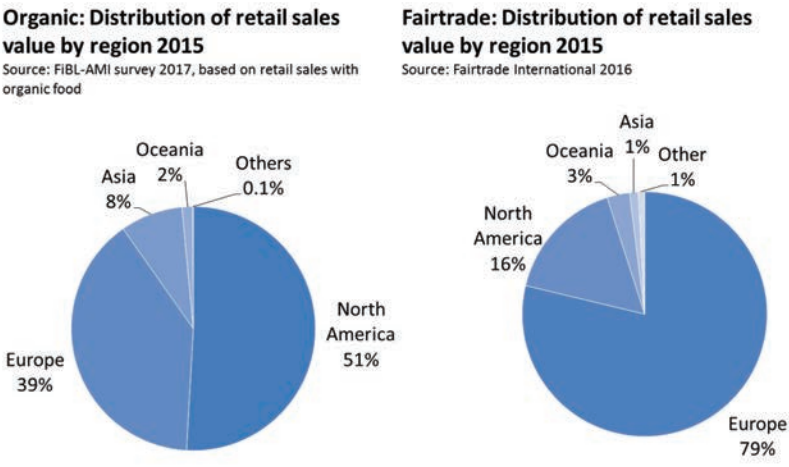


Figure 51: Organic and Fairtrade: Distribution of retail sales value by region 2015

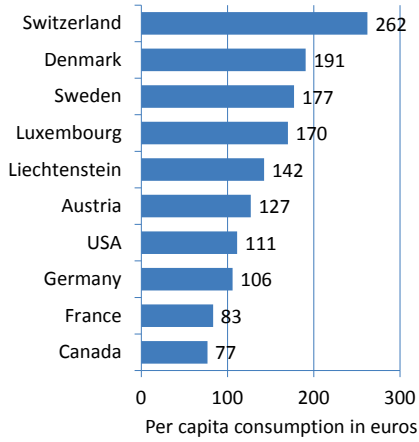
Source: FiBL-AMI survey 2017, based on data from government bodies, the private sector, and market research companies. For data sources see annex, page 316. Fairtrade International 2016

Figure 52: Organic and Fairtrade: The ten countries with the largest markets for organic food 2015

Source: FiBL-AMI survey 2017, based on data from government bodies, the private sector, and market research companies. For data sources see annex, page 316. Fairtrade International 2016

Organic: The ten countries with the highest per capita consumption 2015

Source: FiBL-AMI survey 2017



Fairtrade: The ten countries with the highest per capita consumption 2015

Source: Fairtrade International 2016

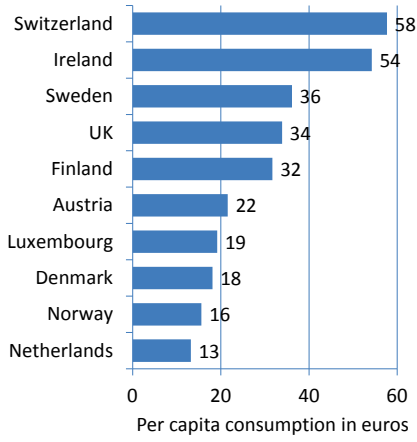


Figure 53: Organic and Fairtrade: The ten countries with the highest per capita consumption 2015

Source: FiBL-AMI survey 2017, based on data from government bodies, the private sector, and market research companies. For data sources see annex, page 316. Fairtrade International 2016

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Standards, Regulations and Policies

Standards and Regulations

Beate Huber[1] and Otto Schmid[2]

In Europe, the dominating topic in 2016 continued to be the European Commission's proposal for a new organic regulation. The proposal published by the European Commission in March 2014 foresaw a new regulation, whereas many stakeholders believed that a revision of the existing regulation would have been more desirable and more feasible. Despite intensive negotiations between the European Council, the European Parliament, and the European Commission, no compromise could be achieved on the most conflicting themes, such as pesticide residues, and cultivation under glass and seeds. At the beginning of December 2016, the negotiations came to a halt. By the end of 2016, it was not clear how the process will continue.

On the international level, the governments of the key organic markets, such as the United States and European Union, have started to explore options for multilateral recognition of each other's organic control systems – realizing that bilateral agreements can be handled well among a few governments but get very complex when more countries are expected to be involved.

Organic legislation worldwide: current situation

According to the FiBL survey on organic rules and regulations, the number of countries with organic standards is 87, in 2016. Seventeen countries are in the process of drafting legislation. Data on regulations around the world was collected from various authorities and experts. The categorization of regulations as being "not fully implemented" or "fully implemented" was based directly on the feedback from the persons 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 non-responding countries had not passed legislation on organic production. It should be noted that some countries listed below as having regulations, do not enforce them, i.e., the indication "not fully implemented" relates to countries that have only recently adopted legislation and are still in the process of finalizing its implementation, as well as to countries that have adopted legislation but are not providing the resources necessary for its implementation.

Table 42 shows the list of countries that have regulations for organic agriculture or are in the process of drafting them. Please send comments or information on countries that are not listed to Beate Huber (beate.huber@fibl.org).

Some countries have not adopted organic legislation and neither do they have national production standards. Such standards provide a national definition of organic products and are a reference point for certification activities. They do not usually foresee

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adopting a national inspection and certification system, which would be supervised by the government.

Table 44 shows that at least 20 countries, mostly in Asia and Africa, have adopted national standards for organic agriculture.

Table 42: Countries with regulations on organic agriculture 2016

Remark: Countries highlighted in blue have standards officially endorsed as organic by IFOAM – Organics International, based on their equivalence with the Common Objectives and Requirements of Organic Standards (COROS, www.ifoam.org/en/coros). Both private standards and government regulations are admissible for the IFOAM Family of Standards (see www.ifoam.org/ogs). A list of organic regulations is available on the Organic Trade Association (OTA) website at http://www.globalorganictrade.com/country_list.php.

Region	Country	Remark
European Union (28)[1]	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 (11)	Albania	Fully implemented
	Iceland	Fully implemented
	Kosovo	Not fully implemented
	Macedonia, FYROM	Fully implemented
	Moldova	Fully implemented
	Montenegro	Fully implemented
	Norway	Fully implemented
	Serbia	Fully implemented
	Switzerland[2]	Fully implemented
	Turkey	Fully implemented
	Ukraine	Not fully implemented
Asia & Pacific Region (25)	Armenia	Fully implemented
	Australia	Fully implemented

[1] Official Journal of the European Union (2007). REGULATIONS 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

[2] Suisse legislation, available at www.admin.ch/ch/d/sr/c910_18.html

Region	Country	Remark
	Azerbaijan	Not fully implemented
	China	Fully implemented
	French Polynesia	Fully implemented
	Georgia	Fully implemented
	India[1]	Fully implemented
	Indonesia	Fully implemented
	Iran	Fully implemented
	Israel	Fully implemented
	Japan[2]	Fully implemented
	Jordan	Not fully implemented
	Kazakhstan	Not fully implemented
	Korea, South	Fully implemented
	Lebanon	Fully implemented
	Malaysia	Fully implemented
	New Caledonia	Fully implemented
	New Zealand[3]	Fully implemented
	Philippines	Not fully implemented
	Saudi Arabia	Fully implemented
	Solomon Islands	Fully implemented
	Taiwan	Fully implemented
	Tajikistan	Fully implemented
	Thailand[4]	Fully implemented
	United Arab Emirates	Fully implemented
The Americas & Caribbean (21)		
	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
	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	Not fully implemented
	Tunisia	Fully implemented

Source: Survey by Carolin Möller and Beate Huber, October 2015, update December 2016

[1] www.apeda.gov.in/apedawebsite/organic/index.htm

[2] JAS Standards for organic plants and organic processed foods: www.maff.go.jp/e/jas/specific/organic.html

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

[4] Homepage of the National Bureau of Agricultural Commodity and Food Standards, www.acfs.go.th/eng/index.php

Table 43: Countries in the process of drafting regulations 2016

Region	Country
Europe (3)	Belarus
	Bosnia & Herzegovina
	Russia
Asia and Pacific Region (5)	Bangladesh
	Jordan
	Kyrgyzstan
	Nepal
	Pakistan
The Americas & Caribbean (2)	Jamaica
	St. Lucia
Africa (7)	Algeria
	Egypt
	Kenya
	Namibia
	Senegal
	South Africa
	Sudan

Source: Survey by Carolin Möller and Beate Huber, October 2015, update December 2016

Table 44: Countries with a national standard but without a national legislation 2016

Region	Country
Asia and Pacific Region (9)	Bahrein
	Bhutan
	Brunei Darussalam
	Hong Kong
	Kuwait
	Laos
	Oman
	Qatar
	Vietnam
Africa (11)	Burkina Faso
	Burundi
	Egypt
	Ghana
	Kenya
	Rwanda
	South Africa
	Tanzania
	Uganda
	Zambia
	Zimbabwe

Source: Survey by Carolin Möller and Beate Huber, October 2015, update December 2016

The Codex Alimentarius Guidelines: Recent developments[1]

The need for clear and harmonized rules has not only been taken up by private bodies, IFOAM – Organics International, and state authorities, but also by organizations of the

[1] Information about Codex Alimentarius is available via http://www.codexalimentarius.org/codex-home/en/

United Nations, 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 in developing national regulations for organic food. The latest update of the guidelines was done in 2013.[1]

The annex lists of the Codex Alimentarius Guidelines, which define the substances that can be used in organic food and farming systems, have been under revision since 2005, mainly with a focus on substances for food processing and criteria for the use of new substances. The Codex Commission adopted several amendments to the annex lists that were proposed by the Codex Committee for Food Labelling in July 2009. Other substances discussed, such as nitrites and nitrates, ascorbates for meat processing, and phosphates as food additives, were not approved in the Codex Guidelines for organic food. In 2010, an amendment was made to increase restrictions on the use of rotenone for pest control: the substance should be used in such a way as to prevent it from flowing into waterways.

In 2011, the Codex Committee for Food Labelling agreed (as proposed by the European Union) on the inclusion of spinosad, copper octanoate, potassium bicarbonate, and uses of ethylene for the degreening of citrus for fruit fly prevention and flowering induction in pineapples. In May 2012, the committee decided that "Spinosad should only be used where measures are taken to minimize the risk to non-target species and to minimize the risk of development of resistance." Potassium hydrogen carbonate, copper octanoate (with the same conditions as for other copper products), and ethylene for the degreening of citrus for fruit fly prevention and as a flowering agent for pineapples were included in the Annex 2 list of the Codex Guidelines of organically produced food. In 2012, the Codex Committee for Food Labelling decided that for the revision of the regulation and the list of substances, a structured approach with a two-year cycle is followed. Furthermore, in 2011 it was agreed to take up organic aquaculture and seaweed production as a new area. However, after discussion at several meetings of draft working papers, elaborated by the European Union, in 2016 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 non-use or limited use of hormones, and conversion periods.

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

[1] Current version of Guidelines for organically produced food (2013, available in English, French, Spanish, Chinese): http://www.codexalimentarius.org/download/standards/360/cxg_032e.pdf

agreements between the exporting 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, 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 also 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. Under a determination of equivalence, producers and processors, who are certified according to the U.S. National Organic Program (NOP)[1] standards by a certifying agent accredited by the United States Department of Agriculture, do not have to be certified to the Canada Organic Product Regulation (COPR) standards in order for their products to be represented 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 and is currently assessing the Mexican organic control system. In October 2016, the United States Department of Agriculture (USDA) and Mexico established an agreement to require import certificates for all organic products traded between the United States and Mexico. Mexico will implement its own requirements for organic products entering Mexico from the United States in early 2017. NOP import certificates are already required in the United States for all organic imports from Japan, Korea, and 29 European countries.

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

The European Union currently recognizes twelve countries[3] as being equivalent to the European Union's system (known as the Third Country list). The latest change was in February 2015 when South Korea was listed based on a bilateral agreement concluded between South Korea and the European Union in 2014. Since February 1, 2015, Korea has accepted products certified in the European Union as equivalent.

[1] National Organic Program (NOP) www.ams.usda.gov/AMSv1.0/NOP

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

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

The United States has accepted several foreign governments' accreditation procedures. Certification bodies accredited according to the United States requirements by India, Israel, and New Zealand are accepted by the United States Department of Agriculture for certification according to the U.S. National Organic Program (NOP), even though they are not directly accredited by the United States Department of Agriculture. 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.

Acceptance of the certifying agency by the target importing country

The United States, the European Union, and Japan have options for recognizing 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 publishes 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. The system of the United States (U.S.) provides for the approval of certification bodies as agents to operate a U.S. certification program. Inspections have to be conducted by inspectors trained in NOP requirements using NOP-based questionnaires, and only certificates issued by certification bodies accredited by the United States Department of Agriculture (USDA) are accepted. It is not relevant whether the certification body is based in the United States or elsewhere. Around 90 agents are currently authorized to certify farms and businesses to USDA organic regulations. Most USDA-accredited certifying agents are allowed to certify farms and businesses anywhere in the world.

Literature

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/PDF/?uri=CELEX:02008R1235-20161026&from=EN

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:02008R0889-20161107

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

Participatory Guarantee Systems in 2016

JOELLE KATTO-ANDRIGHETTO[1] AND CORNELIA KIRCHNER[2]

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, 2008). Acting as a low-cost alternative certification method that is particularly suitable for small-scale farmers and local markets, PGS is an increasingly popular model that is growing on all continents. IFOAM - Organics International is the only organization collecting data about PGS on a global level.

Global PGS survey

Every two years a global PGS survey is conducted to compile the latest data about PGS development worldwide; the next survey will be carried out in 2017.

To date (autumn 2016), we have recorded in our PGS database more than 250 PGS initiatives in 73 countries worldwide, with a total number of over 130'000 producers involved. The highest number of PGS producers can be found in India with 43'000; in Peru, we count 22'000; Kenya follows with 12'000, and in the Philippines, approximately 11'000 farmers are involved in PGS.

While PGS is growing on all continents, the pace and the dynamics of PGS development vary. In recent years, a particular momentum of PGS development could be observed in South and Southeast Asia.

In India, the involvement of the government has brought PGS forward a big step. Following onto the PGS Organic Council of India, a group of NGOs that built the PGS system since 2006, the government stepped in and set up a national PGS system in 2011. According to data from the government website, already 36’000 Indian farmers are involved in the government system. The Indian government has a very ambitious vision to reach 200'000 PGS certified organic farmers by November 2017, and in 2016, it allocated nearly 40 million euros to a program called the “Traditional Farming Improvement Program,” which is essentially supporting organic agriculture through a village cluster approach and PGS certification.

In the Philippines, too, PGS is becoming an established tool being used by more farmers throughout the county. However, here, the relationship to the government is more complicated. The NGOs are well-organized in the nationwide umbrella PGS Filipinas, and several local governments units support PGS and facilitated the development of municipal and provincial PGS initiatives. However, the PGS momentum is facing the threat of a national regulation that might practically prohibit PGS in the near future.

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[1] Joelle Katto-Andrighetto, Organic Policy & Guarantee Manager, IFOAM - Organics International, Bonn, Germany, http://www.ifoam.bio/en/what-we-do/organic-policy-guarantee

[2] Cornelia Kirchner, Programs and Organic Guarantee, Organic Policy & Guarantee Coordinator, IFOAM - Organics International, Bonn, Germany, http://www.ifoam.bio/en/what-we-do/organic-policy-guarantee

This could lead to a major setback for the PGS movement in the Philippines. Nevertheless, the strong PGS movement keeps some hope for a regulatory solution and is committed to continuing even under more difficult circumstances.

In five countries in Southeast Asia, PGS development made a big step forward thanks to the support of the Asian Development Bank (ADB) and the Food and Agriculture Organization of the United Nations (FAO). They sponsor activities in Thailand, Vietnam, Lao PRD, Cambodia, and Myanmar to build PGS pilots and to establish a favourable environment for PGS to grow by also targeting the governments. IFOAM - Organics International has a core role in the activities by proving PGS capacity building and guidance. As a result, all targeted countries have now active PGS groups established or under development, and three new countries (Laos PRD, Cambodia, and Myanmar) appeared on our global PGS map (please visit https://pgs.ifoam.bio/).

Various countries are currently looking into the possibility of including PGS recognition in their organic regulations (currently being drafted), and for this, the Organic Regulation Toolkit developed by IFOAM - Organics International comes in handy as it contains a regulation template and an appendix with precise legal language that can be used in organic regulations to deal with the issue of PGS official recognition. The toolkit is available at www.ifoam.bio/en/organic-policy-guarantee/organic-regulation-toolkit.

Further reading

Overview of Participatory Guarantee Systems in 2015. In: Willer, H. & Lernoud, J. (Eds.) (2016): The World of Organic Agriculture. Statistics and Emerging Trends 2016. Research Institute of Organic Agriculture (FiBL) and IFOAM - Organics International, Frick and Bonn. Available at https://shop.fibl.org/fileadmin/documents/shop/1698-organic-world-2016.pdf

Latest Developments in Policy Support for Organic Agriculture

JOELLE KATTO-ANDRIGHETTO[1]

In the past few years, there has been a worldwide trend of emergence of diverse policy support for organic agriculture. In 2016, IFOAM - Organics International conducted a global study on policies implemented by various levels of governments (local and national governments) to promote organic agriculture. In this chapter, we present a few of the latest pro-organic policy developments of 2016.

Sri Lanka: Support for organic agriculture comes from the highest political level whereby the country's president is pushing for eliminating the use of synthetic pesticides and fertilizers. The president launched the "Toxin Free Nation Program" in March 2016, a 3-year plan adopted by the Ministry of Agriculture, which lays down ten areas of action to phase out toxic chemicals from Sri Lankan agriculture through a step-by-step process. As part of the plan, Sri Lanka started in 2016 with subsidizing organic fertilizers to the same extent as chemical ones. The program also foresees the establishment of full facilities required to conduct research into indigenous natural (organic) agriculture systems. It commits to increase state interventions and investments to expand the use of traditional seeds and to prevent the subjugation of the monopoly in seeds to corporations.

India: In 2016 both the federal and state governments have taken unprecedented initiatives to support organic agriculture. The federal government launched the Paramparagat Krishi Vikas Yojana, a program that packages several types of support measures to organic agriculture, with a budget of around 40 million euros. Despite the uncertainties about the inclusion of Participatory Guarantee Systems (PGS) in the upcoming organic regulation for the domestic market, the Ministry of Agriculture continues to support PGS and has opened, in its office in New Delhi, the first government-run organic shop selling only PGS-certified products from the country. Third-party certification is also supported; for the first time, the federal government has extended financial support ranging from 27'000 euros to 234'000 euros to the State Governments of eight North Eastern states for setting up public organic certification bodies and obtaining accreditation. Last year, the State of Gujarat announced that it will set up India's first university exclusively dedicated to organic farming and research.

Peru: PGS also progresses in other countries, despite regulatory challenges. In 2016, the regional government of Hancavelica in Peru approved a regional policy recognizing PGS as alternative tool to achieve sustainable development and to foster organic agriculture in the region among small-scale farmers. This happened in a context where the national government continues to exclude PGS in its national organic regulation.

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[1] Joelle Katto-Andrighetto, Organic Policy & Guarantee Manager, IFOAM - Organics International, Bonn, Germany, http://www.ifoam.bio/en/what-we-do/organic-policy-guarantee

Armenia: The government requested a development cooperation project with the European Union to develop organic agriculture in the country. The Organic Agriculture Support Initiative project funded by the European Union started in 2015 and is implemented by the Austrian Development Agency. It combines a range of support measures to boost national capacities and policies in favour of organic agriculture.

China: Capacity development is on the agenda in China. The government, in its 5-year plan 2016 to 2020, is planning to invest around 187 million euros in new farmers training. The training will be for farmers and farm managers with a preference for young graduates from college interested in agriculture. The program has a focus on organic, ecological, and sustainable agriculture with the aim to have one million qualified farmers with international market access by 2020.

United States: In 2016, the United States Department of Agriculture (USDA) eliminated most inequalities with regard to the compensations between organic and conventional crops in its crop insurance program and made the application process easier and more affordable for diversified small farms. At the state level, the first tax credit for organic farmers was created in June 2016 with the approval of a Hawaii (House) Bill that allocates 2 million US dollars for tax credits to offset the 25 percent organic certification cost not covered by the federal certification cost share program and to subsidize organic farming equipment, materials, and supplies.

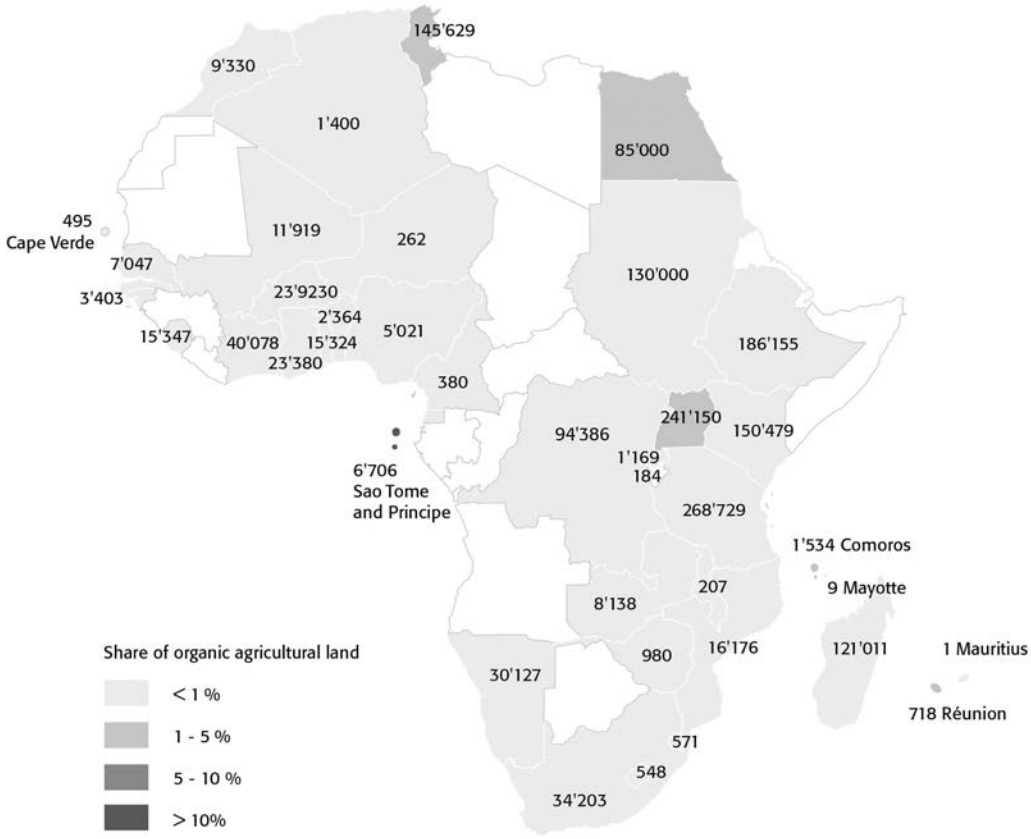
Canada: The Quebec Ministry of Agriculture announced a support of 600'000 Canadian dollars to the Quebec organic umbrella association for the implementation of an organic consumer awareness-raising campaign.

Argentina: In 2016, the government announced an innovative form of support in order to promote organic exports, the complete removal of export taxes on organic products of plant origin.

Brazil: The year 2016 has had very mixed outcomes. On the positive side, in April, the city of Sao Paolo passed a decree that set a target for turning 100 percent of the school meals organic by 2026. There are two million school meals offered in the city every year. At the national level, the PLANAPO, the main plan for the development of agroecology and organic agriculture, was in full swing. It contained many important measures to support organic development, including ambitious public procurement targets. On the negative side, after the removal of Brazil's president in 2016, agroecological family agriculture has experienced significant setbacks. The new government abolished the Ministry of Agrarian Development, which had been coordinating important rural development projects with an agroecological and family farming focus. The PLANAPO has been greatly cut back, going from a broad cross-ministerial resource with support from 11 ministries to only two ministries now.

More information on policies and programs implemented by various governments to support organic agriculture can be found on the IFOAM - Organics International website, in the form of a Global Toolkit available for free download at www.ifoam.bio/en/global-policy-toolkit-public-support-organic-agriculture-0.

Africa



Map 2: Organic agricultural land in the countries of Africa 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, governments, and for North Africa, the Mediterranean Organic Agriculture Network (MOAN).
For detailed data sources see annex, page 316

Latest Developments in Organic Agriculture in Africa

JORDAN GAMA[1]

Organic agriculture in Africa is gaining momentum, and 2016 continued to see the growing recognition among policymakers that organic agriculture plays a significant role in addressing food insecurity, land degradation, poverty, and climate change in Africa. This, in one way or the other, prompted the United Nations Conference on Trade and Development (UNCTAD) to publish and distribute a policy brief on "*Financing Organic Agriculture in Africa: Exploring the Issues*," (UNCTAD 2016) as a support to elevate financing of the sector in the continent. Organic Agriculture offers a valuable tool-kit of affordable and people-centred production practices, as well as high-yielding systems and both local- and export-focused marketing models. In the context of low carbon, resilient, and inclusive sustainable development, organic agriculture is an increasingly relevant and attractive proposition for many stakeholders.

The African Organic Network (AfrONet)

There has been significant achievement in 2016 in the institutionalization of the African Organic Network (AfrONet).[2] 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 2016). 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.[3] Importantly, in Southern Africa, the Southern African Network for Organic Development (SANOD) and IFOAM's Southern African Network (ISAN) were formed to unite the stakeholders and further develop organic agriculture in the region. Other active regional networks are those of West, Central, and East Africa.

Organic conferences in Eastern, Western, Central and Southern Africa have become a success. For example, successful Western African organic conferences were held in Benin in August 2014 and in Lagos, Nigeria, in October 2015 (linked to the Third African Organic Conference, see Gama 2016). The most recent Eastern Africa conference was held in 2016, in Entebbe, Uganda. These conferences marked significant milestones for mainstreaming Ecological Organic Agriculture (EOA)[4] in the regions and member

[1] Jordan Gama, AfrONet President, Tanzanian Organic Network (TOAM), Dar es Salaam, Tanzania, africanorganicnetwork.org/ct-menu-item-3

[2] Information about AfrONet is available at afronet.bio

[3] The aim of EOAI, the Ecological Organic Agriculture Initiative for Africa promotes 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.

[4] 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

countries' policies, strategies, and programmes. AfrONet led the multi-stakeholder organizing committee of the Third African Organic Conference in Lagos and was instrumental in the coordination and preparation of this event. Furthermore, at this conference, AfrONet organized a policy forum as a side event and supported NOARA, the Network of Organic Agriculture Research in Africa, to stage a side-event.

Furthermore, AfrONet actively participates in the events of the Forum for Agricultural Research in Africa (FARA, www.fara-africa.org), the Organic World Congresses of IFOAM – Organics International, as well as in projects such as the Productivity and Profitability of Organic and Conventional Farming Systems (ProEcoOrganicAfrica),[1] Productivity and Growth in Organic Value-chains[2], the Ecological Organic Agriculture Initiative (see above), and Organic Trade Development in East Africa (OTEA).[3] AfrONet has a permanent seat on the Continental Steering Committee (headed by the African Union) and Regional/Cluster Steering Committees of the Ecological Organic Agriculture Initiative (EOAI). The AfrONet General Assembly was held on October 8, 2015, in Lagos, Nigeria (alongside the third African Organic Conference) and included the election of a new leadership for the next three years.

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), (www.comesa.int), the Economic Community of West African States (ECOWAS), (www.ecowas.int), and the East African Community (EAC), (www.eac.int). 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.

Strategic Plan (2015-2025) for the Ecological Organic Agriculture Initiative (EOAI) for Africa

The Continental Steering Committee of the Ecological Organic Agriculture Initiative (EOAI-CSC) endorsed the EOA Continental Strategic Plan, which was approved unanimously by the African Union Ministerial Council at its special meeting held on October 5 and 6, 2015 in Addis Ababa, Ethiopia. The Strategic Plan (2015-2025) provides a visionary direction for the development of Ecological Organic Agriculture on the African continent and serves as a tool for fundraising. This is a significant milestone

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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.

[1] Information about the ProEcoOrganicAfrica is available at www.ProEcoAfrica.net

[2] 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-progrov.

[3] 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

towards implementing the decision of African heads of state and governments on organic farming.

The Ecological Organic Agriculture Initiative, which started as a pilot programme in 2012, was launched as a full-fledged programme in 2014 and will end in 2018. It has experienced encouraging growth over the past few years. Organic land continues to increase as the statistics indicate in this volume, whilst the eating habits of our populations are changing and health consciousness is growing. The demand for healthy organic products on the national, regional and continental markets has grown and surpassed the supply. The voices of EOA stakeholders are being heard in Africa and beyond, and international support is steadily increasing. Approval of the EOA Strategic Plan by the African Union Ministerial Council has come at just the right moment, as there could not be a better time than now to plan and develop strategies for guiding this growth and reaping the maximum impact and benefits from organic farming in a sustainable way.

New UNCTAD study "Financing Organic Agriculture in Africa: Mapping the Issues"

UNCTAD, the United Nations Conference on Trade and Development, published the report "Financing Organic Agriculture in Africa: Mapping the Issues" in 2016 (UNCTAD 2016). According to this report, organic agriculture is a rapidly growing sector in Africa, with strong links to economic and sociocultural development in the continent, and it can also be seen as a relevant tool to advance the following Sustainable Development Goals (SDGs)[1]: sustainable agriculture, sustainable consumption and production, climate change mitigation and prevention, and the sustainable use of ecosystems.

In view of the needs expressed by African organic agriculture stakeholders, UNCTAD sought to identify the needs, challenges, and opportunities related to the funding of organic agriculture on the continent. Due to the limitations of the available data, a structured survey was conducted with support from AfrONet among organic stakeholders, including National Organic Agriculture Movements (NOAMs), farmers, and exporters from 16 African countries. The results of the study show:

- There are a persistent funding gap and barriers faced by organic agriculture stakeholders to securing external capital to finance their activities.
- Despite a growing market and a positive evolution in price premiums of organic produce, recent literature and surveys results suggest that organic agriculture stakeholders have insufficient access to funding, particularly in strategic areas such as certification, producer organization, research, and equipment purchases.
- Limited credit guarantee mechanisms and the insufficient capacity of commercial banks to integrate the specificities of organic agriculture are major hindrances to the ability of organic agriculture stakeholders to finance their activities in Africa.

[1] Information on the Sustainable Development Goals is available at www.sustainabledevelopment.un.org

– Therefore, a coordinated effort to improve data collection on both the domestic and export value of organic agriculture is needed to make a better business case for organic agriculture. In addition, the financing issue needs to be better integrated into existing and future efforts to promote the development of organic agriculture in the continent.

The commitment to support sustainable agriculture, expressed in the 2015 Addis Ababa Action Agenda on Financing for Development, and the unanimous approval of the Ecological Organic Agriculture Strategic Plan (2015-2025) by the African Union Ministerial Council are opportunities to bridge the funding gap, according to the UNCTAD study. In this regard, efforts to further embed organic agriculture in the Comprehensive Africa Agriculture Development Programme (CAADP)[1,2] will play a key role in the allocation of funding and the systematic inclusion of organic agriculture considerations into national agricultural development plans and strategies.

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 a 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 so that the potential benefits of improved agricultural systems, based on the principles of organic agriculture, are unleashed and disseminated throughout the continent.

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[1] Information about the Comprehensive Africa Agriculture Development Programme is available at nepad-caadp.net.

[2] IFOAM – Organics International, in collaboration with the African Union (AU) and other agencies, has played a significant role in the framework of its Organic Alternative for Africa Initiative to facilitate the integration of organic agriculture into the core of African policies and the agricultural development agenda including the Comprehensive African Agriculture Development Programme (CAADP). The Organic Alternative for Africa Initiative identifies, promotes, and nurtures the uptake of organic agriculture practices, markets, and policies in the context of sustainable development and poverty reduction. IFOAM – Organics International works with many stakeholders, both within and outside the organic movement to create opportunities and facilitate the growth of organic agriculture-based development in the continent. Information on CAADP, the Comprehensive African Agriculture Development Programme, is available at www.nepad-caadp.net. The report "The Potential Contribution of Organic Agriculture to the Realization of the Objectives of the CAADP – A Guide for Stakeholders" is available at www.ifoam.org/en/osea-ii-project.

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Organic Farming in Kenya: Promising Growth and a Bright Future

Richard Ngunjiri[1]

Up until recently, there was little interest and acceptance for organic farming among government officials in Kenya. However, things are now changing, and the efforts of the Kenya Organic Agriculture Network (KOAN) are a major reason for this. KOAN is an umbrella body bringing on board all the stakeholders of the organic sector in the country. Demand for organic products from export markets such as the European Union, Japan, and North America, especially for Macadamia nuts and avocados, has seen thousands of farmers embracing organic farming practices.

The compilation of the organic sector data in Kenya for 2015 showed impressive growth from the 2011 figures. Table 45 shows the approximate hectares for each crop.

Table 45: Crops grown in organic agriculture in Kenya 2015

Crops	Fully converted area [ha]	Under conversion area [ha]	Total [ha]
Tea	347	236	583
Coffee	250	1	251
Macadamia	40'888	9'628	50'516
Tea tree	1'255	126	1'381
Avocado	74'569	5'165	79'734
Maize	15'626		15'626
Beans	15'677		15'677
Fresh Vegetable	4'786		4'786
Sesame	1	714	715
Fruits	8'722		8'722
Herbs(Wild collection)			0
Honey, essential oils(Wild Collection)	121'625		121'625
Pineapples			0
Root crops	2'355		2'355
Cashew nuts	19'245		19'245
Coconuts	20'500		20'500
Medicinal plants	245	400	645
Wheat		272	272
Bananas	60		60
Sum (excluding wild collection and double cropped area)	**141'934**	**8'545**	**150'478**

Source: KOAN 2016

[1] Richard Ngunjiri, Kenya Organic Agricultural Network (KOAN), Nairobi, Kenya, www.koan.co.ke

Private companies such as Jungle Macs, Earth Oil, Macadamia FANS, Navida, and Meru Herbs, together with KOAN, have vigorously promoted organic farming and helped thousands of farmers to command premium prices and improve their livelihoods. County governments have also played a positive role in the sector, especially in the counties of Busia, Muranga, and Laikipia, which support organic farmers in one way or another.

The media have also played a significant role in the sector with positive coverage that has contributed to changing the perception of organic farming. Kate Kibarah, an organic brand ambassador in Kenya, has continuously used her health programs in the media to promote the consumption of organic products, pitching their health benefits to both human beings and the environment. Many more organic agriculture practitioners have appeared in the media, and they promote their products in local and national trade fairs and farmer shows.

The rise in non-communicable diseases in the country, especially in the highlands of Mount Kenya and Rift valley - although not directly linked to the use of synthetic chemicals and fertilizers - has made farmers and policymakers discuss organic farming as one way of mitigating the spread of these diseases.

The demand for organic food has continued to grow with the urban rich providing huge market opportunities, as shown by a study conducted by KOAN and Organic Denmark in 2014. The huge growth has seen new entrants in the industry such as Sylvia Organic Farms and Baskets, which specializes in the home delivery of fresh organic farm produce to clients in Nairobi. New organic farmers markets are also opening in different states and locations within Nairobi, an indication of the rising demand for organic products.

Lastly, the projections are that if the trend continues towards 2016/2017, then more farmers are likely to convert to organic farming as the demand for organic products such as coffee and tea is also unmet and on the rise. More entrepreneurs are finding this as an untapped sector and are willing to invest in the same. For many years, universities have taken a keen interest in organic agriculture research, designing programs on the same.

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Kenya Organic Agricultural Network and Organic Denmark (2014): Enhancing the coordination of organic products access to markets in East Africa (ECOMEA). Research Plus Africa, Nairobi

Africa: Current Statistics

Julia Lernoud,[1] Helga Willer[2] and Bernhard Schlatter[3]

Overview

The organic agricultural land in Africa has increased by over 400'000 hectares or 33.5 percent compared to 2014. There were almost 1.7 million hectares of agricultural land in 2015, which is 0.1 percent of the continent's total agricultural area and 3 percent of the global organic agricultural area. In 2015, 43 countries reported data on organic farming. The organic agricultural land has increased by more than 1.6 million hectares from the 52'000 hectares in 2000. Tanzania is the country with the largest organic area, with almost 270'000 hectares, and Ethiopia is the country with the highest number of organic producers, with over 200'000. The country with the highest organic share of the total agricultural land is the island state Sao Tome and Principe, with 13.8 percent of its agricultural area being organic, followed by Egypt with 2.3 percent and Uganda with 1.7 percent.

Land use

In 2015, over half of all organic agricultural land was used for *permanent crops* (more than 900'000 hectares) in Africa. Almost 25 percent was used for *arable crops* (over 400'000 hectares), and almost two percent (30'000 hectares) was *grassland/grazing* area. For 18 percent of the organic agricultural land no details were available.

Kenya (180'000 hectares, mainly tropical fruits and nuts), Ethiopia (161'000 hectares, mainly coffee), Tunisia (130'000 hectares, mainly olives), the United Republic of Tanzania (over 124'000 hectares), and Madagascar (83'000 hectares) had the largest organic *permanent crop* areas. The key organic *permanent crop* is coffee, with over 300'000 hectares reported, 14.5 percent of the total coffee area of the region. The largest organic coffee areas are in Ethiopia (over 160'000 hectares) and Tanzania (almost 94'000 hectares). The organic coffee area has increased 15-fold since 2004; some of the increase can be attributed to the continually improving data availability. Cocoa was grown on almost 110'000 hectares, and it has grown 46-fold since 2004, representing 1.7 percent of the continent's cocoa area. The largest areas of organic cocoa are found in the Democratic Republic of Congo (37'000 hectares), Tanzania (29'000 hectares), and Sierra Leone (almost 15'300 hectares).

Almost twenty-five percent of the organic farmland was used for *arable crops*, most of which are oilseeds (almost 156'000 hectares, 0.7 percent of the total oilseed area; mainly sesame), textile crops (almost 127'000 hectares, 2.8 percent of the region's total cotton area), and cereals. Almost 67 percent of the region's cotton is found in the United Republic of Tanzania (almost 85'000 hectares), followed by Sudan (15'000 hectares). Since 2004, the organic cotton area grew 12-fold. Cereals were grown on over 72'000

[1] Julia Lernoud, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl

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

[3] Bernhard Schlatter, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org

hectares in 2015; the key producing countries were the United Republic of Tanzania (almost 51'000 hectares), Tunisia (almost 15'000 hectares), and Senegal (almost 4'000 hectares).

Producers

There were at least 719'000 organic producers in Africa. The countries with the most organic producers are Ethiopia (over 203'000), Uganda (almost 191'000), 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 almost 12 million hectares certified as organic in 2015. Zambia is the country with the largest area (almost 7 million hectares, mainly beekeeping), followed by Namibia (2 million hectares, medicinal plants), Somalia (873'000 hectares, mainly natural gums), and Chad (654'000 hectares, mainly natural gums). Medicinal plants, such as devil's claw (*Harpagophytum procumbens*) are the commodities that have the largest wild collection area (almost 2.5 million hectares), followed by oil plants (over 945'000 hectares), such as shea nut (with almost 10'000 hectares). Beekeeping is the key activity in organic wild collection in Africa with 6 million hectares. Zambia is the country with the largest wild collection area used for organic beekeeping with almost 6 million hectares, representing 98 percent of the total beekeeping area.

For more information about the African figures, see data tables for Africa, page 162.

Organic Agriculture in Africa: Graphs

Africa: The ten countries with the largest organic area 2015

Source: FiBL survey 2017

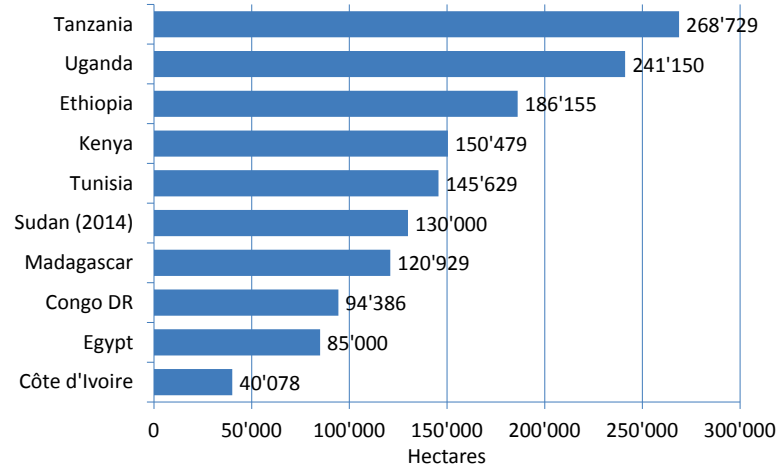

Figure 54: Africa: The ten countries with the largest organic agricultural area 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

Africa: The countries with the highest organic share of total agricultural land 2015

Source: FiBL survey 2017

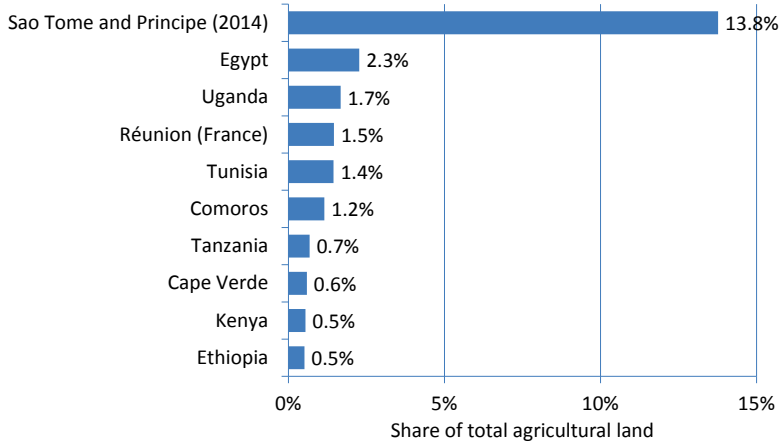

Figure 55: Africa: The countries with the highest organic share of total agricultural land 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

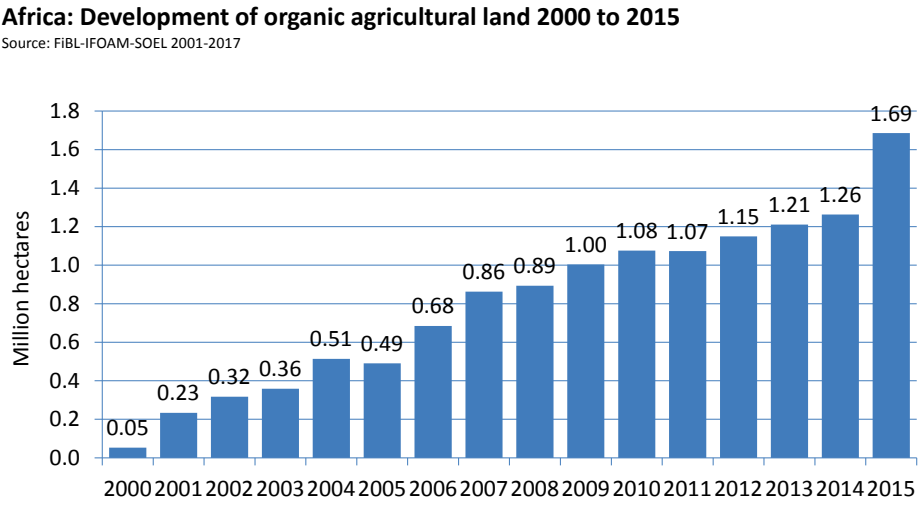

Figure 56: Africa: Development of organic agricultural land 2000 to 2015

Source: FiBL-IFOAM-SOEL-surveys 2000-2017

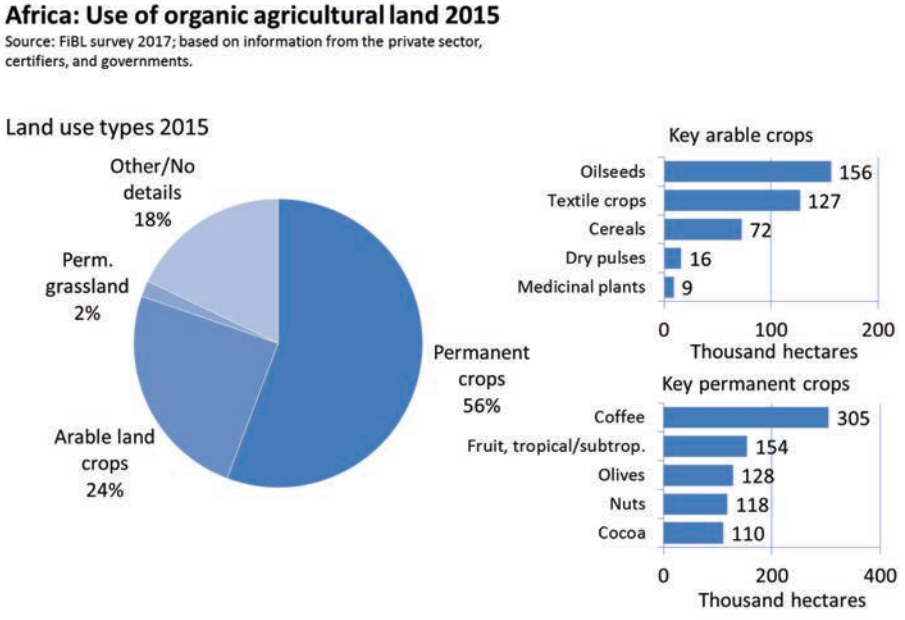

Figure 57: Africa: Use of organic agricultural land 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316

Africa: The ten countries with the largest number of organic producers 2015

Source: FiBL survey 2017

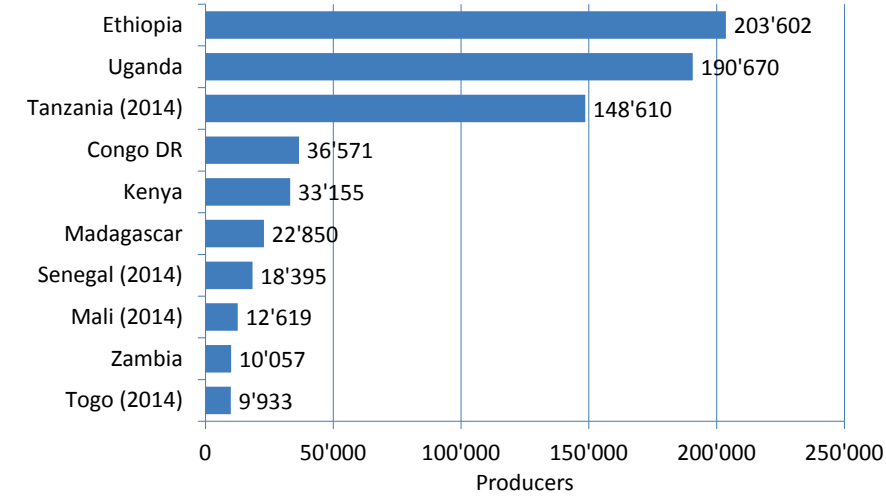

Figure 58: Africa: The ten countries with the largest number of organic producers 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

Organic Agriculture in Africa: Tables

Table 46: Africa: Organic agricultural land, organic share of total agricultural land and number of organic producers 2015

For information on data year, see page 312.

Country	Area [ha]	Share of total agr. land [%]	Producers [no.]
Algeria	1'400	0.003%	72
Angola	2'486	0.004%	
Benin	2'364	0.1%	3'159
Burkina Faso	23'923	0.2%	9'035
Burundi	184	0.01%	35
Cameroon	380	0.004%	193
Cape Verde	495	0.6%	
Chad		Wild collection only	
Comoros	1'534	1.2%	1'540
Congo, D.R.	94'386	0.4%	36'571
Côte d'Ivoire	40'078	0.2%	492
Egypt	85'000	2.3%	900
Ethiopia	186'155	0.5%	203'602
Ghana	23'380	0.1%	2'679
Guinea-Bissau	3'403	0.2%	
Kenya	150'479	0.5%	33'155
Lesotho	548	0.02%	4
Madagascar	121'011	0.3%	22'850
Malawi	207	0.004%	7
Mali	11'919	0.03%	12'619
Mauritius	1	0.002%	20
Mayotte	9	0.1%	4
Morocco	9'330	0.03%	121
Mozambique	16'176	0.03%	11
Namibia	30'127	0.1%	25
Niger	262	0.001%	
Nigeria	5'021	0.01%	101
Réunion (France)	718	1.5%	170
Rwanda	1'169	0.1%	4'010
Sao Tome and Principe	6'706	13.8%	3'738
Senegal	7'047	0.1%	18'395
Sierra Leone	15'347	0.4%	1'394
Somalia		Wild collection only	
South Africa	34'203	0.04%	198
Sudan	130'000	0.2%	354
Swaziland	571	0.05%	
Tanzania, United Republic of	268'729	0.7%	148'610
Togo	15'324	0.4%	9'933
Tunisia	145'629	1.4%	2'987
Uganda	241'150	1.7%	190'670
Zambia	8'138	0.03%	10'057
Zimbabwe	980	0.01%	2'003
Total	**1'685'968**	**0.1%**	**719'721**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

Table 47: Africa: All organic areas 2015

Country	Agriculture [ha]	Forest [ha]	Wild collection [ha]	Total [ha]
Algeria	1'400			1'400
Angola	2'486			2'486
Benin	2'364		4'505	6'869
Burkina Faso	23'923		80'068	103'991
Burundi	184			184
Cameroon	380			380
Cape Verde	495			495
Chad			654'000	654'000
Comoros	1'534		63	1'597
Côte d'Ivoire	40'078		344	40'422
Congo, D.R.	94'386			94'386
Egypt	85'000		60'000	145'000
Ethiopia	186'155		9'033	195'188
Ghana	23'380		33'592	56'972
Guinea-Bissau	3'403			3'403
Kenya	150'479		121'625	272'104
Lesotho	548		50'000	50'548
Madagascar	121'011		15'241	136'252
Malawi	207		6'585	6'791
Mali	11'919		8'146	20'065
Mauritius	1			1
Mayotte	9			9
Morocco	9'330	35	164'965	174'330
Mozambique	16'176		145'930	162'106
Namibia	30'127		2'037'104	2'067'231
Niger	262			262
Nigeria	5'021	150	1'000	6'171
Réunion (France)	718			718
Rwanda	1'169		12	1'181
Sao Tome and Principe	6'706			6'706
Senegal	7'047		22'000	29'047
Sierra Leone	15'347			15'347
Somalia			873'000	873'000
South Africa	34'203		147'681	181'884
Sudan	130'000		84'130	214'130
Swaziland	571			571
Tanzania	268'729		15'040	283'769
Togo	15'324		242	15'566
Tunisia	145'629	38'263	45'499	229'391
Uganda	241'150		158'328	399'478
Zambia	8'138		6'617'380	6'625'518
Zimbabwe	980		549'504	550'484
Total	**1'685'968**	**38'448**	**11'905'017**	**13'629'433**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

Table 48: Africa: Land use in organic agriculture 2015

Land use	Crop group	Area [ha]
Agricultural land, no details		298'108
Arable land	Arable crops, no details	7'162
	Cereals	72'361
	Dry pulses	15'988
	Fallow land, crop rotation	1'855
	Flowers and ornamental plants	433
	Green fodders from arable land	283
	Medicinal and aromatic plants	9'172
	Oilseeds	155'899
	Root crops	2'751
	Seeds and seedlings	1
	Sugarcane	7'551
	Textile crops	126'779
	Vegetables	7'766
	Arable crops, other	6'128
Arable land total		*413'604*
Other agricultural land	Other agricultural land, no details	428
	Home gardens	2
	Unutilised land	2'957
Other agricultural land total		*3'911*
Permanent crops	Berries	39
	Citrus fruit	6'586
	Cocoa	110'067
	Coconut	28'391
	Coffee	304'905
	Fruit, temperate	644
	Fruit, tropical and subtropical	154'237
	Grapes	1'538
	Medicinal and aromatic plants, permanent	33'358
	Nurseries	3
	Nuts	118'078
	Olives	128'297
	Tea/mate, etc.	22'267
	Permanent crops, other	31'662
Permanent crops total		*940'069*
Permanent grassland		30'276
Total		**1'685'968**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316

Table 49: Africa: Use of wild collection areas 2015

Land use	Area [ha]
Apiculture	6'040'121
Fruit, wild	40'966
Medicinal and aromatic plants, wild	2'598'836
Nuts, wild	99'502
Oil plants, wild	845'909
Rose hips, wild	108'700
Wild collection, no details	1'271'440
Wild collection, other	899'543
Total	**11'905'017**

Source: FiBL survey 2017, 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 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, governments and the Mediterranean Organic Agriculture Network (MOAN) for the Mediterranean countries. For detailed data sources see annex, page 316

Development of the Organic Sector in Asia in 2016

IFOAM Asia[1,2]

Overview of the trends and developments in the organic sector

At the beginning of 2016, Sikkim, India, made the news for having become the first "organic state" in Asia and perhaps in the world. The other significant development was the signing of the first bilateral organic certification agreement between China and New Zealand. The Chinese central government also put the organic industry into its "national plan for the construction of Ecological Civilization." Sri Lanka declared that it would become a "chemical-free nation" in the next three years.

National organic policies were approved in Bangladesh and Kyrgyzstan in 2016. Moreover, the subsequent implementation of these policies is expected to boost the expansion of organic agriculture, including financial support for organic farmers and the provision of greater access to local and export markets. In the Philippines, the government has set up more than seventy organic trading posts over the past three years to provide market access for rural-based organic producers.

Participatory Guarantee Systems (PGS) reported steady growth in Asia with some governments' inclusion of PGS as an alternative form of certification for organic products. Bhutan launched its own local organic guarantee system for its local markets. Also, in China, the steady growth of Community Supported Agriculture (CSA) has called for the need to establish a national CSA and PGS network. In India, pioneering civil

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society organizations involved in facilitating PGS have influenced government policies in favour of PGS, and India remains one of the few countries of the world where the government promotes and recognizes PGS.

The Tokyo Olympics 2020 has become a strong driver in Japan for local governments and the organic movements to push for an organic agenda. Local governments are including organic catering to attract foreign athletes, and cities are integrating organic aspects into their urban planning. Japan also celebrated its first "Organic Day" on December 8th, 2016.

Developments in South Korea include the establishment of a managing board for "checkoff funds"; these have been mandatory since 2016. About 4.5 million dollars is expected to be collected annually for the promotion of organic agriculture from the organic sector with matching funds from the government. From 2017, all organic certification has been delegated to the private sector. The government authorities only handle the registration and management of the certification bodies.

Country reports

Bangladesh

Organic farming was initiated by the private sector and has become popular throughout the country since the 1990s. Government involvement only began after two decades, but in 2016 the organic sector received a boost through the approval of the "National Organic Agricultural Policy." This policy was approved on November 7, 2016, in a cabinet meeting and is under the process of receiving gazette notification. Approval of this organic policy is a major step in the development of the organic sector in Bangladesh.

Observing the benefits of cultivating organic crops by NGO farmers, a small number of progressive farmers and private entrepreneurs[1] has come forward to cultivate organic crops for domestic and export markets.

It is expected that the organic sector will gain momentum, as the national organic policy has been approved, and interested organic farmers and entrepreneurs will gain access to incentives, such as the low-interest loans and other financial support given to conventional farmers. Furthermore, this policy also ensures the availability of the inputs required for organic farming and market facilitation, including certification.

However, the absence of an accredited domestic certification body and a lack of infrastructure and skilled organic experts remains.

[1] Sabazpur Tea Company Ltd (a sister concern of Square Group), Green Bangla Organic Farm and Rahamania Organic farm in addition of Kazi and Kazi Tea Estate (KKTE) Ltd. and WAB Trading International (Ltd.) have come forward in this new sector. The leading company –KKTE produced 430 metric tons' organic tea in 2015 and exported as Meena Brand to the USA, Japan, UK and Germany. A small amount of lemon grass, tulsi, ginger, mint, chilli etc. following organic practices for domestic market in 2016. On the other hand, about 3'000 metric tons' of organic shrimp was exported by WAB Trading Int'l Asia Ltd. in 2016.

Bhutan

One of the most significant developments in Bhutan is the launching of the Local Organic Guarantee System (based on PGS[1] and supervised by the Department of Agriculture) for the domestic market.

Another significant development is the endorsement of the Framework and Guidelines for the Biofertilizer and Biopesticide Supply, which paves the way for a production and supply system for organic inputs for organic farmers. Currently, there are two organic products certified nationally (potatoes and garlic).

In 2016, the random testing of imported fresh vegetables for agrochemical residue was initiated, and a ban on vegetables with high chemical residues was imposed. This was a good start towards promoting local, ecological, and organic production and market prices.

The major challenges faced in 2016 were caused by India's fiscal policy, which affected the Bhutan market for agricultural exports.

Organic production is expected to increase in Bhutan due to the growing consumer consciousness about the importance of organic food. Furthermore, the local organic guarantee system and the registration of organic operators will help in the monitoring and recording of the growth of organic production, producers, and value.

China

In November 2016, the Chinese organic authority CNCA[2] signed an agreement with the New Zealand organic authority on mutual recognition of organic certification. This is the first bilateral organic certification recognition agreement of China.

According to the figures issued in 2016, the domestic organic sales value of China kept increasing in 2015 with a growth rate of over 20 percent, compared to 2014, even though the area of certified organic land did not increase. The growth was mainly due to the retail sales value of certified organic liquor being included.

CNCA changed the policy of registration of organic certification body, emphasizing on quality supervision rather than controlling the number of registered certification bodies. The number of certification bodies involved in organic certification increased from 24 at the end of 2015 to 36 at the end of 2016.

Technical and market barriers are the main bottlenecks to the development of the organic sector, and in 2016, more and more market platforms have been initiated, and a few of technical platforms in different formats are also in preparation.

The State Council of China issued an important document on November 22 indicating that China will soon establish a Green Products Standard, Certification and Labelling System, which will include organic products. Reasonable resource utilization, environment protection, consumer satisfaction, and international trade promotion are

[1] PGS are Participatory Guarantee Systems, see chapter by Katto-Andrighetto and Kirchner in this volume, page 154.
[2] CNCA is the Certification and Accreditation Administration of the People's Republic of China

the main concerns of the system, which means that the central government has placed the organic industry into the national plan for the construction of Ecological Civilization.

Community Supported Agriculture (CSA) is steadily growing in China, and the 8th national CSA conference, held in December 2016, attracted more than 700 participants from all over the country. The establishment of a national CSA and PGS network is under discussion.

Wechat (a local Chinese messaging service) has become a very useful communication tool for organic people for exchanging ideas, experiences, technology, and market information. The dozens of Wechat groups in operation have proven to be very helpful for the development of the Chinese organic sector and are also useful for communication within the Asian organic movement.

India

During the past decade, there has been significant growth in the area of organic agriculture. There has been almost a three-fold increase, from 528'171 hectares in 2007-2008 to 1.18 million hectares of cultivable land in 2014-15. The data does include the 3.71 million hectares of forest land and wild areas for collection of forest produce.

The significant growth is attributed mainly to conducive policies that have led to an increase in areas under third-party certification and has promoted Participatory Guarantee Systems (PGS). Some of the pioneering civil society organizations involved in facilitating PGS have influenced government policies in favour of PGS. India is among the few countries of the world where PGS is recognized and promoted by the government.

In addition to the area certified as organic, there are vast tracts of land that are traditionally organic but not certified as such. For instance, the State of Sikkim with an area of 700'000 hectares has been declared as an organic state with regulations that prohibit the use of chemical fertilizers and pesticides. There are still other states that are almost entirely organic like the State of Nagaland with an area of 1.6 million hectares. Besides, there are several rain-fed farms mostly in the central part of the country that are organic by nature. The inclusion of such farms that are traditionally organic into formal certification systems will significantly increase the organic area under certification, and more certified organic produce will be available in the markets.

Besides being an exporter, India also has a growing domestic market for organic products. The rise in the incomes of the urban middle class has fuelled increased demand for organic foods, particularly in the cities.

As per a study by ASSOCHAM[1] India, the organic food turnover is growing at about 25 percent annually and is expected to reach 1.36 billion US dollars by 2020 from 0.36 billion US dollars in 2014.

[1] Assocham Associated Chambers of Commerce of India

Japan

In 2016, organic food consumption grew by 42.6 percent compared to 2015. At the same time, the production of non-organic, but pesticide-free, reduced chemical fertilizer food, has grown by 45.2 percent.[1]

More than 190 exhibitors came together for the first "Organic Lifestyle Expo" in November 2016 in Tokyo, varying from organic food, and clothing to educational organizations. The two-day fair attracted nearly 20'000 visitors, and clearly showed a growing public interest in the movement for an organic and sustainable lifestyle.

The Tokyo Olympics 2020 remains a strong driver in pushing an organic agenda. In bidding for athlete housing, some cities (e.g., Fukuoka) have identified organic food catering as a location advantage to attract the athletes from the participating countries.

An interesting development is that cities are becoming more aware that the integration of organic aspects into urban planning creates new attractions for citizens. Mostly notable was the city of Kisarazu[2] in the Prefecture of Chiba, which declared itself as Japan's first organic city in November 2016. It has developed a 10-year plan to increase local organic food production and create an urban brand around an organic lifestyle.

In 2016, December 8th was declared as the official "Organic Day" in Japan, initiated by the Organic Movement Alliance (OMA). Altogether, 2016 has been a key year for the growth of the organic organizations, such as the establishment of the "Network for Organic-eco and Eco-friendly Food & Agriculture (NOAF)."

Korea

The 4th Five-Year Environmentally-Friendly Promotion Law (Years 2016 to 2020) was implemented in March 2016. The new action plans targeted the growth of the processing sector and the establishment of an agricultural system friendly to the environment, emphasizing the preservation of the environment and ecology rather than the expansion of production as in the previous 5-Year Laws. This also means a transformation of the direct payments for environmentally friendly agriculture from a payment system to preserve farm income into a direct payment system, emphasizing the environmental benefits of organic agriculture.

Also in 2016, the voluntary collection of funds for the promotion of organic agriculture from the organic community ("checkoff funds" scheme in partnership with the Ministry of Agriculture, Food and Rural Affairs) has become mandatory for all certified organic farmers. A managing board has been set up for the operation of the funds, which will be used for the promotion of sales of organic agricultural products and for increasing the income of organic farmers. About 4.5 million US dollars is expected to be generated annually.

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[1] Organic Village Japan 2016.

[2] Kisarazu City is one of the founding members of "Asian Local Governments for Organic Agriculture (ALGOA) initiated by IFOAM Asia in 2015 as a forum of cooperation between Asian local governments and IFOAM Asia affiliates for the development of organic agriculture in Asia. Kisarazu was also the first city in Japan to host the ALGOA Japan Forum attended by more than eight countries in Asia as well as local governments in Japan.

From 2017, the organic certification, which has been undertaken by both the government (National Agricultural Products Quality Management Service) and private certification bodies, will be delegated to the private sector. The government will only handle the registration and management of the private certification bodies, and all organic certification work will be handled by the 65 certification bodies existing currently.

Kyrgyzstan

The National Action Plan for the transition to organic agricultural production in the Kyrgyz Republic (KONAP) became a part of the government program for sustainable development for the years 2013 to 2017. It is a roadmap for the development of the organic movement and aims to create a favourable environment for public-private partnership for the development of organic agriculture and preservation of biodiversity; to empower and increase awareness of and access to knowledge of organic agriculture; to develop the value chain and favourable economic conditions for organic agricultural production; to build trust and guarantee system (development of standardization and certification of organic agricultural production); and to coordinate and monitor the implementation of the KONAP.

KONAP has been approved by the Ministry of Agriculture and is in the process of approval from the Parliament of the Kyrgyz Republic.

A significant development was the cancellation of the construction of a chemical fertilizer factory. At the Organic Workshop (organized by BIO-KG Federation of Organic Development in collaboration with the Ministry of Agriculture of the Kyrgyz Republic), the participants were successful in demanding the cancelation of the construction through a Special Appeal.

BIO-KG Federation of Organic Development has successfully linked the business sector with the organic *aymaks* (villages) in 2016, and the first delivery of organic products to the local supermarkets will take place in the summer of 2017, providing new marketing opportunities for organic farmers.

Philippines

In terms of policies, the Republic Act 10068 or the Organic Agriculture Promotions and Development Law of 2010 will be due for revision, and among others, PGS Certification will be included as an alternative form of certification.

PGS certification is now more necessary since the moratorium that began April 2010 on the implementation of the third-party certification for products to be labelled as organic ended in October 2016.

In terms of local markets, in the past three years the government established seventy plus organic trading posts around the country to provide market access for rural-based organic producers. More than half are now operational and are mostly managed by municipal local government units, and training on good organic retailing practices was provided by the private sector.

In terms of production, new organic farmers (mostly vegetables) were organized after attending government-sponsored training using the farmer field school approach.

Demonstration farms are also established as learning sites and help convince farmers to try organic farming.

In terms of export markets, most of the organic coconut operators, which are the biggest exporters of organic products, reported that the demand is still higher than the supply for all products, especially for virgin coconut oil, coconut water, and other coconut products. Based on the website of the United States Department of Agriculture (USDA), the number of coconut operators certified increased to 70 in 2015 from 42 in 2014.

The government budget for the development of the organic sector is mandated at 2 percent of the total agriculture budget, but in the past years, it merely reached the mandated allocation.

The biggest single threat is the persistence of GMO crops after the Supreme Court's temporary ban on December 8, 2015, on the trial of Bt Eggplant, which was lifted in March 2016.

Sri Lanka

Sri Lanka has proclaimed to become a "chemical-free nation" soon after the appointment of the new president following the Rainbow Revolution in Sri Lanka on January 8, 2015. It is a key program under the president's office and has decided to ban the herbicide glyphosate. A 10-point program was launched for the implementation of toxin-free agriculture, which also involved the start of a rice cultivation program using indigenous rice varieties and it is expected that by the third year, 30 percent of rice cultivated will be based on indigenous varieties.

Also, the campaign called "The Same Nutrition for the Same Price" was initiated so that organic food would be available to all at prices similar or comparable to chemical-based produce.

Although this is not a fully organic promotion program, it is hoped that it will create an opportunity for the organic movements to promote the expansion of organic agriculture in Sri Lanka.

The Department of Agriculture is also in the process of establishing a National PGS Council to promote the local organic market while the Ministry of Primary Industries with World Bank funding has started to work with agro-business development projects to develop organic products targeted for the export markets of the United States and Canada, European countries, Japan, Australia, and the Middle East. Major crops for export are organic tea, organic coconut, spices, and cinnamon. Others also include organic cosmetics, clothing, and rubber products.

The Council of Agriculture Research Policy (CARP) has also been allocated a separate budget for research on organic agriculture and on the local governmental level: The Governor's Initiative was launched by the governor of the Southern Province in order to promote organic agriculture in the respective provinces with the full participation of governors, officials, university experts, and civil society representatives.

Thailand

The Thai organic sector continues to enjoy a double-digit growth in production and sales. The main production growth comes from the expansion of organic rice and coconut. Domestic markets also expanded despite some scandals in the government's organic certification programs.

The government plan to introduce compulsory labelling of organic products sold in the country was met with strong criticism from the private sector and organic producers. Dialogue among stakeholders is needed to review the national organic agriculture programmes and how the compulsory labelling fits the new strategies.

Three PGS schemes and labels are now in full operation for local markets.

Major achievements of IFOAM Asia

Since its official establishment as a self-organized structure of IFOAM - Organics International, membership in IFOAM Asia has steadily increased to over 140 members, in 16 countries, in Asia including Central Asia.

Understanding the importance of the role of local governments in the adoption and implementation of organic agriculture practices in Asia, IFOAM Asia initiated the "Asian Local Governments for Organic Agriculture (ALGOA)" in September 2015[1] as a forum for cooperation between IFOAM Asia affiliates and partners and local governments in Asia. An annual summit brings together representatives from both the public and private sectors to discuss issues related to the development of organic agriculture in Asia. Other programs include the ALGOA Organic Foundation Course (in collaboration with the IFOAM Organic Academy), a training program for local government officials and IFOAM Asia affiliates.

One remarkable outcome of the 2016 ALGOA Organic Foundation Course was the establishment of the IFOAM Asia Organic Youth Forum, a spontaneous initiative by the younger participants of the training (below 40 years of age) who wish to further the cause of the organic movement.

IFOAM Asia also organized the first Organic Asia Congress (OAC) in September 2016 under the theme "Manifesting Organic 3.0 in Asia." This was the largest gathering of the organic community in Asia since the Organic World Congress was held, in South Korea, in 2011. The second OAC will be held, in May 2017, at Xichong County, Sichuan Province, China.

[1] ALGOA was officially launched on September 19th, 2015 at the ISOFAR Goesan International Organic Expo, Goesan County, Chungbuk Province, South Korea. See www.organicgovts.com

Asia: Current statistics

JULIA LERNOUD,[1] HELGA WILLER,[2] AND BERNHARD SCHLATTER[3]

Overview

The area of organic agricultural land in Asia is almost 4 million hectares, which is 0.2 percent of the total agricultural area in the region. Eight percent of the global organic agricultural land is in Asia. Compared with 2001 (420'000 hectares), the organic land has increased over eight-fold. Between 2014 and 2015, the organic area in Asia increased by almost 400'000 hectares or 11 percent. The country with the largest organic agricultural area is China (1.6 million hectares), and the country with the most producers is India (585'000 producers). The countries with the highest organic shares of the total agricultural land are Timor-Leste (6.6 percent) and Sri Lanka (3.5 percent).

Land use

In Asia, 56 percent of all organic farmland was used for *arable crops* (2.2 million hectares) in 2015, 19 percent (almost 750'000 hectares) for *permanent crops*, and one percent for *grassland/grazing* areas (almost 28'000 hectares). Land use information was not available for 24 percent of the agricultural land, so we can assume that each category has a far larger share of the total organic land.

Cereals comprise the key organic arable crop group (mainly wheat and rice), with over 900'000 hectares, representing 0.3 percent of the total cereal area in Asia. Most organic cereals were grown in China (almost 700'000 hectares) and Kazakhstan (130'000 hectares, 2012 data). Oilseeds (mainly soybeans) are also an important crop group grown on at least 600'000 hectares (mainly in China and India) and represented 1.1 percent of the total oilseed area in Asia. The key organic cereals were wheat, rice and grain maize. Organic wheat represented over 30 percent of the total organic cereal area. The largest organic wheat areas were in China (almost 164'000 hectares) followed by Kazakhstan (almost 120'000 hectares). Organic rice was mainly grown in China (almost 156'000 hectares), constituting 71 percent of the total organic rice in the region.

Most of the organic *permanent crops* land was used for coconuts (243'000 hectares), temperate fruit (almost 121'000 hectares), coffee (110'000 hectares), and tea (at least 75'000 hectares). The Philippines had the largest organic coconut area, with over 180'000 hectares, representing over 75 percent of the total organic coconut area of the region. Most of the organic coffee in Asia was grown in Indonesia, where over 82'000 hectares were reported, followed by Timor-Leste (more than 25'000 hectares); both countries represented 97 percent of the organic coffee area in Asia. Organic coffee represented 4.3 percent of the total coffee in Asia. Almost 2.5 percent of the total tea

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

[3] Bernhard Schlatter, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org

grown in Asia was organic; most of it was in China (57'000 hectares) followed by Sri Lanka (almost 5'000 hectares).

Producers

In 2015, 851'000 organic producers were reported in Asia. India is the country with the most organic producers (585'000), followed by the Philippines (almost 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 seven-fold.

Wild collection

In 2015, 5.5 million hectares of organic wild collection were reported in Asia. Unfortunately, no detailed data is available for 87 percent of the reported area. From the details available, wild mushrooms (almost 200'000 hectares) and wild oil plants (almost 120'000 hectares) are the key commodities. Furthermore, wild fruits and medicinal plants (almost 50'000 hectares each) play an important role. India is the country in the region with the largest organic wild collection area, with almost 4 million hectares, followed by Tajikistan (1 million hectares), and China (0.6 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. Eight countries provided organic retail sales values, less than 20 percent of the countries with organic data (Table 13, page 72). From the data available, we can assume that at least 6.3 billion euros of organic products were sold in Asia. For China, 4.7 billion euros were reported for 2015, making the country the world's fourth biggest market for organic products. Furthermore, Japan has a large organic domestic market valued, 1 billion euros (data 2009), and South Korea reported a market of 281 million euros. More information about the Asian market is available in the chapter about the global market from Amarjit Sahota (page 138).

For more information about the Asian figures, see data tables for Asia, page 192.

Organic Agriculture in Asia: Graphs

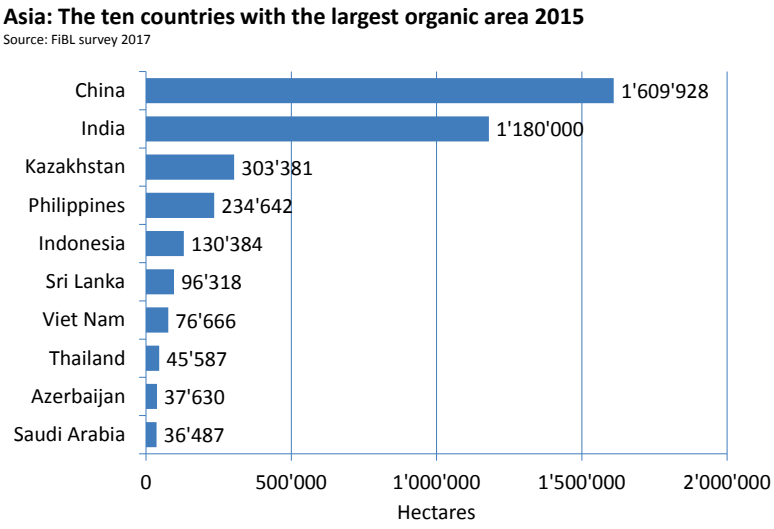


Figure 59: Asia: The ten countries with the largest organic agricultural area 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

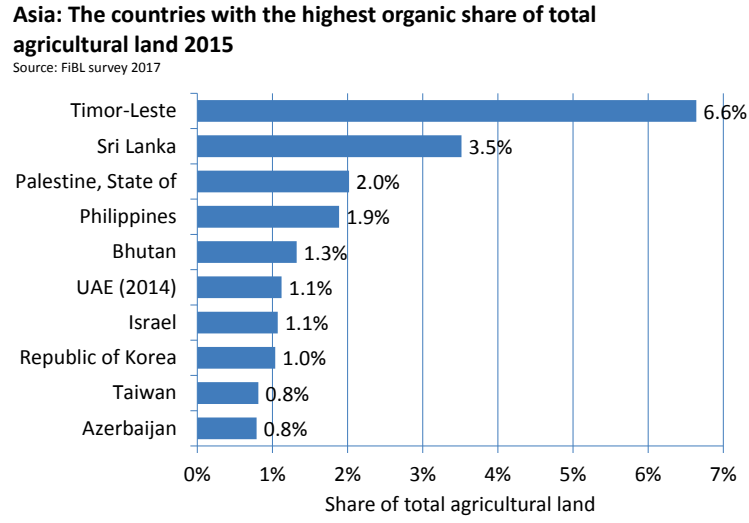


Figure 60: Asia: The countries with the highest organic share of total agricultural land 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

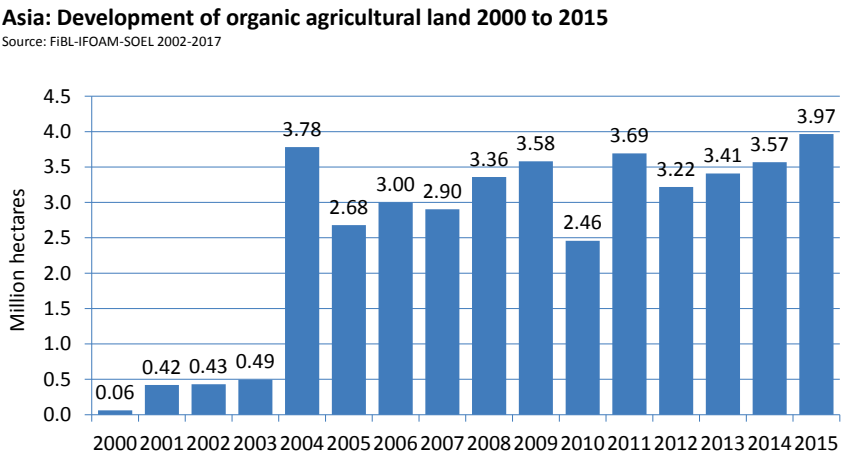


Figure 61: Asia: Development of organic agricultural land 2000 to 2015

Source: FiBL-IFOAM-SOEL surveys 2002-2017; based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

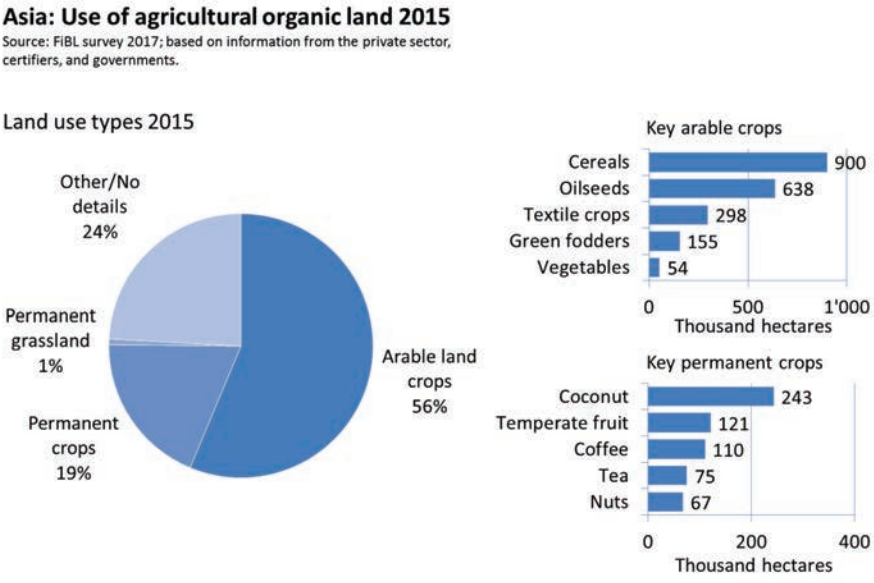


Figure 62: Asia: Use of organic agricultural land 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

Organic Agriculture in Asia: Tables

Table 50: Asia: Organic agricultural land, organic share of total agricultural land, and number of producers 2015

For information on data year, see page 312.

Country	Area [ha]	Organic share [%]	Producers [no.]
Afghanistan	81	0.0002%	
Armenia	1'832	0.1%	20
Azerbaijan	37'630	0.8%	305
Bangladesh	6'860	0.1%	9'335
Bhutan	6'950	1.3%	2'680
Brunei Darussalam		Aquaculture only	
Cambodia	12'058	0.2%	6'753
China	1'609'928	0.3%	9'990
Georgia	1'452	0.1%	1'075
India	1'180'000	0.7%	585'200
Indonesia	130'384	0.2%	5'789
Iran (Islamic Republic of)	14'574	0.03%	3'873
Iraq	58	0.001%	
Israel	5'758	1.1%	303
Japan	10'043	0.2%	2'130
Jordan	1'706	0.2%	27
Kazakhstan	303'381	0.1%	29
Kuwait	20	0.01%	
Kyrgyzstan	7'565	0.1%	1'035
Lao People's Democratic Republic	1'445	0.1%	1'342
Lebanon	1'222	0.2%	48
Malaysia	603	0.01%	119
Myanmar	5'626	0.04%	10
Nepal	9'361	0.2%	687
Oman	38	0.003%	4
Pakistan	34'209	0.1%	111
Palestine, State of	6'014	2.0%	1'096
Philippines	234'642	1.9%	165'958
Republic of Korea	18'136	1.0%	11'611
Saudi Arabia	36'487	0.02%	151
Singapore		Processing only	
Sri Lanka	96'318	3.5%	8'695
Syrian Arab Republic	19'987	0.1%	2'458
Taiwan	6'490	0.8%	2'598
Tajikistan	12'659	0.3%	10'486
Thailand	45'587	0.2%	13'154
Timor-Leste	25'232	6.6%	73
United Arab Emirates	4'286	1.1%	53
Uzbekistan		Wild collection only	
Viet Nam	76'666	0.7%	3'816
Total	**3'965'289**	**0.2%**	**851'016**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

Table 51: Asia: All organic areas 2015

Country	Agri-culture [ha]	Aqua-culture [ha]	Forest [ha]	Wild collection [ha]	Other non agri. land [ha]	Total [ha]
Afghanistan	81					81
Armenia	1'832			12'000		13'832
Azerbaijan	37'630	123	123	1'063		38'939
Bangladesh	6'860	9'338				16'198
Bhutan	6'950			6'315		13'265
Brunei Darussalam		29				29
Cambodia	12'058					12'058
China	1'609'928			596'975		2'206'903
Georgia	1'452			215	1'507	3'174
India	1'180'000			3'710'000		4'890'000
Indonesia	130'384	3'320		10'615		144'319
Iran	14'574			27'532		42'106
Iraq	58					58
Israel	5'758					5'758
Japan	10'043					10'043
Jordan	1'706					1'706
Kazakhstan	303'381			863		304'244
Kuwait	20					20
Kyrgyzstan	7'565					7'565
Lao, P.D.R.	1'445			16'786		18'231
Lebanon	1'222			395		1'617
Malaysia	603					603
Myanmar	5'626					5'626
Nepal	9'361			24'422		33'783
Oman	38					38
Pakistan	34'209			44'620		78'829
Palestine, State of	6'014					6'014
Philippines	234'642					234'642
Republic of Korea	18'136					18'136
Saudi Arabia	36'487					36'487
Singapore			Processing only			
Sri Lanka	96'318					96'318
Syrian Arab Republic	19'987			8'000		27'987
Tajikistan	12'659			1'055'890		1'068'549
Thailand	45'587					45'587
Timor-Leste	25'232					25'232
United Arab Emirates	4'286					4'286
Uzbekistan				5'000		5'000
Viet Nam	76'666	14'679		2'200		93'545
Taiwan	6'490					6'490
Grand Total	**3'965'289**	**27'489**	**123**	**5'522'891**	**1'507**	**9'517'298**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316

Table 52: Asia: Land use in organic agriculture (fully converted and in conversion) 2015

Land use	Crop group	Area [ha]
Agricultural land, no details		949'348
Arable land	Arable crops, no details	4'985
	Cereals	900'352
	Dry pulses	18'554
	Fallow land, crop rotation	61'500
	Flowers and ornamental plants	5'874
	Green fodders from arable land	154'586
	Industrial crops	144
	Medicinal and aromatic plants	44'797
	Mushrooms and truffles	654
	Oilseeds	637'581
	Root crops	1'763
	Seeds and seedlings	68
	Strawberries	736
	Sugarcane	14'291
	Textile crops	298'300
	Vegetables	53'945
	Arable crops, other	34'046
Arable land total		*2'232'176*
Other agricultural land	Other agricultural land, no details	347
	Home gardens	6'042
	Unutilised land	27
	Other agricultural land, other	1'126
Other agricultural land total		*7'541*
Permanent crops	Berries	113
	Citrus fruit	7'293
	Cocoa	2'332
	Coconut	243'265
	Coffee	110'488
	Flowers and ornamental plants, permanent	20
	Fruit, no details	10
	Fruit, temperate	120'957
	Fruit, tropical and subtropical	40'534
	Grapes	16'745
	Medicinal and aromatic plants, permanent	34'654
	Nuts	67'132
	Olives	7'739
	Tea/mate, etc.	75'306
	Permanent crops, other	21'578
Permanent crops total		*748'164*
Permanent grassland		28'059
Total		**3'965'289**

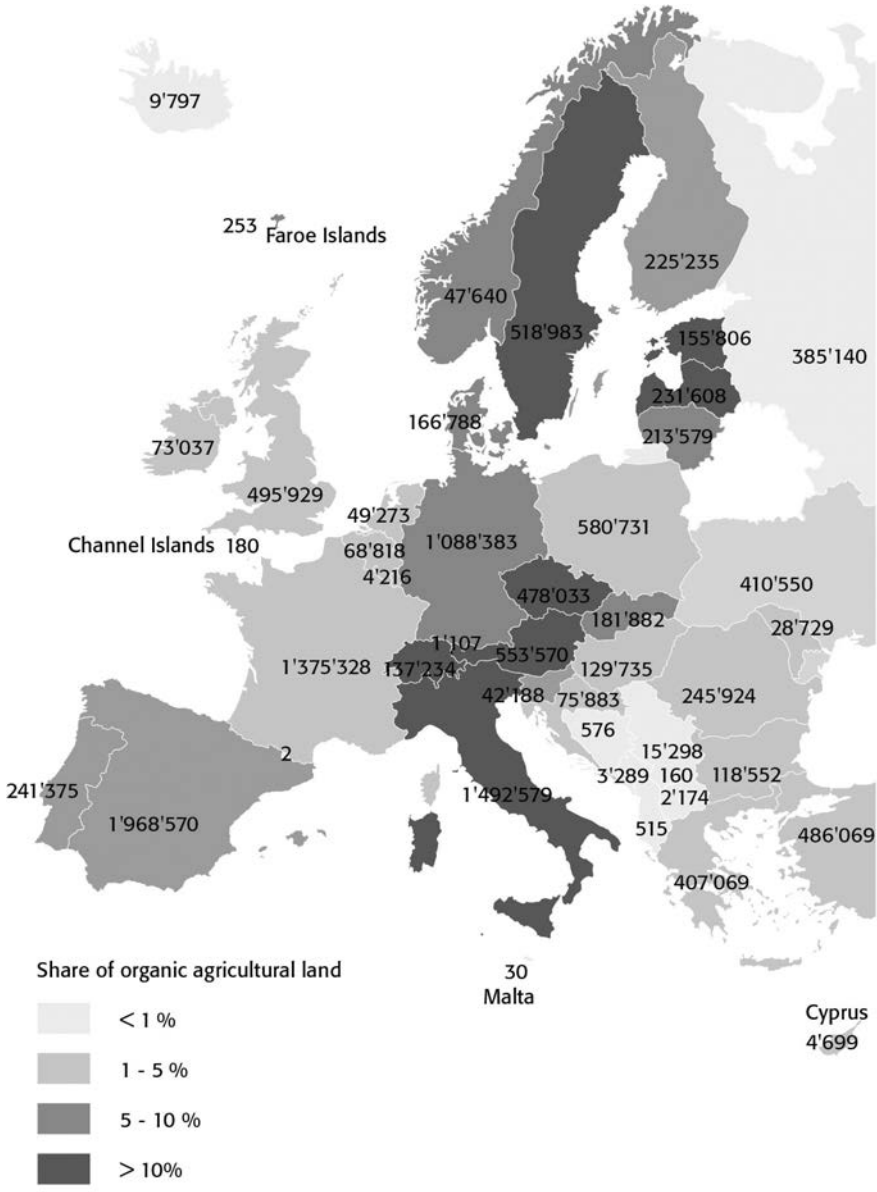
Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316

Table 53: Asia: Use of wild collection areas 2015

Land use	Area [ha]
Apiculture	14'489
Berries, wild	161
Fruit, wild	48'987
Medicinal and aromatic plants, wild	49'154
Mushrooms, wild	197'104
Nuts, wild	70'038
Oil plants, wild	118'935
Palm sugar	1'087
Seaweed	640
Wild collection, no details	4'895'896
Wild collection, other	126'399
Total	**5'522'891**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

Europe



Map 4: Organic agricultural land in the countries of Europe 2015

Source: FiBL-AMI survey 2017; based on information from the private sector, certifiers, governments, Eurostat and the Mediterranean Organic Agriculture Network. For detailed data sources see annex, page 316.

Organic Farming in Europe

Helga Willer,[1] Stephen Meredith,[2] Yulia Barabanova,[3] Bram Moeskops,[4] and Matthias Stolze[5]

Over the last three decades, organic food and farming has continued to grow across Europe. Since 1985 in Europe, the total area of farmland under organic production increased steadily from 0.1 million to almost 13 million hectares by 2015, and in the European Union (EU) to 11.2 million hectares. This has been accompanied by buoyant market growth, and the total value of the European organic retail market almost trebled from 11.8 billion in 2005 to almost 29.8 billion euros in 2015 (EU: 27.1 billion euros) (page 207). This continuous development reflects the innovative nature of organic food and farming in responding to the demands of European consumers for high-quality food production and to the expectations of policymakers for the sector to support the environment, animal welfare, and the development of rural areas. At the same time, despite the dynamic market growth, current trends indicate that production in Europe is not moving at the same speed, which presents several challenges for the future development of organic in Europe. Some of these challenges and developments in relevant regulations, policies, and research are explored in this chapter (see also Stolze et al. 2016a).

Current trends[6]

- **Dynamic retail market:**
  Many countries report double-digit growth rates for their organic markets in 2015. The European market for organic products grew by 13 percent (EU: 12.6 percent), a higher rate than in the past five years.
- **Consumers are spending more on organic food:**
  Between 2006 and 2015, per-capita consumption of organic food doubled to 36.4 euros (EU 53.7 euros).
- **Consumer demand for high-quality produce: certain organic product groups achieve above average market shares**
  Organic eggs have a market share of over 10 percent in many countries, and in Switzerland, they reach 24.3 percent. Dairy products hold market shares of up to 12 percent. Milk alone can reach even higher shares – 17.3 percent in Austria.

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[6] For details on the European organic market see chapter by Willer et al. on page 207.

- **Organic food markets are developing at different rates in each country**
  The growth of the organic market varies between countries. While retail sales in 2015 increased by double digits in most countries, in some countries, such as Switzerland, the United Kingdom, and Luxembourg, organic retail growth rates were below the average. Similarly, there are huge differences in per capita consumption of organic food between countries. Switzerland, Denmark, Sweden are leading (with more than 150 euros), whereas countries such as Slovakia, and Bulgaria are at the lower end.
- **Processing and imports increase**
  In contrast to the development of organic farms (+3 percent), the number of organic processors and importers increased considerably in 2015 (+12 percent and +19 percent, respectively). The dynamic growth of the organic market has resulted in more and more importers and retailers stepping into organic businesses or expanding engagement with organic food, while organic producers are not moving at the same speed.
- **Dynamic market growth, but organic production lags behind**
  While the market grew at an even higher rate than in the previous years, the growth of organic farmland continued to be slower than that of the market, even though it was considerably faster than in the previous years, increasing by 8.2 percent in Europe (EU: 7.8 percent). The trend of the market growing at a faster rate than the area and the number of producers has been noticeable for a couple of years, showing that production is not keeping pace with the demand of the market. As organic production in the EU lags behind the growth of the organic market, there is a severe risk that the growing demand will be met by imports and that European farmers may not benefit (Stolze et al. 2016b).

EU regulatory framework on organic farming

The European Union (EU) policy and regulatory framework continues to influence the development of the organic sector across Europe. Three years have passed since the launch of European Commission's legislative proposal reviewing the EU organic regulation in March 2014 (European Commission 2014) with discussions still ongoing. As major changes would have a significant impact on the development of the organic sector over the next decade, the review remained a key priority for the organic sector in 2016. Twelve months after the start of trilogue negotiations between the European Parliament, Agriculture Council and European Commission, talks remained deadlocked at the end of 2016. Positions amongst the EU Institutions and the Member States themselves continue to diverge on key topics, including thresholds particularly concerning pesticide contamination, soil-bound greenhouse production, seeds and derogations.

Within the organic sector itself, stakeholders have called for a new approach to the review process that better accounts the realities facing organic operators and takes on board the vast expertise in the organic sector on regulation and standards (IFOAM EU 2016). At the time of print of this article, it was not clear how the negotiations would proceed in 2017.

EU policy framework on organic farming

The Common Agricultural Policy (CAP) remains a key policy for the development of agriculture in Europe including organic farming. Under the current CAP for the period 2014-2020 organic farming is supported through Pillar 1 (direct payments) and Pillar 2 (Rural Development Programmes - RDPs).

- Under Pillar 1, certified organic farmers automatically qualify for the "Greening" payment (which constitutes 30 percent of the direct payments).
- The majority of support, however, comes through different measures available national and regional RDPs under Pillar 2, most notably farmland area payments for conversion and maintenance of organic production.
- Other RDP support measures include farm advice, knowledge transfer, infrastructural investments, and the promotion of farm products etc.

Currently, European Commission figures project that over 10 million hectares of farmland will be supported under the new RDPs (Stolze et al. 2016a). In terms of total spending, organic area payments will account for 6.4 percent of EU public expenditure for RDPs to 2020 (including EU and national co-financing).

A recent study on "Organic farming and the prospects for stimulating public goods under the CAP 2014-2020" examined existing assessments of the new greening component under the direct payments of Pillar 1. It compared organic farming payments by land use types offered under the Rural Development Programmes for the periods 2015 and 2007-2011 in 24 Member States (Stolze et al. 2016b).

The study found that the CAP still disproportionally favours production, regardless of the overall sustainability of the farm. For example, direct support for the organic farming payments to support conversion and maintenance accounts for only 1.5 percent of the total EU agricultural budget (i.e. direct payments and RDPs). At the same time, whilst all Member States (with the exception of the Netherlands) offer organic support payments, the total spending targeted at organic farming varies significantly ranging from 0.2 percent of the total EU RDP spending (Malta) to 13.2 percent (Denmark). Projected figures for future conversions suggest that in the majority of countries there are limited opportunities to significantly increase the organic land area by 2020.

Whilst a comprehensive assessment of how other RDP support measures are utilised for organic farming in different Member States was not undertaken, an assessment of the previous RDPs for period 2007-2013 showed that there is considerable variation in the way that Member States make use of these additional measures for organic farming (Sanders et al., 2011).

The study from Stolze et al. (2016b) concluded that greater efforts are needed to make farm sustainability an integral and integrated part of the next CAP and not simply an add-on that competes with other parts of the policy. This should foresee the CAP having clearer objectives and a dedicated budget for a consistent programme of environment and climate outcomes - without compromises. Greater investment in organic farming can play an important role in meeting environmental and climate goals and support a transition to more sustainable agri-food systems.

Research

Today, organic farming research is funded under national research programs or national organic action plans as well as through European programmes.[1]

Several organic farming research projects have been funded under the EU framework programmes since the mid-1990s (Figure 63). Furthermore, there are several European projects that do not have organic farming as their focus, but carry out related research. In the Seventh Framework Programme for Research and Technological Development, which was launched in 2007, there were 14 projects focusing on organic farming.

In the meantime, the first projects for the succeeding Horizon 2020 programme were launched such as Diversifood, OK-Net Arable, CEreal REnaissance in Rural Europe, LIVESEED.

Under CORE Organic, a new call for projects was launched in 2016. CORE Organic was initiated as a part of the European Commission's ERA-NET Scheme, which intends to step up cooperation between national research activities and aims at enhancing the quality, relevance and utilisation of European research resources through coordination and collaboration.

European Union: Funding of organic farming research in the EU's framework programmes (FP)

Source: CORDIS database, organic projects as listed here http://www.organic-research.net/transnational-projects/european-projects.html

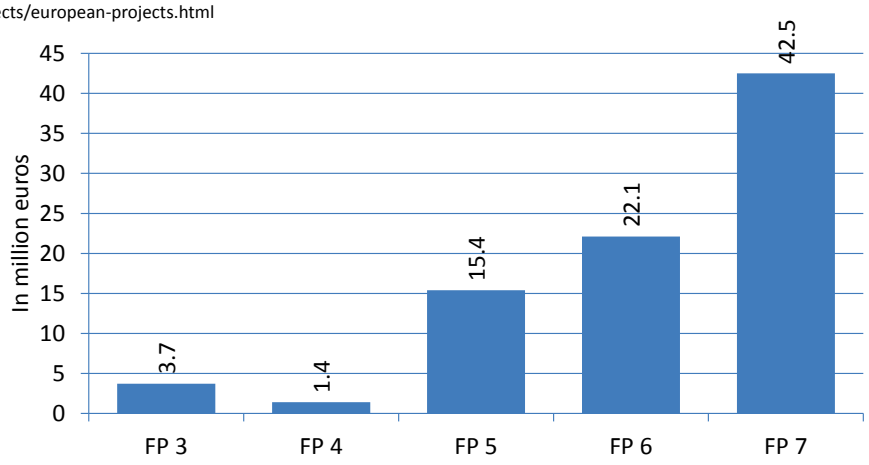

Figure 63: European Union: Funding of organic farming research in the EU's framework programmes (FP)

Source: CORDIS database using data for projects listed by FiBL (2015) at the Organic Research website. (FP 3: 1990-1994; FP4: 1994-1998; FP 5: 1998-2002; FP6: 2002-2006; FP7: 2007-2013; Horizon 2020: 2014-2020 (not included in graph).

[1] For a list of organic farming research projects funded by the European Commission, see http://www.organic-research.org/european-projects.html

TP Organics[1] is the European Technology Platform for Organic Food and Farming. Its mission is to advocate for and obtain greater investment in research and innovation for organic, low-input and agroecological food production and so contribute to the transition to sustainable food and farming systems. It unites large companies, small & medium enterprises, researchers, farmers, consumers, and civil society organisations.

In November 2016, TP Organics published a paper with 12 priority topics for the Horizon 2020 Work Programme 2018/2020. The topics were selected from TP Organics' Strategic Research and Innovation Agenda that was published in December 2014. Structured according to the call themes of Horizon 2020 (Societal Challenge 2, Sustainable Food Security and Rural Renaissance), the paper contains two kinds of projects: projects for a wider flagship programme for the transition of Europe's food system and projects that address specific challenges of organic food and farming (TP Organics 2016a).

New platform for farmers to find organic solutions and exchange knowledge launched

In October 2016, the Horizon 2020-funded OK-Net Arable project launched the new knowledge platform farmknowledge.org, which aims at filling the gap in the exchange of information among farmers across Europe. OK-Net Arable will make practical organic solutions available to farmers and at the same time provide them with the technical means to discuss how it works on the field, suited to their geographic and climatic conditions. The platform is available in ten languages, and the solutions are divided according to the most relevant topics in organic arable farming: soil quality and fertility, nutrient management, pest and disease control, weed management, and solutions for specific crops (Niggli et al. 2016).

Science Day 2016 at Biofach

Science Day was organised for the fourth time by TP Organics and TIPI, the Technology Innovation Platform of IFOAM - Organics International in February 2016. TP Organics' session focussed on innovation of European organic food companies and also served to explore how the European Commission can better support organic food companies, in particularly in the framework of Food 2030. This is the European research and innovation policy framework for food and nutrition security that the European Commission will build over the next years. One of the main outcomes of the discussion was that more research is needed to translate the requirements of the organic regulations in terms of food processing, such as "processing with care" and "guaranteeing the vital qualities of the product" into practice. Differences in the interpretation of these requirements across the Member States are hampering the

[1] The TP Organics vision paper, published in December 2008, reveals the huge potential of organic food production to mitigate major global problems, from climate change and food security, to the whole range of socio-economic challenges in the rural areas (Niggli et al. 2008). In February 2010, the Strategic Research Agenda (SRA), the second major document of the Technology Platform TP Organics (www.tporganics.eu) was finalized, underlining research priorities and a number of suggestions for research projects. The Implementation Action Plan explains how the research priorities and research topics, identified in the Strategic Research Agenda, can be implemented. A focus is laid on funding instruments, research methods, and communication of results. The Strategic Research Agenda was updated and published as Strategic Research and Innovation Agenda in 2014 (Beck et al. 2014). Many of the topics covered in these documents were taken into consideration in recent European calls.

development of the organic sector. A Code of Practice that sets the frame for developing innovative yet "careful" technologies is needed. The discussion also contributed to the position paper of TP Organics (2016b) on "Research and Innovation for our future food systems" which outlines 9 key areas of research in (organic) food systems, including true cost accounting, reconnecting consumers and producers, and transparency and trust in the supply chain.

The session organized by TIPI, the Technology Innovation Platform of IFOAM – Organics International focussed on challenges for organic agriculture research in tropical zones (TIPI 2016). The session explored opportunities in further developing research on organic food and farming in the tropics in order to better position organic farming research on the agenda of major international players in international cooperation.

Organic Innovation Days

The Organic Innovation Days is an annual event of TP Organics to explore and promote innovation within and beyond the organic sector. In TP Organics' Call for Organic Innovations 2016 three innovations were awarded: The AssureWel project for the theme "innovation for animal health and welfare in organic production systems"; a new, innovative cereal sowing system for weed control for the theme "increasing productivity and quality in organic arable farming"; the Check Organic and the FederBio Integrity Platforms for the theme "increasing transparency in the organic value chain". All innovations shortlisted for various editions of Organic Innovation Days are available online at TP Organics website.[1]

Challenges and recommendations

There are several obstacles that might hinder European farmers and food businesses from profiting from the growing demand for organic products (Stolze et al. 2016a), including:

- Countries giving differing priority to organic farming;
- Inefficiencies in organic supply chains;
- Organic processing being less developed and regulated than primary production;
- Poor market transparency, which results in insufficient information to inform future investments;
- Lack of information on the economic performance of organic farms;
- Lack of research on key production-related bottlenecks and other challenges of organic farming.

According to Stolze et al. (2016b), both policymakers and the organic sector have an important role to play in addressing obstacles that hinder farmers and businesses from investing in the development of organic food and farming. For policymakers, there are several areas where the current policy environment could be improved. Suggestions include that Member States pursue a clear organic sector strategy; support shorter

[1] Innovation Arena at the TP Organic website: tporganics.eu/innovation-arena

organic supply chains that provide environmental and social benefits, and set up improved statistical processes to increase the accuracy of organic market data collection.

Also, the organic sector can support organic food and farming development in Europe, based on the principles of organic agriculture, which would, among other things, include the collaboration among all supply chain actors and stakeholders, for instance in the area of research funding (Barabanova et al. 2015).

Outlook

Organic is a strong part of the movement that sees sustainable food production and consumption as vital for the health of the environment, people and communities. In 2016, IFOAM EU had different conversations with its members and like-minded groups on how to transform food and farming in Europe as part of implementing the Vision 2030 for Organic in Europe (Barabanova et al. 2015).

Based on these conversations, in 2017 IFOAM EU will launch a roadmap for all the actors to start – or continue – actively shaping the agri-food systems in Europe and beyond using organics.

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- organic-europe.net: Organic Europe, maintained by FiBL: Country reports, address database, statistics
- 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

Europe and European Union: Key indicators 2015

Indicator	Europe	European Union	Top 3 countries Europe
Organic farmland in hectares	12.7 million ha	11.2 million ha	Spain (1.97 million ha) Italy (1.49 million ha) France (1.37 million ha)
Organic share of total farmland	2.5 %	6.2 %	Liechtenstein (30.2%) Austria (21.3%) Sweden (16.9%)
Growth of organic farmland 2014-2015 in hectares	959'793 ha	805'280 ha	Spain (+258'095 ha) France (+256 483 ha) Russia (+139'294 ha)
Growth of organic farmland 2014-2015 in percent	8.2%	7.8%	Serbia (+ 60%) Bulgaria (+59%) Russian Federation (+57%)
Land use	Arable: 5.7 million ha Permanent crops: 1.4 million ha Permanent grassland: 5.3 million ha	Arable: 4.7 million ha Permanent crops 1.2 million ha Permanent grassland: 5.1 million ha	
Top arable crops	Cereals: 2.2 million ha; Green fodder: 2.1 million ha Dry pules: 0.3 million ha	Green fodder: 1.9 million ha Cereals :1.7 million ha Dry pules: 0.3 million ha	Largest arable areas: France (0.7 million ha) Italy (0.7 million ha) Spain (0.5 million ha)
Top permanent crops	Olives: 0.5 million ha Grapes: 0.3 million ha Nuts: 0.2 million ha	Olives: 0.45 million ha Grapes: 0.28 million ha Nuts:0.19 million ha	Largest permanent areas: Spain (0.5 million ha), Italy (0.4 million ha) Turkey (0.2 million ha)
Wild collection area	17.7 million ha	15.4 million ha	Finland (12.2 million ha) Romania (1.8 million ha; 2014) Bulgaria: (0.9 million ha)
Producers	349'261	269'453	Turkey: 69'967 Italy 52'609 Spain 34'673
Processors	60'073	58'360	Italy (14'658) Germany (14'280) France (11'842)
Importers	3'681	3'474	Germany (1'452) Netherlands (314) Italy (310)
Retail sales	29.8 billion euros	27.1 billion euros	Germany (8'620 million euros) France (5'534 million euros) United Kingdom (2'604 million euros)
Growth of retail sales 2014-2015	13.0%	12.6%	Spain (24.8 %), Ireland (23.0%) Sweden (20.3 %)
Organic share of total market	No data	No data	Denmark (8.4 %) Switzerland (7.7 %) Luxembourg (7.5%)
Per capita consumption	36.4 euros	53.7 euros	Switzerland (262 euros) Denmark (191 euros) Sweden (177 euros)

Source: FiBL-AMI survey 2017.
For detailed data sources see annex.

Organic Farming and Market Development in Europe and the European Union

Helga Willer,[1] Diana Schaack,[2] and Julia Lernoud[3]

This chapter is an update for some of the data presented in the article "Growth trends in European organic food and farming" (Willer et al. 2016) written by the Research Institute of Organic Agriculture (FiBL), the Agriculture Market Information Company (AMI), and IFOAM EU, and published by IFOAM EU and FiBL in the volume "Organic in Europe, 2016". Therefore, the structure of this chapter is different from the other regional statistics chapters in this book.

The article focuses on Europe and on the 28 member states of the European Union (EU), and it shows some trends of the EU-13 and the EU-15 countries. The EU-13 countries are those that became members of the European Union in or after May 2004. The EU-15 countries are member countries of the European Union prior to the accession of ten candidate countries on May 1, 2004. Furthermore, the article informs about trends in the EU Candidate and Potential Candidate countries (CPC: Albania, Bosnia-Herzegovina, Kosovo, Macedonia (FYROM), Montenegro, Serbia, Turkey), and the members of the European Free Trade Association (EFTA: Iceland, Norway, Liechtenstein, Switzerland) as well as other European countries: Belarus, Moldova, Russian Federation, and Ukraine.

At the beginning of the subchapters, each of which focuses on one of the three key indicators – area, operators, retail sales – a table with the details by these country groups is presented. At the end of the chapter, tables with the countries in alphabetical order are available.

Data collection in Europe is, like for the rest of the world, carried out among multiple information sources; however, it should be pointed 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 were taken from Eurostat. The Eurostat organic farming statistics are available at ec.europa.eu/eurostat/web/agriculture > Database > Organic farming. For market data, data of the private sector, market research companies, or statistical offices are used.

1 Exceptional growth in 2015: Market and production highlights

The development of the European and the European Union's (EU) organic sector in 2015 was characterised by two trends. On the one hand, the market grew at an even higher rate than in the previous years. In fact, 2015 was the first year after the financial crisis in 2008 that showed a double-digit growth rate (13 percent in Europe; 12.6 percent in the EU). On the other hand, the growth of the organic farmland continued to be slower than that of the market, but it was considerably faster than in the previous years, increasing

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[3] Julia Lernoud, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org

by 8.2 percent in Europe and 7.8 percent in the EU. The trend of the market growing at a faster rate than the area (Figure 64) has been noticed for a couple of years, showing that production is not keeping pace with the demand of the market.

Europe: Cumulative growth of organic area and retail sales 1999-2015 compared

Source. FiBL-AMI surveys 2006-2017

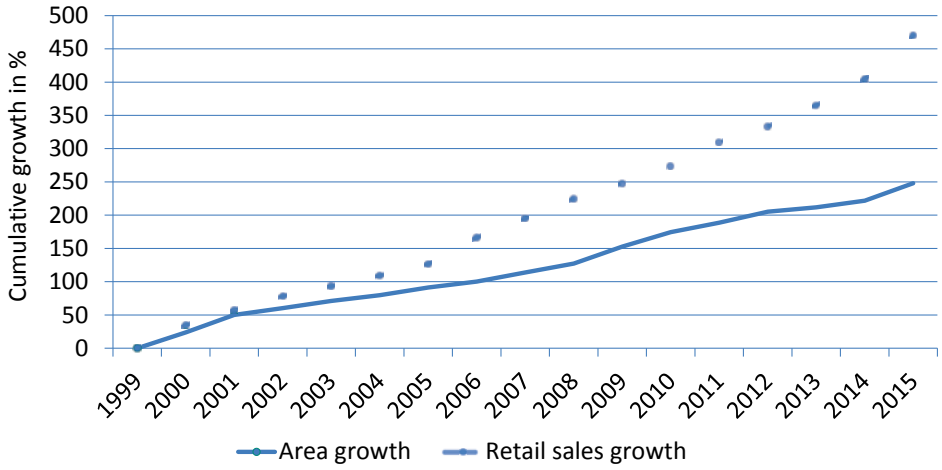

Figure 64: Europe: Cumulative growth of organic farmland and retail sales compared 1999-2015

Source: FiBL-AMI surveys 2006-2017

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Production and market highlights

- In Europe, 12.7 million hectares were organic in 2015 (EU: 11.2 million hectares). With almost 2 million hectares, Spain continues to be the country with the largest organic area in Europe.
- The organic land increased by almost one million hectares in Europe (EU: 0.8 million hectares) or 8.2 percent (EU: 7.8 percent), thus showing a higher growth than in the fast five years. In the decade 2006-2015, organic agricultural land increased by two thirds (Europe 70 percent; EU 65 percent).
- In 2015, a noticeable trend was that in the EU-15 countries and the other European countries the organic area increased at double digit rates, mainly due to area increases in Spain, Italy and the Russian Federation
- Organic farmland in Europe constitutes 2.5 percent of the total agricultural land (EU: 6.2 percent). In Europe (and globally), Liechtenstein has the highest organic share of all farmland (30.2 percent); in the EU, the country with the highest share of organic agricultural land is Austria (21.3 percent).
- In Europe, arable land had the largest portion of the agricultural land (5.5 million hectares), followed by permanent grassland (5.3 million hectares) and permanent crops (1.4 million hectares). In the EU, this order is different; here the permanent grassland leads with 5.1 billion hectares, followed by arable land (4.7 million hectares) and permanent crops (1.2 million hectares). Cereals were the crop group with the largest area, and they grew by an impressive 13 percent.
- There were almost 350‘000 organic producers in Europe (EU: almost 270'000), with the largest numbers in Turkey (almost 70'000) and Italy (almost 53'000). While the number of producers grew by 4 percent in Europe (5 in the EU), growth was 72 percent (EU: 50 percent) during 2006-2015.
- In Europe, there were just about 60’000 processors (EU: more than 58’000), almost 3‘700 importers (EU: almost 3’500). The number of processors and importers increased by 12 percent and 19 percent respectively and significantly across almost all countries. The country with the largest number of processors was Italy (almost 15‘000), while Germany had the most importers (more than 1'400).
- Retail sales in Europe were valued at 29.8 billion euros (27.1 billion euros in the EU). The European Union represents the second largest single market for organic products in the world after the United States (35.8 billion euros).
- The European market recorded a growth rate of approximately 13 percent (EU 12.6 percent) and thus a double-digit growth rate for the first time since the financial crisis. The highest growth was observed in Spain (24 percent). In the decade 2006-2015, the value of European and EU markets has more than doubled.
- European consumers spent about 36.4 euros on organic food per person (EU 53.7 euros). Per capita consumer spending on organic food has doubled in the last decade. The Swiss spent the most money on organic food (262 euros per capita).
- Globally European countries account for the highest shares of organic food sales as percentage of their respect markets for food. Denmark has the highest share (8.4 percent), with individual products and product groups holding even higher shares. Organic eggs, for instance, constitute over 20 percent of all eggs sold in several countries.

2. Organic agricultural land

Table 54: Europe: Organic agricultural land by country group

Country group	Organic area [ha]	Organic share [%]	Increase 2014-2015	Increase 2006-2015
European Union	11'188'258	6.2%	7.8%	65%
EU [EU15]	8'729'608	6.8%	9.6%	58%
EU [EU13]	2'458'650	4.8%	1.7%	102%
CPC	508'080	1.1%	0%	299%
EFTA	195'778	4.9%	0%	16%
Other European countries	824'853	0.3%	23.3%	221%
Total Europe	**12'716'969**	**2.5%**	**8.2%**	**74%**

Source: FiBL survey based on Eurostat and national data sources. For country details, see Table 61.

2.1 Organic agricultural land

In 2015, 12.7 million hectares were farmed organically in Europe and almost 11.2 million hectares in the EU (Table 54). Almost 90 percent of Europe's organic farmland is in the EU. The countries with the largest areas of organic land are Spain, Italy, France, Germany, and Poland; half of Europe's organic farmland is in these countries (Figure 65, Figure 66). One-quarter of the world's organic farmland is in Europe.

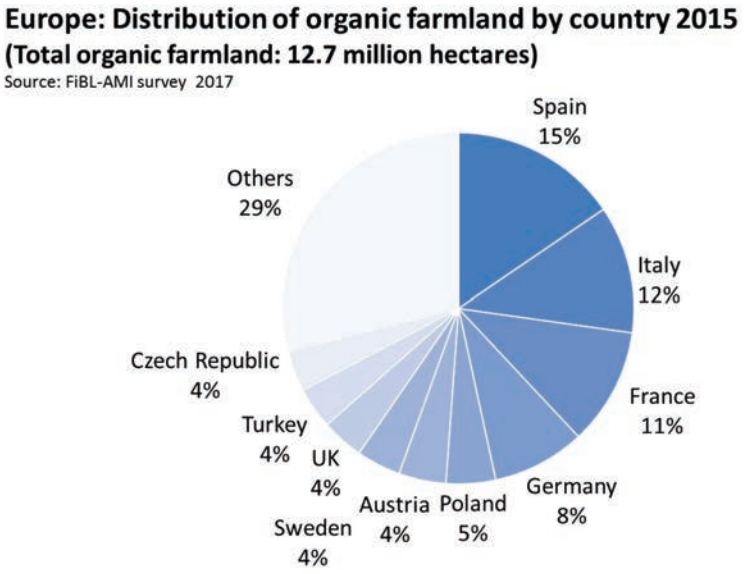

Figure 65: Europe: Distribution of organic farmland by country 2015

Source: FiBL-AMI survey 2017 based on national data sources and Eurostat
For detailed data sources see annex.

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Europe: Organic agricultural land by country 2015

Source: FiBL-AMI Survey 2017

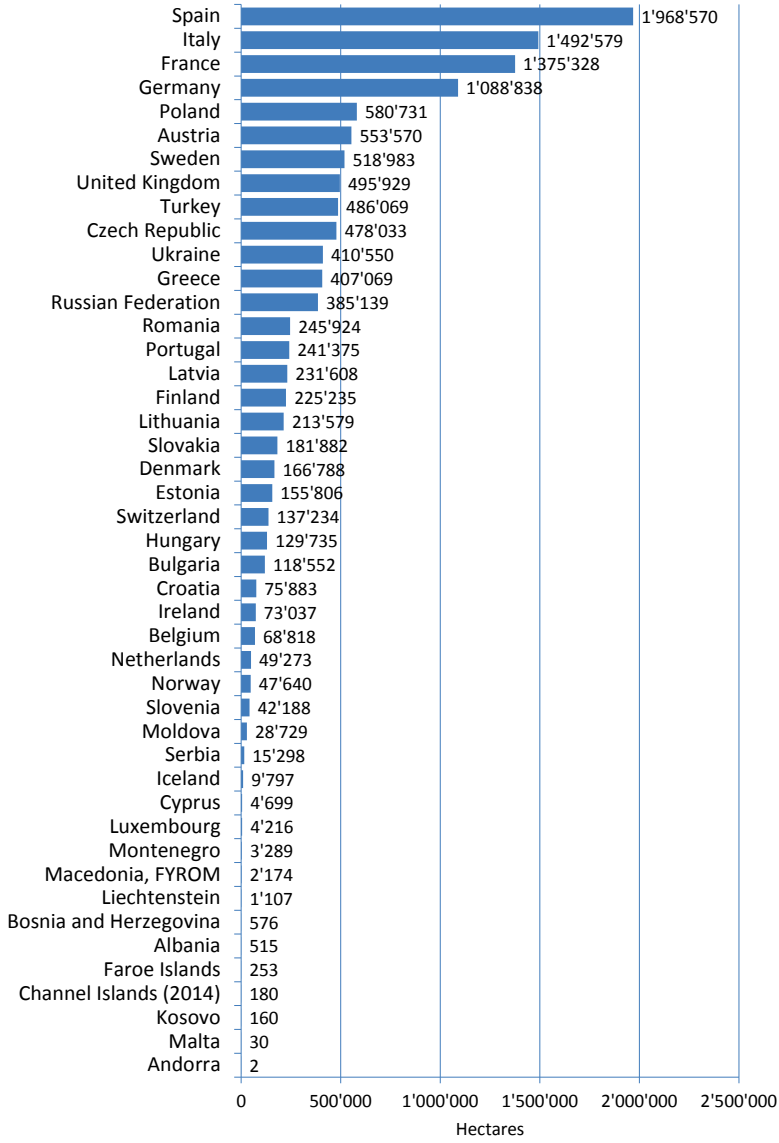


Figure 66: Europe: Organic agricultural land by country 2015

Source: FiBL-AMI survey 2017 based on national data sources.
For detailed data sources see annex.

2.2 Organic shares of total agricultural land

In Europe, 2.5 percent of the agricultural land is organic and, in the EU, 6.2 percent (Table 54). In nine countries (EU: eight), 10 percent or more of the agricultural land is organic (Figure 67). The countries with the highest organic shares are Liechtenstein, Austria, Sweden, and Estonia. Liechtenstein, with an organic share of 30.2 percent, is the country with the highest organic share in the world. In the EU-15, 6.8 percent of the agricultural land is organic, and, thus, represents a higher share than in the EU-13 (4.8 percent). For EU candidates and potential candidates (CPC), shares of the total agricultural land are still low (1.1 percent). In the EFTA countries, the organic share is 4.9 percent, but two countries, Switzerland and Liechtenstein, have considerably higher organic shares (Figure 67).

2.3 Growth of the organic land

In 2015, the organic agricultural land in Europe increased by 959'793 hectares (EU: 805'280 hectares) or 8.2 percent (EU 7.8 percent). Growth was therefore considerably faster than in the past five years; the last time similar rates were achieved was in 2010 (Figure 68).

The countries that contributed the most to this growth were Spain, France, the Russian Federation, and Italy, all with more than 100'000 hectares (Figure 69), whereas the highest relative increases were in Serbia, Bulgaria, the Russian Federation, and Croatia; all showed a growth rate of at least 50 percent (Figure 70). However, there were also countries that showed stagnation or only a small increase of organic land such as the Czech Republic, Denmark, and Slovenia. Also, in some countries, the organic area decreased, such as Turkey, Poland, and the United Kingdom.

Looking at the growth by country group, it emerges that growth was particularly strong in the EU-15 countries (+ 10 percent) and in the Russian Federation (+60 percent). Growth in the EU-13 countries (with the exception of Bulgaria and Croatia) and in the EFTA and CPC countries was modest. Switzerland, however (an EFTA country), showed an encouraging growth of 2.4 percent.

In the decade from 2006 to 2015, the organic agricultural land has increased by two-thirds in Europe and the EU. In that period, in the EU-15, growth was slower (+58 percent) than in the EU-13 countries (+102 percent). In many EU-15 countries, organic farmland had already grown before 2004 – the year when many of the EU-13 countries became EU members - to a comparatively high level. However, in 2015, this trend was reversed, and stronger growth occurred in the EU-15 countries.

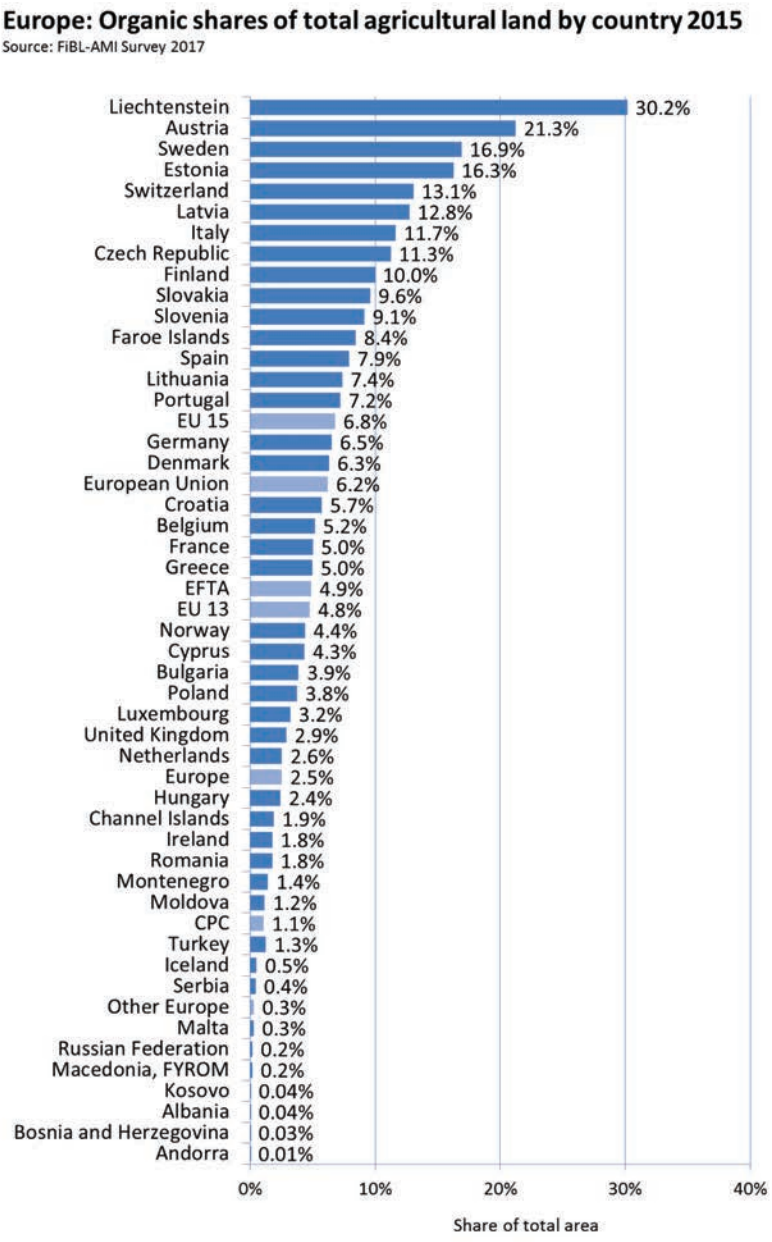


Figure 67: Europe: Organic shares of total agricultural land 2015

FiBL-AMI survey 2017 based on national data sources and Eurostat
For detailed data sources see annex of this book.

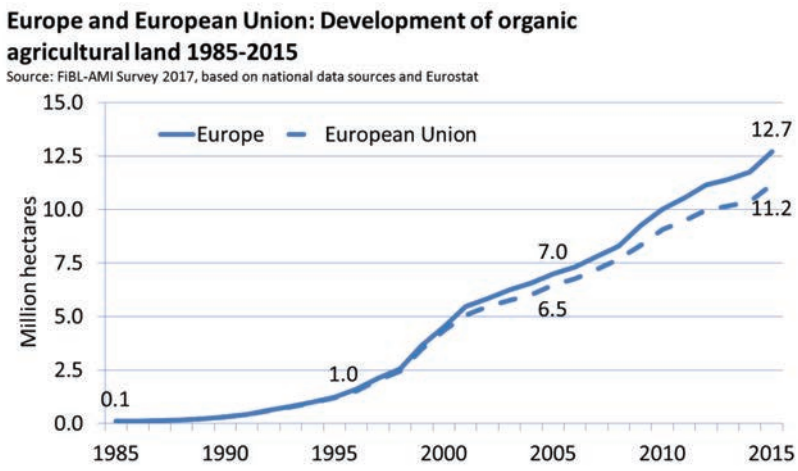
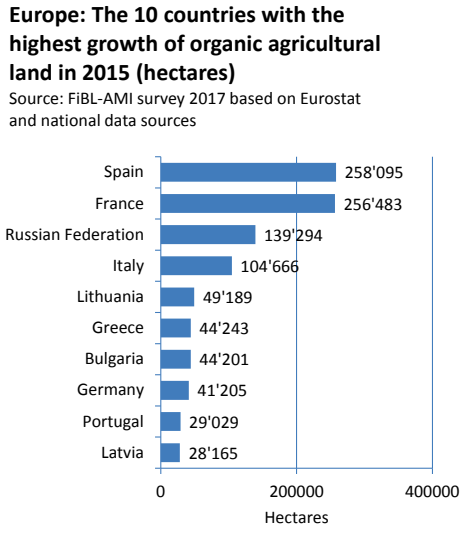


Figure 68: Europe and European Union: Development of organic agricultural land 1985-2015

Source: FiBL-AMI Surveys 2006-2017 based on national data sources and Eurostat. The data for the European Union cover all countries that were an EU member in 2015.



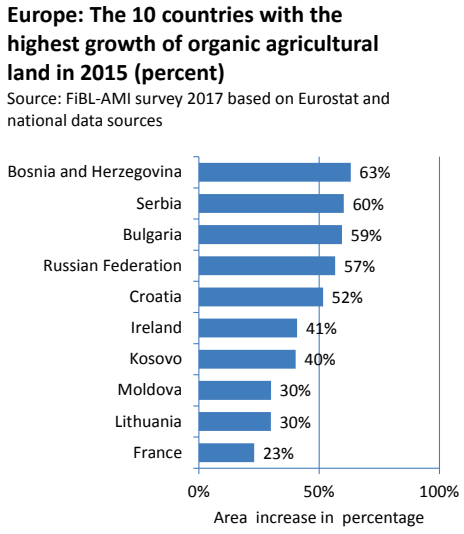


Figure 69: Europe: The 10 countries with the highest growth of organic agricultural land in hectares 2015

Figure 70: Europe: The 10 countries with the highest growth of organic agricultural land in percent in 2015

Source: FiBL-AMI survey 2017 based on national data sources and Eurostat
For detailed data sources see annex.

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2.4 Conversion status of organic farmland

Most, but not all, 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 12.7 million hectares of organic agricultural land, 8 million hectares were fully converted (7.4 million in the EU) and 2.4 million were under conversion (2.3 million in the EU), thus reflecting the fact that in the near future an increase in supply of organic products can be expected (Figure 71).

This is confirmed by the notable trend that the in-conversion area increased by 56 percent in Europe and 66 percent in the EU (or 900'000 hectares). By country, the largest in-conversion areas are in the major European supplying countries, notably Spain (558'041 hectares), Italy (398'933 hectares), France (312'406 hectares), and Turkey (166'205 hectares).

Among arable and permanent crops, a major supply of cereals (approximately 400'000 hectares under conversion), olives (160'000 hectares) and grapes almost 80'000 hectares) may be expected. For more information, see the crop chapters in this book, page 98.

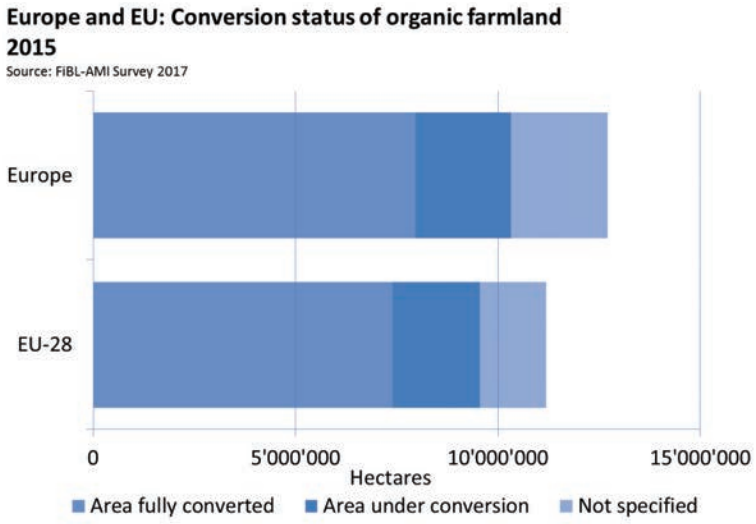

Figure 71: Europe and European Union: Conversion status of organic land in Europe and the EU 2015

Source: FiBL-AMI survey 2017 based on national data sources and Eurostat
For detailed data sources see annex.

3 Land use in and crops grown organic agriculture

Table 55: Europe: Land use in organic agriculture by country group 2015

Country group	Arable crops [ha]	Permanent crops [ha]	Permanent grassland [ha]	Other/no details [ha]	Total[ha]
European Union	4'738'463	1'229'390	5'143'122	77'283	11'188'258
EU [EU15]	3'576'060	1'110'467	3'965'805	77'277	8'729'608
EU [EU13]	1'162'403	118'924	1'177'317	6	2'458'650
CPC	328'018	157'377	22'571	114	508'080
EFTA	65'087	1'921	124'522	4'248	195'778
Other European countries	530'190	8'452	54'399	231'812	824'853
Total	**5'661'759**	**1'397'140**	**5'344'614**	**313'457**	**12'716'969**

Source: FiBL-AMI survey 2016 based on national data sources Eurostat. For country details see Table 63.
Note: Total includes other agricultural land, land for which no further details were available, and correction values for double-cropped areas.

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 types has grown steadily since 2004, even though stagnation was noted for permanent crops in 2015 (Figure 74).

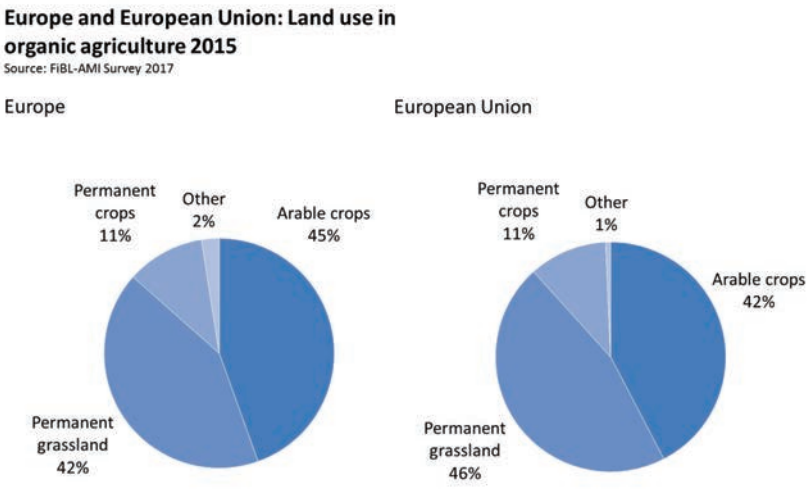

Figure 72: Europe: Land use in organic agriculture 2015
Source: FiBL-AMI survey 2017 based on Eurostat and national data sources

Table 55 and Figure 72 show that

- arable land constituted the largest area of organic land in Europe, with 5.1 million hectares (4.1 million hectares in the EU), followed by
- 4.8 million hectares of permanent grassland (4.6 million hectares in the EU), and
- 1.4 million hectares of permanent crops (1.2 million hectares in the EU); and
- cereals were the largest crop group covering 1.9 million hectares (1.7 million hectares in the EU) (Table 55).

The largest increase in 2014-2015 was in permanent grassland (+9 percent in Europe and the EU), whereas arable land increased by 5.5 percent in Europe and by 7.4 in the EU. For permanent crops, the increase was not as high (+2.7 percent, EU +3.2 percent) grassland (Figure 74, Figure 75).

However, over the 2006-2015 decade, permanent crops more than doubled and thus showed a greater increase than arable land and permanent grassland (Figure 74, Figure 75).

By country, the largest permanent grassland or grazing areas are in Spain, followed by those in Germany and the UK (Figure 73).

The largest cropland areas (i.e., arable and permanent crops together) are in Italy (0.9 million hectares), Spain (0.8 million hectares), and France (0.7 million hectares) (Figure 73).

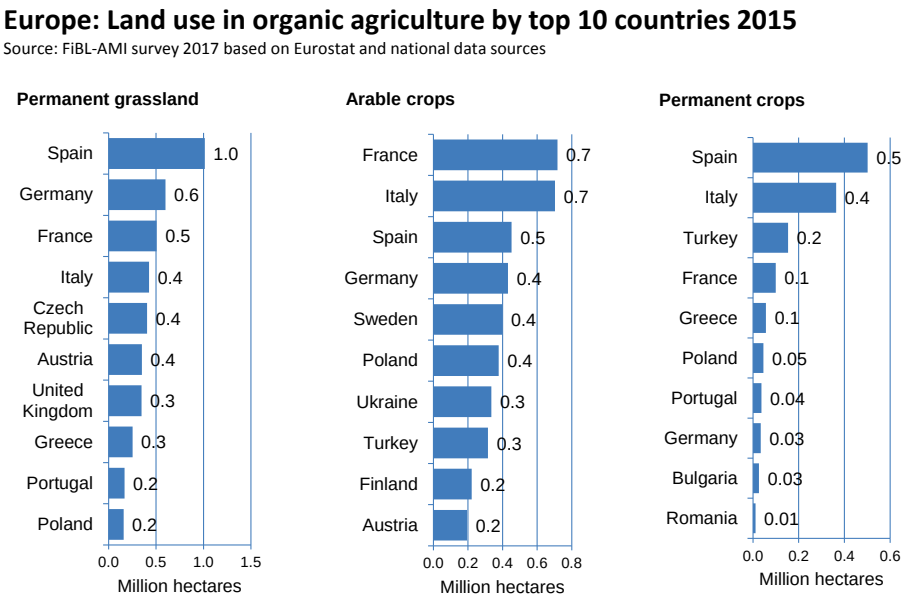

Figure 73: Europe: Land use in organic agriculture by top 10 countries 2015

Source: FiBL-AMI survey 2017 based on Eurostat and national data sources

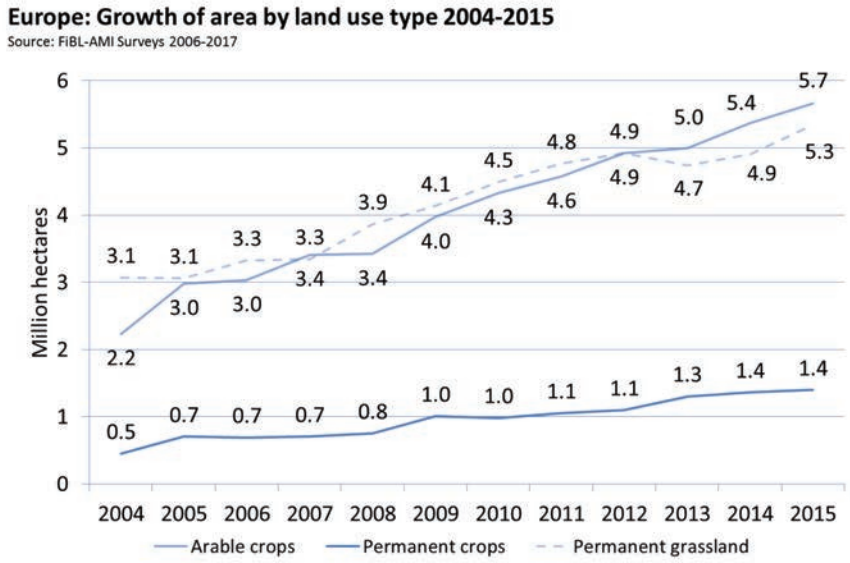

Figure 74: Europe: Growth of organic agricultural land by land use type 2004-2015
Source: FiBL-AMI Surveys 2006-2017 based on national data sources and Eurostat

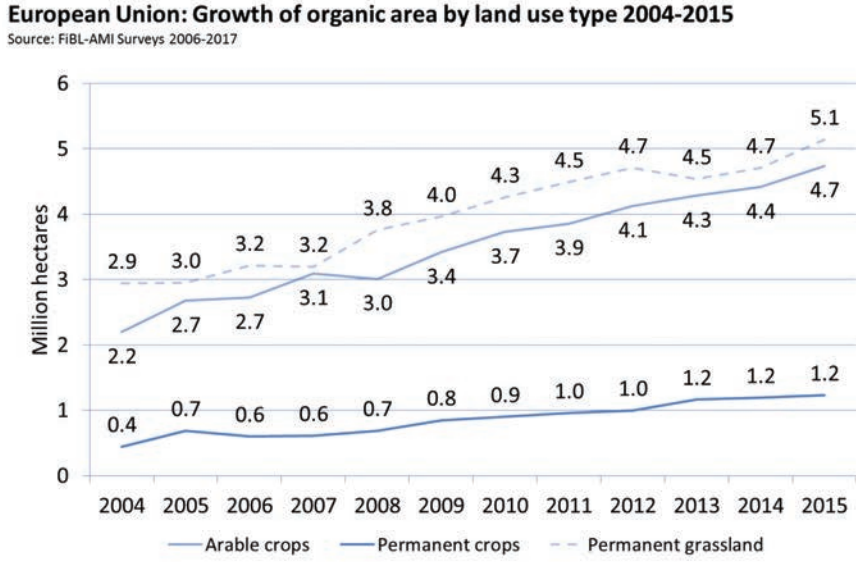

Figure 75: European Union: Growth of organic agricultural land by land use type 2004-2015
Source: FiBL-AMI Surveys 2006-2017 based on national data sources and Eurostat

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3.2 Crops grown in organic agriculture

Table 56: Europe and European Union: Key crops/crop group 2015

Land use	Crop group	Europe [ha]	EU [ha]	Organic share of total [%] (EU)	Change 2014-2015 [%] (EU)	Change 2006-2015 [%] (EU)
Arable crops	Cereals	2'232'921	1'681'274	1.7% (2.9%)	17% (10%)	70% (49%)
	Dry pulses	328'870	299'930	6.7% (21.2%)	10% (18%)	183% (195%)
	Green fodder	2'065'761	1'867'966	9.6% (11.2%)	1% (2%)	96% (93%)
	Oilseeds	298'856	210'855	1.0% (1.8%)	22% (25%)	182% (137%)
	Root crops	40'105	30'726	0.4% (0.9%)	-4%(-0.5%)	47% (34%)
	Vegetables	157'964	143'012	3.1% (6.2%)	19% (20%)	69% (61%)
Arable crops total		5'661'759	4'738'463	2.8% (5.0%)	5% (7%)	87% (74%)
Permanent crops	Berries	31'638	29'767	11.2% (17.7%)	1% (4%)	458% (436%)
	Citrus fruit	42'520	42'166	6.3% (7.7%)	9% (9%)	70% (73%)
	Fruit, temperate	141'517	120'161	4.7% (8.7%)	11% (11%)	41% (44%)
	Fruit, (sub)tropical	26'455	9'196	7.3% (3.7%)	-16% (9%)	3252% (1089%)
	Grapes	292'753	281'139	7.3% (8.8%)	10% (12%)	208% (231%)
	Nuts	219'164	189'704	13.2% (20.3%)	21% (23%)	131% (105%)
	Olives	532'083	454'152	9.1% (9.1%)	8% (9%)	84% (62%)
Permanent crops total		1'397'140	1'229'390	8.7% (10.6%)	3% (3%)	102% (105%)
Total cropland		**7'058'898**	**5'967'854**	**3.2% (5.6%)**	**5% (7%)**	**89% (79%)**

Source: FiBL-AMI survey 2016 based on national data sources and Eurostat
Note: Total includes further crops, land for which no further details were available, and correction values for double-cropped areas. For crop details by country, please check crop chapter in this book from page 98.

Whereas in Europe, the largest arable crop group was cereals (2.2 million hectares; EU: 1.7 million hectares), green fodder from arable land comprised the largest group in the European Union (1.9 million hectares; Europe 2.1 million). Italy, Germany, and Spain have the largest cereal areas in the EU. Outside the EU, Ukraine, Turkey, and the Russian Federation are major producers (see also the chapter on cereals in this volume, page 98). In 2015, organic vegetables were grown on almost 160'000 hectares of land in Europe (in the EU, more than 140'000 hectares). The largest areas were in Poland, Italy, France, and Spain. It should be noted that for some countries, potatoes are included in the vegetable category. (For country details on the categories listed in Table 56, see page 98).

From 2014 to 2015, impressive growth was noted for oilseeds (+22 percent), vegetables (+19 percent), and cereals (+17 percent), thus reflecting that European organic farmers are meeting the high demand of the market, e.g., for vegetables (see also Table 60) and feedstuffs. Between 2006 and 2015, the largest growth among the main arable crop groups was recorded by dry pulses and oilseeds (+180 percent each). Cereals grew by 70 percent (Figure 76).

Organic dry pulses achieved the highest shares (21.2 percent in the EU, 6.7 percent in Europe), mainly because the conventional crop area has been decreasing for many years due to the availability of cheap soybeans on the world market for both animal feed and human consumption (Table 56).

A large part of the permanent cropland is used for olives, grapes, and nuts. The largest areas of permanent cropland are in Spain, Italy, and France. For most permanent crops, the EU-15 countries have the largest land areas.

The EU-13 countries have considerable areas of temperate fruit (e.g. apples in Poland and berries in the Baltic countries). Both Polish apples (in concentrate) and berries from the Baltic countries can be found in juices or yogurts all over Europe. Across Europe, high growth rates were achieved between 2006 and 2015, particularly for grapes (+208 percent) and citrus fruit (+70 percent) (Figure 76).

The organic share of all permanent crops were higher than those for the arable land; however, it should be noted that particularly for nuts and berries, the FAO data, with which the organic data is compared, do not list all berries or nut types grown in organic agriculture, thus a direct comparison is not possible in all cases.

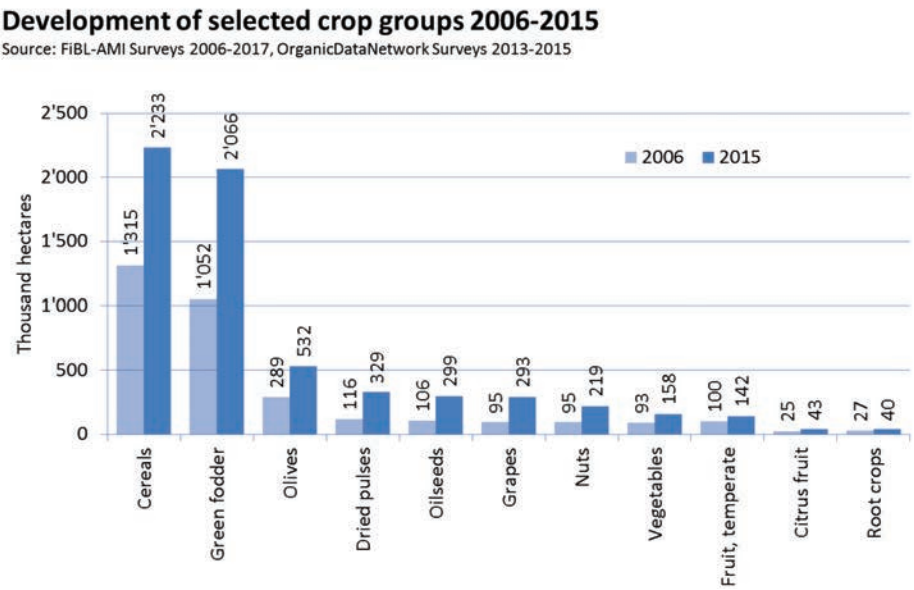

Figure 76: Europe: Growth of selected arable and permanent crop groups in Europe 2006 to 2015

Source: FiBL-AMI survey 2017

3.3 Further organic areas

In addition to agricultural land, there are further organic areas. Large parts of these are wild collection areas constituting 17.7 million hectares. The largest wild collection area in Europe (and in the world) is in Finland with 12.2 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 allow, for the moment, 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 the European countries.

Table 57 provides a European overview of organic livestock in 2015. In many countries, organic animal husbandry began with beef, lamb, and milk production. In Europe, 3.6 million bovine animals, 4.6 million sheep, 0.8 million goats, 0.9 million pigs, and 41 million poultry were kept. (For EU data, see Table 57).

Table 57: Europe and European Union: Organic livestock 2015

	Europe				European Union	
Animal type	Animals [heads]	Total animal share [%]	Change 2014-2015	Change 2007-2015[1]	Animals [heads]	Total animal share[%]
Cattle*	3'635'812	2.9%	2%	58%	3'418'552	4.2%
Sheep	4'631'992	3.0%	3%	35%	4'402'401	4.5%
Goats	758'592	4.6%	4%	15%	718'127	5.7%
Pigs	936'863	0.5%	7%	46%	907'968	0.6%
Poultry	41'082'017	1.7%	9%	108%	38'987'429	2.8%

Source: FiBL-AMI Survey 2016 based on Eurostat and national data sources. Data on for the calculation of organic shares are based on Eurostat and FAOSTAT Please note that growth rates 2007-2015 were similar for Europe and the European Union.
***Includes beef and dairy cattle, buffalo**

Organic animal livestock numbers remain limited in comparison with the total animal numbers in Europe (between 0.5 percent and 5.7 percent, depending on the animal species). Monogastric animals (pigs and poultry) have the lowest shares, partly because of the difficulties posed by the insufficient internal supply of organic feeds, the difficulties in the provision of traceable certified feed imports, and the high price premiums consumers have to pay. The highest shares are for organic goats, sheep and cattle.

Between 2007 and 2015 (and also 2014 and 2015), the greatest increase was for poultry, which can be partly attributed to the high demand for eggs (see the chapter on the organic market) (+108 percent). However, beef and dairy cattle also grew substantially (+58 percent), as did pigs (+46 percent), sheep (+35 percent), and goats (+15 percent) (Table 57).

The numbers of organic shares of all livestock are based on FAOSTAT data (FAOSTAT 2014). FAOSTAT only provides totals for bovine animals, goats, sheep, pigs, and poultry, without further specifications. For both Eurostat and national data, no clear distinction is made, for pigs and poultry, between the number of animals slaughtered and the places

[1] Please note that in the case of livestock, for comparison, the year 2007 was chosen as European-level organic livestock data are not available from FiBL before that year. Extensive datasets on the European Union are, however, available from Eurostat.

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 necessarily completely reliable. The data that are presented here should, therefore, be treated as an approximation of the overall picture.

Organic milk production has almost doubled since 2007 in order to meet rising demand for milk and dairy products. Organic cows' milk production now stands at 4.7 million metric tons, constituting more than 2.9 percent of EU milk production from dairy cows in 2015. Some of this growth, however, can be attributed to improved data availability (Figure 77).

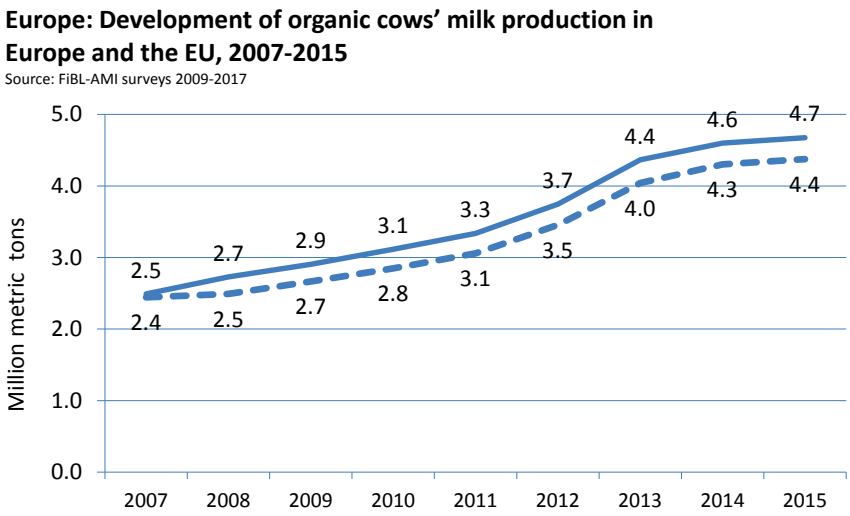

Figure 77: Europe and European Union: Development of organic cows' milk production 2007-2015

Source: FiBL-AMI survey 2009-2017

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5 Producers, processors and importers

Table 58: Europe: Organic operators by country group 2015

	Producers			Processors		Importers		Exporters	
Country group	No.	Change 2014-2015	Change 2006-2015	No.	Change 2014-2015	No.	Change 2014-2015	No.	Change 2014-2015
EU-28	269'453	5%	50%	58'360	12%	3'474	19%	1'957	124%
EU15	207'425	7%	34%	55'722	12%	3'135	19%	1'759	144%
EU13	62'028	-1%	143%	2'638	14%	339	28%	198	32%
CPC	71'033	-2%	381%	1'160	23%	79	20%	88	6%
EFTA	8'431	-1%	-6%	387	-25%	77	15%	4	0%
Other European countries	344	-19%	65%	166	66%	51	-15%	51	-11%
Total Europe	349'261	3%	71%	60'073	12%	3'681	19%	2'100	107%

Source: FiBL-AMI survey 2015 based on national data sources and Eurostat For breakdown by country see Table 65. For detailed data sources see annex.

5.1 Organic producers

In 2015, there were almost 350'000 organic producers in Europe and almost 270'000 in the EU (Table 58). In the EU, the country with the largest number of producers is Italy (almost 53'000); in Europe, it is Turkey (almost 70'000) (Figure 80). Although there was not much growth in the number of producers in 2015 (+3 percent in Europe; +5 percent in the EU), over the past decade the number of producers in Europe increased by 71 percent (EU +50 percent). Fourteen percent of the world's organic farmers are in Europe (Figure 78).

5.2 Organic processors and importers

The number of processors and importers increased in almost all European countries in 2015 (Table 58). In the EU, there were almost 60'000 processors (over 60'000 in Europe) and almost 3'500 importers (almost 3'700 in Europe). The country with the largest number of processors is Italy (almost 15'000), and the country with the most importers is Germany (1500). A large proportion of processors and importers are located in the EU-15 and Switzerland (Table 58) (Figure 79).

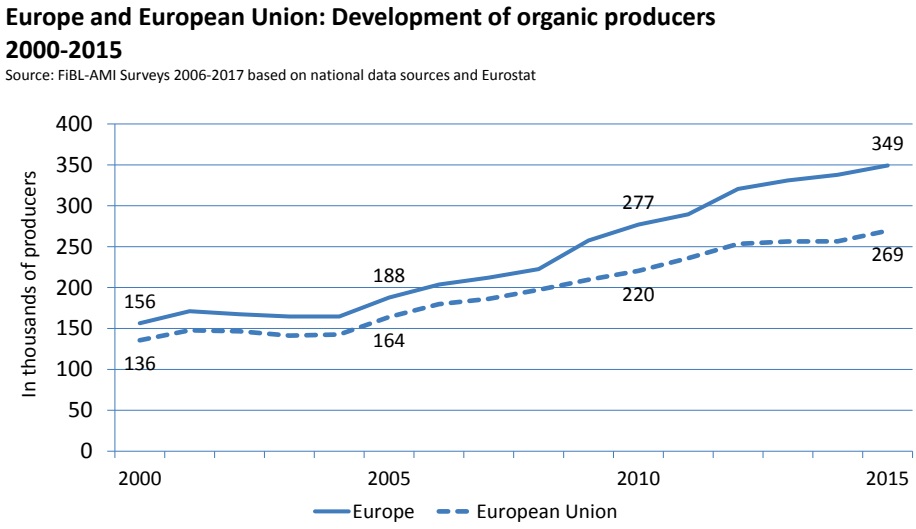

Figure 78: Europe and European Union: Development of organic producers in 2000-2015
Source: AMI Surveys 2006-2017 based on national data sources and Eurostat

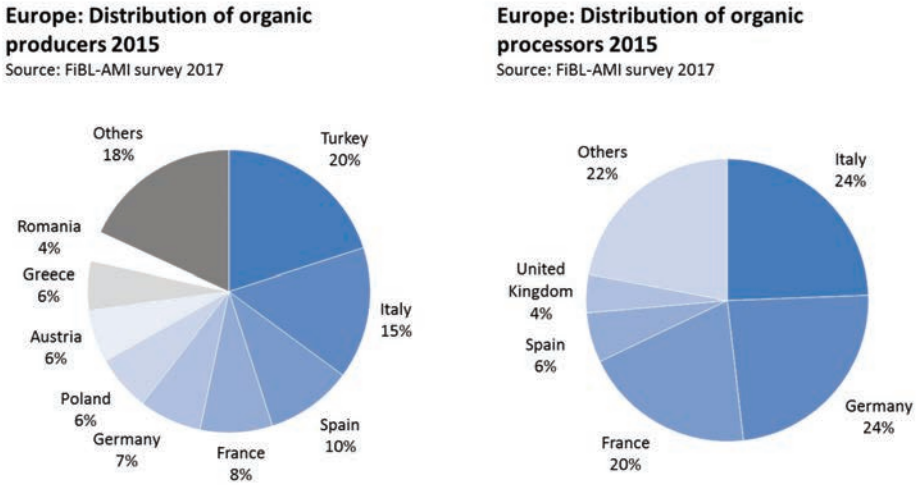

Figure 79: Europe: Distribution of organic producers and processors by country 2015
Source: FiBL-AMI survey 2017, based on national data sources and Eurostat.

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends. FiBL & IFOAM – Organics International (2017): Frick and Bonn, 2017-02-20

Europe: Organic producers by country 2015

Source: FiBL-AMI Survey 2017

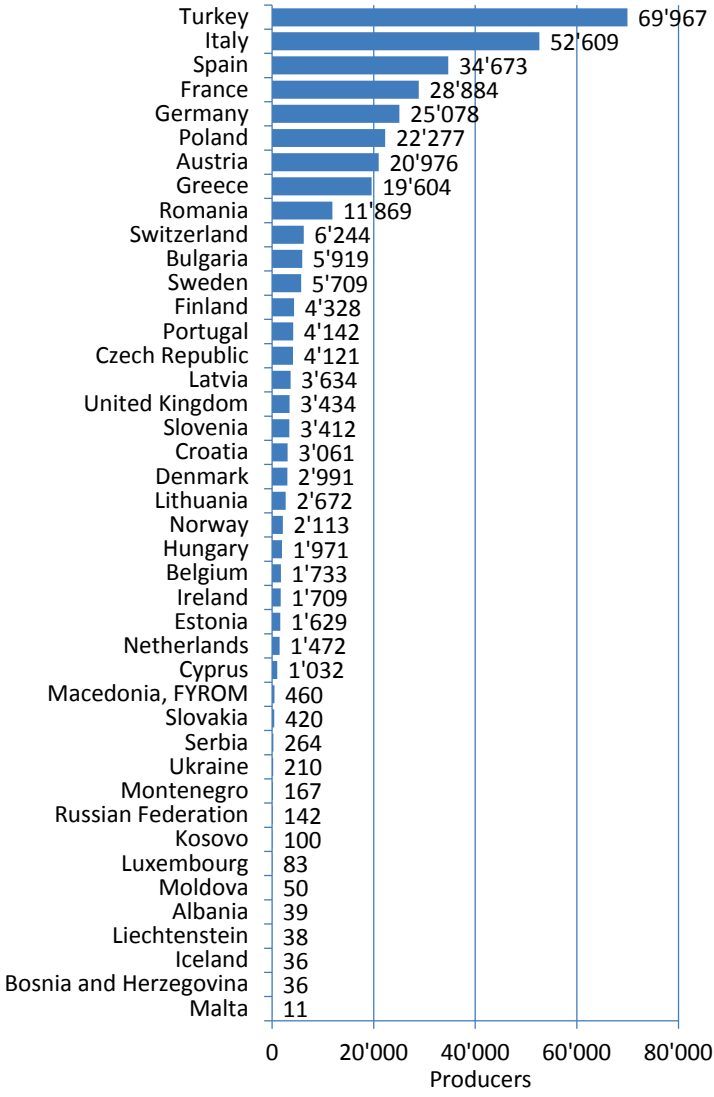

Figure 80: Europe: Numbers of organic producers by country 2015

Source: FiBL-AMI survey 2017 based on national data sources and Eurostat. For detailed data sources see annex.

6 Domestic market development

Table 59: Europe: Organic retail sales by country group 2015

Country group	Retail sales [Million €]	Per capita consumption [€]	Growth 2014-2015 [%]	Growth 2006-2015 [%]
European Union	27'107	53.7	12.6%	108%
EU [EU15]	26'586	65.9	12.7%	106%
EU [EU13]	521	5.0	9.9%	279%
CPC	4	0.2		
EFTA	2'533	183.9	18.0%	201%
Other European countries	138	0.6	2.2%	
Total Europe	**29'781**	**36.4**	**13.0%**	**114%**

Source: FiBL-AMI survey 2017 based on national data sources. For country details see Table 66.

6.1 Size of the organic market

In 2015, the organic market in Europe grew by 13 percent to 29.8 billion euros (EU: 27.1 billion euros, +12.6 percent). Unfortunately, not all countries provide data on their domestic markets on a regular basis (Table 66), and it may be assumed that the market is larger than indicated by the figures in Table 59. Germany continues to be the largest market in Europe (8.62 billion euros) (Figure 82), and, after the United States (35.8 billion euros), it is the second biggest organic market in the world. France holds second place with 5.53 billion euros. Comparing organic markets worldwide by single market, the United States has the lead: 47 percent of global retail sales of organic products are in this country (35.8 billion euros), followed by the sales in the European Union (27.1 billion euros; 35 percent of global retail sales). Comparing retail sales by continent, North America is the largest market (38.5 billion euros) (Figure 81). Please note that there has been a major shift in the importance of single markets/continents compared to 2014, data due to fluctuating exchange rates.

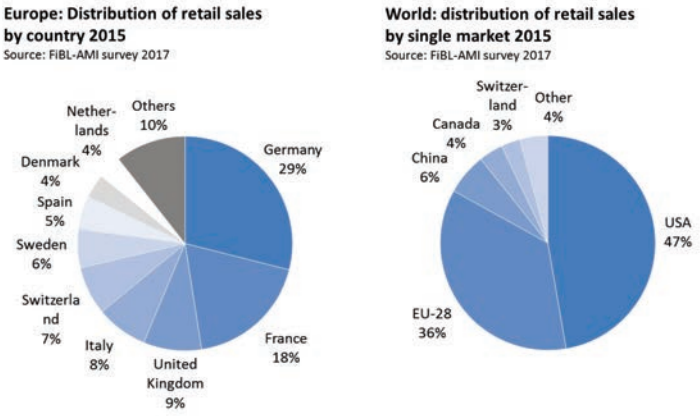

Figure 81: Europe: Distribution of retail sales by country and by single market worldwide 2015

Source: FiBL-AMI survey 2017 based on national data sources

Europe: Organic retail sales value by country 2015

Source: FiBL-AMI Survey 2017

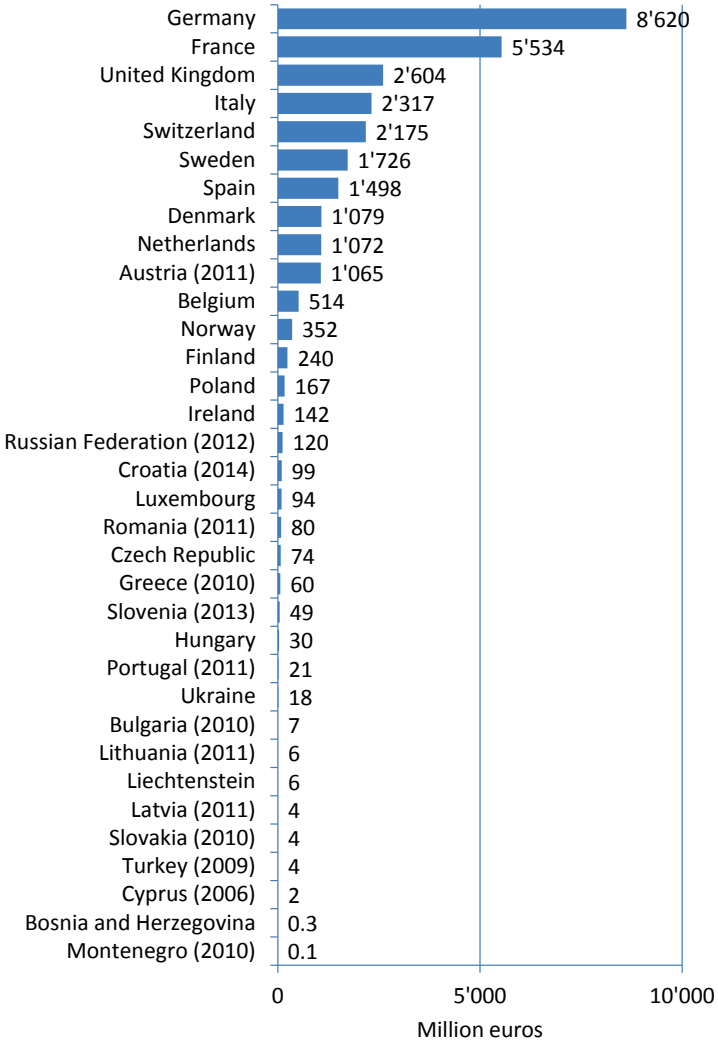

Figure 82: Europe: Retail sales by country 2015

Source: -FiBL-AMI survey 2017 based on national data sources
For detailed data sources see annex.

6.2 Growth of the organic market

The organic market in Europe and the European Union grew by approximately 13 percent in 2015. This is the first time since the financial crisis in 2008 that double-digit growth occurred in Europe as a whole. In the decade 2006 to 2015, the organic market more than doubled in size (Figure 83).

All countries for which new data was available showed growth, many double digit, with Spain leading with 24 percent (Figure 84). Germany, the largest market in Europe, had a growth rate of 11 percent; France, the second largest market, grew by 15 percent. Scandinavian countries showed strong growth, with Sweden[1] leading with a 20 percent increase (and more than 50 percent in 2014, according to revised data). Also, the Irish market grew by 24 percent (Table 66).

In the United Kingdom, where retail sales had been decreasing for a number of years, a growth was noted (4.9 percent in 2015) for the fourth consecutive year.

In 2016, in many European countries, the market often experienced further double-digit growth: figures are expected to be available in the first months of 2017. On one hand, customers are becoming more conscious about their purchasing behaviours, and on the other hand, supermarket chains are driving the market by offering a wider variety of organic products.

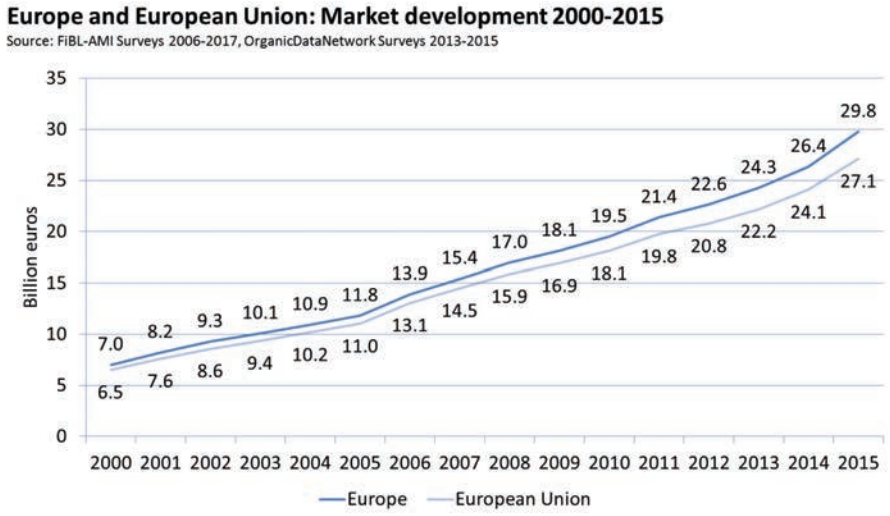

Figure 83: Europe: Growth of organic retail sales in Europe and the European Union, 2000-2015

Source: FiBL-AMI Surveys 2006-2017, and OrganicDataNetwork Surveys 2013-2015

[1] According to the Ekoweb report "Organic food market", published in September 2016, Swedish organic food retail sales increased by 23 percent in the first half of 2016. The organic share is now 9 percent of the total retail sales value, according to Ekoweb.

Europe: The countries with the highest growth of the organic market 2014-2015

Source: FiBL-AMI Survey 2017

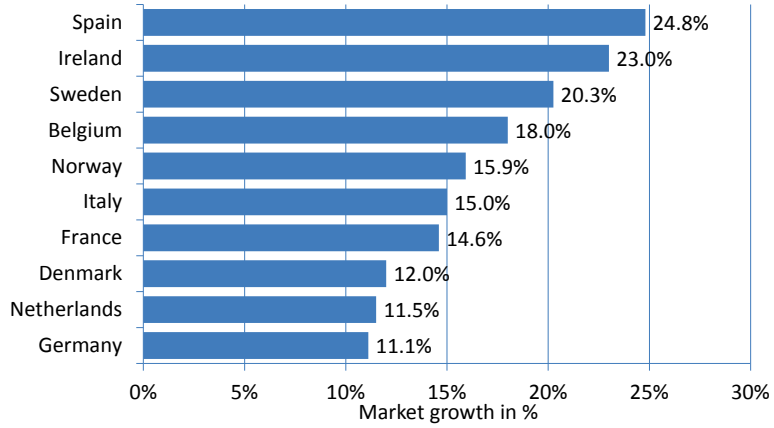

Figure 84: Europe: The countries with the highest growth of the organic market 2015

Source: FiBL-AMI Surveys 2017

6.3 Per capita consumption of organic food

Like in the previous years, the highest per capita consumption of organic food in 2015 was in Switzerland (262 euros), followed by Denmark (191 euros), Sweden (177 euros), and Luxembourg (170 euros) (Figure 85). The continual growth in consumer interest is well documented by the growth of per capita consumption, with a specific notable growth in 2015 (Figure 86). Seven countries had a per capita consumption of more than 100 euros in 2015 (Table 66).

Europe: The countries with the highest per capita consumption 2015

Source: FiBL-AMI Survey 2017

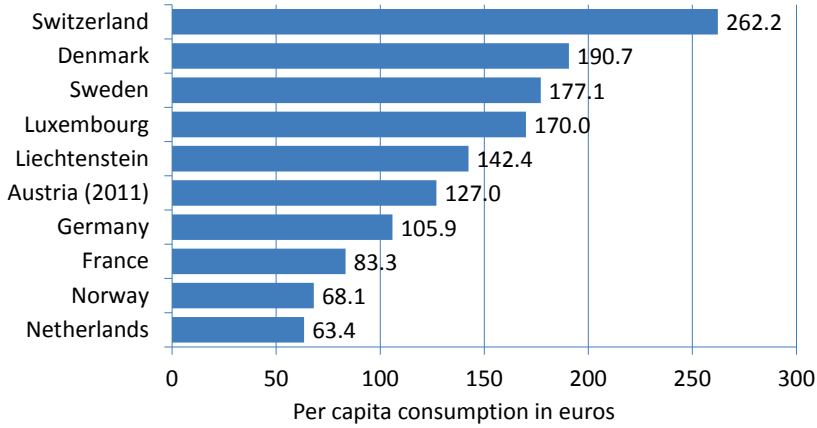

Figure 85: Europe: The countries with the highest per capita consumption 2015

Source: FiBL-AMI survey 2017 based on national data sources. For detailed data sources see annex.

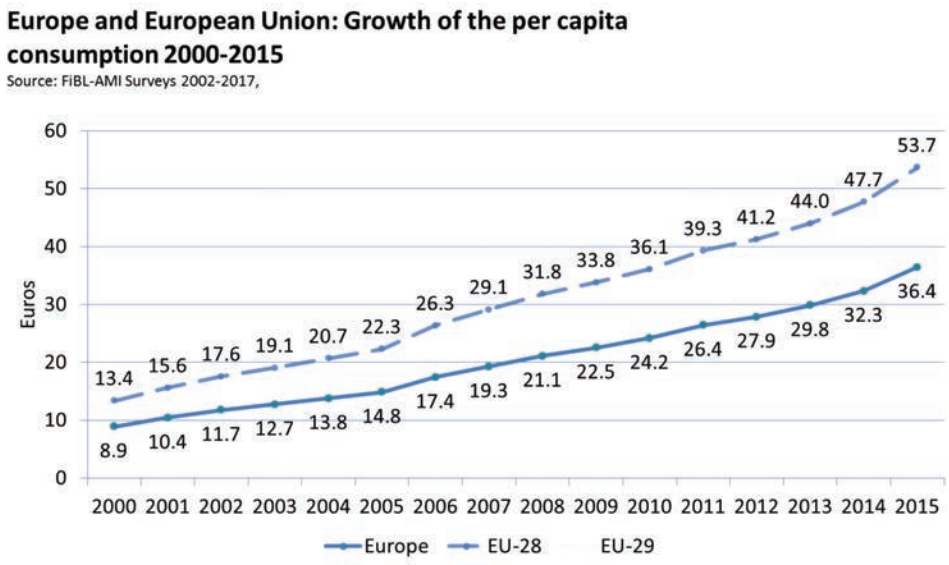

Figure 86: Europe: Growth of the per capita consumption 2000-2015

Source: FiBL-AMI survey 2017 based on national data sources. Calculation based on FAO population data. For detailed data sources see annex.

6.4 Organic market shares

The share that organic retail sales have of all retail sales is an important indicator of the importance the organic market has in a given country. As in the past, the highest market shares were reached in Denmark (8.4 percent) and Switzerland (7.7 percent). Luxembourg provided revised data and now is in third place (Figure 87, Table 66). Some countries, such as Sweden and Denmark are expected to reach the ten percent share in the next two years or so (Figure 87, Table 66).

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 can be far higher; these data are provided in Table 60.

As there are no retail sales data for Europe or the EU as a whole, it is not possible to calculate overall organic market shares.

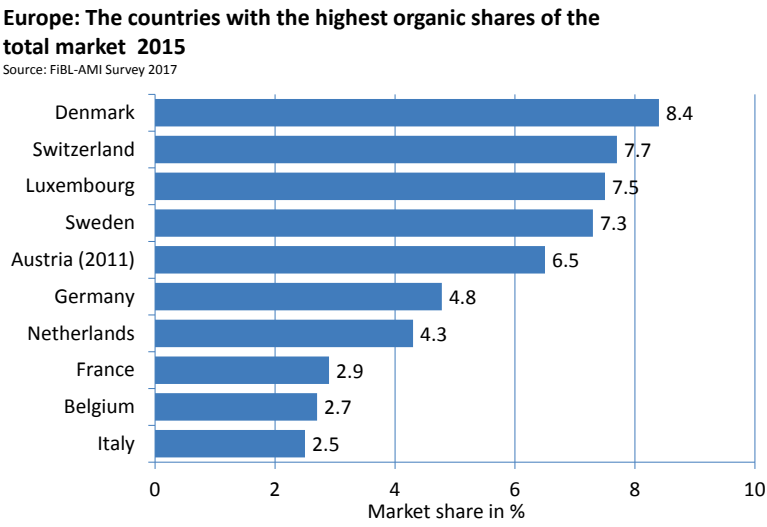

Figure 87: Europe: The countries with the highest shares of the total retail sales 2015

Source: FiBL-AMI survey 2016 based on national data sources
For detailed data sources see annex.

6.5 Comparison of organic products and product groups with the total market

In many countries, organic eggs are one of the success stories within the total retail market. Table 60 shows that Switzerland, Sweden, and France reach market shares (in value) of over 20 percent.

Organic fruit and vegetables continue to be highly popular purchases among European organic consumers. Organic vegetables have the highest market shares after eggs, representing between 9 percent and 18 percent of the sales value of all vegetables sold in Switzerland, Austria, Sweden, and Germany. Fresh carrots alone, for example, have a nearly 30 percent market share in Germany.

In some countries, organic dairy products can reach market shares of around 10 percent and higher of all dairy products in overall sales value. In Switzerland, they even reach 12 percent.

Individual products can reach much higher market shares. Organic baby food (over 40 percent in Germany) or organic meat substitutes (60 percent in Germany) are good examples.

On the other hand, products like organic beverages (with the exception of wine) and meat (especially poultry), in many countries, have low market shares. Often, these products are highly processed and/or very cheap on the conventional market. Therefore, especially in the meat sector, organic surpluses can occur. Another factor is that many organic consumers tend to eat little or no meat.

Table 60: Europe: Value shares of organic products and product groups of their respective total markets for selected countries 2015

Product group	Austria	Belgium	Czech Republic[1]	Finland	France[2]	Germany	Italy	Netherlands	Norway	Sweden	Switzerland	United Kingdom
All Beverages					3.0[3]	1.7			0.2	5.0[4]	2.9	
- Fruit drinks and juices					5.9		6.3			4.6		
- Grape wine		0.9			6.0							
All Bread and bakery products		1.9		1.0	2.5			1.3	1.1[5]	3.4	4.5[6]	
- Bread						6.8			0.2	2.0	20.1	
Fruit	10.7	3.9	0.7		4.3	7.4			1.9	18.3	11.1	2.0
Vegetables	13.4	6.0		3.0[7]	4.0	9.2		4.9[8]	3.8	12.5	18.6	
All meat and meat products		1.8		<1.0	1.6	2.5		2.8	0.3	2.9	5.0[9]	
- Meat products/ sausages	2.7				0.5	2.2				2.0		
Fish and fish products		1.3			1.1			1.4	0.2	12.5		
All milk and dairy products	9.9	2.7	0.9		3.2	8.6		3.8	1.8	9.9[10]	11.8	
- Butter	9.3	4.1			5.0	4.8			2.9	8.4		
- Cheese	8.4	2.0			1.2	4.1			0.5	2.2	6.8	
- Milk	17.3	3.0	1.4	3.0	10.8	10.6			4.2	18.6	20.4	5.6
- Yoghurt	11.4[11]	7.2			3.0	7.3	7.8		0.1	12.4	15.7	8.3
Eggs	18.5	10.6		13.0	22.1	19.5	14.6	13.2	8.0	23.9	24.3	6.4

Sources: Austria: AMA Marketing, Belgium: LF based on GFK; Czech Republic: UZEI and experts' estimates; Finland: Pro Luomu; France: Agence Bio; Germany: Agricultural Market Information Company based on GfK; Italy: AssoBio based on Nielsen; Netherlands: Bionext; Norway: Nielsen Norway; Sweden: Statistics Sweden; Switzerland: Bio Suisse; 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 groups are not complete; the products shown in the table above are a selection.

[1] The data is from 2014.
[2] Most data is from 2014, some earlier.
[3] Vegetable drinks, fruit and vegetable juices, wine and alcohol.
[4] Excludes alcoholic beverages.
[5] Includes groats, flower, bread, crisp bread, pasta, rice, breakfast cereals, other cereal products.
[6] Bread and bakery products other than fresh bread.
[7] Includes fruit.
[8] Vegetables and fruit.
[9] Includes fish and fish products.
[10] Excludes eggs.
[11] Fruit yoghurt.

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 the catering sales was deducted from the figure for the total organic market (Table 66).

Figure 88 shows that the importance of the various marketing channels differs from country to country. In the past, countries with strong involvement by general retailers showed steady growth of their organic markets (e.g. Austria, Denmark, Switzerland, and the United Kingdom). However, the financial crisis showed the danger of a strong dependence on supermarkets. In those years, in the UK, the market decreased, and in Germany, stagnation was noted for general retail sales, whereas the market continued to grow in specialized channels. France, Italy, and Germany are good examples of countries with strong market growth, where specialized retailers play a very important role. In Germany, though, 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 (Figure 88).

Retail sales by channel in selected European countries 2015, based on retail sales value (million euros)

Source: FiBL-AMI survey 2017

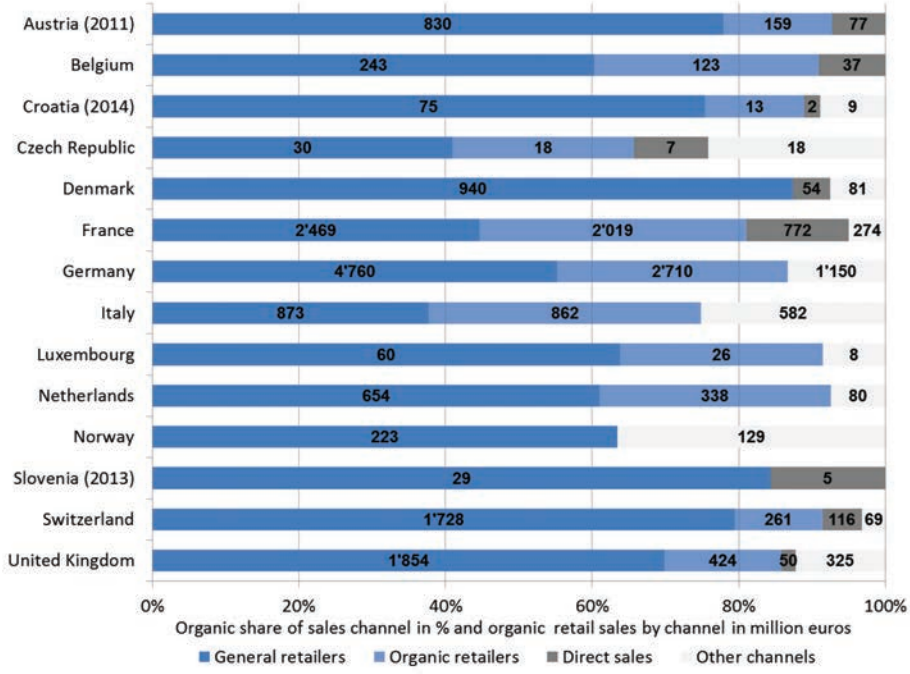

Figure 88: Europe: Marketing channels for organic products in selected countries 2015

Source: FiBL-AMI survey 2016 based on national data sources
For detailed data sources see annex.

7 Conclusion

Current available data on organic farming and the market in Europe and globally show that, in an international context, the European organic sector is well developed. Relatively high shares of agricultural land, a continual growth of the area and number of operators, as well as a fast-growing market, show the exceptional dynamics that the European market has.

For many countries, the 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 provided in this report shows that there are still large discrepancies among European countries. Even though some countries in Central Eastern Europe have reached high shares of organic 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 solved is data availability. For instance, imports and exports play a very important role in trade within the European Union and with external partners, but almost no relevant data exists. Furthermore, whilst the availability of domestic market data is improving, it is collected with a wide range of methods and, strictly speaking, is not accurately comparable. While the OrganicDataNetwork online database improves the availability and accessibility of organic market data, it also clearly shows the current shortcomings. Therefore, we recommend that data availability and accessibility be increased, that classifications, nomenclatures, and definitions, in particular for organic market data, be harmonized, and that data quality be improved (Willer and Schaack 2014).

8 Acknowledgements

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 and ended in 2014.[1] Under this project, for the first time, detailed organic market data for all European countries was collected[2] and stored in one single database, which is available online.[3] In order to present these data, the statistical report for Europe is more comprehensive than for the other continents. 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.

[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.
[2] The data was collected by the Research Institute of Organic Agriculture (FiBL), Switzerland, and the Agricultural Market Information Company (AMI), Germany, among the partners of the OrganicDataNetwork. In addition, further data sources were used.
[3] This database is available at http://www.organicdatanetwork.net/odn-statistics.html

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Organic Agriculture in Europe: Tables[1]

Table 61: Europe: Organic agricultural land by country 2015

Country	Organic area [ha]	Organic share [%]	Increase 2014-2015	Increase 2000-2015
Albania	515	0.04%	-	-
Andorra	2	0.01%	+100.0%	-
Austria	553'570	21.3%	-0.5%	+11.6%
Belarus		Wild collection only		
Belgium	68'818	5.2%	-3.1%	+233.0%
Bosnia and Herzegovina	576	0.03%	-38.7%	-
Bulgaria	118'552	3.9%	-37.3%	+41'351.7%
Channel Islands	180	1.9%	-	-
Croatia	75'883	5.0%	-34.0%	+583'615.4%
Cyprus	4'699	4.3%	-17.3%	+8'936.5%
Czech Republic	478'033	11.3%	-1.1%	+188.5%
Denmark	166'788	6.3%	-0.6%	+5.8%
Estonia	155'806	16.5%	-0.2%	+1'478.3%
Faroe Islands	253	8.4%	-0.1%	-
Finland	225'235	10.0%	-5.6%	+52.8%
France	1'375'328	5.0%	-18.6%	+271.8%
Germany	1'088'838	6.5%	-3.8%	+99.4%
Greece	407'069	5.0%	-10.9%	+1'424.2%
Hungary	129'735	2.4%	-3.8%	+174.7%
Iceland	9'797	0.5%	+14.1%	+188.1%
Ireland	73'037	1.8%	-29.0%	+168.2%
Italy	1'492'579	11.7%	-7.0%	+43.5%
Kosovo	160	0.04%	-28.7%	-
Latvia	231'608	12.8%	-12.2%	+5'163.8%
Liechtenstein	1'107	30.2%	+2.5%	+60.4%
Lithuania	213'579	7.4%	-23.0%	+4'435.5%
Luxembourg	4'216	3.2%	+6.5%	+294.8%
Macedonia, FYROM	2'174	0.2%	+44.7%	-
Malta	30	0.3%	+11.9%	-
Moldova	28'729	1.2%	-23.1%	+4'688.1%
Montenegro	3'289	1.4%	-	-
Netherlands	49'273	2.6%	-0.2%	+52.4%
Norway	47'640	4.4%	+4.6%	+132.0%
Poland	580'731	3.8%	+13.3%	+2'539.7%
Portugal	241'375	7.2%	-12.0%	+382.7%
Romania	245'924	1.8%	+17.6%	+1'314.3%
Russian Federation	385'140	0.2%	-36.2%	+3'805.7%
San Marino		Processing only		
Serbia	15'298	0.4%	-37.6%	-
Slovakia	181'882	9.6%	-0.9%	+211.1%
Slovenia	42'188	9.1%	-2.3%	+711.3%
Spain	1'968'570	7.9%	-13.1%	+416.8%
Sweden	518'983	16.9%	-3.3%	+197.9%
Switzerland	137'234	13.1%	-2.4%	+65.9%
Turkey	486'069	1.3%	+1.2%	+714.9%
Ukraine	410'550	1.0%	-2.4%	-
United Kingdom	495'929	2.9%	+5.2%	-14.3%
European Union	**11'188'258**	**6.2%**	**+7.8%**	**+155.2%**
Europe	**12'716'969**	**2.5%**	**+8.2%**	**+177.6%**

Source: FiBL-AMI survey 2017 based on Eurostat and national data sources. For data sources see annex.

[1] Note on European tables: Blank cells: No data available. Corrections, revisions and updates should be sent to helga.willer@fibl.org. Corrections and revisions will be posted at www.organic-world.net

Table 62: Europe: Conversion status of organic agricultural land 2015

Country	Total organic area [ha]	Area under conversion [ha]	Area fully converted [ha]
Albania	515		
Andorra	2		2
Austria	553'570		
Belarus		Wild collection only	
Belgium	68'818	11'655	57'163
Bosnia and Herzegovina	576	105	470
Bulgaria	118'552	97'021	21'539
Channel Islands	180		180
Croatia	75'883	50'085	25'796
Cyprus	4'699	1'439	3'257
Czech Republic	478'033	49'471	428'561
Denmark	166'788	16'466	150'321
Estonia	155'806	23'118	132'684
Faroe Islands	253	253	
Finland	225'235	33'075	192'160
France	1'375'328	312'406	1'063'172
Germany	1'088'838		
Greece	407'069	21'679	385'404
Hungary	129'735	35'573	94'163
Iceland	9'797		
Ireland	73'037	25'085	47'947
Italy	1'492'579	398'933	1'093'646
Kosovo	160		160
Latvia	231'608	70'644	160'966
Liechtenstein	1'107	3	1'105
Lithuania	213'579	82'123	131'454
Luxembourg	4'216	426	3'791
Macedonia, FYROM	2'174	982	1'192
Malta	30	3	25
Moldova	28'729	526	18'052
Monaco		Processing only	
Montenegro	3'289		
Netherlands	49'273	3'303	45'970
Norway	47'640	3'323	44'317
Poland	580'731	78'809	501'924
Portugal	241'375	84'967	156'408
Romania	245'924	70'353	175'571
Russian Federation	385'140	38'823	165'447
Serbia	15'298	7'672	7'628
Slovakia	181'882	42'648	139'234
Slovenia	42'188	9'702	32'488
Spain	1'968'570	558'041	1'410'549
Sweden	518'983	52'537	466'446
Switzerland	137'234		
Turkey	486'069	166'205	319'864
Ukraine	410'550		
United Kingdom	495'929	19'786	476'142
European Union	**11'188'258**	**2'149'348**	**7'396'781**
Europe	**12'716'969**	**2'367'239**	**7'955'197**

Source: FiBL-AMI survey 2017 based on Eurostat and national data sources. For data sources see annex.

Table 63: Europe: Land use and in organic agriculture by country 2015

Country	Arable crops [ha]	Permanent crops [ha]	Permanent grassland [ha]	Other [ha]	Total [ha]
Albania	93	420		2	515
Andorra		2			2
Austria	194'332	8'068	350'309	861	553'570
Belarus			Wild collection only		
Belgium	21'749	753	46'318	-2	68'818
Bosnia and Herzegovina	127	52	36	361	576
Bulgaria	60'826	25'930	31'796		118'552
Channel Islands				180	180
Croatia	34'306	7'963	33'612	2	75'883
Cyprus	2'097	2'249	352	1	4'699
Czech Republic	65'490	6'473	406'070		478'033
Denmark	132'002	3'389	31'396	1	166'788
Estonia	71'317	1'805	82'684		155'806
Faroe Islands			253		253
Finland	220'907	527	3'801		225'235
France	717'122	99'731	506'121	52'354	1'375'328
Germany	430'742	34'012	600'000	24'084	1'088'838
Greece	98'029	56'475	252'565		407'069
Hungary	59'070	5'923	64'742		129'735
Iceland	713	20	7'722	1'342	9'797
Ireland	4'569	59	68'409		73'037
Italy	702'541	363'834	426'204		1'492'579
Kosovo	160				160
Latvia	124'596	1'311	105'701		231'608
Liechtenstein	252	7	848		1'107
Lithuania	143'445	6'525	63'608	1	213'579
Luxembourg	1'870	122	2'223	1	4'216
Macedonia, FYROM	1'755	269		150	2'174
Malta	10	19	0	1	30
Moldova	25'400	2'016	1'042	270	28'729
Monaco			Processing only		
Montenegro	212	208	2'868	1	3'289
Netherlands	20'495	335	28'443		49'273
Norway	38'585	267	8'788		47'640
Poland	376'938	45'808	157'985		580'731
Portugal	36'609	37'032	167'757	-23	241'375
Romania	158'975	11'094	75'854	1	245'924
Russian Federation	169'620	304	2'103	213'112	385'139
Serbia	10'685	2'712	1'900	1	15'298
Slovakia	59'973	1'649	120'260		181'882
Slovenia	5'360	2'175	34'653		42'188
Spain	452'291	501'900	1'014'379		1'968'570
Sweden	398'001	475	120'507		518'983
Switzerland	25'536	1'627	107'165	2'906	137'234
Turkey	314'987	153'715	17'767	-401	486'069
Ukraine	335'170	6'130	51'000	18'250	410'550
United Kingdom	144'801	3'755	347'373		495'929
European Union	**4'738'463**	**1'229'390**	**5'143'122**	**77'283**	**11'188'258**
Europe	**5'661'759**	**1'397'140**	**5'344'614**	**313'457**	**12'716'969**

Source: FiBL-AMI survey 2017 based on Eurostat and national data sources. For data sources see annex.

Table 64: Europe: Organic agricultural land and wild collection areas by country 2015

Country	Agricultural land [ha]	Wild collection [ha]	Total [ha]
Albania	515	467'783	468'298
Andorra	2		2
Austria	553'570		553'570
Belarus		2'742	2'742
Belgium	68'818	3	68'821
Bosnia and Herzegovina	576	50'250	50'826
Bulgaria	118'552	901'617	1'020'169
Channel Islands	180		180
Croatia	75'883	8	75'891
Cyprus	4'699		4'699
Czech Republic	478'033		478'033
Denmark	166'788	2'648	169'436
Estonia	155'806	40'579	196'385
Faroe Islands	253		253
Finland	225'235	12'200'000	12'425'235
France	1'375'328		1'375'328
Germany	1'088'838		1'088'838
Greece	407'069	317'053	724'122
Hungary	129'735		129'735
Iceland	9'797	212'699	222'496
Ireland	73'037		73'037
Italy	1'492'579	70'254	1'562'833
Kosovo	160	179'580	179'740
Latvia	231'608		231'608
Liechtenstein	1'107		1'107
Lithuania	213'579		213'579
Luxembourg	4'216		4'216
Macedonia, FYROM	2'174	556'600	558'774
Malta	30		30
Moldova	28'729		28'729
Monaco		Processing only	
Montenegro	3'289	139'809	143'097
Netherlands	49'273		49'273
Norway	47'640		47'640
Poland	580'731		580'731
Portugal	241'375	40'000	281'375
Romania	245'924	1'787'548	2'033'472
Russian Federation	385'139	35'383	420'522
Serbia	15'298	1'550	16'848
Slovakia	181'882		181'882
Slovenia	42'188	13'238	55'426
Spain	1'968'570	38'184	2'006'754
Sweden	518'983		518'983
Switzerland	137'234		137'234
Turkey	486'069	61'230	547'299
Ukraine	410'550	540'000	950'550
United Kingdom	495'929		495'929
European Union	**11'188'258**	**15'411'132**	**26'618'923**
Europe	**12'716'969**	**17'658'757**	**30'375'726**

Source: FiBL-AMI survey 2017, based on Eurostat and national data sources. For data sources see annex.

Table 65: Europe: Organic producers, processors and importers by country 2015

	Producers			Processors		Importers		Exporters	
Country	No.	Change 2014-2015	Change 2006-2015	No.	Change 2014-2015	No.	Change 2014-2015	No.	Change 2014-2015
Albania	39	-	30%	22	-	4	-	25	-
Andorra		-	-	3	200%		-		-
Austria	20'976	0.5%	4%	2'198	4%	29	26%	8	-11%
Belarus		-	-	1	-		-	1	-
Belgium	1'733	5%	116%	1'014	14%	164	16%	37	-
Bosnia and Herzegovina	36	50%	-89%	8	-		-	10	67%
Bulgaria	5'919	52%	2615%	161	22%	8	167%	9	-25%
Croatia	3'061	40%	732%	320	35%	4	-33%	6	-
Cyprus	1'032	39%	238%	62	22%	3	-25%	3	-25%
Czech Republic	4'121	7%	328%	558	10%	139	26%	70	30%
Denmark	2'991	17%	7%	908	15%	78	15%	80	7%
Estonia	1'629	6%	39%	118	8%	16	78%		-
Faroe Islands	1	-	-	1	-		-		-
Finland	4'328	2%	9%	453	-33%	79	-29%	13	-
France	28'884	9%	148%	11'842	6%	273	84%		-
Germany	25'078	6%	43%	14'280	23%	1'452	28%	775	77%
Greece	19'604	-3%	-18%	1'526	-7%	14	100%	42	56%
Hungary	1'971	18%	27%	235	-9%	21	31%		-
Iceland	36	6%	50%	29	12%	3	50%		-
Ireland	1'709	34%	60%	254	5%	10	-	6	100%
Italy	52'609	8%	17%	14'658	16%	310	20%	621	-
Kosovo	100	900%	-	5	-50%		-		-75%
Latvia	3'634	4%	-11%	75	50%	10	67%		0%
Liechtenstein	38	-3%	-7%		-		-		-
Lithuania	2'672	9%	14%	74	10%	8	60%		-
Luxembourg	83	5%	15%	79	10%	6	20%		-
Macedonia, FYROM	460	39%	351%	15	36%		-	6	-
Malta	11	10%	10%	7	-13%	12	9%		-
Moldova	50	-71%	-59%	11	-		-	9	-
Monaco		-	-		-		-		-
Montenegro	167	-	1013%	9	-		-		-
Netherlands	1'472	1%	2%	990	-1%	314	14%	73	4%
Norway	2'113	-5%	-18%	358	-27%	74	14%	2	-
Poland	22'277	-10%	142%	562	16%	92	35%	107	51%
Portugal	4'142	24%	167%	604	12%	2	-		-
Romania	11'869	-16%	291%	139	12%	3	-		100%
Russian Federation	82	21%	925%	37	3%		-	11	450%
San Marino		-	-	2	-		-		-
Serbia	264	23%	654%	37	-16%	30	7%	3	200%
Slovakia	420	4%	58%	48	-14%	11	-15%		-100%
Slovenia	3'412	4%	75%	279	18%	12	9%		-
Spain	34'673	13%	101%	3'436	11%	166	31%	72	7%
Sweden	5'709	6%	140%	855	-	201	-19%	32	-
Switzerland	6'244	1%	-1%		-		-%		-
Turkey	69'967	-2%	391%	1'064	27%	44	29%	42	14%
Ukraine	210	15%	163%	110	86%	50	-17%	30	-45%
United Kingdom	3'434	-3%	-26%	2'625	6%	37	-58%		-
European Union	**269'453**	**5%**	**50%**	**58'360**	**12%**	**3'474**	**19%**		**-100%**
Europe	**349'261**	**3%**	**71%**	**60'073**	**12%**	**3'681**	**19%**	**2'100**	**107%**

Source: FiBL-AMI survey 2017 based on Eurostat and national data sources. For data sources see annex.

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends.
FiBL & IFOAM – Organics International (2017): Frick and Bonn, 2017-02-20

Table 66: Europe: The market for organic food 2015

Country	Retail sales [Million €]	€/person	Organic share [%]	Growth in sales 2014-15 [%]	Exports [Million €]	Catering [Million €]
Austria (2011)	1'065	127.0	6.5%		80	64
Belgium	514	45.7	2.7%	18.0%		
Bosnia and Herzegovina	0.31	0.03			2	
Bulgaria (2010)	7	0.9				
Croatia (2014)	99	23.4	2.2%		3 (2011)	
Cyprus (2006)	2	1.9				
Czech Republic (2014)	74	7.0	0.7%		43	
Denmark	1'079	190.7	8.4%	12.0%	266	223
Finland	240	43.9	1.8%	6.7%	10 (2014)	
France	5'534	83.3	2.9%	14.6%	435	225
Germany	8'620	105.9	4.8%	11.1%		
Greece (2010)	60	5.3				
Hungary	30	3.0			20 (2009)	
Ireland	142	30.7	0.7%	23.0%		
Italy	2'317	38.1	2.8%	15.0%	1'650	343
Kosovo					6	
Latvia (2011)	4	2.0	0.8%			
Liechtenstein	6	142.4				
Lithuania (2011)	6	2.0	0.2%			
Luxembourg	94	170.0	7.5%	4.0%		
Moldova					15 (2011)	
Montenegro	0.10 (2010)	0.2				
Netherlands	1'072	63.4	4.3%	11.5%	928 (2014)	200
Norway	352	68.1	1.5%	15.9%		
Poland	167	4.4				
Portugal (2011)	21	2.0	0.2%			
Romania (2011)	80	3.7	0.7%		200	
Russian Federation	120 (2012)	0.8			4 (2009)	
Serbia					20	
Slovakia (2010)	4	0.7	0.2%			
Slovenia (2013)	49	26.6	1.8%		0.1 (2009)	0.1 (2009)
Spain	1'498	32.3	1.5%	24.8%	778	
Sweden	1'726	177.1	7.3%	20.2%		
Switzerland	2'175	262.2	7.7%	5.2%		
Turkey (2009)	4	0.1			62 (2015)	
Ukraine	18	2.6			50	
United Kingdom	2'604	40.2	1.4%	4.9%		89
European Union	**27'107**	**53.7**		**12.6%**		
Europe	**29'781**	**36.4**		**13.0%**		

Source: FiBL-AMI survey 2017. For details on data sources see annex.

Note on table: Where no published data exists, best estimates from a range of experts he been used, but these were not available for all cases, so sometimes earlier estimates are shown.
Values published in national currencies were converted to euros using the 2015 average 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.

Table 67: Europe: Key indicators by country group 2015

	Country	Organic area [ha]	Organic share [%]	Producers [no.]	Retail sales [Million €]	€/person	Retail sales: Share [%]
EU-15	Austria	553'570	21.3%	20'976	1'065	127.0	6.5%
	Belgium	68'818	5.2%	1'733	514	45.7	2.7%
	Denmark	166'788	6.3%	2'991	1'079	190.7	8.4%
	Finland	225'235	10.0%	4'328	240	43.9	1.8%
	France	1'375'328	5.0%	28'884	5'534	83.3	2.9%
	Germany	1'088'838	6.5%	25'078	8'620	105.9	4.8%
	Greece	407'069	5.0%	19'604	60	5.3	
	Ireland	73'037	1.8%	1'709	142	30.7	0.7%
	Italy	1'492'579	11.7%	52'609	2'317	38.1	2.5%
	Luxembourg	4'216	3.2%	83	94	170.0	7.5%
	Netherlands	49'273	2.6%	1'472	1'072	63.4	4.3%
	Portugal	241'375	7.2%	4'142	21	2.0	0.2%
	Spain	1'968'570	7.9%	34'673	1'498	32.3	1.5%
	Sweden	518'983	16.9%	5'709	1'726	177.1	7.3%
	United Kingdom	495'929	2.9%	3'434	2'604	40.2	1.4%
EU-15 total		8'729'608	6.8%	207'425	26'586	65.9	-
EU-13	Bulgaria	118'552	3.9%	5'919	7	0.9	
	Croatia	75'883	5.0%	3'061	99	23.4	2.2%
	Cyprus	4'699	4.3%	1'032	2	1.9	
	Czech Republic	478'033	11.3%	4'121	74	7.0	0.7%
	Estonia	155'806	16.5%	1'629			
	Hungary	129'735	2.4%	1'971	30	3.0	
	Latvia	231'608	12.8%	3'634	4	2.0	0.2%
	Lithuania	213'579	7.4%	2'672	6	2.0	0.2%
	Malta	30	0.3%	11			
	Poland	580'731	3.8%	22'277	167	4.4	
	Romania	245'924	1.8%	11'869	80	3.7	0.7%
	Slovakia	181'882	9.6%	420	4	0.7	0.2%
	Slovenia	42'188	9.1%	3'412	49	26.6	1.8%
EU-13 total		2'458'650	4.8%	62'028	521	5.0	-
CPC	Albania	515	0.04%	39			
	Bosnia and Herzegovina	576	0.03%	36	0.3	0.03	
	Kosovo	160	0.04%	100			
	Montenegro	3'289	1.4%	167	0.1	0.2	
	Macedonia	2'174	0.2%	460			

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends. FiBL & IFOAM – Organics International (2017): Frick and Bonn, 2017-02-20

	Country	Organic area [ha]	Organic share [%]	Producers [no.]	Retail sales [Million €]	€/person	Retail sales: Share [%]
	(FYROM)						
	Serbia	15'298	0.4%	264			
	Turkey	486'069	1.3%	69'967	4	0.1	
CPC total		508'080	1.1%	71'033	4	0.2	-
EFTA	Iceland	9'797	0.5%	36			
EFTA	Liechtenstein	1'107	30.2%	38	6	142.4	
EFTA	Norway	47'640	4.4%	2'113	352	68.1	1.5%
EFTA	Switzerland	137'234	13.1%	6'244	2'175	262.2	7.7%
EFTA total		195'778	4.9%	8'431	2'533	183.9	-
Other European countries	Andorra	2	0.01%	1			
Other European countries	Belarus	Wild collection only					
Other European countries	Channel Islands	180	1.9%				
Other European countries	Faroe Islands	253	8.4%	1			
Other European countries	Moldova	28'729	1.2%	50			
Other European countries	Russian Federation	385'140	0.2%	82	120	0.8	
Other European countries	San Marino	Processing only					
Other European countries	Ukraine	410'550	1.0%	210	18	2.6	
Other European countries total		824'853	0.3%	344	138	0.6	-
European Union total		**11'188'258**	**6.2%**	**269'453**	**27'107**	**53.7**	-
Europe total		**12'716'969**	**2.5%**	**349'261**	**29'781**	**36.4**	-

Source: FiBL-AMI survey 2017. For details on data sources see annex on page 316.

Latin America and the Caribbean

Map 5: Organic agricultural land in the countries of Latin America and the Caribbean 2015
Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316

Latin America and the Caribbean

PATRICIA FLORES[1]

Latin American and Caribbean countries are maintaining the generally positive trend of a growing organic sector, producing organic food and beverages for international, regional, and local emerging markets.

During the last decade, many of these countries saw the development of public policies in dialogue with civil society organizations, and the private sector was strengthened. It addresses family agriculture, local markets, and public procurement for social programs as well as special programs for training and capacity development and projects for developing international markets. Government support was given as a strategy to meet the demand of niche markets (national and international) and for climate change mitigation and adaptation, as Latin America is a region with highly vulnerable countries.

However, these efforts are seriously affected by the deepest recession in key economies in the region, such as Brazil and Argentina, in decades. The Economic Commission for Latin America and the Caribbean (ECLAC) has revised its economic growth projections for the region for 2016 and expects an average contraction of 0.9 percent, but growth is expected to pick up by an average of 1.5 percent in 2017 (CEPAL, 2016).

Public policies

In countries in crisis, some of the positive measures in public policies for organic family farming have been withdrawn.

On a more positive note, local governments are taking the lead in several national and decentralized initiatives. The so-called regional economies (municipalities, provinces) are announcing several supportive measures and incentives for organic production addressing local markets. This is the case for Participatory Guarantee Systems (PGS)[2] recognition in Peru and transition support for agroecological production in Argentina.

Climate change & landscape management

The Germanwatch Global Climate Risk Index 2017 (Kreft et al.) assesses the effects of extreme weather events between 1996 and 2015, and listed four Latin-American countries in its top ten: Honduras in first place, followed by Haiti (3), Nicaragua (4) and Guatemala (9). The analysis reconfirms that, according to the Climate Risk Index, less developed countries are generally more affected than industrialized countries. However, Chile is an exception; it ranked 9th in 2015 in the group of most affected countries due to extreme rainfall patterns.

Extreme weather events are a major factor affecting agricultural production. More resilient food systems can be created with organic systems. However, organic agriculture

[1] Patricia Flores – IFOAM Organics International, Latin America Regional Office, Lima, Peru; www.ifoam.bio/en/our-offices/latin-america-office

[2] For more information in Participatory Guarantee Systems see page 157.

is also at risk when large-scale landscape disturbances occur, either caused by land use change or the introduction of exotic species. A classic example is that of the Chilean bumblebee *Bombus dahlbomii* evaluated as endangered on the IUCN Red List of Threatened Species™ (IUCN 2016). It is the world's largest bumblebee, and its habitat is the most southwestern region of continental South America. As a unique pollinator, the Chilean bumblebee is essential for Chile's flagship organic product, the blueberry. Nowadays, organic producers of the Chilean blueberry have to import sterilized male bumblebees from the United States.

Organic regulation: Chile – EU agreement

Except for Chile, the regional map for organic regulations at the country level remains the same as in recent years. In May 2016, the European Union and Chile concluded negotiations of a "new generation" agreement on trade in organic products to mutually recognize the equivalence of their organic production rules and control systems. The agreement has a broad scope and is the first such bilateral recognition with a Latin American country. Until now, the EU had only concluded administrative arrangements with regard to organic equivalence recognitions, or in the past, it only unilaterally recognized the equivalence of third countries' organic production rules and control systems.

EU Commissioner Phil Hogan stated: "I very much welcome the end of negotiations with Chile with a view to concluding an agreement on trade in organic products. The European organic sector continues to be one of our most dynamic production sectors and Chile has great potential in developing opportunities for organic farmers and businesses. This agreement will contribute to creating jobs and growth for both partners, with the guarantee for the consumer of solid control systems."

Regional markets

Organic production in the region largely depends on cooperation between smallholders, especially in coffee, cacao, banana, mango, Andean grains, and ginger value chains. The capacity and market positioning of Latin American countries to develop and continue strengthening their organic sectors can attain higher potentials with incentives and governmental support that can be given to family agriculture and climate change mitigation and adaptation measures.

Organic and biodynamic agriculture movement

The year 2016 was a busy one for the regional movement, and several Latin-American meetings were celebrated:

- Biodynamic agriculture regional meeting in October in Chile;
- Biodynamic vitiviniculture meeting in November in Chile (12 wineries, 8 from Chile and 4 from Argentina);
- Regional exchange of PGS experiences within national PGS meetings in several countries and several organic national meetings throughout the region.

A second indigenous PGS has been acknowledged by local authorities in the Amazon basin of Peru, in Iquitos. This initiative is the second one after the Brazilian indigenous

PGS of Xingu people, reported in the 2016 edition of this publication (Flores and Soberanes 2016).

In Peru, on August 31, 2016, the Organic Sector and Movement met at the Seminar "Agroecology, Value Chains and Food: Rural urban connections in three continents." Organized by the International Center of Organic Food Systems (ICROFS, Denmark), the National Agricultural University (UNA) La Molina (El Huerto), the Nutrition in Mountain Agroecosystems – Peru project of IFOAM - Organics International, and other stakeholders of the organic movement, the seminar gathered scientists from Africa, Europe, and Latin America to discuss the latest developments in research and development in organic food systems.

Biodynamic agriculture is developing rapidly in the region. It started strongly with the wine sector in Chile and Argentina, and there are a few other important projects aimed at international markets. Nowadays, biodynamic agriculture embraces a wide range of products for local and international markets. In Peru, from only two Demeter certified projects (ginger and coffee), there are now several projects being prepared for Demeter certification: including avocado, quinoa, amaranth, banana, turmeric, ginger, cacao, and coffee production. Demeter quality is sought, not only for international markets but also for interesting emerging local markets. The first general secretary of Demeter International visited Latin America to visit projects in Brazil, Argentina, Chile, and Peru. In Peru, Christoph Simpfendörfer from Demeter International, together with local specialists, gave a course for small producers of cacao, with partial support of the Municipality of Calzada (Moyobamba, San Martin) and the private sector (biodynamic projects and certification bodies). It was the first course held in Latin America with a high-level representative of Demeter International.

Scaling-up experiences in the organic sector

Despite the economic situation and the scant government support in some countries, organic is mainstreaming in the regional markets and steadily growing. This year, we highlight the following stories to encourage communities and governments to adopt organic practices:

Argentina – from Guaminí to the organic world

There are few countries in which one can observe the magnitude and impact of conventional agriculture and of genetically modified organisms (GMOs). Argentina is one of these countries. But there, where one would expect that every operator would follow the recipe of conventional unsustainable agriculture, you can find innovation and continuous improvement. Guaminí is a Western municipality of the province of Buenos Aires. The municipality has supported eight farmers for conversion to organic agriculture, starting with 100 hectares as a pilot project. After three years, farmers managed to decrease costs, maintain production levels and, now, this has expanded to 1'500 hectares. This represents an impressive scaling-up since 2014, which led to product diversification and multicropping (rotation and association): oats, vicia, red clover, sorghum, wheat, barley, and corn. It is an amazing collective learning experience, nourished by traditional knowledge, local adaptation, and day-to-day observation and reflection. The municipality also approved an ordinance to support family agriculture,

farmers' fairs, and land access for family enterprises implementing productive projects using the agroecological approach.

Peru – resilience of PGS experiences

For more than ten years, the organic movement has fought for recognition of PGS by the competent authority in charge of organic agriculture. Peru is a leading country in PGS for organic production, and Peruvian regional governments have decided to support PGS as a mechanism for fostering the development of organic agriculture with organized smallholders. Since 2010, with the first regional ordinance of Huanuco Region, a more enabling environment started to develop for a more inclusive organic sector. It began in the Huanuco Region, followed by Junín (2011), Apurimac (2013), and in 2016: Huancavelica, and Amazonas (Alto Amazonas). In 2016, four additional initiatives emerged, waiting to be approved: Ucayali Region, Lima (districts of Pachacamac and Santa Eulalia), Junín (province of Satipo), and Ayacucho Province. With 13 decentralized, operating PGS councils (including regions, provinces, and districts), the National Association of Organic Farmers of Peru (ANPE Perú) has shown that PGS strengthen the sector and provide organic products to local markets.

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Latin America and the Caribbean: Current statistics

Julia Lernoud,[1] Helga Willer[2] and Bernhard Schlatter[3]

Overview

In 2015, 6.7 million hectares were reported as being under organic production, which is 0.9 percent of the total agricultural land in Latin America and the Caribbean. Thirteen percent of the world's organic agricultural land is in Latin America and the Caribbean. Almost 86'000 hectares less were reported than in 2014. This drop can be attributed to a major decrease, mainly of grassland/grazing areas, in the Falkland Islands (Malvinas) (over 260'000 hectares less). However, in some countries, there was a big increase of organic agricultural land in 2015: In Mexico, where new data was made available after two years without an update, the area increased by more than 80'000 hectares. Furthermore, Peru showed a big growth with over 60'000 hectares. The organic area has increased by over 70 percent since 2000 (almost 3 million hectares). The country with the largest organic agricultural area was Argentina with 3.1 million hectares (Figure 89), and the country with the largest number of producers is Mexico with more than 200'000 (Table 68). The highest proportion of the total agricultural area was reached in the Falkland Islands (more than 12.5 percent).

Land use

Land use details were available for more than 80 percent of the organic agricultural land. In 2015, only five percent of all organic farmland was utilized for *arable crops* (almost 315'000 hectares); while almost 65 percent was *grassland/grazing* areas (4.3 million hectares. *Permanent crops* were grown in almost 830'000 hectares (12 percent of the organic area in the region), and for 18 percent of the reported area no details were available. Argentina (2.8 million hectares), Uruguay (1.3 million hectares), and the Falkland Islands/Malvinas (almost 140'000 hectares) had the largest permanent grassland/grazing areas.

The key organic *arable crops* are cereals, with almost 125'000 hectares, representing almost 40 percent of the organic arable area of Latin America and Caribbean, and 0.2 percent of the total cereal area in the region. Most of the cereals were grown in Bolivia (87'000 hectares, mainly quinoa and amaranth), Argentina (26'500 hectares, mainly wheat) and Peru (6'000 hectares, mainly quinoa). The key organic cereal in the region was quinoa (almost 95'000 hectares) representing more than 70 percent of all the quinoa grown in the region. Organic sugarcane was grown on almost 70'000 hectares in 2015, 0.5 percent of the total sugarcane in the region, with the key producing countries being Paraguay (almost 50'000 hectares) and Argentina (11'000 hectares).

The main organic *permanent crops* were coffee (almost 480'000 hectares), cocoa (almost 190'000 hectares), and tropical and subtropical fruits (almost 120'000 hectares). Organic

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coffee represented almost 9 percent of the total coffee area in the region and more than half of the world's organic coffee. The countries with the largest organic coffee areas were Mexico (280'000 hectares), Peru (110'000 hectares), and Honduras (23'500 hectares). Furthermore, 11 percent of the cocoa area in Latin America is organic. Over 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 120'000 hectares, followed by Peru (more than 25'000 hectares), and Panama (14'000 hectares). Organic bananas are the key tropical fruit grown in the region (almost 52'000 hectares), 2.4 percent of the regional banana area, followed by avocados (42'115 hectares). The countries with the largest organic banana area are the Dominican Republic (25'000 hectares) and Ecuador (17'000 hectares); these two countries represent over 80 percent of the regional organic banana area.

Producers

Over 450'000 organic producers were recorded in Latin America and the Caribbean, in 2015. The countries with the most organic producers are Mexico (over 200'000), Peru (almost 97'000), 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 more than 4.2 million hectares of organic wild collection areas. They are mainly used for the collection of nuts (more than 1 million hectares), palmito (almost 144'000 hectares), and rose hips (58'000 hectares). Beekeeping areas represent almost 11 percent of the region's organic wild collection area, almost 450'000 hectares. The countries with the largest organic wild collection areas are Mexico (almost 1.3 million hectares), Brazil (1.2 million hectares, data 2011), Bolivia (0.9 million hectares, 2014), and Argentina (0.4 million hectares). 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 254.

Organic Agriculture in Latin America and Caribbean: Graphs

Latin America and Caribbean: The ten countries with the largest organic area 2015

Source: FiBL survey 2017

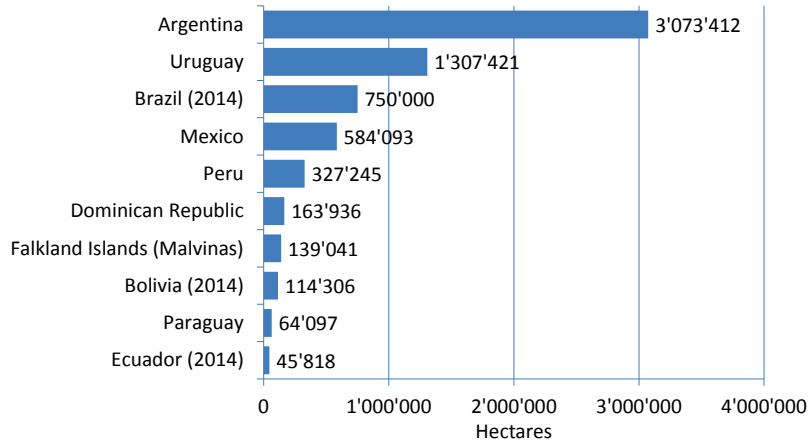

Figure 89: Latin America and Caribbean: The ten countries with the largest areas of organic agricultural land 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

Latin America and Caribbean: The countries with the highest organic share of total agricultural land 2015

Source: FiBL survey 2017

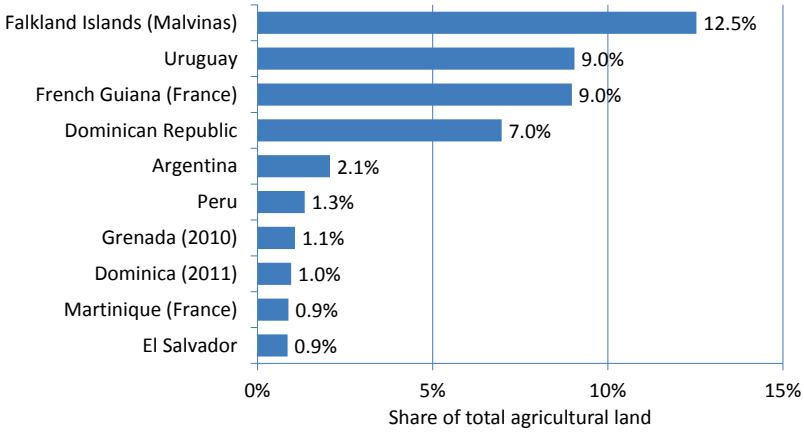

Figure 90: Latin America and Caribbean: The ten countries with the highest organic share of total agricultural land 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

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Latin America and Caribbean: Development of organic agricultural land 2000 to 2015

Source: FiBL-IFOAM-SOEL 2002-2017

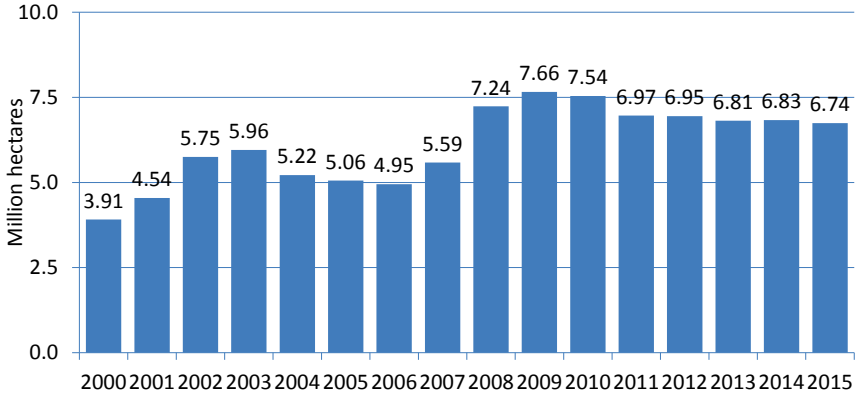

Figure 91: Latin America and Caribbean: Development of organic agricultural land 2000-2015

Source: FiBL-IFOAM-SOEL surveys 2000-2017

Latin America and Caribbean: Use of agricultural organic land 2015

Source: FiBL survey 2017; based on information from the private sector, certifiers, and governments.

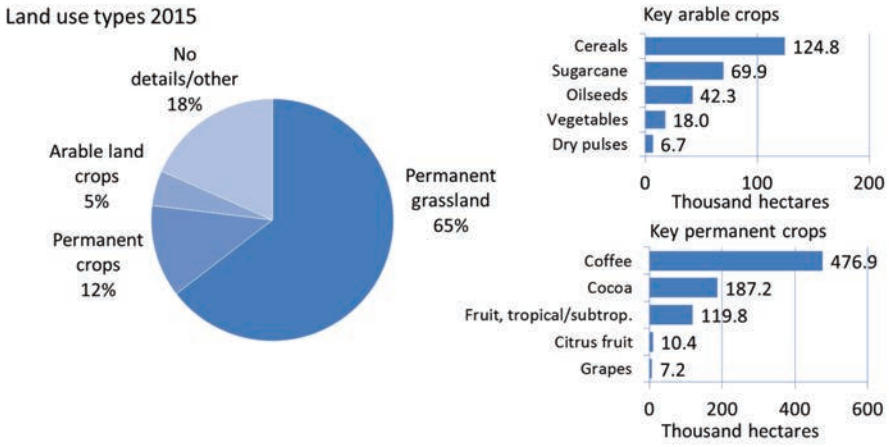

Figure 92: Latin America and Caribbean: Use of agricultural organic land 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

Organic Agriculture in Latin America and Caribbean: Tables

Table 68: Latin America: Organic agricultural land, organic share of total agricultural land, and number of producers 2015

For information on data year, see page 312.

Country	Area [ha]	Organic share [%]	Producers [no.]
Argentina	3'073'412	2.1%	1'074
Bahamas	49	0.3%	1
Belize	840	0.5%	820
Bolivia (Plurinational State of)	114'306	0.3%	12'114
Brazil	750'000	0.2%	12'655
Chile	19'932	0.1%	446
Colombia	31'621	0.1%	4'775
Costa Rica	7'819	0.4%	3'000
Cuba	4'338	0.1%	7
Dominica	240	1.0%	
Dominican Republic	163'936	7.0%	36'463
Ecuador	45'818	0.8%	10'287
El Salvador	13'728	0.9%	2'000
Falkland Islands (Malvinas)	139'041	12.5%	5
French Guiana (France)	2'746	9.0%	49
Grenada	85	1.1%	3
Guadeloupe (France)	104	0.2%	31
Guatemala	13'380	0.4%	3'008
Guyana		Wild collection only	
Haiti	4'250	0.2%	1'210
Honduras	26'892	0.8%	5'411
Jamaica	167	0.04%	80
Martinique (France)	279	0.9%	44
Mexico	584'093	0.5%	200'039
Nicaragua	33'621	0.7%	10'060
Panama	15'183	0.7%	1'300
Paraguay	64'097	0.3%	58'258
Peru	327'245	1.3%	96'857
Puerto Rico	14	0.01%	5
Suriname	39	0.04%	1
United States Virgin Islands	26	0.7%	2
Uruguay	1'307'421	9.0%	4
Venezuela (Bolivarian Republic of)		Processing only	
Total	**6'744'722**	**0.9%**	**460'009**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

Table 69: Latin America: All organic areas 2015

Country	Agriculture [ha]	Aquaculture [ha]	Other non agri. land [ha]	Wild collection [ha]	Total [ha]
Argentina	3'073'412		10'321	359'475	3'443'208
Bahamas	49				49
Belize	840				840
Bolivia	114'306			922'991	1'037'297
Brazil	705'233			1'209'773	1'915'006
Chile	19'932			81'054	100'986
Colombia	31'621			7'320	38'941
Costa Rica	7'819	664			8'483
Cuba	4'338				4'338
Dominica	240				240
Dominican Republic	163'936				163'936
Ecuador	45'818	3'123		1'260	50'201
El Salvador	13'728				13'728
Falkland Islands (Malvinas)	139'041				139'041
French Guiana (France)	2'746				2'746
Grenada	85				85
Guadeloupe (France)	104				104
Guatemala	13'380			5	13'385
Guyana				54'000	54'000
Haiti	4'250				4'250
Honduras	26'892				26'892
Jamaica	167			36	204
Martinique (France)	279				279
Mexico	584'093			1'290'000	1'874'093
Nicaragua	33'621			11'463	45'084
Panama	15'183				15'183
Paraguay	64'097			3'067	67'164
Peru	327'245	4		280'627	607'877
Puerto Rico	14				14
Suriname	39				39
United States Virgin Islands	26				26
Uruguay	1'307'421				1'307'421
Venezuela			Processing only		
Total	**6'744'722**	**3'791**	**10'321**	**4'221'072**	**10'979'906**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316

Table 70: Latin America: Land use in organic agriculture 2015

Land use	Crop group	Area [ha]
Agricultural land, no details		1'258'670
Arable land	Cereals	124'849
	Dry pulses	6'666
	Fallow land, crop rotation	2'263
	Green fodders from arable land	50
	Medicinal and aromatic plants	6'607
	Oilseeds	42'337
	Root crops	3'147
	Seeds and seedlings	65
	Strawberries	1'306
	Sugarcane	69'887
	Textile crops	1'224
	Tobacco	35
	Vegetables	17'950
	Arable crops, other	38'222
Arable land total		***314'609***
Other agricultural land	Other agricultural land, no details	13'699
	Unutilised land	4'499
Other agricultural land total		***18'198***
Permanent crops	Berries	4'632
	Citrus fruit	10'383
	Cocoa	187'242
	Coconut	4'553
	Coffee	476'909
	Flowers and ornamental plants, permanent	2
	Fruit, no details	1
	Fruit, temperate	5'239
	Fruit, tropical and subtropical	119'766
	Grapes	7'224
	Medicinal and aromatic plants, permanent	2'571
	Nurseries	93
	Nuts	1'302
	Olives	3'913
	Tea/mate, etc.	1'696
	Permanent crops, other	2'024
Permanent crops total		***827'550***
Permanent grassland		4'325'855
Total		**6'744'722**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316

Table 71: Latin America: Use of wild collection areas 2015

Land use	Area [ha]
Apiculture	459'868
Berries, wild	17'708
Fruit, wild	5'000
Medicinal and aromatic plants, wild	30'000
Mushrooms, wild	1'260
Nuts, wild	1'090'834
Palmito, wild	143'867
Rose hips, wild	58'440
Wild collection, no details	2'413'538
Wild collection, other	556
Total	**4'221'072**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316

North America

Map 6: Organic agricultural land in Canada and the United States 2015

Source: Canada Organic Trade Association (COTA) and United States Department of Agriculture (USDA). For detailed data sources see annex, page 316

Organic Continues to Set Records in the United States

Barbara Fitch Haumann[1]

The booming U.S. organic industry continues to post new records, with total organic product sales hitting 43.3 billion US dollars[2] by the end of 2015, up a robust 11 percent from the previous year's record level and far outstripping the overall food market's growth rate of 3 percent, according to the Organic Trade Association's *2016 Organic Industry Survey*.

The industry saw its largest annual dollar gain ever in 2015, adding 4.2 billion US dollars in sales, up from the 3.9 billion US dollars in new sales recorded in 2014. Of the 43.3 billion dollars in total organic sales, 39.7 billion dollars were organic food sales, up 11 percent from the previous year, while non-food organic products accounted for 3.6 billion dollars, up 13 percent. Nearly five percent of all food sold in the United States is organic.

Gains were also projected for 2016, with organic food sales forecast to rise an estimated 10.4 percent and organic non-food sales 15.7 percent—totaling 10.8 percent overall growth for organic products.

Information collected from U.S. accredited organic certifying agents for 2014 and 2015 reported by the U.S. Department of Agriculture's National Agricultural Statistics Service (NASS) in December 2016 showed 14'871 organic farms in operation in 2015, with 5.3 million acres[3] farmed organically. Of that total, slightly more than 2.1 million acres were used for certified organic pasture and rangeland.

These figures reflect a sizeable jump from 2014, when a total of 13'174 certified organic farms were reported with just slightly over 4 million acres—1.5 million acres of which were used for pasture and rangeland.

A look at the U.S. Department of Agriculture (USDA) - Agricultural Marketing Service's online Organic Integrity Database in early December 2016 showed 23'330 certified organic operations—farms, handling and processing facilities—in the United States, and a total of 35'187 operations worldwide recognized by the National Organic Program (NOP).

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[2] The European Central Bank reference exchange rate US dollar/Euro was 1.1095 in 2015.
[3] One acre corresponds to 0.4 hectares.

U.S.: Growth of retail sales of organic food 2002-2015

Source: Organic Trade Association (OTA), various years

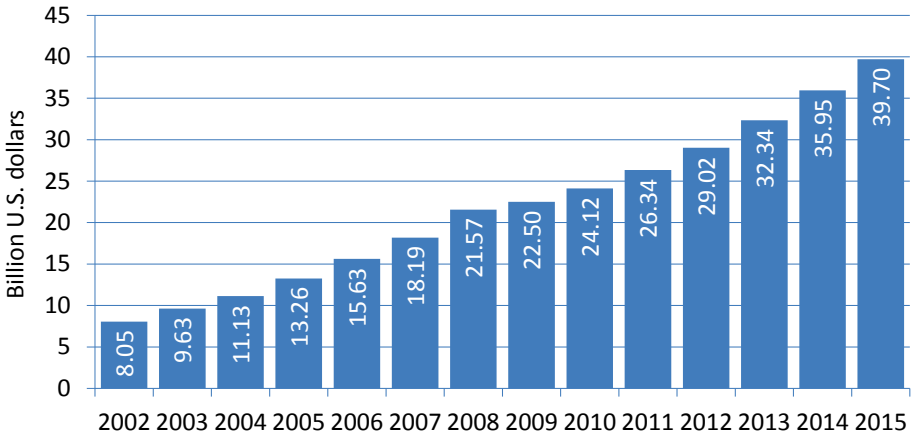

Figure 93: United States: Development of the organic market 2002-2015

Source: OTA, various years

Organic garners more attention

With increased attention on organic, the United States Department of Agriculture (USDA) offered its first session on the outlook for organic agriculture at its annual Agricultural Outlook Forum. Billed as "Transforming Agriculture: Blending Technology and Tradition," the event included an afternoon organic outlook session moderated by the Organic Trade Association's (OTA's) Executive Director/CEO, who outlined opportunities and challenges in this rapidly growing sector. USDA has hosted an annual Agricultural Outlook Forum since 1923. It is USDA's largest annual meeting, serving as a platform to facilitate conversation of key issues and topics within the agricultural community, including producers, processors, policy makers, government officials and NGOs, both foreign and domestic.

Also, an inaugural Organic Produce Summit was held in July. This included a State of the Organic Produce Industry presentation, along with educational sessions focusing on issues critical to the organic fruits and vegetables category, from supply, consumer trends and forecasting, to merchandising and evolving e-commerce opportunities.

Organic fruits and vegetables retained their longstanding spot as the largest of all the organic categories with sales of 14.4 billion US dollars in 2015, up 10.6 percent, according to the 2016 *Organic Industry Survey*. Almost 13 percent of the produce sold in the United States is now organic. Dairy, the second biggest organic food category, accounted for 6.0 billion US dollars in sales, an increase of over 10 percent.

Although non-food products account for just 8.2 percent of overall organic sales, the almost 13 percent growth rate in the sales of organic non-food products in 2015 outpaces the growth rate in organic food, as well as the overall growth of comparable products, primarily conventional, which inched up by a mere 2.8 percent. Growth in the non-food category was led by organic fiber, followed closely by organic supplements.

Increased consumer demand for organic products can be attributed to greater access to these products from mainstream retailers. As supermarkets, big box stores, membership warehouse clubs, and other outlets continued to up their organic offerings, organic options have become more available than ever before.

The growth in the organic market has come with continued challenges to the supply chain. There is industry-wide consensus of the need to build a secure supply chain by encouraging more organic acreage, developing programs to help farmers transition to organic, and encouraging new farmers to farm organically. Among the actions has been a push for an industry-led, government-administered certification program for organic farmers who are transitioning to organic production.

Consumer findings

A survey on the organic buying habits of American households released in 2016 showed parents in the 18- to 34-year old age range are now the largest group of organic buyers in the United States. Among U.S. parents, 52 percent of organic buyers are Millennials.

OTA's *U.S. Families' Organic Attitudes and Beliefs 2016 Tracking Study* found that more than eight in ten (82 percent) U.S. families say they buy organic sometimes, one of the highest levels in the survey's seven-year lifetime. The number of families never buying organic has steadily decreased, going from almost 30 percent in 2009 to just 18 percent today.

While 35 percent of all families surveyed said that choosing organic products is a key part of their effort to live in an environmentally friendly way, a greater percentage of Millennials said buying organic is a key eco-conscious habit than any other generational group. For forty percent of Millennials, choosing organic is an integral part of living green, versus 32 percent of Generation Xers and 28 percent of Baby Boomers.

Organic hotspots

Meanwhile, other research unveiled has linked economic health at the county level to organic agriculture, and showed that organic food and crop production—and the business activities accompanying organic agriculture—create real and long-lasting regional economic opportunities.

The White Paper, entitled "U.S. Organic Hotspots and their Benefit to Local Economies" prepared by Pennsylvania State Agricultural Economist Dr. Edward Jaenicke, found organic hotspots—counties with high levels of organic agricultural activity whose neighboring counties also have high organic activity—boost median household incomes by an average of 2'000 US dollars and reduce poverty levels by an average of 1.3 percentage points.

The White Paper identifies 225 counties across the United States as organic hotspots, then looks at how these organic hotspots impact the county poverty rate and median household income. Counties within organic hotspots have lower poverty rates and higher median annual household incomes. Organic hotspots also were found to have greater positive impact at the county level than such major anti-poverty programs as the Supplemental Nutrition Assistant Program and the Special Supplemental Nutrition Program for Women, Infants, and Children.

Meanwhile, the Organic Farming Research Foundation (OFRF) in 2016 released a report analyzing organic farming and food research funded 2002 through 2014 with 142.2 million US dollars awarded through USDA's Organic Research and Education Initiative (OREI) and Organic Transitions (ORG) competitive research grant programs. Itself funded by an OREI grant, the report analyzed 189 organic agriculture research, education and extension projects on a range of organic farming topics. About three-quarters of OREI and ORG funding supported research on organic crop production, with the remainder going to livestock, crop-livestock systems, and general topics.

All eyes on organic check-off proposal

In 2015, in a ground-breaking move for the U.S. organic sector, the Organic Trade Association petitioned USDA to begin steps to conduct a vote on a proposed Generic Research and Promotion Order (GRO organic) for organic in the United States after gathering information over three years in town hall meetings, panel discussions, surveys and phone calls.

In May 2016, USDA's Agricultural Marketing Service (AMS) officially posted OTA's updated proposal reflecting stakeholder feedback resulting from continued outreach by OTA and from responses to the original proposal, as well as technical edits from AMS. During the year, the proposed check-off garnered almost 1'400 public supporters, of which over 70 percent are organic producers.

USDA in early mid-January 2017 officially proposed a nationwide research and promotion check-off program for the organic industry to comment on and ultimately vote on. Published in the Federal Register, the USDA proposal estimates the organic check-off could raise over 30 million USD a year to spend on research to make farmers successful, technical services to accelerate the adoption of organic practices, and consumer education and promotion of the organic brand.

Other critical issues

Another critical issue centered on a proposed rule published in April by NOP (National Organic Programme) on organic livestock and poultry practices after 14 years of a public and transparent rulemaking process. The proposed rule outlined standards for organic products that consumers demand and that are necessary for organic to maintain its premium position in the marketplace. However, there was an effort in the U.S. Senate appropriations process to prevent NOP from finalizing the rule. Organic Trade Association mobilized its membership in coalition with other interested organizations to make calls to their Senators urging them to reject any attempts to impede NOP's rulemaking, engaged in social media outreach, and held a targeted fly-in. This action helped deflect a possible amendment that would have adversely affected the process. Finally, on January 18, 2017, USDA published the final rule.

Meanwhile, Organic Trade Association encouraged producers and handlers to participate in its Farm Bill Survey to provide feedback on new policy priorities for the upcoming 2018 Farm Bill. Major topics addressed included production concerns; marketing, funding, regulatory, research, and extension barriers, and past Farm Bill evaluation. OTA will use this information to help shape its policy priorities for the next Farm Bill.

In the United States, the farm bill is the primary agricultural and food policy tool of the federal government. The comprehensive omnibus bill is passed every five years or so by Congress and deals with both agriculture and all other affairs under the purview of the U.S. Department of Agriculture. It usually makes amendments and suspensions to provisions of permanent law, reauthorizes, amends, or repeals provisions of preceding temporary agricultural acts, and puts forth new policy provisions for a limited time into the future. Farm bills can be highly controversial and can impact international trade, environmental conservation, food safety, and the well-being of rural communities.

Still awaiting a determination by the U.S. Food and Drug Administration (FDA) concerning the proper wait time following the application of untreated manure, organic producers must comply with the 90- and 120-day wait times set out in the organic regulations. To ensure that the unique production systems on organic farms are incorporated into FDA's risk assessment, The Organic Center, Organic Trade Association, and the University of California-Davis applied for and received a planning grant from USDA's Organic Research and Extension Initiative (OREI). Part of this grant included a national farmer-focused survey for organic producers to characterize the use of untreated manure and other soil amendments of animal origin. The results will help shape the design of upcoming studies on organic farms to assess the risks untreated manure pose to food safety and help FDA in its decision-making.

In other action, USDA issued guidance that allows organic companies to make label claims that organic meat and poultry were produced from livestock or poultry not fed genetically engineered feed. USDA's Food Safety and Inspection Service issued this guidance in response to the recently passed GMO labeling legislation, which President Obama signed as the National Bioengineered Food Disclosure Standard. The new GMO labeling law addresses negative claims and allows the terms GMO in negative claims provided the label or labeling is truthful and not misleading. OTA coordinated a specific meeting with the agency at its 2016 Policy Conference to ask for this policy change.

Meanwhile, although NOP regulates and enforces strict organic standards for agricultural products, its enforcement authority does not extend to certain types of non-agricultural products such as personal care products, household cleaners and mattresses. Under its consumer protection jurisdiction, the Federal Trade Commission (FTC) has authority to act on misleading or fraudulent "organic" claims on products that fall outside NOP's purview, but has not exercised that authority. Believing that not enforcing organic claims for all products could risk diluting the integrity of and trust in the USDA Organic seal, OTA actively weighed in on the topic at a roundtable in October 2016 held jointly by FTC and USDA and in comments submitted to FTC by its December 1 deadline.

Relating scientific findings with advocacy, the first Organic Confluences Summit organized by The Organic Center was a one-day event in May 2016 held in conjunction with OTA's Organic Week in D.C. The conference brought together organic stakeholders with scientific experts and policymakers to turn environmental benefits research into actionable policy.

International trade

U.S. organic companies continue to explore and pursue additional international trade relations. During 2016, OTA unveiled an enhanced online International Organic Trade Resource Guide providing the most comprehensive and up-to-date market, policy and trade information on global organic markets available for American organic exporters and importers. The guide, funded by USDA's Market Access Program and Technical Assistance for Specialty Crops Program, features in-depth information for 40 countries and 38 trade regions along with key marketing and policy data on each specific region.

In addition to stepped stepping up activities through the world to promote organic, OTA was among a handful of American organic interests accompanying Congresswoman Chellie Pingree of Maine for a five-day trade mission to Cuba in May 2016. The trip, sponsored by the Center for Democracy in the Americas, was designed to establish connections between Cubans who essentially use low- or non-chemical inputs to produce food and companies involved in the U.S. organic movement.

OTA also led two seminars on organic trade data and hosted an organic market update in June 2016 at Expo Orgánicos in collaboration with USDA's Foreign Agricultural Service, the Mexican National Service for Agro-Alimentary Public Health Safety and Quality (SENASICO Mexico) and ECONOMIA. This was OTA's first time to participate in Expo Orgánicos, the largest domestic-focused organic trade show in Mexico.

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USDA's National Agricultural Statistics Service (NASS) 2014 and 2015 Organic Certifier Survey, December 2016.

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Canada

MARIE-EVE LEVERT[1] AND JILL GUERRA[2]

Growth in the Canadian organic sector reached a number of milestones in 2015. The number of certified organic producers across Canada has finally rebounded since its decline following the 2008-09 recession and the food price crisis. Despite the decline in producer numbers, the organic market has seen a steady increase in recent years. The organic market has increased more than four times in the last decade, from less than 1 billion in 2005 to 4.7 billion Canadian dollars in 2015.

Canada gained 30'000 hectares under organic management in 2015, reaching a total of 944'558 hectares. With more than 46'000 hectares under transition in the country, we expect to reach one million hectares by the end of 2016. Even with a steady increase in organic land, organic acreage remains at less than 2 percent of Canadian agricultural land. Further, tight supplies are one of the biggest hurdles limiting Canadian organic sales.

Regional and provincial initiatives to convert producers have been successful; more than 400 new producers received certification in the past two years. However, there is still a tremendous opportunity for domestic producers to fill the supply gap and to respond to increasing international market demands. Canadian organic exports have increased by 110 million Canadian dollars since 2013, reaching 610 million Canadian dollars[3] in 2015. International demand is an important part of the organic sector's growth and continues to provide opportunities to Canadian processors, manufacturers, and producers alike.

Organic Sector

Overview

Canada's organic sector continues to rely on the voluntary disclosure of data by certification bodies (CBs); their collaboration is essential to the success of the annual data collection process. In 2015, there was almost a universal participation of the certification bodies, which is highly valued. The authors note that there remain discrepancies between CB data since the data provided is not fully streamlined in regards to depth or categorization. This may lead to minor year-to-year inconsistencies.

These variances remain a risk until a national mandatory data system is implemented. This issue was addressed in 2015-2016 by the Data Task Force of the Organic Value Chain Roundtable (OVCRT). The OVCRT is the national forum jointly led by the industry and government and works to fulfil its mandate to improve the organic sector's performance and profitability. The members of the Data Task Force are developing an organic data collection strategy that intends to streamline the process for data providers

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[3] One euro corresponded to 1.4186 Canadian dollars (CAD) in 2015 (average annual exchange rate according to the European Central Bank).

(e.g. certification bodies) and ensure that efficient, reliable data is collected and disseminated for the benefit of the entire organic sector.

Organic operations

Canada has seen its number of certified organic operations growing slowly but steadily in the last two years; on average 200 additional operations are certified annually. There is no sign that this trend will fade out. Canada currently counts 282 producers in transition across the country - producers that will eventually become fully certified operations.

It has taken six years for the number of organic producers to reach and exceed the level it was prior to the 2008-09 price crisis and recession. The number of primary agricultural producers in 2015 was 3'985, representing an increase of 70 operations compared to the peak of 2009.

Canada has 1'520 operations that include processing, manufacturing, distributing, or handling organic products. Quebec has long been a stronghold of organic processing and leads the country with more than 700 organic processors. Ontario has the second highest number of processors (375) followed by British Columbia (260).

Agricultural land

The total certified organic lands across Canada has expanded slightly in the last year, from 903'948 hectares to 944'558 hectares. The land under pasture and forage crops as well as under field crops has increased slightly (under 4 percent), and the other two categories (fruits and nuts, and fresh vegetables and root crops) have had a more pronounced expansion. In fact, there was an increase of nearly 50 percent in the fruit and nut area in 2015 compared to 2014. During the same timeframe, fresh vegetable and root crop acreage nearly trebled. The growth in vegetable acreage can be explained by the trend to grow more high value crops as well as the growth in the number of certified organic producers (400) in the last two years. It is also possible to attribute these increases partly to data inconsistencies; two new certification bodies submitted data in 2015 - data which were excluded from the 2014 figures.

Reflecting an increased interest for organic produce in the north of Canada, the Yukon Territory reported their first organic acres in 2014. This acreage more than trebled to over 1'000 hectares in 2015. This will be an interesting region to follow, especially due to its warmer climate, which makes agriculture more viable.

COTA estimates that over 47'000 hectares of agricultural land were undergoing transition to organic management in 2015. This figure is likely below the actual value since collecting data on transitional acreage is not mandatory for certification bodies. However, it remains an indication of the expansion of organic management systems nationally. Similar to other indicators of growth in the organic sector, the province of Quebec has the largest amount of land undergoing organic transition (29'000 hectares).

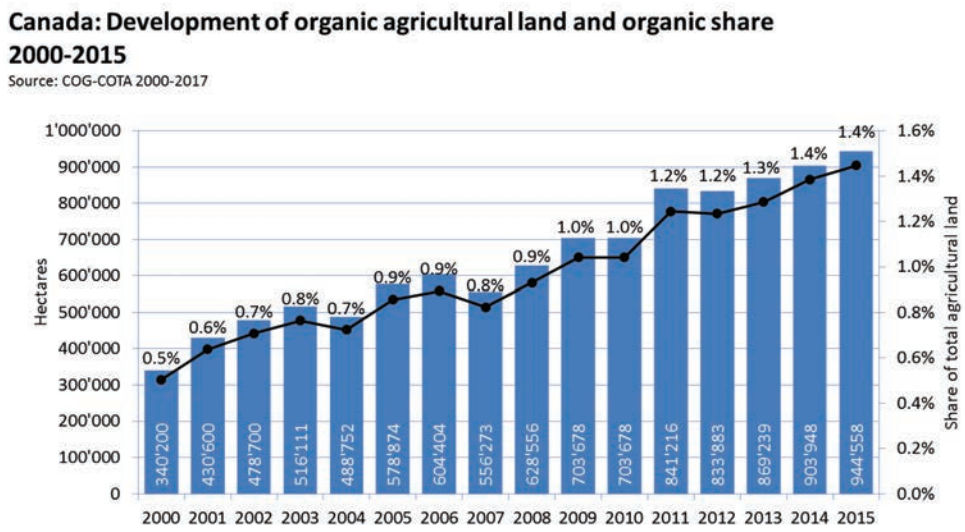

Figure 94: Growth of Canada's organic agricultural land and organic share, 2000-2015
Source: Canada Organic Trade Association, 2016

Aquaculture

In Canada, certification to the organic aquaculture standard will become mandatory in 2017 when the new *Safe Food for Canadians Act* comes into effect. There are currently 19 operations certified to these voluntary standards. The majority (11) produce and process organic mussels in the Atlantic region, with others working with seaweed, caviar, salmon and sablefish producers in British Columbia and Ontario.

Livestock/Dairy

According to 2015 estimates, there are 599 organic livestock operations across Canada. The majority of these operations are located in Ontario (209) and Quebec (171). More than a third of the Canadian livestock operations are dairy producers. Organic milk production increased by 6 percent in one year in Canada. A total of 218 certified operations produced 1'033'416 hl of organic milk in 2015/2016. With the new strategic plan of the union of organic milk producers in Quebec, the growth of production is expected to accelerate significantly in the next 6 years. The union announced in 2016 its intention to double the amount of organic milk produced in Quebec by 2023. This ambitious plan will bring more than 100 conventional dairy farmers under the organic system management.

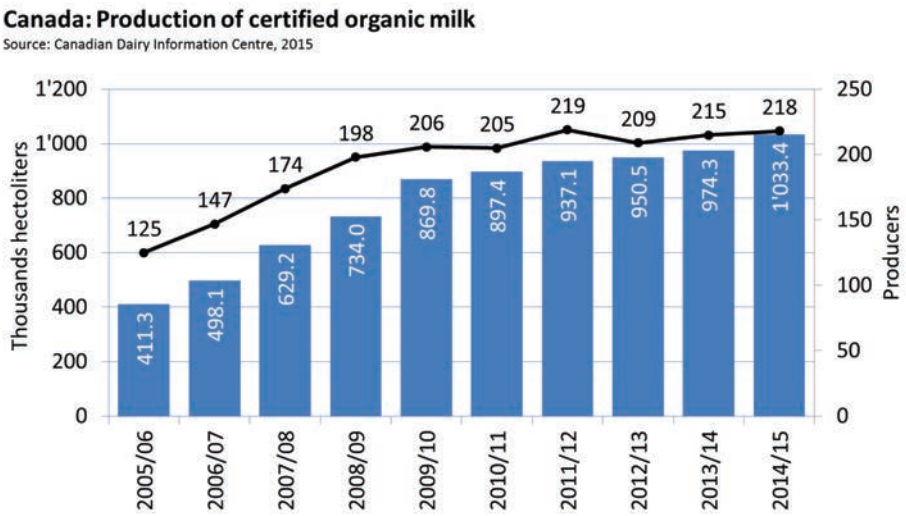

Figure 95: National organic milk production (hl) and number of producers, 2005-2016
Source: Canadian Dairy Information Centre, 2015

Organic market

Overview

Organic products continue to enjoy a robust demand in Canada. The domestic consumer demand is estimated at 4.7 billion Canadian dollars in sales per year, a 1.2 billion Canadian dollar increase from 2012. In the past decade, Canada's organic market has been experiencing a double-digit annual growth rate, and the latest study shows that Canadian appetite for organic is not fading away.

Consumer trends

In June 2016, COTA commissioned an Ipsos poll on organic consumers across Canada. The survey included 1'007 Canadians aged 18 and over and covered various topics such as organic spending patterns, motivations for buying organic products, and familiarity and perceptions of the trustworthiness of the Canada Certified Organic logo. As a follow up to COTA's 2013 Organic Market Report, this survey provides an updated overview of who Canadian organic consumers are and how the market is changing.

The survey results indicate that Canadians want more organic food, notably fruits and vegetables, and that we can expect the organic market to continue its steady growth.

- Most Canadian consumers are committed organic buyers. Eighty-six percent of Canadians increased or maintained their organic spending in the past year.
- The number of consumers who regularly buy organic in the country remains stable at around 20 million, representing 56 percent of Canadians.

- Fruit and vegetable sales remain the largest segment of the Canadian organic market. When asked about the most likely categories of organic foods that households usually buy, 77 percent of the respondents said fruits and vegetables, followed by organic milk/dairy products (23 percent) and organic meat or poultry (22 percent).
- On average, organic grocery shoppers spend only 26.70 Canadian dollars more per week for groceries compared to non-organic buyers; they spend 143.40 Canadian dollars each week compared to 116.70 Canadian dollars for non-organic buyers.
- Millennials (18- to 34-year-olds) are the most likely generation to purchase organics; over 35 percent of them spend more than a quarter of their weekly food budget on organic products.

While we see the market growing, the survey also underlined the critical role of consumer education to increase the awareness of the Canadian organic logo and what it stands for. Overall, just over one in four (29 percent) Canadian adults and one in three adults from households with children (35 percent) say they are very familiar or somewhat familiar with the logo.

International trade

Canada tracks the value, volume, and country of origin of 65 imported organic products using Harmonized System (HS) codes. These products are limited mainly to imported fresh fruit and vegetables, coffee and tea, and dairy products. Thus, many imported organic food commodities, packaged and non-food commodities, as well as all exported organic products, which are not tracked through the HS code system, are excluded. This represents a gap in the collection of organic trade data. Fortunately, 14 organic export codes will start being released in late 2017. There are also plans to solicit additional organic import codes that would help to capture Canada's organic trade flows more accurately.

In 2015, Canada imported 652 million Canadian dollars' worth of the 65 tracked organic products, representing a 37 percent increase from 2012. There are 127 countries that have provided organic products to Canada between 2012 and 2015. The top 5 countries of origin have supplied nearly three-quarters of all tracked imports (by value) since 2012. The United States is Canada's top source for international organic products, providing over half (51 percent in 2015) of organic imports to this country.

Table 72: Canada: Value and volume of tracked imported organic products 2012-2015

	2012	2013	2014	2015
Value (million Canadian dollars)	476.8	505.0	576.6	652.4
Volume* (millions metric tons)	181.1	194.0	194.1	197.9

*** Excluding milk**
Source: Canada Organic Trade Association, 2016

The top 3 tracked organic imports by value in 2015 were coffee (156.6 million Canadian dollars), lettuce (65.9 million Canadian dollars), and bananas (54.7 million Canadian dollars). Although Canada has the 11th-largest area of organic land, it remains a significant net importer of value-added organic products, commodities, and produce. Canada's trade deficit is estimated at least 1.5 billion Canadian dollars annually in a market valued at 4.7 billion Canadian dollars. There are significant opportunities for domestic organic producers, processors, handlers, and manufacturers to fill this growing domestic gap and increase their supply to international markets.

Further resources

- Canada Organic Trade Association (www.otacanada.ca)
- Canadian Organic Growers (www.cog.ca)
- Organic Agriculture Centre of Canada (http://bit.do/OACC)
- Agriculture and Agri-food Canada "Organic Production – Canadian Industry" (http://bit.do/AAFCorganic)

North America: Current statistics

Julia Lernoud,[1] Helga Willer[2] and Bernhard Schlatter[3]

Overview

North America's organic agricultural land was almost 3 million hectares in 2015, which is 0.7 percent of the total agricultural area. The area under organic cultivation has almost trebled from the million hectares in 2000, and now represents six percent of the global organic agricultural land. Between 2014 and 2015, the area increased by over 0.5 million hectares or 21 percent.[4] More than 1.4 percent of the farmland in Canada is organic, and the proportion in the United States is 0.6 percent. There is a total of 19'138 producers in North America; most of them are in the United States (almost 80 percent).

Land use

Land use details were available for almost the whole of the organic agricultural land. In 2015, only two percent of all organic farmland was utilized for *permanent crops* (almost 63'000 hectares) while almost 46 percent was used to grow *arable crops* (1.4 million hectares), and 45 percent (1.35 million hectares) was *grassland/grazing*. The United States has the largest *grassland/grazing* area, over 874'000 hectares, and Canada reported almost 476'000 hectares.

The key organic *arable crop* group is cereals, with almost 560'000 hectares, representing almost 41 percent of the region organic arable area, and 0.7 percent of the total cereal area in the region. In the United States over 300'000 hectares of organic cereals were grown, and Canada reported over 240'000 hectares. The key organic cereal in the region was wheat (almost 266'000 hectares), this represented almost one percent of the total wheat grown in the region. Organic vegetables were grown on almost 116'000 hectares in 2015, 13.5 percent of the total vegetables in the region, with fresh pulses (almost 1'000 hectares) and root tuber and bulb vegetables (over 500 hectares) being the key produced vegetables.

The main organic *permanent crops* were temperate fruits (19'000 hectares), berries (almost 13'500 hectares), and grapes (almost 13'000 hectares). Organic temperate fruits represented six percent of the total temperate fruit area in the region. The key temperate fruits are apples, cherries, and plums. The key organic berries are blueberries (over 3'000 hectares, almost 5 percent of the total blueberries grown in the region), and cranberries (almost 700 hectares, almost 3 percent of all the regions cranberries).

Producers

In 2015, 19'138 organic producers were reported in North America. The United States is the country with the most organic producers, almost 15'000, and Canada reported over

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[3] Bernhard Schlatter, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[4] 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.

4'300 organic producers. Since 2004, when there were 11'000 organic producers, the number increased over 60 percent.

Wild collection

Unfortunately, for the United States data on organic wild collection is not available, so it can be assumed that the wild collection area is much bigger in the region than the current 54'551 hectares reported by Canada. In Canada, there are over 51'000 hectares of maple trees, a key commodity for the country.

Market

In 2015, the organic market continued to grow in North America, reaching almost 38.6 billion euros. In Canada, the organic market grew by over 9 percent in 2015, and in the United States, the organic market grew by 11 percent, continuing the growth rate from 2014. 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 111 euros per capita on organic products in 2015, while in Canada the per capita consumption was 77 euros. Unfortunately, for Canada, there is no updated data on the share of organic retail sales of total retail sales; in 2013 the organic market represented 2.8 percent. The United States reported an organic share of the total retail sales for 2015 of almost five percent.

For more information about the North American figures, see data tables, page 274.

Organic Agriculture in North America: Graphs

North America: Organic agriculture area 2015
Source: COTA and USDA, 2016

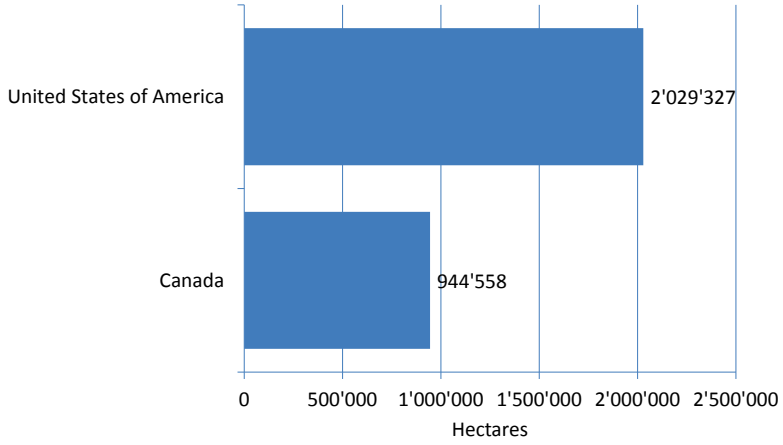


Figure 96: North America: Organic agricultural land in Canada and the United States 2015
Source: Canada Organic Trade Association and United States Department of Agriculture.

North America: Organic share of total agricultural land 2015
Source: COTA and USDA, 2016

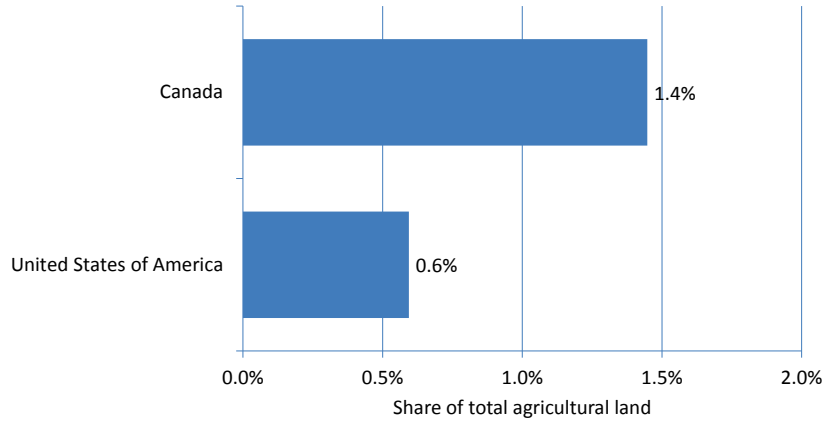


Figure 97: North America: Organic share of total agricultural land in Canada and the United States 2015
Source: Canada Organic Trade Association and United States Department of Agriculture.

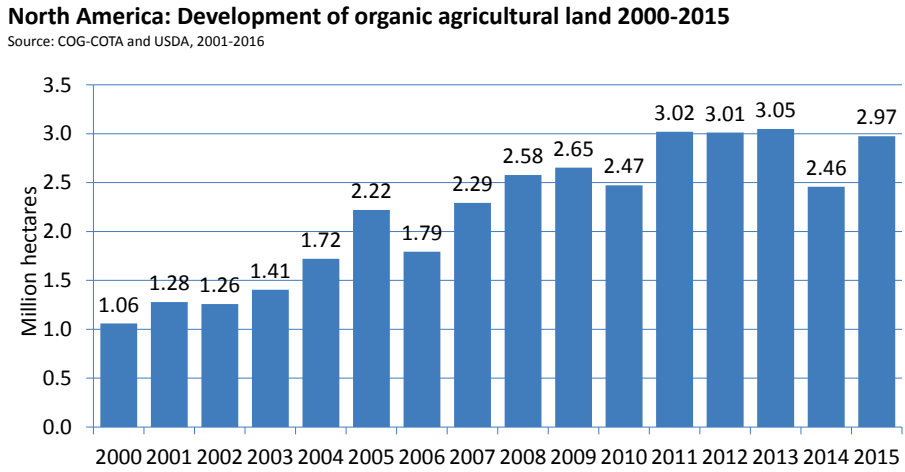


Figure 98: North America: Development of organic agricultural land 2000-2015
Source: Canada Organic Trade Association and United States Department of Agriculture

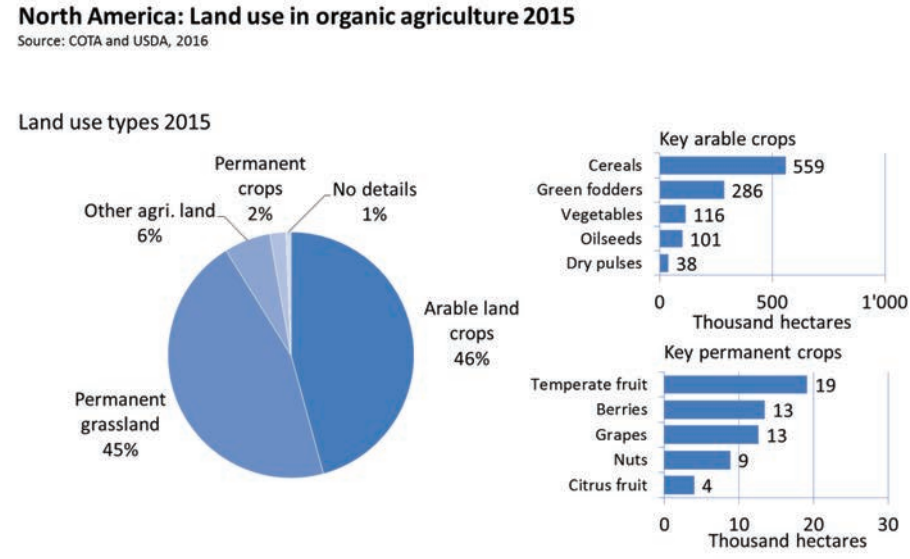


Figure 99: North America: Land use in organic agriculture 2015
Source: Canada Organic Trade Association and United States Department of Agriculture

Organic Agriculture in North America: Tables

Table 73: North America: Organic agricultural land, organic share of total agricultural land, and number of producers 2015

Country	Area [ha]	Share of total agr. land [%]	Producer [no.]
Bermuda		Processing only	
United States of America	2'029'327	0.6%	14'871
Canada	944'558	1.4%	4'267
Total	**2'973'886**	**0.7%**	**19'138**

Source: Canada Organic Trade Association and United States Department of Agriculture; FiBL survey 2017

Table 74: North America: All organic areas 2015

Country	Agriculture [ha]	Forest [ha]	Wild collection [ha]	Total [ha]
Bermuda		Processing only		
Canada	944'558	3'574	54'551	1'002'684
United States of America	2'029'327	205'155		2'234'483
Total	**2'973'886**	**208'729**	**54'551**	**3'237'166**

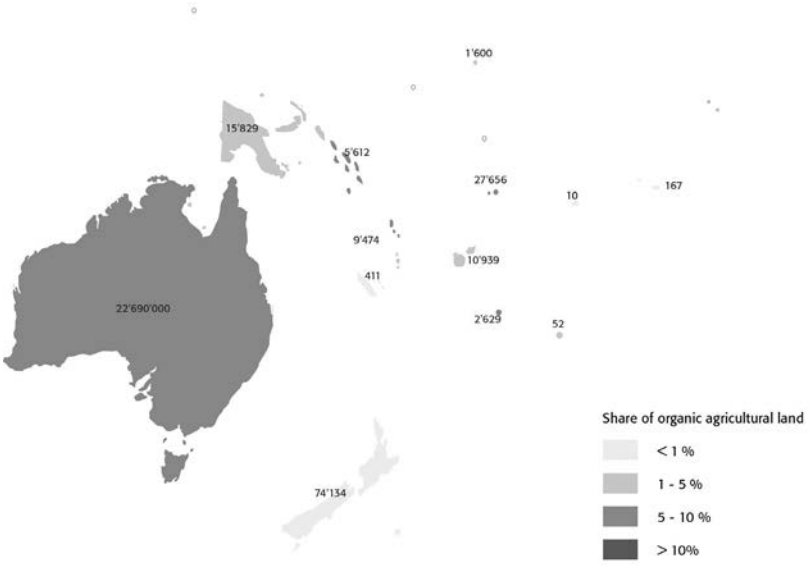
Source: Canada Organic Trade Association and United States Department of Agriculture; FiBL survey 2017

Table 75: North America: Land use in organic agriculture 2015

Land use	Crop group	Area [ha]
Agricultural land, no details		19'126
Arable land	Arable crops, no details	2'483
	Cereals	558'870
	Dry pulses	38'343
	Fallow land, crop rotation	70'951
	Flowers and ornamental plants	46
	Hops	25
	Medicinal and aromatic plants	2'290
	Mushrooms and truffles	20
	Oilseeds	101'105
	Green fodders from arable land	286'157
	Root crops	1'307
	Seeds and seedlings	56
	Strawberries	179
	Textile crops	10'200
	Vegetables	115'951
	Arable crops, other	172'584
Arable land total		***1'360'567***
Other agricultural land	Other agricultural land, no details	175'051
	Unutilised land	6'234
Other agricultural land total		***181'285***
Permanent crops	Berries	13'461
	Citrus fruit	4'017
	Flowers and ornamental plants, permanent	255
	Fruit, no details	2'486
	Fruit, temperate	19'146
	Fruit, tropical and subtropical	1
	Grapes	12'623
	Nurseries	1'742
	Nuts	8'882
Permanent crops total		***62'614***
Permanent grassland		1'350'294
Total		**2'973'886**

Source: Canada Organic Trade Association and United States Department of Agriculture; FiBL survey 2017

Oceania



Map 7: Organic agricultural land in the countries of Oceania 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

Australia

ANDREW LAWSON,[1] ANDREW MONK[2] AND AMY COSBY[3]

Introduction

The area of land in Australia under certified organic management continues to grow. The regulatory framework for organic certification in Australia Certification has remained stable with little change in the past year. However, the organic industry and the Australian Government continue to respond to global organic developments through review of the *National Standard for Organic and BioDynamic Produce* (National Standard), which was revised in 2016. Timely rain and a good growing season across Australia generally in 2016 bode well for supply of organic produce across most sectors.

Regulatory framework

The main plank of the regulatory framework for organics in Australia is the National Standard. By law, produce exported from Australia and labelled as organic is a 'prescribed good' under the Exports Control Act 1982 and Export Orders, and must be certified in accordance with a standard at least as stringent as the National Standard by an organization accredited with the Australian Government. Each accredited certifier can develop and apply its own unique standard, as long as it is compliant with the National Standard. Strictly speaking, products sold domestically in Australia as organic are not required by law to be certified but the National Standard and the mechanisms established for the export regime – accredited certifiers, certification, auditing and inspection – have proven attractive in the domestic sphere for consumers and other supply chain actors wanting the assurance of certified produce. This is bolstered by the support of the major supermarkets, which have required certification under the provisions outlined in the National Standard.

The National Standard was developed by a committee appointed by the Australian Government made up of organic sector representatives, government officers and other stakeholders. It was first published in 1991 and updated in 1998, 2002, 2005, 2015 and 2016. The administration of the National Standard and the accreditation process currently lies with the Australian Department of Agriculture and Water Resources (DAWR)[4] and the Organic Industry Standards and Certification Council (OISCC).

Unlike the United States or the European Union (EU), there is no single government or regional seal for organic and biodynamic produce, and each accredited certifier allows the use of its own certification logo. OISCC has recently developed a voluntary

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[4] Australian Department of Agriculture and Water Resources www.agriculture.gov.au/ag-farm-food/food/organic-biodynamic

Australian seal, in response to requirements of some importing countries such as South Korea that require an official government mark of certification by the exporting country. The Australian accreditation and certification regime allows organic produce to leave Australia in compliance with Australian law, but does not guarantee compliance with an importing country's organic regulations, or with private market specifications of a particular customer in another country. Thus equivalence arrangements have been negotiated between Australia and other countries to smooth the process of organic trade between them. In the absence of government-to-government agreements, some industry associations have sought and achieved direct accreditation with importing country authorities (such as the United States Department of Agriculture (USDA) and the Korean Ministry of Agriculture, Food and Rural Affairs (MAFRA), etc.)

Accredited certifiers

The Australian Government currently accredits six certifying organizations:

- AUS-QUAL
- Australian Certified Organic (ACO)
- Bio-Dynamic Research Institute (BDRI)
- National Association for Sustainable Agriculture Australia Certified Organic (NCO)
- Organic Food Chain (OFC)
- Safe Food Production Queensland (SFPQ)

The certifiers are diverse in origins, objectives and legal structures. BDRI, NCO and ACO are associated with relatively long-lived, not-for-profit/for purpose, member-based organic/biodynamic associations that pre-date the development of the National Standard and have strong farmer representation. The Bio-Dynamic Research Institute (BDRI) is the oldest of the Australian certifying bodies and one of the oldest continually existing organic organizations in Australia, founded in 1957 and registered as an association in 1967. The BDRI is not the only organisation that may certify biodynamic production: the National Standard has biodynamic provisions, so any accredited certifier can certify biodynamic produce to this standard.

NASAA is a non-profit membership organization formed in 1986 and registered as an association in 1987. Its certification services are handled by a legally separate but fully owned subsidiary, NCO. Australian Organic Limited began life in 1987 as the Biological Farmers of Australia (BFA), registered as a farmers' co-operative in 1988. Like NASAA, it has a legally distinct but wholly owned subsidiary to carry out its certification services: ACO. AUS-QUAL is owned by the research and development corporations for sheep, goat and cattle producers and processors. OFC is a private company that provides certification and advice services to clients on a fee-paying basis. SFPQ is a state government agency that regulates the production and processing of meat, eggs, dairy and seafood in the Australian state of Queensland.

BDRI, NCO, and ACO administer their own certification processes at least as stringent as the National Standard. The three other accredited certifiers do not maintain unique standards, and certify according to the National Standard. The ACO, NCO and National Standards are counted as part of the IFOAM Family of Standards, which has some bearing on equivalence measures.

Domestic produce

Domestically, industry arrangements are supported by general consumer laws without legislation specifically directed at organics, whereas in the export arena, there is specific Federal Government legislation mentioned in the previous section. While it is possible to make organic claims about a domestically sold product without certification, the legal restraint is that the claim must not contravene the consumer protection laws administered by the Australian Competition and Consumer Commission (ACCC) under the relatively new Competition and Consumer Act 2010, which updated the older Trade Practice Act 1975. The introduction of a voluntary standard via Standards Australian (AS6000) in 2009 was established to assist in targeting operators not certified in accordance with the National Standard and/or the AS6000. Both standards are effectively identical in terms of 'on ground' requirements and the industry is currently working with the Department of Agriculture and Water Resources (DAWR) on consolidating the industry regulatory arrangements under a single, nationally relevant standard for export and domestic marketing.

Utilising the updated consumer laws (2010), sometimes in concert with the certification sector, the ACCC has brought action against operators not acting in accordance with the specifications of the National Standard. This has included more recently action against seven bottled water manufacturers trying to market product as 'organic'.

The process established under the National Standard remains at this point the most versatile of the certification pathways in Australia, allowing certified produce to be sold either internationally or domestically.

Table 76: Estimated certified organic primary production operations and area (ha) in Australia 2002-2016

Year	Primary production operations	Area [ha]
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	18'340'000
2015	1'876	22'690'000
2016	1'876	**23'979'033[1]

*Estimated using Australian Bureau of Statistics data. Organic industry sources put the 2011 total area as high as almost 17 million hectares.
**Based on data from the two largest certifiers only – ACO and NCO – and therefore an underestimate.

[1]Editors' note: The 2016 data will be included into the 2018 edition of "The World of Organic Agriculture".

Primary producers and area of farmland

The number of certified organic primary producer operations in Australia in 2016 is estimated to be 1'876, including both fully certified and 'in-conversion' operations. This is an increase on 2014 numbers but below the peak of 2'129 certified primary producer operations in 2009, shown in Table 76. The area of land under certified organic management – fully certified and 'in-conversion' – is conservatively estimated at 23.979 million hectares in 2016,[1] almost double the area in 2006 and quadruple the area in 2002, as shown in Table 76. The majority of this area is used for beef cattle production in the semi-arid rangelands, where individual pastoral operations typically occupy tens of thousands of hectares each.

Organic consumer attitudes in Australia

Polling of the primary grocery shopper in 1'024 Australian households by the Mobium Group in June 2016 revealed there has been a shift in where organic shoppers shop for organic products in Australia, as shown in Figure 100. In 2016, organic shoppers are somewhat less likely to shop frequently or often at the major supermarkets than they were in 2014 (68 percent in 2016, 75 percent in 2014). They are more likely than in 2014 to shop frequently or often in greengrocers, at markets and farmers' markets, in organic or wholefoods stores, bakeries, butchers' shops, fishmongers, or use internet and home delivery services.

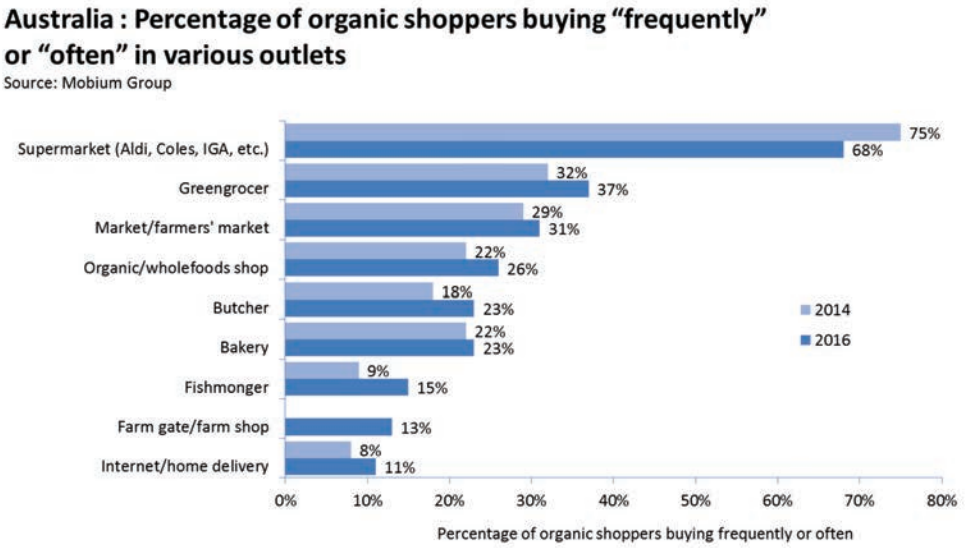

Figure 100: Percentage of organic shoppers buying 'frequently' or 'often' in various outlets

Source: Mobium Group

[1] This figure is based on data from the two largest certifiers – ACO and NCO – and is therefore an underestimate.

Shoppers were asked about organic products purchased every one-to-thirty days. Dairy rated strongest in this frequency category (50 percent), followed by fruit and vegetables (46 percent) and non-alcoholic beverages (44 percent).

Awareness of certification marks

Most Australian shoppers – 59 percent of all shoppers in 2016 – are aware that certification marks are used on organic products as a guarantee of authenticity (Figure 101). This is an increase from 56 percent in 2014 and now 17 percent above the base of 2010. It is no surprise that the most prevalent mark on organic products in Australia, the ACO Bud logo, is recognised by some 46 percent of shoppers, followed by the NCO mark at 31 percent, while recognition of other certification marks remains significantly weaker. The presence of a certification mark had a positive influence on some 79 percent of current organic purchasers, in providing an increased level of trust.

Awareness of organic certification marks as a guarantee (all shoppers) 2010-2016

Source: Mobium Group

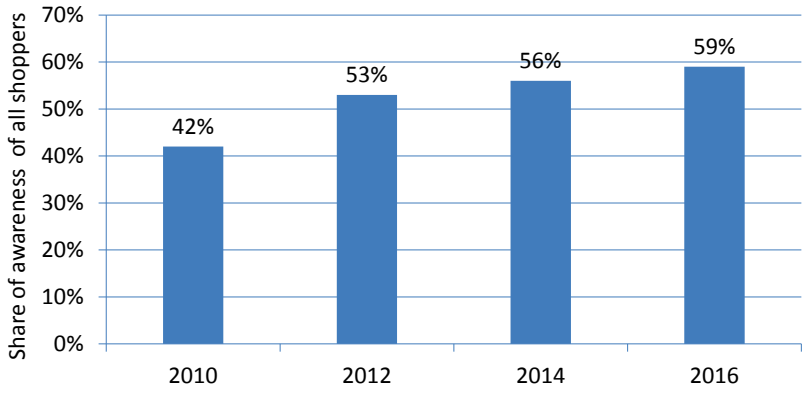

Figure 101: Awareness of organic certification marks as a guarantee (all shoppers), 2010-2016

Source: Mobium Group

Shoppers were asked about how the auditing, certification, and labelling process should be governed and who should oversee it. Almost 40 percent of all shoppers believe a co-operative arrangement between government and the organic sector is best suited to manage organic auditing, certification and labelling, and 63 percent believe an organic industry not-for-profit body should be involved, either in its own right (24 percent) or in concert with government (39 percent) (Figure 102). A very similar pattern emerges for oversight of the *standards* against which organic products are audited and certified.

Preference for governance and oversight of auditing, certification and labelling (all shoppers)
Source: Mobium group

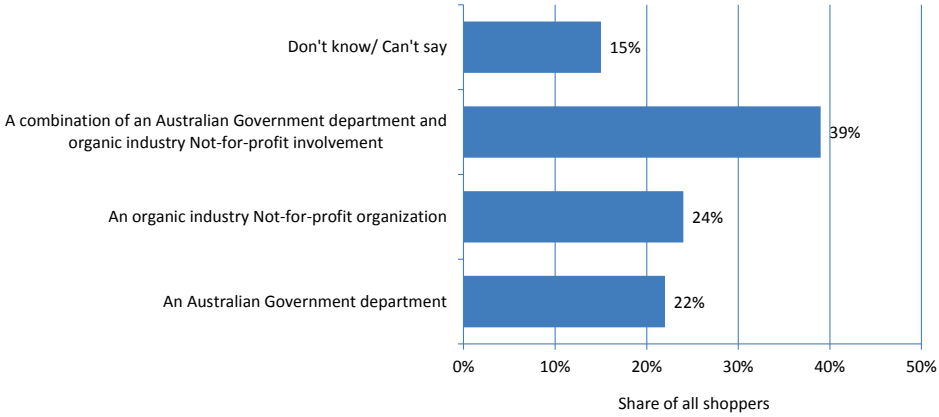

Figure 102: Preference for governance and oversight of auditing, certification and labelling (all shoppers)

Source: Mobium Group

References

Australian Organic (2014): Australian Organic Market Report 2014. Australian Organic, Nundah, www.austorganic.com
Australian Organic (2017): Australian Organic Market Report 2017. Australian Organic, Nundah, www.austorganic.com

The Pacific Islands

KAREN MAPUSUA[1]

Recent important developments

In 2016, the value of organic agriculture as a development tool was recognized by the Pacific Communities´ governing body, the Council of Regional Governments and Administrations (CRGA), which consists of the ministries of foreign affairs and trade of the 26 Pacific Community member states. CRGA in 2015 requested a paper outlining the potential benefits of promoting organic agriculture in the Pacific region. CRGA urged the Pacific Community to integrate fully organic agriculture into their strategies, including the business plan for the Land Resources Division, noting the relevance of organic agriculture to several of the sustainable development goals. CRGA agreed that the option of financing organic agriculture programs should be considered.

The Pacific Organic Tourism and Hospitality Standard

The Pacific Organic Tourism and Hospitality Standard (POTHS) was developed with the assistance of the European Union Pacific Agriculture Policy Project (PAPP) during 2016. This was in response to a call from the organic movement, and from members of the hospitality industry currently involved in organic farming to table projects or using locally sourced organic ingredients, for a brand or identifier they can use to promote their use of organic produce.

The POTHS and accompanying guarantee system can be applied to menu items, food/catering providers or 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 and, if compliant with other environmental and social standards, will qualify them to be certified to the standard and use the "Organic Pasifika" mark in their branding and marketing.

The POTHS will be piloted with the assistance of PAPP, the Sustainable Development Goals Fund, and the United Nations Development Programme in Vanuatu and Fiji during 2017.

Organic Policy Toolkit

It was recognized that most governments do not have an explicit policy or strategy for the development of the organic sector, and there were an increasing number of queries from governments for assistance in identifying ways to support the sector. With the assistance of PAPP, IFOAM - Organics International was contacted to work with the Pacific Organic and Ethical Trade Community (POETCom) to develop an online toolkit for government policy- and decision-makers in order to facilitate national policy

[1] Karen Mapusua, Coordinating Officer, Pacific Organic and Ethical Trade Community (POETCom), Increasing Agricultural Commodities Trade (IACT), Land Resources Division, Secretariat of the Pacific Community, Private Mail Bag, Suva, Fiji, www.spc.int

development and promote the organic industry at national levels aligned with the Pacific Organic Guarantee Scheme.

The toolkit is available online and supports organic advocates and governments in their dialogue on building strategies for expanding organic agriculture and markets. It provides templates, resources, and guidance for developing policies supporting the organic sector, and it will facilitate the development of regionally compatible national policies.[1]

History

Current farming practices in many Pacific communities are largely organic and based on age-old systems free from agrichemicals, preserving the environment. In the past farming was predominantly for subsistence living, but in the cash driven societies that we live in today, there is a need from overseas markets to ensure that products being labelled and sold as "organic" meet international standards. While third-party certification began in the Pacific in the late 1980s, it has been slow to develop.

The organic movement in the Pacific recognized that one of the major challenges facing organic producers are the costs of certification, auditing, and compliance to meet the standards of importing countries and/or international standards. In order to address this issue, two projects, commencing in 2007, were undertaken. They were funded by the International Fund for Agricultural Development (IFAD) and implemented by IFOAM - Organics International and the Secretariat of the Pacific Community (SPC). The main goals of these projects were to analyse the existing situation of organic agriculture and fair trade production in the Pacific Islands and set regional standards for organic agricultural products. The projects were developed through a locally owned process and multi-sector participation. These projects also facilitated the development of a regional strategy and national plans to lay the foundation of sustainable organic agriculture development in the region. Two key groupings that were tasked with driving organics forward in the Pacific were formed. The first, the Regional Organic Task Force (ROTF), is a technical group representing all sectors and countries involved in organics. This group was charged with developing the Pacific Standard and was be responsible for implementing the initial Regional Action Plan. The second group, the Pacific High Level Organics Group (PHLOG), consists of Pacific leaders who have shown a commitment to organics development in the region and to providing high-level political support and advocacy.

The first Pacific Organic Standard was officially launched by the chair of the PHLOG and the prime minister of Samoa at the Ministers of Agriculture and Forestry Conference in Apia, Samoa, in September 2008. This now provides a platform for further regional policy development around organics.

In 2009, the ROTF recognized the need to evolve from a technical body to a representative peak body for organics and fair trade in the region, and so, the Pacific Organic and Ethical Trade Community (POETCom) was formed.

[1] The Pacific Organic Policy Toolkit is available at www.organicpasifika.com/pasifikapolicytoolkit/about-the-policy-toolkit.

POETCom established its secretariat in the Land Resources Division of the Secretariat of the Pacific Community in Suva, Fiji, in 2012, with support from the European-Union-funded Increasing Agricultural Commodities Trade (IACT) project. This enabled steady progress and coordinated development across the region. In 2012, the Pacific Organic Standard became part of the IFOAM Family of Standards.

Another significant development in 2012 was the resolution of the Heads of Agriculture and Forestry Services (HOAFS) for the Pacific Islands during their biannual meeting to "promote and mainstream organic agriculture into the Secretariat of the Pacific Community (SPC) and national agriculture strategies in recognition of its role in food and nutritional security, climate change adaptation and mitigation, enhancement of biodiversity and the livelihood opportunities it can provide." The Ministers of Agriculture endorsed this resolution in the Communiqué following their meeting in Nadi in September, 2012.

In 2013, the export support scheme was implemented as part of the Pacific Organic Guarantee Scheme with an MOU signed between POETCom and three certifying bodies: BioAgricert (Italy), Biogro (New Zealand), and the National Association of Sustainable Agriculture Australia. They agreed to provide certification services to the Pacific Organic Standard allowing Pacific producers to export for the first time under the Pacific Organic Standard and allowed the beginning of the marketing of a regional brand, Organic Pasifika.

Interest in Participatory Guarantee Systems (PGS) in the Pacific Islands continued to expand from 2014 to 2015 as market opportunities for PGS-certified products evolved and it became evident how organic and PGS certifications could be tools for holistic and sustainable social and economic development. The Pacific Organic and Ethical Trade Community (POETCom) with support from the International Fund for Agricultural Development (IFAD) began in 2013 developing models for Participatory Guarantee Systems tailored to the diverse situations of Pacific organic growers. With learning from the first Pacific PGS - BioCaledonia and BioFetia in New Caledonia and French Polynesia, respectively - 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, and that is now being utilised to assist further development.

The island communities of Cicia, Fiji, and Abaiang, Kiribati, fully embraced the idea of organic and PGS. The traditional leadership engaged in both islands and decided that they would declare their whole islands organic. The PGS then put form and rigour around that declaration, providing systems for verifying compliance with the Pacific Organic Standard. In these cases, the PGS is greatly strengthened by the support and direction of the traditional leadership. In 2016, the island of Emae in Vanuatu followed this lead, initially in an effort to promote sustainable land management and protect their fragile coastal fisheries and marine resources, but it soon recognised the potential for marketing local produce and for organic tourism development.

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 the recognition of organic products not only in the local markets but also

across the 22 Pacific countries and territories, facilitating intra-regional trade. This trade is in its infancy, but already small quantities of organic products, such as forest nuts, virgin coconut oil, and cocosap sugar are being exported to other Pacific Island countries for their developing organic markets. There are currently five PGS-approved companies that use the Organic Pasifika Mark, and a further seven are under development.

Third-party organic certification continues to grow in the Pacific; however, its cost remains high and in some cases prohibitive for smallholder producers. A significant portion of the costs come from travel expenses as inspectors have to fly from usually Australia or New Zealand, and often, due to flight logistics, geographic spread, or the location of grower groups, inspectors are required to stay on the island for a considerable amount of time. Aware of this problem, POETCom initiated the training of organic inspectors based in the Pacific Islands. With the assistance of Agrana Fiji Limited, an organic exporter, and two European Union-funded programmes, the Pacific Agriculture Policy Project and the Increasing Agricultural Commodities Trade project, 17 trainees from seven Pacific Island countries began the process of training to be organic inspectors in 2015. Training was delivered by the International Organic Inspectors Association together with the National Association of Sustainable Agriculture Australia (NASAA) and with the support of 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 the continued development of inspectors in 2016.

Key actors

Developments in organic agriculture are being spearheaded by the PHLOG, SPC, POETCom and the POETCom Focal Points in each Pacific Island country including:

- BioCaledonia, New Caledonia
- Bio Fetia, French Polynesia
- Farm Support Association, Vanuatu
- Fiji Organic Association, Fiji
- Kastom Gaden Association, Solomon Islands
- Niue Organic Farmers Association, Niue
- Palau Organic Farmers Association, Palau
- Chamber of Agriculture, Wallis and Futuna
- Titikaveka Growers Association, Cook Islands
- Tonga National Youth Congress, Tonga
- Women in Business Development Incorporated, Samoa

The movement remains farmer and farm support organization driven with support building from national governments as awareness of the potential for organics increases. Regional research and academic institutions are also engaged, including the University of the South Pacific and the National Agricultural Research Institutes of Papua New Guinea.

Pacific Islands: Development of organic agricultural land 2008 to 2015

Source: POETcom 2009-2016

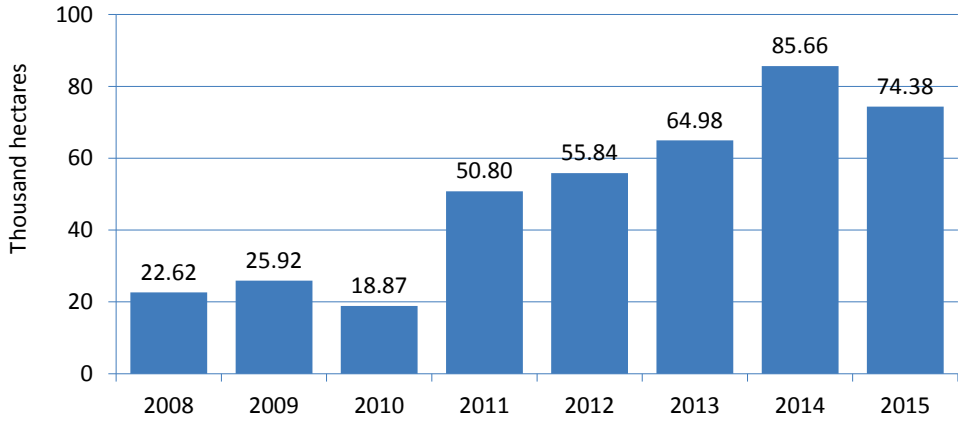

Figure 103: Pacific Islands: Development of the organic area 2008-2015

Source: POETCom, 2009-2015

Pacific Islands: Organic agricultural land by country 2015

Source: POETcom 2016

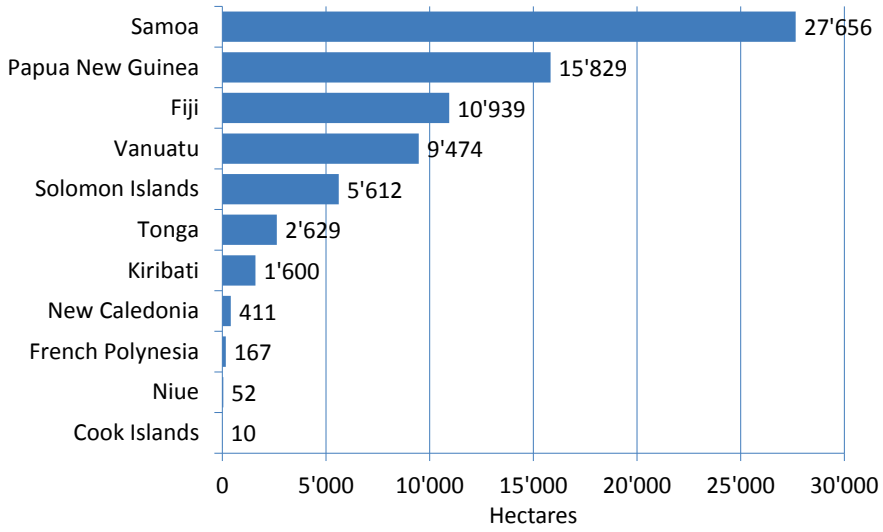

Figure 104: Pacific Islands: Organic agriculture land by country 2015

Source: POETCom, 2016

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends. FiBL & IFOAM – Organics International (2017): Frick and Bonn, 2017-02-20

Market & trade

Most of the organically certified products from the region are for export; there are, however, indications of growing local markets through basket (box) schemes, unverified organic claims on labels, PGS development and increased awareness. As yet, however, there are no mechanisms for collecting local organic market data.

Product range

The following is a summary table listing the main products, which are currently organically certified in the Pacific region:

Table 77: Pacific Islands: Organic Products

Products	Countries
Vanilla, ginger & other spices	Fiji, Vanuatu, Niue, Samoa
Cocoa	Vanuatu, Samoa, PNG
Virgin Coconut Oil	Samoa, Fiji, Solomon Islands
Coconut meal	Vanuatu
Nonu /noni (Morinda Citrifolia)	Cook Islands, Samoa, Fiji, Niue, French Polynesia
Honey	Niue
Bananas (including processed)	Fiji, PNG, Samoa
Coffee	Papua New Guinea, Samoa
Livestock (beef, goats and sheep)	Vanuatu, Fiji
Fruit & vegetables (including pulps)	Fiji, New Caledonia, Samoa, French Polynesia
Rum	French Polynesia
Forest nuts	Solomon Islands

Spring water and salt have also been certified as approved inputs (non-agricultural) in Fiji.

The main international markets for the listed products are Australia and New Zealand, representing the main destination for the export of organic products due to their proximity. Japan is a growing market, and other markets include China, North America, and the European Union.

Organic and Fair Trade

There is growing interest and activity in fair trade programmes and certification, and POETCom is making efforts to link organic producers with these systems as a way of adding further value to their products and ensuring the farmers benefit as much as possible. There is also interest in identifying trading models outside the well-known fair trade certifications that may be better suited to the needs of communities and producers in the region.

Domestic markets

Generally, the domestic markets for organic certified products are slowly developing, but, in some cases, they are virtually non-existent. Organic products are commonly sold as conventional products without premium price or any acknowledgement of the organic status. Some initiatives are ongoing or are in the pipeline to promote awareness about organic products, in particular in linking the concept of organic with local food consumption as part of a strategy to reduce non-communicable diseases, which are a major health issue in the Pacific Islands. Interesting opportunities are now being

explored within the tourist structures of several countries that have larger tourism industries (e.g., Fiji, Vanuatu, Cook Islands, and Samoa), focusing on the development of Pacific cuisine and 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 that 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

The Secretariat of the Pacific Community (SPC) developed a policy brief on organic agriculture in 2009. The policy brief aims to assist governments and others in the region develop relevant policy and focuses on how organic agriculture can assist in meeting regional challenges. It outlines seven initial policy recommendations. Until very recently, there had been no significant changes in legislation in the region and no indication governments were considering policy in the area of organic agriculture, but in the last two years, organic is gaining mention and recognition in national policy and planning documents such as the recent "Overarching sector plan for productive industries" in Vanuatu and the Solomon Islands Organic Policy. The Policy Toolkit launched in 2016 is expected to stimulate the development of policy and eventually legislation.

Government and international support

SPC as a regional intergovernmental organization continues to provide support for organics development and now houses the POETCom secretariat, but as current project funding cycles come to an end, the need for bridging finance and developing a longer term financing strategy to support the organic movement is critical.

POETCom national affiliates continue to receive assistance from partners such as OXFAM New Zealand, Canada Fund, the United Nations Development Programme's 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 is the case for 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 POETCom presents a challenge, and 2016 saw funding for the coordinators' role in POETCom ceased. This created a significant burden on remaining staff and required substantial voluntary work from members and supporters. Functioning in this way is not sustainable. However, as governance and management structures are strengthened and with the implementation of the Pacific Organic Guarantee System in particular along with the elements of PGS, the export certification scheme, and regional organic branding, growth and momentum are likely to continue. Funding is being sought to design and develop cost recovery mechanisms for services. Projects for development funding are also being sought.

Growing understanding of the role and potential for organic agriculture in adaptation to climate change will provide a basis for incorporating organics as a development tool in Pacific agriculture and climate change policy, but financial support will be required to undertake the necessary trials and demonstrations required for farmers and policy makers 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 industry are starting to look at organic products and sustainability as part of the brand of the Pacific Islands.

Links/Further reading

Pacific Organic and Ethical Trade Community www.organicpasifika.com

POETCom (2008): Pacific Organic Standard. POETCom, Suva. Available at http://www.organicpasifika.com/poetcom/wp-content/uploads/sites/2/2014/08/POS.pdf

POETCom (2012) Growing Our Future POETCom Strategic Plan 2013 – 2017. POETCom, Suva. Available at http://www.organicpasifika.com/poetcom/wp-content/uploads/sites/2/2014/08/POETCom-Strategic-Plan.pdf

POETCom (2015): Annual Report. POETCom, Suva. Available at http://fliphtml5.com/fvzp/ggku

Oceania: Current statistics

Julia Lernoud,[1] Helga Willer[2] and Bernhard Schlatter[3]

Overview

In 2015, the organic agricultural land in Oceania was 22.8 million hectares, which constituted 5.4 percent of the total agricultural area in the region. Forty-five percent of the world's organic agricultural land is in Oceania. The area under organic production has more than trebled since 2000 (5.3 million hectares). Between 2014 and 2015, the area in Oceania grew by 4.3 million hectares - 23 percent more - mainly to a large growth of the organic agricultural area in Australia. However, further countries, such as Fiji (almost 3'000 hectares more, a 19 percent growth), and Vanuatu (almost 2'000 hectares more, a 44 percent growth) showed an important growth. The country with the biggest organic agricultural area is Australia with 22.7 million hectares, and the highest organic share of total agricultural land is in Samoa, with 9.8 percent of all farmland under organic cultivation.

Land use

It is estimated that in 2015, almost 97 percent of all organic farmland in Oceania was grassland/grazing areas (22 million hectares, mainly in Australia). Detailed data on land use 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 region. Tropical and subtropical fruits, such as noni, are the largest grown commodity (almost 34'000 hectares, 22 percent of the total region's tropical fruit area). Furthermore, coconuts (nearly 15'000 hectares, 2.5 percent of the total coconut grown in the region) are largely grown in the Pacific Islands, mainly for oil production.

Producers

There were more than 22'000 organic producers in the region, with the largest number of producers in Papua New Guinea (over 14'000 producers), Australia (almost 1'900 producers), and the Solomon Islands (over 1'000 producers). Since 2006, when data for most of the countries became available, the number of organic producers has more than doubled.

Market

For 2015, new data on the organic market was only available for New Zealand, 124 million euros, which gives us a total market of 1.1 billion euros for the region for 2015. For Australia, the latest data on the organic market is from 2013, 962 million euros. For the other countries in the region, no data is available. The annual organic consumption was 42 euros per person in Australia (2013) and 27 euros per person in New Zealand.

For more information, see the data tables on page 293.

[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

[3] Bernhard Schlatter, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org

Organic Agriculture in Oceania: Graphs

Oceania: Organic agricultural land by country 2015
Source: FiBL survey 2017

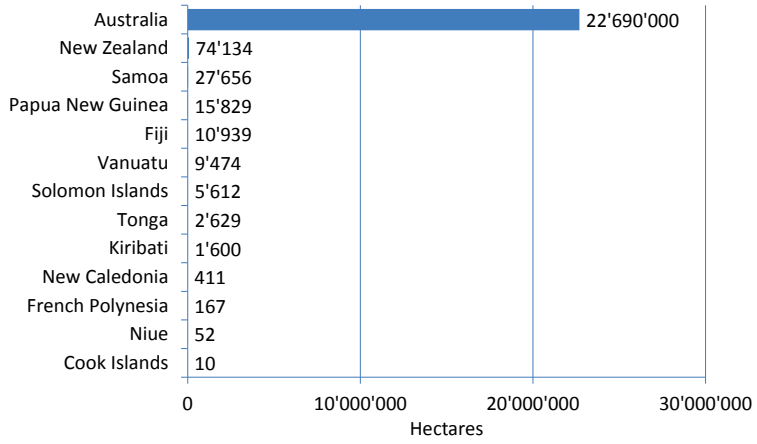

Figure 105: Oceania: Organic agricultural land by country 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316

Oceania: Organic share of total agricultural land by country 2015
Source: FiBL survey 2017

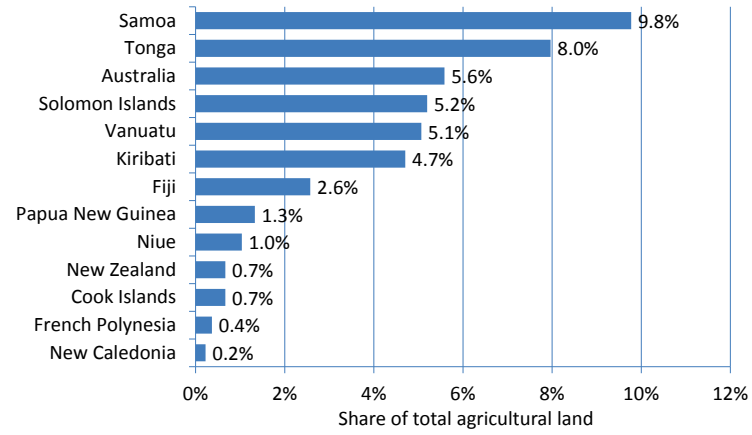

Figure 106: Oceania: Organic share of total agricultural land by country 2015

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316

Oceania: Development of organic agricultural land 2000-2015

Source: FiBL-IFOAM-SOEL 2002-2017

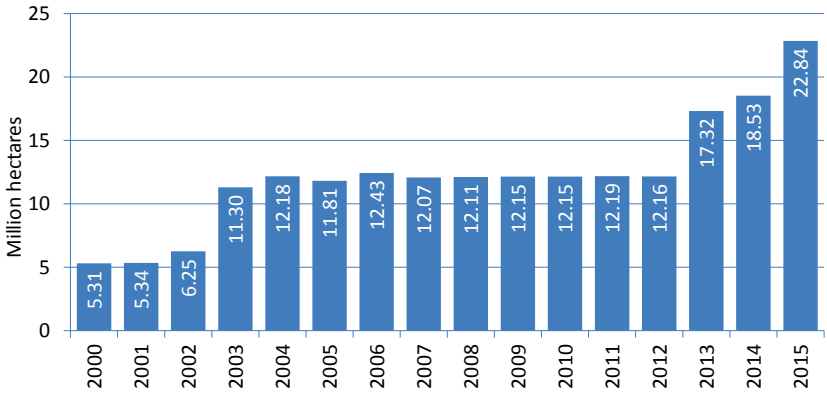

Figure 107: Oceania: Development of organic agricultural land 2000-2015

Source: FiBL-IFOAM-SOEL 2000-2017; based on information from the private sector, certifiers, and governments. For detailed data sources see annex, page 316

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends.
FiBL & IFOAM – Organics International (2017): Frick and Bonn, 2017-02-20

Organic Agriculture in Oceania: Tables

Table 78: Oceania: Organic agricultural land, organic share of total agricultural land, and number of producers 2015

Country	Area [ha]	Organic share [%]	Producers [no.]
Australia	22'690'000	5.6%	1'876
Cook Islands	10	0.7%	50
Fiji	10'939	2.6%	627
French Polynesia	167	0.4%	270
Kiribati	1'600	4.7%	900
New Caledonia	411	0.2%	75
New Zealand	74'134	0.7%	842
Niue	52	1.0%	49
Papua New Guinea	15'829	1.3%	14'485
Samoa	27'656	9.8%	736
Solomon Islands	5'612	5.2%	1'063
Tonga	2'629	8.0%	856
Vanuatu	9'474	5.1%	192
Total	**22'838'513**	**5.4%**	**22'021**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316

Table 79: Oceania: All organic areas 2015

Country	Agriculture [ha]	Wild collection [ha]	Total [ha]
Australia	22'690'000		22'690'000
Cook Islands	10		10
Fiji	10'939	653	11'592
French Polynesia	167		167
Kiribati	1'600		1'600
New Caledonia	411		411
New Zealand	74'134		74'134
Niue	52	112	164
Papua New Guinea	15'829		15'829
Samoa	27'656		27'656
Solomon Islands	5'612		5'612
Tonga	2'629		2'629
Vanuatu	9'474		9'474
Total	**22'838'513**	**765**	**22'839'278**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316

Table 80: Oceania: Land use in organic agriculture 2015

Land use	Crop group	Area [ha]
Agricultural land, no details		706'445
Arable land crops	Medicinal and aromatic plants	179
	Sugarcane	4
	Arable crops, other	411
Arable land total		***594***
Other agricultural land		5'821
Permanent crops	Cocoa	2'765
	Coconut	14'578
	Coffee	13'314
	Fruit, temperate	1'000
	Fruit, tropical and subtropical	33'778
	Grapes	2'022
	Medicinal and aromatic plants, permanent	7
	Permanent crops, other	1'725
Permanent crops total		***69'188***
Permanent grassland		22'056'465
Total		**22'838'513**

Source: FiBL survey 2017, based on information from the private sector, certifiers, and governments.
For detailed data sources see annex, page 316

Better Data

FiBL Survey on Organic Agriculture Worldwide – Metadata

Helga Willer [1] and Julia Lernoud [2]

For the 18th FiBL survey on organic agriculture worldwide, data on organic agriculture were available for 179 countries. Since 1999, when the data collection started, at that time carried out by the German-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), 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 2016). We see our paper as a work in progress, and we are aiming to provide more details, including details by indicator, in the future.

Development of the number of countries with data on organic agriculture 1999-2015

Source: FiBL-IFOAM-SOEL-Surveys 1999-2017

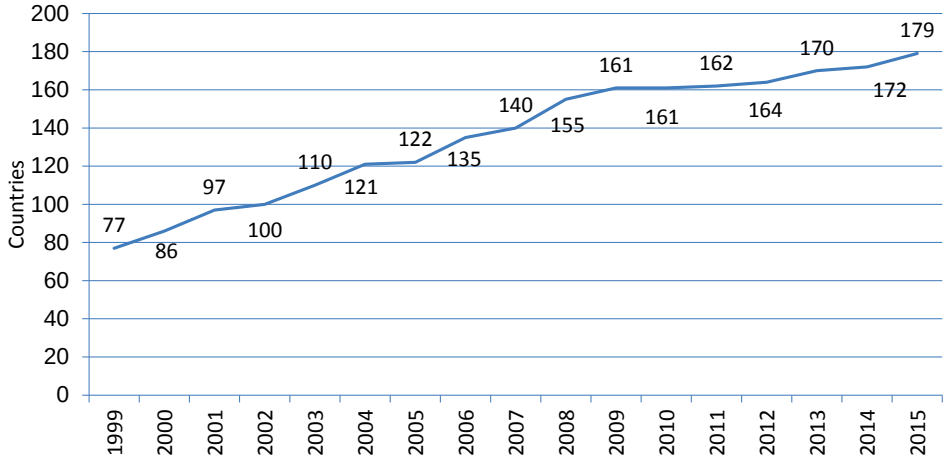

Figure 108: Development of the number of countries with data on organic agriculture 1999-2015

Source: FiBL-IFOAM-SOEL surveys 1999-2017

[1] Dr. Helga Willer, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org
[2] Julia Lernoud, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org

1 Contact

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2 Metadata update

The metadata on the global survey on organic agriculture were first compiled in January 2017, and it is planned to include more details and update them regularly. They will be made 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 in its questionnaire for organic farming and in its organic farming database is applied (Eurostat 2017). 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
- 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). 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 is being developed 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 is particularly the case for retail sales data.

3.3 Coverage – sector

- Area: Area of agricultural holdings certified organic by certification/inspection bodies or Participatory Guarantee Systems
- Livestock: Livestock on agricultural holdings certified organic by certification/inspection bodies or Participatory Guarantee Systems
- Production: Production of agricultural holdings certified organic by certification/inspection bodies or Participatory Guarantee Systems
- Operators: The data collected covers all different types of operators certified organic by certification/inspection bodies or Participatory Guarantee Systems involved in the organic sector (production, processing, import, export, wild collection, others)

– Retail sales and international trade: Retail sales and international trade products with organic certification.

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 regulations or laws are used (Huber & Schmid 2017). Most of these regulations are covered by the IFOAM Family of Standards (IFOAM - Organics International 2017).

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 all 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 word. Currently, 179 countries and territories are covered. For countries and territories, the FAO country list is used (FAOSTAT 2017), 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.

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). The printed version can be obtained at the FiBL online shop.

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.

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).

10.3 Dissemination format - online database

Furthermore, the data is made available in online data tables (interactive tables, MS Excel files, and interactive map) at www.organic-world.net/statistics/statistics-data-tables.html.

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 Bioglobal 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 unter 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 2017), and Agence Bio uses the data for its annual compilation of the global statistics in French (Agence Bio 2016).

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, 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 (e.g., the Certified Organic Survey of the National Agricultural

Statistics Service of the United States Department of Agriculture 2016). 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 at www.organic-world.net/statistics/statistics-data-revisions.html, 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. 2016) 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: for example, some countries use the available production volume data and multiply it by the retail price of each product.

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 2017).

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.

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 single indicators (operators, area and production, livestock, and products of animal origin), please consult our website at www.organic-world.net/statistics/statistics-data-tables.html and go to “About”.

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 region. 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 June 2017 (Lernoud et al. 2017).

Further reading

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Outlook

Motions and More

MARKUS ARBENZ[1]

2017 is the year of the Organic World Congress and General Assembly of IFOAM - Organics International in India. Preparations are underway for important decisions that will pave the way for the future.

Members of IFOAM - Organics International are invited to bring forward motions of strategic importance for the global organic movement. In addition to reporting/planning, World Board elections, and a decision on the host of the Organic World Congress 2020[2], motions are the most important tool of the General Assembly (GA) for making far-reaching decisions. At the time of the publication of the "World of Organic Agriculture", the World Board plans to present four strategic motions for the membership to decide on: 1) Organic 3.0, 2) aquaculture, 3) new breeding techniques and 4) membership revisions in IFOAM - Organics International.

Organic 3.0

The World Board proposes adding "Organic 3.0" to the present series of landmarks that includes, among others, the definition, the principles, the family of standards, the best practice guidelines, and the position papers. In 2014, the discussion about Organic 3.0 was launched. In 2015 and 2016, progress was reported in the "World of Organic Agriculture" (Arbenz 2015 and Arbenz 2016), and concepts were published in specialized booklets called "Organic 3.0 for truly sustainable farming and consumption." These concepts describe in detail the results of extensive think tanking and consultation.

Organic 3.0 is a revised understanding and positioning towards more ambitious and common-good goals and therefore has a strong focus on the spirit, attitudes, values, and strategic plans of stakeholders inside and outside the organic movement. It embraces a strategy of dynamic and continuous improvement. The organic narrative develops from its past offering of certified agricultural products into the smartest, most authentic and fully regenerative way of production and consumption of nutritious food, ecological textiles, and natural body care products. Living soils, intact ecosystems, caretaking farmers, sensible processors, and traders as well as responsible consumers drive inclusive, long-term prosperity and are supported by civil society and the public sector.

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[2] The 19th Organic World Congress will take place in India, November 9 -11, 2017. The OWC is the leading event for the development of the organic sector worldwide.
The Congress will be divided in four tracks:

- Main Track: It is a series of public discussions and debates on how we can best promote and implement the organic agenda by leaders from the organic movement.
- Farmers' Track: Here organic farmers will have a place to exchange experience, knowledge and discuss current and future challenges.
- Scientific Track: Here the potential of organic farming with a scientific base will be presented.
- Marketing Track: Here the organic movement will discusses innovative ideas for shortening the value chains, for systems that build trustful relations between actors, among other key issues from the sector.

For more information, please visit www.owc.ifoam.bio/2017

With its "more and better" approach, it aims at increasing relevance and credibility not only for a limited organic niche, but also as an integral part of societies in all countries. This strategy requires clearly defined minimum requirements such as the ones defined in many government regulations around the world and in the objectives of the IFOAM Standards Requirements (e.g. no applications of GMOs). But it also requires a culture of continuous improvement through stakeholder-driven initiatives towards best practice and adapted to local priorities as described in the IFOAM Best Practice Guidelines.

The landmark Organic 3.0 shall be a concise document, shaped and approved by the global general assembly. It will serve as a working tool and a guidance for daily decisions by everyone in the sector.

New breeding techniques

The virtual General Assembly 2016 approved the new position paper on GMOs. This paper did not, however, deal in detail with new breeding techniques for plants and livestock that can also be considered as GMO. A special working group is dealing with motion 61 (Investigate and inform for strategic replacement of cell fusion varieties) and motion 62 (Recommend guidelines for new breeding techniques) of the previous GA 2014 in Istanbul. While it is generally unchallenged that most of these new breeding techniques result in seed/breeds of genetically modified organisms, the working group further proposes the following:

- clarify definitions and criteria to classify breeding techniques, and make them durable in the future;
- classify the reviewed varieties as GMOs and therefore consider them incompatible with organic systems;
- express the need to protect and serve the organic sector with strategies to increase the supply of organically produced varieties/breeds and help assure their integrity;
- identify access of farmers to information and genetic material;
- contribute more to the global discussion beyond organic;
- advocate for the protection of organic, with appropriate measures, and preserve the right to produce and consume organic;
- specify how to reform rules about environmental release, including saner safety assessment protocols.

Aquaculture

Integrating organic aquaculture into organic agriculture has been an issue for a long time. The successful introduction of private standards for organic aquaculture has been a key driver of the continuous growth in the market for certified organic seafood. However, the regulatory authorities took longer to respond. It was only in 2007 that the EU Commission put organic aquaculture production rules on the agenda. The US National Organic Program (NOP) started discussions to amend existing organic farming legislation by introducing production rules for aquaculture slightly earlier, but after several years of discussion, a concrete time plan for a final definition and implementation still does not exist.

While many private and public regulations are in place, it has been difficult to develop the IFOAM standard further with a fairly well-developed common view on major issues. Surveys revealed that the positions on various issues are far apart. IFOAM Aquaculture recently started an initiative to discuss these issues and to find solutions for a globally united position. The GA shall resolve these issues and take decisions, particularly regarding the recirculation systems, the feed and the sources of stock. The resulting positions are a base to develop the Aquaculture standard of IFOAM - Organics International and of its lobby work at Codex Alimentarius and other relevant fora.

Membership

The IFOAM statutes describe the membership criteria, which are interpreted in various policies and practices. Stagnation in the number of members and practicality of membership administration led a World Board initiative to revise the membership categories. A member consultation and the proposal of a membership motion for the virtual GA 2016 for review by members showed diverging opinions on the proposed measures. Some members expressed the wish to put this issue on the agenda at the face to face GA 2017 in India rather than voting in a virtual GA. Fulfilling that wish, the World Board withdrew its motion to the GA 2016 and will now propose a completely new membership motion proposing a new fee structure that differentiates between trade and non-trade members. Fees shall also be adapted with the tendency to lower the highest fees. It will further propose simplifications of access to IFOAM - Organics International as non-voting associates, while maintaining the integrity of voters.

Annex

Key Indicators by Country and Region

Table 81: Organic agricultural land (including in-conversion areas): Key indicators by region 2015

Region	Organic area [ha]	Shares of the global organic farmland area [%]	Organic share of total farmland area [%]	Growth 2014-2015 [%]	Organic producers [no.]	Organic retail sales [Mio €]
Africa	1'683'482	3%	0.1%	+33.5%	719'720	17*
Asia	3'965'289	8%	0.2%	+11.1%	851'016	6'255
Europe	12'716'969	25%	2.5%	+8.2%	349'261	29'781
Latin America	6'744'722	13%	0.9%	-1.3%	457'677	31
North America	2'973'886	6%	0.7%	+21.0%	19'138	38'539
Oceania	22'838'513	45%	5.4%	+23.2%	23'728	1'085
Total**	**50'919'006**	**100%**	**1.1%**	**+14.7%**	**2'417'414**	**75'709**

Source: FiBL survey 2017. 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 82: Organic agricultural land, share of total agricultural land, number of producers, and retail sales 2015

Country	Organic area [ha]	Organic share [%]	Organic producer [no.]	Organic retail sales [Mio €]
Afghanistan	81	0.0002%		
Albania (2012)	515	0.04%	39	
Algeria	1'400	0.003%	72	
Andorra	2	0.01%		
Argentina	3'073'412	2.1%	1'074	
Armenia	1'832	0.1%	20	
Australia	22'690'000	5.6%	1'876	962 (2013)
Austria	553'570	21.3%	20'976	1'065 (2011)
Azerbaijan	37'630	0.8%	305	3 (2011)
Bahamas	49	0.3%		
Bangladesh	6'860 (2012)	0.1%	9'335 (2011)	
Belarus		Wild collection only		
Belgium	68'818	5.2%	1'733	514
Belize	840	0.5%	820	0.1
Benin (2014)	2'364	0.1%	3'159	
Bermuda		Processing only		
Bhutan	6'950	1.3%	2'680	
Bolivia (2014)	114'306	0.3%	12'114	
Bosnia and Herzegovina	576	0.03%	36	0.3
Brazil	750'000 (2014)	0.2%	10'323	
Brunei Darussalam		Aquaculture only		
Bulgaria	118'552	3.9%	5'919	7 (2010)
Burkina Faso	23'923	0.2%	9'035	
Burundi	184	0.01%	35	
Cambodia	12'058	0.2%	6'753	
Cameroon	380	0.004%	193	
Canada	944'558	1.4%	4'267	2'757
Cape Verde	495	0.6%		

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends.
FiBL & IFOAM – Organics International (2017): Frick and Bonn, 2017-02-20

Country	Organic area [ha]	Organic share [%]	Organic producer [no.]	Organic retail sales [Mio €]
Chad		Wild collection only		
Channel Islands	180	1.9%		
Chile	19'932 (2014)	0.1%	446 (2013)	2
China	1'609'928	0.3%	9'990	4'712
Colombia	31'621 (2014)	0.1%	4'775 (2011)	
Comoros	1'534	1.2%	1'540	
Cook Islands	10	0.7%	50	
Congo, D.R.	94'386	0.4%	36'571	
Costa Rica	7'819	0.4%	3'000 (2009)	1
Côte d'Ivoire	40'078	0.2%	492	
Croatia	75'883	5.0%	3'061	99
Cuba	4'338	0.1%	7	
Cyprus	4'699	4.3%	1'032	2 (2006)
Czech Republic	478'033	11.3%	4'121	74 (2014)
Denmark	166'788	6.3%	2'991	1'079
Dominica (2014)	240	1.0%		
Dominican Republic	163'936	7.0%	36'463	
Ecuador (2014)	45'818	0.8%	10'287	
Egypt	85'000	2.3%	900	
El Salvador	13'728	0.9%	2'000	
Estonia	155'806	16.5%	1'629	
Ethiopia	186'155	0.5%	203'602	13
Falkland Islands (Malvinas)	139'041	12.5%	5	
Faroe Islands	253	8.4%		
Fiji	10'939	2.6%	627	
Finland	225'235	10.0%	4'328	240
France	1'375'328	5.0%	28'884	5'534
French Guiana (France)	2'746	9.0%	49	
French Polynesia	167	0.4%	270	
Georgia	1'452	0.1%	1'075	
Germany	1'088'838	6.5%	25'078	8'620
Ghana	23'380	0.1%	2'679	
Greece	407'069	5.0%	19'604	60 (2010)
Grenada (2010)	85	1.1%	3	
Guadeloupe (France)	104	0.2%	31	
Guatemala (2011)	13'380	0.4%	3'008	
Guinea-Bissau	3'403	0.2%		
Guyana		Wild collection only		
Haiti	4'250	0.2%	1'210	
Honduras	26'892	0.8%	5'411	
Hong Kong		Processing only		
Hungary	129'735	2.4%	1'971	30
Iceland	9'797	0.5%	36	
India	1'180'000	0.7%	585'200	130 (2012)
Indonesia	130'384	0.2%	5'789	
Iran	14'574	0.03%	3'873	
Iraq	58	0.001%		
Ireland	73'037	1.8%	1'709	142
Israel	5'758	1.1%	303	
Italy	1'492'579	11.7%	52'609	2'317
Jamaica	167	0.04%	80	
Japan	10'043	0.2%	2'130 (2012)	1'000 (2009)
Jordan	1'706	0.2%	27 (2014)	

Country	Organic area [ha]	Organic share [%]	Organic producer [no.]	Organic retail sales [Mio €]
Kazakhstan	303'381	0.1%	29	
Kenya	150'479	0.5%	33'155	4
Kiribati	1'600	4.7%	900	
Kosovo	160	0.04%	100	
Kuwait	20	0.01%		
Kyrgyzstan	7'565	0.1%	1'035	
Lao, P.D.R.	1'445	0.1%	1'342	
Latvia	231'608	12.8%	3'634	4 (2011)
Lebanon	1'222	0.2%	48	
Lesotho	548	0.02%	4	
Liechtenstein	1'107	30.2%	38	6
Lithuania	213'579	7.4%	2'672	6 (2011)
Luxembourg	4'216	3.2%	83	94
Macedonia, FYROM	2'174	0.2%	460	
Madagascar	121'011	0.3%	22'850	
Malawi	207	0.004%	7	
Malaysia (2013)	603	0.01%	119	
Mali (2014)	11'919	0.03%	12'619	
Malta	30	0.3%	11	
Martinique (France)	279	0.9%	44	
Mauritius	1	0.002%	20	
Mayotte	9	0.1%	4	
Mexico	584'093	0.5%	200'039	14 (2013)
Moldova	28'729	1.2%	50	
Montenegro (2014)	3'289	1.4%	167	
Monaco		Processing only		
Morocco	9'330	0.03%	121	
Mozambique	16'176	0.03%	11	
Myanmar	5'626	0.04%	10	
Namibia	30'127	0.1%	25	
Nepal (2013)	9'361	0.2%	687	
Netherlands	49'273	2.6%	1'472	1'072
New Caledonia	411	0.2%	75	
New Zealand	74'134	0.7%	842	124
Nicaragua (2009)	33'621	0.7%	10'060	
Niger	262	0.001%		
Nigeria (2014)	5'021	0.01%	101	
Niue	52	1.0%	49	
Norway	47'640	4.4%	2'113	352
Oman	38	0.003%	4 (2013)	
Pakistan	34'209	0.1%	111	
Palestine, State of	6'014	2.0%	1'096 (2014)	
Panama (2013)	15'183	0.7%	1'300	
Papua New Guinea	15'829	1.3%	14'485	
Paraguay	64'097	0.3%	58'258	
Peru	327'245	1.3%	96'857	14 (2010)
Philippines	234'642	1.9%	165'958	
Poland	580'731	3.8%	22'277	167
Portugal	241'375	7.2%	4'142	21 (2011)
Puerto Rico	14	0.01%	5	
Republic of Korea	18'136	1.0%	11'611	281
Réunion (France)	718	1.5%	170	
Romania	245'924	1.8%	11'869	80
Russian Federation	385'140	0.2%	82	120 (2011)

Willer, H. and Lernoud, J. (Eds.) (2017): The World of Organic Agriculture. Statistics and Emerging Trends.
FiBL & IFOAM – Organics International (2017): Frick and Bonn, 2017-02-20

Country	Organic area [ha]	Organic share [%]	Organic producer [no.]	Organic retail sales [Mio €]
Rwanda	1'169	0.1%	4'010	
Samoa	27'656	9.8%	736	
San Marino		Processing only		
Sao Tome and Principe (2014)	6'706	13.8%	3'738	
Saudi Arabia	36'487	0.02%	151	
Senegal	7'047	0.1%	18'395	
Serbia	15'298	0.4%	264	
Sierra Leone	15'347	0.4%	1'394	
Singapore		Processing only		
Slovakia	181'882	9.6%	420	4 (2010)
Slovenia	42'188	9.1%	3'412	49 (2013)
Solomon Islands	5'612	5.2%	1'063	
Somalia		Wild collection only		
South Africa	34'203	0.04%	198	
Spain	1'968'570	7.9%	34'673	1'498
Sri Lanka	96'318	3.5%	8'695	
Sudan (2014)	130'000	0.2%	354	
Suriname	39	0.04%		
Swaziland	571	0.05%		
Sweden	518'983	16.9%	5'709	1'726
Switzerland	137'234	13.1%	6'244	2'175
Syrian Arab Republic (2010)	19'987	0.1%	2'458	
Taiwan	6'490	0.8%	2'598	
Tajikistan (2012)	12'659	0.3%	10'486	
Tanzania, United Republic of	268'729	0.7%	148'610 (2013)	
Thailand	45'587	0.2%	13'154	12 (2014)
Timor-Leste	25'232	6.6%	73	
Togo	15'324	0.4%	9'933	
Tonga	2'629	8.0%	856	
Tunisia	145'629	1.4%	2'987	
Turkey	486'069	1.3%	69'967	4 (2009)
Uganda	241'150	1.7%	190'670	
Ukraine	410'550	1.0%	210	18
United Arab Emirates (2014)	4'286	1.1%	53	113
United Kingdom	495'929	2.9%	3'434	2'604
United States of America	2'029'327	0.6%	14'871	35'782
United States Virgin Islands	26	0.7%		
Uruguay	1'307'421	9.0%	4	
Uzbekistan		Wild collection only		
Vanuatu	9'474	5.1%	192	
Venezuela		Processing only		
Viet Nam	76'666	0.7%	3'816	5
Zambia	8'138	0.03%	10'057	
Zimbabwe	980	0.01%	2'003	
Total	**50'919'006**	**1.1%**	**2'417'414**	**75'709**

Source: FiBL survey 2017, based on data from governments, the private sector, and certifiers. FiBL-AMI- survey 2017, based on data from government bodies, the private sector, and market research companies. For detailed data sources see annex, page 316

Data Providers and Data Sources

Compiled by Julia Lernoud[1] and Helga Willer[2]

Afghanistan
Certifier data.

Albania
Source
Patrizia Pugliese, Marie Reine Bteich and Lina Al-Bitar (eds.) (2014): Mediterranean Organic Agriculture. Key Features, Recent Facts, Latest Figures. Report 2014. Mediterranean Organic Agriculture Network (MOAN), CIHEAM Bari, Valenzano. Available at http://moan.iamb.it/index.php?option=com_phocadownload&view=category&id=8&Itemid=94
The data is from 2012.

Contact
Dr. Marie Reine Bteich CIHEAM - Istituto Agronomico Mediterraneo di Bari, Italy, www.iamb.t

Algeria
Source
Mediterranean Organic Agriculture Network (MOAN)/IAMB, Bari, Italy.

Contact
Dr. Marie Reine Bteich CIHEAM - Istituto Agronomico Mediterraneo di Bari, Italy, www.iamb.it

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, 2016 “Situación de la Producción Orgánica en la Argentina durante el año 2015". 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.

Australia
Source
- Area and operator data: Australia Organics (Ed) (2014): Australian Organic Market Report 2014. Research by Swinburne University of Technology, the Australian Bureau of Statistics and Mobium Group. Australian Organic, Nundah. Available from http://austorganic.com/wp-content/uploads/2014/11/AO_Report_2014_web.pdf
- Retail sales and operators data is from 2014

Contact
- Andrew Monk, Chairman, Australian Organic, Nundah, Australia, www.austorganic.com
- Andrew Lawson, University of New England, Armidale, Australia

Austria
Sources
- Data source for land area, land use and farms: Lebensministerium: Gruener Bericht. Lebensministerium, Wien, www.gruenerbericht.at
- Domestic market data and export data are from 2011 and were compiled by the Organic Retailers Association (ORA). Details on individual products are available from RollAMA/AMA-Marketing Marktentwicklung. Wert und Menge. RollAMA/AMA-Marketing, Vienna.

Contact
- Otto Hofer, Lebensministerium / Federal Ministry of Agriculture, Forestry, Environment and Water Management (AT), Vienna, Austria, www.lebensministerium.at
- Barbara Köcher-Schulz, AMA-Marketing GesmbH AMA, Vienna, Austria

---

[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

Azerbaijan
Source
Experimental and Resource Center affiliated to the Azerbaijan Botanic Center, Ganja, Azerbaijan, www.etkt.az
Contact
Nick Nwolisa; 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 are from 2012.

Belarus
Source
Certifier data (wild collection only). Products include among others blueberries, cranberries, and mushrooms.

Belgium
Source
Samborski V., Van Bellegem L., Platteau J. (2014): de Biologische Landbouw in Vlaanderen. Departement Landbouw en Visserij. Brussel. Available at http://lv.vlaanderen.be/sites/default/files/attachments/De%20biologische%20landbouw%20in%202013.pdf
Contact
- Vincent Samborski, Landbouw en Visserij, Brussels, Belgium
- Paul Verbeke, BioForum Vlaanderen vzw, Antwerpen, www.bioforum.be

Belize
Source
Survey among the certified companies in Belize.
Contact
Estevan Assi Jr, Toledo Cacao Growers Association, Belize

Benin
Source
Ecocert West Africa, Ouagadougou, Burkina Faso
Contact
- Laurent C. Glin, FiBL Terrain, SYPROBIO-CRRA, Sikasso, République du Mali
- Aziz Yanogo, Ecocert West Africa, Ouagadougou, Burkina Faso, Benin

Bermuda
Source
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.
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
- Aleksandra Nikolic, University of Sarajevo, Bosnia & Herzegovina
- Mersida Musabegović, Organska Kontrola, Sarajevo, Bosnia and Herzgovina

Brazil
Sources
- Area data: Ministério da Agricultura, Pecuária e Abastecimento, Ministry of Agriculture website. Available at http://www.agricultura.gov.br/comunicacao/noticias/2015/03/numero-de-produtores-organicos-cresce-51porcento-em-um-ano
- Operators data: certifiers data

Contacts
- Ming Liu, Organic Brasil, Brazil

Brunei Darussalam
Source
Ecocert China, Beijing, China
Contact
Weimin Yu, Ecocert China, Beijing, China

Bulgaria

Sources

› Land area, operators: Eurostat, Luxembourg.
› Domestic market data (from 2010): Bioselena, Karlovo, Bulgaria. www.bioselena.com

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, Brünnlesweg 19, 77654 Offenburg, Germany, www.lacon-institut.com

Not all certifiers provided updated data.

Contact

› Nathalie Boes, CERTISYS, B-1150 Bruxelles, Belgium, www.certisys.eu.
› Daniel Szalai, Control Union, Zwolle, The Netherlands, www.controlunion.org
› Aziz Yanogo, Ecocert West Africa, Ougadougou, Burkina Faso

Note

A direct year-to-year comparison over the years is not possible as not all certifiers provided updates every year.

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 (COrAA), 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.

Contact

Aziz Yanogo, Ecocert West Africa, Ougadougou, Burkina Faso, www.ecocert.com

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

Marie-Eve Levert, 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

Source

Certifier data.

Chad

Source

Ecocert, 32600 L'Isle Jourdain, France

Contact

Emma Tsessue, Ecocert, BO 47, 32600 L'Isle Jourdain, France, www.ecocert.com

Channel Islands

Source

FAOSTAT (2014) Organic area data Channel Islands. The FAOSTAT website, FAOSTAT, Rome, Italy, FAOSTAT > Agri-Enviromental Indicators> Inputs> Land. Download of December 12, 2014 http://faostat3.fao.org/download/R/RL/E
The data is from 2014.

Chile

Source

› Certified areas, producers/ smallholders, livestock: Servicio Agrícola y Ganadero (SAG) Santiago, Chile, www.sag.gob.cl.

- Organic export value (2012): Servicio Nacional de Aduanas, Santiago, Chile
- 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, Vicepresident, Board of IFOAM Asia, World Board of IFOAM - Organics International, China

Colombia

Source

ECONEXOS, Conexion Ecologica, Calle 5 No. 45A-125, Cali, Colombia, info@econexos.org, www.econexos.com, based on a survey among the certifiers.

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

Source

Certifier data. The producer data from 2013.

Cook Islands

Source

Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int.

Contact

Karen Mapusua, Secretariat of the Pacific Community (SPC), Private Mail Bag, Suva Fiji, www.spc.int

Costa Rica

Source

- Land area, operators and export volume data: Servicio Fitosanitario del Estado (2016): Programas Especiales/ Agricultura Orgánica. Estadísticas 2014. 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.

- BCS, Nürnberg, Germany, www.bcs-oeko.de
- CERTISYS, B-1150 Bruxelles, Belgium, www.certisys.eu
- 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.
- Tobias Fischer, BCS, Nürnberg, Germany, www.bcs-oeko.de;
- Daniel Szalai, Control Union, Zwolle, The Netherlands, www.controlunion.org
- Aziz Yanogo, Ecocert West Africa, Ougadougou, Burkina Faso, www.ecocert.com

Note

A direct year-to-year comparison over the years is not possible as not all certifiers provided updates every year.

Croatia

Sources

- Area and operators: Eurostat, Luxembourg
- Market & trade data: 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: Eurostat, Luxembourg
- Market data (from 2006): Organic Retailers Association, Ecozept and Biovista (eds.) (2008): Specialised Organic Retail Report 2008. Freising and Vienna 2008

Czech Republic

Source

- Area and operators data: Eurostat database, Eurostat, Luxembourg
- 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 2014.

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, imports: Statistics Denmark.
- Other marketing channels: Organic Denmark. Data compiled by Danish Agriculture & Food Council, Agro Food Park 15, 8200 Aarhus.

Contact

- Carmen I. Calverley. Ministeriet for Fødevarer, Landbrug og Fiskeri NaturErhvervstyrelsen, Nyropsgade 30, 1780 København V. www.naturerhverv.dk
- 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 2014.

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.

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. The aquaculture data is from 2012.

Contact

- Paulina Betancourt, Agrocalidad, Quito, Ecuador
- Omar Pavón, Agrocalidad, Quito, Ecuador

Egypt

Source

Mediterranean Organic Agriculture Network MOAN, c/o IAMB Bari.

Contact

Dr. Marie Reine Bteich, C.I.H.E.A.M. - Istituto Agronomico Mediterraneo di Bari, Italy, www.iamb.it

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: Eurostat database, Eurostat, Luxembourg
- Market data was not available

A detailed report about organic farming in Estonia can be found at http://www.maheklubi.ee/upload/Editor/Mahepollumajandus_Eestis_2015.pdf

Contact

Merit Mikk, Centre of Ecological Engineering, Tartu, Estonia

Ethiopia

Source

Ethiopian Institute of Agricultural Research, Akaki, Ethiopia.

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. Data on export is from 2013.

Contact

Lucy Ellis, Department of Agriculture, Bypass Road, Stanley, Falkland Islands, www.agriculture.gov.fk

Faroe Islands

Source

Vottunarstofan Tún ehf, Laugavegur 7, 101 Reykjavík, Iceland, www.tun.is.

Contact

- Gunnar Gunnarsson, Vottunarstofan Tún ehf., Reykjavík, Iceland, www.tun.is
- Rannveig Guðleifsdóttir, Vottunarstofan 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 and operators: Eurostat database, Eurostat, Luxembourg.
- Wild collection provided Pro Luomo, Kauniainen, Finland;
- Market data: Pro Luomo, Kauniainen, Finland; for total market value: Finnish Grocery Trade Associations

Contact

- Marja-Riitta Kottila, Pro Luomu, Kauniainen, Finland
- Sampsa Heinonen, Evira, Helsinki, Finland

France

Source

- Area and operators: Agence Bio, Montreuil-sur-Bois, France. www.agencebio.org
- Retail sales: ANDi / Agence Bio, Montreuil-sur-Bois, France
- Export and import data: Agence Bio, Montreuil-sur-Bois, France

Contact

Nathalie Rison, Agence Bio, Montreuil-sous-Bois, France, www.agencebio.fr

French Guyana

Source

Agence BIO: The Agence Bio website, Agence Bio, 93100 Montreuil-sous-Bois, France. Available at http://www.agencebio.org/la-bio-dans-les-regions

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), Private Mail Bag, Suva Fiji, www.spc.int

Gambia

Data for Gambia have not been supplied since 2007 by any of the certification bodies. Any information on certified organic farming in Gambia should be sent to Julia Lernoud or Helga Willer at julia.lernoud@fibl.org and helga.willer@fibl.org.

Georgia

Source

Elkana Survey, Elkana, 16 Gazapkhuli street, 0177 Tbilisi, Georgia, www.elkana.org.ge.

Contact

Elene Shatberashvili, Biological Farming Association Elkana, 16 Gazapkhuli street, 0177 Tbilisi, Georgia, www.elkana.org.ge

Germany

Sources

- Agrarmarkt Informations-Gesellschaft mbH (AMI), Bonn, Germany, www.ami-informiert.de. For total organic land and number of operators: Eurostat database, Eurostat, Luxembourg.
- Retail sales: Arbeitskreis Biomarkt.

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.

- BCS, Nürnberg, Germany, www.bcs-oeko.de;
- CERTISYS, Brussels, www.certisys.eu
- Control Union, Zwolle, The Netherlands, www.controlunion.org
- Ecocert West Africa, Ougadougou, Burkina Faso
- IMO, Weinfelden, Switzerland, www.imo.ch

Contact

- Ruben Cortes, IMO, Weinfelden, Switzerland
- Tobias Fischer, BCS, Nürnberg, Germany, www.bcs-oeko.de
- Nathalie Boes, CERTISYS, Brussels, Belgium
- Daniel Szalai, Control Union, Zwolle, The Netherlands
- Aziz Yanogo, Ecocert West Africa, Ougadougou, Burkina Faso, www.ecocert.com

Note

A direct year-to-year comparison over the years is not possible as not all certifiers provided updates every year.

Greece

Sources

- Land area and operators: Eurostat database, Eurostat, Luxembourg.
- Market data (from 2010) were provided by Nicolette van der Smissen, Feres, Greece

Contact

Nicolette van der Smissen, Feres, Greece

Grenada

Data from one international certifier (data from 2010).

Guadeloupe

Source

Agence BIO: The Agence Bio homepage 93100 Montreuil-sous-Bois, France. Available at http://www.agencebio.org/la-bio-dans-les-regions

Contact

Nathalie Rison, Agence Bio, Montreuil-sous-Bois, France, www.agencebio.fr

Guatemala

Source

Department of Organic Agriculture, Ministerio de Agricultura, Ganaderia y Alimentación (MAGA), Ciudad de Guatemala, Guatemala C.A. 01013, http://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

Source

Ecocert, BO 47, 32600 L'Isle Jourdain, France, www.ecocert.com

Contact

Eva Berre, Ecocert, BO 47, 32600 L'Isle Jourdain, France, www.ecocert.com

Honduras

Source

Agricultura Orgánica Honduras, Secretaria 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: National Food Chain Safety Office, Budapest, Hungary, www.nebih.gov.hu
- Market and trade data: Survey of Biokorsar, Budapest, Hungary

Contact

- Dora Drexler, ÖMKI, Budapest, Hungary, www.biokutats.hu

Iceland

Source

Vottunarstofan Tún ehf., Laugavegur 7, 101 Reykjavík, Iceland, www.tun.is.

Contact

› Gunnar Gunnarsson, Vottunarstofan Tún ehf., Laugavegur 7, 101 Reykjavík, Iceland, www.tun.is
› Rannveig Guðleifsdóttir, Vottunarstofan 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. The retail sales data is from 2012.

Contact

› Dr. P.V.S.M. Gouri, Agricultural and Processed Food Products Export Development (APEDA), New Delhi, India, www.apeda.com
› Manoj Kumar Menon, International Competence Centre for Organic Agriculture ICCOA, Bangalore, India

Indonesia

Source

Indonesian Organic Alliance, Bangor, Indonesia (www.organicindonesia.org). Survey among the certifiers active in the country.

Contact

Lidya Ariesusanty, Indonesia Organic Alliance, Indonesia, www.organicindonesia.org

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

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

Contact

› Philipp Cullen, Department of Agriculture Fisheries and Food, Johnstown Castle Estate, Co. Wexford, Ireland www.agriculture.gov.ie.
› 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

Contact

Brett Hickson, Senior Chief Officer, Standardization and Accreditation Department, Ministry of Agriculture and Rural Development, Plant Protection and Inspection Services (PPIS), Israel

Italy

Sources

› Operator, primary crops, livestock products, imports: Eurostat database, Eurostat, Luxembourg
› Market: Assobio based on FederBio, Nielsen, Nomisma, and Sana Observatory.

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

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 producer data is from 2012
› Domestic market data (from 2009): Heinz Kuhlmann, ABC Enterprises, Tokio, Japan

Contact

› Yu Watanabe, IFOAM Japan, Tokyo, Japan

› Heinz Kuhlmann, ABC Enterprises, Tokio, Japan

Jordan

Source

Mediterranean Organic Agriculture Network (MOAN), maintained by IAM Bari, Italy

Contact

Dr. Marie Reine Bteich, C.I.H.E.A.M. - Istituto Agronomico Mediterraneo di Bari, Italy, www.iamb.it

Kazakhstan

Source

V.V. Grigoruk and E.V. Klimov (2016): Developing Organic Agriculture in Kazakhstan. FAO, Ankara. Report provided by Evgeny Klimov, Kazakhstan federation of organic agriculture movements - KAZFOAM, Kazakhstan.

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.

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), Private Mail Bag, Suva Fiji, www.spc.int

Korea, Republic of

Source

Korea Rural Economic Institute (KREI), Republic of Korea.

Contact

› Hyejing Lee, Korea Rural Economic Institute, Republic of Korea
› 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.

Contact

Syle Sylanaj, 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 one international certifier was added.

Contact

Gulzaada Aleshova, Helvetas, Jalalabad, Kyrgyzstan

Lao People's Democratic Republic

Source

Department of Agriculture (DOA), PO BOX 811, Vientiane, Laos.

Contact

Thavisith Bounyasouk, Department of Agriculture (DOA), PO BOX 811, Vientiane, Laos

Latvia

Source

› Area and Operators: Eurostat database, Eurostat, Luxembourg
› Market data (from 2011): Ekoconnect, Dresden, Germany and AMI, Bonn, Germany

Contact

Livija Zarina, State Priekuli Plant Breeding Institute SPPBI, Priekuli, Cesis distr, Latvia

Lebanon

Source

CCPB/IMC, Beirut, Lebanon, and Mediterranean Organic Agriculture Network (MOAN), maintained by IAM Bari, Italy.

Contact

› Angel Atallah, CCPB/IMC, Beirut, Lebanon
› Marie Reine Bteich, C.I.H.E.A.M. - Istituto Agronomico Mediterraneo di Bari, Italy, www.iamb.it

Lesotho

Certifier data

Liechtenstein

Source

Klaus Büchel Anstalt, Institute of Agriculture and Environment, 9493 Mauren, Liechtenstein, www.kba.li.

Contact

Klaus Büchel, Institute of Agriculture and Environment, 9493 Mauren, Liechtenstein, www.kba.li.

Lithuania

Source

- Land area, production volume, operators: Eurostat database, Eurostat, Luxembourg
- Domestic Market data (from 2011): Ekoconnect, Dresden, Germany and AMI, Bonn, Germany

Contact

Virgilijus Skulskis, Lithuanian Institute of Agri Economics, Vilnius, Lithuania

Luxembourg

Source

- Land area and operator data Eurostat database, Eurostat, Luxembourg
- Market data: Oekopolis estimate based on turnover data of the specialized shops and supermarkets, Oikopolis, Munsbach, Luxembourg

Contact

- Claudine Gengler, 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

- Eurostat database, Eurostat, Luxembourg.
- Ministry of Agriculture, Forestry and Water economy, Skopje, provided by Mediterranean Organic Agriculture Network (MOAN), Bari, Italy.

Contact

- Olivera Bicikliski, Ministry of Agriculture, Forestry and Water Management, Skopje, Former Yugoslav Republic of Macedonia
- Marie Reine Bteich, Mediterranean Organic Agriculture Network (MOAN), c/o IAM Bari, Italy

Madagascar

Sources

The data was compiled by FiBL based on the data of the following international certifiers.

- Australian Certified Organic, Nundah, Australia, www.aco.net.au
- Ecocert S.A., Villa Arimanantsoa, Madagascar, www.ecocert.com
- LACON GmbH, Brünnlesweg 19, 77654 Offenburg, Germany, www.lacon-institut.com

Please note that not from all certifiers updated data were received.

Contact

Sandra Randrianarisoa, Ecocert S.A., Villa Arimanantsoa, Madagascar, www.ecocert.com

Malawi

Source

Certifier data

Malaysia

Source

Department of Agriculture, Malaysia. The data is from 2013.

Contact

Ong Kung Wai, Humus Consultancy, Penang, Malaysia

Mali

Ecocert West Africa, Ougadougou, Burkina Faso, www.ecocert.com

Contact

Aziz Yanogo, Ecocert West Africa, Ougadougou, Burkina Faso, www.ecocert.com

Malta

Source

Land area and operators: Eurostat database, Eurostat, Luxemburg

Contact

Marie Reine Bteich, Mediterranean Organic Network MOAN, c/o IAM Bari, Italy

Martinique (France)

Source

Agence Bio, Montreuil sous Bois, France. Available at: http://www.agencebio.org/la-bio-dans-les-regions

Contact

Nathalie Rison, Agence Bio, Montreuil sous Bois, France, www.agencebio.fr

Mauritius

Source

Ecocert S.A., Villa Arimanantsoa, Madagascar, www.ecocert.com.

Contact

Sandra Randrianarisoa, Ecocert S.A., Villa Arimanantsoa, Madagascar, www.ecocert.com

Mayotte (France)
Source
Agence Bio, Montreuil sous Bois, France. Available at: http://www.agencebio.org/la-bio-dans-les-regions
Contact
Nathalie Rison, Agence Bio, Montreuil sous Bois, France, www.agencebio.fr

Mexico
Source
Universidad Autónoma Chapingo, based on data of the certifiers.
Contact
Rita Schwentesius, Universidad Autónoma Chapingo, Carretera México - Texcoco Km. 38.5. Chapingo, México

Moldova
Source
Ministry of Agriculture, Moldova
Contact
Iuliana Palade, 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
Source
AMABIO, Casa Blanca, Morocco, www.amabio.org
Contact
Zaoui Elhousseine, AMABIO/FIMABIO, Casa Blanca, Morocco, www.amabio.org

Mozambique
Sources
› BCS, Nürnberg, Germany
› Control Union, Zwolle, The Netherlands
› Ecocert, South Africa, Capetown, South Africa
Contact
› Tobias Fischer, BCS, Nürnberg, Germany
› Cliflyn McKenzie, Ecocert South Africa, Capetown, South Africa
› Daniel Szalai, 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.
Contact
Manjo Smith, Namibian Organic Association (NOA), PO Box 1504, Okahandja, Namibia

Nepal
Source
The data were provided by Maheswar Ghimire, Kathmandu, Nepal. The data is from 2013.
Contact
Maheswar Ghimire, Kathmandu, Nepal

Netherlands
Sources
› Land area and operators data: Eurostat database, Eurostat, Luxembourg.
› Market data: Bionext, Zeist, The Netherlands; the Bionext website, available at http://bionext.test.rithm.eu/documents/20182/60540/bionext_trendrapport_2015-juni_2016.pdf/ca5a2698-7955-41fd-aff5-2d56b282217c
› International trade data: Bionext, Zeist, The Netherlands. The data is from 2014.
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), Private Mail Bag, Suva Fiji, www.spc.int

New Zealand
Source
The AgriBusiness Group, Christchurch, New Zealand, www.agribusinessgroup.com.
Contact
Jon Manhire, the AgriBusiness Group, Christchurch, New Zealand, www.agribusinessgroup.com

Nicaragua
Source
Ministerio Agropecuarion y Forestal MAGFOR, Managua, Nicaragua, www.magfor.gob.ni
The data was supplemented with data from an international certifier.
Contact
Ministerio Agropecuarion y Forestal MAGFOR, Managua, Nicaragua, www.magfor.gob.ni

Niger
Certifier data.

Nigeria
Source
Association of Organic Agriculture Practicioners 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), Private Mail Bag, Suva Fiji, www.spc.int

Norway
Sources
- Land area and operator data: Eurostat database, Eurostat, Luxembourg
- Market data:: Norwegian Agricultural Authority SLF, Oslo, Norway

Contact
Alexandra Forbord, Statens landbruksforvaltning (SLF), Oslo, Norway

Oman
Source
Organic Plant Production and Agroeceosystems Research in the Tropics and Subtropics, Kassel University, Witzenhausen, Germany, www.uni-kassel.de/agrar/?language=en.
Contact
Prof. Dr. Andreas Bürkert, Organic Plant Production and Agroeceosystems Research in the Tropics and Subtropics Kassel University, Witzenhausen, Germany, www.uni-kassel.de/agrar/?language=en.

Pakistan
Data was provided by two international certifiers.

Palestine, State of
Certifier data. The number of producers were provided by the Mediterranean Organic Agriculture Network (MOAN), c/o IAM, Bari.

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, http://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), Private Mail Bag, 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 and export 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

- BCS, Nürnberg, Germany, www.bcs-oeko.de;
- Ceres, Happburg, Germany, www.ceres-cert.com;
- Control Union, Zwolle, The Netherlands, www.controlunion.org;
- Ecocert, L'Isle Jourdain, France, www.ecocert.com;
- Organic Certification Center of the Philippines OCCP (2009 data), Barangay Laging Handa, Quezon City, Philippines, www.occpphils.org.

Contact

- Tobias Fischer, 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.occpphils.org
- Daniel Suzalai, 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: Eurostat database, Luxemburg
- Market data: Fresh Plaza (2016): Poland: Organic market has great potential to grow. The Fresh Plaza website. PKO Bank Polski

Portugal

Source

- Organic land and operators: Eurostat database, Luxembourg
- Market data: INTERBIO (2011), http://www.interbio.pt

Contact

Catarina Crisostomo, Portugal

Puerto Rico

Certifier data.

Réunion

Source

Agence Bio, Montreuil sous Bois, France. Available at http://www.agencebio.org/la-bio-dans-les-regions

Contact

Nathalie Rison, Agence Bio, Montreuil-sous-Bois, France, www.agencebio.fr

Romania

Sources

- Organic area, land use, livestock and production: Eurostat database, Luxemburg.
- 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.
- Market data (from 2011): BCG-Global Advisors (2013) Romanian Organic Sector – Business Insight Booklet. Global Advisors, Bio-Romania Association, University of Bucharest. Bucharest 2012

Contact

- Iulia Grosulescu, Counsellor Organic Farming Office, Ministry of Agriculture and Rural Development, 24,Blvd Carol I, Bucharest Romania
- Marian Cioceanu, Asociatia Bio Romania, Str.Mihai Eminescu, București, Romania, http://www.bio-romania.org/contact/

Russian Federation

Source

The data was compiled by FiBL based on the data of the following international.

- ABCERT, Esslingen, Germany; www.abcert.de
- BCS, Nürnberg, Germany, www.bcs-oeko.de;
- 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.
- Istituto per la Certificazione Etica ed Ambientale (ICEA), Bologna. Italy, www.icea.info

Contact

- Mustafa Avci, General manager, ECOCERT IMO Denetim ve Belgelendirme Ltd. Sti, Izmir, Turkey
- Milena Belli, Istituto per la Certificazione Etica ed Ambientale (ICEA), Bologna. Italy, www.icea.info

- Tobias Fischer, BCS, Nürnberg, Germany, www.bcs-oeko.de
- Dr. Andrey Khodus, Eco-control Ltd., 141506 Solnechnogorsk, Russia, www.eco-control.ru
- Daniel Suzalai, Control Union, Zwolle, The Netherlands, www.controlunion.org
- Ulrike Zdralek, Bio.Inspecta, Frick, Switzerland, www.bio-inspecta.ch
- Weimin YU, Project Manager, Ecocert China, Beijing, China

Note

A direct year-to-year comparison over the years is not possible as not all certifiers provided 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), Private Mail Bag, Suva Fiji, www.spc.int

San Marino

Certifier data.

Sao Tome and Prince

Source

Ecocert West Africa, Ougadougou, Burkina Faso.

Contact

Aziz Yanogo, Ecocert West Africa, Ougadougou, Burkina Faso, www.ecocert.com

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 Aribia
- Mohamed Salih; Abdalla, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Riyadh, Saudi Arabia, www.giz.de

Senegal

Source

National Federation for Organic Agriculture, AGRECOL BP. 347 Thiès, Sénégal. Data from international certifiers was added.

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

- Area and operators data: Eurostat database, Eurostat, Luxembourg
- Export and import data: National Association Serbia Organica (2016): Organic Agriculture in Serbia at a glance 2017. National Association Serbia Organica, Belgrade, Serbia

Contact

- Ivana Simic, General secretary, National Association "Serbia Organica", Belgrade, Serbia; www.serbiaorganica.org
- Marie Reine Bteich, Mediterranean Agronomic Institute of Bari (IAMB), Valenzano, Italy

Sierra Leone

Certifier data.

Singapore

Two international certifiers reported a number of processors.

Slovakia

Sources

- Area, operators, livestock, and crop production: Eurostat database, Luxemburg
- Market data (2010): Ecozept, market research and marketing consulting agency. Freising, Germany.

Slovenia

Sources

- Area, operators, livestock, crop production: Eurostat database, Luxemburg
- Domestic market data (from 2103): 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

Solomon Islands

Source

Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int.

Contact
Karen Mapusua, Secretariat of the Pacific Community (SPC), Private Mail Bag, Suva Fiji, www.spc.int

Somalia
Certifier data: wild collection only.

South Africa
Source
The data were compiled by FiBL based on the data of the following international certifiers.
- BCS, Nürnberg, Germany, www.bcs-oeko.com
- Control Union, Zwolle, The Netherlands, www.controlunion.org
- Ecocert Southern Africa, Gardens Cape Town, www.ecocert.com
- IMO, Weinfelden, Switzerland, www.imo.ch
- 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
- Ruben Cortes, IMO, Weinfelden, Switzerland
- Tobias Fischer, BCS, Nürnberg, Source, BCS
- Clifyn Mckenzie, Ecocert Southern Africa, Gardens Cape Town
- Daniel Szalai, Control Union, Zwolle, The Netherland

Spain
Sources
- Area and land use, operators: Eurostat database, Luxembourg
- Wild collection data (2013) Ministerio de Agricultura, Alimentación y Medio Ambiente (2015): Agricultura ecologica-estadisticas 2013. MAGRAMA, Madrid, Spain
- Market and international trade data Ministerio de Agricultura, Alimentación y Medio Ambiente (2016) Identificación de políticas de apoyo al desarrollo de la producción ecológica en el sector lácteo español. MARM, Madrid

Contact
- Pedro López, Pro-Voc-Association, Madrid, Spain, www.provotec.es
- Gonzálvez Pérez, Victor, Spanish Society of Organic Agriculture SEAE, Catarroja (Valencia), Spain, www.agroecologia.net
- 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 Abdelrahim 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: Statistics Sweden SCB, Orebro, Sweden

Contact
- Johan Ceije, Krav, Uppsala, Sweden
- Lisa Allemo, Statistics Sweden SCB, Orebro, Sweden

Switzerland
Sources
- Land area and crop data: Federal Agency for Statistics (BfS), Neufchatel, Switzerland. Please note that compared with previous years the data source has changed and that a direct year-to-year comparison is not possible.
- Operators and market data: Bio Suisse, Basel, Switzerland, www.biosuisse.ch/de/bioinzahlen.php.

Contact
Helga Willer, FiBL, Frick, Switzerland

Syria
Source
Mediterranean Organic Agriculture Network MOAN c/o C.I.H.E.A.M; Bari; Italy. The data is from 2010.

Contact
Dr. Marie Reine Bteich, C.I.H.E.A.M. - Istituto Agronomico Mediterraneo di Bari, Italy, www.iamb.it

Notes
No separate figure for the number of producers was available; the figure communicated is that for all operators in the country.

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.

Tajikistan

Source
SAS - SUGDAGROSERV, 2 Baraka Boboeva, Khujand 735700, Tajikistan. (Data 2012). To these data, the data of one international certifier were added (2012).

Contact
Javohir Eshmatov, SAS - Sugdagroserv, 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

The data is based on the information of one international certifier.

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, Brünnlesweg 19, 77654 Offenburg, Germany

Contact
- Ruben Cortes, IMO, Weinfelden, Switzerland
- Nathalie Boes, CERTISYS, Brussels, Belgium
- Aziz Yanogo, Ecocert West Africa, Ougadougou, Burkina Faso

Note
A direct year-to-year comparison over the years is not possible as not all certifiers provided updates every year.

Tonga

Sources
Pacific Organic and Ethical Trade Community (POETCom), Suva Fiji, www.spc.int

Contact
Karen Mapusua, Secretariat of the Pacific Community (SPC), Private Mail Bag, 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 (2009): Estimate by Erdal Süngü, MoFAL, Ankara, Turkey

Contact
Erdal Süngü, Ministry of Food, Agriculture and Livestock (MoFAL), Ankara, Turkey, www.tarim.gov.tr.

Note
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. Data on the organic domestic market value are roughly estimated (2009 data).

Uganda

Source
National Organic Agricultural Movement of Uganda (NOGAMU), PO Box 70071, Clock Tower, Kampala, Uganda, www.nogamu.org.ug.

Contact
Hedwig Tushemerirwe, National Organic Agricultural Movement of Uganda (NOGAMU), PO Box 70071, Clock Tower, Kampala, Uganda, www.nogamu.org.ug.

Ukraine
Source
Organic Federation of Ukraine (OFU), Kyiv, Ukraine, www.organic.com.ua
Contact
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. The data is from 2014.
Contact
- Eng. Saif Mohamed Alshara, Ministry of Environment and Water, United Arab Emirates
- Fatima Obaid Saeed, Ministry of Environment and Water, United Arab Emirates
- Mohammad Al-Oun (PhD). Expert, 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 2016: Organic Market Report 2016. Bristol, United Kingdom

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 https://www.nass.usda.gov/Surveys/Guide_to_NASS_Surveys/Organic_Production/Organic_Certifiers/2016/USDA_Accredited_Certifying_Agent_Certified_Organic_Data_2014_2015.pdf
- Market data: Organic Trade Association 2016: Organic Industry Survey, Brattleboro VT 05301, USA, www.ota.com
- Export data: USDA provided by Barbara Haumann, OTA, Brattleboro VT 05301, www.ota.com. The data is from 2014. See also article by Barbara Haumann in this book.

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
Source
Certifier data (wild collection only). 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), Private Mail Bag, 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.
Contact
Nhung Tu Thi Tuyet, Vietnam Organic Agriculture Association, Hanoi, Vietnam

Zambia
Source
Ecocert South Africa, Gardens Cape Town, www.ecocertsouthafrica.com.
Contact
Clifyn Mckenzie, Ecocert Southern Africa, Gardens Cape Town, South Africa

Zimbabwe
Source
Ecocert South Africa, Gardens Cape Town, www.ecocertsouthafrica.com.
Contact
- Dominikus Collenberg, Organic Africa, Harare, Zimbabwe
- Clifyn Mckenzie, Ecocert Southern Africa, Gardens Cape Town

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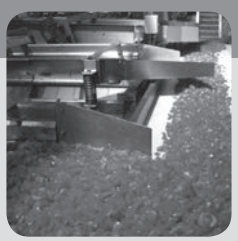

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- ☐ *Improved storage & processing* – tackling critical factors to enhance value
- ☐ *Certification & documentation* – procedures to ensure annual approval

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Organic agriculture is practiced in 179 countries, and 50.9 million hectares of agricultural land are managed organically by approximately 2.4 million farmers. The global sales of organic food and drink reached 81.6 billion US dollars in 2015, according to Organic Monitor.

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The book also contains information about the global market for organic food, information on standards and regulations, organic policy, and insights into current and emerging trends in organic agriculture in Africa, Asia, Europe, Latin America and the Caribbean, North America, and Oceania. In addition, the volume contains reports about the organic sector in Australia, Canada, Kenya, the Pacific Islands, and the United States of America and brief updates for various countries in Asia as well as Latin America and the Caribbean.

The book also includes an article about organic cotton from the Textile Exchange and a chapter on the organic and the Fairtrade markets.

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