FiBL AND IFOAM

THE WORLD OF ORGANIC AGRICULTURE

STATISTICS & EMERGING TRENDS 2010

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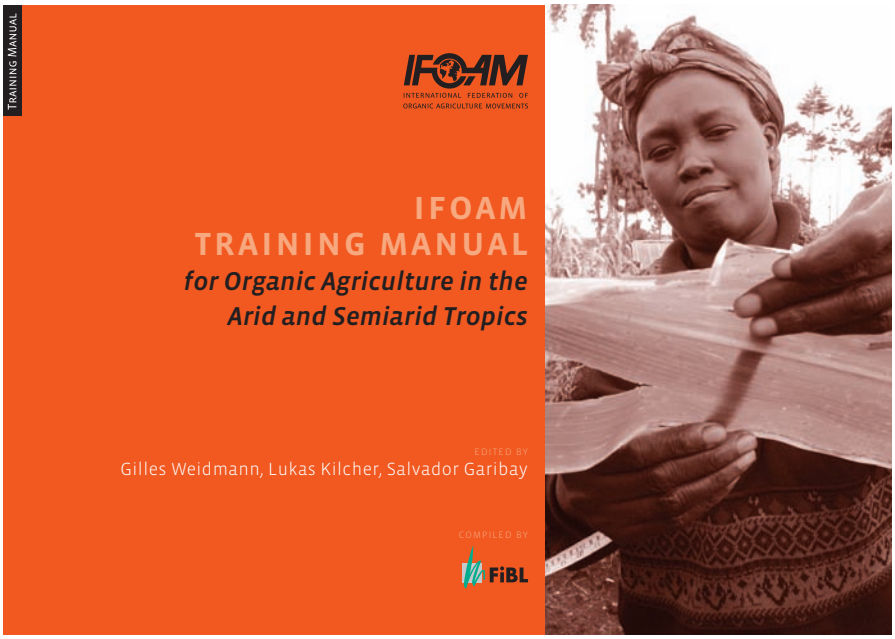

Commissioned by IFOAM, the International Federation of Organic Agriculture Movements, the Research Institute of Organic Agriculture FiBL and partners of the organic movement from tropical countries in Asia, Latin America and Africa have completed IFOAM training manuals.

The training manuals address both arid and semi-arid tropics and humid tropical climatic zones. They contain case studies of successful organic farming systems and organic marketing initiatives and offer guidelines for the main subsistence and cash crops of the tropics.

With informative text, transparencies and didactic recommendations, the Training Manuals provide an ideal resource for trainers that encourage individual adaptation and further development of the material based upon need.

The Training Manuals can be downloaded at the IFOAM and FiBL bookstores (www.ifoam.org and shop.fibl.org).

Further information related to training in organic agriculture is available at the IFOAM training platform at www.ifoam.org/training.

Training Manual for Organic Agriculture in the Humid Tropics 242 pages and 199 slides
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The World of Organic Agriculture

Statistics and Emerging Trends 2010

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Should corrections and updates become necessary, they will be published at www.organic-world.net.
Figures, graphs, statistics as well as selected chapters from this book are available for download at www.organic-world.net. Some of these are publicly accessible, others are password protected and have the username: 'organicworld' and the password 'organic2010'.

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Foreword

Data collection is a major concern of the Research Institute of Organic Agriculture (FiBL) and the International Federation of Organic Agriculture Movements (IFOAM). The comprehensive data provided in this publication serve as an important tool for stakeholders, policy makers, 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 crucially, for monitoring the impact of these activities.

With this edition, FiBL and IFOAM are presenting *The World of Organic Agriculture* for the eleventh time. The data and information compiled in this volume document the current statistics, recent developments and trends in global organic farming. The statistical information and all chapters have been updated. New additions include chapters on organic coffee & cotton and on carbon standards, along with a chapter on development and cooperation activities in the field of organic agriculture.

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.

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Furthermore we are happy to count on the continuous support of Nürnberg Messe, the organizers of the BioFach World Organic Trade Fair.

Bonn and Frick, February 2010

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Executive Director
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Urs Niggli
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Research Institute of Organic Agriculture (FiBL)
Frick, Switzerland

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- Hivos,
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Abbreviations

AMI: Agricultural Market Information Service (Agrarmarkt Informations-Gesellschaft), Bonn, Germany

APEDA: Agricultural & Processed Food Products Export Development Authority, India

AQIS: Australian Quarantine and Inspection Service, Canberra; Australia

CACC: Certification, Accreditation and Compliance Committee of the US National Organic Standards Board (NOSB)

CBTF: Capacity Building Task Force on Trade, Environment and Development of the United Nations Conference on Trade and Development (UNCTAD) and the United Nations Environment Programme (UNEP)

EOAM: East African Organic Mark

EAOPS: East African Organic Product Standard

EPOPA: Export Promotion of Organic Products from Africa

EquiTool: Guide for Assessing Equivalence of Standards and Technical Regulations, developed by ITF

EU: European Union

FAO: Food and Agriculture Organization of the United Nations, Rome, Italy

FiBL: Research Institute of Organic Agriculture, Switzerland

GOMA: Global Organic Market Access project of FAO, IFOAM and UNCTAD

GTZ: German Society for Technical Cooperation and Development, Germany

IAASTD: International Assessment of Agricultural Knowledge, Science and Technology for Development

IAMB: Mediterranean Agronomic Institute of Bari, Italy

ICROFS: International Center for Research in Organic Food Systems, Denmark

IFAD: International Fund for Agricultural Development

IFOAM: International Federation of Organic Agriculture Movements, Bonn, Germany

IFPRI: International Food Policy Research Institute

IOAS: International Organic Accreditation Service

IROCB: International Requirements for Organic Certification Bodies of the ITF

ITF International Task Force on Harmonization and Equivalence in Organic Agriculture

ITC: International Trade Centre, Geneva, Switzerland

JAS: Japan Agricultural Standard

KEBS: Kenya Bureau of Standards

MOAN: Mediterranean Organic Agriculture Network, Italy

NOGAMU: National Organic Agricultural Movement of Uganda

Norad: Norwegian Agency for Development Cooperation

NOSB: US National Organic Standards Board

NGO: Non-governmental organization

NOP: National Organic Program of the United States

ORCA: Organic Research Centres Alliance, c/o FAO, Rome, Italy

OTA: Organic Trade Association, USA

SECO: Swiss State Secretariat for Economic Affairs

SIDA: Swedish International Development Cooperation Agency

SME: Small and Medium-sized Enterprises

UNCTAD: United Nations Conference on Trade and Development

UNEP: United Nations Environment Programme

UNESCO: United Nations Educational, Scientific and Cultural Organization

USDA: United States Department of Agriculture

WTO: World Trade Organization

ZMP: Central Market and Price Report Office, Germany

The World of Organic Agriculture 2010: a summary

Helga Willer[1]

Recent statistics

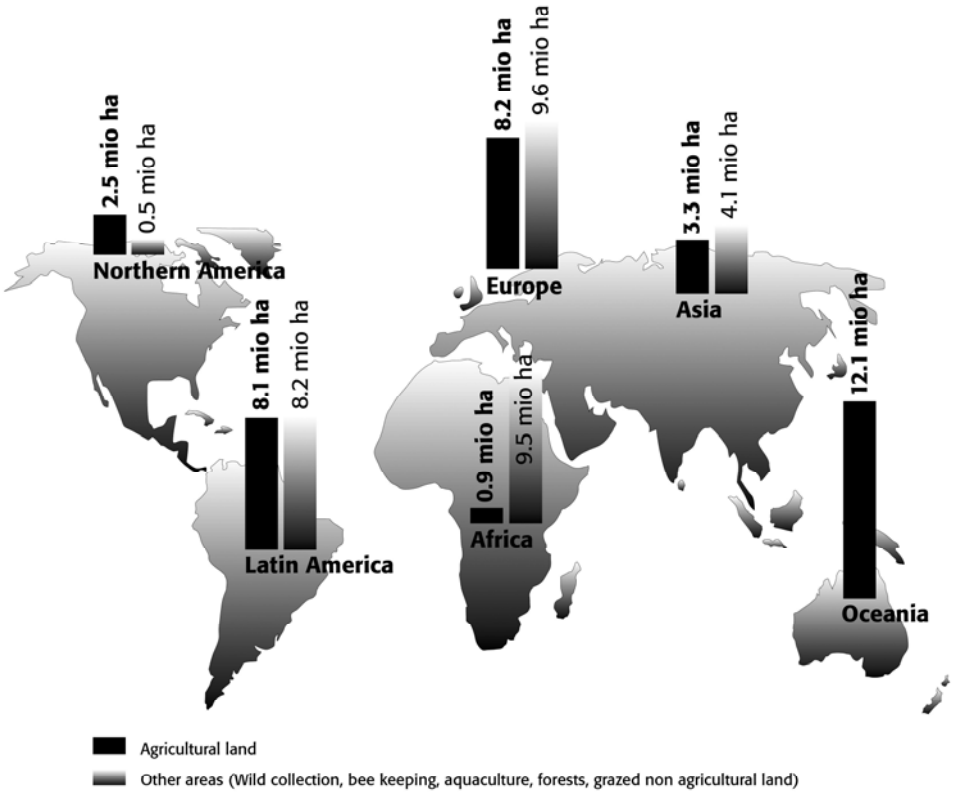
Organic agriculture is developing rapidly, and statistical information is now available from 154 countries of the world. Its share of agricultural land and farms continues to grow in many countries.

The main results of the latest global survey on certified organic farming[2] show (data from 2008; see also page 28):

- 35 million hectares of agricultural land are managed organically by almost 1.4 million producers.
- The regions with the largest areas of organically managed agricultural land are Oceania (12.1 million hectares), Europe (8.2 million hectares) and Latin America (8.1 million hectares). The countries with the most organic agricultural land are Australia, Argentina and China.
- The highest shares of organically managed agricultural land are in the Falkland Islands (36.9 percent), Liechtenstein (29.8 percent) and Austria (15.9 percent).
- The countries with the highest numbers of producers are India (340'000 producers), Uganda (180'000) and Mexico (130'000). More than one third of organic producers are in Africa.
- On a global level, the organic agricultural land area increased in all regions, in total by almost three million hectares, or nine percent, compared to the data from 2007. Twenty-six percent (or 1.65 million hectares) more land under organic management was reported for Latin America, mainly due to strong growth in Argentina. In Europe the organic land increased by more than half a million hectares, in Asia by 0.4 million.
- About one-third of the world's organically managed agricultural land – 12 million hectares – is located in developing countries. Most of this land is in Latin America, with Asia and Africa in second and third place. The countries with the largest area under organic management are Argentina, China and Brazil.
- 31 million hectares are organic wild collection areas and land for bee keeping. The majority of this land is in developing countries – in stark contrast to agricultural land, of which two-thirds is in developed countries. Further organic areas include aquaculture areas (0.43 million hectares), forest (0.01 million hectares) and grazed non-agricultural land (0.32 million hectares).
  Almost two-thirds of the agricultural land under organic management is grassland (22 million hectares). The cropped area (arable land and permanent crops) constitutes 8.2 million hectares, (up 10.4 percent from 2007), which represents a quarter of the organic agricultural land.

[1] Dr. Helga Willer, Communication, Research Institute of Organic Agriculture (FiBL), Ackerstrasse, 5070 Frick, Internet www.fibl.org

[2] The term 'organically managed land' etc. refers to certified organic agriculture and includes both the certified in-conversion areas and the certified fully converted areas.



Map 1: Organic agricultural land and other organic areas in 2008

Source: FiBL/IFOAM Survey

Global market

According to Organic Monitor estimates, global sales reached 50.9 billion US dollars in 2008, doubling in value from 25 billion US dollars in 2003. Consumer demand for organic products is concentrated in North America and Europe; these two regions comprise 97 percent of global revenues. Asia, Latin America and Australasia are important producers and exporters of organic foods. The financial crisis has had a negative impact on the global market for organic products; however, preliminary research finds that growth continued in 2009 in spite of the poor economic climate. (See article by Amarjit Sahota, page 54).

Africa

In Africa, there are almost than 900'000 hectares of certified organic agricultural land. This constitutes about 2.5 percent of the world's organic agricultural land. 470'000 producers were reported. The countries with the most organic land are Uganda (212'304 hectares), Tunisia (174'725 hectares), and Ethiopia (99'944 hectares). The highest shares of organic land are in Sao Tome and Prince (5 percent), Tunisia (1.8 percent), and Uganda (1.7 per-

cent). The majority of certified organic produce in Africa is destined for export markets. The European Union, as the major recipient of these exports, is Africa's largest market for agricultural produce. Tunisia, which was accepted under the EU's Third Country List in 2009, has an organic regulation. The first African Organic Conference, held in Kampala, Uganda, from May 19-22, 2009, had a number of important outcomes: The Network for Organic Agriculture Research in Africa (NORA) was launched, and plans for forming an African Organic Network (AFRONET) were further developed. (See article by Hervé Bouagnimbeck, page 104).

Asia

The total organic agricultural area in Asia is nearly 3.3 million hectares. This constitutes nine percent of the world's organic agricultural land. 400'000 producers were reported. The leading countries by area are China (1.9 million hectares) and India (1 million hectares). Timor Leste has the most organic agricultural area as a proportion of total agricultural land (seven percent). Organic wild collection areas play a major role in India and China, while Aquaculture is important in China, Bangladesh and Thailand. Even though most of the production is for export, markets continue to support domestic growth in the region. A diversity of market channels are thriving, including ad hoc organic bazaars, small retail outlets, supermarket corners, multi-level direct selling, and internet marketing. Mixtures of regulatory frameworks co-exist in the region. Voluntary organic standards by government standard-setting bodies have been set in Laos, Malaysia, Nepal, Thailand, the United Arab Emirates, and Vietnam. Standards are being drafted in Bhutan and Sri Lanka. Mandatory certification for organic labeling on the domestic market is required for China, Japan, Philippines, South Korea, and Taiwan. Policy makers have begun to integrate organic agriculture into sustainable agriculture development initiatives; as the positive impacts of organic agriculture on local communities and economies, climate change and the carbon footprint of agriculture are increasingly recognized. (See article by Ong Kung Wai, page 120).

Europe

As of the end of 2008, 8.2 million hectares in Europe were managed organically by more than 220'000 farms. In the European Union, 7.5 million hectares were under organic management, with almost 200'000 organic farms. 1.7 percent of the European agricultural area and 4.3 percent of the agricultural area in the European Union is organic. Twenty-three percent of the world's organic land is in Europe. The countries with the largest organic agricultural area are Spain (1.1 million hectares), Italy (1 million hectares) and Germany (0.9 million hectares). There are four countries now in Europe with more than 10 percent organic agricultural land: Liechtenstein (29.8 percent), Austria (15.9 percent), Switzerland (11.1 percent), and Sweden (10.8 percent). Compared to 2007, organic land increased by more than 0.5 million hectares. Sales of organic products were approximately 18'000 million Euros in 2008. The largest market for organic products in 2008 was Germany with a turnover of 5'850 million Euros, followed by France (2'951 million Euros) and the UK (2'494 million Euros). As a portion of the total market share, the highest levels have been reached in Denmark, Austria and Switzerland, with approximately five percent or more for organic products. The highest per capita spending is also in these countries. Support for organic farming in the European Union and neighboring countries includes grants under rural development programs, legal protection, and a European as well as national action plans. One of the key instruments of the European Action Plan on organic food and farming, an information campaign, was launched during 2008, with the aim of increasing

awareness of organic farming throughout the European Union. Furthermore, most EU member states have national action plans. (See articles by Helga Willer and Diana Schaack, page 136).

Mediterranean countries

In the Mediterranean region, which belongs to Europe, Africa and Asia, organic agriculture has managed to attract the attention of local governments and economic operators and also to find space in discussion platforms and official strategy papers. In 2008, organic agriculture provided work for more than 143'000 operators in the Mediterranean and covered an area of about five million hectares, of which approximately 1.3 million hectares were wild collection and forests, the latter mainly concentrated in the Eastern Adriatic and some South Eastern Mediterranean countries. These figures almost doubled since 2001, and organic agricultural land continues to increase. (See article by Lina Al Bitar, Marie Reine Bteich and Patrizia Pugliese, page 152).

Latin America

In Latin America, 260'000 producers managed 8.1 million hectares of agricultural land organically in 2008. This constitutes 23 percent of the world's organic land. The leading countries are Argentina (4 million hectares), Brazil (1.8 million hectares), and Uruguay (930'965 hectares). The highest shares of organic agricultural land are in the Dominican Republic and Uruguay with more than six percent and in Argentina with three percent. Most organic products from Latin American countries (90 percent) are sold on the European, North American or Japanese markets. Popular goods are especially those that cannot be produced in these regions, as well as off-season products. Thus, the development of robust local markets is still a major challenge, without which the sustainability of organic production cannot be achieved. Important crops are tropical fruits, grains and cereals, coffee, cocoa, sugar, and meats. Most organic food sales in the domestic markets of the countries occur in major cities, such as Buenos Aires and São Paulo. Eighteen countries have legislation on organic farming, and three additional countries are currently developing organic regulations. Costa Rica and Argentina have both attained Third Country status according to the EU regulation on organic farming. The types of support in Latin American countries range from organic agriculture promotion programs to market access support by export agencies. In a few countries, limited financial support is being given to pay certification costs during the conversion period. An important process underway in many Latin America countries is the establishment of regulations and standards for the organic sector. (See chapter on Latin America by Salvador Garibay and Roberto Ugas, page 160).

North America

In North America, almost 2.5 million hectares are managed organically, representing approximately 0.6 percent of the total agricultural area. Currently the number of farms is 14'062. The major part of the organic land is in the U.S. (1.8 million hectares in 2008). Seven percent of the world's organic agricultural land is in North America. Despite tough economic times, U.S. sales of organic products, both food and non-food, reached 24.6 billion US dollars by the end of 2008, growing an impressive 17.1 percent over 2007 sales, according to the Organic Trade Association's 2009 Organic Industry Survey. Results show organic food sales grew by 15.8 percent in 2008 to reach 22.9 billion US dollars. Organic food sales now account for approximately 3.5 percent of all food product sales in the United

States. OTA in Canada calculated that domestic sales reached two billion Canadian dollars in 2008.

2009 was a momentous year for the organic sector in Canada: on June 30, 2009, the Canada Organic Regime was established. It includes mandatory national standards, consistent labelling rules and a new national logo. In June 2009 an equivalency between the Canadian Organic Regime and the U.S. National Organic Program, effective July 1, 2009, was reached. The world's first fully reciprocal agreement between regulated organic systems garnered international media attention. (See articles by Barbara Haumann, page 184; and Matthew Holmes and Anne Macey, page 193).

Oceania

This region includes Australia, New Zealand, and island states like Fiji, Papua New Guinea, Tonga and Vanuatu. Altogether, there are 7'749 producers, managing more than 12.1 million hectares. This constitutes 2.8 percent of the agricultural land in the area and 35 percent of the world's organic land. Ninety-nine percent of the organically managed land in the region is in Australia (12 million hectares, 97 percent of which is extensive grazing land), followed by New Zealand (100'000 hectares), and Vanuatu (8'996 hectares). The highest shares of all agricultural land are in Vanuatu (6.1 percent), the Solomon Islands (4.3 percent), and Australia (2.8 percent). Growth in the organic industry in Australia, New Zealand and the Pacific Islands has been strongly influenced by rapidly growing overseas demand; domestic markets are, however, also growing. The biggest change in the Australian domestic market over 2009 was that the Australian Standard for Organic and Biodynamic Products was adopted and published by Standards Australia. In New Zealand, a National Organic Standard was launched in 2003. In the past, government support for organic agriculture in Australia was restricted to some support for export standards, certification and some research. In 2009, the Primary Industries Ministerial Council made a statement that the state and territories' governments should recognize the increasing importance of organic agriculture in the Australian environment and national economy, while acknowledging the key role of the Organic Federation of Australia as the peak body in unifying the Australian organic sector. In New Zealand, through the establishment of the sector umbrella organization Organics Aotearoa New Zealand, and through the New Zealand Organic Sector Strategy as well as other initiatives, there is political recognition of the benefits of organic agriculture. (See chapters on Australia and New Zealand by Els Wynen, page 200; and Seager Mason, page 203).

Coffee and cotton

This year's edition of *The World of Organic Agriculture* includes contributions with detailed analyses of two important organic crops: coffee and cotton.

In the world's largest organic market, the U.S., coffee is the single most valuable imported organic product. Latin America provides three-fourths of the total organic coffee supply. In 2008, overall certified organic exports grew to almost 100'000 tons (green beans), almost half of this being exported to Europe and 41 percent to North America. Organic exports represent two percent of the global exports of green coffee. (See article by Daniele Giovannucci and Joost Pierrot, page 62).

Organic cotton is grown in 22 countries, and production reached 175'113 Metric Tons of fiber for the growing season 2008/2009. However, a sharp fall in demand due to the global

recession, coupled with organic cotton's rapid internal growth, has hit hard. Even though new consumer markets are emerging, and established markets like the U.K. continue to show strong demand, the organic cotton sector must meet several internal and external challenges in the coming months and years. (See article by Simon Ferrigno, page 67).

Standards and regulations

2009 witnessed several major developments in the field of standards and regulations. The new EU regulation on organic production came into force as well as the Canadian organic standard. Furthermore, the Australian domestic organic standard was implemented. Canada and the U.S. concluded the world's first fully reciprocal agreement between regulated organic systems, and the EU introduced procedures for approving certification bodies from outside the EU. It is expected that these developments will ease trade in organic products and foster the future growth of the sector. The number of countries with organic standards has increased to 73, and there are 16 countries that are in the process of drafting a legislation. (See article by Beate Huber et al. page 59).

In 2009, FAO, IFOAM and UNCTAD started the Global Organic Market Access (GOMA) project. The aim of GOMA is to facilitate equivalence, harmonization and other types of cooperation in order to simplify the process for trade flow of products among the various organic guarantee systems. (See article by Sophia Twarog, page 80).

There has been modest growth in the number of certification bodies. The total is 488, up from 481 in 2008. Most certification bodies are in the European Union, the United States, Japan, South Korea, China, Canada, and Brazil. (See article by Gunnar Rundgren, page 82). A growing number of organic producers are certified through Participatory Guarantee Systems (PGS) across the world. PGS are locally focused quality assurance systems. It is estimated that around 10'000 small operators are involved in PGS world-wide. The leading countries with regards to PGS are located in the global South. (More information is available in the article by Joelle Katto-Andrighetto, page 85).

Several organic standard setters have also developed draft standards for climate "add-ons" for organic certification, and Alexander Kasterine expects that the use of carbon labeling by retailers will grow considerably in the future (see page 87).

Organic farming and development support

Both private and public development initiatives have contributed considerably in the last 25 years to the growth of the organic sector in many countries of the world. Activities have related to, for instance, building up the capacities of different stakeholder groups in the organic sector, developing domestic and international markets, and developing local standards and legislations. Lukas Kilcher and Felicia Echeverria present an overview of some of the major players and initiatives (page 92). One of these is the proposed Organic Research Centres Alliance (ORCA), hosted by FAO, which intends to internationally network and strengthen existing institutions with scientific credentials and empower them to become centers of excellence in transdisciplinary organic agriculture research. Hans-Peter Egler, from the Swiss State Secretariat for Economic Affairs (SECO), says that international trade as an engine for growth can substantially contribute to poverty reduction in developing countries; and SECO supports organic farming in developing countries with a number of measures (page 97). The Trade, Climate Change and Environment Programme of the International Trade Centre (ITC) supports the organic sector through the provision of market

information, training in standards compliance, and trade promotion; by supporting policies favorable to organic agriculture and trade; and by facilitating business contacts - Alexander Kasterine reports on page 99. Asad Naqvi and Faiza Kaukab report on the successful online training course of the Capacity Building Task Force of UNEP and UNCTAD, which took place in the autumn of 2009 - and will be held again in 2010. The participants included policymakers, researchers, farmers, organic traders, students, NGOs working with farmers, extension workers, agriculture and export advisors (page 101).

Developments within IFOAM

There are promising and innovative ideas for the development of IFOAM, reports IFOAM's executive director Markus Arbenz (page 210). These ideas include offering new services that develop the organic sector and make sure that the term 'organic' belongs to the organic movement. The strategy foresees five pillars, including the 'Organic Umbrella' (to unite the organic world through membership), 'Organic Advocacy' (fight for the recognition of the contribution of Organic Agriculture to the global challenges), 'Organic Value Chain' (secure organic from field to fork), 'Organic Programs' (close the urgent gaps), and IFOAM Academy (capacity building for organic stakeholders).

Current Statistics

Organic Agriculture World-wide: Current Statistics

HELGA WILLER[1]

For the eleventh survey on organic agriculture world-wide, carried out by FiBL and IFOAM, data on organic agriculture were available for 154 countries (most data end 2008). Thus, the survey covered approximately 70 percent of all countries (see Table 1). This constitutes an increase of 13 countries compared with the 2009 survey, when data were available for a total of 141 countries (data end 2007; Willer/Kilcher 2009). From the following countries data were received for the first time: Burundi, Comoros, Falkland Islands, French Guiana, Guadeloupe, Martinique, Lesotho, Oman, Réunion, Sierra Leone, Somalia, Tajikistan and Zimbabwe. Updated data were available for 122 countries; however, for some countries, updates were only available for the total organic area, not for number of farms or land use. In such cases, data of the previous survey were used.

In this publication the results on the organic area (and conversion status) as well as the number of farms are presented. Further data collected include market and production data, like domestic sales or exports and imports; some of these are published in this volume.

Table 1: Countries covered by the global organic survey 2010 (Data per 31.12.2008)

	Countries with data on organic agriculture	Countries per region*	Share of countries that provided data (%)
Africa	39	57	67
Asia	36	49	73
Europe	42	45	96
South & Central America, Caribbean	27	45	60
North America	2	5	40
Oceania	8	13	62
World	154	214	72

Source: FiBL/IFOAM survey 2010. *Countries as listed at the FAOSTAT homepage.

The survey is co-funded by the Swiss State Secretariat of Economic Affairs (SECO) and the International Trade Centre (ITC). NürnbergMesse, the organizer of BioFach, has supported the survey since 2000.

In the framework of the SECO/ITC project on data collection world-wide (2008-2012) a number of tasks were carried out in 2009: The database was improved to include more variables (with the support of flexinfo, Frick, Switzerland), the existing classification for land use and crop data was expanded, a classification for manufactured products was developed, support was given to some developing countries for their data collection, and a study on the availability of data and on data collection systems world-wide was carried out (see page 45). Furthermore the website www.organic-world.net was set up, and a number of slide presentations were prepared.

[1] Dr. Helga Willer, Research Institute of Organic Agriculture (FiBL), Ackerstrasse, 5070 Frick, Switzerland, www.fibl.org

Presentation of the statistics

The statistics compiled from the survey can be found at various places in this book.

This chapter is on the current statistics, and it presents the following information:

In the regional chapters of this book, the following results of the global organic survey are available:

- Land by country (hectares and percentage of total);
- Number of producers by country;
- Land use.

In the **annex**, the following results of the global survey on organic farming are presented in an alphabetic country list (page 214):

- Land under organic agricultural management, share of organic of agricultural land and numbers of producers;
- Land under agricultural management, share of organic of agricultural land, farms, sorted by level of adoption;
- Information on data providers and data sources.

At the **Organic-World homepage** (www.organic-world.net), the following information can be downloaded, some of it at the internal area of the site (under statistics, username 'organicworld', password 'organic2010').

- Any corrections, data revisions and updates;
- Country list with land use and crop details;
- All tables presented in this book and in addition tables with data from previous years (to be expanded in the coming years).

Contact

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- Hervé Bouagnimbeck, IFOAM, Bonn, for sub-Saharan Africa, h.bouagnimbeck@ifoam.org.
- Helga Willer, FiBL, Frick, helga.willer@fibl.org.

Key data

For the 2010 survey on organic agriculture world-wide, basic data (number of organic farms and land under organic management) were received from 154 countries.

Almost 35 million hectares of agricultural land were managed organically in 2008. This constitutes 0.8 percent of the agricultural land of the countries covered by the survey.

The regions with the most organically managed agricultural land are Oceania, Europe and Latin America.

Australia, Argentina and China are the countries with the largest organically managed agricultural areas.

Compared with the previous year, the organic area increased in all geographical regions – in total by almost 3 million hectares.

The highest shares of organically managed land of the total agricultural land are in the Falkland Islands, Liechtenstein and Austria.

There are almost 1.4 million producers. More than two-thirds of the world's organic producers are in Africa. The countries with the highest numbers of producers are India, Uganda, and Mexico.

If further areas that are under organic certification are added to the organic agricultural land (35 million hectares), the total area amounts to almost 67 million hectares (see Table 2). These additional areas include: aquaculture areas (0.43 million hectares), forest (0.01 million hectares), grazed non-agricultural land (0.32 million hectares), wild collection (25.3 million hectares), and areas for bee keeping (5.8 million hectares).

Table 2: Total areas (hectares) with organic certification and organic producers by geographical region 2008

Region	Agricultural land [ha]	Aquaculture [ha]	Forest [ha]	Grazed non agricultural land [ha]	Wild collection [ha]	Bee keeping [ha]	Total area [ha]	Producers
Africa	880'898		185		4'325'045	5'141'506	10'347'635	471'377
Asia	3'293'945	424'917	–-	6'000	3'617'627	–	7'342'490	404'733
Europe	8'176'075		13'934	87'465	9'486'386	–	17'763'8602	222'513
Latin America	8'065'890	3'478	777	15'000	7'518'469	676'447	16'280'060	257'938
Northern America	2'449'641	–	–	217'014	309'838	–	2'976'493	14'062
Oceania	12'140'107	–	–	-	50	4	12'140'161	7'749
Total	35'006'557	428'395	14'896	325'479	25'257'415	5'817'957	66'850'699	1'378'372

'– ': No data
Source: FiBL/IFOAM survey

Organic agricultural land by region and country

Distribution of organic agricultural land by geographical region

The region with the most organic agricultural land is Oceania, with 12.14 million hectares, followed by Europe with almost 8.2 million hectares, Latin America (almost 8.1 million hectares), Asia (3.3 million hectares), North America (2.45 million hectares), and Africa (almost 0.9 million hectares).

Oceania has more than one-third of the global organic agricultural land, but its relative importance is decreasing. Europe, a region which has had a very constant growth of organic land over the years, has almost one quarter of the world's organically managed land. The share of Latin America is slightly lower than that of Europe; here major growth took place in 2008.

The ten countries with the most organic agricultural land

Australia is the country with the most organically managed land, 97 percent of which is extensive grazing area. Argentina is second, followed by China in third place. The ten countries with the most organically managed land have a combined total of 26.5 million hectares, constituting three quarters of the world's organically managed agricultural land.

Table 3: Organic agricultural land and shares of total agricultural land 2008 (including in-conversion areas)

Region	Organic agricultural land [ha]	Share of total agricultural land
Africa	880'898	0.09%
Asia	3'293'945	0.23%
Europe	8'176'075	1.72%
Latin America	8'065'890	1.30%
Oceania	12'140'107	2.76%
Northern America	2'449'641	0.63%
Total	35'006'557	0.81%

Source: FiBL/IFOAM survey
Notes: **Agricultural land**: Includes in-conversion areas. Excludes wild collection, aquaculture, forest, grazed non-agricultural land; **Shares of total agricultural land**: Only of the countries that are included in the survey.

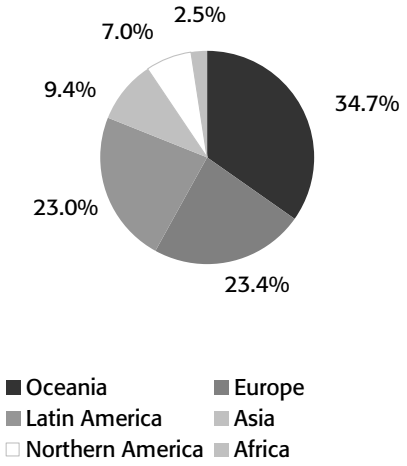

Figure 1: Distribution of the organic agricultural land by geographical region in 2008

Source: FiBL/IFOAM survey

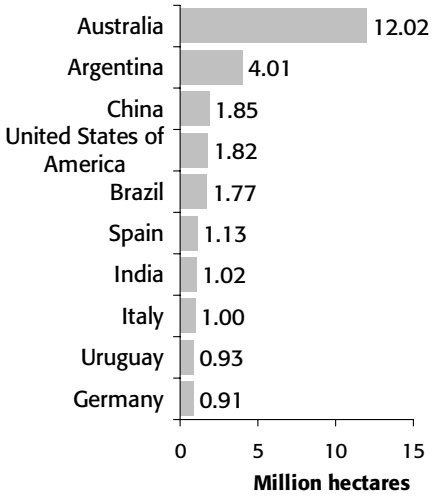

Figure 2: The ten countries with the largest areas of agricultural land under organic management in 2008

Source: FiBL/IFOAM survey
Australia and Brazil: data 2007; Uruguay data 2006
The data for Argentina, the U.S. und Uruguay do not include in-conversion areas. For a full list of organically managed land by country, see annex page 214.

Data on the conversion status of the agricultural land

Data provided on the conversion status were processed for this work. However, some countries provided only data on the fully converted area, others only on the total organically managed agricultural land, and thus the conversion area is not known for many countries (for instance the U.S., Argentina, Chile and Uruguay). The area in conversion shows what extent of the future supply of the organic market can be expected. Details on the conversion status of the organically managed land are available at www.organic-world.net.

Shares of organically managed agricultural land by region and country

The share or organically managed land as a proportion of all agricultural land is highest in Oceania (2.8 percent), followed by Europe with 1.7 percent and Latin America with 1.3 percent. In the 27 countries of the European Union, the share of organically managed land is more than four percent. In all other regions, the share of organically managed land is less than one percent (see Table 3). Many countries exhibit much higher percentages, and six countries have even reached shares of more than ten percent of the agricultural land, most of these in Europe.[1,2] The country with the highest share are now the Falkland Islands, (which is included in the global survey on organic agriculture for the first time), where several large sheep farms are working organically. It is interesting to note that many island states have high shares. However, 70 percent of the 154 countries for which data are available have less than one percent organic agricultural land.

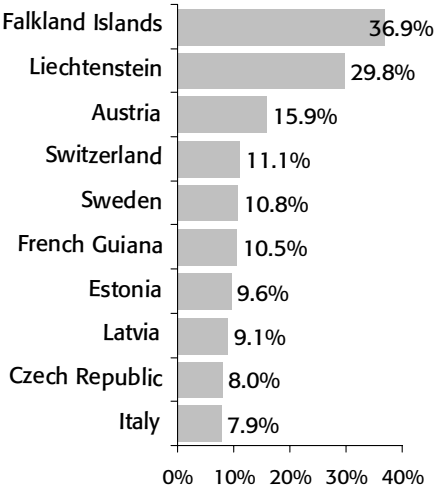

Figure 3: The ten countries with the highest shares of organic agricultural land 2008

Source: FiBL/IFOAM survey
For a full list of all countries and their shares of the organic land of the total agricultural area see annex.

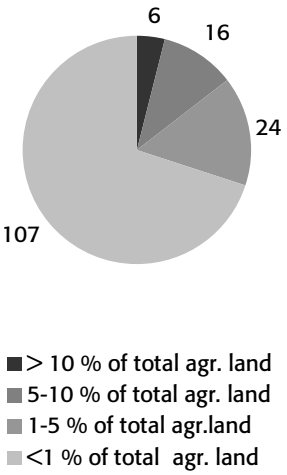

Figure 4: Distribution of the shares of organic agricultural land (Number of countries)

Source: FiBL/IFOAM survey

[1] In the annex, a table with all countries sorted by share of organically managed land is available.
[2] In order to calculate the percentages, the data for most countries were taken from the FAO Statistical database FAOSTAT*(as of 2007). For the European Union, most data (as of 2007) were taken from Eurostat.** Where available, data for total agricultural land from ministries was employed (for instance U.S., Switzerland, and Austria), which sometimes differ considerably from those published by Eurostat or FAOSTAT. Please note that in some cases the calculation of the shares of organically managed land, based on the Eurostat and FAOSTAT data, might differ from the organic shares obtained from ministries or local experts.
*FAOSTAT, Data Archives, the FAO Homepage, FAO, Rome at faostat.fao.org > Resources > Resourcestat at http://faostat.fao.org/site/377/default.aspx#ancor
**Eurostat: Basic data – key agricultural statistics at http://ec.europa.eu/agriculture/agrista/2007/table_en/2012.pdf, The Eurostat Homepage, Eurostat, Luxembourg

Growth of the organic land

Compared with the revised data[1] of the previous survey (Willer et al. 2009), the organically managed land area increased by almost three million hectares, or by nine percent. The organic agricultural land increased in all geographical regions. Ninety-seven countries (including those that provided data for the first time) showed an increase in their agricultural land. A decrease was reported from 23 countries.

The highest growth during 2008 was in Latin America (+ 26 percent), with more than one million hectares, resulting from the fact that there was a substantial growth in Argentina (more than 1 million hectares) and that, for the first time, data for the Falkland Islands were received. In both countries, extensive sheep farming is of major importance.

In Europe, the organically managed land area increased by more than 0.5 million hectares.

In Asia, the organic land increased by 0.4 million hectares, partly due to the fact that for this survey, the data from five foreign certifiers in China were included.

Growth in North America was 11 percent, also due to the fact that the 2008 data from the U.S. can currently only be compared to those from 2005. Even though in the United States the agricultural land increased less than one would have expected, it should be noted that the increase in organic cropland was high.

Growth in Africa was not very high, mainly because both in Ethiopia and in Uganda large areas ceased to be certified. In most other African countries, the organic land area continued to grow. This growth can partly be explained by better access to the data of the international certifiers.

Table 4: Organically managed agricultural land by geographical region: growth from 2007 to 2008

Region	Organic agricultural land [ha] 2007	Organic agricultural land [ha] 2008	Increase 2007/2008 [ha]	+/- percent
Africa	875'370	880'898	+5'528	0.6 %
Asia	2'890'243	3'293'945	+403'703	14.0 %
Europe	7'627'825	8'176'075	+548'250	7.2 %
Latin America	6'414'709	8'065'890	+1'651'181	25.7 %
Northern America	2'197'042	2'449'641	+252'599	11.5 %
Oceania	12'110'758	12'140'107	+29'349	0.2 %
Total	32'115'947	35'006'557	+2'890'610	9.0 %

Source: FiBL/IFOAM Surveys 2009 and 2010.
2007 data for North America include 2005 data for the United States.

Compared with the first organic survey in 2000, conducted by the Foundation for Ecology and Agriculture (SOEL), the organically managed area has increased considerably. At present, FiBL is in the process of analyzing data that have become available in retrospect. Pre-

[1] For details on data revision, see www.organic-world.net/revisions.html

liminary results suggest that the organically managed area world-wide has tripled since 1999 (Figure 5).

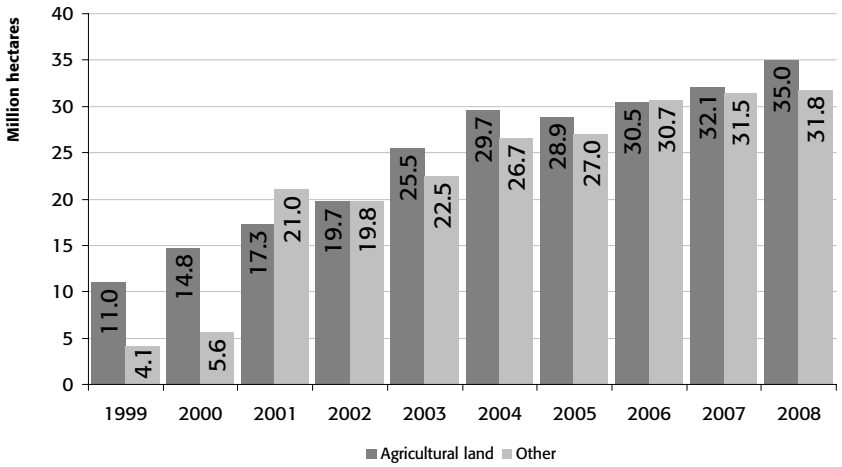

Figure 5: Development of organic agricultural land and further certified areas (aquaculture, forest, wild collection areas/bee keeping 1999-2008)

The differences compared with the data published previously are due to data updates and revisions; this is an ongoing process.
Source: FiBL, SOEL, and IFOAM Surveys 2000-2010.

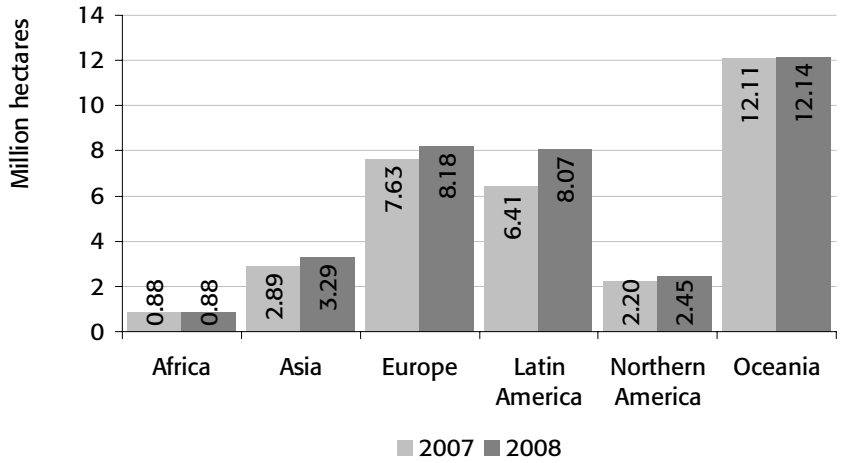

Figure 6: Development of organic agricultural land from 2007 – 2008 by geographical region

The differences compared with the published data are due to data updates and revisions; this is an ongoing process. Non-agricultural land is not included in this graph.
Source: FiBL and IFOAM Surveys 2009 and 2010

Organic producers and other operator types

For the current survey, a total of 1'378'372 organic producers was reported. Most of the organic producers are in developing countries. According to the data obtained, more than one-third of the producers are located in Africa, followed by Asia, Latin America and Europe (see Figure 7). The country with the most producers is India, followed by Uganda and Mexico (see Figure 8).

To find precise figures on the number organic farmers remains difficult, as some countries report the number of smallholders, while others only provide the numbers of companies, projects or grower groups, which may each comprise a number of producers. The total number of organic producers is probably higher than reported here.

Some countries provide the number of producers per crop, and there may be overlaps because of growers who grow several crops. The global number of organic producers should consequently be cited with caution. FiBL and IFOAM also collected data on further operator types like processors, importers and traders, smallholder groups, etc. At a global level, these data are still incomplete and are, therefore, not published at present. FiBL and IFOAM will continue to work on this issue.

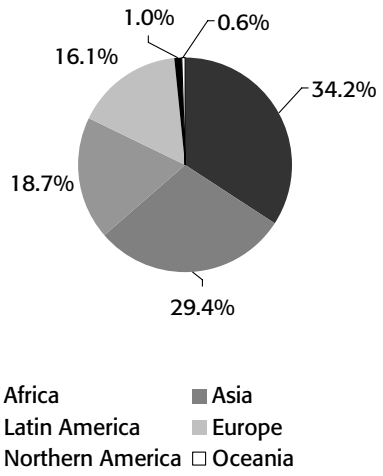

Figure 7: The distribution of organic producers by geographical region 2008

Total: 1.38 million producers
Source: FiBL/IFOAM survey

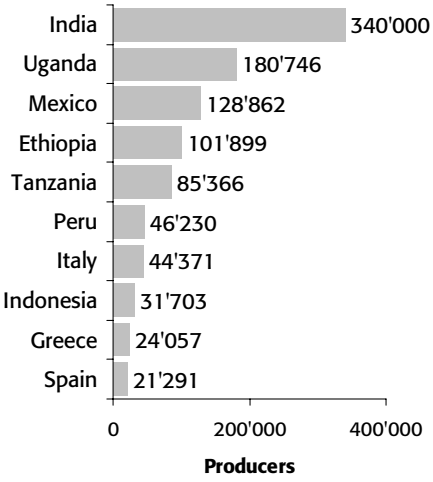

Figure 8: The countries with the highest numbers of organic producers 2008

Total:1.38 million producers
Source: FiBL/IFOAM survey

Land use and crop data

Almost two-thirds of the organically managed agricultural land of 35 million hectares in 2008 was grassland (22 million hectares). The cropland area (arable land and permanent crops) constitutes 8.2 million hectares and thus almost a quarter of the organically managed agricultural land. The cropland area is probably much higher, as for some countries with large organic agricultural areas, (e.g., Brazil, India, and Canada), details on land use are not available.[1] General land use details were available for almost 90 percent of the organically managed area, which does, however, not mean that detailed crop information is available for all areas.[2]

For this survey, the general FAO classification[3] of land use types is utilized, with slight modifications. For the classification of crops, a system similar to that of Eurostat was used.[4] The following main levels were used to classify the land use and crop data: arable land; permanent crops; cropland, no details (=arable land + permanent cropland); permanent grassland/grazing; other; and agricultural land, no details. Aquaculture, forest, and grazed non-agricultural land were distinguished from 'agricultural land' with a separate category, as were organic wild collection areas. [5]

Table 5: Organically managed agricultural land by main use and region 2008

Land use type	Africa	Asia	Europe	Latin America	Northern America	Oceania	Total
Agricultural land no details [ha]	358'833	1'258'908	57'566	2'206'715	628'556	113'773	4'624'352
Arable crops [ha]	95'908	174'297	3'280'918	173'951	523'549	573	4'563'717
Cropland, no details [ha]	3'055	1'111'844	-13'966	14'255	479'143	362'339	1'641'119
Other agricultural land [ha]	18'897	328	319'726	25'877			364'828
Permanent crops [ha]	358'150	147'065	774'345	647'601	49'490	3'422	1'981'102
Permanent grassland/grazing [ha]	46'055	601'504	3'757'487	4'997'490	768'903	11'660'000	21'831'439
Total [ha]	880'898	3'293'945	8'176'075	8'065'890	2'449'641	12'140'107	35'006'557

Source: FiBL/IFOAM survey. Includes correction values for some countries for land with double use during one year. For a table that includes the non-agricultural uses see page 30. *Arable & permanent crop details for the U.S. are from 2005. For Canada no land use details were available.

[1] For Canada the crop details from 2005 had been included until 2007 but were not used any more because the agricultural land has increased substantially. For the United States of America the 2008 crop details were not available at the time of publication.

[2] For some countries, only information on the main uses (arable crops, permanent crops, and permanent grassland) was available. For Australia, for instance, only a rough estimate on the extent of the permanent grazing land is available. For other countries, very detailed statistical land use information can be found; the Eurostat statistics, for instance, list each vegetable type for many countries.

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

[4] For details, see www.organic-world.net. For the data collected, a classification system developed in cooperation with the German Central Market and Price Report Office (ZMP, succeeded by AMI) is used. It is currently being further developed in order to make it possible to include manufactured products. The questionnaire as well as some background information is also available at www.organic-world.net.

[5] More information is available at www.organic-world.net/databackground-general.html

Arable land

With a total of at least 4.6 million hectares, **arable land** (Table 6) constitutes 15 percent of the organic agricultural land. The organic arable land accounts for 0.3 percent of the world's arable land.[1] Most of the organically managed arable land is located in Europe (3.2 million hectares), followed by North America (more than 0.8 million) and Latin America (170'000 hectares).

Most of this category of land is used for cereals including rice (1.99 million hectares), followed by field fodder crops (1.5 million hectares), protein crops and vegetables (0.2 million hectares).

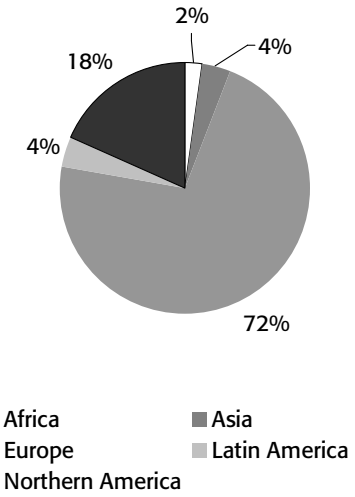

Figure 9: Distribution of arable cropland by geographical region 2008

Source: FiBL/IFOAM survey

Table 6: Organically managed arable cropland by crop category 2008

Crop category	Area [ha]
Cereals	1'990'200.6
Field fodder crops	1'471'453.1
Protein crops	237'752.1
Vegetables	208'564.6
Oilseeds	175'975.3
Textile crops	131'974.3
Arable crops, no details	113'529.2
Other arable crops	60'991.3
Sugarcane	47'523.3
Root crops	43'807.7
Medicinal and aromatic plants	40'784.6
Industrial crops	23'285.1
Seeds and seedlings	12'733.3
Strawberries	3'046.4
Flowers and ornamental plants	1'860.0
Hops	151.5
Tobacco	85.0
Mushrooms	0.2
Total	4'563'717

Source: FiBL/IFOAM survey. Includes in-conversion and fully converted land Not all countries included in the survey provided data on land use or crop areas.

[1] 1'411'117'040 hectares in 2007 according to FAOSTAT, FAO, Rome. See the FAO Homepage: faostat.fao.org > Resources > Resourcestat > http://faostat.fao.org/site/377/default.aspx#ancor; accessed January 23, 2010.

Permanent crops

Permanent account for approximately six percent of the organically managed agricultural land, amounting to two million hectares, which is 1.4 percent of the world's permanent cropland[1] (Table 7). In organic agriculture, permanent cropland has a higher share than in total agriculture, where permanent crops account for approximately three percent of the agricultural land.[2] Most of the permanent cropland is in Europe (0.74 million hectares), followed by Latin America (0.65 million hectares) and Africa (0.36 million hectares). Compared with the previous survey, almost 0.2 million hectares more were reported. The most important crops are coffee (with 0.46 million hectares reported, constituting almost a quarter of the organic permanent cropland), followed by olives (0.43 million hectares), cocoa (0.17 million hectares), nuts (0.18 million hectares), and grapes (0.14 million hectares).

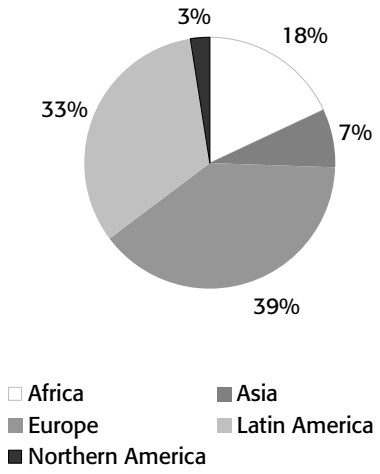

Figure 10: Distribution of permanent cropland by geographical region 2008

Source: FiBL/IFOAM survey

Table 7: Organically managed permanent cropland by crop category 2008

Crop/crop category	Area [ha]
Coffee	463'614.7
Olives	428'225.2
Nuts	178'638.0
Cocoa	170'786.7
Grapes	148'252.1
Fruit, tropical and subtropical	141'345.8
Fruit, temperate	118'445.8
Citrus fruit	60'132.0
Tea/mate	49'099.9
Others	222'561
Total	**1'981'102**

Source: FiBL/IFOAM survey
Includes in-conversion and fully converted land Not all countries included in the survey provided data on land use or crop areas.

[1] 142'571'040 hectares of permanent cropland in 2007 according to FAOSTAT, FAO, Rome. See the FAO Homepage: faostat.fao.org > Resources > Resourcestat > Land athttp://faostat.fao.org/site/377/default.aspx#ancor, download of January 23, 2010.
[2] 4'931'862'000 hectares of agricultural land in 2007 according to FAOSTAT, FAO, Rome. See the FAO Homepage: faostat.fao.org > Resources > Resourcestat > Land at http://faostat.fao.org/site/377/default.asp, Download of January 23, 2010.

Land use in the regions

Looking at land use, a different pattern emerges for each region. In the chapters on the regions, land use tables (i.e., main crop types) are available. Detailed information on land use patterns by country is available at www.organic-world.net.

1) **Africa**: For Africa, land use information covering about half of the organic agricultural land was available. Most of this land is used for permanent crops. The main permanent crops are cash crops like coffee and olives. (For more details see table at the end of the African section in this book).
2) **Asia**: Some land use details are known for two-thirds of the organically managed land in Asia. Arable land is mainly used for cereals, including rice. Furthermore, cotton is important; India and Syria are two of the leading organic cotton producers.
3) **Europe**: In Europe, the organically managed land uses are relatively well known, and the main crop categories are well documented. Permanent pastures and arable land have approximately equal shares of the organic agricultural area. The arable land is mainly used for cereals (1.3 million hectares), followed by the cultivation of field fodder (1 million hectares). Permanent crops account for nine percent of organic agricultural land. More than half of this land is used for olives, followed by nuts, fruits and grapes.
4) **Latin America:** Most of the organically managed land in Latin America for which information was available is permanent pasture. Permanent crops account for about ten percent of the agricultural area. About half of the permanent cropland is used for coffee, followed by cocoa and tropical fruits.
5) **North America:** In North America crop information was available for most of the land, however only from 2005. It is expected that updated detailed crop statistics for the U.S. will be available in the spring of 2010. As in Europe, arable land and permanent grassland have almost equal shares. A major part of the arable land is used for cereal production.
6) **Oceania:** Most of the land in Australia is used for extensive grassland. Little or no information is available about the remaining land.

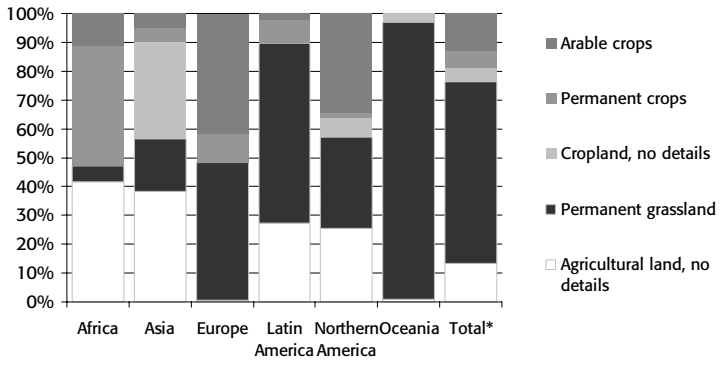

Figure 11: Land use in organic agriculture by region in 2008: Shares of the land use types

Source: FiBL/IFOAM survey

Wild collection and bee keeping areas

The collection of wild harvested crops is defined in the IFOAM Basic Standards (IFOAM 2006),[1] and wild collection activities are regulated in organic laws.[2] A collection area (including bee keeping) of 31.1 million hectares was reported for 2008. The organic wild collection areas are concentrated in Africa, Asia, Europe and Latin America; the distribution is thus quite different than that of agricultural land. There are some wild collection crops in Canada. For the United States, no such areas were reported.

Table 8: Wild collection and bee keeping 2008

Product/Type	Area [ha]
Wild collection, no details	11'769'456.2
Berries, wild	8'102'321.0
Bee keeping	5'817'957.0
Medicinal and aromatic plants, wild	3'307'461.0
Nuts, wild	1'189'018.0
Oil plants, wild	400'000.0
Seaweed	203'113.0
Forest honey	133'784.0
Wild collection, other	100'199.3
Palmito, wild	26'800.0
Palm sugar	12'422.0
Fruit, wild	12'094.0
Mushrooms, wild	516.8
Bamboo, wild	230.0
Total	31'075'372

Source: FiBL/IFOAM survey

The countries with the largest areas are Finland (mainly berries), followed by Brazil and Zambia (bee keeping). Together, the ten countries with the largest wild collection areas

[1] According to the IFOAM Basic Standards (2006):

Wild harvested products shall only be certified organic if they are derived from a stable and sustainable growing environment. The people who harvest, gather, or wildcraft shall not take any products at a rate that exceeds the sustainable yield of the ecosystem, or threaten the existence of plant, fungal or animal species, including those not directly exploited. Operators shall harvest products only from a clearly defined area where prohibited substances have not been applied. The collection or harvest area shall be at an appropriate distance from conventional farming, pollution and contamination.

The operator who manages the harvesting or gathering of common resource products shall be familiar with the defined collecting or harvesting area.

Operators shall take measures to ensure that wild, sedentary aquatic species are collected only from areas where the water is not contaminated by substances prohibited in these standards.

[2] The recently revised EU regulation on organic production considers the collection of wild plants and parts thereof, growing naturally in natural areas, forests and agricultural areas as an organic production method - provided that those areas have not, for a period of at least three years before the collection, received treatment with products not allowed under the regulation. Furthermore, the collection must not affect the stability of the natural habitat or the maintenance of the species. The regulation also foresees standards for the collection of wild seaweeds and parts thereof.

have 28.4 million hectares. Tables on the importance of organic wild harvested products in the countries are available in the chapters on organic farming in the regions of this book.

Details on the collected crops were available for about one-third of the wild collection area (see Table 8). Wild berries (mainly in Finland), medicinal and aromatic plants as well as wild nuts (e.g., shea nuts in Africa and chestnuts in Latin America) play the most important role.

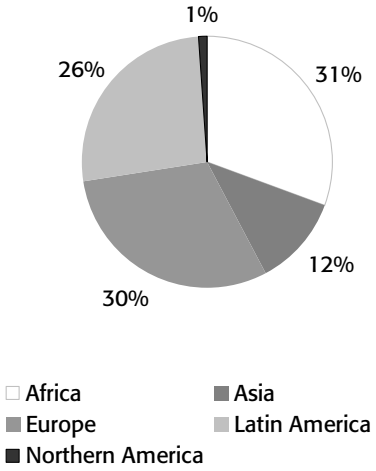

Figure 12: Geographical distribution of organic wild collection and bee keeping areas in 2008

Source: FiBL/IFOAM survey

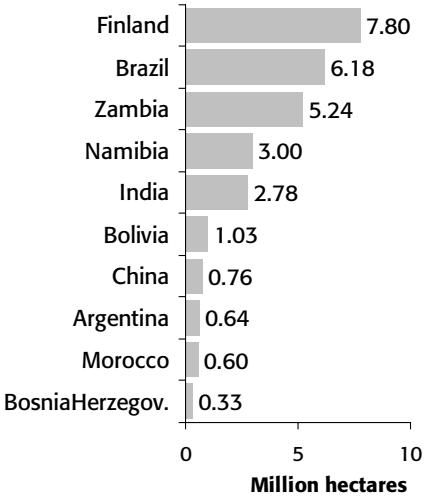

Figure 13: The ten countries with the largest organic wild collection and bee keeping areas in 2008

Data for Bolivia from 2006; for Brazil and Bosnia Herzegovina from 2007
Source: FiBL/IFOAM survey

Organic farming in developing countries

For this section, the countries listed on the List of Recipients of Official Development Assistance (ODA) of the Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development (OECD) were analyzed.[1]

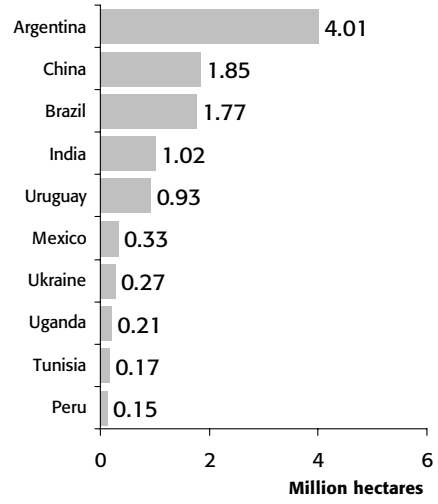

Figure 14: Developing countries: the countries with the largest areas under organic agricultural management in 2008

Data Brazil from 2007; Uruguay from 2006

Source: FiBL/IFOAM survey

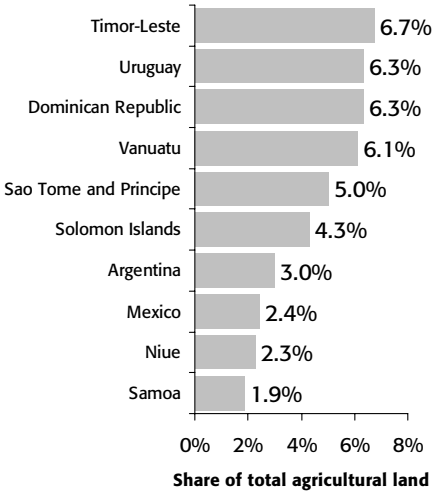

Figure 15: Developing countries: the countries with the highest shares of organic agricultural land in 2008

Data Uruguay, Vanuatu, Solomon Islands and Niue from 2006; Dominican Republic: 2007
Source: FiBL/IFOAM survey

One third of the world's organically managed agricultural land - 12 million hectares - is located in developing countries. If wild collection and bee keeping areas are included, the total area is 34.4 million hectares. Most of this land is in Latin American countries, with Asia and Africa in second and third place. The countries with the largest areas under organic management are (from most to least) Argentina, China, Brazil, India and Uruguay. Not surprisingly, the first four are all large countries.

However, when it comes to land under organic management as a percentage of total area under agriculture, the order is totally different. The highest percentages of organically managed land are in several Pacific Island countries, and in Timor Leste, Uruguay and the Dominican Republic. Argentina, with by far the largest area under organic management (with four million hectares), is ranked seventh when organically managed area is measured relative to total agricultural area. In the top ten developing countries, the shares of organically managed land are comparable to those in Europe. These high shares can probably be attrib-

[1] The list is available at www.oecd.org/document/16/0,3343,en_2649_34447_2093101_1_1_1_1,00.html.

uted in part to a high potential for and focus on exports. Support activities may also play a role. For instance, in Latin America there are various forms of government support; see the chapter by Garibay and Ugas (page 160). However, out of the developing countries covered by the survey, only a few have a share of organically managed land that is higher than one percent of total agricultural area. Thus, compared with developed countries, organic farming lags behind in most developing countries.

Land use details were not available for all developing countries. However, the available statistics show that the shares of grassland and of permanent crops are relatively high as compared with Europe and North America. Grassland, for example, constitutes more than half of the organically managed land in these countries. Arable land, by contrast, is of minor importance. This can be attributed to the fact that export plays an important role - either for meat products (mainly from Latin America) or for permanent crops. The most important permanent crops are export crops, such as coffee, olives, cocoa and sugarcane.

Data collection on organic agriculture world-wide: background

Data collection systems and data availability

In general, data availability is improving every year. This is because more and more countries are establishing data collection systems. Data on land use, crops, production, and operators are being more widely gathered, either by the private sector or by government organizations.

In the framework of the SECO/ITC funded project on data collection world-wide, a study which gave insight into organic data collection systems and data availability (Willer/Bouagnimbeck/Garibay 2009). In the following paragraphs, the main results are summarized.

Data collection systems

Data on organic agriculture are not collected in a uniform way. Data collection systems differ from country to country, and there are many countries that have no collection system at all. Many countries have several collection systems for different types of information.

It is important to know what type of collection system is behind the data provided, in order to understand how reliable or complete the data are. For the basic data on organic farming (i.e., on land area and producers), 65 countries have well functioning government/public data collection systems in place, and 37 have private collection systems, sometimes with public funding. For the remaining countries (52), no permanent collection system is in place. A table showing the data collection systems by country is available at www.organic-world.net/yearbook-2010.html.

Governmental data collection systems

Governmental data collection systems are often linked to the establishment of regulations about organic agriculture. Once such a regulation is established, there are rules about the registration of certifiers with a national authority. This opens up access to data from the certifiers. Public data collection systems mostly cover the organic area and operators, and also sometimes production and export data, but they mostly exclude data on the domestic market or on imports.

In general, government data are based on one of the following data sources:

- Data from the certifiers: In most countries, the government collection systems are based on the data of the certifiers. In the European Union, the new organic farming regulation describes precisely what data should be provided by the competent authorities, who collect the data among the certifiers/inspection bodies.[1] To our knowledge Chile is the only country outside the European Union where data collection is included into the law. The data collected by the government are mostly (though not always) complete, as many countries do not have access to the data of foreign certifiers that are not registered under the country's accreditation system. Israel provides only information on the production for the EU market.
- Farms that receive direct payments as the basis for the data: In Switzerland the government data collection system is based on the data received in the framework of the direct payment scheme. However, these data are not complete, as not all organic farms receive direct payments.
- Farm structure survey: Some countries have included the option to identify organic farms in the framework of general farm structure surveys. This is the case for many European countries as well as Canada. The disadvantage of this system is that data are often obsolete by the time they are released, and that they only cover farms over a certain size. However, they yield a great level of detail on farm structures and regional aspects. France has taken a unique approach and linked farm structure data collection with organic data collection by certifiers. In general, farm structure survey data are not used for the global survey on organic farming.

Data collection of the private sector

In many cases, the private sector collates the data from the certifiers or the organic operators (for example the exporters) in the countries. The private sector often does not have full access to the data and, therefore, the data may not be as complete as those provided by governments.

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[1] 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
Preamble (36), page 4, L 250/4:

> *"Notifications of information by the Member States to the Commission must enable it to use the information sent directly and as effectively as possible for the management of statistical information and referential data. To achieve this objective, all information to be made available or to be communicated between the Member States and the Commission should be sent electronically or in digital form."*

Article 93, page 36 Statistical information, L 250/31:

> *1. Member States shall provide the Commission with the annual statistical information on organic production referred to in Article 36 of Regulation (EC) No 834/2007 by using the computer system enabling electronic exchanges of documents and information made available by the Commission (Eurostat) before 1 July each year.*
> *2. The statistical information referred to in paragraph 1 shall comprise, in particular the following data:*
> *(a) the number of organic producers, processors, importers and exporters;*
> *(b) the organic crop production and crop area under conversion and under organic production;*
> *(c) the organic livestock numbers and the organic animal products;*
> *(d) the data on organic industrial production by type of activities.*
> *3. For the transmission of the statistical information referred to in paragraphs 1 and 2, Member States shall use the Single Entry point provided by the Commission (Eurostat).*
> *4. The provisions relating to the characteristics of statistical data and metadata shall be defined within the context of the Community Statistical Programme on the basis of models or questionnaires made available via the system referred to in paragraph 1.*

Countries with no collection system

Finally, there are countries that have no collection system in place. Particularly in Africa and in Asia, but also in countries in other regions such as Oceania, collection systems are still underdeveloped. For these countries, FiBL and IFOAM attempt to get the data from major international certifiers or from contacts in the country, who provide the data specifically for the survey. For the collection of data, country contacts as listed in the IFOAM membership directory, or Grolink's organic certifier directory can be of invaluable help. These data are often not complete, and there is a problem of continuity over the years.

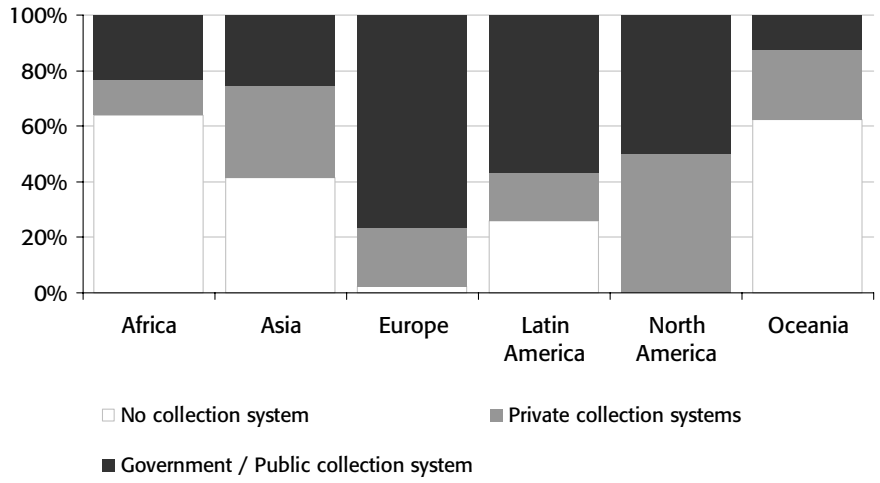

Figure 16: Data collection systems in the countries covered by the FiBL/IFOAM survey, by geographical region 2008

Data collection by geographical region

Overview of the geographical regions

Africa: In many African countries, data collection remains difficult. The availability and quality of information is, however, improving in a number of countries. With the exception of Tunisia, where the government collates the data, most of the data are supplied by private sector organizations. These are often umbrella organizations of the organic movement, who collect the data from the operators and certification bodies; for instance the Kenya Organic Agriculture Network (KOAN), the National Organic Agricultural Movement of Uganda (NOGAMU), and the Tanzania Organic Agriculture Movement in Tanzania (TOAM). In some cases, data from only one or two certification bodies are available. The picture, therefore, often remains incomplete.

Asia: More than 70 percent of the Asian countries answered the survey. Data availability is highly variable. In some countries, (China, India, Taiwan and Syria), these data are supplied by government bodies, whereas, in others they are supplied by the private organic sector, which collates the data from the certification bodies, traders or exporters. As a result, the picture remains incomplete for some countries.

Europe: More than 90 percent of the European countries are covered by the survey. In Europe, the data availability is good, as most agricultural ministries collect and provide data on organic farming. Furthermore, the Eurostat database, which provides statistics for the member countries of the European Union, is very helpful. Eurostat collects the data from the competent authorities in the member states of the European Union.

Latin America: Sixty percent of the countries in Latin America and the Caribbean were covered. In South America, governments are increasingly providing detailed organic farming statistics, so the situation here has improved substantially since the first survey in 2000 (Willer/Yussefi 2000). In Central America, the situation has been unsatisfactory until recently, but now, for many countries, the data are supplied by government bodies (e.g., in Guatemala and Nicaragua). In other countries, data collection is carried out by the organic sector (for example El Salvador).

North America: For the U.S., the data are provided by the United States Department of Agriculture every two years and for Canada by the Canadian Organic Growers.

Oceania: For New Zealand, data are provided by the private sector. In Australia, some data is collected by the Australian Quarantine Inspection System (AQIS), a government body, and can be bought. For this region, information on land use and production is limited. In 2008, the data for the Pacific Islands were not updated, but the establishment of data collection systems is underway.

Notable regional initiatives

The following are notable initiatives that have improved data collection systems recently, or are in the process of being set up:

- The European Commission stipulates that all EU member states provide data for variables such as area, land use, number of operators and livestock, as well as production volumes. Eurostat, the statistical office of the European Union, compiles these data, and data are all accessible at the Eurostat homepage.[1] While most countries provided these data in the past, the EU regulation that obliges them to do so did not come into force until January 2009.
- The Mediterranean Organic Agriculture Network (MOAN): The Mediterranean Agricultural Institute in Bari, Italy, has set up this network of the authorities in charge of organic farming in order to promote data collection among these. Regular meetings and support through the Mediterranean Agronomic Institute of Bari IAMB have improved the data collection the Mediterranean area considerably in the past years.
- Pacific Islands: In the Pacific Islands, there are currently efforts to coordinate the organic activities in the region better, which also includes the setting up of data collection systems.
- Africa: In Africa, data collection is coordinated by the IFOAM Africa office. In East Africa, data collection activities are taking place through the support of the United Nations Conference on Trade and Development (UNCTAD). This is especially the case in those countries where the East African Standard is in place. An important step is now to establish permanent collection systems in all countries.

[1] Access via the Organic-Europe.net homepage: http://www.organic-europe.net/europe_eu/statistics-eurostat.asp#tables

Available data

For the eleventh survey on organic agriculture world-wide, data on organic agriculture were available for 154 countries; and 72 percent of all countries are covered by the survey (see Table 1, page 28). Since 1999, when the data collection started, the number of countries included has almost doubled.

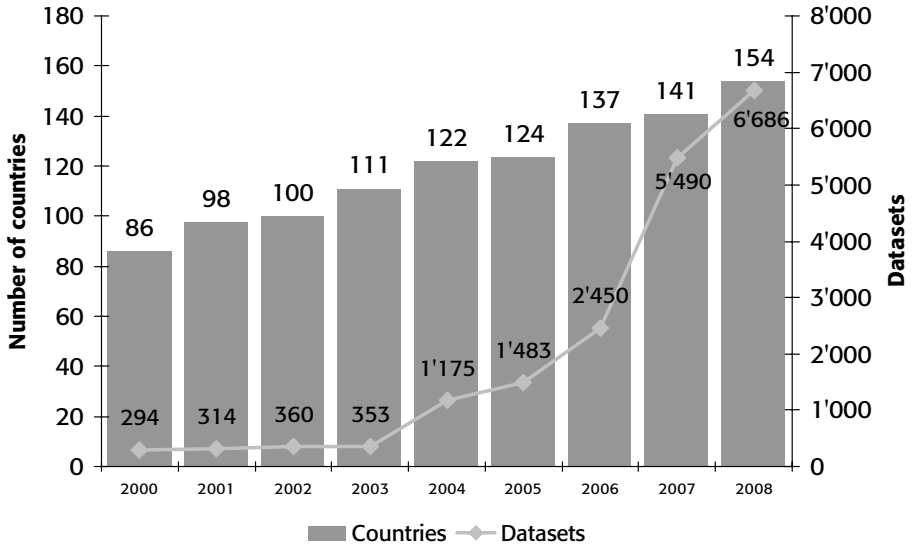

Figure 17: Development of the data availability by country 2000-2008

Source: FiBL/IFOAM Survey 2010

Whereas originally for the global organic survey only information on the total organic land and the number of farms was collected, the scope of the survey has expanded considerably in the past years. 2004 marks the year when data on land use and crops were collected for the first time. With the 2009 survey (data per 31.12.2007), data on the conversion status of organic land was collected for the first time; hence the increase of the data volume in that year. The data which are currently collected include, apart from the land area and operator data, information on production, market, export, import volumes and values, not all of which are published in this volume, as some of the data still need to be verified. More information than is published in this volume is available at www.organic-world.net.

Available data by country

In this section, a brief overview is given of the data types that are available on organic agriculture in the 154 countries (for a table with the data available per country see www.organic-world.net/yearbook-2010.html).

- Organic land: With the exception of Japan, all countries provide data on the land under organic management. (For Japan the organic area is calculated by multiplying the number of organic farms with the average farm size in Japan).

- Conversion status: One hundred and eleven countries provided data on fully converted land, 82 on the in-conversion area. Most countries outside Europe, with the exception of the African countries, only provide the fully converted area, which is then communicated as the total organic area. This is the case, for example, in the U.S. Most European and African countries make the distinction between fully converted and in-conversion. Austria, Australia, Germany and Switzerland only communicate one figure that includes both in-conversion and fully converted land.
- Exports: Twenty-five countries provided data on export values, and 26 on export values. In most cases only a total value is available, but not a breakdown by product. Very good export statistics are provided for instance by Argentina, Denmark and Peru. Export data can be based on the information of certifiers (Argentina), on company information (Denmark), or on information from customs (Peru).
- Imports: Nine countries provided data on import values, and four on import volumes. In many cases only a total value is available, but not a breakdown by product. Import data can be based on the import permits (Italy), custom data (Germany, system to be established), or company data (Denmark).
- Operators: Most countries provide data on operators; not all provide data on organic producers. (In total 137 countries provided data on organic producers). Some provide *only* data on organic producers, and not on further operator types like processors (67 countries), exporters (21 countries) and importers (47 countries), which are also important indicators of the economic relevance of the sector.
- Production: Fifty countries provide data on organic production volumes. In most cases the volumes (metric tons) are provided. Most countries with production data provide the volume produced per crop, sometimes also for manufactured products (as in the case of Argentina and the Czech Republic).
- Domestic market: Forty-two countries have information on the value of their domestic market. In most cases this information is collected under a different collection system than the one that covers area, operators and production. For some countries this information is provided only sporadically and not on a continual basis. Many countries have a breakdown of the total market by marketing channel and/or by product, mostly by value, sometimes also by volume.

Revisions and updates of the 2007 data (published in the 2009 edition of *The World of Organic Agriculture*)

It has been possible to adjust and revise some of the data gained in the previous survey. Where the figures differ substantially from those communicated in 2009, these revisions area explained at www.organic-world.net/revisions-2007.html.

Next global survey on organic agriculture

The next global organic survey will start early 2010. We would be very grateful if data could be sent to us, but we will of course also 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 2011 edition. Corrections will also be posted at www.organic-world.net.

- Helga Willer, FiBL, Frick, helga.willer@fibl.org.

- Hervé Bouagnimbeck, IFOAM, Bonn, for sub-Saharan Africa, h.bouagnimbeck@ifoam.org.

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The Global Market for Organic Food and Drink

The Global Market for Organic Food and Drink[1]

BY AMARJIT SAHOTA[2]

Introduction

Organic food and drink sales continue to grow at a healthy rate, with global revenues breaking the 50 billion U.S. dollar barrier for the first time in 2008. According to Organic Monitor estimates, global sales reached 50.9 billion US dollars, doubling in value from 25 billion US dollars in 2003.

The highest growth is occurring in North America where double-digit growth has been occurring for over a decade. Consumer demand remains buoyant in other regions, although some countries have been affected by the economic slowdown.

The financial crisis has had a negative impact on the global market for organic products. Many countries went into recession in the latter part of 2008, reducing consumer expenditure. The credit squeeze has also reduced investment into the organic products industry, with existing enterprises and new entrants unable to finances business growth. A reduction in new product launches and new business start-ups has been observed since.

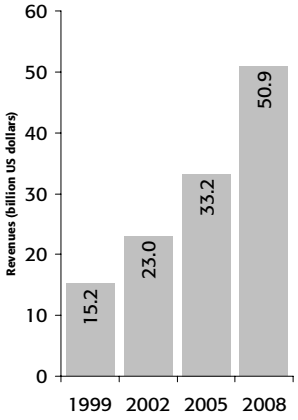

Figure 18: The global market for organic food and drink: market growth 1999-2008

Note: All figures are rounded
Source: The Global Mark
et for Organic Food & Drink (Organic Monitor)

Preliminary research finds that positive growth continued in 2009 in spite of the poor economic climate. Higher market growth rates are envisaged from 2010 onwards as the global economy continues to recover from the financial crisis. Most growth is expected in Europe where countries are slowly coming out of recession.

[1] This chapter has been prepared from an upcoming report: *The Global Market for Organic Food & Drink: Future Outlook & Forecasts* (Organic Monitor, 2010). No part of this chapter may be reproduced or used in other commercial publications without written consent from Organic Monitor. To request permission, write to:
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[2] Amarjit Sahota, Director, Organic Monitor, 20B The Mall, London W5 2PJ, www.organicmonitor.com. Organic Monitor is a specialist research and consulting company that focuses on the global organic and related product industries. More details are on www.organicmonitor.com.

Europe

The European organic food industry is the largest in the world, worth about 26 billion US dollars in 2008. Most sales are concentrated in Western Europe, with Germany, the UK, France, and Italy comprising the bulk of revenues.

The largest consumers of organic foods, however, are in Scandinavian and Alpine countries. Organic products comprise over four percent of total food and drink sales in Denmark, Sweden, Switzerland and Austria. The Danes are the world's leading buyers of organic foods.

Europe has the largest market for organic foods, but also the most competitive. The region has a very large number of brands and producers of organic foods. Most operate nationally, with few companies managing to develop a regional presence. Hipp is the largest organic food company in Europe; it has several manufacturing bases that make organic baby food. Other companies that have developed a pan-European presence with their organic products include Wessanen, De Vau Ge, Alpro and Arla Foods.

Supermarkets represent most organic food sales in almost every European country. The launch of organic foods under retailer private labels is making large retailers increasingly important. Private label products appeal to consumers, as they represent quality products at affordable prices. Private labels have had most impact in Germany where discounters, supermarkets and drugstores market organic foods under their private labels. Discounters, such as Aldi, Lidl and Plus are very successful in offering basic organic items at exceptionally low prices.

The market for organic foods in Central and Eastern Europe (CEE) is small but growing fast. Demand for organic products is growing in countries such as the Czech Republic; however, production is largely confined to primary organic products. Organic fruits, vegetables, herbs, cereals and grains are grown in many CEE countries, mainly for the export market. These products are mostly exported to Western Europe, which is exporting finished organic products back to CEE countries.

North America

Organic food and drink sales continue to expand at a fast pace in the U.S. and Canada. Market revenues are estimated to have increased by 16 percent to 23 billion US dollars in 2008. Over 90 percent sales are from the U.S. market, the largest in the world. Organic products now comprise about three percent of total food sales in the country.

Organic food production is still lagging behind demand in North America. Large volumes of organic foods and ingredients are coming into the U.S. and Canada from Latin America, Europe, Australasia and Africa. Organic food production is not increasing, partly because of farmers growing crops for bio-fuels. Many American and Canadian companies are investing in organic farming projects in Latin America to ensure that supply levels remain adequate. Others are setting up offshore operations in which subsidiaries are opened in countries such as Argentina, China and the Philippines.

Conventional grocery channels comprise most organic food sales. Mass merchandisers such as Wal-Mart and supermarkets like Target and Loblaw's are becoming prominent as they

focus on organic products. Wal-Mart has encouraged many of its suppliers to adopt organic practices, while other retailers are entering long-term contracts with organic producers.

Supermarkets are playing such an important role that the private label of Safeway USA has become the biggest brand of organic foods. O Organics has over 300 products and generated about 400 million U.S. dollar sales in 2008, making it the world's number one organic brand. Safeway has increased distribution of O Organics to other retailers and started exporting to Asia.

The organic food industry in North America is more concentrated compared to Europe. Large companies dominate the supply-side and retailing. Hain Celestial is the world's leading natural & organic food company, generating over 1 billion US dollars sales. Other important organic food companies are WhiteWave Foods, Stonyfield Farms, Organic Valley, Eartbound Farm and SunOpta. Some of these companies are developing an international presence by acquiring European companies; SunOpta bought Tradin in 2007, whilst WhiteWave Foods bought Alpro in 2009.

With over 280 stores, Whole Foods Market is the leading retailer of organic and natural foods. It strengthened its position when it acquired Wild Oats in 2007. A unique characteristic of many of these North American companies is that they are publically listed, unlike organic food companies in other regions.

Asia

The Asian continent has an organic food industry that is divided in terms of consumption and production. Very large producers and exporters of organic foods are in the region. China, with over one million hectares of organic farmland, has become a global source of organic ingredients. Other countries like India, Thailand, Indonesia and Vietnam are also becoming large growers of organic foods. However, these countries have small internal markets for organic products.

The largest markets for organic foods are in the most affluent countries, notably Japan, South Korea, Taiwan, Singapore and Hong Kong. These countries generally have very low domestic production levels, with imports coming in from Europe, North America and Australasia. There is little intra-regional trade of organic foods since mostly primary crops are grown in Asia, whereas processing mainly occurs in other regions. Thus, Asia is unique in that it is both a large exporter and importer of organic foods.

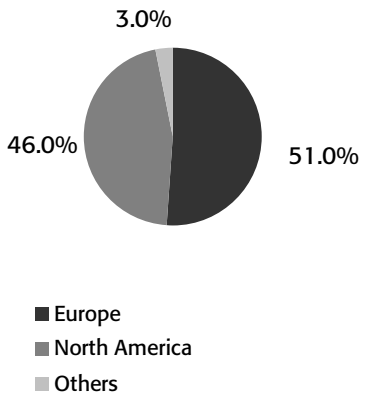

Figure 19: The global market for organic food and drink: distribution of revenues by region in 2008

Note: All figures are rounded
Source: The Global Market for Organic Food & Drink (Organic Monitor)

Since most Asian growers have an export focus, many adopt organic standards of Europe, the US and/or Japan. Thus, Asian organic products such as fruits, vegetables, cereals, beans, herbs and spices are usually dual, if not triple, certified.

The Asian market continues to show healthy growth. Rising consumer awareness of organic foods and widening availability are driving market growth. A growing number of conventional food retailers, especially those in the big cities, are introducing organic products. The number of dedicated organic food shops is also rising, with many new stores opening in countries like Singapore, Malaysia and Taiwan. Some large food companies are also coming into the market and introducing organic lines.

Consumer awareness of organic foods is rising because of the high incidence of health scares in recent years. The scares, some involving foods, are raising consumer awareness of health issues and stimulating consumer demand for organic products. The melamine scare led to a surge in demand for organic food in Hong Kong and neighboring countries in 2008. Previous health scares were Avian flu and Severe Acute Respiratory Syndrome (SARS) and those involving foods included cola drinks (India) and tofu (Indonesia).

Oceania

Although Australasia houses almost 40 percent of the world's organic farmland, the market share of global organic food and drink sales is less than one percent. The low market share is partly because of the small consumer market in this region. Another reason is that most of the organic farmland is used for grazing by livestock farmers. Also, a significant portion of the organic foods grown in Australasia are exported.

Australia and New Zealand are important exporters of organic products. Significant volumes of organic beef, lamb, wool, kiwi fruit, wine, apples, pears and vegetables are exported from the region.

As has happened in Europe and North America, large food companies and retailers are coming into the organic food market. Woolworths became the leading retailer when it acquired the Macro Wholefoods chain of organic food shops in summer 2009. It is re-branding these stores under Thomas Dux Grocer, the name of its organic food retail network. Retailer private labels are also becoming important for organic products. However, distribution of organic foods remains low compared to the other regions. The range of organic products in mainstream retailers remains low.

Other Regions

Production and consumption of organic products is also increasing in other regions. In Latin America, organic food production is increasing at a fast rate, albeit for export markets. Large amounts of organic fruits, vegetables, herbs, spices, seafood and meat products are exported to northern hemisphere countries. Internal markets are, however, slowly developing, especially in the major cities such as Santiago and São Paulo.

In Africa, organic food production is almost entirely for the export market. The region is a major exporter of organic products to Europe. In the Middle East, high demand for organic products is leading dedicated retailers to open in big cities such as Dubai and Riyadh.

Conclusions

Global sales of organic food and drink continue to increase at a healthy rate, with revenues reaching roughly 51 billion US dollars in 2008. Growth continued in 2009 in spite of the financial crisis. Demand for organic foods has been most affected in countries that are in a lengthy recession, such as the UK. In most other countries, demand was only temporarily affected by the economic climate.

The major challenge the organic food industry faced up to 2008 was supply shortages. Demand for organic foods was outpacing supply, with many farmers not converting to organic farming because of food inflation. Prices of agricultural products reached record highs because of rising fuel costs and growth in production of bio-fuel crops. The global economic slowdown has put an end to food inflation, however high interest in bio-fuel crops like sugar beet and corn remains.

With slowing demand, oversupply could once again become a major concern for the organic food industry. In Europe, some growers of organic fruits, vegetables, grains, meats and dairy are already experiencing overproduction. Developing countries have yet to be adversely affected, mainly because demand remains robust in North America.

However things could quickly change. If production levels of organic foods do not increase significantly and demand takes a major upturn in 2010 then another bout of undersupply is envisaged. One thing is for certain however, supply-demand imbalances will remain a feature of the global organic food industry.

Market information in *The World of Organic Agriculture*, 2010 edition:

- Global market: see chapter by Amarjit Sahota, page 54;
- Africa market: see section on the African market in the chapter on Africa by Hervé Bouagnimbeck, page 59;
- Asian market: see chapter on organic farming in Asia by Ong Kung Wai, page 123;
- European market: see chapter on the European market by Diana Schaack and Helga Willer, page 141;
- Latin American market: see chapter on Latin America by Salvador Garibay and Roberto Ugas, page 163;
- North America: see the US Chapter by Barbara Haumann, page 184 and the chapter about Canada by Matthew Holmes and Anne Macey, page 193.
- Oceania: see the chapter on Australia by Els Wynen, page 200, and the chapter on New Zealand by Seager Mason, page 203.

Organic Crops: Coffee & Cotton

Is Coffee the Most Popular Organic Crop?

DANIELE GIOVANNUCCI[1] AND JOOST PIERROT[2,3]

Come a long way

Few organic products are as ubiquitous or as popular as coffee. In the world's largest organic market, the U.S.A, coffee is the single most valuable imported organic product.[4] Coffee was the first product, in 1967 to be formally 3rd party certified as organic.[5] By the mid-1990s, a handful of countries exported organic coffee. Peru had the greatest certified area with 44'000 hectares, followed by Mexico with 26'000 hectares. Other countries included Guatemala (7000 hectares), El Salvador (4900 hectares), Nicaragua (1400 hectares), and Costa Rica, Colombia and Papua New Guinea each had only a few hundred hectares.[6]

From a limited number of origins in the 1990s, organic coffee production has now been certified in 40 countries (see Table 9). The Dominican Republic, where nearly 30 percent of coffee farmers are certified organic, is a leader in terms of the percentage of participation.[7] In 2008, at least 460'000 hectares, or roughly 4.4 percent of the world's harvested coffee area of 10.4 million hectares, was organic, according to the FiBL/IFOAM survey, for which, however, not all coffee producing countries supplied data (see page 38).[8] This number was likely to be modestly higher in 2009. In some of the poorest areas, coffee is a most important cash crop and vitally important to the incomes and well-being of its producers.

Table 9: Coffee producing countries and regions

Geographical region	Countries with organic coffee production
North and Central America	Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, United States (Hawaii)
South America and the Caribbean	Bolivia, Brazil, Colombia, Cuba, Dominican Republic, Ecuador, Haiti*, Peru, Trinidad and Tobago,* Venezuela*
Africa	Burundi, Cameroon,* Ethiopia, Ghana,* Kenya, Madagascar, Malawi,* Rwanda, Togo,* Tanzania, Uganda, Zambia*
Asia	China,* Timor-Leste, India, Indonesia, Lao,* Nepal, Philippines,* Sri Lanka,* Thailand, Viet Nam
*occasional exporters	

Source: Giovannucci 2009

[1] Daniele Giovannucci, www.dgiovannucci.net. Daniele Giovannucci is the co-founder of the Committee on Sustainability Assessment, a non-profit group of global institutions managing research efforts in sustainable agriculture and markets.

[2] Drs. Joost M. Pierrot, Joost Pierrot Consultancy, 2311 RV Leiden, The Netherlands, www.joostpierrot.com. Joost Pierrot is a private consultant specializing in sustainable coffee, cocoa and tea.

The authors are grateful to dozens of collaborators in more than 20 countries for their support in gathering this data.

[3] The survey on the organic coffee market was co-funded by the International Trade Centre (ITC), Geneva.

[4] Estimated at U.S.$1.3 billion in 2008 (Giovannucci, 2009)

[5] Finca Irlanda in Mexico certified as biodynamic organic by Demeter (Giovannucci and Koekoek, 2003).

[6] Rice and Ward, 1996

[7] 14'000 of 50'000 total producers (Giovannucci, 2009a)

[8] Editors' note: Details on the organic coffee area as collected in the frame of the FiBL/IFOAM survey is available at http://www.organic-world.net/statistics-crops.html

Organic coffee supply

Growing from very concentrated sources in the 1990s and earlier part of the 2000s, the supply today is increasingly dispersed among different types of producers; yet it is still concentrated in one region. Latin America provides three-fourths of the total (see Figure 20). As costs of production rise without concomitant increases in the premiums for these coffees, it is expected that some of the higher cost origins will decline in their output of organics. This is especially true where origins have alternative value propositions such as high quality or Geographic Indications. Costa Rica and Guatemala appear to be examples of this phenomenon.

Eight exporting countries account for 85 percent of total supply. Record exports from Peru in 2008 solidify it as the leading supplier now registering about one third of the world's total organic green coffee exports in 2008. Indonesia, Honduras, Ethiopia and Nicaragua have all grown significantly and are among the top producers in the field. Others include Mexico, Colombia, Brazil, Guatemala, and El Salvador.

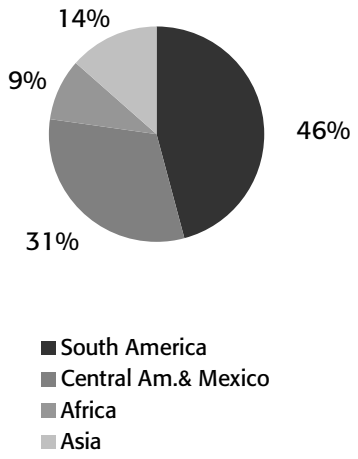

Figure 20: Organic coffee: percentages of total exports by region 2008 (green beans)

Source: Giovannucci and Pierrot 2010

Supply of organic coffee is higher than ever and demand for it has kept pace, but not without the inevitable adjustments of supply and demand. Overall, supplies have been adequate for much of the past decade with some mid-decade abundance that put downward pressure on price premiums. This has made organic production increasingly less viable for some producers, particularly the more intensive growers for whom modest premiums do not match the higher yields available from conventional approaches.

Organic coffee markets

Organic coffee is sold in tens of thousands of outlets in dozens of countries. European markets pioneered organic coffee sales in the 1970s and many have experienced growth in the last decade.[1] Indications are similar for major Asian markets such as Japan and Korea, while North America has grown at an annualized rate of 29 percent for the last nine years arriving at a volume of nearly 40'000 MT in 2008.[2] There is also some modest evidence of this expansion beginning to emerge beyond traditional markets of the more affluent countries of Europe, North America, and Asia. A few organic coffees are appearing on the shelves, particularly in larger cities of Eastern Europe, Pacific countries, Latin America, the

[1] Fürst and Pierrot, 2007
[2] Giovannucci 2009

Middle East, and South Africa and even in exporting countries such as Mexico, Peru, and Brazil.

In 2008, certified organic exports grew to almost 100'000 tons (green beans). This represents only 2 percent of the global exports of green coffee, still a very modest niche of the total market. Nevertheless, the value of this trade is approximately 310 million US dollars (F.O.B.) and close to three billion US dollars at retail.

Multiple certifications in the name of sustainability

Fifteen years ago, in the mid 1990s, there were very few doubly certified coffees available. The first were organic and fair-trade – still one of the most popular combinations. These have grown considerably to the point where now about half of the world's traded organic coffees are also certified to another seal.[1]

By the mid 2000s, not just double but also multiple certifications emerged, as producers felt the need to have these available in order to improve their likelihood of a lucrative sale. In an effort to improve market access, triple certifications are not uncommon today and these processes can be costly for producers. The Committee on Sustainability Assessment (COSA), a nonprofit group that measures the various types of costs and benefits that producers incur, claims that indications from research in several countries point to increasing compliance costs that can be greater than the cash costs of inspection and certification.[2] With the increasing popularity of other certifications such as Rainforest Alliance, Smithsonian MBC, Utz Certified, Starbucks C.A.F.E. Practices, Nespresso AAA, and even the verification systems of the 4C program, producers must often learn new processes, adapt their practices, and improve record keeping and traceability, all of which can add considerable expense and difficulty that must be recouped in improved incomes if such certifications can claim to support sustainability.

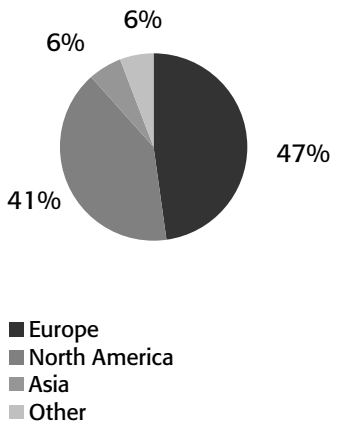

Figure 21: Imports of organic coffee by region 2008 (green beans)

Source: Giovannucci and Pierrot 2010

Future trends

Industry projections are more cautious than in recent years, but still indicate continued growth. Even in recession, the market for organic coffees continued to expand in many, but not all countries. Organic continues to move steadily into the mainstream channels and is expanding the most there. Evidence from AC Nielsen data for supermarkets confirms this trend in North America and in some European countries.

[1] Giovannucci 2009

[2] More information on COSA at www.sustainablecommodities.org/cosa

One of the market advantages that organic products may have over other certifications is their relative stability in terms of the diversity of buyers and distribution channels. Organics exist in many more settings with both large and small buyers and may thus presumably be less vulnerable to market swings than other certified products that depend on fewer major buyers or outlets. Strategists and buyers for some of the larger food and beverage firms indicate that their demand for all certified and traceable products will continue to grow, despite the pressure to contain costs. Larger importers suggest that this year their rate of growth in the USA, the world's largest market for organic coffees, may slow to less than double digit rates for the first time in recent memory, but nearly all still anticipate growth.

For all its visibility and continued strong growth, organic coffee is still a rather modest segment of the market. Estimations for the year 2000 indicated that only a negligible fraction (well below one percent) of the global trade of green coffee[1] was certified and sold as organic.[2] In 2008, the figure was considerably higher at almost 100'000 tons or two percent of the global exports of green coffee. This represents an approximate average annual growth rate of about 34 percent (see Figure 22: Growth of organic coffee imports 2000 to 2008). While still a relatively small percentage of the total market, it has been consistently expanding at many times faster than the overall market. This expansion has not been even each year, nor has it been equally distributed among countries.

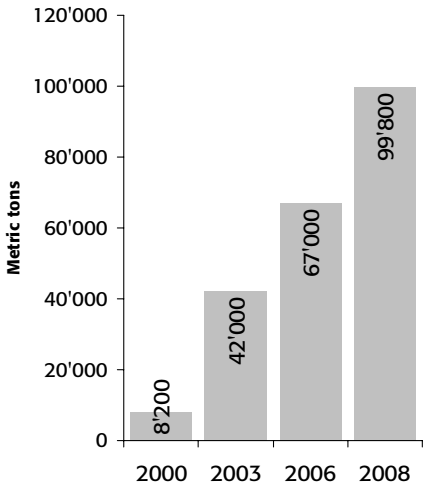

Figure 22: Growth of organic coffee imports 2000 to 2008

Sources:
Giovannucci (2001) for 2000.
World Bank (2004) for 2003 (cited in Lewin et al 2004).
Giovannucci and ITC Coffee Guide for 2006.
Giovannucci and Pierrot (from various sources) for 2008.

Some supply constraints could begin to emerge after 2010 as well. The overall largest producers of conventional coffee - Brazil, Vietnam, and Colombia - have not substantially expanded their organic output. The assumption may be that it does not lend itself to large scale efforts, and yet Brazil has large scale farms (>100 hectares) that produce organics very successfully. Some producer countries are finding it less viable to produce organically, especially in the current market conditions with strong demand for any fair to good quality coffee and high premiums for specialty grades of coffee. However, a number of leading cooperatives and exporters in places like Peru, Ethiopia, Nicaragua, Mexico, and Indonesia report that their commitment is firm and that they will continue to grow as long as demand continues to increase.

[1] Coffee is most commonly traded, particularly from producing countries, in its raw form as green beans.
[2] These figures ranged from 8200 tons from Giovannucci (2001), who also notes 4090 tons for the North American market, to Hallam (2003), who suggests 10'000 tons (0.2 percent of consumption).

Organics and the Information Age

Having realistic information and an understanding of trends improves market functions not just for the industry, but also is important for producers and policymakers to help determine their strategies and investments. Yet, this report relies on considerable independent research to arrive at estimates. Curiously, few governments track organic data or make this information available – something that is not the case for other multi-billion dollar industry segments. In a fast-growing and high-value market, nearly all the accurate organic information is private. This is great for consultants but a hindrance for most others. Is tracking organics such a difficult task? One agency in one of the poorer countries in the Americas (Peru) does a very good job of providing such figures for its organic sector, and it has expanded to become a leading organic exporter. Yet more affluent governments, including the US and Germany, the two largest markets in the world, offer little.

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Organic Cotton Production and Fiber Trade 2008/09: In the Eye of the Storm

SIMON FERRIGNO[1]

Overview

Historically, organic cotton began as the initiative of social entrepreneurs, farmers and NGOs responding to problems of misuse and overuse of pesticides and to social problems caused by production practices, low prices and debt.

By the 2008/09 growing season, organic cotton was grown in 22 countries,[2] with another five countries boasting research or trial programs; production reached 175'113 Metric Tons of fiber, or 802'611 Bales of lint in July 2009.

However, as well as the impact of the global recession, which has led to a sharp fall in demand, organic cotton has been hit by the effects of its own internal rapid growth, as new production projects rushed in to meet what seemed like an endless growth curve.

Unfortunately, this has resulted in over-supply and a squeeze on prices, which are running at 85 percent of the trend floor price of recent seasons (that is, the lowest price at which those involved in fiber production cover their costs and can maintain investment in integrity, farmer development, extension and research). However, the market is volatile and real prices paid by buyers (for extra quality, for more assurance of integrity, for good relations) may be higher, and have been seen at 10 percent to 50 percent above this trend price in some cases.

However, the organic cotton production system is a complex system and consequently requires a certain amount of stability to ensure sustainability, obliging farmers to manage their farms for achieving optimum results, such as by investing heavily in soil fertility management. Moreover, is requires support for a good seed supply, as well as appropriate extension and research. The trading system necessitates the integration of seed cotton supply into ginning, trading and marketing, while the consumer might expect farmers to make investments in the environment and their communities.

Africa has suffered more than many regions due to its high dependence on fiber exports and inability to offer fiber at the low prices coming from India. The Middle East and USA have also been affected. Latin America has been partially shielded by having regional markets for organic textiles to absorb some production, and by vertical integration of fiber production and manufacturing. Peru is helped by being a supplier of specialist products based on long staple fibers. India, while superficially the winner in the growth stakes, has had issues to addressing regulatory weaknesses of the Accreditation Body of the Govern-

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[2] These are Bangladesh, Benin, Brazil, Burkina Faso, China, Egypt, Greece, India, Israel, Kyrgyzstan, Mali, Nicaragua, Pakistan, Paraguay, Peru, Senegal, South Africa, Syria, Tanzania, Turkey, Uganda, USA; Argentina, Kenya, Zambia, Togo, and Ethiopia have trial or non-certified production.

ment of India, which is part of the Agricultural & Processed Food Products Export Development Authority of the Ministry of Commerce and Industry of the Government of India (APEDA)[1].

Production decreased in some countries such as Turkey and Peru, due to market and climatic factors, and production in China has been discounted due to lack of reporting or verification of some production numbers. Some Indian production reports have also been discounted due to conflicting reporting or absence of verification of numbers.

Table 10: Organic cotton fiber production in 2008/09

Region	Production 2007/08 (Metric Tons)	Production 2008/09 (Metric Tons)	Change (percent)
SE Asia	73'908	107'800	46 %
Middle East	52'753	49'450	-6 %
Africa non-CFA	5'455	6'610	21 %
China	7'354	3'849	-48 %
USA	2'716	2'729	0 %
West Africa	1'069	1'612	51 %
Latin America	1'590	1'614	2 %
North Africa	761	936	23 %
Central Asia	194	428	121 %
EU	72	85	18 %
Total	145'872	175'113	20 %
Total in Bales	**668'580**	**802'601**	

Source: Organic Exchange

The area certified for organic cotton is estimated at 253'000 hectares in 2008/09, with some 222'000 farmers involved. This suggests an average yield of organic cotton fiber per hectare of around 690 kg per hectare. This figure is some 86 percent of the global conventional average yield, perhaps lower than one might expect. This can be explained, at least partly, by the large number of farmers recently converted, whose yields will be expected to drop. Nevertheless, average yields remain a cause for concern; all the indications (from observing experienced organic cotton farmers) are that a well-supported organic cotton sector can achieve much better yields.

Market trends

Since 2004/5, the profile of buyers has changed dramatically. There are more traders involved in the sector, and the committed social enterprises and small number of larger, committed brands have been joined by mainstream brands and retailers. Growth is positive in that it can drive business towards producers, but organic cotton has no common set of guidelines for best practices in cotton production and trade, thus the benefits may not be evenly distributed.

The problems caused by over-supply and low price offers are clear in the sudden drop in production growth. Growth in the three seasons until 2007/8 was 48 percent, 53 percent

[1] In 2010 APEDA will introduce a web based Traceability System, called TRACENET, that will require all organic farm and farmer details to be made available online, and through which they hope to have increased traceability.

and then an astonishing 152 percent, before dropping back to 20 percent in 2008/9. The next season may see even lower or stagnant growth.

This is the first time there has been a major, lasting over-supply in organic cotton. Stocks may be as high as 30'000 metric tons, or over 17 percent of total fiber production for 2008/9. Previously, stocks have tended to reflect planned and contracted production that was not yet processed, surplus production grown for spot sale, production from small and uneconomic projects or stock not sold for quality reasons. Previous stocks have run below 10 percent in 2 of the previous 5 growing seasons and below 15 percent in others.

Growth remains strong in some regions. However, India's growth is what one might describe as residual a remnant of the speculative production that anticipated overheated demand from 2007/8 would continue. Production growth in regions such as West Africa owes much to the funding provided by donors, and not always on strong buyer commitments. Declines in the Middle East reflect a combination of the price and oversupply situation and climatic factors. Production figures from China have been revised downwards as previous production reports have not been reconfirmed and verified.

Latin American growth figures reflect a situation where global slowing of demand is partly offset by local demand, and planning is based on real demand rather than speculation or availability of external funding. The region is perhaps the most realistic indicator of real trends in this sense, especially when one looks at stock levels, which are lower here than for example in Africa (which suffers from being a fiber exporting region rather than having a proportion of local consumption).

While growth is still present, but sharply down, producers are likely to face another year of tight conditions. The second half of 2009 showed some signs of renewed demand although real impacts on sales and thus reduction of stocks may not occur until later in 2010. Adverse weather and drought conditions in some regions such as India may help prices stabilize and rise as stocks are used.

Prices

Offered prices at the beginning of 2010 were between 64 and 82 percent of the long term trend floor (or low end)[1] price of recent years (the price where all parties in fiber production can cover costs) and even lower compared to what might be considered a 'sustainable' price, such that farmers, traders and service providers involved in farming might be able to cover costs and make a fair return. This leaves producers and supporters of organic cotton dangerously vulnerable and over-reliant on support from donors.

However, the market is volatile and real prices paid by buyers (for extra quality, for more assurance of integrity, for good relations) may be higher, between 10 and 50 percent above 'baseline' in some cases.

[1] The author and his team have been observing prices and working with producer groups in different regions (India, Turkey, USA, West Africa, East Africa, Latin America) to identify the price levels where producers and traders report they can cover their costs and/or make a fair return since 2005. These price levels remained relatively stable for most of that time until pressures became apparent especially from 2008.

Prospects

Analyzing past demand numbers and current supply, there is a clear lag between use of organic cotton in a year and actual production, which due to the constraints of textiles production will under normal circumstances tend to be the case. However, the combination of speculative over-supply and reduced demand due to the global economic situation means that the difference between consumption and production has widened, and in 2008 production was already 40 percent higher than consumption.

The continued emergence of new consumer markets, such as Eastern Europe and East Asia may well further improve the supply/demand balance in 2010 and 2011. Established markets such as the UK continue to show strong continued demand with the market estimated to nearly triple between 2008 and 2012.

Still, the organic cotton sector must meet several internal and external challenges in the coming months and years.

The sector must address the protection of the farm and fiber business model to ensure farmers and those who work with them receive sufficient returns to maintain investment in farmer development and productivity. Among the tools for this are understanding of best practices in different farming systems, better traceability and integrity of fiber certification as well as monitoring of the real impacts of organic cotton in different producer groups and value chains.

Externally, organic cotton must respond to many global sustainability challenges over soil fertility, water use and management, climate change, food security and competition for land with food and biofuel crops, as well as growing cities.

As a cotton crop, organic cotton must also demonstrate how it stands up against the growing number of other so-called 'sustainable' cottons, such as Better Cotton and Fairtrade Cotton, as well as those arguing that Biotech cotton is also a sustainable crop. It must show it is socially and environmentally responsible and able to compete on productivity. Organic cotton also faces competition from so-called sustainable synthetics, such as recycled polyester.

The current situation has exposed weaknesses in the regulatory and self-governance structures in the organic cotton sector, as well as the need to implement better pricing mechanisms, better communication of the differences of the organic cotton system to investors and buyers in the sector. Issues relating to consumer understanding and messaging around organic cotton, its aims and real impacts present another important area for further development. Organic cotton could use a clear label such as the Fairtrade '*Guarantees a better deal for Third World Producers*' – and make sure it delivers this.

So what will the future bring? The world of organic cotton is full of bright, hard working and long established pioneers and idealists, those who shaped the initial vision of organic cotton as a solution to the severe problems of conventional cotton, who helped set organic cotton on its journey from niche to the mainstream. It is on a restatement of these same values that we will strengthen the sector. Crises lead to reconstruction and innovation, and the difficult year we have just faced is leading our industry to do just this. While challenges remain, the future remains bright

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Standards and Regulations

Standards and Regulations

BEATE HUBER,[1] OTTO SCHMID,[2] GBATI NAPO-BITANTEM[3]

2009 witnessed several major developments in the field of standards and regulations.[4] The new EU regulation on organic production came into force as well as the Canadian organic standard. Furthermore, the Australian domestic organic standard was implemented. Between Canada and the U.S., the world's first fully reciprocal agreement between regulated organic systems was concluded and the EU started the procedures for approving certification bodies from outside the EU. It is expected that these developments will ease trade with organic products and foster future growth of the sector.

Organic legislations world-wide: current situation

According to the FiBL survey on organic rules and regulations, the number of countries with organic standards has increased to 73, and there are 16 countries that are in the process of drafting a legislation. The data on regulations around the world were collected from authorities and experts. Regulations were categorized as "not fully implemented" or "fully implemented" based directly on the feedback of the persons interviewed, and not subject to verification. We received responses from experts and authorities in 60 percent of the countries. It is assumed that a majority of the 40 percent of non-responding countries did not pass legislation on organic production, although the share of countries in the process of developing legislation is probably greater than reflected.

For the list of countries with regulations or in the process of drafting regulations on organic agriculture see Table 11 and Table 12.

Please send comments or information on countries not listed to beate.huber@fibl.org.

Table 11: Countries with regulations on organic agriculture

Region	Country	Remark
European Union (27)[5]	Austria	Fully implemented
	Belgium	Fully implemented
	Bulgaria	Fully implemented
	Cyprus	Fully implemented
	Czech Republic	Fully implemented
	Denmark	Fully implemented
	Estonia	Fully implemented
	Finland	Fully implemented

[1] Beate, Huber, Research Institute of Organic Agriculture (FiBL), Ackerstrasse, CH-5070 Frick, Internet www.fibl.org
[2] Otto Schmid, Research Institute of Organic Agriculture (FiBL), Ackerstrasse, CH-5070 Frick, Internet www.fibl.org
[3] Intern at the Research Institute of Organic Agriculture (FiBL) in 2009
[4] For a brief history of organic standards and regulations see www.organic-world.net/rules.html as well as previous versions of this article as published in the various editions of ‚The World of Organic Agriculture.' These can be downloaded at www.organic-world.net/former-editions.html.
[5] Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/92. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:189:0001:0023:EN:PDF

Region	Country	Remark
	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 Netherland	Fully implemented
	United Kingdom	Fully implemented
Non-EU Europe (11)	Albania	Fully implemented
	Croatia	Fully implemented
	Iceland[1]	Fully implemented
	Kosovo	Not fully implemented
	Macedonia	Fully implemented
	Moldova	Fully implemented
	Montenegro[2]	Fully implemented
	Norway	Fully implemented
	Serbia	Fully implemented
	Switzerland[3]	Fully implemented
	Turkey	Fully implemented
Asia & Pacific Region (16)	Azerbaijan	Not fully implemented
	Australia[4]	Fully implemented
	Bhutan	Not fully implemented
	China	Fully implemented
	Georgia	Fully implemented
	India[5]	Fully implemented
	Indonesia	Fully implemented
	Israel	Fully implemented
	Japan[6]	Fully implemented
	New Zealand[7]	Fully implemented
	Philippines	Fully implemented
	Korea South	Fully implemented
	Saudi Arabia	Not fully implemented
	Taiwan	Fully implemented
	Thailand[1]	Fully implemented

[1] www.landbunadarraduneyti.is/log-og-reglugerdir/Reglugerdir/Allar_reglugerdir/nr/79
[2] www.skupstina.cg.yu/skupstinaweb/tekstovi_list.php?s_id_zakoda=110
[3] www.admin.ch/ch/d/sr/c910_18.html
[4] www.affa.gov.au/corporate_docs/ublications/ word/quarantine/approg/nationalstandard2.doc.
[5] National Programme for Organic Production (NPOP), www.apeda.com/organic/index.html.
[6] JAS Standards for organic plants and organic processed foods:
www.maff.go.jp/soshiki/syokuhin/hinshitu/e_label/specificJAS-organic.htm
[7] New Zealand Food Safety Authority (NZFSA) Official Assurance Programme for Organic Products:
www.nzfsa.govt.nz/organics/index.htm

Region	Country	Remark
	United Arab Emirates	Not fully implemented
The Americas & Caribbean (18)	Argentina	Fully implemented
	Bolivia[2]	Fully implemented
	Brazil[3]	Fully implemented
	Canada	Fully implemented
	Chile	Fully implemented
	Costa Rica[4]	Fully implemented
	Colombia	Fully implemented
	Dominican Republic	Fully implemented
	Ecuador[5]	Fully implemented
	El Salvador[6]	Not fully implemented
	Guatemala	Not fully implemented
	Honduras[7]	Fully implemented
	Mexico	Not fully implemented
	Paraguay[8]	Not fully implemented
	Peru[9]	Fully implemented
	Uruguay	Not fully implemented
	USA[10]	Fully implemented
	Venezuela	Not fully implemented
Africa (1)	Tunisia	Fully implemented

Source: Huber, Silva, Gelman, Napo-Bitantem

Table 12: Countries in the process of drafting regulations

Region	Country
Europe (3)	Bosnia & Herzegovina
	Russia
	Ukraine
Asia and Pacific Region (5)	Armenia
	Hong Kong
	Lebanon
	Sri Lanka
	Syria
The Americas & Caribbean (3)	Cuba
	Nicaragua
	St. Lucia
Africa (5)	Egypt
	Morocco
	South Africa[11]
	Zambia
	Zimbabwe

Source: Huber, Silva, Gelman, Napo-Bitantem

[1] Homepage of the National Bureau of Agricultural Commodity and Food Standards, www.acfs.go.th/eng/index.php
[2] www.aopeb.org/
[3] www.planetaorganico.com.br
[4] www.mag.go.cr/doc_d/reg_ley_mag.html
[5] www.sica.gov.ec/agronegocios/ productos%20para%20invertir/organicos/principal.htm
[6] www.elsalvadororganico.com.sv/
[7] www.senasa.gob.hn
[8] www.senave.gov.py/index.php ?pag=ampliamos&Cod_noticias=102
[9] www.senasa.gob.pe/0/modulos/JER/JER_Interna.aspx?ARE=0&PFL=0&JER=671
[10] www.ams.usda.gov/nop/indexIE.htm
[11] www.afrisco.net/Html/Product_Stardards.htm

International standards & regulations

IFOAM Organic Guarantee System

The IFOAM Basic Standards[1] define how organic products are grown, produced, processed and handled. They reflect the current state of organic production and processing methods. The IFOAM Basic Standards - together with the IFOAM Accreditation Criteria - constitute the IFOAM Norms, which provide a framework for certification bodies and standard-setting organizations world-wide to develop their own certification standards. Based on the decision of the IFOAM General Assembly in September 2005, IFOAM has been revising the Organic Guarantee System (OGS) with the aim of creating better access to it. IFOAM decided that the OGS, while serving to uphold the integrity of organic agriculture, should also aim to facilitate trade and be able to accommodate all serious organic certification bodies and their clients.

The Codex Alimentarius Guidelines

The need for clear and harmonized rules has not only been taken up by private bodies, IFOAM and state authorities, but also by United Nations Organizations, including the Food and Agriculture Organization of the United Nations (FAO), the World Health Organization (WHO), and the United Nations Conference on Trade and Development (UNCTAD). The FAO and WHO consider international guidelines on organically produced food products to be important instruments for consumer protection and to facilitate trade. They also provide assistance to governments wishing to develop regulations in this area, in particular in developing countries and in countries with transition economies.

The Codex Alimentarius Commission approved plant production guidelines in June 1999, and animal production guidelines in July 2001.[2] The requirements of the Codex Guidelines are in line with the IFOAM Basic Standards and the EU Regulation (EC) 834/2007. There are, however, differences with regard to details in specific areas covered by the varying standards.

From IFOAM's perspective, the Codex Guidelines are an important step towards the harmonization of international rules that serve to build consumer trust. They will be important in the future for equivalence judgments under the rules of the World Trade Organisation (WTO). In fact, the revised EC Regulation 834/2007 mentions explicitly that, for the assessment of equivalency, the Codex Alimentarius guidelines CAC/GL 32 shall be taken into account. In terms of developing the market for organically produced food, these Codex Guidelines also provide guidance to governments in developing national regulations for organic food.

The annex lists, which define what substances can be used in organic food and farming systems, have been under revision since 2005, with a focus on substances for food processing and criteria for the use of new substances. A working group within the Codex Committee for Food Labeling (CCFL), which is supported by the government of Canada, is charged

[1] On the IFOAM homepage www.ifoam.org under "Organic Guarantee System," the IFOAM Norms, consisting of the IFOAM Basic Standards for Organic Production and Processing and the IFOAM Accreditation Criteria for Bodies certifying Organic Production and Processing can be purchased. The website also provides information on the IFOAM Accreditation Program; see www.ifoam.org/about_ifoam/standards/ogs.html

[2] Information about Codex Alimentarius is available via the homepage, www. codexalimentarius.net. The *Guidelines for the Production, Processing, Labeling and Marketing of Organically Produced Foods*, amended in 2009, can be downloaded from www.codexalimentarius.net/download/standards/360/cxg_032e.pdf.

with this work. The Codex Commission adopted several amendments in the annex lists that were proposed by the CCFL in July 2009. Other substances discussed, like nitrate and nitrates, as well as ascorbates for meat processing, and phosphates as food additives, however, were not approved in the Codex Guidelines for organic food. In 2010, open discussions will continue, e.g., with regard to the use of Rotenone for pest control or ethylene (for foods other than bananas and kiwi fruits).

EU regulation on organic production

Revision of the basic rules

In July 2007, *Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91* was adopted, and it came into force on January 1, 2009.[1] This regulation describes the objectives, principles and basic requirements of regulations for organic production. It is supplemented by the implementation rules, which describe the details on production, labelling, control and imports (*Commission Regulation (EC) No 1235/2008 of 8 December 2008, Commission Regulation (EC) No 889/2008 of 5 September 2008*; *Commission Regulation (EC) No 1254/2008 of 15 December 2008*). In 2009 the implementation rules were augmented with the introduction of aquaculture standards. The details on wine production are expected to be adopted in 2010. Although the European Commission aimed at preserving the main content of previous Regulation 2092/91, there are many changes to details, some of which may have serious impacts on organic farming in the future.

Revised import procedures

At the end of December 2006, the European Union published new regulations concerning the importation of organic products. The revised import procedures will replace the current (temporary) system of import authorizations by an approval system for inspection bodies operating in countries outside of the European Union (See also European Commission 2008).

In the future, products will only be granted import into the EU if they have been certified by an inspection body or authority recognized by the European Commission. The European Union will publish lists of approved inspection bodies and authorities as well as approved third countries. There will be three different lists:

1) List of inspection bodies that apply an inspection system and production standards equivalent to the EU regulation on organic production.
2) List of inspection bodies that have been accredited according to EN 45011/ISO 65 and that apply an inspection system and production rules compliant with the EU regulation on organic production. The provision on compliance with EU regulation on organic production is new.
3) List of countries whose system of production complies with rules equivalent to the EU's production and inspection provisions.

[1] The revised Regulation 834/2007 and its implementation rules are published on the EUR-Lex website, lex.europa.eu. They are available in all official languages of the European Union.

Compliance requires a full application of the EU Regulation, e.g., a seed database, and does not accept grower groups with internal control systems, whereas equivalence allows a locally adapted approach.

Under options 1) and 2) the inspection bodies can either be located within or outside the EU.

Under options 2) and 3), (equivalency-option), the imported products have to be covered by a certificate of inspection, which is not a provision under option 1). For options 2) and 3), Codex Alimentarius shall be taken into account for assessing equivalency.

The first deadline for certification bodies applying for recognition of their activities in Third Countries, i.e. countries outside the European Union, expired on October 31, 2009. The European Union received 72 applications from certification bodies of all over the world. The first list of certification bodies approved under the new import scheme is expected to be published by end of 2010 or beginning of 2011. Import authorizations will only be issued 12 months after the publication of this list. The existing system for approval of countries in the so-called 'Third Country List' will be maintained.

The new import regulation allows a more consistent and effective control system for imported products and improves the possibilities for supervision of inspection bodies operating in Third Countries. It further increases transparency by publishing lists of recognized inspection bodies. In the old system, it was difficult for inspection bodies outside the European Union to prove the acceptance of their certification in the European Union. They were dependent on European importers' willingness to apply for an import authorization with a new or unknown inspection body – which meant confronting a significant hurdle. The new system allows inspection bodies from non-EU-countries to apply for recognition on their own initiative, enabling them to prove they are recognized prior to the start of trade relationships. This also reduces the risk to importers who import products certified by non-European and/or lesser-known inspection bodies.

Import requirements of major economies

The most important import markets for organic products are the EU, the U.S., and Japan. All of them have strict regimes for the importation of organic products. In the EU, the U.S. and Japan, products may only be imported if the certifying agency has been approved by the respective competent authority. Approval of certification bodies requires compliance or equivalency with the requirements of the importing countries, which can either be achieved through (a) bilateral 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 U.S., 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 the will and political negotiations of the governments, but in part are also based on technical assessments.

While bilateral agreements tended to stagnate in the past, a breakthrough was achieved with the bilateral agreement between the U.S. and Canada. Under a determination of

equivalence, producers and processors that are certified to the National Organic Program (NOP) [1] standards by a U.S. Department of Agriculture accredited certifying agent do not have to become certified to the Canada Organic Product Regulation (COR) standards in order for their products to be represented as organic in Canada. Likewise, Canadian organic products certified to COR standards may be sold or labeled in the United States as organically produced. Both the USDA Organic seal and the Canada Organic Biologique logo may be used on certified products from both countries. The COPR came into effect on June 30, 2009. In addition, the U.S. is negotiating equivalency agreements with Australia, the European Union, India and Japan.

The European Union currently recognizes eight countries[2] and is in intensive negotiations with Canada, Japan and the U.S.

The U.S. has otherwise accepted few foreign governments' accreditation procedures. Certification bodies accredited according to the U.S. requirements by Denmark, UK, India, Israel, Japan and New Zealand are accepted by the United States Department of Agriculture for certifying according to the U.S. National Organic Programme NOP – although not directly accredited by 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 U.S.

Acceptance of the certifying agency by the target import country

The U.S., the European Union, and Japan have options for recognizing certification bodies operating outside the country. The technical requirements for achieving such recognition are difficult to meet, and the associate fees are high. Maintaining recognition and/or the necessary accreditation requires substantial financial capacity and personnel from the certification agency.

The U.S. National Organic Program (NOP) requires all produce labelled as organic in the U.S. to meet the U.S. standards, including imported products. The U.S. system 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 U.S. Department of Agriculture USDA are accepted. It is not relevant whether the certification body is based in the U.S. or elsewhere. So far, almost 100 certification bodies have been accredited according to NOP requirements by the USDA, and only produce certified by these certification bodies may be exported to the U.S.

Global Organic Market Access (GOMA) Project

Building on the partnership that created and facilitated the International Task Force on Harmonization and Equivalence in Organic Agriculture (ITF) from 2003-2008, FAO, IFOAM, and UNCTAD have started the Global Organic Market Access (GOMA) project (see also article by Sophia Twarog on page 80). This project continues the work begun by the ITF to facilitate equivalence, harmonization and other types of cooperation in order to simplify the process for trade flow of products among various regulatory and/or private organic guarantee systems.

[1] National Organic Programme (NOP) www.ams.usda.gov/AMSv1.0/NOP
[2] Argentina, Australia, Costa Rica, New Zealand, India, Israel, Switzerland, Tunisia

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- www.certcost.org: European Union project on the economic analysis of certification systems for organic food and farming

Clearing a Path for Sustainable Trade: FAO, IFOAM and UNCTAD Announce the Global Organic Market Access (GOMA) Project

SOPHIA TWAROG[1]

Building on the partnership that created and facilitated the International Task Force on Harmonization and Equivalence in Organic Agriculture (ITF) from 2003-2008, FAO, IFOAM and UNCTAD are pleased to announce the Global Organic Market Access (GOMA) project. This project continues the work begun by the ITF to facilitate equivalence, harmonization and other types of cooperation in order to simplify the process for trade flow of products among various regulatory and/or private organic guarantee systems.

GOMA provides two practical tools of this purpose, which were developed by the ITF. The Guide for Assessing Equivalence of Standards and Technical Regulations (EquiTool) and the International Requirements for Organic Certification Bodies (IROCB) can be used by any government or private sector organic scheme as tools for recognizing other organic standards and certification performance requirements as equivalent to their own.

These tools are already being used by public and private sector organic regulators. For example, the European Commission's guidelines on imports of organic products into the European Union refer to the Equitool and the IROCB as examples of international best practice to be used in assessing equivalency of organic guarantee systems. The Global Organic Textiles Standard (GOTS) programme decided to use the IROCB as its norm for accrediting/approving certification bodies.

GOMA project activities include:

- *outreach* to share knowledge about the tools and possibilities for cooperation;
- *pilot projects* to test the tools in various environments;
- *technical assistance* to governments and private sector stakeholders to implement the tools and related recommendations;
- *facilitation* of new regional initiatives for cooperation on harmonized organic standards development and multi-lateral equivalence;
- *analysis of* the organic trade system and evaluation of the trade-facilitating

GOMA is currently focusing on regional organic standards development in Central America and a scoping study and consultation in Asia for cooperation on harmonization and equivalence.

Funded for the period 2009-2012 by the Norwegian Agency for Development Cooperation (Norad), the GOMA project is overseen by a steering committee comprised of representatives from FAO, IFOAM and UNCTAD. IFOAM administers the project funds and operations.

[1] Dr. Sophia Twarog, GOMA Steering Committee member, United Nations Conference on Trade and Development (UNCTAD), Trade, Environment and Development Branch UNCTAD/DITC E. 8015, Palais des Nations, 1211 Geneva 10, Switzerland, www.unctad.org/trade_env

GOMA will keep stakeholders informed on harmonization, equivalence and other trade facilitation topics via its website (www.goma-organic.org) and also via periodic electronic newsletters.

GOMA is accepting requests for pilot projects and technical assistance to implement the equivalence tools. To submit a request, receive newsletters or make general inquiries about the project, contact the project's senior manager, Diane Bowen, d.bowen@ifoam.org.

Links

- www.goma-organic.org: Homepage of the Global Organic Market Access (GOMA) project
- www.itf-organic.org: Homepage of International Task Force on Harmonization and Equivalence in Organic Agriculture (ITF), with all documents

Almost 500 Certification Bodies World-wide

Gunnar Rundgren[1]

There has been modest growth in the number of certification bodies. One new country, Ukraine, has a domestic certification body. The total is 488, up from 481 in 2008. Most certification bodies are in the European Union, the United States, Japan, South Korea, China, Canada, and Brazil. There have been very small changes in the number of certification bodies in those countries.

Table 13: Countries with the most certification bodies

Country	2009	2008	2007	2005
Japan	59	60	55	69
United States of America	55	57	60	60
South Korea	32	32	33	1
Germany	31	32	32	31
China P.R.	29	29	32	26
Spain	28	27	28	25
Canada	21	21	23	24
Brazil	20	20	21	18
Italy	16	16	16	16
India	16	13	12	9
United Kingdom	9	10	10	10
Austria	9	9	9	9

Source: The Organic Standard

Seventy-nine countries have a domestic certification body, but this doesn't mean that producers in the other countries are without the service of certification. Many of the listed certification organizations also operate outside their home country. Most of them are based in a developed country and offer their certification services in developing countries. Very few operate in several developed countries. (For example, there is not a single EU-based certification body offering its services in the United States, even when they have the required NOP accreditation). A handful work on several or all of the continents. There appear to be certified operators in almost all countries in the world.

Most of Africa and large parts of Asia still lack local service providers. There are only 10 certification bodies in Africa (in South Africa, Senegal, Kenya, Uganda, Tanzania, and Egypt). Asia has 164 certification bodies, most of them based in South Korea, China, India, and Japan. The Caribbean and the Pacific have very few certification bodies.

Since 2003 the number of certification bodies has risen sharply in Asia, increased in Europe and Latin America and been relatively stable in Africa and Oceania. The introduction of the NOP in the US caused a fairly drastic reduction in the number of certification bodies the following few years, after which the situation stabilized. In some countries, notably China, Japan and South Korea, the introduction of a regulation has led to a growth in the number of certification bodies. However, after a few years the numbers dropped in Japan.

[1] Gunnar Rundgren, The Organic Standard, Höje, Sweden, www.organicstandard.com

Certification bodies were asked for information about the number of operators they certify. Two hundred and twenty-nine responded, giving a total of 192'000 operators. One hundred and ninety-seven certification bodies gave an answer regarding the number of farmers. They certified in total 1'187'000 farms, with BCS claiming to certify 342'000 farms. IMO's head office alone reports more than 120'000 and its office in Latin America 36'000. Naturland reports 50'000 farms, and Certimex 29'600 farms. India clearly has the highest number of organic farms in the world. Less than half of the certification bodies in India reported the number of certified operators and still the figure is 315'000 farmers. OneCert India and Apof Organic Certification Agency certify 100'000 farms each, USOCA 51'000, and the Natural Organic Certification Association 27'000. It should be noted that the same farm can be certified twice. For example, many Naturland-certified farmers are also IMO-certified; the two organizations cooperate closely. Nevertheless, the number of certified farms is likely to be in the range of two million or possibly more, as data are lacking from many important countries and approximately half of all certification bodies.

Most organizations are still not transparent about their turnover. Only 78 organizations provided information on the topic. Many report figures in the range of 100'000 to 500'000. Ecocert France reports a turnover of 8 million Euro, without competition the highest figure. Other organizations reporting a turnover of two million or more are bio.inspecta, ICEA, CCPB, Soulo e Salute, Ecocert International, Qualité France, DIO, Biohellas, Skal, Washington State and Debio. The global turnover in organic certification is clearly above 200 million Euros, perhaps even twice as much. (Four-hundred million would represent approximately one percent of the estimated market value, or, stated differently, less than 300 Euros per farmer).

Of the 328 certification bodies that responded to the question concerning the starting date of their operation, only 13 started before 1985; more than half of them started in the period 1985-1994.

Table 14: Number of certification bodies and approvals per region

Region	Total	IFOAM	Japan	ISO 65	EU	USA
Africa	10	3		6		
Asia	164	7	60	20	19	13
Europe	180	11	12	91	150	34
Latin America & Caribbean	47	6	4	18	6	10
North America	76	6	17	26	0	62
Oceania	12	4	6	5	7	6
Total 2009	488	37	99	166	182	125
Total 2008	481	37	98	157	180	124
Total 2007	468	36	63	133	171	125
Total 2006	395	32	64	129	160	112
Total 2005	419	31	100	113	143	115
Total 2004	385	30	95	96	132	112
Total 2003	364	26	81	74	112	106

There has been little change in the approval status of organizations since 2008. The biggest increase is for ISO 65 accreditation, up from 157 to 166; still less than a third of organizations have ISO 65 accreditation. The number of organizations approved in Japan increased a lot. The European Union has 182 approved bodies, with 32 foreign-based bodies recognized within its system. The majority of imports into the European Union come through certification granted under article 11.6 (i.e., the importer's derogation). Under that system, import authorizations were granted from 116 countries in 2005. The system will be changed the coming years. The U.S. system has 125 approved bodies, of which 71 are outside the United States, the same as last two years. Only eight organizations, four Italian and two each from Argentina, Australia and New Zealand, reported all five approvals.

Overview of Participatory Guarantee Systems World-wide

JOELLE KATTO-ANDRIGHETTO[1]

A growing number of organic producers are certified through Participatory Guarantee Systems (PGS) across the world. 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.

PGS are revisiting the way organic certification started 30 years ago. Through the important development and professionalization of the organic sector, accompanied by increased international trade, third party certification has become the norm in most developed organic markets. Nevertheless, PGS maintain their important role of serving organic producers and consumers eager to maintain local economies and direct, transparent relationships. Thanks to the efforts of networks such as the Latin American Agroecology Movement (MAELA) and IFOAM, the PGS concept has gained recognition in the past few years, and is now viewed by many as one of the most promising tools to develop local organic markets. IFOAM has described the PGS concept in a range of documents (see references).

Some of the organic producers involved in PGS may be included in overall national organic agriculture statistics presented in this book. This might be the case for example in the following situations:

- If they are linked to, or recognized by, a national organic agriculture association which compiles national data on the organic sector, (e.g., in New Zealand).
- When some of the producers involved in PGS also have a separate third party certification and are therefore counted in the data reported by certification bodies, (e.g., in France, where 50 percent of the PGS-certified farmers have a double certification).
- When entire PGS groups are connected to the third party certification system by being audited and certified as a group, (which requires the PGS to manage an Internal Control System). In this case, they would also be counted in the data provided by certification bodies. A few examples can be found in Latin America.

However, in several cases, organic producers certified through PGS are not yet included in the national organic agriculture statistics because they are not sufficiently recognized by other institutions and they might even be denied the right to call themselves "organic" according to the regulation in place.

IFOAM is the only organization compiling global data about PGS. IFOAM's efforts to compile comprehensive data on PGS world-wide have started recently and are still under way; therefore, the data provided here is not exhaustive but can be considered a fair approximation of the situation in 2009.

[1] Joelle Katto-Andrighetto, Program Manager, International Federation of Organic Agriculture Movements, Charles-de-Gaulle-Str. 5, 53113 Bonn, Germany, www.ifoam.org

From the data already collected by IFOAM, it appears that:

- More than 20 functional PGS initiatives exist, spread out over all five continents. Some of these initiatives are very local, (i.e., groups of a few dozen farmers, operating at the village or district level), while others have scaled-up into national PGS systems, involving hundreds to thousands of farmers.
- While some PGS initiatives are nearly as old as organic agriculture, (e.g., Nature et Progrès, the French PGS founded in 1972, which was a co-founder of IFOAM), most current PGS initiatives are relatively recent (i.e., less than 10 years old). The rate of creation of PGS initiatives has been particularly high since 1998, with a major peek in 2005.
- It is estimated that around 10'000 small operators are involved in PGS world-wide. This includes mostly small farmers and a very small number of small processors.
- The leading countries with regards to PGS are located in the "global South": the top two are in India, with more than 3'600 farmers involved, and Brazil, with approximately the same number.
- Among "developed countries", the top two in number of farmers involved are the USA, with more than 800, and France with around 500.
- Latin America is the continent with the highest level of PGS awareness and recognition for PGS among governmental bodies, with several national organic laws recognizing PGS. The EU, the USA and Japan do not recognize PGS, hence it is forbidden for PGS-certified producers to sell their products as "organic" unless they obtain additional third party certification.

The complete PGS data set is available on the IFOAM Online Global PGS Database and regularly updated.

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Organic Agriculture and Carbon Markets

ALEXANDER KASTERINE[1]

Mitigation of climate change in agriculture

Science has delivered a grim message to the world. Cut greenhouse gas emissions by 90 percent in the next 40 years, or we risk facing ecological catastrophe.

Agriculture is responsible for 13 percent of total greenhouse gas emissions. This figure is substantially higher (around 30 to 40 percent) when land clearance for agriculture, agrochemical usage, transport, and consumer energy usage is included.

A third of agriculture's emissions come in the form of methane from ruminant meat production. Reducing this demand should be a priority. The largest potential for mitigation in agriculture, however, lies in changing cropping practices to increase the level of carbon stored in the soil. A large part of this potential for carbon "sequestration" lies in developing countries.

Key practices to increase the uptake of carbon include avoiding bare fallows, increasing the use of legumes, and the incorporation of compost - integral parts of organic agriculture (FAO 2008, ITC 2007, Soil Association 2009). Adopting these practices have co-benefits of improving yields (and thus incomes) over time and helping soils adapt to reduced water availability, increased temperatures, and more extreme weather events. Organic agriculture would at first glance appear well positioned to provide this carbon storage service. The devil however lies in the detail: markets barely exist to provide farmers with incentives to adopt climate friendly practices.

Markets for carbon storage from organic agriculture

There are three nascent or potential market mechanisms for organic to deliver carbon storage services. Table 15 presents the pros and cons of each form of carbon market for organic agriculture.

Voluntary carbon markets

Voluntary carbon markets have emerged to accommodate individuals and companies in the developed world who want to offset their emissions through financing mitigation projects in developing countries.

Pros: The market is relatively small (700 million US dollars in 2008), but growing fast. Unlike the mandatory market (e.g., the EU Emissions Trading Scheme), the voluntary market is open to applications for selling credits from land use projects, such as agroforestry and no-till agriculture. There is potential in the near future for inclusion for organic agriculture.

[1] Dr. Alexander Kasterine, Senior Adviser (Trade, Climate Change and Environment), International Trade Centre (UNCTAD/WTO), Geneva, Switzerland
Responsibility for all errors, omissions, and opinions rests solely with the author. All findings, interpretations, and conclusions expressed in this paper are entirely those of the authors and do not necessarily represent the views of ITC

Cons: The voluntary market periodically has a poor reputation due partly to the perceived lack of additionality and permanence of projects. Agriculture is still not accepted in the voluntary market with the exception of no-till agriculture in the Chicago Climate Exchange. The main prerequisite to having agriculture accepted by voluntary standards is to establish an inventory of carbon stocks in the soils and to monitor, report and verify (MRV) emissions reductions through sequestration. Once accepted, it is open to question as to whether current carbon values (around 10 US dollars per tonne CO_2) would be of interest to farmers. The transaction costs of preparing project proposals will still be relatively high for farm groups.

Outlook: The organic movement led by IFOAM has established a working group to draft a methodology for organic agriculture that carbon standards will accept, thus opening the door for carbon credits.

Agri-environmental schemes

Agri-environmental schemes pay farmers in developed countries for environmental services. To date, schemes cover changes in farming practices leading to reduced agrochemical usage, improved habitats, and better agricultural practice. There are only a few examples of payments for carbon services. The EU does not pay farmers to store carbon in the soil. It is possible in the medium term that schemes will be extended to include practices that lead to greater soil carbon sequestration.

Pros: a government payment for carbon sequestration would not be very interesting financially for organic farmers, (particularly after time spent on all the paperwork involved), but it would provide a valuable public relations boost for the organic sector.

Cons: As with voluntary markets, the main challenge relates to MRV. Administrators of schemes face high costs in mapping out the land, estimating carbon sequestration potential of different farm types, drawing up negotiating contracts, and finally implementing monitoring schemes to ensure agreed upon environmental actions are taken by farmers. A survey of 37 case studies of EU agri-environmental schemes revealed that administration costs as a proportion of total payments to landholders varied from 6 to 87 percent (Garnaut 2008). Public audit offices have shown interest in the past in what farmers decide to do after agri-environmental contracts end. There is nothing to stop a farmer from ploughing up his land and releasing the stored carbon. This would be an attractive option once commodity prices are high enough.

Outlook: These payments are only a medium-term prospect and more likely to be seen at first in the U.S. than Europe. Regulators will need to be convinced that organic agriculture is effective in storing carbon in soils. Despite the favorable scientific evidence in this respect, the organic movement will be competing with other (potentially better financed) agricultural lobbies. It is very unlikely that developing countries could implement schemes widely and effectively, given weak institutions in regulation, contracting, and enforcement.

Product carbon footprint labels

Product carbon footprint labels have been introduced by many retailers in the EU, U.S. and Japan in the last two years. They are intended to respond to consumer concerns about climate change and help differentiate products as more "climate friendly." The labels take two forms, either reporting a figure for how much CO_2 is embedded in a product (e.g., 100g

CO_2) or making a claim about the product's climate "performance" (e.g., "CO_2 approved" or "climate neutral", see Bolwig 2009).

Several organic standard setters have also developed draft standards for climate "add-ons" for organic certification.

Pros: Labels that make claims about sustainability could favor organic products. For example, Hofer in Austria recently introduced a label that claimed that organic milk has 14.3 percent less emissions than the comparable conventional product.

Cons: Several carbon standards have been criticized for providing domestic products a competitive advantage over imported products. This is due to stipulations on either the mode of transport (e.g., no airfreight in the case of Bio Suisse and Coop), the length of journey from field to retailer, and season of import (e.g., draft KRAV climate standard, see Gibbon 2009). The French carbon standard will not include emissions from short journeys in France, thus giving a potential competitive advantage to French products. The UK Carbon Trust standard includes emissions from land use change (LUC) after 1990, for example in clearing trees and shrubs. The emissions from LUC are amongst the largest sources of emissions in the carbon footprint of crops produced in developing countries. It is therefore important that calculations of these emissions are done correctly. This can be difficult in developing countries where relevant data relating to the distribution of current and historical land uses are scarce or absent. There are also ethical issues that most developed countries do not need to include this source of emission as they cleared their forests decades or centuries ago (Brenton et al. 2010). At the very least, traders will face transaction costs in learning about life cycle analysis and providing information on supply chain carbon emissions. Evidence varies on the degree to which consumers will pay a premium for carbon labeled products and thus compensate these costs.

Outlook

The use of carbon labeling by retailers will grow considerably. This trend is driven partly by consumer frustration at the failure of governments at Copenhagen in December 2009 to reach a binding agreement to reduce greenhouse gas emissions. However, there is limited scope for organic to gain a competitive advantage as consumers mainly buy organic for personal health benefits not environmental reasons. Also it will be a costly exercise to establish the environmental advantages of organic over conventional in all the different food lines.

Conclusion

Organic agriculture has long been recognized for delivering multiple environmental services for society in the form of habitats for flora and fauna, improved landscape and non-polluted water courses. Recently, scientists have shown that organic delivers effective carbon sequestration services. Organic products, however, remain undersupplied, because neither consumers nor governments pay substantial sums (if at all) for these benefits. Key next steps to remedy this situation will be to build baselines and monitoring and verification frameworks ,so that the carbon markets will accept organic agriculture into their fold. Just as important is increasing levels government support for the organic sector, particularly funding for research and development. Carbon labelling schemes will be a "niche within a niche" for organics, affording a small advantage to organic products over some

products from agrochemical farming. However, they also pose the risk of being new non-tariff trade barriers for farmers in developing countries exporting to the EU, the U.S., and Japan.

Table 15: Pros and cons of each form of carbon market for organic agriculture

Market mechanism	Pros	Cons
Voluntary carbon markets	- Dynamic, growing market - Scope for standards to accept organic agriculture in near future - Potential to merge organic certification with carbon to reduce costs	- No case to date of inclusion of organic - High cost to establish baseline, monitor and verify (MRV) emissions reduction Need to demonstrate "additionality" – (carbon storage would not have taken place without carbon payment) - Potential lack of permanence (farmers can revert to old practices) - High carbon price needed to compensate transaction costs
Government agri-environmental schemes that include carbon sequestration	- Carbon payments justified as environmental public good - PR boost for the organic sector	- Need for MRV – high cost for both regulators and farmers - High carbon price needed to compensate transaction costs - Potential for a lack of permanence and additionality
Retailer product carbon footprint labels	- Potential competitive advantage for organic over agro-chemical farming	- Transaction costs in measurement and reporting, therefore favors larger exporters and farmers - Potential measurement biases against imported products - Airfreighted products likely to lose out – job losses for African farmers

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Organic Agriculture and Development Support

Organic Agriculture and Development Support: Overview

LUKAS KILCHER[1] AND FELICIA ECHEVERRIA[2]

There is a large number of international organizations, initiatives and projects supporting organic agriculture throughout the world. Local initiatives have been undertaken for more than 25 years. This chapter includes a not exhaustive list of private and public initiatives that render support to organic agriculture development. In addition, there is a large number of joint international projects, which are not mentioned in this article, but are also of great importance for the development of organic agriculture. Both private and public development initiatives contributed considerably in the last 25 years to the growth of the organic sector in many countries of the world, through:

- The development of national organic movements;
- Building capacities of different stakeholder groups of the organic sector;
- Developing research and advisory services as well as extension tools for organic agriculture;
- Developing domestic and international markets;
- Setting up local certification bodies;
- Developing local standards and legislations and policies.

This edition of *The World of Organic Agriculture* includes a number of projects and organic agriculture support initiatives; examples can be found in the articles of:

- Nguyen Sy Linh: Vietnam Organic Development (see page 128)
- Sophia Twarog: The Global Organic Market Access GOMA project (page 80)
- Hervé Bouagnimbeck: Organic Farming in Africa (page 104).

More examples are available in this article and on the web pages of the organizations mentioned below.

Non-governmental organizations and competence centres

The **International Federation of Organic Agriculture Movements (IFOAM)**[3] unites 750 member organizations in 108 countries. IFOAM's mission is *leading, uniting and assisting the organic movement in its full diversity, with the goal of the world-wide adoption of ecologically, socially and economically sound systems that are based on the principles of Organic Agriculture*. IFOAM has established official committees and groups with a range of specific purposes, from the development of standards to the facilitation of organic agriculture in developing countries. For these purposes, it carries out a wide variety of projects and joint initiatives around the world – for example, the I-GO Program,[4] designed to strengthen the organic agriculture movement world-wide. IFOAM also facilitates the development of Participatory

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[3] International Federation of Organic Agriculture Movements (IFOAM) www.ifoam.org
[4] I-GO Program of the International Federation of Organic Agriculture Movements (IFOAM) www.ifoam.org/partners/projects/igo.html

Guarantee Systems[1] to support the growth of local markets. Joint initiatives between IFOAM and national organizations have also developed support for organic agriculture at the local level.

The **Research Institute of Organic Agriculture (FiBL)** Switzerland[2] is a leading competence centre for organic agriculture. Its mission is *to promote organic agriculture world-wide through diverse research and advisory services*. FiBL has long been committed to the international development of organic agriculture. Numerous FiBL projects are carried out in Eastern Europe, India, Latin America and Africa to promote the development of organic research and provide advisory and certification services. The close links between different fields of research and the rapid transfer of knowledge from research to advisory work and agricultural practice are FiBL's strengths: alongside practical research, high priority is given to transferring knowledge into agricultural practice through advisory work, training courses and expert reports as well as through a large offer of extension tools (manuals, magazines, technical leaflets, reference books and internet services).

Agro Eco Louis Bolk Institute[3] provides advice in the field of organic agriculture and fair-trade. Agro Eco states its mission is *to stimulate organic, sustainable and ethical market chains and the development of the organic sector*. It is based in the Netherlands and has two regional offices: one in Ghana to serve West Africa and the other in Uganda, serving East Africa. Agro Eco and Grolink jointly implemented the programme "Export Promotion of Organic Products from Africa (EPOPA)," with the objective of improving the livelihoods of rural communities in the United Republic of Tanzania, Uganda, and Zambia, through exports of organic products.

Grolink[4] is based in Sweden with partner offices in Africa, Asia and Eastern Europe. Its mission is *to make the world a better place to live in by providing clients with excellent consultancy service in the field of organic agriculture, environment and social development*. Grolink´s consultancy services are focused on production, quality assurance, and marketing of organic products. Its expertise consists of inspection and certification development internationally, conducting annual training courses in organic agriculture development for NGOs, private sector professionals and government officials from developing countries. Grolink also participates in the implementation of comprehensive organic programmes in partnership with other organizations.

The **Organic & Fairtrade Competence Center**[5] provides information and advice to organic farming initiatives (with or without fair-trade certification). It aims *to improve the livelihoods of smallholders in developing and middle-income countries*. The Competence Center belongs to Helvetas,[6] which implements organic and fair-trade projects in Africa, Asia and Latin America. Its core field of activities include: creating and sharing know-how and information, offering guidance during the planning and implementation of projects, linking suitable partners along the value chain, facilitating market access and public relations and advising policy-makers and programmes.

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[1] Information on Participatory Guarantee Systems at the IFOAM homepage www.ifoam.org/about_ifoam/standards/pgs.html
[2] Research Institute of Organic Agriculture (FiBL) www.fibl.org
[3] Agro Eco Louis Bolk Institute www.agroeco.nl
[4] Grolink www.grolink.se
[5] Organic & Fairtrade Competence Center www.organicandfair.org
[6] Helvetas www.helvetas.org

The **Humanist Institute for Development Cooperation HIVOS**[1] is a Dutch NGO with the mission *to contribute to a world with equal opportunities for people to develop their talents*. Working together with local organizations in developing countries, HIVOS fosters local initiatives by offering financial support and by advising, networking, advocating, providing education, and exchanging knowledge. Although its mandate is not specifically focused on organic agriculture, they have supported projects in developing countries - both at the international level and domestically - that involved networking, market strategies and advocacy, among other activities, for the development of the organic sector.

Vredesilanden/VECO[2] is a Belguim-based NGO that *aims to contribute to the viable livelihoods of organized family farmers in the developing and developed world*. They maintain seven regional offices that support development programmes in Africa, Asia and Latin America. In close cooperation with 108 organizations, mainly focused on farmers, VECO contributes to the empowerment of farmers by improving their position in the agricultural supply chain, from production to consumption. Much like HIVOS, it does not focus exclusively on organic farming, but does support many organic farmers' organizations.

Governments

The **Government of Switzerland** has several programmes that specifically support the trade of organic products at the international level:

- The Division for Economic Cooperation and Development of the Swiss State Secretariat for Economic Affairs (SECO)[3] funds a large number of projects in organic market development, certification, legislation and policy. SECO aims to support the strengthening of trade capacities of developing countries at policy, institutional and entrepreneurial level. The article on page 97 presents the SECO activities related to organic farming, as well the activities of the Swiss Import Promotion Programme SIPPO.[4]
- The **Swiss Development Cooperation** funds a large number of projects encouraging organic farming through capacity building, research, and the sale of organic produce on domestic and foreign markets. The aim is *to provide farmers with alternative sources of income and help rural regions to develop*. For example, SDC is one of the funders of the long-term farming systems comparison in the tropics, run by FiBL. This project collects and analyzes performance data of organic and conventional farming methods in India, Kenya and Bolivia.
- Another example of a governmental organization is the Dutch **Centre for the Promotion of Imports** (www.cbi.eu). It *stimulates and supports economic activities that are sustainable, socially responsible and environmentally sound*. The programme Organic and Conventional Food Ingredients for Industrial Use 2006–2011 offers support for organic farmers from developing countries by providing: consultancy in organic agriculture export marketing, product and production improvement, training and potential business contacts for the development of organic enterprise.

[1] Humanist Institute for Development Cooperation HIVOS www.hivos.nl
[2] Vredesilanden/VECO www.veco.vredeseilanden.org
[3] Swiss State Secretariat for Economic Affairs SECO http://www.seco-cooperation.admin.ch/index.html?lang=en
[4] Swiss Import Promotion Programme SIPPO www.sippo.ch

Intergovernmental organizations

The **Food and Agriculture Organization of the United Nations (FAO)**[1],[2] acts upon countries' requests, and therefore the support FAO can offer at the local level varies from country to country. The long-term objective of the FAO Organic Agriculture Programme is *to enhance food security, rural development, sustainable livelihoods and environmental integrity by building capacities of member countries in organic production, processing, certification and marketing*. Some of the most recent initiatives have been organic and fair-trade market development projects in West Africa and in the South Pacific Islands. The FAO supports several research, information, training and communications initiatives; for example, a virtual library containing manuals of good organic practices for Africa is available on the FAO web site, and it also hosts the Organic research Centres Alliance (ORCA)[3] project, a global research facility.

The **United Nations Conference on Trade and Development (UNCTAD)**[4] (www.unctad.org) has been involved in organic agriculture support and promotion activities for over a decade. UNCTAD has identified international markets for organic products, sponsored conferences, studies and events, both in Africa and Latin America. The **United Nations Environment Programme UNEP**[5] and UNCTAD together created the Capacity Building Task Force on Trade, Environment and Development (CBTF) to *strengthen the capacities of developing countries and countries with economies in transition to effectively address trade–environment–development issues* (www.unep-unctad.org/cbtf/). In 2009 the CBTF organized the first online training course on "Successful Organic Production and Export" (see article on page 97). In partnership with IFOAM, UNCTAD supported the initiative to develop an East African Organic Agriculture Standard (EAOPS).

The Trade and Environment Programme of the **International Trade Centre (ITC)** funds and implements projects in organic market development. The objective of ITC's programme is to (i) strengthen the competitiveness of small and medium enterprises and the capacity of trade support institutions; and (ii) provide support to policy-makers on issues relating to organic agriculture.[6] The article on page 99 provides more details on ITC's work programme for organic agriculture.

The **International Task Force on Harmonization and Equivalence in Organic Agriculture (ITF)**[7] is a public–private initiative, led jointly by IFOAM, FAO and UNCTAD, to search for solutions for the proliferation of organic standards across the world. ITF developed a tool for recognizing organic certification bodies internationally and an equivalency of production and processing standards tool. The reports from the work of the ITF contain useful information for understanding the magnitude and origins of these trade obstacles, considered to be a primary challenge for the promotion of organic production and trade. Since 2009, The Global Organic Market Access (GOMA) project continues the work begun by the ITF to facilitate equivalence, harmonization and other types of cooperation in order

[1] Food and Agriculture Organization of the United Nations FAO www.fao.org
[2] Food and Agriculture Organization of the United Nations FAO, Organic Farming pages www.fao.org/organicag
[3] Organic research Centres Alliance (ORCA) project, a global research facility www.fao.org/organicag/oa-forum/en/
[4] United Nations Conference on Trade and Development (UNCTAD) www.unctad.org
[5] United Nations Environment Programme UNEP www.unep.ch
[6] Trade and Environment Programme of the International Trade Centre ITC www.intracen.org/organics/technical-assistance_projects_overview.htm
[7] International Task Force on Harmonization and Equivalence in Organic Agriculture ITF www.itf-organic.org/abouttheitf.html

to simply the process for trade flow of products among various regulatory and/or private organic guarantee systems (see page 80).

The **Inter-American Institute for Cooperation on Agriculture (IICA)**[1] is developing the Hemispheric Programme on Organic Agriculture, (*Programa Hemisférico de Agricultura Orgánica*), with the objective to *establish and develop institutional structures, standards, policies and information to support the organic sector development in Latin America and the Caribbean Region*, emphasizing access for small and medium enterprises. Recent initiatives include support for the elaboration of National Organic Agriculture Strategies in Nicaragua and Paraguay as well as several meetings with regional authorities to facilitate the harmonization of organic regulations in the region.

[1] Inter-American Institute for Cooperation on Agriculture IICA
www.iica.int/Eng/organizacion/LTGC/agricultura/Pages/default.aspx

SECO's Organic Trade Approach

HANS-PETER EGLER[1]

International trade as an engine for growth can substantially contribute to poverty reduction in developing countries. Trade attracts investments, creates jobs and thus provides crucial income also for the poor. Therefore, the Swiss State Secretariat for Economic Affairs (SECO), which is responsible for economic development cooperation in Switzerland, supports the strengthening of trade capacities of developing countries at the policy, institutional and entrepreneurial levels. In the area of trade-related technical assistance, SECO's activities are, therefore, aimed at encouraging a trade friendly environment and strengthening trade policies in SECO's beneficiary countries. Furthermore, SECO seeks to enhance the international trade competitiveness of Small and Medium-sized Enterprises (SMEs) in its partner countries by promoting a sustainable export economy. In addition, SECO's efforts focus on improving access to the Swiss market for products from developing and transition countries.

Organic farming as an opportunity for small and medium sized producers

Industrialized countries have experienced growing interest for all kind of specialty and premium products in recent years. SECO believes that organic goods are part of this emerging market segment. Particularly in Switzerland and other European markets, the organic market is very mature and enjoys a growing penetration beyond the food and beverage industry. The growing demand for organic products in Switzerland and other industrial countries offers therefore a very good opportunity for small and medium sized producers from developing countries. As the usual critical question of necessary production volumes is less salient in these markets, SECO has focused its attention in part on organic production. This offers a promising market opportunity for producers from developing and emerging countries.

Four main pillars to support the organic market

SECO's strategy to support the strengthening of the organic market follows four main pillars:

- the support of the establishment of independent local organic certification bodies,
- development of national market initiatives,
- development of international market initiatives and value chains and
- the promotion of organic imports to Europe.

Local organic certifying bodies: many advantages for the organic market

SECO has assisted in the establishment of independent, local organic certifying bodies in India, Lebanon, Ukraine, Bulgaria, Albania and Romania. All projects have been implemented in partnership with the Swiss Research Institute of Organic Agriculture (FiBL). Local organic certifiers accrue several advantages for the organic market. For instance, the setting up of local organic certifying bodies improves the necessary know-how on the local

[1] Hans-Peter Egler, Head Trade Promotion, Federal Department of Economic Affairs FDEA, State Secretariat for Economic Affairs SECO, Economic Cooperation and Development, Berne, Switzerland, www.seco-cooperation.admin.ch

level. The international organic market, however, can also benefit from better trained local certifiers, who are able to bring local knowledge into international standard setting negotiations. Lastly, small and medium sized producers get easier access to organic certification through local certification bodies.

Organic market initiatives to boost the local market

SECO also promotes organic market initiatives on the national level, through its implementing agency FiBL. The objective of such initiatives is to build partnerships among the major national market forces to boost penetration of the local market of organic goods. In India, for example, this initiative resulted in the establishment of *India Organic,* the national Indian organic trade fair.

International market initiatives to promote organic exports and improve market access

Furthermore, SECO focuses on international market initiatives to promote organic exports and improve the access to the Swiss or European markets. Three complementary approaches have been applied to increase organic exports from developing or transitions countries. The first approach focuses on the strengthening of national export promotion know-how. Through the second approach, SECO tries to transfer organic know-how to existing export promotion organizations. Finally, SECO supports certain organic sectors, such as organic cotton, along the entire organic value chain, linking organic producers, traders, processors and retailers.

In order to improve the market access of organic goods from developing or transition countries to Europe, SECO mandated the Swiss Import Promotion Programme (SIPPO) to support organic producers at international trade fairs like BioFach. Participations at trade fairs allow organic producers to promote their products and to get the latest market information.

The example of cotton: setting up organic cotton supply chains

Since 2002, SECO has been working together with the Swiss NGO Helvetas in Mali, Burkina Faso, and Kyrgyzstan on a programme to promote trade in organic cotton. This programme strives to build long-term production and trade relations in collaboration with the various sectors of the value chain: farmers, processing firms, traders, importers, and large retailers. In addition to this supply chain support, SECO supports complementary projects to improve the international trade conditions for its partner countries. An example of this is Switzerland's support to the "Cotton Four" countries (Burkina Faso, Mali, Benin and Chad) in the formulation of their cotton related submissions in WTO negotiations.

The cotton supply chain programme's objective is to make organic cotton less of a niche product and more of a mainstream product. Thanks to the growing demand from Swiss consumers for textiles made of organic cotton, this programme has managed to draw the Swiss textile industry and retailers into a sustainable development strategy. The private players in the programme are proving their professionalism and commitment in their collaboration along the supply chain and are very interested in continuing the programme despite the textile industry's current struggle with the global economic crisis . Fortunately, growth in sales volumes is expected to pick up again next year.

ITC Support to the Organic Sector in Developing Countries

ALEXANDER KASTERINE[1]

The International Trade Centre (ITC) is the joint technical assistance agency of the United Nations Conference on Trade and Development (UNCTAD) and the World Trade Organization (WTO). ITC supports the organic and biodiversity sectors in developing countries through its Trade, Climate Change and Environment Programme (TECCP).

Developing countries face a number of obstacles to the export of organic products, including meeting buyers' demands on quality, a lack of information about requirements under standards, dealing with the complexities and costs of certification, and building trust with buyers.

ITC works with small and medium enterprises and trade support institutions in overcoming these obstacles and improving access to international markets.

The Trade, Climate Change and Environment Programme supports the organic sector through the provision of market information, facilitating business contacts, training in standards compliance, trade promotion and support for more favorable policies for organic agriculture and trade.

Market information and analysis

ITC provides comprehensive information service for developing countries on organic markets through Organic Link (www.intracen.org/organics), its dedicated portal for the organic sector. Organic Link maintains a free-to-use database of over 2'000 buyers and sellers of organic products, searchable by country and product category. An evaluation of the database in 2009 showed that it facilitated business contacts leading to over USD 4 million in revenues. Organic Link also provides links to market research and business news including ITC's own Market News Service. MNS is a bimonthly publication for SME's and trade support institutions in sub-Saharan Africa. It carries information on prices, market trends, in-depth features on selected organic products and geographical focus areas.

Climate change

ITC recognizes the challenge that climate change is presenting agriculture in developing countries. In 2009, UNCTAD's Trade and Environment Review[2] published a leading article from ITC reviewing the effectiveness of different market mechanisms to support the mitigation of greenhouse gas emissions in traded agricultural products. ITC also published a booklet in 2010 on the impacts of climate change on coffee production and the opportunities for the sector in carbon credit markets. In 2008, ITC published a study with FiBL on the role of organic farming in adaptation and mitigation strategies and will build on this work with further analysis in 2010.

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[1] Dr. Alexander Kasterine, Senior Adviser (Trade, Climate Change and Environment), International Trade Centre (UNCTAD/WTO), Geneva, kasterine@intracen.org

[2] UNCTAD's Trade and Environment Review, www.unctad.org/trade_env/TER

Meeting standards

In 2009, ITC trained 2'500 farmers in organic practices, through national partners in Uganda. Supplying three different companies, the farmers are producing mainly coffee but also herbal teas and chilies. These activities resulted in the certification of three groups and the granting of in-conversion certificates, thus enabling more active organic marketing. In 2010, another 3,000 farmers will undergo a similar process with ITC support.

ITC's Trade for Sustainable Development (T4SD) portal will be launched in 2010 and provide access to information on the leading sustainability standards, including the IFOAM organic standard.

Trade promotion

At BioFach 2009, ITC supported the participation of 15 companies from sub-Saharan Africa, giving them a chance to market their products at the African Pavilion. The results for these companies were impressive. A follow-up evaluation in June 2009 revealed that six confirmed orders had been placed with four companies at a total value of 110'000 US dollars. Five companies were in serious negotiations for another eight orders at an estimated total value of 280'000 US dollars. In 2010, ITC will also work in partnership with the Africa Pavilion and the Swiss Import Promotion Agency in supporting African companies at BioFach.

Breaking Geographical Barriers: the CBTF online training course on organics attracts world-wide attention

ASAD NAQVI AND FAIZA KAUKAB[1]

Online learning is becoming increasingly popular, as it eliminates geographical barriers, reduces the cost of learning, allows a greater number of people to participate, and offers a flexible study schedule. It was in this context that the United Nations Environment Programme (UNEP) and the United Nations Conference on Trade and Development (UNCTAD), under the auspices of the UNEP-UNCTAD Capacity Building Task Force on Trade, Environment and Development (CBTF), decided to offer an online training course on "Successful Organic Production and Export." The United Nations Institute for Training and Development (UNITAR), which has established itself as a leader in offering online learning opportunities, was selected as the technical partner for this course. Internationally renowned experts from the Research Institute of Organic Agriculture (FiBL) developed the content of the course and served as course mentors, along with experts from UNCTAD and UNEP.

The UNEP-UNCTAD CBTF decided to launch this course to respond to the expressed needs of stakeholders, especially those who were involved in the CBTF initiative titled, "Promoting Production and Trade Opportunities for Organic Agricultural Products in East Africa."

The announcement of the course was very well received, and over 700 people registered to take part in the course - within two weeks. However, given the resource and technical limitations, only 178 people from 80 countries could participate in and graduate from the course. The participants included policymakers, researchers, farmers, organic traders, students, NGO's working with farmers, extension workers, and agriculture and export advisors.

> "We have confidently started our journey at the platform created by CBTF & UNITAR. It is our responsibility to keep this platform alive and try to contribute as much as possible to the promotion of organic agriculture."
>
> -Praveen Singh, India

The course was aimed at building the capacities of participants to understand organic farming and its benefits, and enable them to overcome production and export challenges. It provided step-by-step guidance for conversion to organic farming, and monitoring benchmarks for quality assurance in order to meet the necessary standard and certification requirements for accessing local and international markets.

[1] Asad Naqvi (Coordinator, UNEP-UNCTAD CBTF) and Faiza Kaukab (Research Assistant) work at the Economics and Trade Branch of UNEP. The views expressed in this article are largely those of the authors and do not necessarily reflect the views of the UNEP or UNEP-UNCTAD CBTF.
UNEP-UNCTAD Capacity Building Task Force on Trade, Environment and Development (CBTF), United Nations Environment Programme UNEP, International Environment House, 11-13 Chemin des Anemones, 1219 Chatelaine – Geneva, Switzerland, www.unep-unctad.org/cbtf

The four-week course was offered in three modules:

- The first module covered the environmental and economic benefits of organic agriculture and offered guidance on how to set up or convert to organic farming – with an emphasis on developing countries.
- The second module focused on the issues arising from conversion to organic farming and the use of technical tools, organic methods, and techniques. A key part of this module was the explanation of certification processes and bodies, standards, and regulation in this sector.
- The third module built on the previous two, providing advice on accessing global markets and discussing barriers to these markets. It also covered how to set up an organic value chain, along with collective marketing techniques.

The participants shared their experiences, case studies and evidence about the benefits of organic agriculture as well as the challenges they face. They enthusiastically completed the exercises and participated in the discussions on the online forum. In the survey taken at the end of the course, over 70 percent said that they had found the discussion themes "very useful" to "extremely useful" and they gave very positive feedback on the utility of the course for their work. Many participants felt that the course was an key tool for disseminating information on an important subject. They also felt that they had gained useful knowledge for their field of work. Because of this popular demand, CBTF is considering offering the course again in 2010.

Links

- www.unitar.org/pft/cbtf: e-Learning Course on Successful Organic Production and Export (November 2-27, 2009)
- www.unep.org: United Nations Environment Programme UNEP
- www.unctad.org: United Nations Conference on Trade and Development (UNCTAD
- www.unep-unctad.org/cbtf: UNEP-UNCTAD Capacity Building Task Force on Trade, Environment and Development (CBTF)
- www.unitar.org: United Nations Institute for Training and Development (UNITAR)

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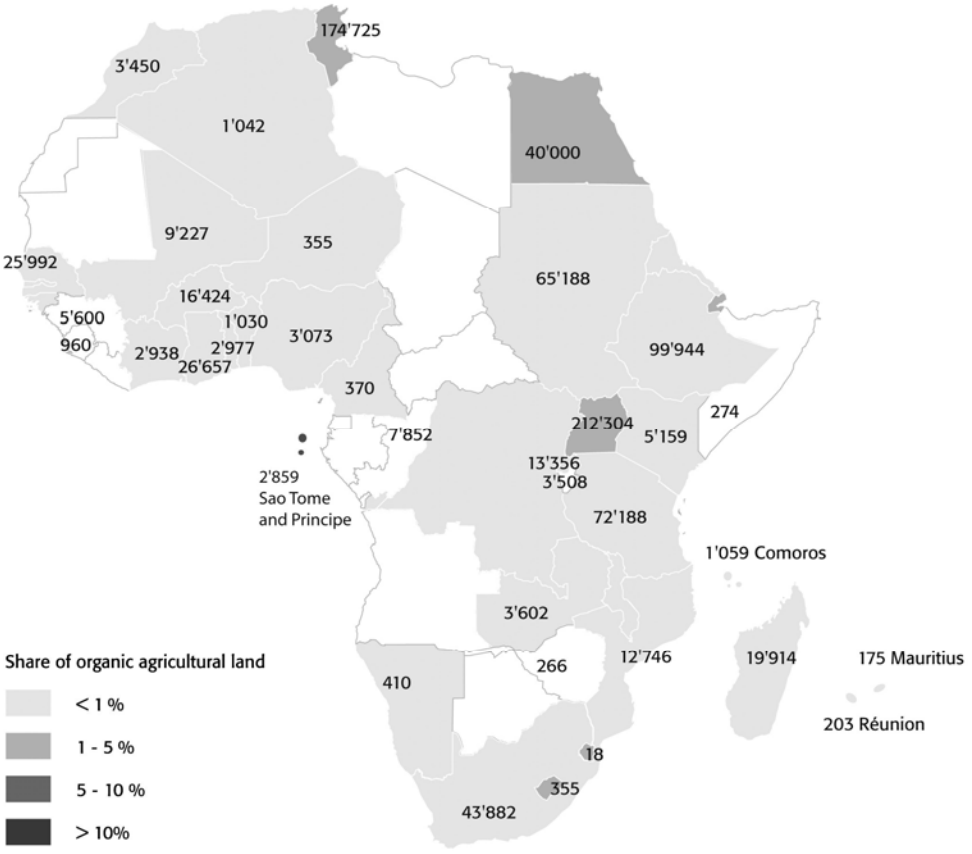
Africa



Map 1: Organic agricultural land in Africa: Agricultural area and shares of the total agricultural land 2008

Source: IFOAM/FiBL Survey

Organic Farming in Africa

Hervé Bouagnimbeck[1]

In Africa, millions of smallholder farmers depend on agriculture and cannot grow enough food to sustain their families, their communities, or their countries. This leads to recurrent food crises and enhanced difficulties to feed the increasing African population. Climate change will aggravate the difficult position of African agriculture. Due to changed rainfall patterns, a decrease in fertile arable land and more extreme weather events, agricultural production will likely decrease.

Organic agriculture has a significant role to play in addressing the pressing problems of food security and climate change in Africa.

Organic agriculture, both certified and non-certified, is a holistic production management system that offers African farmers and communities a wide range of economic, environmental and social benefits (Parrott and Elzakker, 2003; FAO, 2007; Lyons and Burch, 2007; EPOPA, 2008; UNCTAD-UNEP, 2008; Wright, 2008, IFOAM 2009) by:

- Increasing yield over the long term;
- Combating climate change and desertification;
- Reducing the financial risk by refraining from using expensive synthetic fertilizers and pesticides;
- Integrating traditional farming practices and making use of locally available resources;
- Allowing farmers access to new market opportunities;
- Improving human health and maximizing environmental services.

The lack of a recognized system of organic agriculture data collection in many African countries makes it difficult to obtain reliable information on the extent of certified organic farming in Africa. Nevertheless, the availability and quality of information is improving in most countries. With the exception of Tunisia, where the government collates the data, all other data were supplied by private sector organizations, such as national organic umbrella organizations and certification bodies. (For specifics, please see annex, page 225).

In addition to certified organic agriculture covered by this survey, it should be noted that much organic production is also taking place in Africa in the informal sector and without certification. There are a large numbers of organic farmers for whom certification does not have any advantages. This is true for farmers who practice subsistence farming for the food security of their families or their community.

Certified organic agricultural land

In global terms, Africa accounts for 2.5 percent of total certified organic land. Figure 15 shows the figures for individual African countries.

[1] Hervé Bouagnimbeck, IFOAM Africa Office, c/o IFOAM Head Office, Charles-de-Gaulle-Str. 5, 53113 Bonn, Germany, E-mail h.bouagnimbeck@ifoam.org, Internet www.ifoam.org/africa.html

According to these figures, 39 African countries are engaged in certified organic agriculture (data end 2008). This represents six more countries compared to previous survey (data end 2007), when data was available for 33 countries. For the following six countries, data were supplied for the first time: Burundi, Comoros, Lesotho, Sierra Leone, Somalia and Zimbabwe.

Currently, 0.88 million hectares of land is certified organic, constituting an increase of more than 10'500 hectares compared with the previous survey. This land is managed by at least 470'000 farms.

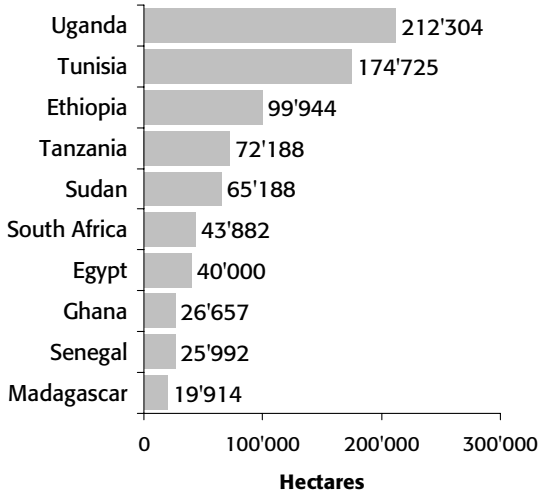


Figure 23: Africa: The ten countries with the largest organic agricultural land areas 2008

Source: IFOAM/FiBL Survey

The leading country in terms of organically managed agricultural land is Uganda with 212'304 hectares, while Madagascar, which ranks tenth, has 20'000 hectares (Figure 23).

However, when organically managed land is measured as a percentage of each country's agricultural area, Sao Tome and Prince rank highest with 5.02 percent. Ethiopia, with 0.28 percent, has the tenth highest share of organic land (Figure 24).

Uganda (180'746 farms) has the largest number of organic farms, followed by Ethiopia (101'899 farms) and Tanzania (85'366 farms).

Land use information was provided for 34 out of 39 countries from the obtained data. According to this information, agricultural land is mainly used for permanent crops, principally cash crops like coffee and olives.

Compared to the 2007 data, the organically managed land area increased by about 10'500 hectares. Substantial increases were recorded in countries like Egypt (+25'835 hectares), Senegal (+24'403 hectares), and Tunisia (+19'932 hectares). On the other hand, certified agricultural land has decreased in eight countries. The biggest decrease was recorded in Uganda (-83'900 hectares). These changes all occurred against the backdrop of new projects being initiated and others coming to an end.

In Uganda the land decreases are, according to NOGAMU (the National Organic Agricultural Movement of Uganda), due to the following reasons: (i) in order to control malaria, the controversial insecticide DDT was sprayed in some regions of the country. This spaying has contaminated the food chain and traces of DDT were found in shipments or organic products to Europe and America. As a result, several organic exporters were decertified; (ii) one of the biggest cotton companies significantly scaled down its number of farmers and stopped paying for certification costs for many small-scale farmers.

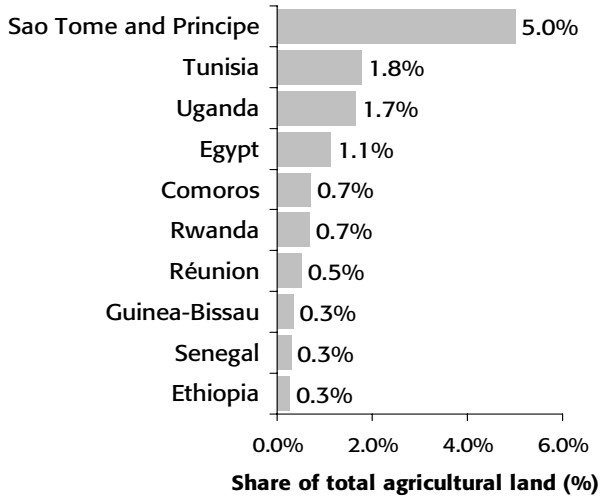


Figure 24: Africa: The ten countries with the highest shares of organic agricultural land 2008

Source: IFOAM/FiBL Survey

Organic wild collection areas and bee pastures

In addition to the 0.88 million hectares of certified organic agricultural land, 9.5 million hectares of land are organic bee keeping, forest and wild collection areas (Table 21). The largest beekeeping areas are in Zambia (5.1 million hectares). The largest areas are in Namibia (3.0 million hectares) and Morocco (600'000 hectares). Medicinal plants like devil's claw (*Harpagophytum procumbens*) play the most important role for wild collection.

Markets

Farmers in Africa produce a diversity of organic crops. The range goes from cash crops like coffee, cocoa, tea, cotton and olives to processed fruits and vegetable oil, and includes everything in between, e.g., fresh fruits and vegetables or honey.

Export

The majority of certified organic produce from Africa is destined for export markets, with the large majority being exported to the European Union, which is Africa's largest market for agricultural produce. The total value for the export of organic produce from Uganda has been estimated at 30.08 million US dollars in 2008.

However, there are significant constraints affecting the potential for the development of certified organic exports. In part, these are external, relating to, for example, the relative expensive of organic certification, problems of infrastructure, the difficulty of maintaining links with distant markets, and the vagaries of world markets. There are internal con-

straints as well, such as poor communication between foreign importers and exporters; or the lack of up-to-date market information, governmental action to support exports, and professional management; and unreliable supply.

The domestic market

Although the African market for organic products is still small, domestic organic markets are growing in Africa. Local organic markets are usually located near capital cities. The majority of the consumers are foreigners and upper-middle class citizens. For example, a survey among 319 consumers in Ghana revealed that 80 percent earned at least average monthly incomes (Osei-Asare 2009). The products marketed include organic fresh fruit and vegetables, dairy products, meat, wine, herbs, and personal care products.

In Uganda, NOGAMU estimates that organic food sales on the domestic market reached 712'771 US dollars in 2008. This represents 2.3 percent of the overall organic export value, and constitutes a 1.3 percent increase over 2007.

In Kenya, organic food sales on the domestic market in 2008 were estimated at 397'351 US dollars, by KOAN (the Kenya Organic Agriculture Network). This represents 4.6 percent of the Kenyan organic sector.

State support, standards and legislation

Despite the benefits of organic agriculture, it receives little support from African governments and is generally not integrated into agriculture policies. However, in some countries like Uganda, organic policy is in the process of being developed.[1] In the case of Uganda, the national organic movement, led by NOGAMU, is strongly involved.

In 2009, Tunisia was accepted under the EU Third Country list[2] as having an equivalent governmental system for inspection and certification of organic production. The acceptance covers plant production and processed products.

With the exception of Tunisia, which has Third Country Status with the European Union, all other African countries are reliant for export on foreign standards. To date, the largest part of certified organic production has been certified according to the EU regulation for organic products. Some producers are, in addition, certified to the U.S. National Organic Program (NOP) or the Japan Agriculture Standards (JAS) and numerous private-sector organic standards, such as those from the Soil Association, KRAV and Naturland.

For the domestic market, African countries are reliant upon national standards. The countries with organic standards are Egypt, Senegal, Tunisia, and the East African countries (Kenya, Uganda, Tanzania, Rwanda and Burundi). The ways of ensuring that organic standards are met include: Third-party certification, Internal Control Systems (ICS) and Participatory Guarantee Systems (PGS).

First African Organic Conference: steps toward unity

The First African Organic Conference, entitled "Fast tracking sustainable development in Africa through harnessing Organic Agriculture and Biotechnology" was held in Kampala,

[1] http://www.ifoam.org/about_ifoam/inside_ifoam/pdfs/IFOAM_Annual_Report_2008.pdf
[2] http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:159:0006:0009:EN:PDF

Uganda, from May 17 to 22, 2009. Some 255 participants from 27 countries attended the conference, including representatives from governments, inter-governmental institutions, UN agencies, national and international NGOs, private sector, universities, and research institutions.

The conference, organized by IFOAM members NOGAMU and the Ugandan Martyrs University (UMU), with the technical assistance of the AGRO Eco Louis Bolk Institute Eastern Africa, was an excellent platform for discussion and sharing experiences. Subjects covered in discussions included best practices, standards, certification, trade, policy formulation, and other development initiatives.

The conference had a number of important outcomes:

- The Network for Organic Agriculture Research in Africa (NORA) was launched.
- Plans for forming an African Organic Network (AFRONET) were further developed.
- An agreement was reached by the participants that Organic Agriculture can contribute to sustainable development, poverty eradication and food security in Africa; and a call was made for increased support for African Organic Agriculture.
- The need for Organic Agriculture to leverage technologies from other schools of thought was promoted.

The next African Organic Conference will be held in Zambia in 2012.

The NGO sector

In several African countries, organic agriculture has reached a significant stage of development, and the national organic sectors have established national organic agriculture networks to represent the organic sector both at national and international levels. These umbrella organizations serve to link the stakeholders of national movements, strengthen the sector and enhance its impact (Rundgren, 2007). Currently, 15 national organic movements are established across the continent. In 2009, the Burundi Organic Agriculture Movement (BOAM) and the Namibian Organic Association (NOA) were established.[1]

In addition to the national movements, there are some organizations and groups with activities on the ground that are able to facilitate the uptake of organic agricultural practices throughout the region through the provision of training and advice.[2]

Research, extension and training

Agricultural research in Africa is quite fragmented between the international research centers, universities, national research institutes, and formal or informal field level research. There are some outstanding examples of innovative organic research at all these levels, such as:

- The International Centre of Insect Physiology and Ecology (ICIPE), Kenya;
- The Jomo Kenyatta University of Agriculture and Technology, Kenya;

[1] The complete list of existing national movements is available at:
http://www.ifoam.org/about_ifoam/around_world/aosc_pages/national_movements.html.
[2] A list of organizations involved in organic agriculture in Africa is available at:
http://www.ifoam.org/about_ifoam/around_world/aosc_pages/Org-Africa.html

- The Organic Agriculture Project for Tertiary Institutions in Nigeria (OAPTIN);
- The Sustainable Agriculture Centre for Research, Extension and Development in Africa (SACRED-Africa), Kenya;
- The Sustainable Agriculture Community Development Programme (SACDEP-Kenya), Kenya;
- The Sokoine University of Agriculture (SUA), Tanzania;
- The Uganda Martyrs University; and
- The World Agroforestry Centre, Kenya.

In 2009, the Network for Organic Agriculture Research in Africa (NORA) was launched. The network's objectives are to:

- Interlink individual researchers/institutions,
- Coordinate organic agriculture research information exchange,
- Set up a data base,
- Implement long-term experiments,
- Look for viable organic agriculture research funding.

The Organic Research Centers Alliance (ORCA) concept has been developed by the FAO and several other organizations. The purposed alliance intends to internationally network and strengthen existing institutions with scientific credentials and empower them to become centers of excellence in inter-disciplinary organic agriculture research. Once fully implemented, ORCA will consist of a network of eleven research centers and a secretariat for organic knowledge generation and sharing world-wide.[1]

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1 www.fao.org/fileadmin/templates/organicag/files/HUSHA_Proposal_for_website.pdf

Background: The IFOAM Africa Office

The IFOAM Africa Office coordinates at the continental level IFOAM's advocacy network on organic agriculture to enable it to be proactive and react appropriately to upcoming issues. The Africa Office works in 13 African countries with like-minded organizations to promote and get recognition for Organic Agriculture among farmers groups, NGOs, governments, and development organizations. This work is achieved through 14 contact points, which represent or are the coordinating offices for a national organic agriculture movement or a national or regional organic network.

Given the challenges of climate change adaptation and food security in particular, the IFOAM Africa Office wishes to reach out to more organizations and communities that are able to work with IFOAM and the African organic movement to accelerate the uptake of organic agriculture at a local, national or international level.

The Africa Office publishes on a monthly basis an electronic newsletter, the *Africa Organic News*, featuring news on Organic Agriculture in Africa. It is distributed for free in English and French to a wide audience in and outside Africa in a format that can be printed and distributed locally. The newsletters are available at the Africa Office webpage at: www.ifoam.org/newsletter/newsletter_africa/Newsletter_Archive_IAO.html.

The Africa Office is engaged in different projects implemented by partner organizations, such as the African Organic Pavilion and the FiBL African Organic Farming Manual Project. It is an IFOAM objective to expand the involvement of its Africa Office in more organic agriculture related projects in Africa to provide significant support to the African organic sector.

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Organic Food and Farming in Tanzania

PAUL RYE KLEDAL[1] AND NOEL KWAI[2]

Geography and social economy

Tanzania is located in East Africa on the Indian Ocean and covers an area of 945'000 km^2 - approximately twice the size of Spain. Topography and climatic conditions limit cultivated crops to only four percent of the land. Average temperatures range all year round from 17 to 27 C. Elevations range from sea level to the highest point in Africa, namely the glaciated peak of Kilimanjaro at 5'895 meters, the expansive slopes of which constitute one of the unique ecosystems of Africa. Tanzania also includes the Serengeti, the site of one of the last major terrestrial mammalian migrations in the world and a prominent tourist destination.

The current population of 42 million (2008) is expected to double by 2040. Tanzania is among the poorest countries in the world, with an income per capita of 420 US dollars (2007). External aid alone constitutes 34 percent of the state budget. 13 million people live in extreme poverty, the vast majority of whom are in rural areas where they depend almost entirely on natural resources (MFAD, 2009).

Agriculture makes up 50 percent of GDP and employs 80 percent of the workforce, with women constituting the majority of agricultural workers The farm structure is dominated by small-holders cultivating an average farm size of 0.9 to 3.0 hectares.[3] 70 percent of the export value is made up by fish meat and agricultural products like coffee, tobacco, nuts (coconuts, Brazil nuts, and cashews), cotton, tea and dried leguminous vegetables. The remaining major export income comes from gold (FAO 2007).

The last ten years of stable economic growth (six to seven percent per year) has been favoring urban wealthy people in service and mining, but neglecting agricultural productivity and the poor in the rural areas (MFAD, 2009), and hence seriously threatening the country's food security.

Climate change is in the future expected to have a severe impact on food production, as lower rainfalls make the Central, West and Southern parts of Tanzania unsuitable for agricultural production. Already by 2020 the permanent snowcap of Kilimanjaro is expected to vanish (OECD, 2003).

History

When NGOs were allowed to operate in Tanzania during the 1980s, most of them trained farmers in sustainable agriculture practices and started to document the wealth of indigenous knowledge on sustainable agriculture. With the growing interest and demand from the North to purchase organic products, especially from the tropics, various stakeholders from the private sector and NGOs started to formalize a platform for policy development. In 1995, 'Kilimo Hai Tanzania' (KIHATA) was established as a national association to promote and develop organic agriculture in Tanzania, and at first it mostly consisted of extension officers and local producers. However, a growing need for unifying the organic export-

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[3] See the Tanzania National Website at www.tanzania.go.tz/agriculture.html

ers, enterprises and NGOs working with various aspects of organic production in Tanzania led to the establishment of the Tanzania Organic Agriculture Movement (TOAM) in June 2005. Today TOAM is responsible for policy formulation, advocacy, marketing, information documentation, and information dissemination. In relation to the phasing out of the Swedish development program EPOPA (Export Promotion of Organic Products from Africa), TOAM is now part of a task force, representing the exporters, certification bodies, and the Ministry of Agriculture, working to set up 'The National Organic Agriculture Development Program for Tanzania'. The program will address the needs for developing further growth in the organic sector and set up indicators from 2009 to 2015. Its clear political purpose is to create a formal national policy regarding organic agriculture in Tanzania.

Legislation and certification

The existing National Livestock Development Policy has references to organic agriculture, but there is still no formal policy on organic agriculture in Tanzania - either as a separate policy or integrated within the general national agriculture law. The organic sector is therefore generally being excluded from various governmental support schemes concerning inputs, extension, capacity building, and research.

There are four international certification bodies operating in Tanzania: IMO, Ceres, Ecocert and Bio.Inspecta. IMO is the most important certifier, inspecting almost half of the organic enterprises. A national certification body TanCert (Tanzania Organic Certification Association) was established in October 2003, and is intended for the export market. TanCert received IFOAM accreditation in July 2008 and is currently responsible for inspecting two enterprises.

Woman chopping the organically grown cinnamon bark off its branches, Zanzibar May 2009. The cinnamon is then dried and exported as ingredient in tea, food additive etc. Picture taken at one of the suppliers to the exporting company TAZOP.
Picture: Paul Rye Kledal, University of Copenhagen

In May 2007, the East African Organic Products Standard (EAOPS) was launched after a consultative process that started in 2005 by harmonizing the organic standards that were beginning to emerge in the East African region. Together with the EAOPS, the 'Kilimohai' brand was purposely developed to help promote and boost regional trade. 'Kilimohai' is a Swahili word meaning 'Living Agriculture'. However, the credibility of the regional trade brand is at risk until it is embedded in mutual national laws on organic agriculture. It could be undermined if one of the East African countries decides to accept GMO crops or the use of DDT spraying. Both examples have advocates in conventional agriculture and various governmental ministries.

The present organic production base

As illustrated in Table 16, organic production is located mostly in the northern and eastern parts of Tanzania. Production consists mainly of coffee, tea, nuts, spices and various types of vegetables. In addition to the fertile soils and good climatic conditions in this part of the country, urban centers, accessible infrastructure, and transportation possibilities play an important role. For example, the northern region of Kagera, bordering Uganda, is only 200 kilometers from the Ugandan capital Kampala with its international airport Entebbe. The region of Arusha, close to the fertile volcano soils of Kilimanjaro, likewise has an international airport, and in the east at the coast, the Tanzanian capital Dar es Salaam (which is Arabic for 'heaven of peace'), offers international air travel as well as harbor freight possibilities.

Table 16: Tanzania: Organic farming by region 2009

Geographical Placement	Regions Producing organic	No. of Enterprises and supply organizations*		Major produce	Hectares	Outgrowers/ Farm members**
North	Arusha	1	2	Vegetables coffee	237	572/
	Mara	1				
North West	Kagera	5	7	Coffee, tea, vanilla, dried fruit	2'744	2'640/20'035
	Shinyanga	2				
North East	Kilimanjaro	3	5	Ginger, veg., coffee	5'391	1'443/7'676
	Tanga	2				
East	Morogoro	3	8	Fruit, spices, cocoa	1'362	1'198/25
	Pwani	5				
Central	Iringa	2	3	Pineapple, tea, cotton, sesame	9'600	3'300/
	Singida	1				
South	Mbeya	4	4	Cocoa, coffee, vegetables	24'655	36'979/63
Islands	Pemba	1	2	Spices, rubber, fruit	2'800	15'000/
	Zanzibar	1				

Source: TOAM and field data Kledal 2009
* Includes some enterprises that are not yet certified.
** Farm members are part of a farm association or a cooperative

Markets

Tanzania consists of 26 regions, and certified organic production is registered in 13 of them. The enterprises fall into one of three categories:

1) trading/packing/exporting companies buying supplies from outgrowers or a farm association
2) farm enterprises vertically integrating land and packaging
3) farm associations organized by farmers themselves

Due to the dominance of smallholders in Tanzania, the typical supply chain is made up by a private enterprise organizing many smallholders as outgrowers to secure the 'critical mass of supply', or the farmers have organized themselves in a farm association supplying and packaging for exporting trading companies.

Domestic: The domestic market for organic food is very small in scale and scope. A few products, being generally durable products like tea and cereals, are found in some up-scale supermarkets like Shoprite (South African owned), Imalaseko and Shoppers supermarket, placed in wealthy areas of Dar es Salaam. The consumers are predominantly expatriates working at NGOs in religious/humanitarian projects or with international companies.

TOAM is facilitating a trading agency, Chakula, to open an organic market outlet as well as be a wholesaler distributing to the rest of the country. Likewise TOAM has set up a marketing information center in the Masaki area in Dar Es Salaam where consumers are, again, predominantly expatriates.

In the regions of Arusha and Kilimanjaro, 'Global service coop' and 'Floresta' are NGOs facilitating farm groups to commercialize and sell their organic vegetables on open markets.

Export: In Table 17 the nine most exported organic product categories are listed together with their farm gate value and total economic value. In terms of tons, heavier nut products like cocoa, cashews and coffee are at the top followed by tea, sesame seeds, various spices, pineapples, cotton, and vanilla. In economic terms, cocoa, cashews, vanilla and tea are the most important export products constituting 55 percent of the total organic export value at approximately 10 million Euros.

The export is mostly destined to the European Union and USA with a few products bound for Asia and Australia.

Table 17: Tanzania: The nine most exported organic product categories (2009)

Export category	Metric tons	Farm gate price (Euro/kg)	Total value (farm gate) (Euros)
Cocoa	3'822	0.95	3'630'900
Cashews	2'671	0.95	2'537'450
Coffee	590	1.00	590'000
Tea	500	2.10	1'050'000
Spices:	400		
- Pepper	160	0.48	76'800
- Lemon grass	120	0.08	9'600
- Cardamom	60	0.89	53'400
- Cloves	50	2.10	105'000
- Cinnamon	10	1.47	14'700
Sesame	273	0.94	256'620
Pineapple	196	0.12	23'520
Cotton	151	0.47	70'970
Vanilla	74	20.00	1'480'000
Total			**9'898'960**

Source: TOAM and field data Kledal 2009

Future prospects

Due to the fact that raw material exports are generally handled by larger international enterprises, there is a significant deficit of Tanzanians who possess the knowledge and skills in international trade and business. Among entrepreneurs, there is a great need for building innovative partnership models if the Tanzanian organic sector is to take full advantage of the global organic market growth. These partnerships should be connecting TOAM, organic

enterprises, finance and NGOs as a minimum, facilitating capacity building and targeting the barriers of operating on a modern food market.

A significant breakthrough for the organic sector of Tanzania would be a successful implementation of an organic action plan with governmental approval and economic support so the sector can continue its growth, contributing not only to the country's need for technology transfer, up-grading, jobs, and improvements in livelihood, but also to social and environmental benefits. For years ahead a majority of the farmers in many poor African countries will be dependent on their local resources strained by climate changes and weak infrastructure. Therefore, modern organic methods will have to be part of the continent's development policies promoting food security, potential market inclusion, and social stability.

Note

This article has been conducted within the research project GLOBALORG, funded by the International Centre for Research in Organic Food Systems ICROFS[1], analyzing the social and environmental impacts of globalization on organic farmers in the South and needs for organic farming to overcome constraints in the course of contributing to development.

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[1] ICROFS is the former Danish Research Centre for Organic Farming DARCOF. More information is available at www.icrofs.org

Africa: Tables: Organic land area, land use, producers

Table 18: Africa: Organically managed agricultural land and producers by country in 2008

	Organic agricultural land [ha]	Share of total agr. land	Producers
Algeria	1'042	0.00%	49
Benin	1'030	0.03%	1'454
Burkina Faso	16'424	0.15%	19'677
Burundi	3'508	0.15%	
Cameroon	370	0.00%	179
Chad (wild collection only)		0.00%	
Comoros	1'059	0.71%	1'418
Congo, Democratic Republic of	7'852	0.03%	1'120
Côte d'Ivoire	2'938	0.01%	568
Egypt	40'000	1.13%	800
Ethiopia	99'944	0.28%	101'899
Ghana	26'657	0.18%	9'273
Guinea-Bissau	5'600	0.34%	401
Kenya	5'159	0.02%	2'021
Lesotho	355	0.02%	
Madagascar	19'914	0.05%	3'455
Malawi	819	0.02%	9'000
Mali	9'227	0.02%	12'437
Mauritius	175	0.17%	5
Morocco	3'450	0.01%	
Mozambique	12'746	0.03%	1'884
Namibia	410	0.00%	1'512
Niger	355	0.00%	1
Nigeria	3'073	0.00%	518
Réunion	203	0.51%	47
Rwanda (2007)	13'356	0.69%	2'565
Sao Tome and Principe	2'859	5.02%	1'263
Senegal	25'992	0.30%	20'000
Sierra Leone	960	0.03%	
Somalia	274	0.00%	3
South Africa	43'882	0.04%	767
Sudan	65'188	0.05%	1'002
Swaziland	18	0.00%	1
Tanzania,	72'188	0.21%	85'366
Togo	2'977	0.08%	4'092
Tunisia	174'725	1.78%	0
Uganda	212'304	1.66%	180'746
Zambia	3'602	0.01%	5'867
Zimbabwe	266	0.00%	200
Total	880'898	0.09%	469'590

Source: IFOAM/FiBL Survey
For detailed data sources see annex, page 225

Table 19: Africa: Organic agricultural land and further land use types 2008

	Agricultural land [ha]	Forest [ha]	Wild collection [ha]	Bee keeping [ha]	Total [ha]
Algeria	1'042	–	–	–	1'042
Benin	1'030	–	–	–	1'030
Burkina Faso	16'424	–	11'524	–	27'948
Burundi	3'508	––	–	–	3'508
Cameroon	370	–	–	–	370
Chad		–	5'000	–	5'000
Comoros	1'059	–	–	–	1'059
Congo, Democratic Republic of	7'852	–	–	–	7'852
Côte d'Ivoire	2'938	–	–	–	2'938
Egypt	40'000	–	–	–	40'000
Ethiopia	99'944	–	–	–	99'944
Ghana	26'657	–	–	–	26'657
Guinea-Bissau (2007)	5'600	–	–	–	5'600
Kenya	5'159	–	73'417	21'000	99'576
Lesotho	355	–	–	–	355
Madagascar	19'914	–	50'462	–	70'376
Malawi	819	185	–	–	1'004
Mali	9'227	–	–	–	9'227
Mauritius	175	–	–	–	175
Morocco	3'450	–	600'000	–	603'450
Mozambique	12'746	–	–	–	12'746
Namibia	410	–	3'000'000	–	3'000'410
Niger	355	–	–	–	355
Nigeria	3'073	–	100	–	3'173
Réunion	203	–	–	–	203
Rwanda (2007)	13'356	–	–	–	13'356
Sao Tome and Principe	2'859	–	–	–	2'859
Senegal	25'992	–	–	–	25'992
Sierra Leone	960	–	–	–	960
Somalia	274	–	60'300	–	60'574
South Africa	43'882	–	80'732	–	124'614
Sudan	65'188	–	5'000	–	70'188
Swaziland	18	–	49'002	–	49'020
Tanzania	72'188	–	–	–	72'188
Togo	2'977	–	–	–	2'977
Tunisia	174'725	–	110'675	–	285'400
Uganda	212'304	–	158'328	–	370'632
Zambia	3'602	–	120'506	5'120'506	5'244'614
Zimbabwe	266	–	–	–	266
Total	880'898	185	4'325'045	5'141'506	10'347'635

'–': No data
Source: IFOAM/FiBL Survey
For detailed data sources see annex, page 225

Table 20: Africa: Use of organic agricultural land and crop categories 2008

Land use	Crop category	Area [ha]
Agricultural land, no details	Agricultural land, no details	358'833.3
Agricultural land, no details total		358'833
Arable crops	Arable crops, no details	8'153.1
	Cereals	6'257.3
	Flowers and ornamental plants	45.0
	Industrial crops	197.8
	Medicinal and aromatic plants	6'262.7
	Oilseeds	25'261.2
	Other arable crops	500.0
	Field fodder crops	333.7
	Protein crops	1'446.5
	Root crops	2'100.6
	Seeds and seedlings	2'063.8
	Strawberries	100.0
	Sugarcane	175.0
	Textile crops	36'036.2
	Tobacco	35.0
	Vegetables	6'940.7
Arable crops total		*95'908*
Cropland, no details	*Cropland, no details*	*3'054.5*
Other agricultural land	Fallow land, crop rotation	7'978.2
	Other agricultural land	6'745.7
	Unutilized land	4'173.1
Other agricultural land total		*18'897*
Permanent crops	Berries	144.0
	Citrus fruit	11'216.1
	Cocoa	11'424.8
	Coconut	1'767.0
	Coffee	91'108.0
	Flowers and ornamental plants, permanent	47.5
	Fruit, no details	42.0
	Fruit, temperate	6'779.7
	Fruit, tropical and subtropical	37'406.8
	Fruit/nuts/berries, temperate, no details	48.2
	Grapes	477.9
	Gum arabic	19'978.0
	Medicinal and aromatic plants, permanent	18'068.9
	Nuts	10'821.0
	Olives	116'572.8
	Other permanent crops	19'952.0
	Permanent crops, no details	897.0
	Tea/mate	11'398.6
Permanent crops total		*358'150*
Permanent grassland/grazing		46'055
Total		880'898

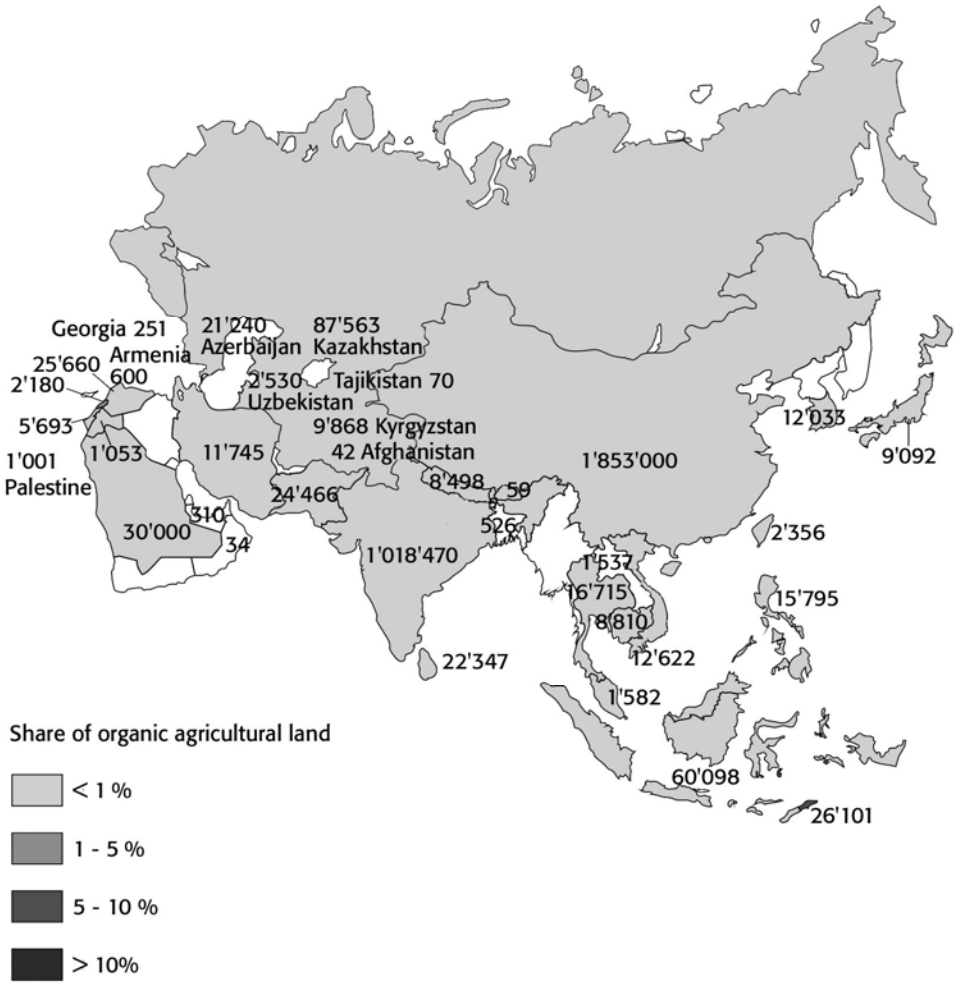
Source: IFOAM/FiBL Survey
Not all countries included in the survey provided data on land use or crop areas.

Table 21: Africa: Wild collection areas and bee keeping 2008

Land use	Crop/product category	Area [ha]
Bee keeping		5'141'506.0
Forest honey	Forest honey	120'506.0
Medicinal and aromatic plants, wild	Buchu	2'211.8
	Devil's claw	3'000'000.0
	Honeybush	7'787.0
	Lemongrass, wild	0.4
	Marula oil	70'031.5
	Medicinal and aromatic plants, wild, no details	150'000.0
	Medicinal and aromatic plants, wild, other	49'245.0
	Rooibos tea, wild	50.0
	Rosemary, wild	0.5
Nuts, wild	Nuts, wild, no details	1'200.0
	Shea nuts, wild	11'524.0
Oil plants, wild	Argan Oil, wild	400'000.0
Wild collection, no details	Wild collection, no details	442'489.0
Wild collection, other	Gum arabic, wild, no details	10'000.0
	Gum Olibanum	60'000.0
Total		9'466'551

Source: IFOAM/FiBL Survey

Asia



Map 2: Organic agricultural land in Asia: Agricultural area and shares of the total agricultural land 2008

Source: FiBL Survey

Organic Asia 2010

ONG KUNG WAI[1]

While an export orientation remains the dominant feature of organic sector development in the majority of developing countries in the region, the positive impacts of organic agriculture on local communities and economies, climate change and the carbon footprint of agriculture opening policy makers' minds. They are considering organic agriculture as more than a niche market foreign currency earner, and are consequently integrating it as a part of national sustainable agriculture development. Development in this direction is further supported by the Asia Development Bank research findings that organic agriculture is relevant and can contribute towards nine of the ten UN Millennium Development Goals.

Overview

The mayors of Surallah, Cotabato and Trento, Agusan del Sur, in the Philippines claimed improvement of up to 100 percent in income tax collection due to improved income from adoption of organic agriculture in their communities. Enthusiasm ran high as delegates at the sixth National Organic Agriculture Congress, in October 2009, spearheaded by the Philippine Department of Agriculture's Bureau of Agriculture and Fisheries Standards (BAFPS), endorsed a resolution that the next Department of Agriculture Secretary be someone from the organic sector. The country is currently in the reconciliation process of organic agriculture bills passed separately by Congress and the Senate for final adoption to replace Executive Order 481 and place the organic sector in the country on a more secure basis.

Indian government officials reiterated the central government's position to revamp the government extension service to offer equal access to conventional and organic cultivation advice on request of farmers at an international conference in Bangalore in September 2009. The government has established a national organic center with more than a hundred staff and offices in several parts of the country. State governments are complementing the central government's effort such as the Maharashtra state government's declaration of allotting a separate stall in market yards exclusively for the sale of organic produce. A state level organic corporation is being established in consultation with NGOs, with an allocation of 100'000 rupees per year to promote the marketing of organic produce.

The Sri Lankan government is reportedly working to open its fertilizer subsidy scheme to include organic fertilizers as well. There is also talk of up scaling farmlands in the north to organic production, as they were cut off from chemical inputs during the war.

Organic sector development in the region may be turning a corner. After years of internal squabbles, a development perspective and consensus incorporating export promotion, domestic market and national sustainable agriculture development seems to be emerging over the past year amongst actors in the region. While many outstanding issues remain, a growing acceptance of co-existing with differences. Stakeholders are recognizing the positive interest in collaborating where commonalities can be found, as opposed to a complete lack of cooperation. Discussions in regional forums underline the recognition of different roles

[1] Ong Kung Wai. Humus Consultancy, Penang, Malaysia. Member of the IFOAM World Board.

and a more pragmatic collaborative attitude from all sides. Policy makers appear interested in working with NGOs, and NGOs are likewise more open to working with business.

Reflecting the positive wave, delegates at the regional collaboration meeting, hosted by the Korean Federation of Sustainable Agriculture in conjunction with the Organic Mega Trends in Asia conference in Seoul in November 2009, established a common platform - Organic Asia. This platform aims to further sector development in the region. Made up of government officials, academics, researchers, NGOs, producers and business actors, the forum established a nucleus of regional working groups for collaboration in organic sector data collection, research networking and peer review and training, as well as organizing farmers and socially minded enterprises. A regional working group on market development, including harmonization and equivalence in organic norms, is expected later.

Production & Markets

Land under organic management reached just less than 3.3 million hectares, an expansion of over 400'000 hectares from the 2.88 million hectares reported in the previous survey. The main contributor to this expansion is China, due to the fact that for this survey the data of the foreign certifiers were included. The other five big contributors include Kazakhstan, reporting 85'000 additional hectares; Saudi Arabia, reporting for the first time with 30'000 hectares; Iran adding about 10'000 hectares, and Sri Lanka (5'000 hectares). Figures reported include three countries that were not reported in the previous year's table: Oman, Saudi Arabia and Tajikistan.

While acreage increased substantially, not all gained. Reductions were reported in a number of countries in the region, Kyrgyzstan (about 5'000 hectares), Syria (about 3'000 hectares) or Thailand (2'500 hectares).

More than one million hectares were reported in 2008/2009 for India, along with 3.8 million hectares of wild collection. This production amounts to about 1.62 million tons, out of which only around 2.7 percent (44'000 tons) was exported. According to the Indian Agriculture and Processed Food Product Export Development Authority (APEDA), 135 product types under 18 categories were exported from India, realizing a value of about 5.37 billion Rupees (81.58 million Euros). This reflects a growth increase of 87 percent in the export of organic products over the last three years. The majority are bound for Europe (60 percent) and rest to the USA, Japan, Switzerland and the Middle East. Major products exported include cotton, basmati rice, honey, tea, dry fruits, sesame, spices, processed food, medicinal plants & related processed products.

As illustrated in the Indian case, the majority of production and exports in the region are primary products with low value-added processing, such as dry/processed raw ingredients, with the exceptions of Japan, South Korea and Taiwan. The majority of production from developing economies in the region (except for China) is organized through grower groups under contract with export companies. According to figures in the 2009 issue of The Organic Standard (TOS) Directory of Certification Bodies,[1] only 545 out of the 733'172 or-

[1] Grolink (2009): Organic Certification Directory 2009. Höje, Sweden. www.organictandard.com

ganic farm units certified in India[1] are certified as individual farms. This makes India home to the greatest number of organic farmers in the world.

Wild collection takes place in many places. Organic livestock production is not developed due to lack of organic feed and pasturelands. Limited amounts of certified animal products, mainly poultry and pork, are available in some places, including Japan, South Korea, Taiwan and China.

Aquaculture is an emerging sector segment in China, Indonesia, Vietnam, Thailand and Myanmar. As regulations governing aquaculture in the EU legislation will become effective sometime in 2010, this is poised to offer a further opportunity for a boom in the region. Textiles, primarily from cotton production, remain of interest, consistent with the global trend.

Markets continue to support domestic growth in the region. A diversity of market channels, including ad hoc organic bazaars, small retail outlets, supermarket corners, multi level direct selling and internet marketing are thriving from the rural Nepali markets to main street Tokyo. A Mintel (a market research organization) survey reported a 175 percent increase in new organic product launches in the Asia Pacific region in 2007, as opposed to 90 percent in North America. A market survey in the Philippines reported current usage at seven percent, and a domestic market potential of about 1.2 billion pesos (18 million Euros) for organic rice in 2008.

Most emerging markets in the region are not regulated. Domestic organic prices can range from 10 to 200 percent above conventional prices according to market location, quality and product. Certified imports share the same shelf space with locally produced self-claimed organic products. Although market size is small in most cases, the high value and profile associated with organic is precipitating government officials' interest and regulation creep throughout the region.

Intra-trade within the region is growing, but remains miniscule in comparison with export flows to the EU and USA. The region hosts about seven annual organic related trade fairs: one in Japan; three in mainland China; one in Hong Kong; one in Taiwan; and one in India. Many conventional fairs in the region now also have organic sections.

Standards, Certification & Regulation

As with the diverse sector conditions, a mixture of regulatory frameworks co-exist in the region. Voluntary organic standards by government standard setting bodies have been set in Laos, Malaysia, Nepal, Thailand, the United Arab Emirates and Vietnam. Standards are under draft in Bhutan and Sri Lanka.

A majority of the voluntary standards and regulations do not yet include aquaculture or animal husbandry requirements. Local feedstuff supply and pasture constraints makes local compliance to standards so difficult that the first organic JAS certified beef to be sold in Japan reportedly came from an Australian operation in 2008. Following its crop production

[1] Editor's note: The figure from the government authority APEDA used for the global survey on organic agriculture is lower, as it some cases only the smallholder groups were counted, and not all farmers. It is expected that with India's new data collection system, to be introduced during 2010, more detailed data will become available in the future.

boom, India is reportedly in the final stages of developing aquaculture, textiles as well as animal husbandry standards, and expects them to be published by March 2010.

Voluntary government-based certification programs are provided for in Malaysia and Thailand at more or less free of charge. Laos is in the final phase of setting up a government operated certification program. Procedures for official accreditation or approval/ registration of certification bodies are established in China, Indonesia, Japan, South Korea, Israel, Philippines and Taiwan.

Mandatory certification rules includes sets for domestic markets only, export markets only, or both. Mandatory certification for organic labeling in the domestic market is required for China, Japan, Philippines, South Korea and Taiwan. However, mandatory certification for export is required by regulation only in India, Japan and Israel. Organic exports from China and the Philippines, as in many other non-regulated countries, can be certified to export requirements only, such as the EU or NOP requirements.

Driven by export opportunities, organic standards and certification in developing countries in the region are heavily influenced by import requirements of the EU and the USA. Lobbied by exporters, governments established production and processing standards that reflect external requirements rather than local production and state of development conditions in hopes of establishing recognition from the EU and USA.

Israel and India have established third country recognition agreement with the EU. India also established recognition of its accreditation system with the USDA. Other than Israel and India, domestic regulations and institutional accreditation frameworks in the region have yet to facilitate export recognition. Most exports are certified by international certification bodies working in the regions and accredited by international and EU based accreditation bodies or directly by the USDA. Nevertheless, Sri Lanka is debating preparations for a regulatory framework for third country recognition discussions with the EU.

The Organic Standards (TOS) Certification Directory, published in August 2009, lists 164 certification bodies in Asia, an increase of seven from 2008. One hundred and thirty six are found in just four countries: Japan (59); South Korea (32); China (29) and India (16). India has since accredited two more certification bodies to a total of 18. The growth in numbers of certification bodies, notably in China, Japan, India and South Korea came with the introduction of regulations. The numbers include offices of international certification bodies as well as local certification bodies. Not all listed are active. Demonstrably active, a number of Indian certification bodies certify more than 100'000 farms (mostly in groups).

International certification bodies dominate the market for export certification to the EU and USA markets in the region. Few private local certification bodies with private standards operate in the region. A number of local private certification bodies, including two government-linked organizations, have teamed up to collaborate in inspection and certification work under the name of Certification Alliance (www.certificationalliance.org). The collaboration launched in February 2008 slowly made headway in 2009.

In 2010, India will join Japan, Taiwan and China in implementing import regulation of organic products. South Korea projected to implement import regulations from the beginning of 2010 has postponed it for a year. Malaysia is preparing to enforce compliance to national standards for organic labeling in the country, including imports. All these will add on further complications to operators and stymie the embryonic intra regional trade in

organic products. No recognition agreement has been reached between governments within the region, which hopefully will change. Indonesia has started discussion with Japan. India with Japan and Taiwan. The Global Organic Market Access GOMA (see page 80), a collaboration project between IFOAM, FAO and UNCTAD, is actively engaged in promoting recommendations of the International Task Force on Harmonization and Equivalence in Organic Agriculture in the region. Thailand and China have expressed interest to host and open discussion on the topic.

A sobering realization from the entangling web of increasing regulations is the recognition that small producers, which constitute majority of farmers in the region, cannot feasibly cope with it all. The escalation of rules and control measures are arguably becoming a cost burden than a value added solution for income improvement. Participatory Guarantee Systems as an alternative to third party certification for domestic market development is gaining interest. The national network established in India is held as the example for others in the region.

Development challenges

The region with Japan to the North, Philippines to the East, Indonesia to the South and Israel to the West hosts a wide spectrum of sector development scenarios, from early development to highly regulated. Far from the marginal position it held previously, organic is now very much an accepted concept and a growing market and policy trend in the region.

Domestic markets have taken off in big cities throughout the region. Although largely driven by export of raw material in the past, sector growth is now also dependent on import of finished products not available locally. Ironically, government labeling regulations initiated to assist development of the sector may become an inhibiting factor. Intra trade and regional sector development is in danger of being constrained as import rules add more complication, bureaucracy and costs.

The most critical challenge for sector development in the region is in the development and success of private sector, civil society and public sector partnerships. Until recently, sector development flowed separately along two streams in a majority of the countries in the region -one through development NGOs, and the other through export business enterprises. The two streams did not interact much or well with one another. Pro-active public sector intervention of late has made governments the third and key actor. Unfamiliarity in working together has hampered establishment of coherent organic sector development partnerships at national and region levels. While public and private interests are growing, infrastructure and competencies to support organic conversion and sector development lag behind.

Of late, attempts at public-private partnerships are showing better results. A tie-up between the Organic Producers and Trade Association (OPTA) and PCARRD DOST[1] (the Philippines government research coordination agency) on the documentation of the organic vegetable industries and the review and analysis of current policies affecting the organic agriculture sector was launched in the second quarter of 2009 and is reportedly progressing well.

[1] Philippine Council for Agriculture, Forestry and Natural Resources Research and Development of the Department of Science and Technology (PCARRD Dost), maidon.pcarrd.dost.gov.ph

However, while governments show interest in incorporating organic agriculture as an option for sustainable agriculture, implementation poses a challenge. The South Korean government Restoration of Four Major Rivers plan, while claiming to promote green technology, is projected to evict a pioneer community of organic producers in the name of keeping rivers free of agriculture pollution.

Elsewhere, besides an uphill challenge against international certification bodies, local private certification bodies in Malaysia and Thailand also have to contend alongside their government free certification service.

Nevertheless, serious signs of regional collaboration are there. A regional forum, since the dissolution of IFOAM Asia in 2005, had now been reestablished. IFOAM Asia fell apart because there were far more divergent than common interests in the region. The author reported there was yet no consensus on development strategy and Asia was nations apart last year. The situation has since changed. At their recent annual meeting, all Asian based certification bodies in Certification Alliance confirmed their commitment to develop a common regional certification standard and forms. That is a fine start.

Viet Nam: Organic Development

Nguyen Sy Linh[1]

Viet Nam is considered an agriculture-based economy, with more than 70 percent of the population living in rural areas. However, the certified agricultural land area is very small - as a portion of total cultivated area only 1 percent. Viet Nam currently has only a national organic standard but no regulation on organic production and trade, nor a domestic organic certification system. There is also a lack of organic production and market development. There are only a few consumer associations or groups devoted to organic production in Viet Nam. Therefore, collecting data on organic production in Viet Nam is very challenging.

There is no domestic organic certification company in Viet Nam to date. Most certified organic products are for export and all certification bodies in the country are also foreign companies (Table 22). The domestic market, however, has been growing fast recently. This is particularly due to food safety issues related to general agriculture being recorded at an alarming rate; organic products are considered to be an alternative. However, the area cultivated organically and the number of organic certifications are still low.[2]

Table 22: Viet Nam: List of certifiers operating in the country

Name of certification bodies	Type of products certified	Remark
ACT[3]	Tea and other products	More than 2 clients
Control Union	Various product	With more than 20 clients including companies and groups of producers
IMO[4]	Various products	With more than 10 clients
ICEA[5]	Various products	-
Naturland, Germany	Aquaculture products	-

In Viet Nam, the number of projects working on organic agriculture is small. There are only three projects focusing on the promotion of organic farming. In one of them, the Agricultural Development Denmark Asia (ADDA) cooperates with the Viet Nam Farmers' Union (VFU) to implement the project on agriculture organic development in Viet Nam. The project is funded by the Danish International Development Agency (DANIDA), and it is currently focusing activities in six provinces in the Northern part of Viet Nam. So far, 2'500 farmers have been trained to cultivate organically. Twelve hectares of land are being converted to organic agriculture. The project supports the organic cultivation of litchi (Litchi *chinensis*), fish, oranges (Citrus *sinensis*), vegetables, and other crops.[6]

[1] Nguyen Sy Linh, Institute of Ecological Economy (Eco-Eco), 9/84 Ngoc Khanh street, Ba Dinh, Hanoi, Vietnam
[2] This statement is derived from the discussion with some experts who have long been working on the organic sector in Vietnam.
[3] Organic Agriculture Certification of Thailand
[4] Institute of Market Ecology (IMO)
5 Institute for Ethics and Environmental Certification
[6] The information was obtained from an interview with ADDA's technical advisor in Vietnam.

Another project is the development of organic and fair-trade cacao in Viet Nam by Helvetas (a Swiss-based organization) in the provinces of Ben Tre and Tien Giang. The project is being implemented in cooperation with the Ministry of Agriculture and Rural Development (MARD), the Provincial People's Committee of the two provinces, and other agencies.

These two projects are solely working on organic agriculture. Other projects also work on organic development (e.g., organic vegetable cultivation) but only as a small component of their activities. One such project is being undertaken by the German Technical Cooperation (GTZ) in the buffer zone of the Tam Dao National Park. These projects have less impact on the organic development than the two projects mentioned above. Apart from those mentioned, there are further small initiatives on organic development in different places of the country. However, these projects only focus on technical aspects, i.e., showing farmers how to cultivate organically. There are very few projects working on both technical and marketing aspects. In Viet Nam, the national organic standards are being updated, but the contents of the currently still valid version are very general, and it is difficult to access since it is not publically available.

Up to date, only a small land area is certified as organic. The following table (Table 23) indicates the certified organic area in Viet Nam.

Table 23: Viet Nam: Total area and area certified cultivated organically

Type of land use	Area [ha]	Remark
Total land area	33'121'200	Including all type of land
Agricultural land	24'696'000	Including crop production, forests, aquaculture production areas as well as other land use types
Agricultural production land	9'436'200	
Forestry land	14'514'200	
Land for aquaculture	715'100	
Salt production land	14'100	
Other agriculture land uses	16'500	
Organic production land	Approx. 20'000[1]	This figure is accounts for only 0.088 percent of the total agricultural land of Viet Nam.
+ wild collection area	Approx. 1'500	This figure has been collected among some companies exploiting and exporting natural oils and herbs.
Number of organic producers	No data	
Number of traders/processors	No data	

The actual number of farmers or group of farmers granted organic certification is not available at the moment, as Viet Nam has no agency in charge of collecting data on organic production or the number of organic farmers. Data mentioned in this report has been obtained from certification bodies operating in Viet Nam; however, it was not possible to obtain the exact number of their clients. Organic products from Viet Nam are mainly for export, and therefore most certifications are granted to high economic value products like shrimps, basa (a pangasius type fish), coffee or cocoa.

[1] This figure is derived from the database of organic certification bodies serving clients in Viet Nam. This figure has been checked with some consultants working in the field of organic development in Viet Nam.
Editors' note: For the FiBL survey not all certifiers that are active in the country provided data, hence that figure is lower.

In short, data on organic production and trading in Viet Nam is still limited. A data collection system has not yet been established or integrated into other surveys. A national organic certification system or agency is still missing and a national policy and strategy for organic development has not yet been formulated. Participatory Grantee Systems (PGS) are being introduced by some projects to promote organic development, particularly for vegetables and tropical fruits. The Thanh Xuan organic vegetable production cooperative in Soc Son district, Ha Noi capital, has been recognized has a PG making it one of the first certified organic vegetable production groups in Viet Nam.

Asia: Tables: Organic land area, land use, producers

Table 24: Asia: Organically managed agricultural land and producers by country in 2008

Country	Organic agricultural land [ha]	Share of total agr. land	Producers
Afghanistan	42	0.00%	264
Armenia	600	0.04%	38
Azerbaijan (2007)	21'240	0.45%	312
Bangladesh	526	0.01%	852
Bhutan (2007)	59	0.01%	323
Cambodia	8'810	0.16%	4'483
China	1'853'000	0.34%	
Georgia (2007)	251	0.01%	49
India	1'018'470	0.57%	340'000
Indonesia	60'098	0.12%	31'703
Iran	11'745	0.02%	
Israel (2007)	5'693	1.14%	283
Japan	9'092	0.23%	3'380
Jordan	1'053	0.11%	16
Kazakhstan	87'563	0.04%	
Korea, Republic of	12'033	0.65%	8'460
Kyrgyzstan	9'868	0.09%	846
Lao People's Democratic Republic	1'537	0.07%	811
Lebanon	2'180	0.32%	259
Malaysia (2009)	1'582	0.02%	24
Nepal (Producers: 2007)	8'498	0.20%	1'424
Palestine	1'001	0.27%	515
Oman	34	0.00%	2
Pakistan	24'466	0.09%	938
Philippines	15'795	0.14%	1'838
Saudi Arabia	30'000	0.02%	
Sri Lanka	22'347	0.95%	45
Syria	25'660	0.18%	3'256
Taiwan	2'356	0.28%	978
Tajikistan	70	0.00%	39
Thailand	16'715	0.08%	3'545
Timor-Leste	26'101	6.73%	
United Arab Emirates	310	0.05%	
Uzbekistan	2'530	0.01%	
Viet Nam	12'622	0.13%	50
Total	3'293'945	0.23%	404'733

Source: FiBL Survey, for information on data sources see page 225.

Table 25: Asia: Organic agricultural land and further land use types 2008

Country	Agricultural land [ha]	Aquaculture [ha]	Grazed non--agricultural land [ha]	Wild collection [ha]	Total [ha]
Afghanistan	42				42
Armenia	600			500	1'100
Azerbaijan (2007)	21'240	–	–	497	21'737
Bangladesh	526	2'000	–	–	2'526
Bhutan (2007)	59	–	–	1'442	1'501
Cambodia	8'810	–	–	–	8'810
China	1'853'000	415'000	–	759'000	3'027'000
Georgia (2007)	251	–	–	1'051	1'302
India	1'018'470	–	–	2'781'530	3'800'000
Indonesia	60'098	1'317	–	32'700	94'115
Iran	11'745	–	–	–	11'745
Israel (2007)	5'693	–	–	–	5'693
Japan	9'092	–	–	–	9'092
Jordan	1'053	–	–	–	1'053
Kazakhstan	87'563	–	–	1'300	88'863
Korea, Republic of	12'033	–	–	–	12'033
Kyrgyzstan	9'868	–		–	9'868
Lao People's Democratic Republic	1'537	–	–	–	1'537
Lebanon	2'180	–	6'000	205	8'385
Malaysia (2009)	1'582	–	–	–	1'582
Nepal	8'498	–	–	25'982	34'479
Occupied Palestinian Territory	1'001	–	–	–	1'001
Oman	34	–	–	–	34
Pakistan	24'466	–	–	–	24'466
Philippines	15'795	–	–	–	15'795
Saudi Arabia	30'000	–	–	–	30'000
Sri Lanka	22'347	–	–	–	22'347
Syria	25'660	–	–	8'000	33'660
Taiwan	2'356	–	–	–	2'356
Tajikistan	70	–	–	–	70
Thailand	16'715	240	–	–	16'955
Timor-Leste	26'101	–	–	–	26'101
United Arab Emirates	310	–	–	–	310
Uzbekistan	2'530	–	–	5'420	7'950
Viet Nam	12'622	6'360	–	–	18'982
Total	**3'293'945**	**424'917**	**6'000**	**3'617'627**	**7'342'490**

'–': No data
Source: Source: FiBL Survey, for information on data sources see page 225.

Table 26: Asia: Agricultural land and crop categories 2008

Land use	Crop category	Area [ha]
Agricultural land, no details	Agricultural land, no details	1'258'908.4
Arable crops	Arable crops, no details	3'194.0
	Cereals	94'861.5
	Flowers and ornamental plants	4.2
	Industrial crops	1'943.6
	Medicinal and aromatic plants	6'685.2
	Oilseeds	6'032.0
	Other arable crops	1.5
	Field fodder crops	6'228.0
	Protein crops	4'960.5
	Root crops	277.4
	Seeds and seedlings	3.0
	Sugarcane	983.3
	Textile crops	27'277.2
	Vegetables	21'845.2
	Mushrooms	0.2
Arable crops total		*174'297*
Cropland, no details	Cropland, no details	1'111'843.5
Other agricultural land	*Fallow land, crop rotation*	*306.0*
	Unutilized land	22.0
Other agricultural land total		*328*
Permanent crops	Berries	38.7
	Citrus fruit	373.1
	Cocoa	2'590.4
	Coconut	845.3
	Coffee	52'611.5
	Fruit, no details	748.5
	Fruit, temperate	6'649.6
	Fruit, tropical and subtropical	1'934.7
	Grapes	2'413.6
	Medicinal and aromatic plants, permanent	1'829.4
	Nuts	5'645.0
	Olives	1'644.6
	Other permanent crops	40.7
	Permanent crops, no details	38'116.4
	Tea/mate	31'583.2
Permanent crops total		*147'065*
Permanent grassland		601'504
Total		3'293'945

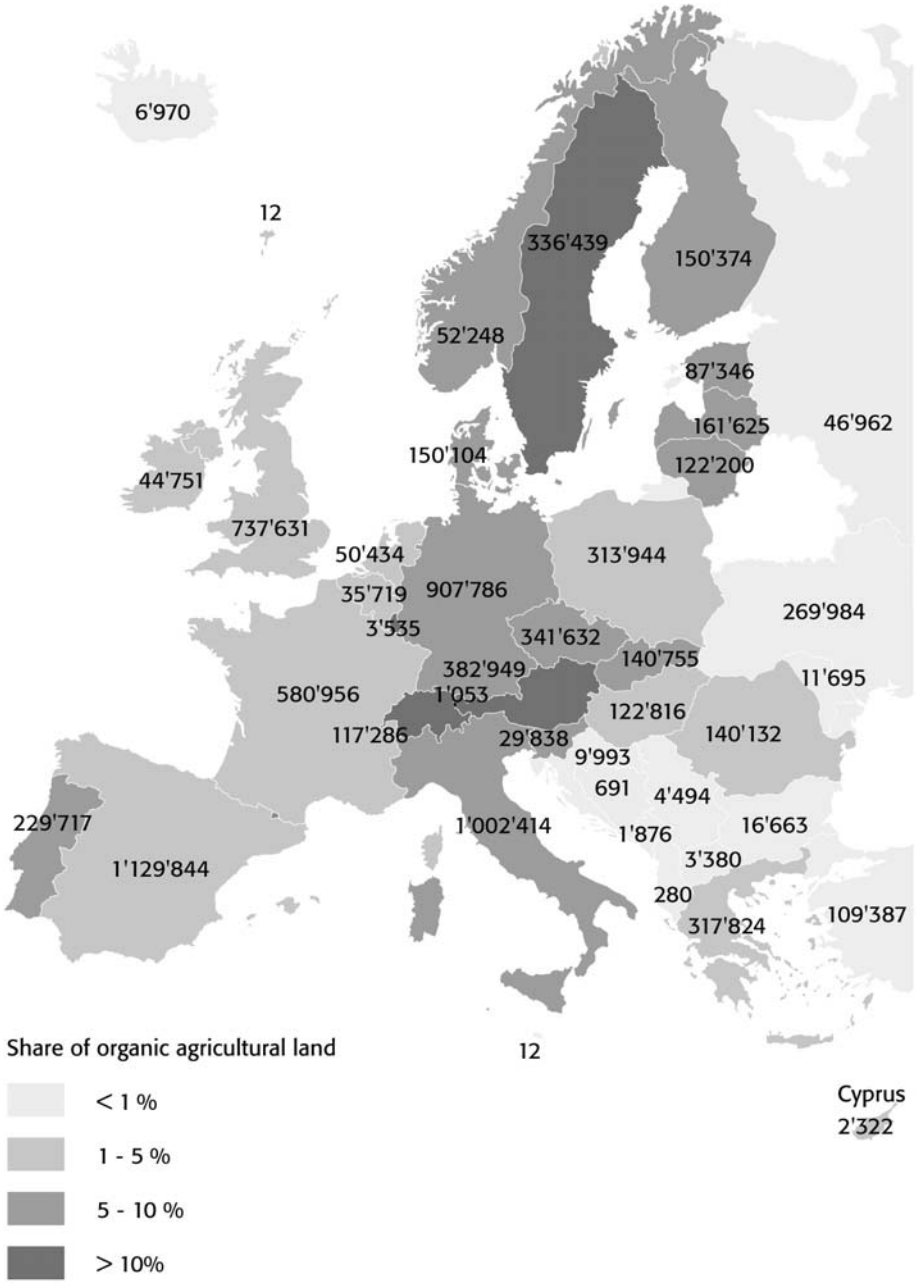
Source: FiBL Survey.
Not all countries included in the survey provided data on land use or crop areas.

Table 27: Asia: Wild collection areas and bee keeping 2008

Land use	Crop/product category	Area [ha]
Berries, wild	Blackberries, wild	45
	Blueberries, wild	12
	Buckthorn, wild	97
	Hawthorn, wild	68
	Strawberries, wild	37
Forest honey	Forest honey	13'278
Fruit, wild	Cornel, wild	62
Medicinal and aromatic plants, wild	Lemongrass, wild	1'442.3
	Medicinal and aromatic plants, wild, other	7'000
Nuts, wild	Chestnuts, wild	75
	Nuts, wild	20
	Walnuts, wild	81
Palm sugar	Palm sugar	12'422
Wild collection, no details	Wild collection, no details	3'582'988
Total		3'617'627

Source: FiBL Survey

Europe



Map 3: Organic agricultural land in Europe: Agricultural area and shares of the total agricultural land 2008

Source: FiBL Survey

Organic Farming in Europe – An Overview

HELGA WILLER[1]

Organic agriculture continues to develop dynamically in Europe. In most countries the organic area is on the increase and the market continues to grow. This positive development is also due to several policy support measures; such as funding under rural development programmes, legal protection, action plans as well as support for research and advice. The organic sector, represented by the EU Group of the International Federation of Organic Agriculture Movements (IFOAM EU Group), plays an important role in the development of organic food and farming in Europe.

Statistical development: growth continues

Since the beginning of the 1990s, organic farming has rapidly developed in almost all European countries. In Europe, currently more than eight million hectares[2] are managed organically by more than 220'000 producers (2008, see Table 29). In the European Union (EU 27), more than 7.5 million hectares are managed organically by almost 200'000 producers (end of 2008). This constitutes 4.3 percent of the agricultural area.

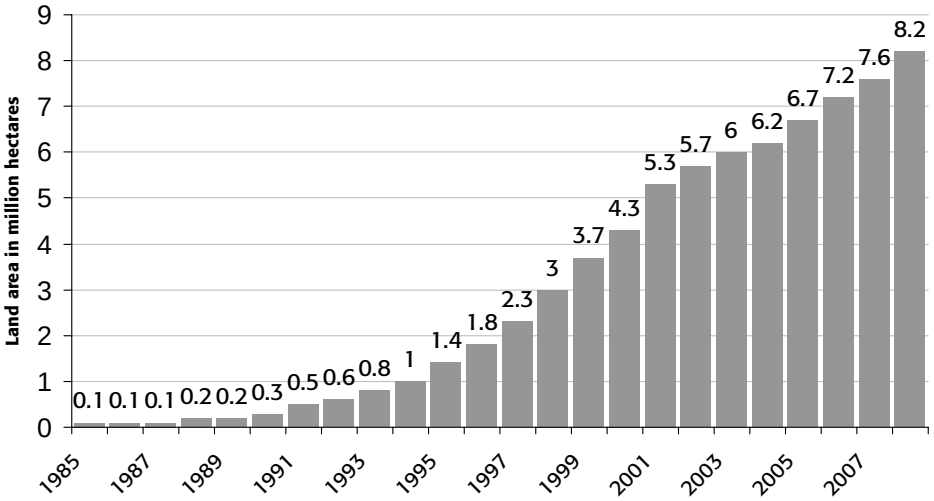


Figure 25: Europe: Development of the organic agricultural land 1985-2008

Source: Source: FiBL, AMI, Institute of Rural Sciences, Aberystwyth University.
The differences compared with the data communicated in former editions of the publication is due to the fact that for Spain the wild collection areas were deducted.

[1] Helga Willer, Research Institute of Organic Agriculture (FiBL), Ackerstrasse, 5070 Frick, Switzerland, www.fibl.org

Compared to the previous year (2007), the organic agricultural land in Europe increased by 0.5 million hectares. The increase is due to strong growth of the land area in Spain, the UK, and Greece as well as in many other countries. In the recent years, growth rates were higher in the new member states as compared to those in the EU 15.

The differences between the countries regarding the importance of organic farming is substantial. There are four countries now where more than ten percent of the agricultural land is organic: Liechtenstein (29.8 percent; 2007), Austria (15.9 percent), Switzerland (11.1 percent), and Sweden (10.8 percent). Other countries by contrast have as little as one percent.

The country with the largest organic agricultural land area is Spain with 1.1 million hectares, followed by Italy with one million hectares; and Germany is in third place (0.9 million hectares). Until 2007, Italy was the country in Europe with the most organic agricultural land.

The country with the highest number of producers is Italy (more than 44'000 producers).

The European market for organic food

The turnover of organic food and drink (from general retails sales, specialized shops, farmer to consumer direct sales, etc.) is now approximately 18'000 million Euros (2008). The largest market according to 2008 data is Germany with approximately 5'850 million Euros, followed by France (2'591 million Euros), the UK (2'494 million Euros) and Italy (1'970 million Euros).

The highest market shares with around five percent of the total market or higher are reached in Denmark, Austria, and Switzerland. While the organic land has expanded rapidly in many new EU member states, as well as in candidate and potential EU candidate countries, consumption levels have remained very low in these countries, (less than 1 percent of the total food market). For more information about the European market for organic food see the chapter by Schaack/Willer, page 141.

EU regulation on organic farming

Organic farming has had legal protection since the beginning of the 1990s with Council Regulation (EEC) No 2092/91. On July 20, 2007, the new organic regulation was published, '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,' and it came into force on January 1, 2009.

According to the European Commission (European Commission 2007), the new rules set out a complete set of objectives, principles and basic rules for organic production, and include a new permanent import regime and a more consistent control regime. The use of the EU organic logo, (which is still not finalized), will be mandatory, but it can be accompanied by national or private logos.

On August 6, 2009, the detailed rules on organic aquaculture animal and seaweed production were published in the *Official Journal of the European Union* and came into force three days later. Currently rules on organic wine and wine making are under discussion.

Data collection by Eurostat, the statistical office of the European Union, is closely linked to the new regulation; data are collected by all member states from certifiers. The new EU regulation stipulates that all member states must deliver their data to Eurostat annually.

Action plans for organic food and farming

Organic Action Plans provide a framework for integrating policies and measures in order to encourage organic sector development. Thus, Action Plans serve as a strategic instrument for governments to achieve policy goals, particularly when multiple policy areas (such as agriculture, environment, trade) and different levels of policy formulation are to be integrated (Schmid et al. 2007).

According to a survey by the IFOAM EU Group and FiBL, at least 15 countries in Europe have or had an action plan (Gonzalvez 2009), many of them with quantitative targets. Austria, for instance, aims to have 20 percent organic land by 2010.

In 2004 the European Action Plan for Organic Food and Farming was launched.[1] The information campaign proposed in the plan started in July 2008. With this campaign, Action 1 - a multi-annual EU-wide information and promotion campaign to inform consumers, public institutions' canteens, schools and other key actors – is being implemented. The campaign homepage[2] offers a wide range of information on organic agriculture and numerous tools (e.g., pictures, flyers) to support the promotion of organic agriculture.

Research

Today, organic farming research is substantially funded under national research programmes or national organic action plans, as well as through European projects.[3] Even though no figures for all European countries are available, it is known that the funds of the eleven countries that are part of the ERA-Net project CORE Organic[4] amount to more than 60 million Euros annually (Lange et al. 2007).

Since the mid-1990s, several organic farming research projects have been funded under the framework programmes of the European Commission. Furthermore, there were several European projects that did not have organic farming as their focus but carried out research related to organic farming in the framework of individual work packages.

With the launch of the 7th research framework program in 2008, four projects focusing on organic farming started:

- CERTCOST: Economic analysis of certification systems for organic food and farming;

1 Information on the European Action plan is available at http://ec.europa.eu/agriculture/organic and at www.organic-europe.net/.
[2] Homepage of the European Promotion Campaign: http://ec.europa.eu/agriculture/organic/splash_en
[3] For a list of projects funded by the European Commission see www.organic-europe.net/europe_eu/research-euprojects.asp.
[4] CORE Organic (Co-ordination of European Transnational Research in Organic Food and Farming); Internet www.coreorganic.org. CORE Organic is a three-year coordination action in organic food and farming (2004 to 2007). The overall objective is to gather a critical mass and enhance quality, relevance and utilization of resources in European research in organic food and farming. A follow-up project is currently under preparation.

- LowInputBreeds: Development of integrated livestock breeding and management strategies to improve animal health, product quality and performance in European organic and "low input" milk, meat and egg production;
- Organic Sensory Information System (OSIS): Documentation of sensory properties through testing and consumer research for the organic industry (Ecropolis); and
- Indicators for biodiversity in organic and low-input farming systems (BioBio).

On December 2, 2008, the Technology Platform (TP) Organics was launched with a public presentation in Brussels. The platform joins the efforts of industry and civil society in defining organic research priorities and defending them vis-à-vis policy-makers. The TP's 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 TP Organics, was finalized.

Links

- IFOAM EU Group
  www.ifoam-eu.org
- International Federation of Organic Agriculture Movements (IFOAM)
  www.ifoam.org
- European Commission: Organic farming
  europa.eu.int/comm/agriculture/qual/organic/index_en.htm
- Eurostat: Organic farming data
  ec.europa.eu/eurostat > Statistics > Statistics A-Z > Agriculture > Data > Main tables > Organic Farming
- FiBL – Research Institute of Organic Agriculture
  www.fibl.org
- Organic Europe (maintained by FiBL): Country reports, address database, statistics
  www.organic-europe.net
- Organic World (maintained by FiBL): Statistics, country information, news
  www.organic-world.net
- Organic Market Info: Market News and updates
  www.organic-market.info
- CORE Organic Web portal: Country reports on the organic farming research situation in 11 European countries
  www.coreportal.org
- Technology Platform TP Organics
  www.tporganics.eu

Further reading

Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91eur-lex.europa.eu/LexUriServ/site/en/oj/2007/l_189/l_18920070720en00010023.pdf

Council Regulation (EEC) No 2092/91 of 24 June 1991 on organic production of agricultural products and indications referring thereto on agricultural products and foodstuffs; available via ec.europa.eu/agriculture/qual/organic/reg/index_en.htm

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Schmid, Otto; Dabbert, Stephan; Eichert, Christian; Gonzálvez, Victor; Lampkin, Nic; Michelsen, Johannes; Slabe, Annamarija; Stokkers, R.; Stolze, Matthias; Stopes, Christopher; Wollmuthová, P.; Vairo, Daniela and Zanoli, Raffaele (2008) *Organic Action Plans. Development, implementation and evaluation. A resource manual for the organic food and farming sector.* Research Institute of Organic Agriculture (FiBL); CH-Frick and European Union Group of the International Federation of Organic Agriculture Movements (IFOAM), Brussels. Archived at orgprints.org/13481

Development of the Organic Market in Europe

DIANA SCHAACK[1] AND HELGA WILLER[2]

In 2008 the European organic market continued to grow considerably in Europe, particularly in France. The total value of the European organic market is estimated at approximately 18'000 million Euros, constituting an increase of almost two billion Euros compared with the 2007 data. The largest markets are in Germany, France, the UK and Italy. Denmark, Austria and Switzerland have the highest market shares; the countries with the highest per capita spending are Denmark, Switzerland and Austria (see Table 32).

The organic market is the sector with the highest growth rates within the entire food market and still has a high potential to widen as certain consumers more and more focus on values like fairness, health, local products and taste, areas in which organic products can deliver.

In 2008, sales not only grew because larger volumes and more products were sold, but also due to rising prices – that is, until the middle of the year.

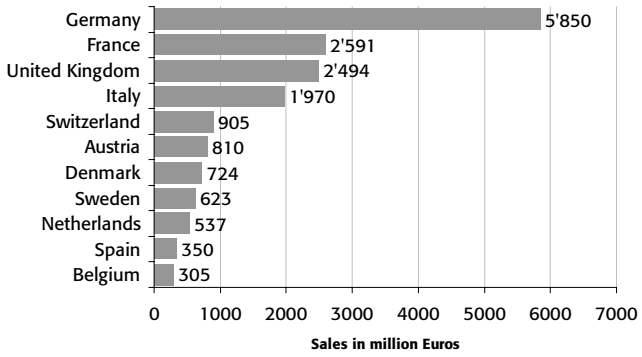

Figure 26: European market for organic food: the ten countries with the highest sales 2008

Retail sales for most countries include sales in multiple retailers, specialized retailers (including processors like butchers and bakers), mail order and direct sales. Not included are sales through catering and exports.
Compiled by AMI and FiBL. Graph FiBL

For 2009, the organic market is difficult to predict in some countries. Growth rates were probably lower than in the years before[3] – in many countries they were only be single-digit, for different reasons: the financial crisis affected some countries, especially the United Kingdom, very badly and consumers keep their money together. Retailers now look into detail which products evolve the best in the supermarkets and also delist organic products. Another important reason for slower growth rates are the decreasing food prices – and with it decreasing organic food prices. After two good harvests in 2008 and 2009, nearly none of the plant products are low in supply anymore, thus traders can easily choose between a wide array of different products.

[1] Diana Schaack, Agrarmarkt Informations-Gesellschaft mbH, Dreizehnmorgenweg 10, 53175 Bonn, Germany, www.marktundpreis.de
[2] Dr. Helga Willer, Research Institute of Organic Agriculture (FiBL), Ackerstrasse, 5070 Frick, Switzerland, www.fibl.org
[3] Figures for 2009 will be available in the first half of 2010. They will be reported at www.organic-world.net.

After many years of high growth rates, the time has come for consolidation. The organic market now can grow in a healthier, slower way. Producers can more easily adapt to higher demand, and the market does not have to bother with quick changes of shortages and oversupply.

The development of production and demand rarely go hand in hand. In many of the more developed markets, the demand for certain product categories - notably vegetables, salad crops, fruits and in some cases dairy products - is higher than supply, resulting in a considerable amount of products being imported. The conversion period of two years limits how rapidly domestic producers can respond to a sudden growth in demand. Production in Southern and Eastern Europe is geared towards export, and any growth in demand in the developed markets provides new opportunities. So, the challenge ahead lies in allowing trade to level out national imbalances between supply and demand whilst maintaining the authenticity and credibility of organic supply chains. A common European logo coupled with the requirements to label the origin of raw materials, (to be introduced with the new European regulations on organic food), could contribute to increased transparency.

Availability of market data

The availability of accurate statistics on the organic market across Europe remains limited and different methods are used. Estimates derived from trade panel data (such as AC Nielsen, TNS) are considered fairly accurate in relation to multiple retail sales but are less accurate in monitoring the sales of products that are not bar-coded (e.g. fresh fruit and vegetables) and sold through direct sales, mail order and catering. The methods on which published data are based can change over time - even within one country – so comparability between countries and over time remains problematic.

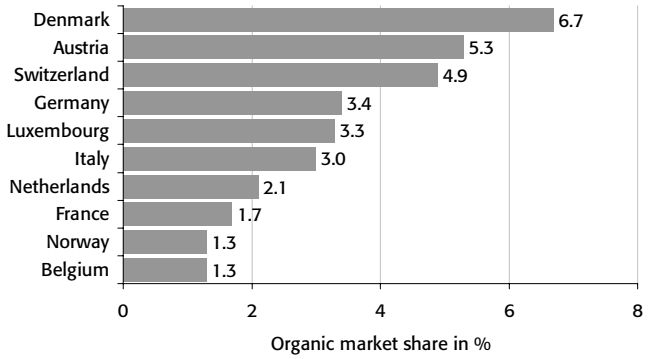

Figure 27: European market for organic food: the ten countries with the highest shares of organic food sales 2008

Compiled by FiBL and AMI. Graph: FiBL (Data from Luxemburg from 2006)

Data on import/export within Europe remain very limited.

Where no published data exists, best estimates from a range of experts have been used, but these there were not available for all cases, so sometimes earlier estimates are shown. Values published in national currencies were converted to Euros using the 2008 average exchange rate from the European Central Bank.[1]

[1] Average annual exchange rate of the Euro; see http://sdw.ecb.europa.eu/browse.do?node=2018794

Country reports

Germany

Germany remains the largest organic retail market in Europe, supplied both by domestic production and by imports. It has experienced a boom in the demand for organic products since 2006 that was particularly strong in the multiple retailers, in traditional bakers and butchers, and organic food shops, whereas direct marketing did not realize any further growth. The structure of the organic market has therefore changed considerably. In 2008, multiple retailers (including discounters) sold 20 percent more organic products and accounted for 57 percent of sales.

The entire growth rate only reached 10 percent, compared to 15 percent the year before. During the first half of 2009, German households spent the same amount on organic food as in the year before. The sales of fresh produce even decreased in the first three quarters by five percent, which was mainly caused by decreasing prices, but also by taking product from the shelves (AMI, Universität Kassel/Agromilagro).

France

In France, the organic market grew tremendously in 2008 - by 25 percent to 2'591 billion Euros. France thus surpassed the UK and Italy to become the second largest market in Europe. Multiple Retailers and organic food stores show about the same share of the market with 42 and 40 percent, although the multiple retailers had the highest growth rates (39 percent). Major product groups are fruit and vegetables (17 percent), milk and milk products (16 percent), and wine (10 percent; Agence Bio 2009).

UK

The UK organic retail market was estimated to be worth approximately 1.99 billion British Pounds (only food) or 2.494 billion Euros in 2008. Since autumn 2008, the financial crisis has had a significant, twofold impact on the organic market in the UK. Consumer interest decreased, and, simultaneously, the weak national currency increased the price of all imports, especially impacting the fruit and vegetable sector. This situation is still ongoing, although the last few months (since late 2009) have seen increased harvests for most plant products and higher consumer interest (Soil Association 2009).

Italy

Organic growth in Italy slowed down to 5.4 percent in 2008. Italians spent 1.97 billion Euros on organic food. In the first six months of 2009, the market accelerated again to 7.4 percent. Especially fruit and vegetable sales grew by 38 percent in the first six months of 2009, gaining first place among all product groups. (Twenty-five percent of organic sales are vegetables). Milk and milk products represent 18 percent of sales in second place (Nielsen/Ismea).

Switzerland

The Swiss organic market grew by 11.2 percent in 2008 to 1.44 billion Swiss Francs (905 million Euros), which is 4.9 percent of the Swiss food market. As in former years, 75 percent of organic products were sold in the multiple retailers; Coop has a hold on 50 percent of the organic market. Eggs, bread and vegetables achieved the highest organic share of the total food market, with 16, 15 and 10 percent of sales respectively (Bio Suisse 2009).

Austria

In 2008, Austrian consumers spent 6.3 percent more money on organic products compared to 2007; thus, the growth rate has slowed down noticeably. Fresh produce sales only increased by three percent. Multiple retailers remain with a market share of 66 percent the most important point of sale. After Denmark, Austria generates the second highest share of organic sales in Europe (5.3 percent; FiBL Austria, AMA).

Denmark

After Sweden, Denmark had the second highest growth rate in 2008. Danish consumers spent 29 percent more money on organic products in the multiple retailers, which accounted for at least 80 percent of organic sales. Sales increase was due, however, in large part to rising prices; by volume only 11 percent more products were sold. The most important product group remains milk and milk products (including eggs) with 37 percent, followed by cereal products with 13 percent (Statistics Denmark).

Sweden

In 2008, Sweden had one of the highest growth rates in Europe with 38 percent. Ninety percent of organic food is sold in the multiple retail outlets in Sweden (Coop, ICA and Axford). Organic sales accounted for 5.99 billion Swedish Crowns, or 623 million Euros in 2008. The strongest product category is dairy and eggs (34 percent), followed by vegetables (15 percent), fruit (14 percent), and bread and cereal products (9 percent). Supply and imports have much increased in 2008 (SCB Statistics Sweden).

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Danmarks Statistik (2010): www.statistikbanken.dk/statbank5a/default.asp?w=1152; Accessed January 10, 2010.

Organic Food Finland/Sampsa Heinonen (2009): *Finland: Market data 2002-2008*. Market data based on AC Nielsen consumer panel and Statistics Finland. Available at, www.organic-world.net/statistics-finland-market-data.html; Accessed January 10, 2010.

SCB Statistic Sweden (2009) available at, www.scb.se

Land Use in the European Union – Seven percent more organic farmland

DIANA SCHAACK[1]

In 2008, almost 200'000 organic farms managed 7.5 million hectares of organic land in the European Union. This was 4.4 percent of all utilized agricultural land and seven percent (or 0.5 million hectares) more than in 2007. Spain, Italy and Germany have the largest organic areas. Notably in Spain and the United Kingdom, farmers converted large areas to organic farming systems. The highest growth rates were in Spain, Bulgaria, Slovakia and Greece. At the same time the Italian organic area decreased by 13 percent, and now Spain is the country in Europe, which has the most organic land.

Forty-five percent of agricultural land was grassland

Forty percent of all farmland was used for crops, whereas 45 percent was grassland. On nine percent of the agricultural land, farmers grew permanent crops. Thus, land use patterns have not changed much in comparison to 2007. The land use pattern in organic farming differs from that of agriculture in general, where farmers use only 33 percent of the land for grassland and 60 percent for crops.

Organic grassland has grown the most in the EU; farmers put 350'000 additional hectare of grassland into organic production, which now accounts 3.6 million hectares. Organic cropland did not grow as much as in 2007, when more intensively cropped areas were converted to organic farming – a trend that only partly continued in 2008. In 2008, extensive grassland areas, as well as some permanent crops like vineyards and nuts showed the largest increases.

Spain (666'032 hectares), Germany (490'000 hectares) and the United Kingdom (494'316 hectares) have the biggest grassland areas. To convert extensively used areas and grassland to organic farming requires relatively few changes in production and few investments. In some countries, support programs played a role. Therefore, grasslands are disproportionately higher in organic farming than in conventional farming (33 percent). However, cropland is especially important to sufficiently supply the organic market. In countries like Ireland, Slovenia and the Czech Republic, more than 85 percent of organic area is used for grassland. In Bulgaria, Denmark, Lithuania and Italy, it accounts for less than one fourth of the area.

Cereals have low proportion in organic farming

Seventeen percent of the EU organic area is grown with cereals, which is only half of the share in the entire farmland in the EU: 34 percent of all farmland is used for cereals. Organic farmers grew 100'000 hectares more cereals in 2008 than the year before, amounting to 1.33 million hectares in total. The area increased markedly in Sweden, France, Austria and Spain. 2.3 percent of the entire cereals area in the EU was organic cereals. Most cereals

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were grown in Italy (231'569 hectares), Germany (188'000 hectares) and Spain (126'169 hectares).

Less than one percent of the oilseeds area in Europe is managed organically. Plant protection poses serious challenges for the production of organic rapeseed and soybeans. Major areas can be found in Romania (23'424 hectares), France (15'152 hectares) and Italy (11'954 hectares).

Extensive forage production in organic farming

Forage areas, including temporary grassland, are important for organic crop rotation and feeding. With 16 percent of the European organic area, they play a more important role than in conventional farming. These areas decreased by nearly 300'000 hectares, mainly in Italy, while in most countries the area increased.

Slight decrease in vegetable area

The vegetable area decreased slightly to 96'000 hectares, although the area grew in most countries. In Italy, the EU´s biggest producer of organic vegetables, the area decreased tremendously by 10'000 hectares. 5.4 percent of the vegetable area in the EU is managed organically. In many countries, vegetables and milk/dairy products generate most of the organic sales. The largest vegetable areas are in Italy (29'942 hectares), the United Kingdom (16'499 hectares), Germany (10'600 hectares), France (9'049 hectares) and Spain (7'536 hectares).

Permanent crops on the increase

Nine percent of organically managed land or 706'000 ha are used for permanent crops. Italy contributed most to the increase. After exceptional growth in 2007, the fruit area grew only by four percent in 2008, and is now at 144'000 hectares. This includes 121'000 hectares of pip and stone fruit and 23'000 hectares of berries.

The organic grape area increased by 25 percent to 114'000 hectares, all of which is in all typical wine producing countries: Spain, France and Italy. In Spain and Poland, many farmers established new nut plantations, and particularly in Poland, large areas of walnuts are grown in a very extensive way. Consequently, the nut area in the EU rose to 129'000 hectares, which is 14 percent of the total nut area in the EU. Nearly seven percent of olive area or 299'000 hectares are managed organically, with Italy (114'472 hectares), Spain (101'268 hectares) and Greece (64'138 hectares) representing the main production countries.

Nuts and protein crops have the highest organic shares, followed by olives, citrus fruits, oats, grassland and forage production, all of which represent over six percent of total production.

Europe: Tables: Organic land area, land use, producers

Table 28: Europe: Organically managed agricultural land and producers by country in 2008

Country	Organic agricultural land [ha]	Share of total agr. Land	Producers
Albania	280	0.03%	50
Austria	382'949	15.87%	19'961
Belgium	35'721	2.60%	901
Bosnia and Herzegovina (2007)	691	0.03%	304
Bulgaria	16'663	0.55%	254
Croatia	9'993	0.83%	632
Cyprus	2'322	1.59%	305
Czech Republic	341'632	8.04%	1'946
Denmark	150'104	5.64%	2'753
Estonia	87'346	9.63%	1'259
Faroe Islands	12	0.40%	
Finland	150'374	6.56%	3'991
France	580'956	2.12%	13'298
Germany	907'786	5.35%	19'813
Greece	317'824	3.84%	24'057
Hungary	122'816	2.90%	1'614
Iceland	6'970	0.46%	35
Ireland	44'751	1.08%	1'220
Italy	1'002'414	7.87%	44'371
Latvia	161'625	9.11%	4'203
Liechtenstein	1'053	29.82%	37
Lithuania	122'200	4.61%	2'797
Luxembourg	3'535	2.70%	85
Macedonia, The former Yugoslav Republic	3'380	0.31%	99
Malta (2007)	12	0.12%	30
Moldova (2007)	11'695	0.47%	121
Montenegro	1'876	0.36%	25
Netherlands	50'434	2.61%	1'402
Norway	52'248	5.05%	2'702
Poland	313'944	2.03%	14'888
Portugal (2007)	229'717	6.61%	1'949
Romania	140'132	1.02%	2'775
Russian Federation	46'962	0.02%	No data
San Marino		0.00%	1 Processor
Serbia	4'494	0.09%	224
Slovakia	140'755	7.27%	350
Slovenia	29'838	6.10%	2'067
Spain	1'129'844	4.54%	21'291
Sweden	336'439	10.79%	3'686
Switzerland	117'286	11.08%	6'111
Turkey	109'387	0.43%	15'406
Ukraine	269'984	0.65%	118
United Kingdom	737'631	4.57%	5'383
Total Europe	**8'176'075**	**1.72%**	**222'513**
Total EU	**7'539'763**	**4.27%**	**196'649**

Source: FiBL/AMI Survey 2010. For information on data sources see page 225.

Table 29: Europe: Organic agricultural land and further land use types 2008

Country	Agricultural land and crops [ha]	Forest [ha]	Grazed non-agricultural land [ha]	Wild collection [ha]	Total [ha]
Albania	280	–	–	79298.2	79'578
Austria	382'949	–	64'729	–	447'678
Belgium	35'721	–	–	–	35'721
Bosnia and Herzegovina (2007)	691	–	–	333'845	334'536
Bulgaria	16'663	–	–	170'000	186'663
Croatia	9'993	88	–	7'000	17'081
Cyprus	2'322	–	–	–	2'322
Czech Republic	341'632	–	–	–	341'632
Denmark	150'104	–	–	–	150'104
Estonia	87'346	–	–	–	87'346
Faroe Islands	12	–	241	–	253
Finland	150'374	–	–	7'801'366	7'951'740
France	580'956	–	–	–	580'956
Germany	907'786	–	–	–	907'786
Greece	317'824	–	–	–	317'824
Hungary	122'816	–	–	–	122'816
Iceland	6'970	–	–	211'633	218'603
Ireland	44'751	–	–	–	44'751
Italy	1'002'414	–	–	–	1'002'414
Latvia	161'625	–	–	–	161'625
Liechtenstein	1'053	–	–	–	1'053
Lithuania	122'200	–	–	–	122'200
Luxembourg	3'535	–	–	–	3'535
Macedonia, The former Yugoslav Republic	3'380	–	–	20'000	23'380
Malta (2007)	12	–	–	–	12
Moldova (2007)	11'695	–	–	–	11'695
Montenegro	1'876	–	–	101'800	103'676
Netherlands	50'434	–	–	–	50'434
Norway	52'248	–	–	–	52'248
Poland	313'944	–	–	–	313'944
Portugal (2007)	229'717	3'758	–	–	233'475
Romania	140'132	–	–	61'431	201'563
Russian Federation	46'962	–	–	133'400	180'362
Serbia	4'494	–	–	–	4'494
Slovakia	140'755	–	–	–	140'755
Slovenia	29'838	–	–	–	29'838
Spain	1'129'844	–	–	187'908	1'317'752
Sweden	336'439	–	–	–	336'439
Switzerland	117'286	4'203	275	–	121'765
Turkey	109'387	–	–	178'705	288'092
Ukraine	269'984	–	22'220	200'000	492'204
United Kingdom	737'631	5'885	–	–	743'516
Total	**8'176'075**	**13'934**	**87'465**	**9'486'386**	**17'763'860**

'–': No data
Source: FiBL/AMI survey 2010. For information on data sources see page 225.

Table 30: Europe: Use of organic agricultural land and crop categories 2008

Land use	Crop category	Area [ha]
Agricultural land, no details	Agricultural land, no details	57'566.1
Arable crops	Arable crops, no details	57'614.2
	Cereals	1'495'491.7
	Flowers and ornamental plants	1'770.2
	Hops	151.5
	Industrial crops	9'557.5
	Medicinal and aromatic plants	18'575.3
	Oilseeds	127'917.2
	Other arable crops	60'420.5
	Field fodder crops	1'210'054.4
	Protein crops	133'786.2
	Root crops	36'957.4
	Seeds and seedlings	10'600.6
	Strawberries	2'718.0
	Textile crops	17'329.7
	Tobacco	50.0
	Vegetables	97'923.3
Arable crops total		3'280'918
Other agricultural land	Fallow land, crop rotation	164'661.0
	Home gardens	20.0
	Other agricultural land, no details	70'270.6
	Other agricultural land, other	5'542.8
	Unutilized land	78'722.4
	Hedges	508.8
Other agricultural land total		319'726
Permanent crops	Berries	21'694.6
	Citrus fruit	32'147.0
	Flowers and ornamental plants, permanent	6.5
	Fruit, no details	31.7
	Fruit, temperate	88'673.6
	Fruit, tropical and subtropical	572.2
	Fruit/nuts/berries, temperate, no details	22'815.3
	Grapes	127'692.8
	Medicinal and aromatic plants, permanent	1'537.4
	Nurseries	453.9
	Nuts	153'953.6
	Olives	309'582.7
	Other permanent crops	12'568.0
	Permanent crops, no details	2'615.5
Permanent crops total		774'345
Permanent grassland/grazing		3'757'487
Total		**8'176'075**

Source: FiBL/AMI survey 2010. Total includes correction value for land with double cropping. Not all countries included in the survey provided data on land use or crop areas.

Table 31: Europe: Wild collection areas and bee keeping 2008

Product	Area [ha]
Berries, wild	7'801'366.0
Medicinal and aromatic plants, wild	11'632.5
Mushrooms, wild	516.8
Seaweed	200'000.0
Wild collection, no details	1'472'870.7
Total	**9'486'386**

Source: FiBL Survey

Table 32:Europe: The European Market for Organic Food 2008

Country	Retail sales [Mio €]*	Sales [€/person]	Sales: Share [%]	Catering [Mio €]	Exports [Mio €]
Austria	810.0	97.0	5.3	44.0	60.0
Belgium	304.6	28.3	1.3	–	
Bosnia and Herzegovina	–	–	–	–	1.3
Bulgaria	4.5	0.6	–	–	–
Croatia	32.5	9.1	0.7	–	2.5
Cyprus	1.5	1.9	–	–	
Czech Republic	68.0	6.6	0.8	0.3	4.0
Denmark	724.0	132.3	6.7	67.0	87.6
Estonia	5.8	4.3	0.2	–	–
Finland	74.2	13.9	1.0	–	14.0
France	2'591.0	40.5	1.7	–	–
Germany	5'850.0	71.2	3.4	–	–
Greece	58.0	5.2	–	–	–
Hungary	20.0	1.8	0.2		
Ireland	104.0	23.6	– –	–	–
Italy	1'970.0	33.0	3.0	300.0	900.0
Liechtenstein (2007)	3.0	84.9		–	–
Luxembourg (2006)	40.9	84.5	3.3	–	–
Montenegro	0.1	0.1		–	–
Netherlands	537.3	32.8	2.1	46.1	
Norway	131.1	27.7	1.3	–	–
Poland	50.0	1.3	0.1	–	–
Portugal (2007)	70.0	6.6	0.5	–	–
Romania	2.5	0.1	–	–	–
Russian Federation	60.0	0.4	–	–	3.0
Slovakia	4.3	0.8	–	–	–
Slovenia	4.0	2.0	–	–	
Spain	350.0	7.7	–	–	315.0
Sweden	623.0	67.8	3.4	–	
Switzerland	905.0	119.2	4.9	–	
Turkey	2.4	–	–	–	18.6
Ukraine (2007)	5.0	–	–	–	–
United Kingdom	2'494.0	40.8		23.1	–

'–': No data
Compiled by FiBL and AMI. For information on data sources see page 225.
* Retail sales for most countries include sales in multiple retailers, specialized retailers (including processors like butchers and bakers), mail order and direct sales. Not included are sales through catering and exports.

Mediterranean Region

Organic Agriculture in the Mediterranean Region: updates

Lina Al Bitar,[1] Marie Reine Bteich,[2] Patrizia Pugliese[3]

Increasing space for organic agriculture in a changing Mediterranean

The Mediterranean region is a deeply divided area, but at the same time united by thousands of years of multi-cultural history and management of shared resources. The role of agriculture is still important, as recognized in political speeches and government and foreign aid programmes for development. It is not only a question of restoring the equilibrium of agri-food trade balances, intensively in deficit in many Mediterranean countries, but also of the fundamental contribution that agriculture can make to conservation and development of the rural areas.

Organic agriculture has managed to attract the attention of local governments and economic operators and also to find space in discussion platforms and official strategy papers (e.g., in the concluding statement of the Euro-Mediterranean Conference of Agriculture Ministers, Venice 2003, and in the Mediterranean Strategy for Sustainable Development, approved in 2005 as part of the UNEP Mediterranean Action Plan).

Structural aspects and trends

The diversity in data collection methodologies, as well as the unreliability and the inconstant supply of organic statistics are problems well known to anyone operating in this field. Therefore, numbers referring to the same period of time for a certain country may differ from one source to another. Significant progress on data collection has been made in the past years in the Mediterranean region, and methods and systems are undergoing constant improvement and becoming more reliable and regular in most of the region's countries. However, it is important to note that in some cases data are currently not available for each year and very much depend on the contact persons operating in the sector and on the ones reporting statistics.

Table 33 shows the 2008 organic statistics in the Mediterranean countries, divided into sub-regional groups: European Mediterranean (EU Med), Eastern Adriatic (EA) and Southern and Eastern Mediterranean (SEM). For each country the table reports in detail the organic land area (with and without wild collection and forest areas) and the number of organic operators.

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Table 33: Organic statistics in the Mediterranean countries (2008)

Source: MOAN, 2009

		Organic agricultural area (a) 2008 [ha]	Total organic area (b) 2008 [ha]	Number of organic operators 2008
EU Med. Countries	Cyprus[c]	2'323	2'323	n.a.
	France	583'799	583'799	20'880
	Greece	317'824	317'824	25'098
	Italy	1'002'414	1'002'414	49'654
	Malta	25	25	13
	Portugal[c]	233'475	233'475	1'949
	Slovenia	29'836	29'836	2'068
	Spain	1'129'844	1'317'752	23'372
Eastern Adriatic Countries	Albania	568	88'580	61
	Bosnia & Herzegovina[d]	n.a.	n.a.	n.a.
	Croatia	9'928	10'010	632
	FYR of Macedonia	1'297	1'297	226
	Montenegro	1'808	103'608	26
	Serbia	4'494	4'494	224
Southern and Eastern Med. Countries	Algeria	1'042	1'042	49
	Egypt	40'000	40'000	800
	Jordan	1'053	1'053	19
	Lebanon	1'724	8'358	327
	Morocco	3'450	603'450	n.a
	Palestinian Authority	1'001	1'001	515
	Syria	25'660	33'660	n.a.
	Tunisia	174'725	285'400	1'792
	Turkey	109'387	288'093	15'493
Total		**3'675'676**	**4'957'493**	**143'198**

(a) Includes the same categories used in the FAO standard classification for the Agricultural Area: (i) arable land - land under temporary crops, temporary meadows for mowing or pasture, land under market and kitchen gardens and land temporarily fallow. The abandoned land resulting from shifting cultivation is not included in this category. Data for arable land are not meant to indicate the amount of land that is potentially cultivable; (ii) permanent crops excluding land under trees grown for wood or timber and (iii) permanent pastures.
(b) Includes wild collection areas and forests when present.
(c) Data of Cyprus and Portugal refer to Eurostat 2007; data for 2008 are not available yet.
(d) Bosnia and Herzegovina consists of two entities, the Federation of Bosnia and Herzegovina (FBiH) and Republic of Srpska (RS), in accordance with the Dayton Peace Accord. The Ministry of Agriculture is at the entity level.

Please note that the MOAN data differ in some cases from those collected by FiBL and IFOAM in the frame of the global survey on organic agriculture.

In 2008, organic agriculture provided work for more than 143'000 operators in the Mediterranean and covered an area of about 5 million hectares, of which around 1.3 million hectares were wild collection and forests, mainly concentrated in the Eastern Adriatic and some South Eastern Mediterranean countries. These figures almost doubled between 2001 and 2007 (Al-Bitar and Pugliese, 2008) and continue to increase in terms of organic agricultural land. However, in 2008, a slight reduction in the total Mediterranean organic land area was registered. This reduction is mainly due to two factors: firstly, the absence of an official communication from the certification bodies to the competent authorities reconfirming the certification of the wide wild collection areas reported in previous years; and, secondly, the end of many foreign funded projects and investments in the organic sector, mainly in the South Eastern Mediterranean and Eastern Adriatic countries. Variations in the values of the total organic area (i.e. including wild collection) and the organic

agricultural area, in some cases significant, can also be explained by the standardization of data categorization with the introduction of new EU Eurostat requirements affecting most of the candidate countries.

In the Eastern Adriatic countries, Croatia leads the way in terms of organically certified agricultural area with almost 10'000 hectares, followed by Serbia with 4'500 hectares. Tunisia and Turkey lead the South Eastern Mediterranean countries; the others are far behind. However, if we look at values including wild collection, Montenegro leads the Eastern Adriatic countries and Morocco the South Eastern Mediterranean countries.

In the EU Mediterranean countries (Figure 28), Italy was the leader in the Mediterranean and in Europe until 2007, both in terms of land area (over 1 million hectares) and number of operators. In 2008, Spain took the lead in terms of land area (with around 1.3 million hectares). Italy still has the highest number of organic operators (almost 50'000). The organic sector in France had a period of stagnancy between 2003 and 2007. However, a slight increase in terms of organic agricultural area was registered in 2008.

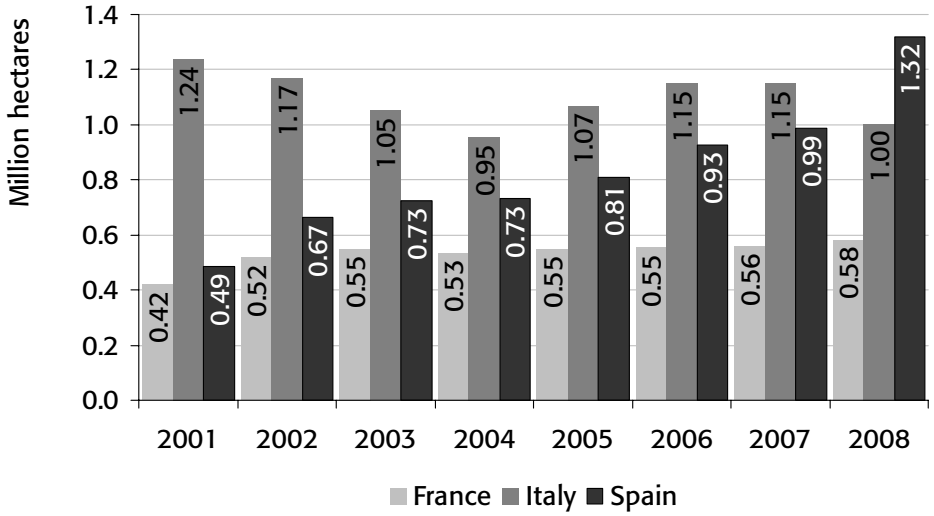


Figure 28: Mediterranean countries: Total organic land area in France, Italy and Spain, 2001-2008 (including wild collection)

Source: Own elaboration based on data from Eurostat and MOAN

Distribution of the organic land in the Mediterranean area

Three countries, Italy, Spain and France, account for 59 percent of the organic land in the region. The contribution of the remaining EU Mediterranean countries is far more modest, despite constant growth. Non-EU Mediterranean countries, with an increasing trend, account for 10.2 percent, led by Tunisia with 4.75 percent, followed by Turkey with 3 percent. The other South Eastern Mediterranean countries account for 2 percent, and the Eastern Adriatic countries represent in total only 0.5 percent of the organic land in the Mediterranean region – in spite of an increase in terms of organic agricultural land area (without considering wild collection and forests).

Shares of organic land of the total agricultural area

Figure 29 shows the share of organic agricultural area as a proportion of the total national agricultural area in the Mediterranean countries. Italy has the highest share (7.22 percent) followed by Slovenia (5.97 percent) and Spain (4.6 percent). The other countries are far behind. Most (seven) of the top ten countries with highest shares are EU Mediterranean countries. Only Tunisia and Egypt, ranking respectively 6th and 8th, are from South Eastern Mediterranean countries; and Croatia, ranking 9th, is the only Eastern Adriatic country in the top ten.

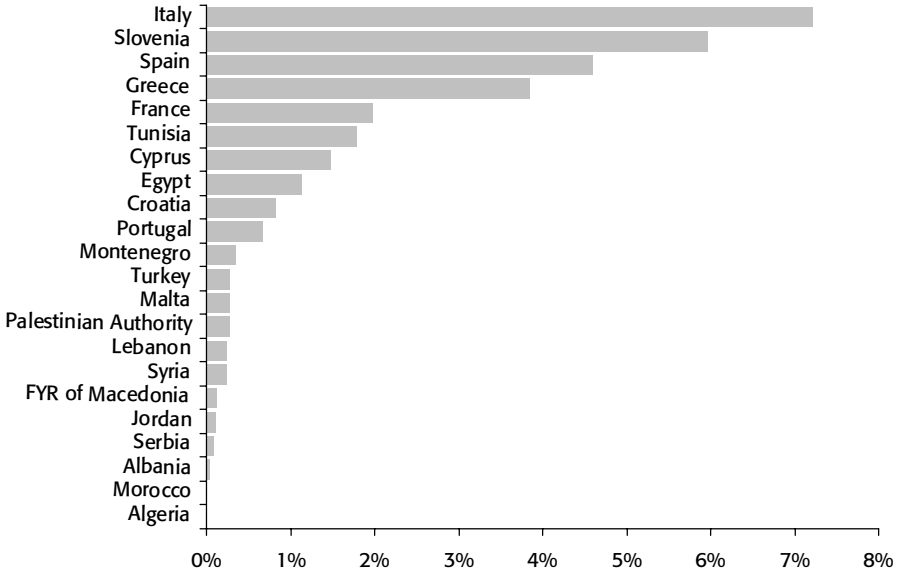


Figure 29: Mediterranean countries: Share of organic as a proportion of total agricultural area (percent) 2008

Source: Our elaboration from data MOAN and data FAO

Markets and institutional development of organic agriculture in the Mediterranean

A visit to a BioFach fair is quite sufficient to realize that nowadays the Mediterranean counts in organic agriculture. Many attractive operators are regularly present with a rich and diversified range of products: fresh and preserved fruits and vegetables, pulses, olive oil and olives, dried fruits, dates, herbs and spices, medicinal plants, honey, cereals, animal products, argan oil and other items.

In terms of organic sales, France and Italy are amongst the most interesting markets in Europe after Germany and the UK (Padel et al. 2009). Spain ranks 9th but is worth watching, due to the growth and organization of its exports and the promising development of the domestic market. The Portuguese and Greek markets are less important and are mostly directed at exports.

The picture is different for the Eastern Adriatic countries, where it is only in the past few years that the process of Europeanization - together with international cooperation projects - has given an important boost to the development of the organic sector. This has contributed to the creation of a framework of regulations and institutions and to the development of exports for some competitive products to the European markets. The domestic market is almost nonexistent, apart from in some urban areas, and seems to be strongly connected to the activity of local organic associations, who play an important role in the processes and areas of development of this sector.

Organic agriculture in the South Eastern Mediterranean countries is mainly tied to external forces and factors that influence its growth such as the role played by i) exporters and foreign agri-food firms with consolidated commercial outlets in the European markets; ii) governments wishing to increase exports and reduce the agri-food trade deficit, and iii) international cooperation (i.e., projects financed by international donors and carried out by foreign and/or local NGOs).

Although exports dominate the organic sector in most of the South Eastern Mediterranean and Eastern Adriatic countries, local markets are emerging, albeit slowly and irregularly. It is, however, noteworthy to mention that significant quantities of organic products not earmarked for export are sold as conventional products.

The adoption of national regulations for organic agriculture, strongly connected to the European ones, is seen by many South Eastern Mediterranean and Eastern Adriatic countries as a necessary step to be taken in order to be admitted to the list of Third Countries in the equivalence system. In the Mediterranean, only Israel and very recently Tunisia are on the list. Turkey has received the final comments as to the first stage of evaluation.

The existence of a national law for organic agriculture is usually a sign of a clear political desire to recognize the sector and its role in the national agri-food context. Even when national organic laws are not fully implemented, their adoption has been an important step paving the way towards the creation of specific divisions in the agriculture ministries and towards the introduction of specific support policies for this sector (e.g., contributions to certification costs, payments per utilized agricultural area, incentives for projects). In 2009, Syria, like many other countries in the past, followed this trend with the preparation of a draft law.

Some South Eastern Mediterranean and Eastern Adriatic countries have begun to adopt a strategic approach more or less supported by cooperation initiatives and financed by international donors. This is done either by including specific references to the organic sector in strategic and programming papers concerning agriculture and rural development, or, more often, by initiating the planning and execution of specific action plans for the development of organic agriculture as Albania, Macedonia, Tunisia and Turkey have.

The creation of networks for information, problems and solutions sharing is a strongly felt need among many public and private operators in organic agriculture in South Eastern Mediterranean and Eastern Adriatic countries. Many cooperation projects already exist as well as permanent initiatives like the IFOAM Mediterranean Regional Group (AgriBio-Mediterraneo) and the Mediterranean Organic Agriculture Network (MOAN).

Research on organic agriculture in the Mediterranean

Research represents a key component for the sustainable evolution of organic agriculture, a fundamental support to boost and orient development trajectories in a continuously changing organic sector.

In the Mediterranean region, the need for an effective exchange and sharing of research methods and findings in the field of organic agriculture is increasingly perceived as a priority area for investment and action. Equally important is the building of a research community that can address the common issues and specificities of Mediterranean organic agriculture and is able to contribute to the global debate.

Correspondingly, in recent years, the potential for the development of such an interregional dialogue and cooperation in organic research is concretely emerging. Some initiatives took place in 2009 in line with this evolving trend. Among those, it may be worth mentioning two experts' workshops organised with the objective of identifying and discussing hot issues in organic research and priorities in the Mediterranean region. The first one was held in September as part of the XV Technical Symposium of the Spanish Society of Organic Agriculture (SEAE) in collaboration with IFOAM AgriBioMediterraneo in Mallorca, Spain. The second took place in October at the Mediterranean Agronomic Institute of Bari (MAIB), in collaboration with MOAN, within the framework of the INTERBIO Project 'Promotion of domestic and international demand for organic products', financed by the Italian Ministry of Agricultural, Food and Forestry Policies. It's also worth mentioning that stronger synergies with on-going European and world-wide initiatives in the field are being established. A synthesis report with the outcomes of the aforementioned workshops was forwarded to the Secretariat of the Technology Platform TP Organics. Another tangible sign of growing interest in the diversity and peculiarity of Mediterranean organic agriculture is the organization of the ISOFAR[1]/MOAN[2] Symposium on Soil Fertility and Crop Nutrition Management in Mediterranean Organic Agriculture to be held in March 2010 in Sousse (Tunisia).

Further reading

Al-Bitar, L. and Pugliese, P. (2008). Organic Farming Policy in South-East Mediterranean and Western Balkans: Approaches and Measures in Government Support. CIHEAM – MAI Bari, 2008.

Al-Bitar, L. and Pugliese, P. (2008). The CIHEAM Watch Letter, Autumn 2008 - No 7.

Osservatorio permanente sul sistema agroalimentare dei paesi del Mediterraneo (2008). *Il biologico nel Mediterraneo: politiche, normative e mercati per un'agricoltura di qualità*, ISMEA- IAMB, 2008. Downloadable from: www.ismea.it: (www.ismea.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/2989).

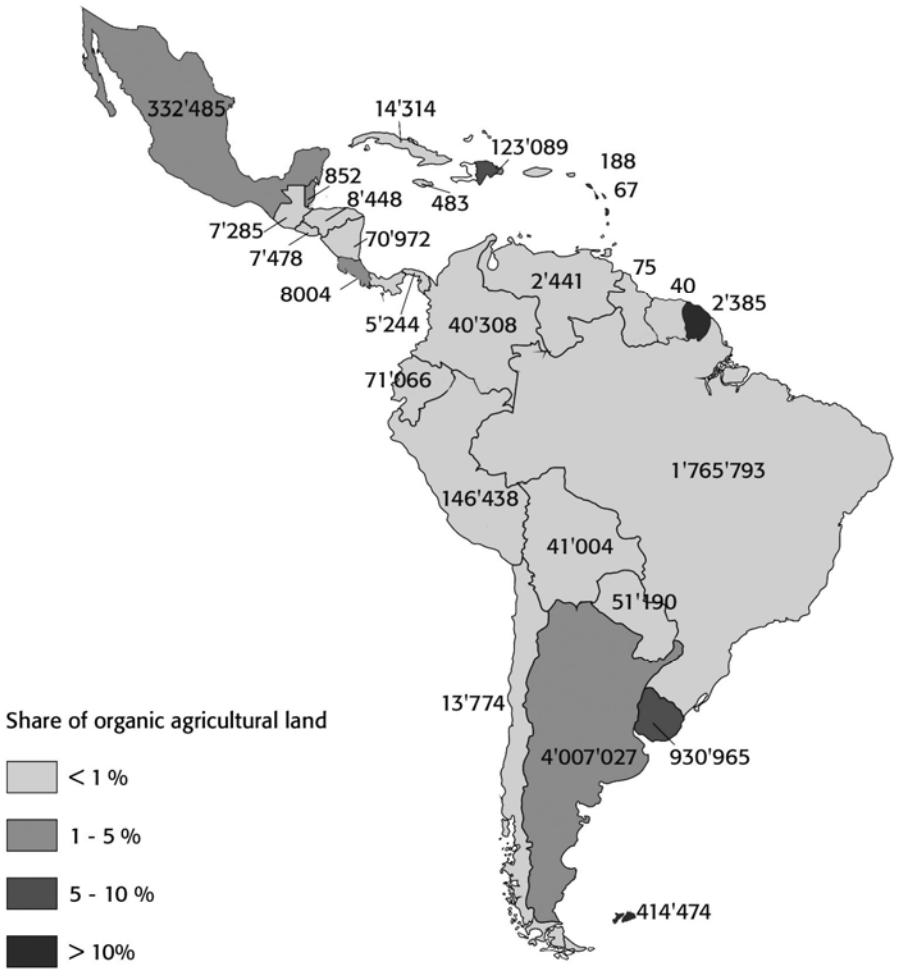
Padel et all. (2009): The European Market for Organic Food. In: Willer, Helga and Kilcher, Lukas, (Eds.) (2009). *The World of Organic Agriculture - Statistics and Emerging Trends 2009*. IFOAM, Bonn; FiBL, Frick; ITC, Geneva.

Link

- moan.iamb.it - Homepage of the Mediterranean Organic Network MOAN

[1] International Society of Organic Agriculture Research ISOFAR, www.isofar.org
[2] Mediterranean Organic Agriculture Network MOAN

Latin America and the Caribbean



Map 4: Organic agricultural land in Latin America and the Caribbean: Agricultural area and shares of the total agricultural land 2008

Source: FiBL Survey

Organic Farming in Latin America and the Caribbean

Salvador V. Garibay[1] and Roberto Ugas[2]

Organic production in Latin America

Latin American agriculture is in a state of flux, and it is becoming increasingly interesting for many farmers to produce organically. Some farmers or companies see organic agriculture as a good business opportunity, to market fresh or processed products locally or export them. Profitability is, however, not the only motivation to produce organically; there are farmers that consider organic agriculture an alternative in order to maintain and protect their local resources and avoid damage to the environment or mitigate climate change, and others are trying to integrate social aspects. For example, with Participatory Guarantee Systems (PGS), farmers' organizations can reduce certification costs and improve their social structures. They also build relationships with local consumers, who, consequently, feel the desire to support such farmers to produce organically.

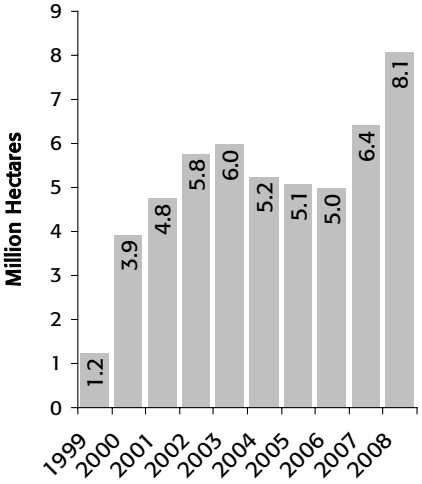


Figure 30: Latin America and Caribbean: Development of the land under organic management in Latin America 2000-2008

Source: FiBL/SOEL surveys 2000-2010

However, the economic crisis caused by the irresponsible behavior of financial institutions in the North has had a deep impact on the economic performance of most countries in the region, which had been experiencing a prolonged period of economic growth. The slowdown of the economy in the region has affected organic production less than the overall economy, particularly regarding exports. In Peru, for example, organic export estimates for 2009 were slightly lower, but in general the growth rate continues to be remarkable. With over 200 million US dollars worth of annual exports, this country is already a major world player in terms of organic exports.

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[2] Roberto Ugas, La Molina Agricultural University of Lima, Peru, www.lamolina.edu.pe/hortalizas. Roberto Ugas is Vice President of the International Federation of Organic Agriculture Movements (IFOAM).

Table 34: Latin America and Caribbean: Land use types – 2007 and 2008 compared

	Area [ha]2007	Area [ha]2008
Agricultural land	6'414'709	8'065'890
Bee keeping	597'725	676'447
Aquaculture	6'382	3'478
Forest	996	777
Grazed non agricultural land	no data	15'000
Wild collection	7'511'093	7'518'469
Total	**14'530'905**	**16'280'060**

Source: FiBL Surveys 2009 and 2010

Figure 30 shows that organic agricultural land jumped from about 6.4 million hectares to about 8.1 hectares from 2007 to 2008, representing one percent of the total agricultural land area for Latin America. The high increase in organic land is partly explained by the fact that, even in times of financial crisis, organic agriculture is a real alternative for many producers. There has been a major increase in organic land in Argentina (of more than one million hectares, mainly grazing land for sheep), and, for the first time, organic land was reported for the Falkland Islands, where 400'000 hectares of grazing land are under organic management (including area under conversion). Growth was also reported for Chile and Ecuador, as the organic land area increased. In Mexico, however, the organic land area dropped, mainly due to the fact that the coffee area went down substantially.

Further "newcomers," apart from the Falkland Islands, are the French departments of Guadeloupe, French Guyana, and Martinique, for which information on organic farming became available for the first time. Information on organic land was also reported for Guyana for the first time since 2002. For many countries in Latin America and the Caribbean, however, new data for 2008 were not provided.

In addition to organic agricultural land, 3000 hectares of aquaculture and 7.5 million hectares of wild collection were reported, mostly in Brazil.

The leading countries (Figure 31) in terms of organically managed agricultural land (without wild collection/aquaculture/forest areas) in Latin America are Argentina, Brazil and Uruguay.

The countries with the highest percentages of organic agricultural land are the Falkland Islands, French Guyana, and the Dominican Republic.

Mexico has the largest number of organic farms, followed by Peru and the Dominican Republic. Whereas in Mexico, Central America and Andean countries the average farm size is small (e.g., in Mexico only 2.8 hectares), the size tends to be far larger in many South American countries, particularly those belonging to the Mercosur trade block.[1]

More than half of the agricultural land for which land use details are available[2] is grassland. Eight percent of this land is in permanent crops such as bananas, cocoa and apples.

[1] Mercosul or Mercosur (Portuguese: Mercado Comum do Sul, Spanish: Mercado Común del Sur, English: Southern Common Market) is a Regional Trade Agreement (RTA) among Argentina, Brazil, Paraguay and Uruguay founded in 1991 by the Treaty of Asunción, which was later amended and updated by the 1994 Treaty of Ouro Preto (Source: Wikipedia, en.wikipedia.org/wiki/Mercosur; Accessed January 18, 2010.)

[2] For Brazil and Bolivia, no land use data have been made available.

Organic agricultural production in Latin America is not increasing equally in all countries, nor are growth rates showing sustained growth. Among the main reasons for this, it is worth noting the following:

- Other certification standards, such as those of the Rain Forest Alliance, or bird-friendly and fair-trade standards, compete with organic standards. Some of these standards permit the use of chemical inputs. For the farmers, this means fewer changes in production than converting to organic farming. Also, organic premium prices are not always higher than those of fair-traded or "sustainable" products.

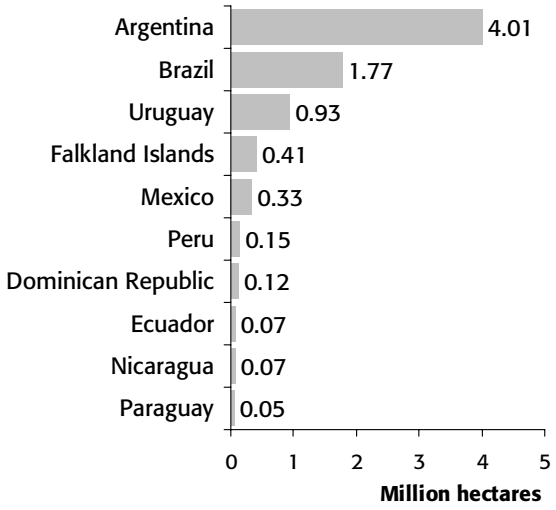

Figure 31: Latin America and Caribbean: The ten countries with the largest organic agricultural area 2008

Source: FiBL Survey. Data for Brazil from 2007; Uruguay: 2006

- Climate change effects are increasing in the Caribbean region. In countries such as Cuba, Haiti, Jamaica, Trinidad and Tobago, hurricanes have destroyed many crops. The effects of climate change in these countries, (for example, that the hurricane seasons are longer and stronger), are making it difficult to maintain stable production. This does not only apply to organic farming; indeed, the effects of climate change are noticeable in many other areas of the region. Unpredictable rainfall patterns in the high Andes are already having a profound effect on traditional potato and quinoa cropping systems, for example, and, in the Brazilian Northeast and the Argentinean Northwest, smallholder agriculture is being impacted by the increased severity of droughts. Should climate change augment the severity of El Niño, the production of organic bananas in Peru will also be endangered by increased rainfall in desert areas.
- Pest and diseases are affecting the crops, and for many solutions have not yet been found. For example, the Monilia Pod Rot (*Moniliophthora roreri*) is a serious fungal disease that affects cacao. Its range includes north-western South America, (including Ecuador, Colombia, and Peru), and southern Central America, (from Nicaragua to Panama, including Costa Rica). The Asian citrus psyllid (*Diaphorina citri*) causes a devastating bacterial disease called Huanglongbing, or citrus greening. This disease has caused enormous damage to organic citrus production in Cuba and Brazil and has already started spreading into Central America and Mexico.
- The prices that farmers receive do not always cover their entire production cost. Farmers get disappointed about the price conditions offered by the buyers and abandon organic production. If the prices for organic products are reduced in the international or local market, the first ones to feel the reduction in income are the farmers.

- The quality of third party certification is not uniform among different certification bodies. In many countries it can be seen, for example, that requirements on biodiversity vary considerably and, in some cases, monocultures may be certified as organic. Besides, other certification schemes like GLOBALGAP show a stronger concern for the treatment of farm workers in large estates, gaining them stronger social recognition than organic certification.
- With notable exceptions in the largest countries and in the Southern Cone of South America, most organic producers - of whom the majority are family farmers highly dependent on family labor - are smallholders. To access organic markets they need to organize internal control systems and improve their cooperation in associations. Their ability to do so is hindered, since there is a lack of training and support and, in some countries, this type of production is seen as backwards, as compared to individual farming businesses.
- Latin America and the Caribbean still have an enormous deficit in public and private investment in infrastructure and logistics in rural areas, with smallholders as the most disadvantaged part of the population. This increases production and transaction costs, including organic certification.

The markets in Latin America

Most organic products from Latin American countries are sold on the European, North American or Japanese markets. Popular goods are especially those that cannot be produced in these regions, as well as off-season products. In the past years, imports of fair-trade products have increased, and in many Latin American countries products are produced with both organic and fair-trade labels. Over 90 percent of certified organic products in Latin America and the Caribbean are destined to markets in the North. Thus, the development of robust local markets is still a major challenge, without which sustainability of organic production cannot be achieved.

Local Market

- Supermarkets: Many supermarkets in Latin America sell organic products. The sales of vegetables and fruits, milk and milk products, honey, coffee, and other items are commonly sold in Mexico, Honduras, Nicaragua, Costa Rica, Peru, Bolivia, Brazil, Uruguay, Chile, and Argentina, and to a lesser extent in other countries. The principal driver of this trend is the strong expansion of the supermarket chains that are now offering organic products in urban centres. Various foreign supermarkets have invested in the region and are now competing strongly with small stores. In Costa Rica, more than 50 percent of organic food is sold in supermarkets. Intra-regional trade of organic products is also experiencing slight increases at the supermarket level. In some supermarket chains in Peru, for example, one can find Argentinean organic olive oil and herbal teas, or Colombian organic sugar. This development is expected to continue as supermarket chains increase their presence in the region.

- Specialized stores: Most Latin American countries feature specialized stores, or health food stores, which sell products from local organic farmers to an informed customer base. Such stores often serve as a central distribution point for information about local activities and organic regulations. A growing trend is the establishment of consumer cooperatives. In many cities and towns, consumers join together to organize a cooperative, rent retail space, and begin selling products from farmers that are members of the cooperative. This is common for instance in Southern Brazil through the Eco Vida Network. Cooperatives are often consumer owned, permitting both lower prices and a fair share for producers.
- Popular farmers' markets: Arguably, the most popular form of organic trade in Latin America is the neighborhood fair or informal farmers' market. Local governments often support farmers' markets by providing market infrastructure and advertising. Although the impact of these local markets may be economically insignificant, they support the livelihood of modest peasants throughout Latin America, in total representing an important percentage of the organic market. In addition, these farmers' markets play a key role in linking farmers and urban consumers and, in many places, function as centers for outreach activities and dissemination of information on different aspects of organic life. In most parts of the continent, farmers' markets also help promote the conservation and utilization of biodiversity and very often coincide with agro-biodiversity fairs and contests. In this sense, many of these markets may overlap with activities organized jointly with other actors of the agro-ecological movement, i.e., NGO's, public and private institutions, local Slow food structures, etc.

Strong local markets are key to the sustainability of the organic sector as a whole, as it cannot be based solely on exports. Promotion of local markets in Latin America is influenced by several factors, including the following:

- Sector coordination: Over the years, the civil sector has developed institutional structures for coordination, such as MAPO in Argentina, MAOCO in Costa Rica, or the Consorcio Agroecologico in Peru, just to mention a few. In some countries such structures do not exist or are inactive; however, in most countries these structures are strong, even if they often have no regular institutional interaction with the public sector. Improving the communication between the three main sectors (i.e., the civil society sector, linked with farmers' organizations and NGO's; the business and exporting community; and the public sector) is essential to developing a more holistic policy and market instruments and having a stronger capacity for advocacy.
- Coordination is needed with like-minded movements like groups working on indigenous knowledge, biodiversity, natural resources management, gastronomy, consumer groups, think tanks or research groups, even if they do not call themselves organic.
- Augmenting the visibility of the organic sector: This may include careful consideration of all stakeholders working with organic agriculture and an urgent effort to gather better and more detailed statistics. If analyzed as a whole and not in commodity-based statistics, the organic sector is already an important generator of foreign income and employment in the rural areas of Latin America. In addition, it provides an obvious boost to local market dynamics. However, in terms of advocacy, much work is needed to show – through serious research and systematization – the impact and contributions of organic agriculture on poverty and malnutrition reduction, conservation of biodiversity, or mitigation of the effects of climate change.

- In the public sector, policies and instruments necessary for the growth of the organic sector should not only be the concern of ministries of agriculture, but also other areas of government. Separate ministries concerned with the environment or fisheries, for example, should ideally have permanent structures for coordinating activities related to organic.
- More flexibility and creativity in the regulatory environment is needed in order to analyze and develop instruments for the promotion and control of organic agriculture that are better adapted to highly diverse socio-economic conditions.
- International cooperation is important. The two main networks to build on are GALCI (made up of the regional members of IFOAM) and MAELA, the Latin American movement of agroecology. In recent months there have been efforts to organize the potential members of the recently formed IFOAM intercontinental network of organic farmers' organizations (INOFO).

Exports

Most organic production from Latin America remains destined for export markets. In Mexico, currently, at least 85 percent of the organic food grown is shipped to other nations, including the United States, the European Union members and Japan. Its domestic market, on the other hand, is still in its infancy. Less than five percent of Mexico's organic products are sold through natural food stores and restaurants (Nelson et al. 2008).

In Costa Rica, there are many organic export projects stimulated by the government. In Honduras and many other countries, multinational companies and investors' funds (based in Europe or North America) are buying land to produce organic for export. Their organic production projects tend to be large-scale and technologically advanced and the investors benefit from relationships with buying markets in their country of origin. Such projects are usually beyond the financial means of local companies.

In spite of the wave of foreign investments, by far the largest portion of organic goods exported from Latin America and the Caribbean is produced or collected by groups of smallholders, who are organized in value chains of varying complexity and efficiency. The strength of the farmers' organizations (e.g., association, cooperative, marketing group, etc.) is a key component in many success stories across the continent. In these cases, groups that were organized to meet the internal control system requirement of third-party certifiers have evolved into more powerful social structures. These groups become active in related areas like the management of local natural resources, administration, organization of improvements of infrastructure and even advocacy at local, regional or national levels.

Fresh fruits and vegetables: Many Latin American countries have been selling their fruit harvest to Europe and the United States. Brazil sells apples and grapes. Chile has a thriving kiwi export business and also focuses on the export of soft fruits like raspberries and strawberries. Mexico, Colombia, Honduras and the Dominican Republic sell bananas, pineapples, mangoes and other tropical fruits. Argentina trades apples, pears and citrus fruits. Mexico markets apples, citrus fruits and avocados on the world market. Argentina, Brazil and Chile are strong vegetable exporters, both fresh and dried. In addition, Costa Rica and other Central American countries sell smaller quantities of fresh vegetables to external markets.

Bananas: The most important supply countries for bananas are Ecuador, the Dominican Republic, Peru, Colombia and Brazil. Other suppliers include Costa Rica, Honduras, Mexico, and Nicaragua. According to market experts, supply does not cover demand, partially due to the quota system in the European Union, which regulates imports and the production volume of organic bananas, limiting supply countries (Garibay 2005). A recent success story in the export of organic bananas is northern Peru, where smallholders managing an average area of one hectare each have organized to produce high quality fruit, which they export through local brokers or multinational companies. (The desert climate of northern Peru has the advantage of being almost free from the serious diseases prevalent in most humid tropical regions).

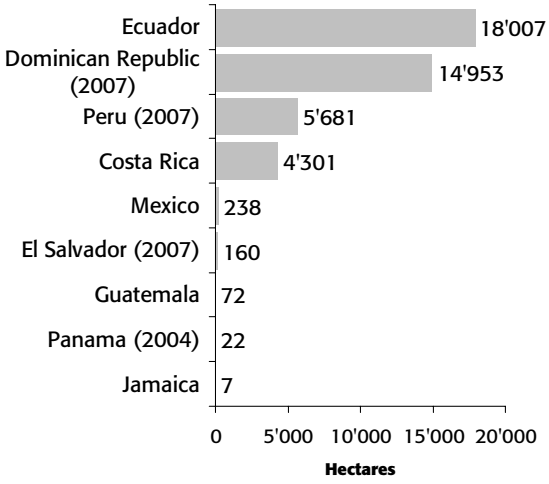

Figure 32: Latin America and Caribbean: Organic banana area in 2008

Includes in-conversion area for some countries. Not for all countries data on the organic banana area were available.
Source: FiBL Survey

Coffee: According to the FiBL survey, Mexico is the country with the largest organic coffee area world-wide, supplying the world's biggest supermarkets and coffee shops. Despite the volume of production, most of the coffee in Mexico is harvested by small indigenous farmers. According to various sources, Peru is the biggest exporter of organic coffee world-wide, even though, according to the FiBL survey, the land area used for organic coffee production is smaller. So far, it has not been possible to clarify this contradiction.

Guatemala and other Central American countries have significant levels of coffee production with very similar characteristics. Coffee production is primarily

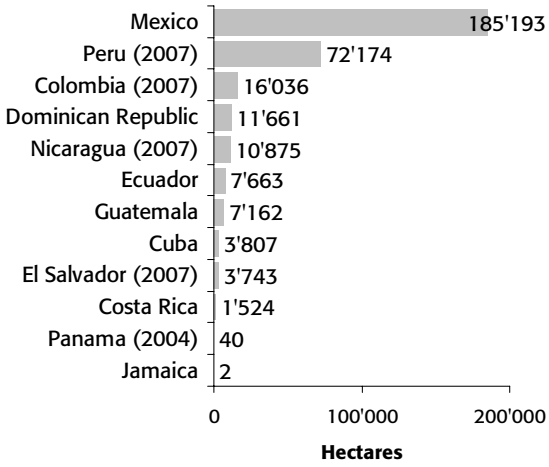

Figure 33: Latin America and Caribbean: Organic coffee area 2008

Includes in-conversion area for some countries. Not for all countries data on the organic coffee area were available.
Source: FiBL Survey

defined by ecological forest management systems, creating a valuable alternative to the deforestation process that is taking place in the region.

Cocoa: Most of the Latin American countries producing organic coffee also cultivate organic cocoa for chocolate, which is then usually processed in Europe under fair-trade logos and certified by European companies. Cocoa is a very important source of income for small farmers throughout Central America and the tropical areas of South America. Different projects involving organic and fair-trade cocoa have started up, (including in Honduras and Nicaragua). Mexico, Nicaragua, Costa Rica and Bolivia have added value to their cocoa by producing organic chocolate for the local market. As is the case with coffee, the production and export of organic cocoa is increasing at a rapid pace in Colombia, Peru and Bolivia, as part of the efforts to provide an alternative to illegal coca leaf production. Coca, usually destined for the drug market, entails intensive environmental damage in its production, because it is highly dependent on synthetic chemicals. Organic cocoa, in contrast, provides a stable income and can reduce environmental impact. (Measures to replace coca production do not include areas of coca for private consumption in a traditional manner).

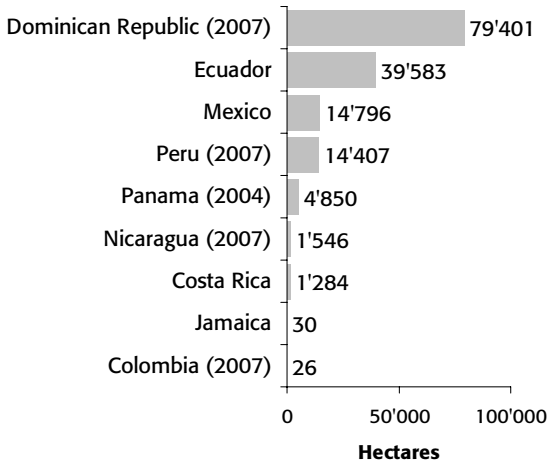

Figure 34: Latin America and Caribbean: Organic cocoa area 2008

Includes in-conversion area for some countries. Not for all countries data on the organic cocoa area were available.
Source: FiBL Survey

Pineapples: Since ethylene for the induction of pineapple flowering became allowed according the EU regulation on organic farming as well as the U.S. National Organic Programme NOP, the importance of organic pineapple has been growing in many Latin American countries. Limiting factors to production are the availability of organic pineapples and low quality. The market for fair-trade pineapple juice shows that development has been slow due to lack of good quality products.

Grains and cereals: Paraguay is a big organic soybean producer, together with Argentina, Mexico and Brazil, which produce and export organic corn and wheat. Andean grains like quinoa and amaranth are important organic exports for Bolivia and Peru. Organic grain farmers in several southern countries are facing the problem of increasing cultivation of genetically modified soy and corn.

Nuts: The most important organic nut in Latin America is the Brazil nut or Para nut, produced in Bolivia, Brazil and Peru. The certification of large areas is necessary for the collection of these nuts in the Amazon region, and in fact an important percentage of the total land certified as organic in these countries is used for this purpose.

Sugar: Brazil, Paraguay, Ecuador Argentina, Colombia and Cuba are some of the sugar producers in the region. Small farmers in cooperatives own or manage small sugar mills. In Brazil, there is a big company producing sugar with high quality technologies and social standards on tens of thousands of hectares.

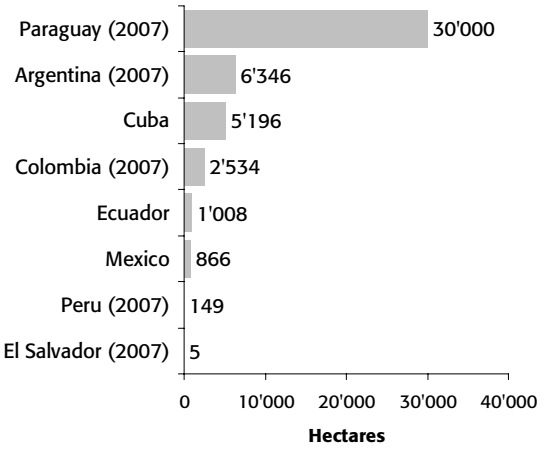

Figure 35: Latin America and Caribbean: Organic sugarcane area 2008

Includes in-conversion area for some countries. Not for all countries data on the organic sugarcane area were available.
Source: FiBL survey

Meats: While Argentina is a large beef exporter in the region, it also has a strong domestic market for organic meat. Uruguay and Brazil are also significant producers of organic meat; Brazilian companies are even buying processing plants in Argentina to expand their influence. Countries such as Mexico and Nicaragua have projects for producing organic meat, mainly for the national market. One big constraint keeping organic meat production in Latin America from moving forward is that the main consumers (in Europe and the U.S.) ask only for the best pieces (i.e., the sirloin tenderloin and pistol cuts from the hindquarter). The rest of the meat has to be sold on the national market, mostly as conventional.

Wines and spirits: Argentina and Chile are major producers of organic wines, often also bio-dynamic. The market for organic spirits in Latin America is also taking shape. There are marketing development initiatives for traditional spirits from the region such as *tequila*, *mezcal* and *rum* for the local and export markets. All these kinds of spirits can be found in Mexico. Peru produces organic certified *pisco*, the traditional local brandy distilled from grape juice, and in Brazil organic *pinga* (made from sugar cane) is already available. In many cases, the certification of these spirits goes along with denominations of origin or geographical indications, as is the case of *tequila* in Mexico and *pisco* in Peru.

Herbs and spices: These are perhaps the most common organic products in Latin America and the Caribbean, as the region has perhaps the world's largest biodiversity. Furthermore, herb collection/cultivation and processing (mainly drying) is well adapted to the region's smallholder-dominated agriculture. Smallholders often have a reduced or malfunctioning infrastructure that limits the distribution and marketing of fresh products. Oregano (from various species in the genera *Origanum*, *Lippia* and others) is the most important herb in terms of production and exports, mostly from Mexico, Argentina and Peru. Other organic herbs that can be found in the markets of the European Union, the USA and Japan are musk rose (from Chile) and yerba mate (from Argentina, Paraguay, Uruguay, and Brazil). Organic spices exported include cardamom (from Central America) and chili pepper (from Peru, Mexico, and Colombia).

Nutraceuticals, functional food and medicinal plants: Development and exports of these products, abundant in the region, have been slowed by the newly introduced EU regulation.

In spite of this, the region has a long tradition and potential for the development of new products based on local biodiversity. Products already present in world markets include: *maca* (from Peru), *guaraná* (from Brazil), stevia (from Paraguay), *sacha inchi* (from Peru), *uña de gato* (from Peru and Bolivia), and aloe vera (from Mexico), among many others.

Organic guarantee systems

Argentina and Costa Rica have a Third Country status with the European Union; all other Latin American producers need to be certified by an accredited certification agency in order to enter the EU market. However, American or European companies certify a large part of the export production in Latin America in any case, as buyers often impose the certification. Certification organizations such as The Organic Crop Improvement Association (OCIA) and Farm Verified Organic (FVO) from USA; and Naturland, BCS Oeko-Garantie, Control Union and the Institute for Market Ecology are very active in the region. Others are Ecocert and Ceres. With the increase in the number of functional national regulations in several countries, most of these certification agencies have established national offices in these countries and applied to be included on a national register of certification bodies.

Almost every country in the Spanish and Portuguese speaking countries has a local certification body. Some national certification bodies are very well developed, such as Argencert and Organización Internacional Agropecuaria, (OIA, Argentina), Instituto Biodinamico (Brazil), Bolicert (Bolivia), and Biolatina (Peru and others). Other certification agencies include Ecológica (from Costa Rica), Bio Nica (from Nicaragua), Biotropico (from Colombia), Maya Cert (from Guatemala) and CertiMex (from Mexico). Uruguay has Urucert and Sociedad de Consumidores de Productos Biológicos (SCPB). Apart from the aforementioned Argencert and OIA, Argentina has more than 12 certification agencies, including Bio Letis (EU recognized), Food Safety, Agro Productores Organicos de Buenos Aires (APROBA), Ambiental, and Fundación Mokichi Okada (MOA). Biolatina is the only regional certification body, with a central office in Peru and management structures in other countries. Argentina and Brazil are the countries with the largest number of local certification bodies by far. Certification bodies in Argentina, Brazil and Bolivia are accredited according to the IFOAM Accreditation Programme, run by IOAS.

In recent years, some countries have created national laws governing organic production, including Costa Rica, Mexico, Uruguay, Chile, Paraguay, Peru, Colombia and El Salvador. Bolivia has issued a decree regulating organic production. Argentina has had a national law for many years, and its system dates back to 1992. Brazil is one of the last countries to pass laws and regulations for organic agriculture; a breakthrough was achieved after quite a long and participatory process of nation-wide discussions, in which the local organic movement was particularly active.

Most countries in Latin America now have national laws and regulation and have started implementing them, in most cases with competent authorities in the plant protection sector. Organic certification bodies are generally required to have local offices, and national registers of certification bodies, operators, and/or inspectors have been initiated. In countries like Brazil and Colombia, there are national logos for organic products. Most of these countries have applied for inclusion in the EU's third country list, but the approval process is slow. In some cases lack of inclusion is preventing further developments at the national level, since some authorities are concerned that changes may affect their processes in the EU.

Latin America is changing rules regarding third party certification. Many farmers are no longer satisfied to depend of the private certification agencies in order to say that they are producing organically. Various examples of Participatory Guarantee Systems (PGS) can be found on all parts of the continent (see also page 85). The regulation in Brazil accepts PGS in local markets, and other countries, including Peru, Mexico and Uruguay, are developing similar systems. PGS are essential for the development of local markets and to promote better linkages between the various institutions and groups involved in the organic sector. In some countries, however, these systems are not allowed and require compulsory third-party certification for the marketing of organic products. At the same time, countries like Brazil do not require certification if the production system is run by smallholders - if sales are under a certain upper limit and if they sell directly to the consumer. There is a popular perception that third party certification based on ISO-65 criteria is not necessarily relevant for producers in the region, given their socio-economic status; therefore, alternative methods need to be further developed and promoted.

Governmental support

Historically, over the last 20 years, organic agriculture has received most of its support from NGOs trying to change the social, economic and environmental scenario of Latin American countries. In recognition of the growing importance of the organic sector to Latin America's agricultural economy, governmental institutions have now begun to take steps towards increasing their involvement, and governments are beginning to play a central role in the promotion of organic agriculture. There are various types of support in the Latin American countries, from the promotion of organic agriculture to market access support (through official export agencies). In some countries, there has been support to pay for certification costs during the first years of conversion or otherwise provide financial support through different governmental programs. An important process occurring now in many Latin America countries is that organic laws are been established in order to set standards regarding the regulation and promotion of the organic sector (as noted above).

In general, however, the organic movement in Latin America has grown on its own accord, with some seed funding for extension and association-building provided by international aid agencies, especially from Germany, the Netherlands, Belgium, Switzerland and the U.S., among many others. International trade has been stimulated by buying companies and fair-trade agencies, focusing especially on some basic products like coffee, bananas, orange juice and cocoa.

It should be noted that most countries in the region started developing the regulatory sector related to organic agriculture as a way to bring more formal procedures into the system and facilitate exports. This is quite advanced now and the civil society is urging for other policy instruments that may allow for improvements in essential areas like credit, research, extension and formalization of rural property. At the same time, since farmers' organizations are key in most of the region, it is necessary to promote regulations that could assist in the strengthening of cooperatives and farmers' associations.

The first Assembly of the Inter-American Commission for Organic Agriculture (ICOA) was held in November 2009 at the headquarters of the Inter-American Institute for Cooperation on Agriculture (IICA), in Costa Rica. There it elected its first Board of Directors and set guidelines and policies for its operation. In this way, competent authorities across the continent will be able to cooperate.

Education, extension and research

Latin America has a great deal of educational activity relating to organic agriculture. Many universities and agricultural organizations offer teaching courses and on-farm experimental projects. The Brazilian Instituto Biodinamico worked systematically on farm production. Agruco and Agrecol in Bolivia have excelled at agricultural extension work over the years, leading to a strong support for food security and farmer knowledge, especially in the Andean region. In Colombia, capacity building and training in organic agriculture has been carried out mainly by NGOs and also by farmers' associations, education centers and agro-ecological schools. Colombian universities (like the National University of Colombia and the University of Antioquia) have, together with the University of Berkeley, developed the first Ph.D. program in agro-ecology in Latin-America. Some other agricultural universities carry agroecology and organic production courses, like the La Molina in Peru, Las Villas in Cuba, and Chapingo in Mexico. In October 2004, the Catholic University of Argentina started a degree program on Organic Company Management, and one year later the University of Anahuac in Puebla, Mexico launched a post degree program in Business Development in Organic Products. In Colombia, SENA (a national learning system, a nation-wide governmental institution) has started a few agroecological techno-parks for research and teaching on organic agriculture. Some regional research institutions are increasing their work in agro-ecology and organic agriculture.

Recently, producers and researchers in Latin America and the Caribbean have begun to meet annually. The first meeting took place in 2006 in Nicaragua, the second was in Guatemala in 2007, the third was in Bolivia in 2008, and the fourth was carried out in El Salvador in 2009. The meeting gives participants the opportunity to gather information or share experiences with farmers. Topics include: production and participative investigation, institutional research on organic agriculture, companies' activities, organic market initiatives, running projects, and developing programs in Latin America and the Caribbean focusing on organic agriculture and fair-trade. Parallel to the meeting, the Organic Producers Fair of Latin America and the Caribbean is carried out. The fair offers a platform to find and meet new suppliers of organic and fair-trade products from Latin America. The next meeting and Organic Fair will be carried out in Peru in 2010. In November 2009, the second scientific congress of Agroecology was organized by the scientific society of Latin America (SOCLA) and the Asociacion Brasileña de Agroecologis (ABA) in Brazil.

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Country reports

On the following pages a general country report about organic agriculture in Peru and a detailed report about the organic exports from Peru are presented.

In the 2009 edition of *The World of Organic Agriculture* reports on organic agriculture in several Latin American and Caribbean countries were published. These can be downloaded at www.organic-world.net/contents-2009.html or at www.organic-world.net/latin-america.html.

Peru: Country report

Jorge Leonardo Jave Nakayo[1]

In 2001, Peru had 84'908 certified organic hectares. In 2008, it was estimated that more than 314'00 hectares were covered by organic certification (including wild collection). More than 46'000 farmers, most of them small, produce organic crops within group certification.

Ninety-seven percent of the production is exported, and around 90 percent of those exports are coffee, bananas and cocoa. The total value of exports is estimated at more than 200 million US dollars in 2008. Other exported products of importance are cotton, brazil nut, maca[2], mango and quinoa.

Although organic production in Peru represents only three percent of the production, there is a very well organized internal market. Thanks largely to the work of Eco-Logica Peru, weekly markets (*Bio Ferias*) take place in Lima and the surrounding area, and organic products can easily be found in the main supermarket chains. These channels account for an annual domestic market of around one and a half million US dollars.

The main products sold on the domestic market are vegetables, fruits, eggs and other animal products, beans and root crops. The number of processors for the domestic market is permanently increasing.

Certification bodies are registered by the National Authority, SENASA[3]. As of 2008 the following certification bodies were carrying out certification in Peru and registered by SENASA: Biolatina S.A.C., IMO Control Latinoamerica Perú S.A.C. and Control Union Perú S.A.C. BCS Öko Garantie Perú S.A.C., OCIA International Perú S.A.C., Ceresperu S.A.C. and SGS del Perú S.A.C. were working as certifiers and in the process of registering.

Since 2006 the 'Technical Regulation for Organic Products' has been in force. Since January 2008 the 'Law for Promotion of Organic Farming' applies.

The small farmers' movement is represented by the Peruvian Organic Producers Association ANPEP. Many NGOs are dedicated to the promotion of organic production, such as Instituto Huayuná[4], Instituto para el Desarrollo y Medio AmbienteIDMA[5], CICAP[6], El Taller[7], Centro Ideas,[8] and to the development of local markets, such as Eco-Lógica Perú,[9] and many more. The Agrarian University of La Molina[10] has long served as a centre for organic farming studies and education.

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[2] Maca (Lepidium meyenii)is an herbaceous plant native to the high Andes of Bolivia and Peru. It is used as a root vegetable and a medicinal herb.

[3] www.senasa.gob.pe

[4] www.huayuna.org

[5] www.idmaperu.org

[6] www.pidaassaperu.org/participantes-peru/cicap-lambayeque-peru.html

[7] www.eltaller.org.pe

[8] www.ideas.org.pe

[9] www.grupoecologicaperu.org

[10] agricolaunalm.edu.pe

Peru: Exports of Organic Products

Javier Martinez[1]

Exports of Peruvian organic products demonstrate a growing trend. Estimated to have reached 225 million US dollars at the end of 2009, 16 percent more than in 2008, when they reached 194 million US dollars, the average annual growth rate has been 44 percent since 1999 (Figure 36).

Peruvian organic products are mainly exported to the United States and Germany, with a total value of 62.5 US dollars and 38.5 million US dollars respectively. Japan imported Peruvian products valuing 5.4 million US dollars.

A majority (60 percent) of Peruvian organic products are exported to Europe (30 percent to Germany, followed by the Netherlands and Belgium), to the Americas (90 percent to the United States, followed by Canada and Mexico), to Asia (90 percent to Japan, followed by Thailand and Hong Kong).

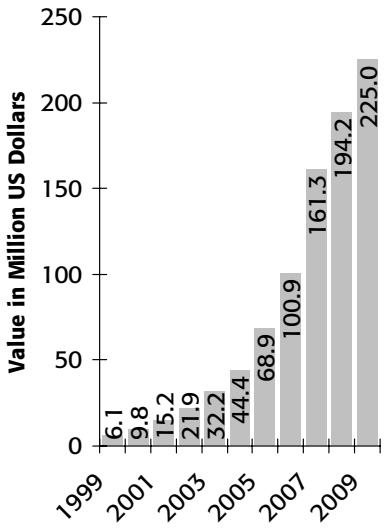


Figure 36: Peru: Development of organic exports (estimates)

Source: Aduanas. Elaborated by: PROMPERU

The product range Peruvian organic exports includes coffee, bananas and cocoa, which constitute about 90 percent of the export value of this sector).

- Coffee: 125 million US dollars in 2008 and 9.68 million US dollars in the first quarter of 2009, primarily destined for the US and Germany.
- Bananas: 45.5 million US dollars in 2008 and 25.2 million US dollars between January and May 2009, mainly to the Netherlands and the US
- Cocoa: 19.1 million US dollars in 2008 and 2.7 million US dollars in the first quarter of 2009, primarily to Belgium and the Netherlands.

Other organic products include: cotton (8.1 million US dollars in 2008), mango (3.1 million US dollars) and quinoa (1.88 million US dollars).

[1] Javier Martinez, Promperu, Lima, Peru

New products and markets

Efforts of the Peruvian export sector have been focused on incorporating more products into the organic export basket and the search for new markets.

Consequently, the following organic products were added to the export basket in 2008: basil, pumpkin, cañihua, noni, avocado, prickly pears, trout and jojoba which were exported to Europe, the US, Japan, Australia and Central America.

Table 35: Peru: New organic products 2008 (Estimates)

New Organic Products	Countries
Basil	United States
Pumpkin	Holland
Cañihua[1]	Germany
Noni[2]	Guatemala, Japan, Norway
Avocado	England
Prickly pears	Guatemala, Norway
Trout	Australia, Belgium
Jojoba	Germany, United States, Holland, England

Source: Aduanas. Elaborated by: PROMPERU

Similarly, Peruvian organic products are finding new markets, including Saudi Arabia, the United Arab Emirates, the Philippines, Greece, Guatemala, Indonesia, Singapore, South Africa, Thailand, Uruguay and Yemen, to which Peru has mainly exported cotton.

It is important to note Central America, as the development of tourism may enable the successful introduction of exotic products, fruits and even medicinal plants into markets.

Table 36: Peru: New markets of Organic Products 2008 (Estimate)

New Countries	Products
Saudi Arabia	Cotton
United Arab Emirates	Cotton
Philippines	Cotton
Greece	Cotton
Guatemala	Maca[3], Noni, Prickly pears, Cats clow, Yacon[4]
Indonesia	Cotton
Singapore	Maca
South Africa	Cotton
Thailand	Cotton
Uruguay	Cotton
Yemen	Cotton

Source: Aduanas. Elaborated by: PROMPERU

Opportunities for Peru

One cultural aspect that Peru ought to use as an advantage is its cuisine. Internationally recognized in ethnic markets formed by Peruvians around the world. Peruvian cuisine has become a proficient way to introduce and promote Peruvian organic products. This applies not only to agricultural products but also the fisheries sector and others.

Greater awareness of Peruvian cuisine will engender the incorporation of new Peruvian organic products to the international market and consolidate its current offer in the various sectors.

[1] Canihua (chenopodium pallidicaule) is an Andean grain.
[2] Noni (Morinda citrifolia) is a tree in the coffee family (Rubiaceae) with a variety of culinary and medicinal uses.
[3] Maca (Lepidium meyenii)is an herbaceous plant native to the high Andes of Bolivia and Peru. It is used as a root vegetable and a medicinal herb.
[4] The Yacón (Smallanthus sonchifolius) is a perennial plant grown in the Andes of Perú for its crisp, sweet-tasting tubers.

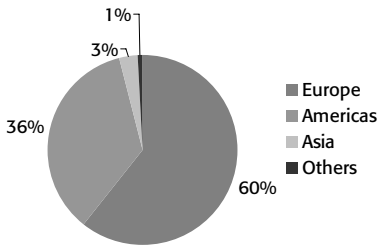


Figure 37: Peru: Exportation of organic products by regions in percent 2008

Source: Aduanas. Elaborated by: PROMPERU. Graph: FiBL, Frick

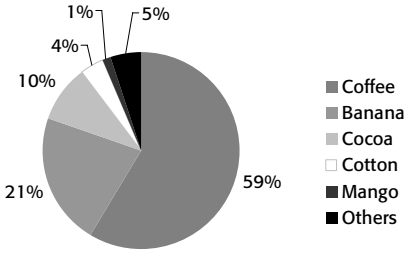


Figure 38: Peru: Exportation of organic products 2008 (Estimate)

Source: Aduanas. Elaborated by: PROMPERU. Graph: FiBL, Frick

For example, Peru has peppers, onions, beans, ginger, lucuma[1], oregano and organic trout that are exported to countries in Europe, America and Australia. Moreover, organic cotton, a highly demanded input for textiles manufacturing as well as organic jojoba for the manufacture of cosmetics are non-food organic products with potential.

Table 37: Peru: Exportation of organic products by products (Estimate)

Products	2007		2008		2009	
	FOB Value US dollars	Volume Kg	FOB Value US dollars	Volume Kg	FOB Value US dollars	Volume Kg
Pepper	98'077.93	58'331.00	308'607.03	261'618.89	134'083.08	81'618.04
Onion	93'150.00	251'487.00	154'180.00	369'929.00		
Bean	9'246.60	9'000.00	12'508.50	11'750.00	29'370.00	20'000.00
Ginger	285'914.38	129'984.28	981'395.10	352'829.75	885'928.51	325'087.48
Lucuma	26'035.65	2'612.08	65'279.50	5'205.17	126'557.00	11'282.97
Oregano	6'700.00	2'000.00	14'986.40	3'406.00		
Trout			50'514.48	4'935.00	41'731.20	4'430.00
Cotton	15'821'782.41	543'864.18	9'690'920.63	304'698.90	11'267'271.53	319'462.44
Jojoba	49'542.22	9'325.00	671'344.50	113'550.00	576'189.40	93'605.00
Total	**5'250'901.30**	**898'428.60**	**3'489'219.71**	**591'210.04**	**4'125'489.08**	**653'482.73**

Source: ADUANAS – SUNAT
Elaborated by: Información y Negocios Electrónicos - PROMPERU

[1] The lúcuma (*Pouteria lucuma*) is a subtropical fruit of Andean origin mostly on Peru. It is a nutritious fruit with high levels of vitamins.

It is expected that the following products will be exported from Peru in the near future: cherimoya[1], sweet granadilla or passion fruit, sauco[2], pitajaya/prickly pear, aguaje[3] and guava. Such product are used for making juice, energy bars or infant formula.

Another important sector development is encouraging and promoting crops with potential medicinal properties, such as the chuchuhuasi[4], chancapiedra[5], hercampuri[6], among others.

Local market for organic products

The domestic Peruvian market is poorly developed, unlike in other countries in the region, such as Argentina or Brazil.

It is estimated that local sales of organic products reached two million US dollars, Lima being the main city where these products are displayed and marketed, primarily through the organic fairs 'Miraflores' and 'Surco' and supermarket chains such as Vivanda, Plaza Vea, Tottus and Metro.

Furthermore, the companies that trade in organic products in Peru can only meet 20 percent of the total demand, which is estimated at 10 million US dollars, due to the fact that most of the production is destined to international markets.

Examples of traded Peruvian organic products

Below is a list of some organic primary and processed products from Peru.

- Peruvian organic coffee for the production of fine coffee blends and new presentations as beverages and filtering;
- Organic cocoa for the production of chocolates and drinks;
- Mango concentrates for the production of organic juice and pulps;
- Amaranth and sesame seeds for the production of organic cookies;
- Organic maca for the development of nutritional supplements;
- Organic yacon for the preparation of jams;
- Organic medicinal herbs for the development of filtering;
- Sacha inchi for the development of organic cosmetics (lotions);
- Organic trout for the elaboration of canned products.

[1] The cherimoya (*Annona cherimolia*) is a fruit. It is a species of Annona native to the Andean-highland valleys of Ecuador and Peru.
[2] *Sambucus peruviana*, commonly called Sauco or Rayan is a medium-sized, spreading tree or shrub in the genus *Sambucus* that is distributed in the Andean mountain ranges. Its primary use is as a fruit for human consumption.
[3] The Moriche Palm (M*auritia flexuosa*) also known as the aguaje in Peru, is a palm tree. The moriche palm fruit is edible.
[4] Chuchuhuasi (*Maytenus macrocarpa*) is a cordial made from a bitter and astringent root, very popular in western Peru.
[5] Chancapiedra (*Phyllanthus niruri*) is a herb with medicinal uses.
[6] Hercampuri (*Gentianella alborosea*) is a herbal plant from Peru and has a long tradition of use as a liver detoxifier and weight-loss aid, and as such has been an important cleansing plant since the time of the Incas.

Latin America and Caribbean: Tables: Organic land area, land use, producers

Table 38: Latin America and Caribbean: Organically managed agricultural land and producers by country in 2008

Country	Organic agricultural land [ha]	Share of total agricultura land	Producers
Argentina	4'007'027	3.00%	1'678
Belize	852	0.56%	863
Bolivia (2006)	41'004	0.11%	11'743
Brazil (2007)	1'765'793	0.67%	7'250
Chile	13'774	0.09%	529
Colombia	40'308	0.09%	
Costa Rica	8'004	0.29%	2'921
Cuba	14'314	0.22%	2'467
Dominican Republic (2007)	123'089	6.33%	14'992
Ecuador (2009)	71'066	0.96%	11'609
El Salvador (2007)	7'478	0.48%	2'000
Falkland Islands	414'474	36.88%	10
French Guiana	2'385	10.51%	17
Guadeloupe	67	0.17%	21
Guatemala	7'285	0.16%	5'411
Guyana	75	0.00%	
Honduras	8'448	0.27%	1'825
Jamaica	483	0.09%	41
Martinique	188	0.67%	24
Mexico	332'485	2.42%	128'862
Nicaragua	70'972	1.36%	7'407
Panama (2004)	5'244	0.24%	7
Paraguay (2007)	51'190	0.25%	11'401
Peru	146'438	0.68%	46'230
Suriname (2007)	40	0.05%	
Uruguay (2006)	930'965	6.34%	630
Venezuela (2007)	2'441	0.01%	
Total	**8'065'890**	**1.30%**	**257'938**

Source: FiBL Survey
For detailed data sources see annex, page 225

Table 39: Latin America and Caribbean: Organic agricultural land and further land use types 2008

	Agricultural land [ha]	Aquaculture [ha]	Forest [ha]	Grazed non agricultural land	Wild collection [ha]	Bee keeping [ha]	Total [ha]
Argentina	4'007'027	–	–	–	200	638'992	4'646'219
Belize	852	–	–	–	–	–	852
Bolivia (2006)	41'004	–	–	–	1'028'556	–	1'069'560
Brazil (2007)	1'765'793	–	–	–	6'182'180	–	7'947'973
Chile	13'774	–	777	–	16'733	–	31'284
Colombia	40'308	–	–	–	6'800	–	47'108
Costa Rica	8'004	–	–	–	–	–	8'004
Cuba	14'314	–	–	–	–	–	14'314
Dominican Republic (2007)	123'089	–	–	–	–	–	123'089
Ecuador (2009)	71'066	3'478	–	–	8'000	–	82'544
El Salvador (2007)	7'478	–	–	–	–	–	7'478
Falkland Islands	414'474	–	–	–	–	–	414'474
French Guiana	2'385	–	–	–	–	–	2'385
Guadeloupe	67	–	–	–	–	–	67
Guatemala	7'285	–	–	–	–	–	7'285
Guyana	75	–	–	–	59'930	–	60'005
Honduras	8'448	–	–	–	–	–	8'448
Jamaica	483	–	–	–	–	–	484
Martinique	188	–	–	–	–		188
Mexico	332'485	–		–	46'208	37'455	416'148
Nicaragua	70'972	–		–	–	–	70'972
Panama (2004)	5'244	–		–	–	–	5'244
Paraguay (2007)	51'190	–		–	–	–	51'190
Peru	146'438	–		–	167'562	–	314'000
Suriname (2007)	40	–		–	–	–	40
Uruguay (2006)	930'965	–		–	2'300	–	933'265
Venezuela (2007)	2'441	–		15'000	–	–	17'441
Total	**8'065'890**	**3'478**	**777**	**15'000**	**7'518'469**	**676'447**	**16'280'060**

'–': No data
Source: FiBL Survey. For detailed data sources see annex, page 225

Table 40: Latin America and Caribbean: Use of organic agricultural land and crop categories 2008

Land use	Crop category	Area [ha]
Agricultural land, no details	Agricultural land, no details	2'206'715.4
Arable crops	Arable crops, no details	44'562.0
	Cereals	11'328.3
	Flowers and ornamental plants	16.6
	Industrial crops	11'586.2
	Medicinal and aromatic plants	6'274.8
	Oilseeds	8'610.0
	Other arable crops	69.4
	Field fodder crops	22.0
	Protein crops	1'230.6
	Root crops	860.6
	Seeds and seedlings	66.0
	Strawberries	215.4
	Sugarcane	46'365.0
	Textile crops	2'235.0
	Vegetables	40'509.4
Arable crops, total		173'951
Cropland, no details	Cropland, no details	14'255.1
Other agricultural land	Fallow land, crop rotation	429.4
	Other agricultural land	988.0
	Other agricultural land, other	11'367.0
	Unutilized land	13'092.5
Other agricultural land, total		25'877
Permanent crops	Berries	2'596.1
	Citrus fruit	12'280.5
	Cocoa	156'621.5
	Coconut	14'135.9
	Coffee	319'884.3
	Flowers and ornamental plants, permanent	10.9
	Fruit, no details	4'750.0
	Fruit, temperate	4'290.4
	Fruit, tropical and subtropical	101'384.8
	Fruit/nuts/berries, temperate, no details	1'000.0
	Grapes	7'035.8
	Medicinal and aromatic plants, permanent	481.1
	Nurseries	9.7
	Nuts	1'688.1
	Olives	425.0
	Other permanent crops	8'509.6
	Permanent crops, no details	6'379.0
	Tea/mate	6'118.1
Permanent crops, total		647'601
Permanent grassland/grazing		4'997'490
Total		**8'065'890**

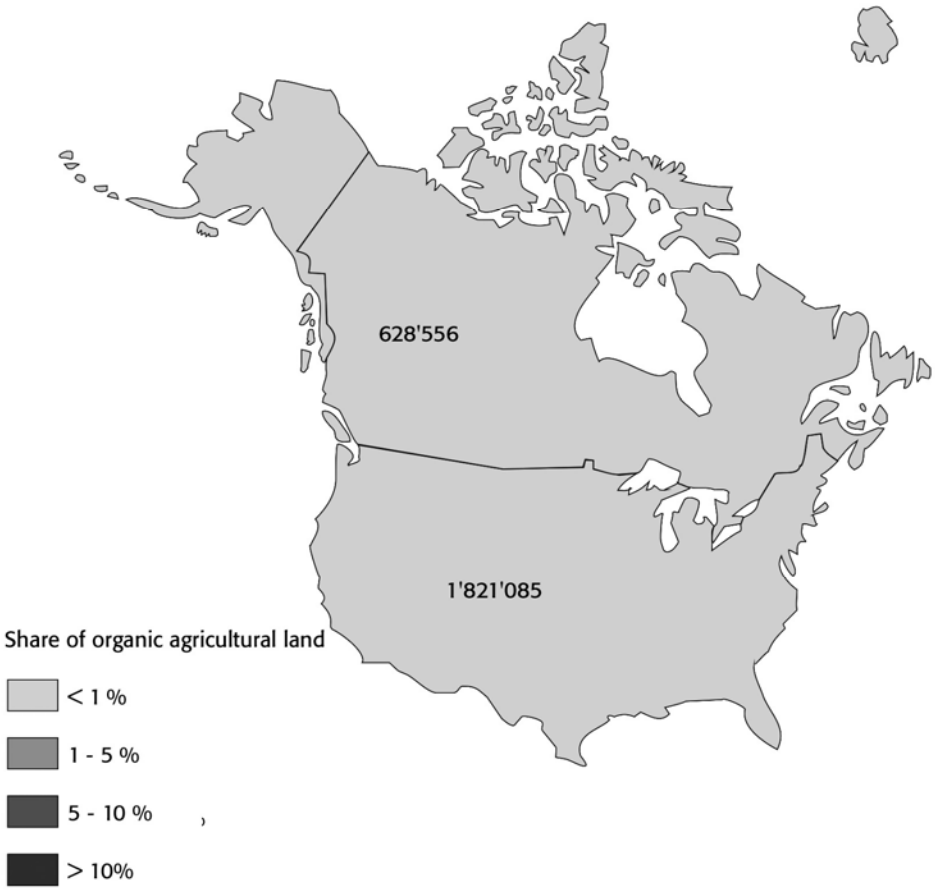
Source: FiBL Survey
Not all countries included in the survey provided data on land use or crop areas.

Table 41: Latin America and Caribbean: Wild collection areas and bee keeping 2008

Crop/product category	Area [ha]
Bee keeping	676'447.4
Bamboo, wild	230.0
Fruit, wild	12'032.0
Medicinal and aromatic plants, wild	8'060.0
Nuts, wild	1'176'118.0
Palmito, wild	26'800.0
Wild collection, no details	6'265'029.5
Wild collection, other	30'199.3
Total	**8'194'916**

Source: FiBL Survey

North America



Map 5: Organic agricultural land in North America: Agricultural area and shares of the total agricultural land 2008

Source: FiBL Survey

United States

Barbara Haumann[1]

Key developments 2009 at government level

U.S. organic agriculture achieved a major milestone during 2009, when the National Organic Program (NOP)[2] became an independent program area within the U.S. Department of Agriculture's (USDA's) Agricultural Marketing Service (AMS). As part of that action, USDA hired Miles McEvoy as the first Deputy Administrator of NOP. McEvoy assumed his position on October 1, 2009.

In announcing NOP's new status, Agriculture Secretary Tom Vilsack said USDA took this step due to the increased visibility and emphasis on organic agriculture throughout the farming community, evolving consumer preferences, and the enhanced need for governmental oversight of this expanded program. Historically, NOP had been part of the Transportation and Marketing Program within AMS.

For more than 20 years, McEvoy led the Washington State Department of Agriculture's (WSDA's) Organic Food Program. In 2001, he helped establish the WSDA Small Farm and Direct Marketing Program. He also helped establish the National Association of State Organic Programs in 1998 and recently served as its president.

Earlier in the year, the industry was pleased when long-time organic advocate Kathleen Merrigan was named the Deputy Secretary of Agriculture – the number two post in USDA.

Merrigan most recently had served as assistant professor and Director of the Agriculture, Food and Environment M.S. and Ph.D. Program at the Friedman School of Nutrition Science and Policy at Tufts University in Boston. From 1999 to 2001, during the time the NOP rule was finalized, she was Administrator of the Agricultural Marketing Service at USDA. Prior to that, she helped draw up the 1990 Organic Foods Production Act when she served as an aid to Senator Patrick Leahy.

Government funding

During 2009, the U.S. organic program began to reap the rewards of the hard work that had been put into shaping the 2008 Farm Bill. As a result of organic provisions included in the Farm Bill, USDA became more intentional in investing in organic agriculture both in terms of money and other resources.

The National Organic Program (NOP) received increased funding and staffing for the 2010 fiscal year, which began October 1, 2009. Speaking at the November 2009 meeting of the National Organic Standards Board, McEvoy said NOP staff and budget would increase from 16 staff members and a budget of 3.97 million US dollars in Fiscal Year (FY) 2009 to 31 on staff and 6.97 million US dollars for FY 2010.

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[1] Barbara Haumann, Press Secretary, Organic Trade Association (OTA), PO Box 547, Greenfield MA 01302, United States, www.ota.com

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

McEvoy also listed the following among NOP's priorities in the coming months:

- Publishing the Access to Pasture final rule
- Developing a strategic plan
- Peer review
- Web site revision
- Hiring qualified staff
- More training for staff and accredited certifying agencies
- Implementing the recommendations of the National Organic Standards Board (NOSB)[1]
- Quality manual
- Program manual, and
- Upholding and enforcing the standards.

For FY 2010, the Organic Data Initiative received 750'000 US dollars,[2,] an increase of 250'000 US dollars from the previous fiscal year. In addition the Organic Transition Research Program received a major increase from 1.8 million US dollars[3] in FY 2009 to 5 million US dollars for FY 2010. Also, all of the mandatory funding for organic programs in the Farm Bill for data collection and EQIP transition funds remained at the levels approved by Congress.

As of early November 2009, there were 100 certification agencies accredited by NOP. Of those, 56 are domestic agencies, with the remaining 44 agencies based outside the United States.

Production

In 2008, U.S. producers dedicated approximately 4.5 million acres of farmland (1.8 million hectares) —2.6 million acres of cropland (1.05 million hectares) and 1.9 million acres of rangeland and pasture (0.77 million hectares) —to organic production systems, according to preliminary figures from USDA's Economic Research Service (ERS) at the beginning of January.

Although certified organic rangeland and pasture declined between 2005 and 2008, certified cropland is up 51 percent, and certified farmland is up 11 percent overall. Organic livestock sectors have grown even faster since 2005, particularly for organic dairy and egg production. ERS collected data from 53 USDA-accredited State and private certification groups to calculate the extent of certified organic farmland acreage and livestock in the United States in 2008.

California remains the leading state in certified organic cropland, with nearly 400'000 acres (=0.16 million hectares), the majority for fruit and vegetable production. Other top states for certified organic cropland include Wisconsin, North Dakota, Texas, and Minnesota, and all but two states had some certified cropland. Forty-four states also had some certified organic rangeland and pasture in 2008.

[1] National Organic Standards Board (NOSB): www.ams.usda.gov/AMSv1.0/NOSB
[2] Average exchange rate 2008: 1 U.S. Dollar = 0.68341 Euros; average exchange rate 2009: 1 U.S. dollar = 0.72046 Euros, see www.oanda.com
[3] 1.8 million US dollars = 1.23 million Euros (2008)

Organic agriculture has become a substantial part of many farm sectors, particularly among horticultural specialties. For example, over five percent of apple, carrot and lettuce acreage in the U.S. is certified organic. Organic farming is still a tiny niche for some sectors, including corn and other grain crops.

More complete figures were expected to be posted on the Economic Research Service's web site (www.ers.usda.gov/data/organic) by the end of February 2010.

Meanwhile, the National Agricultural Statistics Service (NASS) was expected to release its Organic Production Data by the end of February 2010. That data will be posted on NASS's web site (www.nass.usda.gov).

ERS staff has coordinated closely with NASS on the Organic Production Data. The ERS data are designed to show estimated certified organic acreage in the United States historically through 2008 for different commodities. The Organic Production Data will incorporate that certified organic production as well as production that used organic practices but was not certified, such as that in transition and other land whereby the producers have chosen not to apply for certification. The Organic Production Data will also include a wealth of socio-economic profile of organic producers.

Meanwhile, USDA has created a database concerning procurement and contracting by organic handlers, based on results from the 2004 and 2007 Nationwide Surveys of Organic Manufacturers, Processors, and Distributors. Data are available on nine commodity groups, such as fruit and nuts, and 45 commodities, such as berries and citrus. In 2007, the procurement data include information from 1'013 facilities; the contracts data include information from 620 facilities that use contracts.

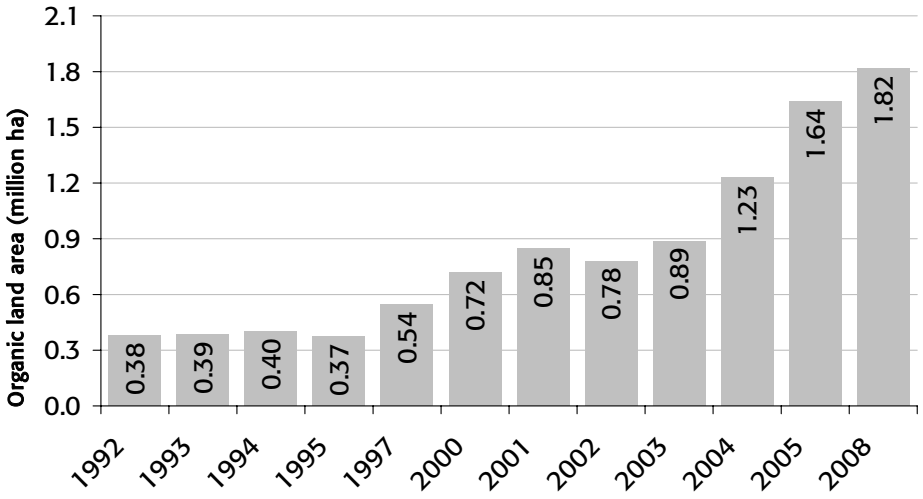

Figure 39: Development of the U.S. organic farmland (in hectares)

Source: USDA, Economic Research Service, www.ers.usda.gov

Organic product sales

Despite tough economic times, U.S. sales of organic products, both food and non-food, reached 24.6 billion US dollars by the end of 2008, growing an impressive 17.1 percent over 2007 sales, according to the *Organic Trade Association's 2009 Organic Industry Survey*.

While the overall economy has been losing ground, sales of organic products reflected very strong growth during 2008. Organic products represent value to U.S. consumers, who have shown continued resilience in seeking out these products.

The survey measured the growth of U.S. sales of organic foods and beverages as well as non-food categories such as organic fibers, personal care products and pet foods during 2008. Results show organic food sales grew in 2008 by 15.8 percent to reach 22.9 billion US dollars,[1] while organic non-food sales grew by an astounding 39.4 percent to reach 1.648 billion US dollars.[2] As a result, organic food sales now account for approximately 3.5 percent of all food product sales in the United States (see Figure 40).

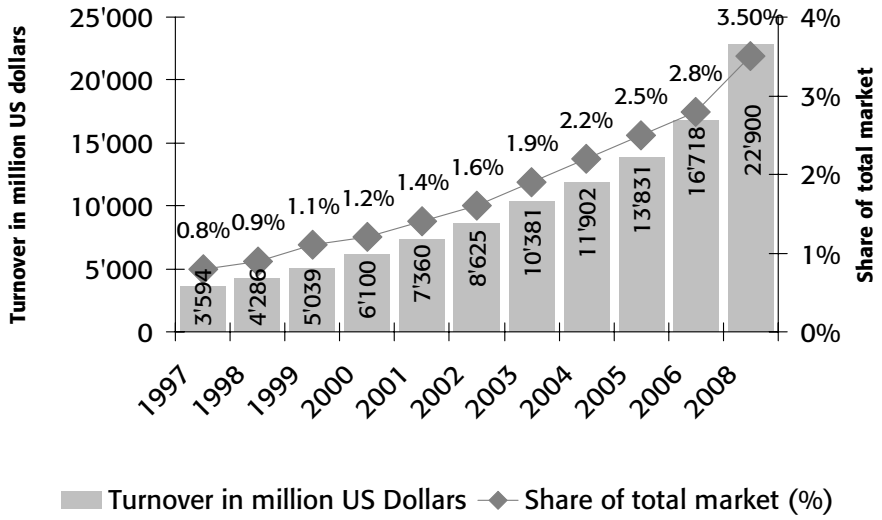

Figure 40: Development of U.S. organic food sales

Source: Organic Trade Association OTA, Organic Industry Surveys

Organic fruit and vegetable sales continue to lead, representing 37 percent of all U.S. organic food sales and nearly 10 percent of all fruits and vegetables sold. However, breads and grains were the fastest growing organic food segment during 2008, with sales increasing by 35 percent over those during 2007. As a result, organic breads and grains represented 3.9 percent of all breads and grains sold in the United States during 2008.

Organic food producers sell to consumers via a variety of channels. National natural and mass-market grocery chains are the leading channels, each representing about 34 percent of distribution based on dollar sales. Regional natural and health food stores represent about nine percent of sales, followed by club and warehouse stores, at eight percent. Other distri-

[1] 22.9 billion US dollars = 15.65 billion Euros (2008)
[2] 1.648 billion US dollars = 1.13 billion Euros (2008)

bution channels include export, food service and restaurants, mass merchandisers, farmers' markets, Internet and mail order sales, as well as boutique, specialty and department stores.

With tough economic times, consumers have used various strategies in continuing to buy organic products. Because most venues now offer organic products, consumers have the opportunity to shop around. Increased use of coupons, the proliferation of private label brands, and value-positioned products offered by major organic brands have all contributed to increased sales.

Private label sales are becoming more prevalent. In fact, half the companies selling organic products report that private label sales represent a sizeable share of their revenue. In addition, almost half of the companies with private label sales say their private label sales are growing faster than their branded sales.

Meanwhile, half of the manufacturers answering the survey indicated they currently display the USDA Organic seal on one or more of their products. Asked whether USDA labeling requirements had had any effect on their sales of organic products, 11 percent said labeling "had dramatically increased their ability to generate sales of organic products," while another 26 percent said it had increased their sales somewhat.

Supply still a factor

Supply is still a limiting factor to additional organic sales growth. Nearly half of the companies taking part in the survey reported that a lack of a dependable supply of organic raw materials limits their ability to generate more sales of organic products.

Recognizing this need, USDA offered 50 million US dollars in new funding in May 2009 to promote domestic production of organic food. A portion of the funding was allocated for every state and was available exclusively through a special sign-up under the Environmental Quality Incentives Program, administered by USDA's Natural Resources Conservation Service. In order to qualify, producers had to be certified through the National Organic Program or be in the process of transitioning to organic production.

Under the initiative, new contracts for organic production were offered for six core practices: conservation crop rotation, cover crops, nutrient management, pest management, prescribed grazing, and forage harvest management. As these are essential practices in organic production, such funding will help encourage more organic farming.

This bodes well for the many consumers who seek organic products when they shop.

Meanwhile, in 2009, the cost-share allocation for farmers' organic certification costs increased from a maximum of 500 to 750 US dollars.

Another bright spot in the acceptance of organic agriculture was reflected in high profile interest in organic gardening, as indicated by an organic garden undertaken by USDA on the grounds of its national headquarters in Washington, D.C., and a garden using organic practices on White House grounds.

USDA's new organic community garden, undertaken to celebrate Earth Day and developed in honor of President Lincoln's 200th birthday, is named "The People's Garden" in reference to the "People's Department" that existed during his tenure in office. Its goal is to bring whole foods to Americans and to encourage them to get involved in food production.

Since then, a roof-top garden project has gotten underway atop the offices of USDA's Economic Research Service in Washington, D.C., as part of USDA's 'People's Garden' initiative. The garden, dubbed GardenERS, will be maintained using organic practices.

Consumers' perspective

An April 2009 study showed that U.S. families are not giving up their purchases of organic products. In fact, the *2009 U.S. Families' Organic Attitudes and Beliefs Study*, jointly sponsored by OTA and *KIWI Magazine*, found nearly three-quarters (73 percent) of U.S. families buy organic products at least occasionally, chiefly for health reasons.

In addition, findings show that three out of ten U.S. families (31 percent) were actually buying more organic foods in 2009 compared to a year ago, with many parents preferring to reduce their spending in other areas before targeting organic product cuts. In fact, 17 percent of U.S. families said their largest increases in spending in the past year were for organic products.

Notably, 67 percent of consumers polled said they have cut household spending in restaurants. Over two in ten (22 percent) reported their most significant change in spending over the past year has been to eat out less and cook at home more. In addition, six in ten parents (63 percent) indicated they buy ingredients to prepare meals at home more often as compared to six months earlier.

The survey found that newly organic families, who have just begun purchasing organic products within the past two years, represented 32 percent of the households polled. Experienced organic families, who first bought organic products within the past two to five years, made up 20 percent of respondents. Seasoned organic families, who have been buying organic products for more than five years and, in some cases, longer than 15 years, represented 21 percent of respondents.

The survey showed 55 percent of parents who buy organic products do so because they believe them to be healthier for themselves or for their children. Over eight in ten (83 percent) report they buy organic foods for everyone in the household, and not just for their children. The longer parents purchase organic products, the more categories they choose.

With today's wide selection of organic products and venues for selling those products, consumers have many choices of where to shop. Parents who choose to buy organic products do not limit their grocery shopping to mainstream supermarkets or mass merchandisers—although that is their chief source of organic products—but are significantly more likely than families overall to frequent a varied mix of retail outlets, including weekly visits to natural food chain stores, local health food and natural food stores, farmers' markets, and neighborhood co-ops.

Those shopping for organic products are split concerning how organic products should be displayed in the grocery store, with 34 percent preferring to shop for organic products in a separate section of the store, 34 percent preferring to shop for organic products integrated with other such products, and 32 percent having no preference on where the organic products are placed in the store.

Regardless of where they shop, 91 percent of parents who trust in the benefits of choosing organic products buy organic produce at least sometimes. Other top categories include

breads and grains (81 percent), snack foods (79 percent), packaged foods (77 percent) and dairy (77 percent).

Other marketing info

According to *Marketing U.S. Organic Foods: Recent Trends from Farms to Consumers* published by USDA's Economic Research Service, mainstream U.S. food retailers are increasingly offering organic produce, dairy products, organic meat, eggs, breads, grains and beverages.

"The one factor that consistently influences the likelihood of a consumer's buying organic products is education. Consumers of all ages, races, and ethnic groups who have higher levels of education are more likely to buy organic products than less-educated consumers," according to Carolyn Dimitri and Lydia Oberholtzer, authors of the report.

Other findings:

- Traditional purveyors of organic food have faced increased competition from companies new to the sector.
- By 2008, organic manufacturers were either competing directly with conventional food manufacturers or had been subsumed by conventional firms.
- There are more firms participating in both the retail and manufacturing levels, and the average size of these firms is larger.

Dimitri and Oberholtzer also pointed out that U.S. farmers have not converted farmland rapidly enough to meet market demand.

Meanwhile, in a report entitled *Characteristics, Costs, and Issues for Organic Dairy Farming* released in November 2009, USDA's Economic Research Service provided context for producers considering organic practices, processors trying to supply an expanding organic milk market, and policymakers evaluating the economic implications of organic livestock production. The report notes that organic milk production has been one of the fastest-growing segments of U.S. organic agriculture. Now, proposed changes in USDA's National Organic Program seek to clarify and stiffen pasture requirements for organic certification, and may determine how the organic production sector continues to evolve.

Equivalency with Canada

On the international front, attendees of the Organic Trade Association's 2009 All Things Organic™ Conference and Trade Show in June witnessed history in the making as officials from the United States and Canada signed the first equivalency agreement in the world for the organic industry.

Signing the landmark bilateral agreement were Barbara Robinson, Deputy Administrator for USDA, and Jaspinder Komal, Director of the Agrifood Division of the Canadian Food Inspection Agency (CFIA).

This historic equivalency agreement, which took effect June 30, 2009, allows the continued smooth flow of certified organic products between the two countries and supports the continued growth of this rapidly expanding market in North America, while still protecting the integrity of organic food and honoring the publicly developed standards of each domestic market. Both CFIA and USDA have their own set of organic standards and regulations,

developed with their domestic organic sectors, which define organic production and enforce organic claims in the marketplace.

Under the equivalency agreement, CFIA allows the import of organic food, livestock and crops produced according to U.S. organic standards by USDA-accredited certifying bodies under NOP. Likewise, USDA allows the import of organic products produced according to Canadian organic standards by CFIA-accredited certifying bodies under the Canadian system. This "free trade" in organic products applies to ingredients as well as final products. Organic products that come under this agreement also have the option of carrying both official seals (the "USDA Organic" seal, and the "Biologique Canada Organic" logo), helping consumers know that the products meet domestic requirements.

Because the two organic standards do include some technical differences that were deemed necessary to maintain domestic policy goals, consumer needs, or production standards, the equivalency agreement between the U.S. and Canada also contains a few additional requirements that must be met before a product is deemed "equivalent" (and therefore "organic") by the importing country.

Other trade issues

In related news, efforts continue on opening up further trade for organic products in other parts of the world.

For instance, USDA's Foreign Agricultural Service (FAS) approved 1'666'000 US dollars in Technical Assistance for Specialty Crops (TASC) funding over five years to the Organic Trade Association (OTA), in partnership with Sustainable Strategies, for projects that analyze and address trade issues for U.S. organic products.

With the funding, OTA will oversee the development of various comparative GAP analyses and overviews of international markets for U.S. organic products. Comparative GAP analyses are detailed, side-by-side comparisons of the U.S. national organic standards and those of designated countries. Each analysis identifies the barriers to exporting U.S. organic products to specific international specialty markets.

In the first year, FAS will provide 220'000 US dollars to the two partners. Activities will include developing and delivering an online International Organic Trade Technical Resource Guide, with resources to help U.S. producers, processors, certifiers and traders of organic products to be successful in export endeavors. In addition, OTA will develop international trade issue assessments and strategic advice, establish an International Organic Equivalency/Technical Trade Barrier Task Force, and provide international organic trade seminars and workshops to support FAS, the U.S. National Organic Program, and the U.S. Trade Representative's Office on behalf of the U.S. organic industry.

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Canada

MATTHEW HOLMES[1] AND ANNE MACEY[2]

Overview

2009 was a momentous year for the organic sector in Canada: the final promulgation of the Organic Products Regulations (OPR) established, on June 30, 2009, the Canada Organic Regime (COR). The COR includes mandatory national standards, consistent labelling rules and a new national logo, as well as strict enforcement and oversight via the Canadian Food Inspection Agency (CFIA). In tandem with the launch of the new federal system in Canada, the CFIA and United States Department of Agriculture announced during the All Things Organic™ Conference that they had reached a determination of equivalency between COR and NOP, effective July 1, 2009. The world's first fully reciprocal agreement between regulated organic systems garnered international media attention.

Figure 41: Canada's official new logo for organic products

Production

Canada continues to have a strong organic farm and processor community. The Canadian Organic Growers' figures for 2008 show that Canada had 3'713 certified organic farms, (a slight decrease from the record high in 2007). The concentration is in field crops, vegetables, livestock and maple syrup. Acreage in organic production for 2008 was 611'676 hectares,[3] with over 527'000 hectares in additional lands producing certified organic wild crops, (including pasture and wild blueberry production). A Statistics Canada report released in March 2008 reports that Canada's climate and its large expanses of cropland (well suited to mechanization) are ideal for growing grains and oilseeds, particularly in the Prairies. (Saskatchewan and Alberta combined have 448'046 ha in organic production, comprising more than 70 percent of all Canadian hectares under organic management.) The second largest category is fruit, vegetable and greenhouse products, with strong production bases in British Columbia and Quebec.

Growth in the number of certified farms has occurred in Atlantic Canada and Alberta; otherwise there is little change from 2007 numbers. There were declines in Quebec, Saskatchewan and BC. Quebec's decline may be a result of different counting procedures in 2008 and 2007, rather than a decline in the number of farms. In fact, organic land in Quebec increased by 5'666 hectares from 2007 to 41'629 ha total in 2008. For Canada as a whole, there were 69 fewer certified farms reported in 2008 compared with 2007 but 55'400 more hectares being managed for organic production. There are at least 190 farms in transition, but not all certifying bodies provided data for this category.

[1] Matthew Holmes, Organic Trade Association in Canada
[2] Anne Macey, Canadian Organic Growers
[3] This figure excludes the in-conversion areas, which were included in the global survey on organic agriculture.

Table 42: Canada: Organic production by province

Province	Farms	Percent change in farms from 2007	Farms in Transition	Processors (includes seed cleaners)	Handlers (includes packers, brokers & retail)
British Columbia	444	-2.4%	61	128	50
Alberta	259	9.8%	4	62	8
Saskatchewan	1039	- 5.8%	26	81	21
Manitoba	186	2.7%	2	33	27
Ontario	680	1.6%	14	220	37
Quebec	935	-5.3%	76	291	210
New Brunswick	52	13%	4	13	1
Nova Scotia	61	7%	1	11	4
Prince Edward Island	51	18.6%	2	3	2
Newfoundland and Labrador	2	-	0	0	0
Yukon	4	+	0	1	0
Totals	**3713**	**-1.8%**	**190**	**843**	**360**

Source: data provided to Canadian Organic Growers by the certification bodies operating in Canada and for Quebec from the CARTV report *Usage de lâppellation biologique au Québec Statistiques 2008*

Canada is experiencing strong growth in the dairy sector, with an approximate 25 percent increase in organic milk production from 2006-07. In 2008, 173 farmers produced 622'043 Hectolitres of organic milk, representing 0.82 percent of total Canadian milk production.

Table 43: Canada: Organic milk production by province

Province	Percent of total organic milk production	Number of certified producers
Quebec	49 %	52
Ontario	32 %	39
British Columbia	19 %	8
Alberta	0.6 %	1
	100 %	173

Source: AAFC obtained data from British Columbia Milk Marketing Board, Dairy Farmers of Ontario, Fédération des producteurs de lait du Québec, Alberta Milk

It is worth noting that these figures do not include data from Manitoba, where the first organic milk producer was certified in 2008, nor from Prince Edward Island, where an organic dairy group and cheese maker converted en bloc.

In the value-added and handling sector, Canada continues to see strong growth. Modern food safety and logistics technology, as well as strong transport infrastructure and growing market demand have contributed to making Canada a home for organic processors. Total certified processors/handlers in 2008 were 1203; this marks an impressive 40 percent increase from 2006.

Market

Domestic sales

Following a benchmarking market study released by the Organic Agriculture Centre of Canada in 2007, (written by Anne Macey using data from The Nielsen Company), the sales value of the Canadian market was established at one billion Canadian dollars in 2006. Other studies have estimated the market worth as high as three billion dollars. Using Harmonized System Codes to track overall growth in category sales (based on Macey 2007), OTA in Canada calculated that domestic sales reached two billion Canadian dollars in 2008.[1] Mainstream supermarket chains have responded to consumer demand and now sell over 40 percent of all organic food in Canada, while large natural food store chains and independent health food stores accounted for 33 percent, other retail 17.5 percent, with the remainder comprised of farmers markets, box deliveries, food service and buying clubs.

A growing interest in locally sourced, seasonal food has also aligned well with consumer interest in organic food in Canada. There has been a noticeable increase in demand and number of farmers' markets across the country. Organic has become an important part of this trend, with many provincial groups promoting their products as "local and organic." This is also having an effect on procurement policies, distribution, and retail, as the origin of organic products becomes part of the buying decision. The government is working with the Canadian sector to develop and promote a domestic brand for Canadian organic products.

Consumer marketing

In an effort to maintain consumer commitment to organic through the recession, and to educate them on the new regime, OTA in Canada and Canadian Organic Growers have engaged in a number of mass-marketing campaigns promoting organic products. This included a partnership on a "Special Report on Organics" in the national *Globe and Mail* newspaper, underscoring the environmental benefits of organic agriculture and reasons for consumers to choose organic products. COG holds an annual public organic conference in Toronto in February. In 2009, OTA in Canada launched a new Canadian consumer website, www.OrganicBiologique.ca, which serves as a consumer's guide to the COR, the new "Canada Organic" logo, and the basics of organic agriculture. The Canadian organic sector is currently requesting that the government launch an extensive consumer-education campaign to inform the public of the new organic rules, and to address increasing consumer confusion resulting from so-called "natural" products (and other marketing claims) that are undermining the organic brand.

Export and trade

Canada is a major exporter to the world of organic commodity and value-added products. Statistics Canada reports that many of Canada's organic field crops are exported—not processed, sold or eaten in Canada. Unfortunately, there is presently no system to collect detailed information on the export volume and value on a commodity basis for Canadian organic products. Using partial data, Canadian organic exports could be conservatively estimated at 156 million Canadian dollars but are thought to be considerably higher.

[1] 2 billion Canadian dollars = 1'391.84 million Euros; average exchange rate 2008.

In OTA's 2009 *Organic Industry Survey*, one third of U.S. respondents (35 percent) reported sourcing ingredients from Canada. Of these, 33 percent sourced ingredients valued at 500'000 US dollars or less, however, 25 percent sourced over 10 million US dollars per year from Canada. It should be noted that these figures do not reflect Canadian consumer-ready products also entering the U.S. market. The U.S. remains the major export market for Canadian organic products; however, Europe is a very important destination market for Canadian products, as are Japan, Taiwan and others.

In 2009, OTA in Canada was mandated and supported by Agriculture and Agri-Food Canada to develop a long-term international strategy for Canadian organic exports. This strategy will identify target markets, compile market intelligence, facilitate entry and marketing in those markets, develop an international brand for Canadian organic products, and launch a web-based directory and resource to assist both the domestic sector and international buyers.

Market access will undoubtedly play a major role in where Canadian organic products are sold. For example, the equivalency agreement with the United States will have immediate and profound effects on the efficiency and economy of selling organic products to this nearby, robust market. In October 2009, Taiwan announced that it recognizes Canadian organic products for import, which will encourage trade. In fall 2009, European officials met in Ottawa with Canadian representatives to continue their negotiations on equivalency. It is hoped that an agreement may be reached between Canada and the EU in 2010, which would have a major effect on how organic trade takes place internationally. Canada is currently in trade discussions with (or has received expressions of interest from) Japan, Switzerland, Cost Rica, Mexico, Australia and others.

Policy support

Canada's federal and provincial governments launched a new multi-year multilateral agricultural framework, *Growing Forward*, in 2009. Although the framework does not include any specific funding or program announcements for organic agriculture, the organic sector was directly consulted on the development of this umbrella policy, and it contains many programs that will likely assist the Canadian organic sector over the next few years. There is currently a proposal for a multi-million dollar organic research program in Canada.

The industry and government co-chaired "Organic Value-Chain Roundtable" coordinates policy and program support from the federal government. This body is active currently in advancing a number of initiatives, including organic brand development, the export marketing project, research into regulatory or capacity barriers for the Canadian organic sector, research into environment benefits of organic farming, and the formation of a sectoral strategic plan.

Other policy and program support remains piecemeal in Canada. Some provinces such as Prince Edward Island and New Brunswick have implemented programs to cover the costs of conversion, while others, such as British Columbia, are providing agronomist extension support directly to farmers. However, these programs and supports vary widely from one side of the country to the other.

Standards and legislation

Canada's organic standards and permitted substances list are maintained by the Canadian General Standards Board's (CGSB) Technical Committee on Organic Agriculture, composed of approximately sixty organic operators, stakeholders and consumers who control the content and development of the standards, and review them periodically. Although Canada has had this organic standard since 1999, it had been voluntary and not supported by regulation until now. The latest published amendments to the standards and permitted substances lists were released in December 2009.

The standards apply generally to all production and processing, while the regulations limit the scope of current federal market enforcement to food, livestock, livestock feed and crops. Food, beverage and livestock feed products for sale in Canada have to be certified to the Canadian standards, and all certifiers must be accredited by a "Conformity Verification Body" recognized by the CFIA; this includes all imported products unless subject to an equivalency agreement.

To assist the CFIA with questions regarding the application of the standards in practice, the Organic Federation of Canada has helped establish a seven-member expert Standards Interpretation Committee to provide clarification and guidance.

In 2009, a new working group was formed under the Department of Fisheries and Oceans to develop organic aquaculture standards, eventually to be housed by CGSB. The Canadian Technical Committee has also endorsed the development of personal care and fibre/textiles standards and supporting regulations.

Outlook

Moving forward, one of the challenges for the Canadian organic sector will be to ensure there is consistency across the country, as many of the provinces have yet to regulate their own markets in order to complement the new federal system. This means that imports and all products crossing provincial lines must meet the federal requirements, while those sold only within an individual province are not subject to the same requirements. The Organic Federation of Canada, with its provincial-council structure and its focus on regulator matters, is currently working to build support within the provinces on this issue.

In general, the Canadian organic sector shows great potential for growth with a savvy consumer base and mature market, with great production potential, and an approach to international trade that could herald a new way forward for the global organic movement.

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North America: Tables: Organic land area and producers

For North America no land use/crop table is published as both for Canada and the United States no new data were available. For the United States, the 2008 data will be ready in the spring of 2010.

Table 44: North America: Organically managed agricultural land and producers by country in 2008

Country	Organic agricultural land [ha]	Share of total agr. Land	Producers
Canada	628'556	0.93%	3'903
United States of America	1'821'085	0.57%	10'159
Total	**2'449'641**	**0.63%**	**14'062**

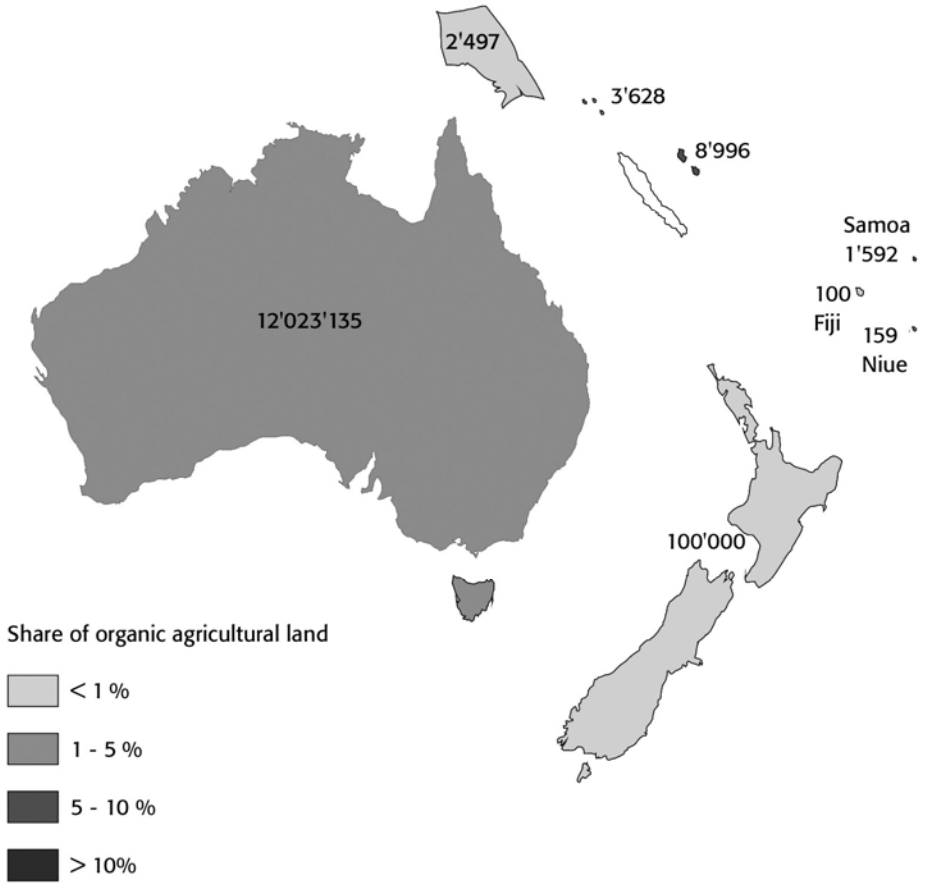
Source: Canadian Organic Growers 2010 and USDA 2010

Table 45: North America: Organic agricultural land and further land use types 2008

Country	Agricultural land [ha]	Grazed non agricultural land [ha]	Wild collection [ha]	Total [ha]
Canada	628'556	217'014	309'838	1'155'408
United States of America	1'821'085	–	–	1'821'085
	2'449'641	217'014	309'838	2'976'493

Source: Canadian Organic Growers 2010 and USDA 2010

Oceania



Map 6: Organic agricultural land in Oceania: Agricultural area and shares of the total agricultural land 2008

Source: FiBL Survey

Organic Farming in Australia

Els Wynen[1]

Size of the industry & market

No new data are available for 2008. For 2007 data, see Wynen (2009).

Standards and certification

The biggest change in the Australian domestic market over 2009 was that the Australian Standard for Organic and Biodynamic Products was adopted and published by Standards Australia.

Up until now, certification to Australia's National Standard for Organic and Biodynamic Products, adopted in 1991, was required only for products exported as organic from Australia. Those exported products were certified by one of the certification bodies that were accredited by the Australian Quarantine and Inspection Service (AQIS).[2] These certifiers each operate their own standards, which are at least as strict as the National Standard. Details are rather similar to those described in earlier versions of this chapter (see Wynen 2009).

The National Standard, used for the purpose of export, did not have legal standing in the domestic market. This meant that not-certified produce could be sold as 'organic' with a low risk of legal repercussions – whether it was or was not organic. It also implied that produce could be certified under standards not accredited by AQIS, that is, lower standards for the domestic than for the export market.[3] The second problem was that, due to WTO rules relating to national treatment, no actions could be taken against imports of products labelled as organic, even if not produced according to organic principles.

Since the introduction of the National Standard in 1991, the organic industry had lobbied government for adopting similar standards for the purposes of the domestic market, so that fraudulent behavior by domestic operators and importers alike, could be legally pursued and punished – as was the case in many other countries. However, this had never happened until recently.

In January 2006, the Organic Federation of Australia (OFA), under leadership of Andre Leu, sent a letter of support for an AQIS application[4] to Standards Australia[5], together with its own supporting application, to request that Standards Australia start procedures to develop an organic standard. If adopted, such standard could then be used on the domestic market – and would therefore also be applicable to imported goods. This course of action was taken on the advice of government ministers, several government departments and regulatory authorities such as the Australian Competition and Consumers Commission ACCC, and with significant industry consultation.

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[1] Els Wynen, Eco Landuse Systems, Canberra, Australia www.elspl.com.au.
[2] Australian Quarantine and Inspection Service (AQIS) www.daff.gov.au/aqis
[3] For more details, see Wynen (2007).
[4] AQIS was the secretariat for the Organic Industry Export Consultative Council (OIECC), a body consisting mainly of certifiers that set the National Standard.
[5] Standards Australia is an independent not-for-profit body that sets standards in many areas, and is recognised by the government.

Although the Organic Industry Export Consultative Committee (OIECC)[1] of AQIS decided to put its application on hold in May 2007, Standards Australia continued surveying a number of key stakeholders in the industry and decided in November 2007 to go ahead with the development of the domestic Australian Standard. The new Australian Standard for Organic and Biodynamic Products was produced by over 20 relevant stakeholder groups including industry, consumers, retailers and regulators, and is based on the National Standard. It was published in October 2009[2].

Although not law, this standard can assist Australia's regulatory authorities, such as the Australian Competition and Consumers Commission (ACCC), in using existing regulatory laws, such as the Trade Practices Act, to ensure the integrity of products that are sold as organic or biodynamic in Australia. Rather than a mandated or self-regulatory system, this is a co-regulatory system – a system where the organic sector and the government work together.

Now that the Australian Standard has been published, it is not clear how the AQIS requirements for the export market will unfold. One of the possibilities is that the Australian Standard is also going to be used for the export market, as this standard is rather similar to the National Standard. Not doing so would mean a doubling of cost for maintaining two sets of standards, one set by the certifiers (National Standard) and one by stakeholders of the whole of the industry (Australian Standard).

Policy Support

In the past, government support for organic agriculture in Australia has been close to non-existent, apart from some support for export standards and certification (see above), and some research (see below). It could therefore be considered to be a large step forward that, in 2009, the Primary Industries Ministerial Council made a statement that the state and territories' governments recognize the increasing importance of organic agriculture in the Australian environment and national economy, while acknowledging the key role of the Organic Federation of Australia as the peak body in unifying the Australian organic sector.

Research and extension

Since 1996, one research program (part of the Rural Industries Research and Development Corporation - RIRDC[3]) was devoted to organic agriculture. It made available up to 270'000 AUD[4] per year to research and extension. However, with the slashing of funding for RIRDC in May 2009, the organic advisory committee has been reduced to three members, whose task it is to obtain funding from other research bodies for research in organic agriculture. Lacking this, it is expected that the RIRDC funding will only extend to finishing the projects that are currently under contract. That is, it is entirely possible that no government program for funding R&D in organic agriculture in Australia will exist in the near future.

[1] AQIS Organic Industry Export Consultative Committee OIECC www.daff.gov.au/aqis/about/clients/consultative-committees/oiecc

[2] *AS 6000-2009 Organic and Biodynamic Products* and *MP 100 Procedures for certification of organic and biodynamic products* are now available from Standards Australia's distributor, SAI Global (www.saiglobal.com).

[3] Rural Industries Research and Development Corporation RIRDC www.rirdc.gov.au

[4] 1 Australian Dollar (AUD) = 0.57743 EUR (Euros). Average exchange rate 2008 according to OANDA.com.

In 2008, the State of Victoria committed some 1.08 million AUD over three years to develop the organic sector, of which an estimated 700'000 AUD is left for projects in which the industry is involved directly. The Victorian Organic Industry Council (VOICe), a subcommittee of the Organic Federation of Australia (OFA), was established to oversee the process and liaise with government on issues affecting the sector. It is presently in the process of finalising an action plan that will guide funding.

In June 2009, the Organic Federation of Australia (OFA) received 240'000 in Australian dollars funding from the Australian Government for running workshops over the next three years to train organic farmers adapting to climate change. These workshops are to be based on best-practice science showing how organic systems can be more resilient in the weather extremes that are predicted to occur as climate change progresses. A range of proven strategies are to be presented that can reduce greenhouse emissions and can sequester carbon dioxide into the soil.

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Report on Organics in New Zealand

SEAGER MASON[1]

Introduction

Organic agriculture and food production in New Zealand has developed steadily since the mid 1980s. The most rapid growth has been since the mid 1990s, driven by various factors such as market demand for organic products, opposition to genetic engineering, and other environmental and food safety concerns. Current concerns about climate change and other environmental and sustainability issues are now very significant drivers for growth in organics, though this is yet to have much corresponding political and research funding support in New Zealand.

The recent global economic recession appears to have had some negative effects on the markets for organic products, both New Zealand's domestic market and New Zealand's key export markets. At this stage it is too early to accurately measure these effects, and whether those markets have yet recovered.

In general, there is reasonable, and growing, recognition in New Zealand of the important role that organic can and does play in moving agriculture and food production towards more sustainable practices, better animal welfare, and higher quality food; as well as recognition of the value of producing high quality certified organic products for export markets and the domestic market.

The sector umbrella organization Organics Aotearoa New Zealand (OANZ) was established in 2005 with government funding to represent the interests of the organic sector. OANZ has also received government funding to establish and operate the Organic Advisory Programme (OAP), and this has helped lead significant growth in conversions to organic farming and horticulture over the last four years. In 2009, OANZ carried out another survey of New Zealand's organic sector, to update the survey carried out three years ago (the results were issued August 2007). The updated survey results are not yet officially released at the date of this report, but interim results from that survey have been used for the data below.

Statistics 2009

The 2006/2007 study of New Zealand's organic sector was commissioned by Organics Aotearoa New Zealand (OANZ), and carried out by the Centre for the Study of Agriculture, Food and Environment (CSAFE), University of Otago. The Summary Report of that study was released August 2007 (Grice et al. 2007). An update study was carried out in 2009 and the interim results of that update study and other estimates are used below.

The main types of organic primary production in New Zealand are apples, kiwifruit, blueberries, fresh and processed vegetables, arable, dairy, meat and wool, viticulture, and aquaculture. The biggest organic sectors so far are apples and kiwifruit: organic apple production is approximately 12 percent of the total production of apples in New Zealand, and organic

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BioGro NZ is New Zealand's largest and leading organic certifier and organic producers organization.

kiwifruit production is approximately 4 percent of the total production of kiwifruit in New Zealand.

The current main growth sectors for organic primary production are apples, dairy, and viticulture. There is strong interest in organic and biodynamic viticulture with a significant increase in the number of vineyards converting to both organic and biodynamic production.

Some current statistics

- Certified producers: More than 1000 certified organic producers with more than 1500 certified organic operations in total.
- Certified land area: More than 100'000 hectares certified organic land.
- Exports: More than 170 million New Zealand dollars[1], growing at more than 10 percent per year over the last five years.
- Domestic market: Approximately 315 million New Zealand dollars sales per annum. This is approx. 2 percent of the New Zealand market for food and beverages. This is significant growth over the last two years, but it is not clear at this stage if, and to what extent, the recent global recession will have affected sales.
- Kiwifruit: Organic production is approx. 5 percent of New Zealand's kiwifruit industry.
- Apples: Organic production is approximately 12 percent of New Zealand's apple industry.
- Vegetables and cropping: Organic production is approximately 2 percent of New Zealand's vegetable and ,cropping industries.
- Dairy and meat (pastoral industry): Organic production is still less than 1 percent of New Zealand's pastoral industry.
- Certifiers (approx numbers): BioGro - 510 producers (1000 certified operations), Demeter - 40 producers, Organic Farm New Zealand (small scale producers scheme) - 150 producers, Agriquality - 300 producers (500 certified operations).

Markets

Domestic Market

New Zealand's domestic market has grown steadily since 2000. This growth is due to a variety of factors, but in particular because of:

- a rejection of agriculture and food products which use genetic engineering;
- the increasing range and high quality of organic products on the market;
- an increasing number of outlets, particularly supermarkets, stocking organics;
- support for organic as the best way forward for New Zealand's agriculture and food production.

Most food and beverage products are now available as certified organic, most supermarkets now stock at least some organic products, and some supermarkets are specializing in organic due to customer demand. Organic shops are increasing in number and size, with some of the successful organic shops becoming small to medium size organic supermarkets, and there are now some chains of organic shops. Recent growth in the domestic market

[1] 1 New Zealand dollar = 0.45223 Euros. Average exchange rate 2009; see www.oanda.com

includes products other than food and beverages such as organic health and body care products, garments and other textiles, gardening supplies, and household cleaners.

Export

New Zealand's economy is reliant on exporting, and agricultural products are New Zealand's main exports. Exports of organic products have grown steadily over the last 19 years, and are currently more than 170 million New Zealand dollars[1] per annum.

Exports by category are (2009 study interim results):

- Fresh fruit and vegetables – 50 percent
- Dairy – 16 percent
- Processed food – 12 percent
- Beverages including wine – 10 percent
- Meat and Wool – 6 percent
- Honey – 5 percent
- Other (aquaculture etc) – 1 percent

Exports by markets are (2009 study interim results):

- Europe – 37 percent
- North America – 22 percent
- Australia – 19 percent
- Japan – 9 percent
- Korea – 8 percent
- Other Asia – 3 percent
- China – 1 percent
- Other – 1 percent

Demand for exports of organic products in most sectors exceeds supply.

Standards and legislation

The New Zealand Standard for Organic Production

The New Zealand Standard for Organic Production was released in November 2003. This was developed with government funding under the auspices of Standards New Zealand. At this stage it serves as a benchmark for certifiers operating in the domestic market. It is a voluntary standard; it is not mandatory, so consumer protection is through the Fair Trading Act, with reference to the New Zealand Standard as required. There are no specific organic labelling laws in New Zealand.

Export

Exports to the EU, the U.S., and Taiwan are via the New Zealand Food Safety Authority (NZFSA) Official Organic Assurance Programme (OOAP). Through this programme New Zealand has equivalence with the European Commission (EC) and Taiwan organic regulations, and USDA (U.S. Department of Agriculture) recognition for application of the USDA

[1] 170 million New Zealand dollars = 76.9 million Euros (2009)

National Organic Program (NOP) in New Zealand. The export certifiers such as BioGro operate as Third Party Agency certifiers for the OOAP.

Exports to Japan have two options, either through the export certifier having RFCO (Recognized Foreign Certification Organisation) status with the Ministry of Agriculture (MAFF) in Japan MAFF, or through NZFSA OOAP equivalence (for bulk unlabelled plant products only) with JAS Organic.

Exports to Quebec are through the export certifier having recognition with *Conseil des Appellations Réservées et des Termes Valorisants* (CARTV). Exports to Canada under the Canada Organic Regime (COR) are through the export certifier having direct accreditation for the COR. Access to the US market can also be provided through COR certification under the US Canada equivalence agreement.

Export access to Korea is under discussion at the moment. It is hoped that in time the NZFSA OOAP will be accepted by the Korean authorities for equivalence.

Exports to other markets are through meeting the requirements of that market, such as certification by an IFOAM Accredited certifier.

Imports

There are no controls on imports labelled "organic" other than certifiers setting their own standards for recertification, and through the Fair Trading Act.

State Support

There is a small amount of Government support for organics in New Zealand. The main recent examples are:

- New Zealand Standard for Organic Production
  See above.
- New Zealand Organic Sector Strategy
  A Government funded Organic Sector Strategy was released in November 2003. A key recommendation was for the formation of a peak industry body, Organics Aotearoa New Zealand, to coordinate initiatives in the organic sector. The strategy has set a target of 1 billion New Zealand dollars worth of sales by 2013.
- Organic Farm New Zealand
  This is a scheme for certification of small scale producers, which was developed by Soil & Health Association with Government funding. The scheme is based on "pods" (groups) of producers, regionally based, with each pod able to operate their own certification system, but linked to a national coordinating body. Through voluntary input, this provides low cost certification for small scale producers.
- Organics Aotearoa New Zealand
  Organics Aotearoa New Zealand (OANZ) was launched in November 2005 with government funding to establish.

- Organic Advisory Programme
  The Organic Advisory Programme (OAP) also had government funding, and was operated by Organics Aotearoa New Zealand (OANZ). The OAP provided information and support to producers and processors considering conversion to organics, and also to those already in conversion or with existing organic operations. Currently no further funding has been allocated to the OAP.

Research and Extension

Organic research in New Zealand is carried out mainly by crown research institutes, universities, and the private sector. There are also some producer groups such as in the organic kiwifruit, pipfruit, dairy, viticulture, and avocado sectors, which have significant input into coordinating research and extension. In general the view is that research funding for organics is inadequate, particularly as developments in organics typically benefit conventional production also. It is well recognized that much of the knowledge base in organics is with the experienced producers, and some of the "research" happens on farm as successful farmers develop their production systems. Organics Aotearoa New Zealand (OANZ) has a coordinating role for organic research.

Several universities and other tertiary institutions, as well as some private organizations, offer courses and training in organics. There are a significant number of advisers who offer consultancy services for organic producers.

Outlook

Political: Through the launch of the New Zealand Organic Sector Strategy and the establishment of Organics Aotearoa New Zealand (OANZ), there is some government acknowledgement of the importance of organics in New Zealand, but still only very limited government support compared to most other agricultural sectors. Organic organizations such as the Soil & Health Association take a very active public role on issues such as food safety, genetic engineering, and the environment.

Genetic Engineering: Several trials of genetically engineered (GE) crops and livestock have been approved, but no commercial releases have been approved. Some of the trails have been shown to be very badly managed, and have since been closed down. A recent appeal succeeded against an application for a series of GE livestock trials and those trials are not able to go ahead at this stage. There is a very active movement for New Zealand to not use any aspects of GE in agriculture and environment, and this is supported by a majority of New Zealanders. GE remains an important issue for New Zealand's organic sector.

Sustainability: Organics is now being recognized in sectors such as viticulture as an effective approach to sustainability, i.e. to reduce energy use, carbon emissions, and environmental impact; and to adapt to climate change. A key challenge for the organic sector in New Zealand is to have this more widely recognized across all agricultural and food production sectors, and to gain political recognition for this.

Growth: While the recent global recession appears to have affected demand, in general a key issue for New Zealand's organic sector is lack of production to meet growing demand, both for the export market and the domestic market. There is still a need to encourage more farmers and growers to convert by providing advice and research to support conver-

sion. Organics Aotearoa New Zealand, the various sector and regional organic organizations, and the established organic organizations such as BioGro, Soil & Health Association, and the Biodynamic Farming and Gardening Association are working hard to facilitate this support.

Reference

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Websites

- www.biogro.co.nz
- www.oanz.org.nz
- www.organicnz.org
- www.csafe.org.nz
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Oceania: Table: Organic land area and producers

Table 46: Oceania: Organically managed agricultural land and producers by country in 2008

Country	Organic agricultural land [ha]	Share of total agr. land	Producers
Australia (2007)	12'023'135	2.83%	1'438
Fiji (2005)	100	0.02%	
New Zealand	100'000	0.81%	1'000
Niue (2006)	159	2.27%	61
Papua New Guinea (2006)	2'497	0.24%	4'558
Samoa	1'592	1.85%	340
Solomon Islands (2006)	3'628	4.32%	352
Vanuatu (2006)	8'996	6.12%	
Total	**12'140'107**	**2.76%**	**7'749**

Source: FiBL Survey. For detailed data sources see annex, page 225

Achievements Made and Challenges Ahead

Achievements Made and Challenges Ahead: Leading the World to Sustainability

Markus Arbenz[1]

These days, the word 'crisis' is everywhere. People talk of triple crises including the ecological, social, and economic crises. Ecological crises are resource challenges such as preserving clean water, fertile soils, biodiversity, and implementing climate change mitigation. The most pressing social crises are poverty and the one billion – disgracefully, more than ever – hungry people. The economic crises not only include the banking crisis and the recession in many countries, but also the fact that transformations in agricultural systems force smallholder farmers in the global North and the global South out of their existence.

We, as members of the organic movement, realize that these global crises reflect the three sustainability dimensions that the organic world has sought to improve for as long as it has existed. The organic movement is not just there to fulfill demand for a niche market – although the market is constantly growing and convincing more people. The organic movement offers the world its successful and proven ways to address the global challenges.

At no other time has there been such an opportunity to make organic principles and systems a beacon for sustainable development. Agro-ecological agriculture, represented best by organic principles and systems, is a multifunctional solution to many global problems that are reaching crisis proportions, including environmental degradation, hunger, and economic and social injustice. Recognizing this, the International Assessment of Agriculture Science and Technology for Development (IAASTD), a UN-backed initiative involving 110 countries, called for a radical shift in agriculture to agro-ecological systems, including valuation of farmers as producers and managers of ecosystems.

Sharing knowledge in many ways through many networks, IFOAM has been able to draw attention and hasten the turn toward agro-ecological systems based on the four principles of organic agriculture – health, ecology, fairness, and care. To accomplish this, IFOAM has been cooperating at high levels of international policy development, notably for 2008 in the formulation of the IAASTD Report; and equally important but less visibly, providing a global knowledge network and support for our members, typically local and regional organizations and their networks, who are implementing organic principles one field, one family, and one community at a time.

Awareness about organic approaches to sustainability is growing in ever wider circles. The 2009 FAO High Level Expert Forum and the 2009 Food Summit, both with IFOAM presence, showed more humble leaders who have an appreciation for the challenges ahead. Only a few dared to advocate for a second green revolution and few expressed the belief technological fixes alone can eradicate hunger. The IFOAM message of "farmers first" is increasingly being heard. After many years of negligence, investments in agriculture are recognized as being effective in poverty reduction. This is, however, just the first step in the right direction; clever private and public investments into organic agriculture have more sustainability impacts than other agriculture initiatives and need to be prioritized. Investments are

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still wasted on satisfying the interests of agro-industry or conventional research, where they could be used to engage poor stakeholders and make their reality a priority. Land grabbing is just one example of a phenomenon that results from inappropriate policies. It would not happen if organic was recognized as a guiding policy for governments at all levels, for NGOs in the global North and South, and for the corporate stakeholders in the agriculture sector. Comparative studies of the level of the ecological, economic and social sustainability of organic - be it certified or not – and conventional systems show impressive evidence in support of organic. It is also no surprise that we often find organic principles behind development success stories. Rural development projects aligned with organic have healthier soils, livestock and people after just a few years, as well as more biodiversity - all of which allows farming families a more diverse diet and a higher income.

Food security is only one of the areas in which the organic movement, led by IFOAM, can make an impact. Fighting climate change, with the message "Organic = High Sequestration, Low Emission, Food Secure Farming," is also a real priority for us, and IFOAM will not be absent in the UN year of biodiversity. Slowly, awareness will rise that organic has a huge potential to mitigate climatic aberrations and facilitate adaptations.

However, not only the natural environment and many stakeholders in rural areas are facing challenges. Among so many on-going initiatives and achievements, IFOAM is forced to look inward and focus its attention on guaranteeing its future. Focused on the continued development and growth of the organic movement and sector, IFOAM forgot to address its own institutional sustainability. Over time, available funds were invested in open access services for the organic world without building up IFOAM's own assets, which it now needs ensure future income. The subsequent dramatic decline in the operating budget greatly challenges IFOAM and its ability to provide invaluable services, such as global advocacy, the IFOAM Basic Standards, the compilation of the country reports, the organic directory, the IFOAM position papers, the empowerment of representatives from the global South to participate in the organic development and the outreach offices of Asia, Africa and Latin America.

There are promising and innovative ideas for the development of IFOAM, including offering new services that develop the organic sector and make sure that the term 'organic' belongs to the organic movement. The strategy foresees five pillars, including the 'Organic Umbrella' (to unite the organic world through membership), 'Organic Advocacy' (fight for the recognition of the contribution of Organic Agriculture to the global challenges), 'Organic Value Chain' (secure organic from field to fork), 'Organic Programs' (close the urgent gaps), and IFOAM Academy (capacity building for organic stakeholders).

For these ideas to be effective, however, the organic movement must be ready to invest in its umbrella organization. Bio Suisse has made a start and is ready to contribute substantially (once their general assembly consents), investing in IFOAM services that are relevant to the movement and financially viable. Reiterating the importance of this umbrella organization, Bio Suisse pointed out that it is vital that organic development is driven by the movement and not only by governments. A sector with 50 Billion US dollars in consumer turnover - and far more if non-certified organic production is added - requires a stronger umbrella than it has at present.

Annex

Tables

Table 47: World: Organically managed agricultural land and producers by country in 2008

Country	Organic agricultural land [ha]	Share of total agr. land	Producers
Afghanistan	42	0.00%	264
Albania	280	0.03%	50
Algeria	1'042	0.00%	49
Argentina	4'007'027	3.00%	1'678
Armenia	600	0.04%	38
Australia (2007)	12'023'135	2.83%	1'438
Austria	382'949	15.87%	19'961
Azerbaijan (2007)	21'240	0.45%	312
Bangladesh	526	0.01%	852
Belgium	35'721	2.60%	901
Belize	852	0.56%	863
Benin	1'030	0.03%	1'454
Bhutan (2007)	59	0.01%	323
Bolivia (2006)	41'004	0.11%	11'743
Bosnia and Herzegovina (2007)	691	0.03%	304
Brazil (2007)	1'765'793	0.67%	7'250
Bulgaria	16'663	0.55%	254
Burkina Faso	16'424	0.15%	19'677
Burundi	3'508	0.15%	
Cambodia	8'810	0.16%	4'483
Cameroon	370	0.00%	179
Canada	628'556	0.93%	3'903
Chad		0.00%	
Chile	13'774	0.09%	529
China	1'853'000	0.34%	
Colombia	40'308	0.09%	
Comoros	1'059	0.71%	1'418
Congo, Democratic Republic of	7'852	0.03%	1'120
Costa Rica	8'004	0.29%	2'921
Côte d'Ivoire	2'938	0.01%	568
Croatia	9'993	0.83%	632
Cuba	14'314	0.22%	2'467
Cyprus (2007)	2'322	1.59%	305
Czech Republic	341'632	8.04%	1'946
Denmark	150'104	5.64%	2'753
Dominican Republic (2007)	123'089	6.33%	14'992
Ecuador (2009)	71'066	0.96%	11'609
Egypt	40'000	1.13%	800
El Salvador (2007)	7'478	0.48%	2'000
Estonia	87'346	9.63%	1'259
Ethiopia	99'944	0.28%	101'899
Falkland Islands	414'474	36.88%	10
Faroe Islands	12	0.40%	
Fiji (2005)	100	0.02%	
Finland	150'374	6.56%	3'991
France	580'956	2.12%	13'298
French Guiana	2'385	10.51%	17
Georgia (2007)	251	0.01%	49
Germany	907'786	5.35%	19'813

Country	Organic agricultural land [ha]	Share of total agr. land	Producers
Ghana	26'657	0.18%	9'273
Greece	317'824	3.84%	24'057
Guadeloupe	67	0.17%	21
Guatemala	7'285	0.16%	5'411
Guinea-Bissau (2007)	5'600	0.34%	401
Guyana	75	0.00%	
Honduras	8'448	0.27%	1'825
Hungary	122'816	2.90%	1'614
Iceland	6'970	0.46%	35
India	1'018'470	0.57%	340'000
Indonesia	60'098	0.12%	31'703
Iran	11'745	0.02%	
Ireland	44'751	1.08%	1'220
Israel (2007)	5'693	1.14%	283
Italy	1'002'414	7.87%	44'371
Jamaica	483	0.09%	41
Japan	9'092	0.23%	3'380
Jordan	1'053	0.11%	16
Kazakhstan	87'563	0.04%	
Kenya	5'159	0.02%	2'021
Korea, Republic of	12'033	0.65%	8'460
Kyrgyzstan	9'868	0.09%	846
Lao People's Democratic Republic	1'537	0.07%	811
Latvia	161'625	9.11%	4'203
Lebanon	2'180	0.32%	259
Lesotho	355	0.02%	
Liechtenstein	1'053	29.82%	37
Lithuania	122'200	4.61%	2'797
Luxembourg	3'535	2.70%	85
Macedonia, The former Yugoslav Republic	3'380	0.31%	99
Madagascar	19'914	0.05%	3'455
Malaysia (2009)	1'582	0.02%	24
Mali	9'227	0.02%	12'437
Malta (2007)	12	0.12%	30
Martinique	188	0.67%	24
Mauritius	175	0.17%	5
Mexico	332'485	2.42%	128'862
Moldova (2007)	11'695	0.47%	121
Montenegro	1'876	0.36%	25
Morocco	3'450	0.01%	
Mozambique	12'746	0.03%	1'884
Namibia	410	0.00%	1'512
Nepal (Producers 2007)	8'498	0.20%	1'424
Netherlands	50'434	2.61%	1'402
New Zealand	100'000	0.81%	1'000
Nicaragua	70'972	1.36%	7'407
Niger	355	0.00%	
Nigeria	3'073	0.00%	518
Niue (2006)	159	2.27%	61
Norway	52'248	5.05%	2'702
Palestine	1'001	0.27%	515
Oman	34	0.00%	2
Pakistan	24'466	0.09%	938

Country	Organic agricultural land [ha]	Share of total agr. land	Producers
Panama (2004)	5'244	0.24%	7
Papua New Guinea (2006)	2'497	0.24%	4'558
Paraguay	51'190	0.25%	11'401
Peru	146'438	0.68%	46'230
Philippines	15'795	0.14%	1'838
Poland	313'944	2.03%	14'888
Portugal (2007)	229'717	6.61%	1'949
Réunion	203	0.51%	47
Romania	140'132	1.02%	2'775
Russian Federation	46'962	0.02%	
Rwanda (2007)	13'356	0.69%	2'565
Samoa	1'592	1.85%	340
Sao Tome and Principe	2'859	5.02%	1'263
Saudi Arabia	30'000	0.02%	
Senegal	25'992	0.30%	20'000
Serbia	4'494	0.09%	224
Sierra Leone	960	0.03%	
Slovakia	140'755	7.27%	350
Slovenia	29'838	6.10%	2'067
Solomon Islands (2006)	3'628	4.32%	352
Somalia	274	0.00%	
South Africa	43'882	0.04%	767
Spain	1'129'844	4.54%	21'291
Sri Lanka	22'347	0.95%	45
Sudan	65'188	0.05%	1'002
Suriname (2007)	40	0.05%	
Swaziland	18	0.00%	
Sweden	336'439	10.79%	3'686
Switzerland	117'286	11.08%	6'111
Syria	25'660	0.18%	3'256
Taiwan	2'356	0.28%	978
Tajikistan	70	0.00%	39
Tanzania	72'188	0.21%	85'366
Thailand	16'715	0.08%	3'545
Timor-Leste	26'101	6.73%	
Togo	2'977	0.08%	4'092
Tunisia	174'725	1.78%	1'792
Turkey	109'387	0.43%	15'406
Uganda	212'304	1.66%	180'746
Ukraine	269'984	0.65%	118
United Arab Emirates	310	0.05%	
United Kingdom	737'631	4.57%	5'383
United States of America	1'821'085	0.57%	10'159
Uruguay (2006)	930'965	6.34%	630
Uzbekistan	2'530	0.01%	
Vanuatu (2006)	8'996	6.12%	
Venezuela (2007)	2'441	0.01%	
Viet Nam	12'622	0.13%	50
Zambia	3'602	0.01%	5'867
Zimbabwe	266	0.00%	200
Total	**35'005'738**	**0.81%**	**1'369'372**

Source: FiBL/IFOAM survey

Table 48: World: Organically managed agricultural land by country 2008

Country	Agricultural land [ha]
Australia (2007)	12'023'135
Argentina	4'007'027
China	1'853'000
United States of America	1'821'085
Brazil (2007)	1'765'793
Spain	1'129'844
India	1'018'470
Italy	1'002'414
Uruguay (2006)	930'965
Germany	907'786
United Kingdom	737'631
Canada	628'556
France	580'956
Falkland Islands	414'474
Austria	382'949
Czech Republic	341'632
Sweden	336'439
Mexico	332'485
Greece	317'824
Poland	313'944
Ukraine	269'984
Portugal (2007)	229'717
Uganda	212'304
Tunisia	174'725
Latvia	161'625
Finland	150'374
Denmark	150'104
Peru	146'438
Slovakia	140'755
Romania	140'132
Dominican Republic (2007)	123'089
Hungary	122'816
Lithuania	122'200
Switzerland	117'286
Turkey	109'387
New Zealand	100'000
Ethiopia	99'944
Kazakhstan	87'563
Estonia	87'346
Tanzania	72'188
Ecuador (2009)	71'066
Nicaragua	70'972
Sudan	65'188
Indonesia	60'098
Norway	52'248
Paraguay (2007)	51'190
Netherlands	50'434
Russian Federation	46'962
Ireland	44'751
South Africa	43'882
Bolivia (2006)	41'004
Colombia	40'308
Egypt	40'000
Belgium	35'721
Saudi Arabia	30'000
Slovenia	29'838
Ghana	26'657
Timor-Leste	26'101
Senegal	25'992
Syria	25'660
Pakistan	24'466
Sri Lanka	22'347
Azerbaijan (2007)	21'240
Madagascar	19'914
Thailand	16'715
Bulgaria	16'663
Burkina Faso	16'424
Philippines	15'795
Cuba	14'314
Chile	13'774
Rwanda (2007)	13'356
Mozambique	12'746
Viet Nam	12'622
Korea, Republic of	12'033
Iran	11'745
Moldova (2007)	11'695
Croatia	9'993
Kyrgyzstan	9'868
Mali	9'227
Japan	9'092
Vanuatu (2006)	8'996
Cambodia	8'810
Nepal	8'498
Honduras	8'448
Costa Rica	8'004
Congo, Democratic Republic of	7'852
El Salvador (2007)	7'478
Guatemala	7'285
Iceland	6'970
Israel (2007)	5'693
Guinea-Bissau (2007)	5'600
Panama (2004)	5'244
Kenya	5'159
Serbia	4'494
Solomon Islands (2006)	3'628
Zambia	3'602
Luxembourg	3'535
Burundi	3'508

Country	Agricultural land [ha]
Morocco	3'450
Macedonia, The former Yugoslav Republic	3'380
Nigeria	3'073
Togo	2'977
Côte d'Ivoire	2'938
Sao Tome and Principe	2'859
Uzbekistan	2'530
Papua New Guinea (2006)	2'497
Venezuela (2007)	2'441
French Guiana	2'385
Taiwan	2'356
Cyprus (2007)	2'322
Lebanon	2'180
Montenegro	1'876
Samoa	1'592
Malaysia (2009)	1'582
Lao People's Democratic Republic	1'537
Comoros	1'059
Liechtenstein	1'053
Jordan	1'053
Algeria	1'042
Benin	1'030
Palestine	1'001
Sierra Leone	960
Belize	852
Bosnia and Herzegovina (2007)	691
Armenia	600
Bangladesh	526
Jamaica	483
Namibia	410
Cameroon	370
Lesotho	355
Niger	355
United Arab Emirates	310
Albania	280
Somalia	274
Zimbabwe	266
Georgia (2007)	251
Réunion	203
Martinique	188
Mauritius	175
Niue (2006)	159
Fiji (2005)	100
Guyana	75
Tajikistan	70
Guadeloupe	67
Bhutan (2007)	59
Afghanistan	42
Suriname (2007)	40
Oman	34
Swaziland	18
Faroe Islands	12
Malta (2007)	12
Chad (only wild collection)	
Total	**35'005'738**

Source: FiBL/IFOAM survey

Table 49: World: Shares of organically managed agricultural land by country 2008

Country	Share of total agr. land
Falkland Islands	36.88%
Liechtenstein	29.82%
Austria	15.87%
Switzerland	11.08%
Sweden	10.79%
French Guiana	10.51%
Estonia	9.63%
Latvia	9.11%
Czech Republic	8.04%
Italy	7.87%
Slovakia	7.27%
Timor-Leste	6.73%
Portugal (2007)	6.61%
Finland	6.56%
Uruguay (2006)	6.34%
Dominican Republic (2007)	6.33%
Vanuatu (2006)	6.12%
Slovenia	6.10%
Denmark	5.64%
Germany	5.35%
Norway	5.05%
Sao Tome and Principe	5.02%
Lithuania	4.61%
United Kingdom	4.57%
Spain	4.54%
Solomon Islands (2006)	4.32%
Greece	3.84%
Argentina	3.00%
Hungary	2.90%
Australia (2007)	2.83%
Luxembourg	2.70%
Netherlands	2.61%
Belgium	2.60%
Mexico	2.42%
Niue (2006)	2.27%
France	2.12%
Poland	2.03%
Samoa	1.85%

Country	Share of total agr. land	Country	Share of total agr. land
Tunisia	1.78%	Guatemala	0.16%
Uganda	1.66%	Cambodia	0.16%
Cyprus (2007)	1.59%	Burundi	0.15%
Nicaragua	1.36%	Burkina Faso	0.15%
Israel (2007)	1.14%	Philippines	0.14%
Egypt	1.13%	Viet Nam	0.13%
Ireland	1.08%	Indonesia	0.12%
Romania	1.02%	Malta (2007)	0.12%
Ecuador (2009)	0.96%	Bolivia (2006)	0.11%
Sri Lanka	0.95%	Jordan	0.11%
Canada	0.93%	Colombia	0.09%
Croatia	0.83%	Jamaica	0.09%
New Zealand	0.81%	Kyrgyzstan	0.09%
Comoros	0.71%	Pakistan	0.09%
Rwanda (2007)	0.69%	Serbia	0.09%
Peru	0.68%	Chile	0.09%
Martinique	0.67%	Thailand	0.08%
Brazil (2007)	0.67%	Togo	0.08%
Ukraine	0.65%	Lao People's Democratic Republic	0.07%
Korea, Republic of	0.65%	United Arab Emirates	0.05%
India	0.57%	Madagascar	0.05%
United States of America	0.57%	Suriname (2007)	0.05%
Belize	0.56%	Sudan	0.05%
Bulgaria	0.55%	South Africa	0.04%
Réunion	0.51%	Kazakhstan	0.04%
El Salvador (2007)	0.48%	Armenia	0.04%
Moldova (2007)	0.47%	Congo, Democratic Republic of	0.03%
Iceland	0.46%	Bosnia and Herzegovina (2007)	0.03%
Azerbaijan (2007)	0.45%	Sierra Leone	0.03%
Turkey	0.43%	Benin	0.03%
Faroe Islands	0.40%	Mozambique	0.03%
Montenegro	0.36%	Albania	0.03%
Guinea-Bissau (2007)	0.34%	Iran	0.02%
China	0.34%	Fiji (2005)	0.02%
Lebanon	0.32%	Mali	0.02%
Macedonia, The former Yugoslav Republic	0.31%	Russian Federation	0.02%
Senegal	0.30%	Malaysia (2009)	0.02%
Costa Rica	0.29%	Kenya	0.02%
Ethiopia	0.28%	Saudi Arabia	0.02%
Taiwan	0.28%	Lesotho	0.02%
Honduras	0.27%	Côte d'Ivoire	0.01%
Palestine	0.27%	Zambia	0.01%
Paraguay (2007)	0.25%	Morocco	0.01%
Papua New Guinea (2006)	0.24%	Venezuela (2007)	0.01%
Panama (2004)	0.24%	Bhutan (2007)	0.01%
Japan	0.23%	Georgia (2007)	0.01%
Cuba	0.22%	Uzbekistan	0.01%
Tanzania	0.21%	Bangladesh	0.01%
Nepal	0.20%	Less than 0.01 %:	
Syria	0.18%	Guyana	
Ghana	0.18%	Cameroon	
Mauritius	0.17%	Nigeria	
Guadeloupe	0.17%	Algeria	

Country	Share of total agr. land
Oman	
Zimbabwe	
Tajikistan	
Swaziland	
Namibia	
Niger	
Somalia	
Afghanistan	
Chad	
Total*	**0.81%**

Source: FiBL/IFOAM survey

Table 50: World: Organic Producers 2008

Country	Producers
India	340'000
Uganda	180'746
Mexico	128'862
Ethiopia	101'899
Tanzania	85'366
Peru	46'230
Italy	44'371
Indonesia	31'703
Greece	24'057
Spain	21'291
Senegal	20'000
Austria	19'961
Germany	19'813
Burkina Faso	19'677
Turkey	15'406
Dominican Republic (2007)	14'992
Poland	14'888
France	13'298
Mali	12'437
Bolivia (2006)	11'743
Ecuador (2009)	11'609
Paraguay (2007)	11'401
United States of America	10'159
Ghana	9'273
Korea, Republic of	8'460
Nicaragua	7'407
Brazil (2007)	7'250
Switzerland	6'111
Zambia	5'867
Guatemala	5'411
United Kingdom	5'383
Papua New Guinea (2006)	4'558
Cambodia	4'483
Latvia	4'203
Togo	4'092
Finland	3'991
Canada	3'903
Sweden	3'686
Thailand	3'545
Madagascar	3'455
Japan	3'380
Syria	3'256
Costa Rica	2'921
Lithuania	2'797
Romania	2'775
Denmark	2'753
Norway	2'702
Rwanda (2007)	2'565
Cuba	2'467
Slovenia	2'067
Kenya	2'021
El Salvador (2007)	2'000
Portugal (2007)	1'949
Czech Republic	1'946
Mozambique	1'884
Philippines	1'838
Honduras	1'825
Tunisia	1'792
Argentina	1'678
Hungary	1'614
Namibia	1'512
Benin	1'454
Australia (2007)	1'438
Nepal (2007)	1'424
Comoros	1'418
Netherlands	1'402
Sao Tome and Principe	1'263
Estonia	1'259
Ireland	1'220
Congo, Democratic Republic of	1'120
Sudan	1'002
New Zealand	1'000
Taiwan	978
Pakistan	938
Belgium	901
Belize	863
Bangladesh	852
Kyrgyzstan	846
Lao People's Democratic Republic	811
Egypt	800
South Africa	767
Croatia	632
Uruguay (2006)	630
Côte d'Ivoire	568
Chile	529
Nigeria	518
Palestine	515
Guinea-Bissau (2007)	401
Solomon Islands (2006)	352

Country	Producers
Slovakia	350
Samoa	340
Bhutan (2007)	323
Azerbaijan (2007)	312
Cyprus (2006)	305
Bosnia and Herzegovina (2007)	304
Israel (2007)	283
Afghanistan	264
Lebanon	259
Bulgaria	254
Serbia	224
Zimbabwe	200
Cameroon	179
Moldova (2007)	121
Ukraine	118
Macedonia, The former Yugoslav Republic	99
Luxembourg	85
Niue (2006)	61
Albania	50
Viet Nam	50
Algeria	49
Georgia (2007)	49
Réunion	47
Sri Lanka	45
Jamaica	41
Tajikistan	39
Armenia	38
Liechtenstein	37
Iceland	35
Malta (2007)	30
Montenegro	25
Malaysia (2009)	24
Martinique	24
Guadeloupe	21
French Guiana	17
Jordan	16
Falkland Islands	10
Panama (2004)	7
Mauritius	5
Oman	2
Total	**1'369'372**

Source: FiBL/IFOAM survey

Data Providers and Data Sources

Compiled by Helga Willer and Hervé Bouagnimbeck

Afghanistan

Data source: Certifier data.

Albania

Data provided by Iris Kazazi, Sasa, Tirana, Albania; Source: Certifier data.
It should be noted, that the FiBL figure differs from that of the Mediterranean Organic Agriculture Network MOAN, also published in this volume.

Algeria

Data provided by: Dr. Lina Al Bitar and Dr. Marie Reine Bteich, C.I.H.E.A.M. - Istituto Agronomico Mediterraneo di Bari, Italy, www.iamb.it. Source: Mediterranean Organic Agriculture Network MOAN.

.Argentina

- Land user/operator/production data: SENASA, 2009 "Situación de la Producción Orgánica en la Argentina durante el año 2008". Buenos Aires. Download via www.organic-world.net/argentina.html.
- Data on land use types provided by/Sources: Juan Carlos Ramírez, Dirección de Calidad Agroalimentaria, Servicio Nacional de Sanidad y Calidad Agroalimentaria (SENASA), Buenos Aires, Argentina. Detailed crop area data were not available for 2008; so for the crop statistics the 2007 data were used.

Armenia

Data provided by/Source Nune Darbinyan, Ecoglobe - Organic control and certification body, 375033 Yerevan, Republic of Armenia, www.ecoglobe.am. Data on the area of individual crops and land use types were not available for 2008; hence the 2007 data were used for the crop/land use tables.

Australia

For Australia, no new data were available for 2008. Data source 2007 data: Australian Quarantine and Inspection Service (AQIS), Canberra ACT 2601, Australia www.daffa.gov.au/aqis, with additions from Els Wynen, Ecolanduse Systems, Canberra ACT 2615, Australia, www.elspl.com.au.

Austria

- Data source for land area, land use and farms: Bundesministerium für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft (Ed.)(2008): Grüner Bericht 2008. Vienna, Austria, www.gruenerbericht.at.
- Data on the organic grazed non-agricultural land were provided by Thomas Rech of the Federal Ministry of Agriculture, Forestry, Environment and Water Management (AT) (Lebensministerium). The organic share of the total agricultural land has been recalculated by the Ministry, and the basis for this calculation are now the so-called INVEKOS farms; i.e. those farms that are under government support schemes (which are almost all farms in Austria). For more information see www.lebensministerium.at/article/articleview/39977/1/6015/.
- The market data were provided by Ralph Liebing, Research Institute of Organic Agriculture (FiBL), 1070 Vienna, Austria, www.fibl.org, based on various sources.

Azerbaijan

Data for 2008 were not available. Land area, land use, operators, market size data) were provided by Professor Dr. Amin Babayev, Ganja Agribusiness Association (GABA), Ganja city, AZ 2000, Azerbaijan, www.gaba-az.org. All data on the organic managed area refer to area in the conversion period. Source: GABA and the local certifier AZEKOSERT, Ganja city, AZ 2000, Azerbaijan, www.azekosert.com.

Bangladesh

- Data on organic aquaculture were provided for 2007 from one international certifier.
- The crop data were provided by Dr. Debashish Chanda, Hortex Foundation, Dhaka - 1207, Bangladesh, www.hortex.org.

Belgium

All data provided by Petra Tas, BioForum; published in Bio in Cijfers 2008 by Petra Tas, Bio Actiev September 2009.

Belize

Data provided by Maximiliano Ortega, Belize Organic Producers Organisation BOPA, Belmopan, Belize; based on the data of 2 certifiers The number of organic farmers is from one certifier only.
A direct year-to-year comparison is not possible, because the sources of data have changed. (Before only data from 2001 had been available for Belize).

Benin

Data provided by/Source: Vincent Morel, Area Manager - Africa, Ecocert, BP 47, 32600 L'Isle Jourdain, France, www.ecocert.com

Bhutan

Data provided by/Source: Kesang Tshomo, Ministry of Agriculture MOA, National Organic Programme DOA, Thimphu, Bhutan, www.moa.gov.bt

Bolivia

The data for the agricultural land, published in this volume, are from 2006 and they were provided by Nelson C. Ramos Santalla, Asociación de Organizaciones de Productores Ecológicos de Bolivia, PO Box 1872, La Paz, Bolivia, www.aopeb.org.
For 2008 new data were available from the competent authority in charge. However, these data did not make a distinction between the agricultural land and the wild collection areas, and FiBL could therefore not include the data into the land area/land use statistics. According Ing. Rubén Tintares of the Sistema Nacional de Control de Producción Ecológica (SNCPE), there were 1.7809 million hectares of organic certified area in 2008.

Table 51: Bolivia: Development of the number of producers, the organic land (agricultural land and wild collection), the production and the export volume 1997-2008

Year	Producers	Area (ha)	Certified volume (metric tons)	Export volume (metric tons)
A1997	2'978	22'509	1'442	1'226
1998	3'152	22'800	1'877	1'596
1999	4'196	26'913	4'190	3'562
2000	5'240	31'026	6'503	5'528
2001	5'870	197'563	7'226	6'143
2002	6'500	364'100	7'950	6'758
2005	6'991	735'052	12'902	9'500
2006	11'743	1'434'612	30'252	12'500
2008	13'960	1'780'900	35'704	19'300

Source SNCPE 2009

Bosnia Herzegovina

The data on the organic land are from 2007, provided by Organska Kontrola (OK), 71000 Sarajevo. Bosnia & Herzegovina, www.organskakontrola.ba. Includes the data of all certifiers active in the country in 2007.
The export data are from 2008, and were provided by Mersida Musabegovic, of Organska Kontrola.

Brazil

The data are from 2007, they were provided by: Ming Chao Liu, Organics Brazil, Curitiba Parana, 80210-350 Brazil, www.organicsbrasil.org.The data are based on information of the private certification agencies that are accredited according to international standards. The coverage of the data is about 95 percent. Please note: The data reported previously by FiBL, SOEL and IFOAM only included the fully converted areas. The figure presented in this book includes the in-conversion area.

Bulgaria

- Land area: Eurostat, Organic crop area, Bulgaria, 2008, Download of August 8, 2009. epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database.
- Operators: Eurostat, Number of organic registered operators 2008, Download of October 3, 2009. The Eurostat homepage at epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database.
- Wild collection area provided by : Stoilko Apostolov, FOA Bioselena, 4300 Karlovo, Bulgaria, www.bioselena.com. Only one of the six certifiers that are active in the country provided these data.
- Production, livestock and market data provided by: Stoilko Apostolov, FOA Bioselena, 4300 Karlovo, Bulgaria, www.bioselena.com.

Burkina Faso

Data provided by/Source: Vincent Morel, Area Manager - Africa, Ecocert, BP 47, 32600 L'Isle Jourdain, France, www.ecocert.com and by Jeanne Bulté, CERTISYS, B-1150 Bruxelles, Belgium, www.certisys.eu.
A direct year-to-year comparison is not possible, because for this survey data from more certifiers were available than previously.

Burundi

Data for Burundi were supplied for the first time.

Source: Vincent Morel, Area Manager - Africa, Ecocert, BP 47, 32600 L'Isle Jourdain, France, www.ecocert.com.

Cambodia

Data provided by/Source: Sar Sanphirom, Cambodian Organic Agriculture Association (COrAA), Khan Chamkar Morn, Phnom Penh, Cambodia, www.coraa.org.

Cameroon

Data provided by/Source: Vincent Morel, Area Manager - Africa, Ecocert, BP 47, 32600 L'Isle Jourdain, France, www.ecocert.com.

Canada

Data provided by Anne Macey, Canadian Organic Growers (COG), Ottawa, Ontario K1N 7Z2, Canada, www.cog.ca.
Source: Information of the certifiers.

Chad

Data provided by/Source: Vincent Morel, Area Manager - Africa, Ecocert, BP 47, 32600 L'Isle Jourdain, France, www.ecocert.com.

Chile

Data provided by: Pilar M. Eguillor Recabarren, Oficina de Estudios y Políticas Agrarias (ODEPA), Ministerio de Agricultura, Teatinos 40, Santiago, Chile, www.odepa.gob.cl. The data refer to 2008/2009.

China

Other than in the previous edition, the data published in this edition of The World of Organic Agriculture includes the land certified by foreign certifiers in 2008. The total organic land registered by the Certification and Accreditation Administration of the People's Republic of China (CNCA), the government authority in charge, is 2.7 million hectares, of these 0.756 million hectares of wild collection and 0.415 hectares of aquaculture.
The CNCA data were provided by Dr. Wang Maohua, Certification and Accreditation Administration of the People's Republic of China (CNCA), 100088, Haidian district, Beijing, China, www.cnca.gov.cn, who also provided the estimate on the number of farms and land managed by producers certified by foreign certifiers (0.3 million hectares).
The total includes a figure for the land used for organic tea production; this figure is from the Tea Research Institute in China: The data were provided by Joelle Katto, IFOAM, Bonn, Germany.
Mr. Zhou Zejiang, Nanjing 210042, China, provided an estimate for the organic market.

Colombia

The data were provided by: Carlos Andres Escobar Fernández, Conexión Ecológica, República de Colombia.
Data source for the organically managed land area: Minagricultura - Ministro de Agricultura y Desarrollo Rural, Avenida Jiménez No. 7-65, Bogotá DC, República de Colombia, www.minagricultura.gov.co. The data refer to March 2008.
For 2008 only a total for the organic agricultural land was available, no crop or land use details. Therefore. For the land use and crop details the 2007 data were used.
Data on the organic export value are from 2006. Source: Revista Dinero, Calle 93 B No. 13 – 47, Santafé de Bogotá, D.C. Colombia, República de Colombia, www.dinero.com.

Comoros

Data for the Comoros were supplied for the first time. Source: Vincent Morel, Area Manager - Africa, Ecocert, BP 47, 32600 L'Isle Jourdain, France, www.ecocert.com.

Congo

Data source: Certifier data.

Cook Islands

The data (2006) are based on information of the certifiers and were provided by: Karen Mapusua, Women in Business Development Inc, PO Box 6591 Apia, Samoa, www.womeninbusiness.ws.

Costa Rica

Agricultura y Ganadería, Servicio Fitosanitario del Estado Acreditación y Registro en Agricultura Orgánica ARAO: Costa Rica 2008. Download of June 18, 2009; www.protecnet.go.cr/agricultura_organica/Graficos%202008.pdf.

Côte d'Ivoire

Data provided by/Source:

- Tobias Fischer, BCS Öko-Garantie GmBH, 90402 Nuremberg, Germany, www.bcs-oeko.com.
- Vincent Morel, Area Manager - Africa, Ecocert, BP 47, 32600 L'Isle Jourdain, France, www.ecocert.com.
- Jeanne Bulté, CERTISYS, B-1150 Bruxelles, Belgium, www.certisys.eu.

A direct year-to-year comparison is not possible, because for this survey data from more certifiers were available than for the previous year.

Croatia

The data were provided by Darko Znaor, Independent Consultant, 10000 Zagreb, Croatia and by Sonja Karoglan Todorović, Ecologica, 10000 Zagreb, Croatia, www.ecologica.hr.
The data on the organic market value (imports, exports and size of national market) as well as the number of traders are estimated by the above named data provider. The number of exporters and seed suppliers is based on business contacts.
Data source for the number of producers: Ministry of Agriculture, Forestry and Water Management, 10000 Zagreb, Croatia, www.mps.hr.

Cuba

Data were provided by: Lukas Kilcher, Research Institute of Organic Agriculture (FiBL), 5070 Frick, Switzerland, www.fibl.org.

- Data source (apart from sugar): Ministry of Agriculture, Ciudad de La Habana 10600, Cuba, www.cubagob.cu/mapa.htm.
- Data source for the cultivation and production of sugar: Ministry of Sugar, Calle 23, # 171, e/N y O, Vedado, Ciudad de La Habana, Cuba, www.cubagob.cu/mapa.htm.

Differentiation between full organic status and in conversion was not available. All data refer to 2008 (already published in the 2009 edition of *The World of Organic Agriculture*).

Cyprus

Source:

- Land area: Eurostat: Organic crop area 2007; date of extraction: 15 Jan 2009. Last update: Dec 19, 2008. Eurostat, Luxemburg, epp.eurostat.ec.europa.eu.
- Data on producers (2005) provided by Ionanis Papastylianou, Agricultural Research Institute, 1516 Nicosia, Cyprus, arinet.ari.gov.cy.

Czech Republic

The data on agricultural production were provided by: Karolina Dytrtova, Bioinstitut, Olomouc 77147, Czech Republic, www.bioinstitut.cz.
Sources:

- Land area/crops and the number of operators:: Ministry for Agriculture, 11705 Prague 1, Czech Republic, www.mze.cz/en.
- Organic production data (primary and processed products in metric tons): Ministry for Agriculture, 11705 Prague 1, Czech Republic, www.mze.cz/en.

Size of national market for organic products according to Green Marketing, 66434 Moravské Knínice, Czech Republic, www.greenmarketing.cz.
For more information see www.organic-world.net/czech-republic.html.

Denmark

Sources:

- Land area, land use: Eurostat: Organic Crop Area 2008. Denmark. Date of Extraction: 24 October 2009. The Eurostat Homepage.
- Operator data (total operators, producers, others): Operator data: Eurostat, Number of organic registered operators 2008, Download of October 4, 2009. The Eurostat homepage at epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database.
- Importers and processors: Data from 2007, Source: Eurostat, Number of registered organic operators, 2007. The Eurostat homepage. Download of October 4, 2009. epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database.
- Market data (only retailers): Statistics Denmark, www.statbank.dk/statbank5a/default.asp?w=1280.
- Total for organic market (including catering and direct marketing)and share of total market provided by Kirsten Lund Jensen, Erhvervspolitisk konsulent, Dansk Landbrug, Vesterbrogade 4 A, 4.sal, 1620 Kbh. V, Denmark.

Dominican Republic

Data from 2007; provided by/Source: Josè A. Zapata G., Secretaria de Estado de Agricultura, Oficina de Control Orgànico, Santa Domingo, Dominican Republic, www.agricultura.gob.do. The data do not include crops grown for the local market.

Ecuador

The data are from September 2009 and were provided by Johanna Flores and Sonia Lehmann, German Technical Cooperation, Eloy Alfaro y Amazonas, Edificio MAGAP, Piso 4., Quito, Ecuador.

Egypt

Data provided by : Dr. Lina Al Bitar and Dr. Marie Reine Bteich, C.I.H.E.A.M. - Istituto Agronomico Mediterraneo di Bari, Italy, www.iamb.it. Source: Mediterranean Organic Agriculture Network MOAN.

A direct year-to-year comparison is not possible, because for this survey data were provided by MOAN whereas previously they had been collected among the certifiers.

El Salvador

The data are from 2007 and were provided by Beatriz Alegría, Consorcio CLUSA-CORDES, www.elsalvadororganico.com.sv.

Estonia

- Land area: Eurostat: Organic Crop Area 2008. Estonia. Date of Extraction: December 29, 2009. The Eurostat Homepage.
- Operators: Eurostat: Organic producers. Estonia. The Eurostat homepage. Download of November 24, 2009.
- Market and production data provided by Merit Mikk, Estonian Organic Farming Foundation, Tartu, Estonia, Source: Estonian Institute of Economic Research.

Ethiopia

Data provided by/Source:
Tobias Fischer, BCS Öko-Garantie GmbH, 90402 Nuremberg, Germany;
Ines Hensler, Institute for Marketecology (IMO), 8570 Weinfelden, Switzerland, www.imo.ch;
Gyorgyi Acs Feketene, Control Union Certifications, 8000 AD Zwolle, Netherlands, www.controlunion.com;
Albert Benzing, CERES - Certification of Environmental Standards - GmbH, D-91230 Happung, Germany, www.ceres-cert.com;
A direct year-to-year comparison is not possible, because for this survey data from more certifiers were available than for the previous year.

Falkland Islands

For the Falkland Islands, data were received for the first time. The data provided by Ian Campbell, Department of Agriculture, PO Box 583, Stanley.

Faroe Islands

Data provided by/Source: Gunnar Gunnarsson, Vottunarstofan Tún ehf., Reykjavík, Iceland.

Fiji Islands

The data published in this volume had been received for the SOEL/FiBL survey in 2007 and no update has been available since.

Finland

- Land area and land use: Eurostat, Organic crop area Finland, 2008, Download of September 20, 2009, epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database.
- Data on wild collection provided by Juha Kärkkäinen, Evira, Helsinki; Source: Evira, Helsinki, www.evira.fi/portal/en/.
- Operator data: Eurostat, Number of organic registered operators 2008, Download of October 4, 2009 and 25. The Eurostat homepage at epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database.
- Market data provided by Sampsa Heinonen, Organic Food Finland, FIN-32200 Loimaa, www.organic-finland.com; see also www.organic-world.net/statistics-finland-market-data.html.

France

The data were provided by Katell Guernic and Steven Lenfant, Agence Bio, Montreuil sous Bois, France.
Sources:

- Land area, operator and market data Operator data: Agence Bio, May 2009: 10 ANS DE PRINTEMPS BIO. LA BIO FAIT SON CHEMIN, L'HORIZON S'ELARGIT: UN MARCHE DE 2,6 MILLIARDS D'EUROS EN HAUSSE DE 25% EN 2008. Montreuil sous Bbois, France, ww.agencebio.fr.

From the total organic agricultural land as communicated by Agence Bio and by Eurostat (583'799 Hectares), the area of the French departments in French Guyana, Guadeloupe, Martinique, and Réunion (2'843 hectares) were deducted and listed separately under Latin America/Caribbean and Africa.

French Guyana

For French Guyana data were included for the first time. Detailed information on organic farming in the French departments outside Europe were made available in 2008 report by Agence Bio and provided Steven Lenfant, Agence BIO, 93100 Montreuil sous Bois, France.

Gambia

Data for Gambia were not supplied in 2007 and 2008 by none of the certification body. IFOAM and FiBL therefore concluded that there is currently no certified organic production in the country. Any information on certified organic farming in Gambia should be sent to the IFOAM Africa coordinator, Hervé Bouagnimbeck, IFOAM, Bonn Germany, E-mail h.bouagnimbeck@ifoam.org.

Georgia

For Georgia no new data were made available, but the data used (already published in the 2009 edition of The World of Organic Agriculture) refer to October 2008. They were provided by: Mariam Jorjadze and Elene Shatberashvili, Biological Farming Association Elkana, 0177, Tbilisi, Georgia, www.elkana.org.ge.

Germany

Sources:

- Total organic land area: Source: Ministry of Food, Agriculture and Consumer Protection BMELV, Bonn, Germany, Available at www.bmelv.de/cln_181/SharedDocs/Standardartikel/EN/Agriculture/OrganicFarming.html?nn=53026; download of January 21, 2010.
- Land use and production details: Source: Diana Schaack & Heike Engelhard (2009): Bio-Strukturdaten 2008. AMI/ZMP 2009. More information at www.organic-world.net/fileadmin/documents/country_information/germany/zmp-2009-biostrukturdaten-2008.pdf.
- Operator data: Eurostat, Number of organic registered operators 2008, Download of October 4, 2009. The Eurostat homepage at epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database.
- Market data: Total volume according to Prof. Dr. Ulrich Hamm, University of Kassel, 37213 Witzenhausen, Germany, www.uni-kassel.de. And Agromilagro research, Bornheim, Germany Share of total market according to BOELW, 2009.
- Per capita consumption: Calculated by FiBL on the basis of the current population as provided by Eurostat.

Ghana

IFOAM data collection among the certification bodies providing services in Ghana. A direct year-to-year comparison is not possible, because the data source has changed.

Greece

- Land area: Eurostat: Organic Crop Area 2008. Greece. Date of Extraction: 24. October 2009. The Eurostat Homepage.
- Operators: Eurostat, Number of organic registered operators 2008, Download of October 4, 2009 and 25. The Eurostat homepage at epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database.
- Market data: Manginas, Stamos and George Karanis (2008): Greece. In: Osch, Susanne and Burkhard Schaer (eds) (2008): Specialized Organic Retail Report 2008. Organic Retailers Association, Vienna.

Guadeloupe

For Guadeloupe data were included for the first time. Detailed information on organic farming in the French departments outside Europe were made available in 2008 report by Agence Bio and provided Steven Lenfant, Agence BIO, 93100 Montreuil sous Bois, France.

Guinea Bissau

No new data were available for 2008. The 2007 data were provided by/Source: Abdoul Aziz Yanogo, Ecocert West Africa Office, Ecocert 11 BP 203 Ouagadougou, Burkina Faso, www.ecocert.com.

Guatemala

The data were provided by/Source: Manolo De La Cruz and Eduardo Taracena, Ministerio de Agricultura, Ganadería y Alimentación UNR-MAGA, Agricultura Orgánica, 7 avenida 12-90 zona 13, Ciudad de Guatemala, Guatemala, www.maga.gob.gt Remark: The drop of nearly 5000 hectares compared with the year 2005, is due to a new system of registry and control; the data before were based on estimations. Furthermore some operators had registered twice.

Guyana

For Guyana new data were received for the first time since 2002.-Data provided by/Source: Emma Tsessue, Ecocert, BO 47, 32600 L'Isle Jourdain, France, www.ecocert.com.
A direct year-to-year comparison is not possible, because for this survey a different data source was used.

Honduras

Data provided by Yolandina Lambur Valle, Dpto, Agricultura Organica, SENASA SAG - Secretaria de Agricultura y Ganadería, Honduras, www.senasa-sag.gob.hn.

Hungary

- Land use and crops, Eurostat: Organic Crop Area 2008. Hungary. Date of Extraction: November 16, 2009. The Eurostat Homepage.
- Further data were provided by/Sources: Dóra Kovács, Hungária Öko Garancia Kft., 1033 Budapest, Hungary, www.okogarancia.hu and Lea Bauer, Biokontroll Hungária, 1027 Budapest, Hungary, www.biokontroll.hu.

- Operators: Producers, processors, importers: Eurostat, Number of organic registered operators 2008, Download of October 3, 2009. The Eurostat homepage at epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database.
- Other operator types: Biokontroll Hungária and Hungária Öko Garancia Kft.

Iceland

Data provided by/Source: Gunnar Gunnarsson, Vottunarstofan Tún ehf., Reykjavík, Iceland.

India

The data were provided by Dr. P.V.S.M. Gouri, Agricultural and Processed Food Products Export Development (APEDA), www.apeda.com. Source: APEDA, Ministry of Commerce & Industry, Govt of India, New Delhi - 110 016, India, www.apeda.com.

Further data were provided by A.K. Yadav, National Centre of Organic Farming NCOF, Ghaziabad, and Manoj Kumar Menon, International Competence Centre of Organic Agriculture ICCOA, Bangalore. Their data included the following land use details for India:

Table 52: India: Land use and crops 2008, fully converted area (total fully converted area according to this source: 640'161 hectares).

Crop	Organic area [ha]
Paddy	18'134.00
Wheat	4'056.00
Other cereals/millets	26'184.00
Pulses	12'023.00
Oil seeds including Soybean	91'849.00
Cotton	259'699.00
Spices	6'507.00
Tea/coffee	12'711.00
Fruits and Vegetables	128'879.00
Herbal/medicinal plants	32'313.00
Other miscellaneous crops	27'995.00
Crop details not available	19'811.00

Source: National Centre of Organic Farming (NCOF), Ghaziabad, and International Competence Centre of Organic Agriculture (ICCOA).

Indonesia

Data were provided by Lidya Ariesusanty, Indonesia Organic Alliance, Indonesia. Source: Certifier data.
A direct year-to-year comparison is not possible, because for this survey data from more detailed data were available from the certifiers.

Iran

Data provided by Hossein Mahmoudi, Environmental Sciences Research Institute, Shahid Beheshti University ESRI. Source: Environmental Sciences Research Institute, Shahid Beheshti University ESRI, Evin, Tehran, Iran, based in certifier data.

Ireland

Sources:

- Land area and operator data: Department of Agriculture, Fisheries and Food: Minister Sargent announces review of Organic Farming Scheme. The DAFF homepage, July 29, 2009, www.agriculture.ie/press/pressreleases/2009/july/title,33766,en.html.
- Market data were provided by: Rosaleen O'Shaughnessy, Board Bia – Irish Food Board, Clanwilliam Court, Lower Mount St, Dublin, Ireland, www.bordbia.ie. Source: TNS Worldpanel data. See www.bordbia.ie/eventsnews/ConferencePresentations/Pages/NationalOrganicFoodConference2008-SpeakerPresentations.aspx.

Israel

The data are from 2007 and were provided by/source: Pnina Oren Shnidor, Ministry of Agriculture and Rural Development, Plant Protection and Inspection Services (PPIS), 50250 Bet-Dagan, Israel, www.moag.gov.il/agri. The data refer to organic fresh produce and processed products of plant origin, designated for export to the EU market. The data apply to the Israeli export season (1 Oct 2006 to 30 Sept 2007). On 1 Sept 2008 the Israeli law for the regulation of organic produce came into force. Therefore it is likely that in the near future also data on products for the regional market are available.

Italy

Sources:

- Land area/land use data: Eurostat: Organic Crop Area 2008. Italy. Date of Extraction: November 16, 2009. The Eurostat Homepage.
- Operators: Eurostat: Organic Operators 2008. Italy. Date of Extraction: January 21, 2010. The Eurostat Homepage. Land use and operator data are also available from Sistema d'informazione nazionale sull'Agricoltura Biologica (SINAB), www.sinab.it,
- Market data: ISMEA/AC Nielsen, provided by biomarkt.info, March 23, 2009.

Contact: Marta Romeo, SINAB, Rome, Italy.

Jamaica

Data provided by/Source. Trevor Brown, Jamaica Organic Movement JOAM, Kingston, Jamaica, www.joamltd.or.

Japan

Number of farmers, production data and import volumes provided by Satoko Miyoshi, IFOAM Japan, Toda-city, Saitama, Japan 335-0021, www.ifoam-japan.net; Source: Ministry of Agriculture, Forestry and Fisheries (MAFF), Tokyo 100, 8950, Japan, www.maff.go.jp/e/index.html.
The organic land area was calculated by multiplication of the number of organic farms with the average farm size in Japan.

Jordan

Data provided by : Dr. Lina Al Bitar and Dr. Marie Reine Bteich, C.I.H.E.A.M. - Istituto Agronomico Mediterraneo di Bari, Italy, www.iamb.it. Source: Mediterranean Organic Agriculture Network MOAN.

Kazakhstan

The data were compiled from 3 certifiers. Contact: Jackeline Mekkes, Louis Bolk Institute, Driebergen. More information at www.organiccenter.kz.
A direct year-to-year comparison is not possible, because for this survey data from more certifiers were available than for the previous year.

Kenya

Data provided by/Source: Jack Juma, Kenya Organic Movement (KOAN), Nairobi, Kenya, www.koan.co.ke. The data are collected from the organic operators in the country and cover most of the country's organic land/producers.

Korea

Data provided by Prof. Dr. Sang Mok Sohn, Research Institute of Organic Agriculture, Dankook University, Cheonan 330-714, Republic of Korea, www.rioa.or.kr. Source: Governmental statistics.

Kyrgyzstan

The data were provided by Helvetas (data from the BioCotton project and company data) and by one international certifier.
Helvetas contacts: Data provided by Abdulatib Haldarov and Markus Ehmann, Helevtas, BioCotton Project, Helvetas, Jalalabat, Kyrgyzstan; Source: Helevtas, BioCotton Project, Helvetas, Jalalabat, Kyrgyzstan as well as company data.

Latvia

- Operators: Eurostat, Number of organic registered operators 2008, Download of October 4, 2009. The Eurostat homepage at epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database.
- Land use: Eurostat: Organic Crop Area 2008. Latvia. Date of Extraction: November 16, 2009. The Eurostat Homepage, Eurostat Luxemburg, epp.eurostat.ec.europa.eu.

Laos

Data provided by: Ruedi Lüthi, Helvetas Laos, Vientiane Capital, Laos, www.laosorganic.com. Certification of organic farming in Laos was carried out for the first time in 2008; the area is under conversion.

Lebanon

Data provided by : Dr. Lina Al Bitar and Dr. Marie Reine Bteich, C.I.H.E.A.M. - Istituto Agronomico Mediterraneo di Bari, Italy, www.iamb.it. Source: Mediterranean Organic Agriculture Network MOAN.
Includes data of Libancert, IMC Lebanon and ICEA.
When the FiBL/IFOAM survey was closed an update was received from MOAN as the figure communicated previously included some wild collection areas. The correct figure for the agricultural area is 1'724 hectares.

Lesotho

For Lesotho data were supplied for the first time. Data provided by/Source: Tobias Fischer, BCS Öko-Garantie GmBH, 90402 Nuremberg, Germany, www.bcs-oeko.com.

Liechtenstein

Data were provided by: Klaus Büchel, Institute of Agriculture and Environment, 9493 Mauren, Liechtenstein, www.kba.li. Source: Ministry of Environmental Affairs, Land Use Planning, Agriculture and Forestry, 9490 Vaduz, Liechtenstein, www.liechtenstein.li/en/eliechtenstein_main_sites/portal_fuerstentum_liechtenstein/fl-wuf-wirtschaft_finanzen/fl-wuf-landwirtschaft.htm.
The data on land are based on figures from the Ministry of Agriculture and from calculations of an organic consultancy agency. Harvests are estimated. The data on the number of animals was estimated on the base of data from the Ministry of Agriculture on livestock units. Empirically most of the organic products are sold in Liechtenstein and Switzerland.

Lithuania

Sources:

- Organic land and land use: Eurostat, Organic crop area, Lithuania, 2008, Download of September 20, 2009. epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database - Available data for 2008 at the Eurostat homepage.
- Operators: Eurostat, Number of organic registered operators 2008, Download of October 4, 2009. The Eurostat homepage at epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database.

Luxembourg

Land use and operator data provided by/Source: Monique Faber, Administration des Services Techniques de l'Agriculture (ASTA), L-1019 Luxembourg.
Market data: Haest, Carol (2008) Luxemburg. In : Osch, Susanne and Burkhard Schaer (eds) (2008): Specialized Organic Retail Report 2008. Organic Retailers Association, Vienna.

Macedonia, The former Yugoslav Republic

Data provided by Radomir Trajković, PROBIO, Skopje, Macedonia. Source: Certifier data, compiled by Probio. The data cover all organic land operators in the country.

Madagascar

Data provided by/Source:

- Milena Belli, ICEA Foreign Office, 40121 Bologna, Italy, www.icea.info
- Vincent Morel, Area Manager - Africa, Ecocert, BP 47, 32600 L'Isle Jourdain, France, www.ecocert.com
- Bernhard Schulz, CERES-Certification of Environmental Standards GmbH, 91230 Happung, Germany, www.ceres-cert.com.

Malawi

Data provided by Stanley Chidaya, Malawi Organic Growers Association (MOGA); Source: Malawi Organic Growers Association (MOGA), PO BOX 20288, LILONGWE, Malawi.
A direct year-to-year comparison is not possible, because the data source has changed.

Malaysia

Data provided by Ong Kung Wai, Humus Consultancy, Penang, Malaysia. Data source: Jumat Majid, Organic Alliance Malaysia, Penang, Malaysia, www.organicmalaysia.com.my.

Mali

Data provided Data provided by/Source:
Sidy El'Moctar N'Guiro, Mouvement Biologique Malien MOBIOM, BP 30 Bougouni, Mali and Vincent Morel, Area Manager - Africa, Ecocert, BP 47, 32600 L'Isle Jourdain, France, www.ecocert.com. MOBIOM collects the data from the organic operators in the country. The data are more complete than the data communicated in the 2009 edition of *The World of Organic Agriculture*; a direct year-to-year comparison is therefore not possible.

Malta

The data are from 2007and were provided by: Mark Causon, Genista Research Foundation, Rabat, Malta, www.genistafoundation.org. Source: Ministry of Rural Development, Valletta CMR 02, Malta, www.agric.gov.mt.

Martinique

For Martinique data were included for the first time. Detailed information on organic farming in the French departments outside Europe were made available in 2008 report by Agence Bio and provided Steven Lenfant, Agence BIO, 93100 Montreuil sous Bois, France.

Mauritius

Data provided by/Source: Sunita Facknath and Bhanooduth Lalljee, Faculty of Agriculture, University of Mauritius, Réduit, Mauritius.

Mexico

- Data provided by Rita Schwentesius, Manuel Á. Gómez Cruz and Javier Ortigoza Rufino, Universidad Autónoma Chapingo, own data (based on data of the certifiers).
- The share of the organically managed land of the total land was calculated on the basis of data provided by the Universidad Autónoma Chapingo; they are not the same as the FAO data.

Moldova

No new data were available for 2008. The 2007 data were provided by Lutz Mammel, EkoConnect, 01099 Dresden, Germany, www.ekoconnect.org; Source: Jurie Senic, Ministry of Agriculture and Food Industry, Chişinău, bd. Ştefan cel Mare, 162, www.maia.gov.md.

Mongolia

The certifier who had provided data for wild collection previously, did not list Mongolia anymore in its annual statistics.

Montenegro

- Land area/operators: Data provided by/Source: Radana Damjanović, Ministry of Agriculture, Forestry and Water Management, Podgorica, Montenegro.
- Market data provided by Jovo Radulovic, NGO "Production Of Organic Food", Nikšic, Montenegro.
- More information: www.organic-world.net/montenegro.html.

Morocco

Total area for 2008 (including wild collection) provided by : Dr. Lina Al Bitar and Dr. Marie Reine Bteich, C.I.H.E.A.M. - Istituto Agronomico Mediterraneo di Bari, Italy, www.iamb.it. Source: Mediterranean Organic Agriculture Network MOAN.
Data (land use and crops) provided by: Prof. Lahcen Kenny, Institut Agronomique et Vétérinaire Hassan II, BP. 121, Ait Melloul, Agadir, Morocco, www.iavcha.ac.ma. Source: Survey of the Institut Agronomique et Vétérinaire Hassan II among the certifiers.

Mozambique

- Data provided by/Source: Vincent Morel, Area Manager - Africa, Ecocert, BP 47, 32600 L'Isle Jourdain, France, www.ecocert.com.
- Prior to that the data for Mozambique had been available from a Care International project. A direct year-to-year comparison data published in this edition of '*The World of Organic Agriculture* can therefore not be compared to the data published in previous editions of *The World of Organic Agriculture*.

Namibia

Data provided by/Source:
Namibian Organic Association (NOA), Manjo Smith, PO Box 1504, Okahandja, Namibia. Data are collected from the organic operators in the country.
Vincent Morel, Area Manager - Africa, Ecocert, BP 47, 32600 L'Isle Jourdain, France, www.ecocert.com.

Nepal

- Data provided by/Source: Maheswar Ghimire, Kathmandu, Nepal, based on company data.
- Data on wild collection were provided by Maheswar Ghimire, Kathmandu, Nepal; Source: Asia Network for Sustainable Agriculture and Bioresources ANSAB, Kathmandu, Nepal, www.ansab.org.
- Producer data are from 2007.

Netherlands

- Operators: Eurostat, Number of registered organic operators, Netherlands, 2008. The Eurostat homepage. Download of October 3, 2009.
  epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database.
- Land use: Eurostat: Organic Crop Area. Netherlands 2008. The Eurostat hompeage.
  epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database. Download of October 3, 2009.
- Market data: Biologica (2009): Bio-Monitor jaarrapport 2008. Biologica, 3512 LC Utrecht, Netherlands. Download at www.biologica.nl/content/cijfers.

New Zealand

- Data provided by/Source: Seager Mason, BioGro New Zealand Inc., Wellington 6141, New Zealand, www.bio-gro.co.nz.

Nicaragua

For this edition of *The World of Organic Agriculture* no new data were provided. However, the data published in the 2009 edition of '*The World of Organic Agriculture* were from 2008. They were provided by Miguel Altamirano, Instituto Interamericano de Cooperación para la Agricultura (IICA), Managua, Nicaragua, www.iica.int.ni. Source: Ministerio de Agriycultura y Forestal MAGFOR, www.magfor.gob.ni.

Niger

Data source: Certifier data.

Nigeria

Data provided by: Dr. O.O. AdeOluwa, Organic Agriculture Projects in Tertiary Institutions in Nigeria (OAPTIN)/Department of Agronomy, University of Ibadan, Ibadan, Nigeria, www.ui.edu.ng. Source: Survey among the organic operators.

The number of producers was added from the statistics of one international certifier..

Niue

Data provided by: Karen Mapusua, Women in Business Development Inc, PO Box 6591 Apia, Samoa, www.womeninbusiness.ws. The data are from 2006; Source: BioGro New Zealand Inc., Wellington 6141, New Zealand, www.bio-gro.co.nz.

Norway

Sources:

- Land area and land use: Eurostat: Organic crop area. Norway 2008. Eurostat homepage, Download of October 3, 2009. epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database.
- Operators: Eurostat, Number of organic registered operators 2008, Download of October 4, 2009. The Eurostat homepage at epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database.
- Market data: Data provided by Matthias Koesling, Bioforsk Organic Food and Farming Division, 6630 Tingvoll, Norway, www.bioforsk.no/organic; Source: Norwegian Agriculture Authority (SLF), Oslo.

Oman

Data for Oman were provided for the first time for the global survey on organic agriculture. Source: Kassel University, Witzenhausen, Germany. Data provided by Prof. Dr. Andreas Bürkert, Kassel University.

Pakistan

Source: Certifier data. A direct year-to-year comparison is not possible, because for this survey data from more certifiers were available than for the previous year..

Palestine

Data provided by/Source: Mediterranean Organic Agriculture Network MOAN, c/o Institute of Mediterranean Agriculture IAMB Bari, Valenzano, Italy, www.iamb.it.

Panama

The data are from 2004 (first published in '*The World of Organic Agriculture* 2006'). Official data are not available, experts from the country, have however, confirmed that the correct figure is in the area of 5000 hectares)..

Papua New Guinea

- No new data were received for the 2010 survey on organic agriculture world-wide..
- The 2006 data were provided by Karen Mapusua, Women in Business Development Inc, PO Box 6591 Apia, Samoa, www.womeninbusiness.ws, based on certifier data. The data refer to 2006..

Paraguay

- Source for all data: MAG/ALTERVIDA/IICA (March 2008): MAG/ALTERVIDA/IICAEstrategia Nacional para la Promoción de la Producción Orgánica. Provided by Genaro Coronel, SENVE; Paraguay, Available at www.mag.gov.py/ESTRATEGIA%20NACIONAL.pdf.
- The data are from 2007.
- Contact Altervida: Daniela Solis, Altervida, Asuncion, Paraguay www.altervida.org.py.

Peru

- Data on the total organic land and producers provided by/source: Dr. Jorge Leonardo Jave Nakayo, Subdirección de Producción Orgánica, Ministerio de Agricultura – SENASA, Perú.
- Land use data are only available for 2007 and were provided by: Julia Salazar Suarez, Servicio Nacional de Sanidad Agraria (SENASA), Lima 12 - La Molina, Lima, Peru, www.senasa.gob.pe.
- Export data provided by Javier Martinez, PromPeru, San Isidro - Lima 27 Perú, www.promperu.gob.pe.

Philippines

Data from the local certifier Organic Certification Center of the Philippines (OCCP) provided by Charry Em, Department of Agriculture, Quezon City, Philippines. Furthermore, the data from four international certifiers were added.. The data are more complete than the data communicated in the 2009 edition of *The World of Organic Agriculture* . A direct year-to-year comparison is therefore not possible.

Poland

- Land area and land use Eurostat: Organic Crop Area 2008. Poland. Date of Extraction: November 16, 2009. The Eurostat Homepage.
- Operators: Eurostat: Organic operators. The Eurostat homepage. Download of November 24, 2009.
- Market data: Vaclavik Tom and Andrzej Szeremeta (2008): Poland. In: Osch, Susanne and Burkhard Schaer (eds) (2008): Specialized Organic Retail Report 2008. Organic Retailers Association, Vienna.

Portugal

Data for 2008 were not available. The 2007 data were provided by: Ana Firmino, University of Lisbon, 1649 - 004 Lisbon, Portugal, www.ul.pt. Data source: Ministry of Agriculture, Rural Development and Fisheries, Planning & Policies Office, 1099-073 Lisbon, Portugal, www.gpp.pt.

Réunion

Data for Réunion were supplied for the first time. Data provided by/Source: Steven Lenfant, Agence BIO, 93100 Montreuil sous Bois, France.

Romania

Sources:

- Organic area; land use: Eurostat, Organic Crop area, Romania 2008, Download of January 21, 2009, The Eurostat homepage.
- Operators: Total and other; Eurostat, Number of organic registered operators 2008, Download of October 4, 2009. The Eurostat homepage at epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database www.madr.ro/pages/page.php?self=01&sub=0107&tz=010710.
- Data on wild collection (November 2008) were provided by Iulia Grosulescu, Ministry of Agriculture and Rural Development, 020921 Bucharest, Romania, www.madr.ro.

Russia

- Land area and operators: Own data of Eco Control, survey among the certifiers and operators..
- Furthermore the data of two international certifier were added that had not been available previously. The data published in this volume can therefore not be compared to the data published in the 2009 edition of '*The World of Organic Agriculture*.'

Rwanda

For this edition of *The World of Organic Agriculture* no new data were provided. The data (end 2007) were provided by: Peter Murava, Rwanda Horticulture Development Authority (RHODA), B.P: 621, Kigali, Rwanda, www.minagri.gov.rw/index.php and Alastair Taylor, Agro Eco Eastern Africa (AEEA), PO Box 71982, Kampala, Uganda, www.agroeco.net. Data collection was made within the framework of the UNEP - UNCTAD - Capacity Building Task Force on Trade, Environment and Development (CBTF) project.

Samoa

Data were provided by: Karen Mapusua, Women in Business Development Inc, PO Box 6591 Apia, Samoa, www.womeninbusiness.ws.

San Marino

- Data source: Certifier data (one processor). The information refers to 2008.

Sao Tome and Prince

Data provided by/Source: Vincent Morel, Area Manager - Africa, Ecocert, BP 47, 32600 L'Isle Jourdain, France, www.ecocert.com.

Saudi Arabia

- Data were provided by Robert Glass of the GTZ Organic Development project, Saudi Arabia.

Senegal

- Data provided by/Source: Ibrahima Seck, Institution Association Sénégalaise pour la Promotion de l'Agriculture Biologique ASPAB, BP. 412 Thiès, Sénégal.
- Jeanne Bulté, CERTISYS, B-1150 Bruxelles, Belgium, www.certisys.eu.
- The data published here include the data from more certifiers than previously. A direct year-to-year comparison is therefore not possible.

Serbia

- Data provided by: Lidija Acimovic, Ministry of Agriculture, Forestry and Water Management MINPOLJ, 11000 Belgrade, Serbia, www.minpolj.sr.gov.yu
  The data include the figures of the local certifiers that are authorized by MINPOLJ (total 598.72 hectares) as well as figures from three (out of nine) international certifiers that are not authorized by MINPOLJ (total: 3895.11 hectares). These data were also collected by MINPOLJ. This is for the first time, that data from several international certifiers are included. A direct year-to-year comparison is therefore not possible.
- Wild collection: Other than in previous years, no wild collection area was reported for 2008.
- Operators: Number of farms according to MINPOLJ (only from one, the local certifier); number of processors from 2006, provided by the Mediterranean Organic Agriculture Network MOAN.
- Production data: Provided by MINPOLJ, data from 2007.

Sierra Leona

Data for Sierra Leone were supplied for the first time. Source: International certifier data.

Slovakia

- Land use/Crops: Eurostat: Eurostat: Organic Crop Area. Slovak Republic 2008. The Eurostat homepage. epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database. Download of October 3, 2009.

- Operators: Eurostat, Number of registered organic operators, Slovakia, 2008. The Eurostat homepage. Download of October 3, 2009.

Slovenia

- Land area and land use: Eurostat: Organic crop area. Slovenia 2008. Eurostat homepage, Download of October 3, 2009. epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database.
- Operators, total: Eurostat, Number of organic registered operators 2008, Download of October 4, 2009. The Eurostat homepage at epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database.

Solomon Islands

No new data were available. The 2006 data were provided by: Karen Mapusua, Women in Business Development Inc, PO Box 6591 Apia, Samoa, www.womeninbusiness.ws.

Somalia

Data for Somalia were supplied for the first time. Source: Vincent Morel, Area Manager - Africa, Ecocert, BP 47, 32600 L'Isle Jourdain, France, www.ecocert.com.

South Africa

The data were compiled by Raymond Auerbach, Rainman Landcare Foundation. Data were collected from several certifiers providing services in the country. Contact: Dr. Raymond Auerbach, Rainman Landcare Foundation, PO Box 2349/Hillcrest, South Africa, www.enviropaedia.com/company/default.php?pk_company_id=528

Spain

- Land use, operators: Source: Source: Ministerio de Medio Ambiente y Medio Rural y Marino MAPA (2009): Estadísticas de Agricultura Ecológica del 2008. Madrid, Spain, The MAPA homepage www.mapa.es/alimentacion/pags/ecologica/pdf/2008.pdf.
- Market data provided by Victor Gonzalves, Sociedad Española de Agricultura Ecologica (SEAE), Catarroja (Valencia), Spain, www.agroecologia.net, based on estimates and data of the Ministry of Agriculture.

Sri Lanka

Data from three international certifiers. A direct year-to-year comparison is not possible as data from more certifiers were available for the 2010 survey. Only one of the certifiers provided operator data.

Sudan

The data were supplied by several certifiers providing services in the country. The figure is therefore more complete than last year.

Suriname

Data source: Certifier data. The data refer to area under conversion

Swaziland

Data provided by/Source: F. Jacobs, Ecocert Afrisco, Lynnwood, South Africa, www.afrisco.net

Sweden

- Land area/land use: Eurostat, Organic crop area, Sweden, 2008, Download of September 20, 2009. epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database
- Operators: Eurostat, Number of organic registered operators 2008, Download of October 4, 2009. The Eurostat homepage at epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database
- Market data: Statistics Sweden SCB, Food Sales 2008, www.scb.se/Pages/PressRelease____279397.aspx

Switzerland

- Land area and land use data compiled by FiBL; based on the data of the certifiers.
- Operators: According to Bio Suisse, 2009¸ www.biosuisse.ch/de/bioinzahlen.php.
- Market data: Bio Suisse, Basel, Switzerland, www.biosuisse.ch/de/bioinzahlen.php.

Syria

Data provided by/Source: Haya Abou Assaf, General Commission for Scientific Agricultural Research, Damascus, Syria, www.organicsyria.com
Data on the numbers of operators from 2007.

Taiwan

Taiwan Organic Agriculture Information Centre. Statistics 1996-2008 at info.organic.org.tw/supergood/front/bin/ptlist.phtml?Category=104854, Download of August 24, 2009. Original Source: Agricultural and Food Agency, Council of Agriculture, Taiwan.

Tajikistan

Data provided by/Source: Mathew Sebastian, INDOCERT, Thottumugham P.O., Kerala, India, www.indocert.org.

Tanzania
Data provided by: Noel C. Kwai, Tanzania Organic Agriculture Movement (TOAM), PO Box 70089, Dar es Salaam, Tanzania, www.kilimohai.net. Source: Survey among the organic operators in the country.

Thailand
Data provided by Vitoon Panyakul, Green Net, 10330 Bangkok, Thailand, www.greennet.or.th. Source: Certifier data.

Timor-Leste
Data source: Certifier data.

Togo
Data provided by/Source: Vincent Morel, Area Manager - Africa, Ecocert, BP 47, 32600 L'Isle Jourdain, France, www.ecocert.com and one other international certification body.

Tunisia
Source: Oberservatoire National de l'Agriculture, Ministère de l'Agriculture et des Ressources Hydrauliques, Tunis, Tunisia. Data provided by Professor Mohamed Ben Kheder, CTAB, Sousse, Tunisia., www.ctab.nat.tn/ang/defaultan.php?p=situation_ang.

Turkey
All data were provided by Erdal Süngü, Ministry of Agriculture and Rural Affairs MARA, Ankara, Turkey, www.tarim.gov.tr. Source for the land area, production and operator data: MARA.
Some areas contain mixed products or second crops, that can be harvested from the same parcel. Therefore the total of the land use detail data exceeds the actual area surface cultivated for organic farming. The decrease of organic land during 2008 is due to marketing problems. However, in 2009 the organic area increased again.
Source for export data: Aegean Exporters Aegean Exporters Associations. The data (volumes and values) cover 25 percent of all exports.

Uganda
Data provided by: Charity Namuwoza, National Organic Agricultural Movement of Uganda (NOGAMU), PO Box 70071, Clock Tower, Kampala, Uganda, www.nogamu.org.ug. Data source: Survey among organic operators in the country. Farmers certified under the Participatory Guarantee System are also included. The data refer to 2008/2009.

Ukraine
Data provided by Eugene Milovanov, Organic Federation of Ukraine, Kiev, Ukraine www.organic.com.ua.

United Arab Emirates
Certifier data, compiled by FiBL. The data include more certifiers than in previous years, a direct year-to-year comparison is therefore not possible.

United Kingdom
- Total land area and area for forest: Defra: Organic land areas time series (UK). Published in: Defra and National Statistics: ORGANIC STATISTICS 2008 UNITED KINGDOM. Revision published 16 September 2009. The Defra homepage at statistics.defra.gov.uk/esg/statnot/organics%20uk.pdf.
- Land use agriculture: Eurostat: Organic Crop Area 2008. United Kingdom. Date of Extraction: December 29, 2009. The Eurostat Homepage.
- Operators: Eurostat, Number of registered organic operators, UK, 2008. The Eurostat homepage. Download of October 3, 2009.
- Market data: Soil Association, Organic Market Report 2008: Soil Association; Bristol, www.soilassociation.org/Businesses/Marketinformation/tabid/116/Default.aspx.

Uruguay
Data on organically managed land use and the number of operators refer to 2006 and were provided by/Source: Betty Mandl, Ministerio de Ganadería, Agricultura y Pesca (MGAP), Montevideo, Uruguay, www.mgap.gub.uy.

United States of America
- The 2008 data for the land area are provisional and at the time of publication, no land use details were available. So, for the crop statistics the 2005 data were used as published at the USDA homepage.
- Data 2008 were supplied by/Source: Catherine Greene, United States Department of Agriculture, Washington, USA, www.ers.usda.gov/briefing/organic/.
- Market data: Source: Organic Trade Association 2009: Organic Industry Survey. Organic OTA, Greenfield, Massachusetts, USA, www.organicnewsroom.com/2009/05/organic_trade_association_rele_1.html.

Uzbekistan
Data source: Certifier data, compiled by FiBL. The data include more certifiers than in previous years, a direct year-to-year comparison is therefore not possible.

Vanuatu

The data re from 2006 and were provided by: Karen Mapusua, Women in Business Development Inc, PO Box 6591 Apia, Samoa, www.womeninbusiness.ws.

Venezuela

The data are from 2007; provided by: Luisa Díaz Jaimes and, Instituto Nacional de Investigaciones Agricolas INIA and Universidad Nacional Experimental del Tachira and Félix Moreno-Elcure UNET www.unet.edu.ve/lasas, Venezuela, based on certifier data.

Viet Nam

Data source: Certifier data. The data include more certifiers than in previous years, a direct year-to-year comparison is therefore not possible.

Zambia

Data provided by/Source: Vincent Morel, Area Manager - Africa, Ecocert, BP 47, 32600 L'Isle Jourdain, France, www.ecocert.com and one other international certification body.

Zimbabwe

Data provided by/Source: Vincent Morel, Area Manager - Africa, Ecocert, BP 47, 32600 L'Isle Jourdain, France, www.ecocert.com and one other international certification body.

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