THE WORLD OF ORGANIC AGRICULTURE

STATISTICS & EMERGING TRENDS 2009

OCEANIA 12.1 MILLION HA

EUROPE 7.8 MILLION HA

LATIN AMERICA 6.4 MILLION HA

ASIA 2.9 MILLION HA

NORTH AMERICA 2.2 MILLION HA

AFRICA 0.9 MILLION HA

Supported by

International Trade Centre

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

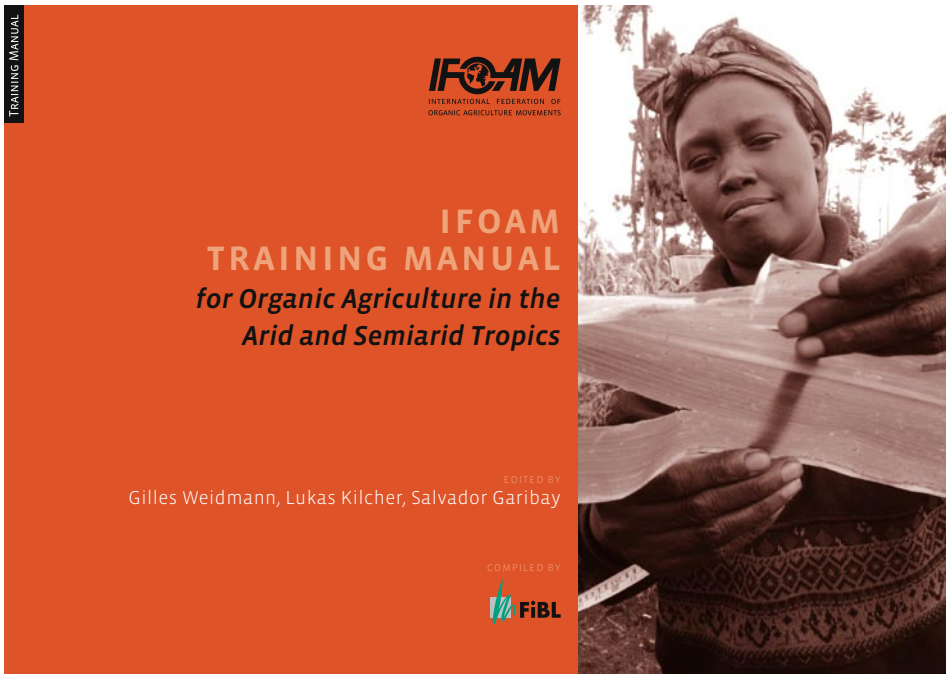
Swiss Confederation

Federal Department of Economic Affairs FDEA
State Secretariat for Economic Affairs SECO

BioFach

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Training Manuals for Organic Agriculture



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/growing_organic/7_training/training_platform_MainPage.html.

Training Manual for Organic Agriculture in the Humid Tropics 242 pages and 199 slides
Training Manual for Organic Agriculture in the Arid and Semi-Arid Tropics 222 pages and 136 slides

IFOAM
INTERNATIONAL FEDERATION OF ORGANIC AGRICULTURE MOVEMENTS

International Federation of Organic Agriculture Movements IFOAM
Charles-de-Gaulle-Str. 5
53113 Bonn
www.ifoam.org

FiBL

Research Institute of Organic Agriculture FiBL
Ackerstrasse
5070 Frick
Switzerland
www.fibl.org

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

THE WORLD OF ORGANIC AGRICULTURE

STATISTICS AND EMERGING TRENDS 2009

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

This document has been produced with the support of the International Trade Centre ITC, the Swiss State Secretariat for Economic Affairs SECO and NürnbergMesse. The views expressed herein can in no way be taken to reflect the official opinions of ITC, SECO or NürnbergMesse.

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 http://www.organic-world.net. Some of these are publicly accessible, others are password protected and have the username: 'organic' and the password 'world2009'.
Any enquiries regarding this book and its contents should be sent to Helga Willer, FiBL, Ackerstrasse, CH-5070 Frick, e-mail helga.willer@fibl.org.

Please quote articles from this book individually with name(s) of author(s) and title of article. The whole report should be cited as:
Willer, Helga and Lukas Kilcher (Eds.) (2009)
The World of Organic Agriculture. Statistics and Emerging Trends 2009. FIBL-IFOAM Report.
IFOAM, Bonn; FiBL, Frick; ITC, Geneva
Into the PDF version of this book some corrections have been included, for details see http://www.organic-world.net/yearbook (March 2, 2009).

Die Deutsche Bibliothek – CIP Cataloguing-in-Publication-Data
A catalogue record for this publication is available from Die Deutsche Bibliothek

International Federation of Organic Agriculture Movements (IFOAM) e.V., Charles-de-Gaulle-Str. 5, 53113 Bonn, Germany, Tel. +49 228 926 50-10, Fax +49 228 926 50-99, E-mail headoffice@ifoam.org, Internet www.ifoam.org, Trial Court Bonn, Association Register no. 8726
Research Institute of Organic Agriculture (FiBL), Ackerstrasse, 5070 Frick, Switzerland, Tel. +41 62 865 72 72; Fax +41 62 865 72 73, E-Mail info.suisse@fibl.org, Internet www.fibl.org
International Trade Centre (ITC), UNCTAD/WTO, Rue de Montbrillant, 54-56, 1202 Geneva 10, Switzerland, www.intracen.org

Language Editing: Neil Sorensen, NGO publishing; Pantin, France and
Ged Buffee, FiBL, Frick (for some of the Latin American chapters).
Layout: Helga Willer, FiBL, Frick, Switzerland
Cover & Maps: Claudia Kirchgraber, FiBL, CH-Frick
Cover picture: Masai Women at Masai Eco Farm, taken by Paul Rye Kledal, Institute of Food and Resource Economics, Copenhagen University, Denmark
Graphs (if not otherwise stated): Helga Willer, FiBL, CH-Frick
Printed on recycled paper by Medienhaus Plump, Rolandsecker Weg 33, 53619 Rheinbreitbach, Germany
Printed copies of this volume may be ordered directly from IFOAM, FiBL and ITC (addresses see above) or via the IFOAM website at www.ifoam.org, the FiBL shop at www.fibl.org/shop (order number: 1515) or ITC at www.intracen.org/eshop/welcome.asp
Price: 25 Euros + postage for the printed copy, Download 20 Euros.

ISBN IFOAM 978-3-940946-12-6
ISBN ITC 92-9137-364-8
ISBN FiBL 978-3-03736-036-4

TABLE OF CONTENTS

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Food Security

Crop chapters

Africa

Asia

Europe

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Latin America

North America

Oceania

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Achievements Made and Challenges Ahead

Annex

Tables

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Figures

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009,
IFOAM, Bonn, and FiBL, Frick

Maps

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Foreword Edition 2009

The Research Institute of Organic Agriculture (FiBL) and the International Federation of Organic Agriculture Movements (IFOAM) are proud to present the 2009 edition of 'The World of Organic Agriculture.' For the tenth time the data and information compiled in this volume document the current statistics, recent developments and trends in global organic farming. The comprehensive data are an important tool for stakeholders, policy makers, authorities, the industry and consultants. They can be useful in supporting strategies for organic agriculture and markets as well as for monitoring the impact of support activities for organic agriculture.

For this edition, the statistical information and all chapters have been updated. New additions include chapters on selected organic crops, on the organic farming related activities of UN Organizations, on food security, on group certification as well as detailed information on organic agriculture in the countries of Latin America and the Caribbean.

We would like to express our thank to all authors and data providers for contributing in depth information and data on their region, their country or their field of expertise.

We are very grateful to our sponsors, the International Trade Centre (ITC) and the Swiss State Secretariat for Economic Affairs (SECO) / Economic Development and Cooperation, for their support for this project which will help to expand and improve the data collection and processing activities in the future.

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 2009

Diane Bowen
Interim Executive Director
International Federation of Organic Agriculture Movements IFOAM
Bonn, Germany

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

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Acknowledgments

Numerous individuals have contributed to the making of this book, as data and information providers, as authors or as supporters.

We are very grateful to all those listed below, without who it would not have been possible to produce this global statistical yearbook:

Haya Abou Assaf, General Commission for Scientific Agricultural Research, Damascus, Syria; **Gyorgyi Acs Feketene,** Control Union Certifications, Zwolle, Netherlands; **O.O. AdeOluwa,** University of Ibadan, Department of Agronomy, Ibadan, Nigeria; **Samuel Adimado,** Ghana Organic Agriculture Network GOAN, Ghana; **Raymond Aendekerk,** Biolabel - Verenegung fir Biologesche Landbau Letzebuerg, Oikopolis, Munsbach, Luxemburg; **Issac Aiyelaagbe,** Organic Agriculture Project in Tertiary Institutions in Nigeria; **Lina AL Bitar,** Istituto Agronomico Mediterraneo IAMB, Valenzano, Italy; **Beatriz Alegría,** Consorcio CLUSA-CORDES, Colonia Escalon, San Salvador, El Salvador; **Miguel Altamirano,** Instituto Interamericano de Cooperación para la Agricultura (IICA), Proyecto de Fomento a la Producción y Comercialización Orgánica de Nicaragua, Cooperación Austriaca para el Desarrollo (ADA), Managua, Nicaragua; **Fernando Rios Alvarenga,** Servicio Nacional de Calidad y Sanidad Vegetal y de Semillas SENAVE, Asunción, Paraguay; **Stoilko Apostolov,** Bioselena: Foundation for Organic Agriculture, Karlovo, Bulgaria; **Amin Babayev,** Ganja Agribusiness Association, Ganja, Azerbaijan; **Vugar Bashirov,** AZEKOSERT, Ganja, Azerbaijan; **Milena Belli,** Istituto per la Certificazione Etica ed Ambientale ICEA, ICEA Foreign Office, Bologna, Italy; **Hervé Bouagnimbeck,** International Federation of Organic Agriculture Movements, Bonn, Germany; **Diane Bowen,** International Federation of Organic Agriculture Movements IFOAM, Bonn, Germany; **Klaus Büchel,** Klaus Büchel Anstalt, Ingenieurbüro für Agrar- und Umweltberatung, Mauren, Liechtenstein; **Ged Buffee,** Research Institute of Organic Agriculture FiBL, Development and Cooperation, Frick, Switzerland; **Michelle Carter,** Care International, Maputo, Mozambique; **Munshimbwe Chitalu,** Organic Producers & Processors Association of Zambia (OPPAZ), Lusaka, Zambia; **Thomas Cierpka,** International Federation of Organic Agriculture Movements IFOAM, Bonn, Germany; **Antonio Compagnoni,** Istituto per la Certificazione Etica ed Ambientale (ICEA), Relazioni Internazionali, Bologna, Italy; **Nune Darbinyan,** ECOGLOBE - Organic control and certification body, Yerevan, Republic of Armenia; **Manolo De la Cruz Berganza,** Ministerio de Agricultura, Ganadería y Alimentación MAGA-UNR, Agricultura Orgánica, Ciudad de Guatemala; **Luisa Díaz Jaimes,** Instituto Nacional de Investigaciones Agricolas INIA, Estado Táchira, Venezuela; **Karolína Dytrtová,** Bioinstitut, o.p.s., Institute for Ecological Agriculture and Sustainable Landscape Development, Olomouc, Czech Republic; **Pilar M. Eguillor Recabarren,** Ministerio de Agricultura, Oficina de Estudios y Políticas Agrarias, Santiago, Chile; **Markus Ehmann,** HELVETAS Swiss Association for International Cooperation, BioCotton Project Bishkek, Kyrgyzstan; **Youssef El Khoury,** IMC Lebanon, Beirut, Lebanon; **Carlos Escobar,** Conexion Ecologica, Cali, Colombia; **Frank Eyhorn,** Helvetas Swiss Association for International Cooperation, Programme Coordination Mali/Burkina Faso, Zurich, Switzerland; **Monique Faber,** Administration des services techniques de l'agriculture (ASTA), Service de la protection des végétaux, Luxembourg; **Sunita Facknath,** University of Mauritius, Faculty of Agriculture -Reduit, Mauritius; **Simon Ferrigno,** Organic Exchange, Farm Development

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Program, O'Donnell, USA; **Ana Firmino,** Universidade Nova de Lisboa/FCSH, Faculdade de Ciencias Sociais e Humanas, Lisboa, Portugal; **Tobias Fischer,** BCS Öko-Garantie GmbH, Nürnberg, Germany; **Paolo Foglia,** Istituto per la Certificazione Etica ed Ambientale ICEA, Ricerca e Sviluppo, Bologna, Italy; **Udo Funke,** BioFach - World Organic Trade Fair, Nürnberg Messe, Nürnberg, Germamy; **Jaime E. García G,** Universidad Estatal a Distancia (UNED), Centro de Educación Ambiental (CEA), de Agricultura y Ambiente (AAA), San Pedro de Montes de Oca, Costa Rica; **Maheswar Ghimire,** Kathmandu, Nepal; **Manuel Gómez Cruz,** Universidad Autónoma Chapingo/Chapingo University, Centro de Investigaciones Interdisciplinarias para el Desarrollo Rural Integral (CIIDRI), Chapingo, Estado de México; **Laura Gómez Tovar,** Universidad Autónoma Chapingo, Centro de Investigaciones Interdisciplinarias para el Desarrollo Rural Integral (CIIDRI), Chapingo, Mexico; **Victor Gonzálvez Pérez,** Spanish Society for Organic Agriculture SEAE, Catarroja, Spain; **P.V.S.M. Gouri,** Agricultural and Processed Food Products. Export Development Authority APEDA, Ministry of Commerce and Industry, Govt. of India, New Delhi, India; **David Granatstein,** Washington State University, Tree Fruit Research & Extension Center USA-Wenatchee; **Catherine Greene,** Economic Research Service, Washington, DC, USA; Iulia **Grosulescu,** Ministry Of Agriculture and Rural Development, Organic Farming Office, Bucharest, Romania; **Anula Guda,** SASA PIU, Swiss Development Cooperation, Tirana, Albania; **Katell Guernic,** Agence Bio, Montreuil-sous-Bois, France; **Gunnar Á. Gunnarsson,** Vottunarstofan Tún ehf., Organic Inspection and Certification, Reykjavik, Iceland; **Khalil Haddad,** LibanCert SAL, Beirut, Lebanon; **Maida Hadžiomerovic,** Organska Kontrola, Sarajevo. Bosnia & Herzegovina; **Niels Halberg,** International Centre for Research in Organic Food Systems ICROFS, Tjele, Denmark; **Ulrich Hamm,** Kassel University, Witzenhausen, Germany; **Barbara Haumann,** Organic Trade Association (OTA), Greenfield, USA; Sampsa **Heinonen,** Finfood Luomu, Vantaa, Finland; **Ines Hensler,** Institute of Market Ecology IMO, Weinfelden, Switzerland; **Matthew Holmes,** Organic Trade Association, Canadian Office, Sackville, Canada; **Beate Huber,** Research Institute of Organic Agriculture FiBL, Development and Cooperation, Frick, Switzerland; **Britta Jankay**, Control Union Certifications, Zwolle, Netherlands, **Kirsten Lund Jensen,** Dansk Landbrug, Copenhagen, Denmark; **Mariam Jorjadze,** Elkana - Biological Farming Association, Akhaltsikhe, Georgia; **Sonja Karoglan Todorovic,** Ecologica, Zagreb, Croatia; **Alexander Kasterine,** International Trade Centre (ITC), UNCTAD/WTO, Geneva, Switzerland; **Lani Katimbang-Limpin,** Organic Certification Center of the Philippines (OCCP), Barangay Laging Handa, Quezon City, Philippines; **Joelle Katto-Andrighetto,** International Federation of Organic Agriculture Movements IFOAM, Bonn, Germany; **Lahcen Kenny,** Institut Agronomique et Vétérinaire Hassan II, Horticulture & Agriculture Biologique Agadir, Morocco; **Andrey Khodus,** Agrosophie, RU-Solnechnogorsk; **Eustace Kiarii,** Kenya Organic Agricultural Network (KOAN), Nairobi, Kenya; **Lukas Kilcher,** Research Institute of Organic Agriculture FiBL, Development and Cooperation, Frick, Switzerland; **Elizabeth Kirby,** Washington State University, Tree Fruit Research & Extension Center, Wenatchee, USA; **Claudia Kirchgraber**, Research Institute of Organic Agriculture FiBL, Frick, Switzerland, **Paul Rye Kledal,** University of Copenhagen, Faculty of Life Sciences, Institute of Food and Resource Economics, Frederiksberg, Denmark; **Elisabeth Klingbacher,** FiBL Austria, Kommunikation, Wien, Austria; **Hellmut von Koerber,** fleXinfo, fleXible Informations-Systeme, Frick, Switzerland; **Matthias Koesling,** Norwegian Institute for Agricultural and Environmental Research, Bioforsk Organic Food and Farming Division, Tingvoll, Norway; **Dóra Kovács,** Hungária Öko Garan-

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

cia Kft., Budapest, Hungary; **Manoj Kumar Menon,** ICCOA International Competence Centre for Organic Agriculture, Rajarajeshwarinagar, Bangalore, India; **Noel Kwai,** Tanzania Organic Agriculture Movement (TOAM), Dar es Salaam, Tanzania; **Yolandina Lambur Valle,** Secretaria de Agricultura y Ganadería (SAG), Servicio Nacional de Sanidad Agropecuaria de Honduras SENASA, Tegucigalpa, República de Honduras; **Sonja Lehmann,** GTZ Ecuador, Quito, Ecuador; **Ralph Liebing,** FiBL Austria, Wien, Austria; **Ming Chao Liu,** Organics Brazil, Brazil; **Perrine Liu,** YU-SHI, Taiwan; **Amilcar Lucas,** Care International Mozambique, Maputo, Mozambique; **Ruedi Lüthi,** Helvetas, PROFILE/PRORICE, Vientiane Capital, Laos; **Louise Luttikholt,** International Federation of Organic Agriculture Movements (IFOAM), Bonn, Germany; **Samia Maamer Belkhiria,** Ministry of Agriculture and Hydraulic Resources, National Bureau of Organic Agriculture, Tunis, Tunisia; **Anne Macey,** Canadian Organic Grower, Saltspring Island, Canada; **Hossein Mahmoudi,** Environmental Sciences Research Institute, Evin, Shahid Beheshti University, Evin, Tehran, Iran; **Souhel Makhoul,** General Commission for Scientific Agricultural Research, Damascus, Syria; **Betty Mandl,** MGAP DSGA, Uruguay; **Karen Mapusua,** Women in Business Development Inc, Apia, Samoa; **Javier Martinez,** Comisión de Promoción del Perú para la Exportación y el Turismo - PromPerú, San Isidro, Peru; **Rafael Marty Garcia,** Santo Domingo Este, Provincia Santo Doming, Rep. Dominicana; **Seager Mason,** BIO-GRO New Zealand, Wellington, New Zealand; **Eddie Mc Auliffe,** The Organic Farming Unit, Department of Agriculture, Food and Rural Development, Johnstown, Co. Wexford, Ireland; **Beata Meinander,** Finnish Food Safety Authority Evira, Loimaa, Finland; **Minou Menzler,** Foundation Ecology & Agriculture (SÖL), Bad Dürkheim, Germany; **Dorota Metera,** BIOEKSPERT Jednostka Certyfikujaca w Rolnictwie Ekologicznym, Warszawa, Poland; **Eugene Milovanov,** Organic Federation of Ukraine, Kiev, Ukraine; **Satoko Miyoshi,** IFOAM Japan, Saitama, Japan; **Laura Montenegro,** Argencert, Buenos Aires, Argentina; **Felix A. Moreno E.,** Universidad Nacional Experimental del Tachira, Decanato de Investigación, Estado Tachira, Venezuela; **Peter Murava,** Rwanda Horticulture Development Authority (RHODA), Kigali, Rwanda; **Charity Namuwoza,** National Organic Agricultural Movement of Uganda NOGAMU, Kampala, Uganda; **Asad Naqvi,** United Nations Environment Programme UNEP, Economics and Trade Branch Chatelaine, Geneva, Switzerland; **Urs Niggli,** Research Institute of Organic Agriculture FiBL, Frick, Switzerland; **John Njroroge,** Kenya Institute of Organic Farming, KIOF, Nairobi, Kenya; **Ong Kung Wai,** Grolink, c/o Humus Consultancy, Penang, Malaysia; **Pnina Oren Shnidor,** Ministry of Agriculture and Rural Development, Plant Protection and Inspection Services, PPIS, Israel; **Kolbjörn Örjavik,** Grolink, Höje, Sweden; **Rosaleen O'Shaughnessy,** Bord Bia, Corporate Communications, Dublin, Ireland; **Habwe Florence Oyiera,** Maseano University, School of Public Health and Community Development, Kenya; Susanne **Padel,** Aberystwyth University, Institute of Rural Sciences, Aberystwyth, UK; **Egon Palts,** Estonian Plant Inspectorate, Saku (Harju), Estonia; **Vitoon Panyakul,** Green Net, Bangkok, Thailand; **Panneerselvam Peramaiyan**, University of Aarhus, Department of Agroecology, Tjele, Denmark; **Roberto Pinton,** Pinton Organic Consulting, Padova, Italy; **Agung Prawoto,** BIOCert, Bogor, Indonesia; **Andrianjaka Rajaonarison,** Laulanié Green Association/University, Antananarivo, Madagascar; Juan Carlos **Ramirez,** SENASA, Dirección de Calidad Agroalimentaria, Buenos Aires, Argentina; Sandra **Randrianarisoa,** Ecocert East Africa, Antananarivo, Madagascar; **Michel Reynaud,** Ecocontrol GmbH, Northeim, Germany; **Markus Rippin,** Agromilagro Research, Bornheim, Germany; **Dwight Robinson,** Jamaica Organic Agriculture Movement (JOAM), Kingston, Jamaica, **Maren Rohwedder**,

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Ljusdal, Sweden; **Mariuxi Rovayo,** GTZ Ecuador, GTZ-Programa GESOREN, Quito, Ecuador; Javier **Ortigoza Rufino,** Universidad Autónoma Chapingo, Centro de Investigaciones Interdisciplinarias para el Desarrollo Rural Integral (CIIDRI), Chapingo, Mexico; Gunnar **Rundgren,** Grolink AB, Höje, Sweden; **Amarjit Sahota,** Organic Monitor Ltd., London, UK; **Julia Salazar,** SENASA Perú, Responsable de la Autoridad Nacional Competente en Producción Orgánica del Perú, Lima, Perú; **Diana Schaack,** Central Market and Price Report Office ZMP, Bonn, Germany; **Burkhard Schaer,** ECOZEPT, Montpellier, France; **Winfried Scheewe,** CEDAC, Phnom Penh, Cambodia; **Otto Schmid,** Research Institute of Organic Agriculture FiBL, Socio-economics, Frick, Switzerland; **Rita Schwentenius,** Chapingo University, Centro de Investigaciones Interdisciplinarias para el Desarrollo Rural Integral (CIIDRI), Chapingo, Estado de México; **Anamarija Slabe,** Institut za trajnostni razvoj, Institute for Sustainable Development SI-Lubljana; Nicolette an der **Smissen,** DIO, Alexandroupoli, Greece; **Manjo Smith,** Greenspot Organics & Cool Burst Beverages, Okahandja, Namibia; **Sang Mok Sohn,** Dan Kook University, Research Institute of Organic Agriculture, Cheonan, Rep. of Korea; **Neil Sorensen**, NGO publishing; Pantin, France; **Erdal Süngü,** Ministry of Agriculture and Rural Affairs, Horticulture Engineer, Ankara, Turkey; **Petra Tas,** Bioforum Vlaanderen vzw, Communication, Antwerpen, Belgium; **Alistair Taylor,** Agro Eco, Uganda Branch, Joint implementer of the EPOPA programme, Kampala, Uganda; **Gia Gaspard Taylor,** Network of Non Governmental Organizations Trinidad and Tobago for the Advancement of Women, Director Information, Communications and Technology; Radomir **Trajkovic,** PROBIO, Skopje, Macedonia; **Kesang Tshomo,** National Organic Programme, Thimphu Bhutan; **Sophia Twarog,** UNCTAD, Trade, Environment & Development Branch, Geneva, Switzerland, **Tom Vaclavik,** Green Marketing, Moravské Knínice, Czech Republic; **Charles Walaga,** Ugocert, Uganda; **Maohua Wang,** Certification and Accreditation Administration of the People's Republic of China CNCA, Department for Registration, Haidian district, Beijing, China; **Helga Willer,** Research Institute of Organic Agriculture, Frick, Switzerland**; Els Wynen,** Eco Landuse Systems, Flynn, Australia; **Abdoul Aziz Yanogo,** ECOCERT SA West Africa Office, ECOCERT Ouagadougou, Benin; **José Zapata,** Secretaria de Estado de Agricultura, Oficina de Control Agricultura Organica, Santo Domingo, Republica Dominicana; **Darko Znaor,** Independent Consultant, Zagreb Croatia.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Sponsors

We are very grateful to our sponsors for granting financial support for the global data collection and for the 2009 edition of 'The World of Organic Agriculture':

- International Trade Centre (ITC)
  Geneva
  Switzerland
  www.intracen.org/dbms/organics
- Swiss State Secretariat for Economic Affairs (SECO)
  Economic Development and Cooperation (within the framework of its support activities for organic production in developing countries)
  Berne, Switzerland
  www.seco.admin.ch
- NürnbergMesse, the organizers of the BioFach World Organic Trade Fair
  Nürnberg
  Germany
  www.biofach.de, www.nuernbergmesse.de

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Abbreviations

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

AQIS: Australian Quarantine and Inspection Service

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

EU: European Union

FAO: Food and Agriculture Organization of the United Nations

FiBL: Research Institute of Organic Agriculture, Switzerland

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

IFAD: International Fund for Agricultural Development

IFOAM: International Federation of Organic Agriculture Movements

IOAS: International Organic Accreditation Service

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

IFPRI: International Food Policy Research Institute

ITC: International Trade Centre, Geneva

JAS: Japan Agricultural Standard

KEBS: Kenya Bureau of Standards

MOAN: Mediterranean Organic Agriculture Network, Italy

NOGAMU: National Organic Agricultural Movement of Uganda

NOSB: US National Organic Standards Board

NGO: Non-governmental organization

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

NOP: National Organic Program of the United States

OTA: Organic Trade Association, USA

SECO: Swiss State Secretariat for Economic Affairs

SIDA: Swedish International Development Cooperation Agency

SME: Small and Medium 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

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

The World of Organic Agriculture 2009: Summary

HELGA WILLER[1]

Recent statistics

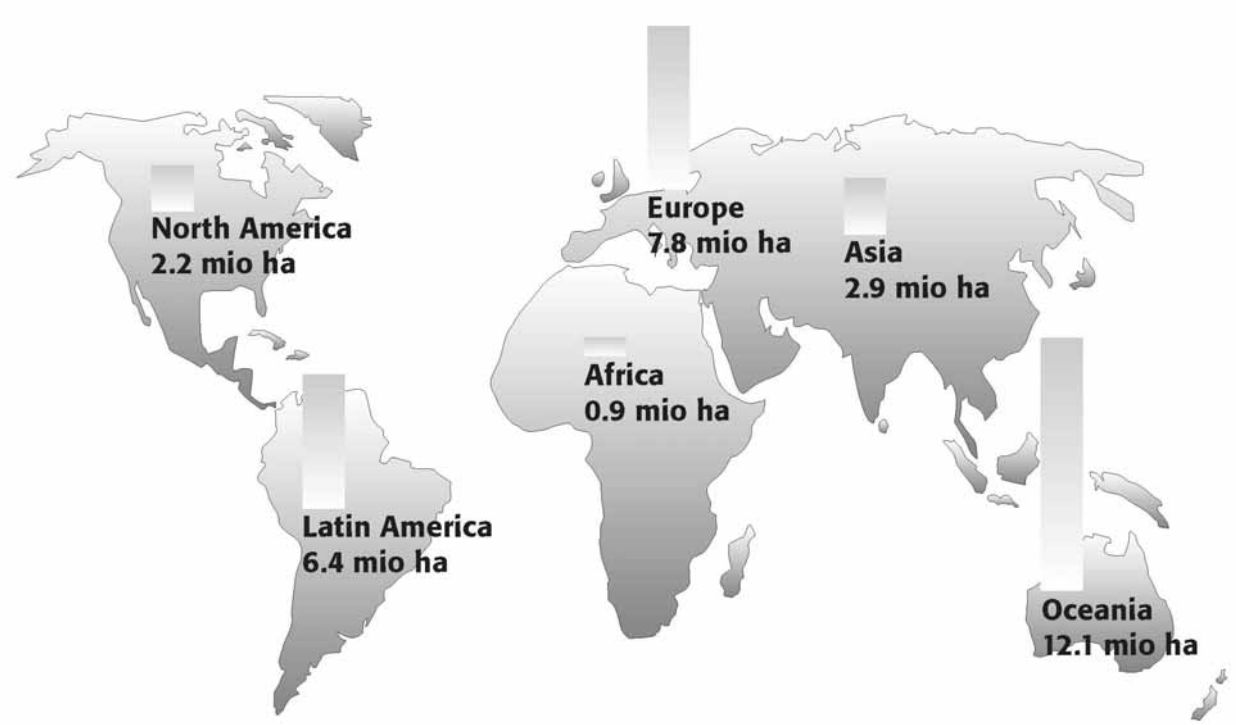
Organic agriculture is developing rapidly, and statistical information is now available from 141 countries of the world. Its share of agricultural land and farms continues to grow in many countries. The main results of the global survey on certified organic farming show:

- 32.2 million hectares of agricultural land are managed organically by more than 1.2 million producers, including smallholders (2007). In addition to the agricultural land, there are 0.4 million hectares of certified organic aquaculture.
- The regions with the largest areas of organically managed agricultural land[2] are Oceania, Europe and Latin America. Australia, Argentina and Brazil are the countries with the largest organically managed land areas.
- The highest shares of organically managed land are in Europe: Liechtenstein, Austria and Switzerland.
- The countries with the highest numbers of producers are Uganda, India and Ethiopia. Almost half of the world's organic producers are in Africa.
- About one third of the world's organically managed land – almost 11 million hectares - is located in developing countries. Most of this land is in Latin American countries, with Asia and Africa in second and third place. Countries with the largest area under organic management are Argentina, Brazil, China, India and Uruguay.
- Almost 31 million hectares are organic wild collection areas and for bee keeping. The majority of this land is in developing countries – quite the opposite of agricultural land, of which two thirds is in developed countries.
- Almost two thirds of the land under organic management is grassland (20 million hectares). The cropped area (arable land and permanent crops) constitutes 7.8 million hectares - a quarter of the organically managed land. Compared with the previous survey, there is a clear trend for cropland to increase. Relatively high shares for some crops have been achieved; organically managed coffee and olive areas reported, for instance, account for more than five percent of the total harvested areas, and in some countries the shares are even higher – 30 percent of Mexico's coffee is organic.
- On a global level, the organic land area increased by almost 1.5 million hectares compared to the data from 2006. Twenty-eight percent (or 1.4 million hectares) more land under organic management was reported for Latin America (including 0.9 million hectares of in-conversion land in Brazil for which no data had been available previously). In Europe, organically managed land increased by 0.33 million hectares (+ 4 percent) and by 0.18 million hectares (+27 percent) in Africa.

[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.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick



Map 1: Land under organic management by region 2007

Source: FiBL/IFOAM

Market

Global demand for organic products remains robust, with sales increasing by over five billion US Dollars[1] a year. Organic Monitor estimates international sales to have reached 46.1 billion US Dollars in 2007. Consumer demand for organic products is concentrated in North America and Europe; according to Organic Monitor these two regions comprise 97 percent of global revenues. Asia, Latin America and Australasia are important producers and exporters of organic foods. Exceptionally high growth rates have led supply to tighten in almost every sector of the organic food industry: fruits, vegetables, beverages, cereals, grains, seeds, herbs and spices. With the financial crisis, Organic Monitor expects positive market growth rates to continue, albeit at lower rates than previous years (see chapter on the global market by Amarjit Sahota).

Standards and regulations

On January 1, 2009, the completely revised Regulation on Organic Production - EU Regulation (EC) 834/2007 - and its implementation rules came into force. Farmers in Europe, as well as those from importing countries, will have to deal with the new regulation and its changed rules. Currently, 71 countries have implemented regulations on organic farming,

[1] 1 US Dollar = 0.73082 Euros. Average exchange rate 2007

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

and 21 countries are in the process of drafting a regulation (see chapter on standards and regulations by Beate Huber and Otto Schmid). 481 organizations worldwide offer organic certification services. Most certification bodies are in the European Union, the United States, Japan, South Korea, China, Canada, and Brazil (see chapter on certification bodies by Gunnar Rundgren).

The UNCTAD-FAO-IFOAM International Task Force on Harmonization and Equivalence in Organic Agriculture (ITF) has worked from 2003 to 2008 to reduce technical barriers to trade in organic agricultural products that result from the lack of harmonization and interoperability of organic regulations, private standards and certification requirements. At a launch in Geneva in October 2008, two tools that were developed by the ITF were presented to the public: the Tool for Equivalence (EquiTool), an international guideline for determining equivalence of organic standards and the International Requirements for Organic Certification Bodies (IROCB). A 'Beyond ITF' project is envisaged to promote uptake of the ITF recommendations and tools and assist developing countries (see articles by Sophia Twarog and Asad Naqvi).

Africa

In Africa, there are almost 900'000 hectares of certified organic agricultural land. This constitutes about three percent of the world's organic agricultural land. 530'000 producers were reported. The countries with the most organic land are Uganda (296'203), Tunisia (154'793 Hectares), and Ethiopia (140'308 hectares). The highest shares of organic land are in Sao Tome and Prince (5 percent), Uganda (2.3 percent) and Tunisia (1.6 percent). The majority of certified organic produce 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 African market for organic products is still small. Three countries have an organic regulation and seven are in the process of drafting one. The first African Organic Conference, to be held in Kampala, Uganda, from May 19-22, 2009 will provide a good opportunity to mobilize support for organic agriculture (see chapter on organic farming in Africa by Hervé Bouagnimbeck).

Asia

The total organic area in Asia is nearly 2.9 million hectares. This constitutes nine percent of the world's organic agricultural land. 230'000 producers were reported. The leading countries are China (1.6 million hectares) and India (1 million hectares). The highest shares of organic land of all agricultural land are in Timor Leste (seven percent). Organic wild collection areas play a major role in India and China.

Production of final processed products is growing, although a majority of production is still fresh produce and field crops with low value-added processing, such as dry or processed raw ingredients. Aquaculture (shrimp and fish) on the other hand, is emerging in China, Indonesia, Vietnam, Thailand, Malaysia and Myanmar. Textiles is another important trend. Sector growth is now also driven by imports, and local markets have taken off in many of the big cities in the South and Eastern part of region besides Japan, South Korea, Taiwan and Singapore. Kuala Lumpur, Manila, Bangkok, Beijing, Shanghai, Jakarta, Delhi, Bangalore and other cities are increasing internal consumption of organic products. Nine organic regula-

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

tions are in place. In seven countries work on national standards and regulations is in progress (see chapter by Ong Kung Wai on organic farming in Asia).

Europe

As of the end of 2007, 7.8 million hectares in Europe were managed organically by more than 200'000 farms. In the European Union, 7.2 million hectares were under organic management, with more than 180'000 organic farms. 1.9 percent of the European agricultural area and four percent of the agricultural area in the European Union is organic. Twenty-four percent of the world's organic land is in Europe. The countries with the largest organic area are Italy (1'150'253 hectares), Spain (988'323 hectares) and Germany (865'336 hectares). The highest percentages are in Liechtenstein (29 percent), Austria (13 percent) and Switzerland (11 percent). Compared to 2006, organic land increased by more than 0.3 million hectares. Sales of organic products were approximately 16 billion Euros in 2007. The largest market for organic products in 2007 was Germany with a turnover of 5.3 billion Euros (2008: 5.8 billion Euros), followed by the UK (2.6 billion Euros), France and Italy (both 1.9 billion Euros). As a portion of the total market share, the highest levels have been reached in Austria, Denmark and Switzerland, with around five percent for organic products. The highest per capita spending is also in these countries.

Support for organic farming in the European Union and the 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. In order to boost organic farming research, a technology platform joining the efforts of industry and civil society in defining organic research priorities and defending them vis-à-vis the policy-makers was launched in December 2008. The platform's vision paper reveals the potential of organic food production to mitigate some of the major global problems from climate change and food security, to the whole range of socio-economic challenges in the rural areas.

Latin America

In Latin America, 220'000 producers managed 6.4 million hectares of agricultural land organically in 2007. This constitutes 20 percent of the world's organic land. The leading countries are Argentina (2'777'959 hectares), Brazil (1'765'793 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 Mexico and Argentina with more than two percent. Most organic production in Latin America is for export. Important crops are tropical fruits, grains and cereals, coffee and cocoa, sugar and meats. Most organic food sales in the domestic markets of the countries occurs in major cities, such as Buenos Aires and São Paulo.

Fifteen countries have legislation on organic farming, and four 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.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

In recognition of the growing importance of the organic sector to Latin America's agricultural economy, governmental institutions have begun to take steps towards increasing involvement; governments are beginning to play a central role in the promotion of organic agriculture. 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 cost 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).

North America

In North America, almost 2.2 million hectares are managed organically, representing approximately a 0.6 percent share of the total agricultural area. Currently, the number of farms is 12'064. The major part of the organic land is in the US (1.6 million hectares in 2005). Seven percent of the world's organic agricultural land is in North America.

Valued at more than 20 billion US Dollars in 2007 (Organic Monitor), the North American market accounted for 45 percent of global revenues. Growing consumer demand for healthy & nutritious foods and increasing distribution in conventional grocery channels are the major drivers of market growth (see chapter on organic farming in the U.S. by Barbara Haumann). The U.S. organic industry grew 21 percent in sales in 2006, and was forecast to experience 18 percent sales growth each year on average from 2007 through 2010. Whether this rate will actually be realized is uncertain due to the economic downturn and reduction in consumer spending in the last quarter of 2008. Likewise, a downturn is expected in Canada, even though the market growth in Canada, paired with the introduction of the new organic regulations, should provide a good outlook over the coming years.

In the United States, the National Organic Program has been in force since 2002. Canada has had a strong organic standard since 1999; this had been, however, voluntary and not supported by regulation. Canada's Organic Product Regulation will be fully implemented on June 30, 2009. Canadian labeling requirements will very similar to those of the US and the EU. In 2008, the new Farm Bill was passed by the US Congress. Increasing expenditures on organic agriculture and programs to approximately 112 million US Dollars[1] over the course of its five-year life, the 2008 Farm Bill provides a five-fold increase for the organic sector compared with federal funding in the previous bill.

Oceania

This region includes Australia, New Zealand, and island states like Fiji, Papua New Guinea, Tonga and Vanuatu. Altogether, there are 7'222 producers, managing almost 12.1 million hectares. This constitutes 2.6 percent of the agricultural land in the area and 38 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 extensive grazing land), followed by New Zealand (65'000 hectares) and Vanuatu (8'996 hectares). The highest shares of all agricultural land are in Vanuatu (6.1 percent), Samoa (5.5 percent) and the Solomon Islands

[1] Average exchange rate 2008: 1 US Dollar = 0.68341 Euros. Source: The OANDA homepage at www.oanda.com

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

(3.1 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, growing. In New Zealand, a key issue is lack of production to meet growing demand.

Australia has had national standards for organic and biodynamic products in place since 1992, and like New Zealand, it is on the third country list of the European Union. It is expected that the Australian Standard, based on the National Standard employed since the early 1990s for the export market, will be adopted in 2009. In New Zealand, a National Organic Standard was launched in 2003. There is little government support to encourage organic agriculture in Australia. However, over the recent past, governments have been supportive of the Australian Standards issue. Furthermore, funding is made available to promote an understanding among consumers. In New Zealand, through the establishment of the sector umbrella organization Organics Aotearoa New Zealand and the Organic Advisory Programme 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 and Seager Mason).

In the Pacific Islands work on a regional strategy and national plans to lay the foundation of sustainable organic agriculture development in the region is in progress. The Regional Organic Task Force, a technical group representing all sectors and countries involved in organics, was charged with developing the Pacific Standard and will be responsible for implementing the Regional Action Plan. Pacific High Level Organics Group consists of Pacific leaders who have shown a commitment to the development of organic agriculture in the region and provide high level political support and advocacy. The first Pacific Organic Standard was endorsed by Pacific Leaders in September 2008. This provides a platform for further regional policy development around organic agriculture (see chapter on the development of organic agriculture in the Pacific region by Karen Mapusua).

Developments within IFOAM

Under the leadership of its new World Board, elected at the general assembly in Vignola, Italy, in June 2008, the International Federation of Organic Agriculture Movements (IFOAM) will continue to work on further enhancing organic growth in 2009, through advocacy, the facilitation of trade, and capacity building. In particular, IFOAM will be working on a new leadership program: Education and training, both vocational and academic, play an important role in disseminating the benefits of organic agriculture at all levels.

The 1st International IFOAM Conference on Animal and Plant Breeding 'Breeding Biodiversity' will bring both animal and plant breeding together in 2009 for one international conference with the aim of explicitly highlighting the important interdependences and holistic approaches of organic agriculture.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Organic Agriculture Worldwide: Current Statistics

HELGA WILLER,[1] MAREN ROHWEDDER[2] AND ELS WYNEN[3]

About the survey

The 2009 edition of 'The World of Organic Agriculture' marks the tenth global survey on organic agriculture. It was carried out between July 2008 and January 2009. For this survey, 141 countries supplied data, which is six countries more than for the previous survey, demonstrating the growing importance of organic agriculture.

The data – land area under organic management,[4] land use and number of producers as well as some production data - show the current trends in organic agriculture worldwide. Consequently, the results of this survey serve as an important tool for stakeholders, policy makers, authorities and consultants; the data are useful in supporting development strategies for organic agriculture as well as for monitoring the impact of support activities for organic agriculture.

ITC-SECO Project on global data collection

Since 2008, the data collection activities have been substantially supported under a project of the International Trade Centre (ITC) and the Swiss State Secretariat of Economic Affairs (SECO) within the framework of its support activities for organic production in developing countries.

Under this project, the following activities are funded:

- Building of a web-based data collection tool (to be finalized in spring 2009);
- Launch of the www.organic-world.net homepage as a tool for the web based data collection, to provide statistical material and graphs, as well as background information (to be finalized in the spring of 2009);
- Expanded data collection and processing;

Overview of data availability worldwide;

- Dissemination activities;
- Financial support for data collection in developing countries.

The global survey on organic farming has been carried out since 2000 by the Research Institute of Organic Agriculture FiBL, the International Federation of Organic Agriculture Movements (IFOAM), and the Foundation Ecology & Agriculture (SOEL). These organizations have annually collected data on worldwide organic farming, with support from Nürnberg Messe, the organizers of the BioFach Fair.

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:

- Area under organic management and number of producers: present situation and growth;

[1] Helga Willer, Research Institute of Organic Agriculture FiBL, Ackerstrasse, 5070 Frick, helga.willer@fibl.org, www.fibl.org

[2] Maren Rohwedder, Ljusdal, Sweden

[3] Eco Landuse Systems, Canberra, Australia, www.elspl.com.au

[4] 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.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

- Land use and crop data;
- Crop Statistics: Cereals, citrus fruit, coconuts, cocoa, coffee, grapes, olives and wheat;
- Organic farming in developing countries;
- Data availability;
- Revisions and updates of the 2006 data (published in the 2008 edition of 'The World of Organic Agriculture').

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 details for the region.

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

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

At the *organic world homepage* (www.organic-world.net), the following information can be downloaded at the internal area of the site (Password see page 2 of this book):

- 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);
- Any corrections, data revisions and updates.

Agricultural area under organic management and number of producers - present situation and growth

According to the global survey on organic agriculture, 32.2 million hectares were managed organically by more than 1.2 million producers (including smallholders) in 2007. This constitutes 0.8 percent of the agricultural land of the countries (141) covered by the survey. Compared with the previous year, the organic area increased by one and a half million hectares. The regions with most organically managed land are Oceania, Europe and Latin America. Australia, Argentina and Brazil are the countries with the largest organically managed land areas, the highest shares of organically managed land are in Liechtenstein, Austria and Switzerland. Almost half of the world's organic producers are in Africa. The countries with the highest numbers of producers are Uganda, India and Ethiopia.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Table 1: Organic agricultural land and producers by region 2007 (including in conversion area)

	Organically managed agricultural land [ha]*	Share of total agricultural land*	Producers
Africa	870'329	0.1 %	529'986
Asia	2'881'745	0.2 %	234'147
Europe	7'758'526	1.9 %	213'297
Latin America	6'402'875	1.0 %	222'599
North America	2'197'077	0.6 %	12'275
Oceania	12'110'758	2.6%	7'222
Total	**32'221'311**	**0.8 %**	**1'219'526**

Source: FiBL/IFOAM Survey. Shares are based on the total agricultural land of the countries included in the survey.

*Excluding aquaculture and wild collection areas. Includes in-conversion areas.

Organically managed area by region and main countries

The region with the most organic agricultural land is Oceania, with 12.1 million hectares, followed by Europe with almost 7.8 million hectares, Latin America (6.4 million hectares), Asia (2.9 million hectares), North America (2.2 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, with its constant growth of organically managed land, has almost one quarter of the world's organically managed land.

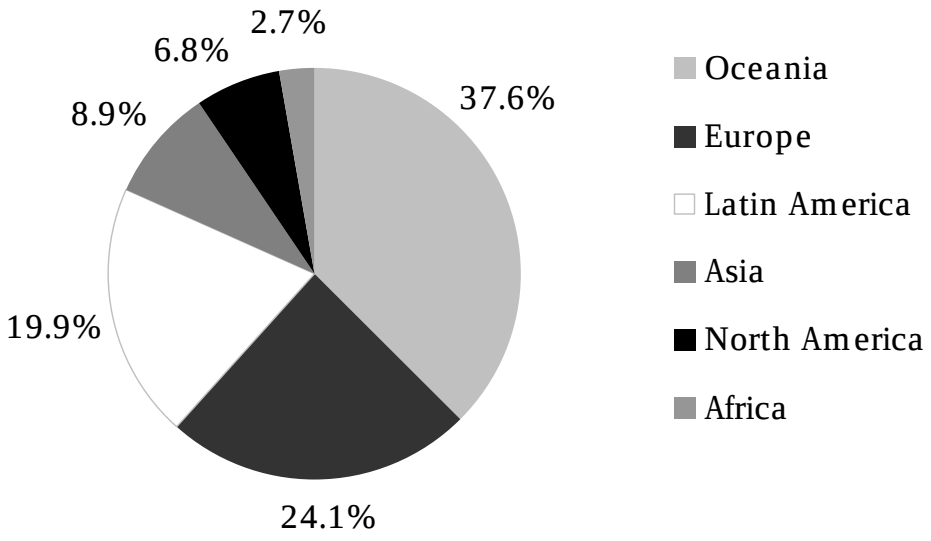


Figure 1: Distribution of the organically managed agricultural land by region 2007

Source: FiBL/IFOAM Survey

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

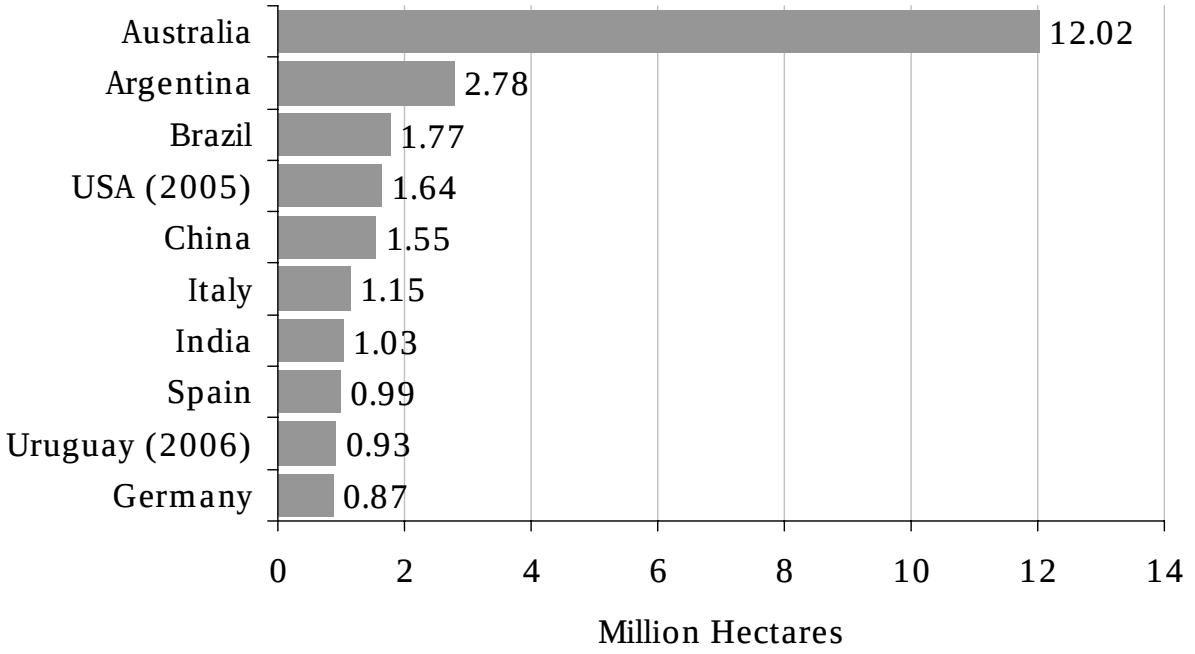


Figure 2: The countries with the largest areas of agricultural land under organic management 2007

Source: FiBL/IFOAM survey

The data for Argentina, the US und Uruguay do not include in-conversion areas. For all other countries, both the in-conversion and the fully-converted areas are included.
For full list of organically managed land by country, see annex.

Australia is the country with the most organically managed land, 97 percent of which is extensive grazing area. Argentina is second, followed by Brazil in third place.

The following should be noted:

- Brazil ranked fifth in 2006.[1] The substantial increase of organically managed land in this country does not necessarily show real growth compared with the previous survey. Information on the in-conversion area was made available for the first time, which constitutes almost half of the countries organically managed land.
- China, which was ranked third previously, reported less organic land. China's organic certified area is larger than presented in the graph which shows only agricultural land; almost half a million hectares of aquaculture were reported, which was not included as agricultural land and hence is not shown in Figure 2.
- For the United States, the data are from 2005. It seems reasonable to assume that the current figure is far higher. The 2006 and 2007 data will be released in spring 2009.
- India is included for the first time among the ten countries with most organic land, a reflection of the increasing importance of organic agriculture in this country.

[1] The annex includes a table with organically managed land in all countries, sorted by importance.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

The ten countries with the most organically managed land have a combined total of almost 25 million hectares, constituting more than three quarters of the world's organically managed land.

Conversion status of the organically managed land

For the first time, data provided on the conversion status were processed for this work (see Figure 3). The local experts were asked to provide for all crops: a) Total certified organically managed land; b) Certified land in conversion; c) Certified, fully converted land. We have documented the results of the survey on the conversion status a) in the crop tables (Tables 8-15) and b) the tables on organic farming by geographical region (Tables 26, 27, 33, 38, 46, 51, 56, 57). It should be noted that: a) Not for all countries information on the conversion status was available; b) Some countries only provided data on the fully converted land; c) For some countries data were collated from several certifiers, some of which provided information on the conversion status whereas others did not. Therefore: Neither at a country level, nor at a crop level and most of all not at the level of the geographical regions, the sums given for land under conversion and fully converted land necessarily add up to the total land under organic management (=conversion land, fully converted land and land for which no such details were available).

86 of 141 countries made the requested details available. Of these 86 countries, 16 provided only data on the fully converted area, in which case the conversion area is not known (for instance the US, Argentina, Chile and Uruguay). The area in conversion shows what extent of future supply of the organic market can be expected. Details on the conversion status of the organically managed land are available in the crop section of this chapter and in the country tables in the regional chapters and in the annex.

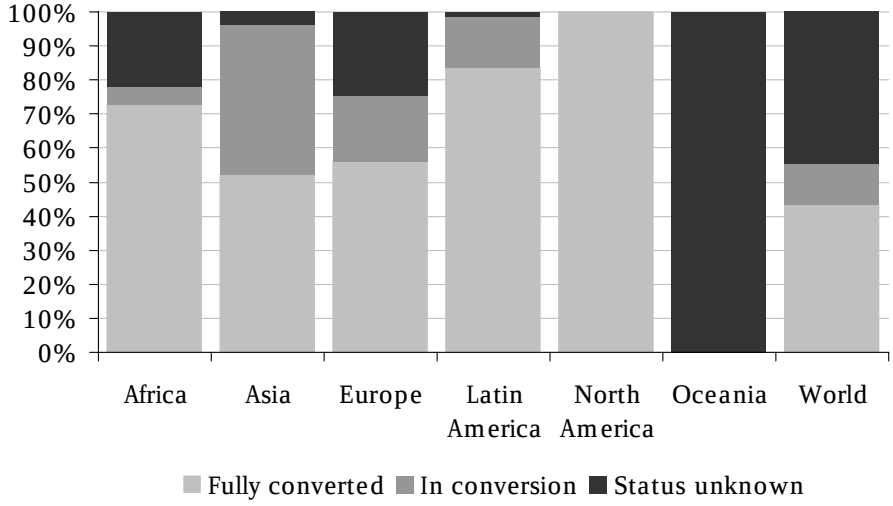


Figure 3: Conversion status of the organically managed agricultural land in the geographical regions 2007

Source: FiBL/IFOAM survey

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Shares of organically managed land by region and country

The share or organically managed land in proportion to all agricultural land is highest in Oceania (2.6 percent), followed by Europe with almost two percent. In the 27 countries of the European Union, the share of organically managed land is four percent.[1] In all other regions, the share of organically managed land is less than one percent (see Table 1).

Many countries in Europe exhibit much higher percentages, and three countries have reached shares of more than ten percent of the agricultural land (Liechtenstein, Austria and Switzerland). It is interesting to note that many island states have high shares.[2]

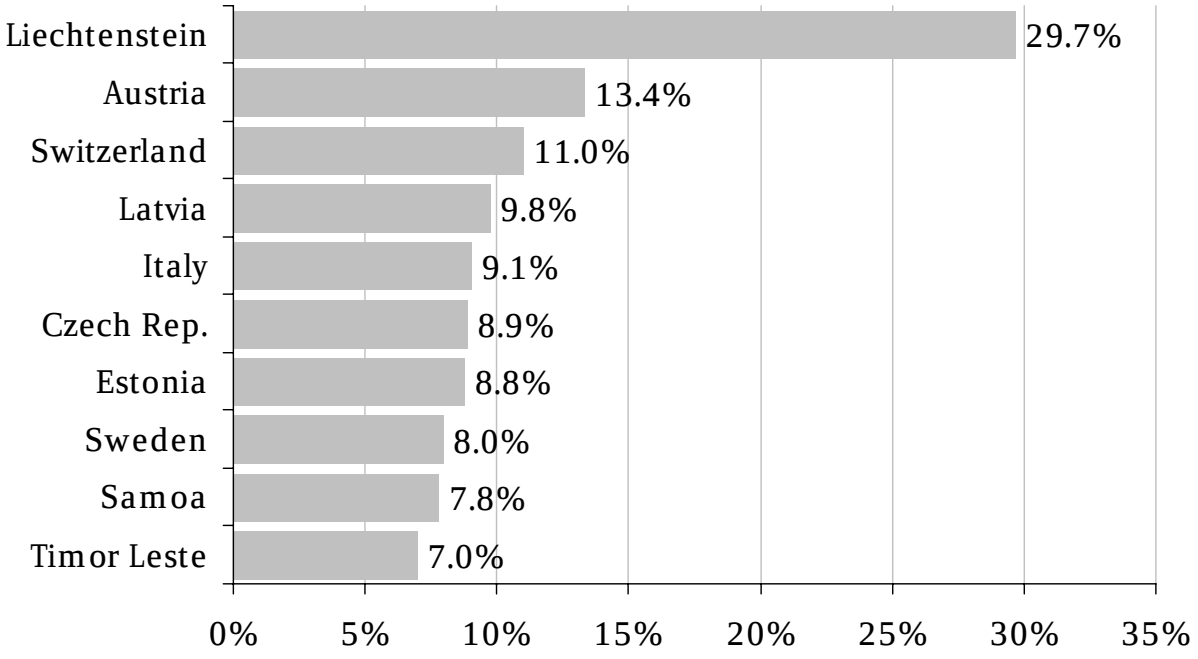


Figure 4: Countries with highest shares of organic agricultural land 2007

Source: FiBL/IFOAM survey

Growth of the organic land

Compared with the revised data[1] of the previous survey (Willer 2008), the organically managed land area increased by almost 1.5 million hectares. An increase was recorded in more than 80 countries.

[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 2005). 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 US, 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.asp
**Eurostat: Basic data – key agricultural statistics at http://ec.europa.eu/agriculture/agrista/2007/table_en/2012.pdf, The Eurostat Homepage, Eurostat, Luxembourg

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Table 2: Organically managed agricultural land by region: growth from 2006 to 2007

Region	31.12.2006*	31.12.2007**	Growth during 2007
Africa	684'978	870'329	+185'351
Asia	2'980'270	2'881'745	-98'525
Europe	7'418'896	7'758'526	+339'630
Latin America	4'986'751	6'402'875	+1'416'123
North America	2'245'208	2'197'077	-48'131
Oceania	12'431'820	12'110'758	-321'062
Total	30'747'924	32'221'311	+1'473'387

Source: FiBL/IFOAM/SOEL Surveys

*Data revisions included
**Includes 2008 data for some countries

The highest growth during 2007 was in Latin America, with more than one million hectares, resulting mainly from a major increase of organically managed land in Brazil due to the fact that data on the conversion areas were made available for the first time. However, many other countries in this region have also shown growth, a reflection of the dynamic nature of organic agriculture in this part of the world (see article by Garibay in this volume).

In Europe, the organically managed land area increased by more than 0.3 million hectares.

In spite of a major growth in India (of more than half a million hectares), the Asian organic area slightly decreased, mainly due to the fact that less organically managed land was reported for China (see annex on data and information sources).

Less organic land was also reported for Australia.

Nothing can be said about the development in North America yet, as new data were not available for the US (data for 2006 and 2007 to be published in spring 2009). It is, however, expected that the organically managed land area has increased substantially (see article by Barbara Haumann in this book). For Canada, other than for the previous survey, only data on the fully converted land area was available. The data from Canada 2006 and 2007 are, therefore, not comparable.

Compared with the first organic survey in 2000 (by the Foundation 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. Preliminary results suggest that the organically managed area worldwide has tripled since 1999.

[1] For details on data revision, see separate section at the end of this chapter.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

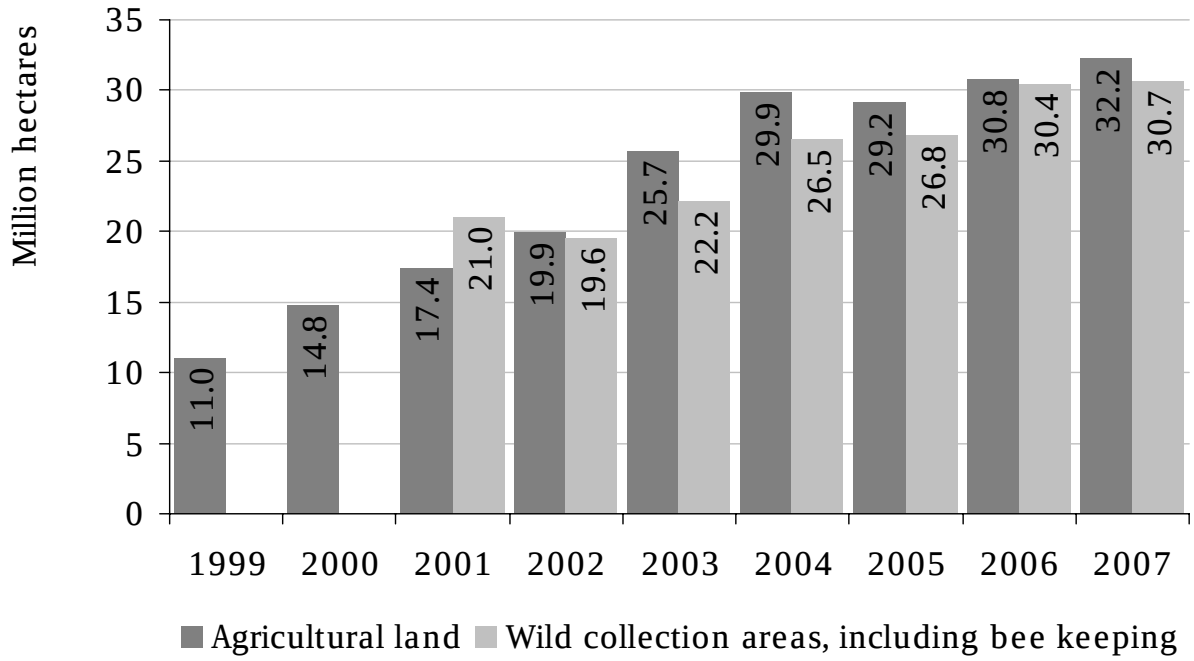


Figure 5: Development of organic agricultural land and wild collection areas/bee keeping 1999-2007

The differences compared with the published data are due to data updates and revisions; this is an ongoing process. Aquaculture is not included in this graph.

Source: FiBL, SOEL, and IFOAM Surveys

Organic producers

The present number of 1.2 million producers, including smallholders, is considerably higher than the number found in the previous survey (see Willer 2008), especially in developing countries.

According to the data obtained, almost half of the producers are located in Africa, followed by Latin America and Europe. The country with most producers is Uganda, followed by India, Ethiopia and Mexico (see figure 7).

To find precise figures on the number organic farms remains difficult, as some countries report the number of smallholders, and others only the numbers of companies, projects or grower groups, which may each comprise a number of producers.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

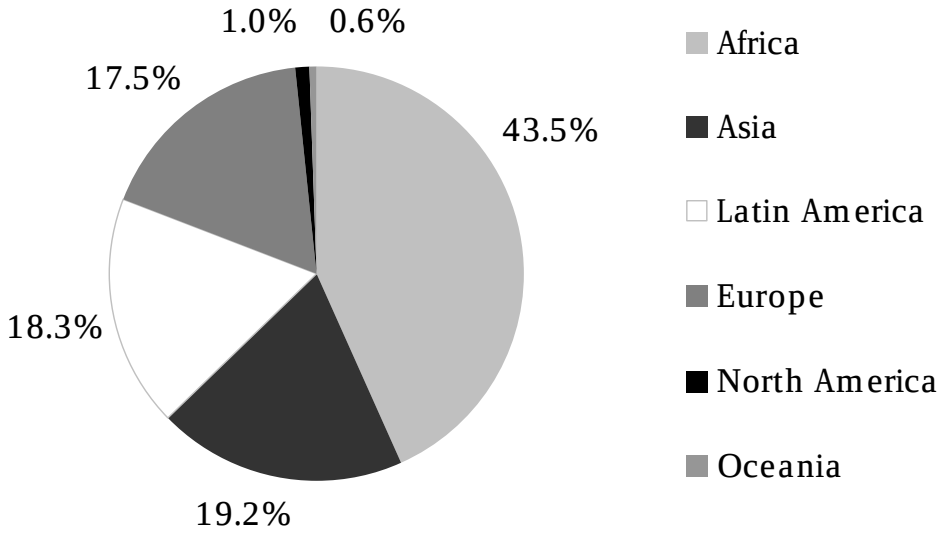


Figure 6: Organic producers by region 2007

Total 1.2 million producers (including smallholders).

Source: FiBL/IFOAM survey

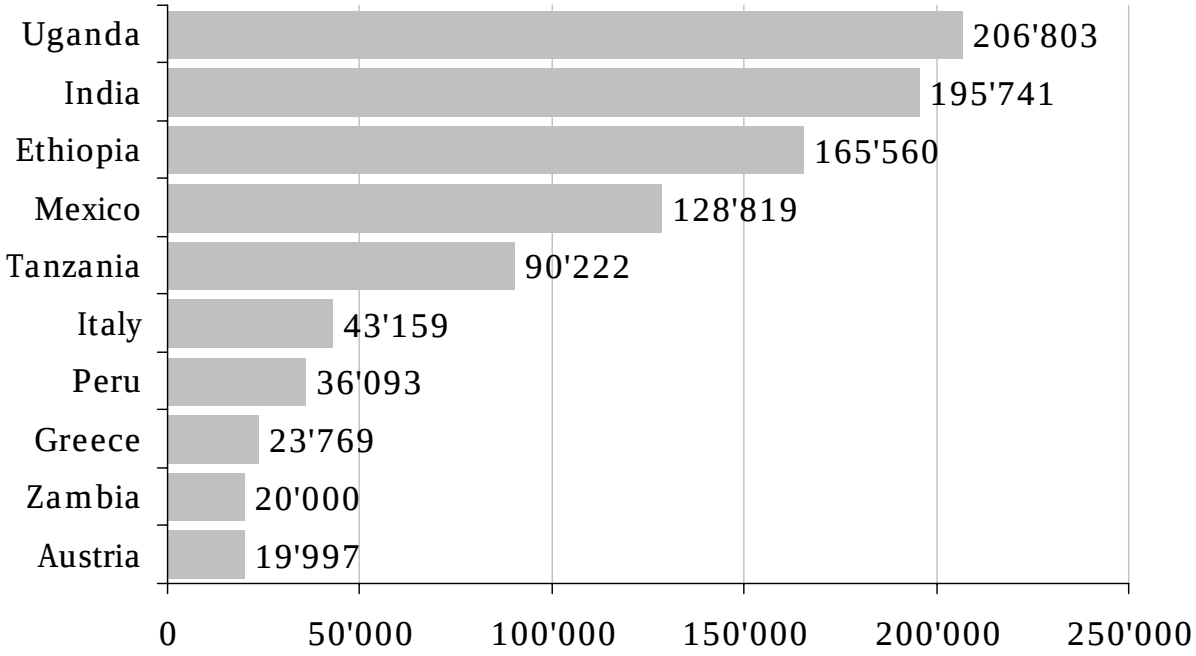


Figure 7: The countries with the highest numbers of organic producers 2007

Total 1.2 million producers (including smallholders)

Source: FiBL/IFOAM survey

Some countries provide the number of producers per crop, and there may be overlaps for those growers who grow several crops. The global number of organic producers should

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

consequently be treated 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.

Further reading

Willer, Helga and Minou Yussefi (2000): Organic Agriculture Worldwide. Statistics and Future Prospects. Bad Dürkheim, Germany.

Willer, Helga (2008): Organic Agriculture Worldwide. Current statistics. In: IFOAM/FiBL 2008: The World of Organic Agriculture. Bonn/Frick 2007. Available at http://orgprints.org/10506

Land use and crop data

Almost two thirds of the organically managed agricultural land of 32.2 million hectares in 2007 is grassland (20 million hectares). The cropped area (arable land and permanent crops) constitutes 7.8 million hectares and thus almost a quarter of the organically managed land. Compared with the previous survey, there is a clear trend for the cropland to increase: almost 0.3 million more hectares of arable land and 0.4 million more hectares of permanent cropland were reported. Relatively high shares are reached for some crops: coffee and olives, for instance, account for more than five percent of the total harvested areas, and in some countries the shares are even higher: 30 percent of Mexico's coffee area is organic.

Main categories of land use and crops

Land use details were available for approximately 90 percent of the organically managed area. It should be noted, however, that detailed crop information is not available for every country.[1]

For this survey, the general FAO classification[2] of main land use types was utilized, with slight modifications; for the classification of crops a system similar to that of Eurostat was used (for details see www.organic-world.net).[3] The following main levels were used to classify the land use and crop data:

- Arable land (FAO classification): land under temporary crops, temporary meadows for mowing or pasture, land under market and kitchen gardens and temporarily fallow land (less than five years).
- Permanent crops (FAO classification): land cultivated with crops that occupy the land for long periods and need not to be replanted after each harvest, such as cocoa, coffee

[1] 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 Danish statistics, for instance, list each vegetable type.

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

[3] For the data collected, a classification system developed in cooperation with the German Central Market and Price Report Office (ZMP) was used. It is currently further developed by FiBL and ZMP, both aiming at bringing it into line with the new questionnaire which will be used by Eurostat in the future, supplemented however, with tropical crops. The questionnaire as well as some background information is available at www.organic-world.net.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

and rubber. This category includes land under flowering shrubs, fruit trees, nut trees and vines, but excludes land with trees grown for wood or timber.

- Cropland, no details: We used this category for cropland (i.e. excluding permanent grazing land) for which details were not known, or when crops of the arable and the permanent crop category had been put into one group (e.g. olives and annual oil crops).
- Permanent grassland (FAO and Eurostat classification): the term 'permanent pasture' is used by the FAO for land used permanently (five years or more) for herbaceous forage crops, either cultivated or growing wild (wild prairie or grazing land). Eurostat uses the term "grassland," which can include rough grazing, and which we applied, too.
- Other: unutilized agricultural land, hedges, ponds as well as forests, which in some countries are listed under the agricultural area.
- Agricultural land, no details: land with agricultural uses, but for which no details were available.

Aquaculture was distinguished from the 'agricultural land' and made, like the organic wild collection areas, a separate category. This is different from our previous surveys.

Table 3: Organically managed agricultural area by main use and region 2007

In italics: Certified aquaculture area and organic wild collection areas are not counted as agricultural land.

	Africa	Asia	Europe	Latin America	North America	Oceania	World
Arable land	76'081	82'478	3'484'477	144'616	959'004	–	4'746'656
Cropland, no details	17'069	774'164	-86'386*	174'432	–	363'135	1'242'414
Permanent crops	382'078	75'128	702'577	667'873	46'868	1'614	1'877'380
Permanent grassland	51'262	603'466	3'206'467	3'477'055	1'011'161	11'660'000	20'009'411
Other	11'963	26	281'863	25'919	–	–	319'771
Agricultural land, no details	331'877	1'346'483	168'285	1'912'979	180'045	86'009	4'025'678
Total	**870'329**	**2'881'745**	**7'758'526**	**6'402'875**	**2'197'077**	**12'110'758**	**32'221'311**
Aquaculture	–	*418'350*	–	*6'382*	–	–	*424'732*
Total with aquaculture	*870'329*	*3'300'095*	*7'758'526*	*6'409'257*	*2'197'077*	*12'110'758*	*32'646'043*
Wild collection areas & bee keeping	*9'589'936*	*2'649'133*	*9'998'936*	*8'095'618*	*352'000*	*50*	*30'685'673*
Total with aquaculture and wild collection areas	*10'460'266*	*5'949'228*	*17'757'462*	*14'504'875*	*2'549'077*	*12'110'808*	*63'331'716*

Source: FiBL/IFOAM survey
*Including correction values for land with double use during one year.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

With a total of at least 4.7 million hectares, **arable land** (Table 4) accounts for 15 percent of the organic agricultural land (and 18 percent of the organic area for which land use information was available). This is less than for total agriculture, where arable land constitutes 28 percent of the agricultural area (calculated on basis of the data provided by FAOSTAT).[1] The organic arable land accounts for 0.3 percent of the world's arable land. Compared with the previous survey, 0.3 million hectares more of arable crops were reported – which is more than a seven percent increase.

Most of the world's organically managed arable land is located in Europe (3.5 million hectares), followed by North America (almost one million) and Latin America (150'000 hectares). Most of that category of land is used for cereals including rice (1.8 million hectares), followed by field fodder crops (1.5 million hectares) and vegetables (0.2 million hectares). Compared with the previous survey, more land was reported for green fodder from arable land (+0.24 million hectares), medicinal plants (+100'000 hectares, main increase in Turkey), cereals (+40'000 hectares), industrial crops (such as cotton - +36'000 hectares), and vegetables (+26'000 hectares).

Permanent crops account for at least six percent of the organically managed agricultural land, amounting to almost two million hectares, which is 1.3 percent of the world's permanent cropland (Table 5). 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. Most of the permanent cropland is in Europe (0.7 million hectares), followed by Latin America (0.67 million hectares) and Africa (0.38 million hectares). Compared with the previous survey, 0.4 million hectares more were reported (+30 percent). The most important crops are coffee (with 0.6 million hectares constituting more than a quarter of the organic permanent cropland and 5.3 percent of the world's harvested coffee area), followed by olives (0.4 million hectares: 5.3 percent of the world's harvested olive area), cocoa (0.15 million hectares: two percent of the harvested cocoa bean area), temperate nuts (0.13 million hectares) and grapes (0.12 million hectares). Particularly higher numbers compared with the previous survey were reported for coffee (+0.2 million hectares).

Permanent grassland (20 million hectares) accounts for at least 62 percent of the world's organically managed land. This is a lower share than for total agriculture, where permanent grassland accounts for 68 percent of the agricultural land. Compared with the previous survey, 0.8 million hectares less of permanent grassland were reported. More than half of this land is in Australia (11.7 million hectares). Furthermore, large areas of permanent grassland (including rough grazing areas) are in Latin America (3.5 million hectares) and Europe (3.2 million hectares).

[1] FAOSTAT, the FAO Homepage, FAO, Rome at faostat.fao.org > Resources > Resourcestat> Land at http://faostat.fao.org/site/377/default.asp

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Table 4: Organically managed arable cropland by crop category 2007

Crop categories	Organically managed land [ha]
Cereals	1'778'253
Fallow land as part of crop rotation	318'861
Flowers and ornamental plants	3'317
Green fodder from arable land	1'537'835
Industrial crops	154'454
Medicinal & aromatic plants	191'186
Oilseeds	149'169
Other arable crops	1'830
Protein crops	197'063
Root crops	36'144
Seeds and seedlings	14'613
Sugarcane	33'943
Vegetables	213'453
Total	**4'746'656**

Source: FiBL/IFOAM survey

Table 5: Organically managed permanent cropland by crop category 2007

Crop categories	Organically managed land [ha]
Citrus fruit	50'154
Cocoa	151'466
Coconuts	28'808
Coffee	547'275
Flowers and ornamental plants, permanent	200
Grapes	121'825
Medicinal & aromatic plants, permanent	9'915
Nurseries	2'349
Olives	402'152
Other permanent crops	118036.3
Permanent crops, no details	13'294
Tea	15'478
Temperate berries	11'376
Temperate fruit	108'016
Temperate fruit/nuts/berries	45'303
Temperate nuts	133'790
Tropical and subtropical fruit	98'808
Tropical and subtropical nuts	19'133
Total	**1'877'380**

Source: FiBL/IFOAM survey

Land use in the regions

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

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

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

cash crops like coffee and olives (for more details see table at the end of the African section in this book).

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.

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.

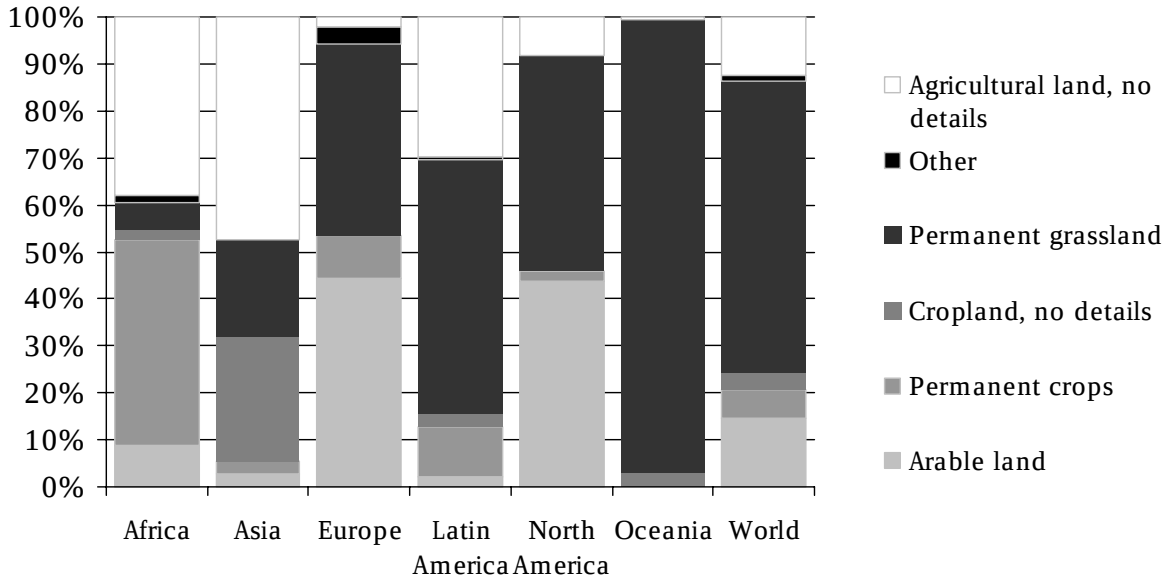


Figure 8: Land use in organic agriculture by region 2007: Shares of the main land use types

Source: FiBL/IFOAM survey

Latin America: Most of the organically managed land in Latin America (total 6.4 million hectares), 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 for coffee, followed by cocoa and tropical fruits.

North America: In North America (2.2 million hectares), crop information was available for most of the land. Like in Europe, arable land and permanent grassland have almost equal shares. A major part of the arable land is used for cereal production.

Oceania: Most of the land in Australia is used for extensive grassland. Little or no information is available about the remaining land. Some land use details were available for New Zealand.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Aquaculture

Since the mid 1990s, the progression of certified organic aquaculture has been characterized by a steady increase of product volumes on the market. Gradually, organic aquaculture lost its image as a purely niche activity, and bigger retail companies in Germany, the United Kingdom and Switzerland added aquaculture products into their assortment, which in turn encouraged more producers in many countries to convert to organic production (Bergleiter 2008).

Some countries provided data on their organic aquaculture areas, see Table 6.

Table 6: Countries with organic aquaculture

Country	Organically managed area [ha]
Bangladesh	2'000
China	415'000
Ecuador	6'382
Indonesia	1'317
Thailand	33
Total	424'732

Source: FiBL/IFOAM survey

Further reading

Bergleiter, Stefan (2008): Organic Aquaculture. In: Willer et al. 2008: The World of Organic Agriculture. IFOAM, Bonn and FiBL, Frick

Organic wild collection 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 30.7 million hectares was reported for 2007, constituting an increase of 0.3 million hectares compared with the revised data of the previous survey. The organic wild collection areas are more or less evenly distributed over four continents: Africa, Asia,

[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.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Europe and Latin America, reflecting quite a different pattern than that for the agricultural land. There are some wild collection crops in Canada. For the United States, no such areas were reported.

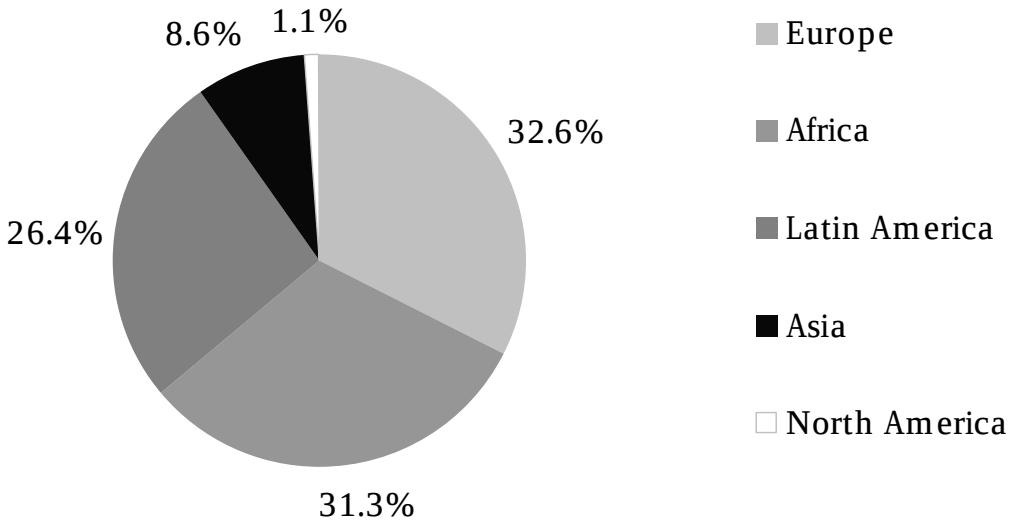


Figure 9: Organic wild collection and bee keeping by region 2007

Source: FiBL/IFOAM survey

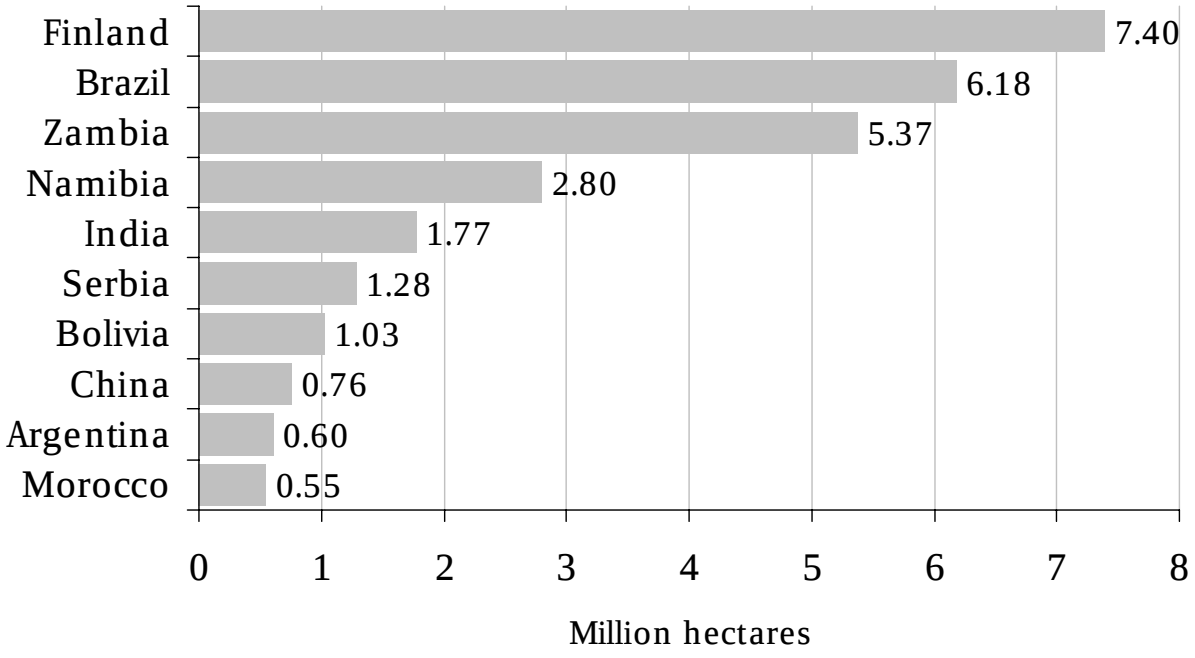


Figure 10: The ten countries with the largest organic wild collection and bee keeping areas 2007

Source: FiBL/IFOAM survey

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

The countries with the largest areas are Finland (mainly berries), followed by Brazil and Zambia (bee keeping). 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. Wild berries (mainly in Finland), medicinal and aromatic plants as well as wild nuts (shea nuts in Africa and chestnuts in Latin America) play the most important role.

Table 7: Organic wild collection and bee keeping 2007

Products	Hectares
Bee keeping	5'791'167
Aquatic products (seaweed)	200'000
Forest honey	12'363
Forest products, no details	65'783
Gum Arabic	492'800
Medicinal & aromatic plants, wild	3'429'266
Mushrooms, wild	1'109'441
Argan Oil	400'000
Palm sugar	12'422
Palmito, wild	6'800
Tea, wild	7'747
Temperate berries, wild	7'426'905
Temperate fruit, wild	364'859
Temperate nuts, wild	1'220'264
Tropical and subtropical fruit, wild	8'507
Tropical and subtropical nuts, wild	12'028
Vegetables, wild	567
Wild collection, no details	10'124'755
Wild collection areas and bee keeping total	30'685'673

Source: FiBL/IFOAM Survey

Further reading.

Censkowsky, Udo, Ulrich Helberg, Anja Nowack and Mildred Steidle (2007): Overview of Word Production and Marketing of Organic Wild Collected Products. ITC/WTO, Geneva. Available at http://www.intracen.org/Organics/documents/World_Production_and_Marketing_of_Organic_Wild_Collected_Products.pdf

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Crop Statistics: Cereals, citrus fruit, coconuts, cocoa, coffee, grapes, olives and wheat

In this section, some of the data received on key crops are presented, including area under organic management and, if available, details on the in-conversion status and comparison with the total area of the crops.[1] More crop information is available in the chapter on organic cotton by Paolo Foglia and Simon Ferrigno and in the chapter in temperate fruit by Granatstein et al.

The tables presented here are an example of the information available – also on other crops – in the FiBL database. More data will be made available at the Organic-World.net homepage.

Cereals

Table 8 shows at least 1.8 million hectares of cereals[2] are under organic management (including in-conversion areas). As some of the world's large cereal producers (such as India, China and the Russian Federation) did not provide land use details, it can be assumed that the area is larger than shown here. Comparing this figure with FAO's figure for the world's harvested cereal area of 700 million hectares (FAOSTAT)[3], 0.3 percent of the total cereal area is under organic management. Some countries are, however, reaching shares that are far higher than this global share. Figures for some of the countries are as follows: Portugal 12.2 percent; Austria 9.4 percent; Lithuania 6.8 percent; Italy 6.2 percent; and Latvia 5.5 percent.

Table 8: Organic cereals

Country	Year	Organically managed land [ha]	Fully converted land [ha]	Land under conversion [ha]
Argentina	2007	22'261	22'261	–
Armenia	2007	27	2	25
Austria	2007	76'420	–	–
Azerbaijan	2007	2'364	–	2'364
Belgium	2007	3'020	2'364	657
Bulgaria	2007	1'363	812	551
Burkina Faso	2007	423	423	–
Cambodia	2008	4'320	–	–
Canada	2005	154'152	–	–
Chile	2007	125	125	–
Colombia	2007	145	–	–
Costa Rica	2007	55	55	–
Croatia	2007	2'294	628	1'666

[1] It should be noted that the organic areas are compared to the *area harvested in 2007* provided by FAO. The data may not necessarily be directly comparable to the areas sown or planted as registered by the certification bodies and may, due to hurricanes for instance, not be the same as the area from which crops were harvested.
[2] Amaranto, barley, buckwheat, grain maize, millet, oats, quinoa, rice, rye, triticale, wheat & spelt.
[3] FAOSTAT > PRODUCTION > PRODSTAT > CROPS. The FAOSTAT homepage at http://faostat.fao.org/site/567/DesktopDefault.aspx?PageID=567#ancor. Download of January 15, 2009.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Country	Year	Organically managed land [ha]	Fully converted land [ha]	Land under conversion [ha]
Cyprus	2007	381	285	98
Czech Rep.	2007	13'418	8'112	5'306
Denmark	2007	23'520	23'520	–
Ecuador	2007	1'370	1'312	57
Estonia	2007	9'916	6'681	3'235
Finland	2007	40'435	40'435	–
France	2007	85'593	76'765	8'828
Germany	2007	181'000	–	–
Greece	2007	38'162	19'647	18'310
Hungary	2007	26'094	23'891	2'204
Indonesia	2007	144	144	0
Ireland	2007	1'057	–	–
Italy	2007	241'430	190'582	50'848
Laos	2008	400	–	400
Latvia	2007	28'544	11'773	16'771
Lebanon	2007	480	340	140
Liechtenstein	2007	55	55	–
Lithuania	2007	68'345	31'036	37'309
Macedonia, FYROM	2007	240	–	–
Mexico	2007	5'214	5'214	–
Moldova	2007	54	–	54
Netherlands	2007	7'173	7'112	62
Norway	2007	6'995	5'746	1'249
Pakistan	2004	10'160	–	–
Peru	2007	2'265	1'503	762
Portugal	2007	38'432	–	–
Romania		48'843	12'785	36'057
Senegal	2007	279	279	–
Serbia	2007	443	55	388
Slovak Republic	2007	12'529	7'167	5'362
Slovenia	2007	838	648	190
South Africa	2007	3'775	837	2'939
Spain	2007	116'864	–	–
Sweden	2007	52'810	52'810	–
Switzerland	2007	4'956	–	–
Taiwan	2006	721	–	–
Thailand	2007	13'937	–	–
Turkey	2007	25'853	18'283	7'570
UK	2007	52'490	38'687	13'805
Ukraine	2007	105'477	–	–
Uruguay	2006	2'800	2'800	–
USA	2005	228'109	228'109	–
Uzbekistan	2007	20	20	0
Total		**1'778'253**	**853'019**	**217'359**

Source: FiBL/IFOAM survey
'-': no data

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Citrus fruit

In Table 9, the area of organic citrus fruits, including oranges, lemons and limes, grapefruit and pomeloes and 'other citrus' are shown. According to these data, 50'150 hectares of citrus fruit are grown organically (including conversion areas) worldwide. This constitutes 0.6 percent of the world's citrus area of 8.3 million hectares (FAOSTAT).[1]

As no crop details were available for some of the world's leading citrus producers - China, Brazil, Nigeria and India, in that order of importance - it can be assumed that the world figures for area under organic citrus is higher.

Table 9: Organic citrus fruit

Country	Year	Organically managed land [ha]	Fully converted land [ha]	Land under conversion [ha]
Albania	2007	2	–	–
Argentina	2007	489	489	–
Burkina Faso	2007	18	18	–
Costa Rica	2007	835	835	–
Cuba	2008	4'195	–	–
Cyprus	2007	52	15	36
Dominican R.	2007	1'574	1'574	
El Salvador	2007	5	5	0
France	2007	110	105	5
Gambia	2006	1	–	–
Ghana	2008	3'760	3'760	–
Greece	2007	2'002	1'375	629
Iran	2007	12	12	–
Israel	2007	348	348	–
Italy	2007	22'062	15'532	6'530
Jamaica	2006	3	–	–
Jordan	2007	5	5	–
Lebanon	2007	12	6	6
Mexico	2007	3'201	3'201	–
Morocco	2008	482	482	–
Nigeria	2007	2	–	2
Pakistan	2004	440	–	–
Panama	2005	10	–	–
Paraguay	2006	30	–	–
South Africa	2007	682	469	213
Spain	2007	3'165	–	–
Taiwan	2006	8	–	–
Turkey	2007	2'134	1'979	155
Uruguay	2006	410	410	–
USA	2005	4'107	4'107	–
Total		50'154	34'726	7'576

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

[1] FAOSTAT > PRODUCTION > PRODSTAT > CROPS. The FAOSTAT homepage at http://faostat.fao.org/site/567/DesktopDefault.aspx?PageID=567#ancor. Download of January 15, 2009.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Coconuts

At least 28'000 hectares of coconuts are grown organically (including conversion areas). However, for some of the world's leading coconut producers (Indonesia, India and Sri Lanka), no details were available, and it can therefore be assumed that the actual coconut area is higher.

The 28'000 organically managed hectares constitute 0.26 percent of the world's harvested coconut area of 10.9 million hectares (FAOSTAT).[1] Some countries are, however, reaching shares that are far higher. The figures for some of the countries are Mexico: 67 percent, El Salvador: 20.3 percent, and the Dominican Republic: 8.6 percent.

Table 10: Organic coconuts

Country	Year	Organically managed land [ha]	Land fully converted [ha]	Land under conversion [ha]
Cameroon	2007	1	1	–
Cuba	2008	1'056	–	–
Dominican Rep.	2007	3'025	2'878	147
El Salvador	2007	1'024	1'020	4
Fiji	2005	100	–	–
Ivory Coast	2007	875	875	–
Jamaica	2006	160	–	–
Kenya	2007	123	123	–
Mexico	2007	8'031	8'031	–
Philippines	2007	14'106	–	–
Sri Lanka	2006	307	–	–
Total		28'808	12'928	151

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

Cocoa beans

Over 150'000 hectares of cocoa are grown organically (including in-conversion areas). This constitutes two percent of the world's harvested cocoa bean area of 7.4 million hectares 2007 (the leading producers are Ghana, Ivory Coast, Nigeria, Brazil and Indonesia).[2]

[1] FAOSTAT > PRODUCTION > PRODSTAT > CROPS. The FAOSTAT homepage at http://faostat.fao.org/site/567/DesktopDefault.aspx?PageID=567#ancor. Download of January 15, 2009.
[2] FAOSTAT > PRODUCTION > PRODSTAT > CROPS. The FAOSTAT homepage at http://faostat.fao.org/site/567/DesktopDefault.aspx?PageID=567#ancor. Download of January 15, 2009.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Table 11: Organic cocoa beans

Country	Year	Organically managed land [ha]	Land fully converted [ha]	Land under conversion [ha
Colombia	2007	26	–	–
Costa Rica	2007	390	390	–
Dominican Rep.	2007	79'401	59'102	20'299
Ecuador	2007	22'308	21'150	1'159
Ghana	2008	2'573	2'573	–
Indonesia	2007	2'376	367	2'009
Ivory Coast	2007	68	68	–
Jamaica	2006	30	–	–
Mexico	2007	16'366	16'366	–
Nicaragua	2008	1'546	1'222	324
Panama	2005	4'850	–	–
Peru	2007	14'407	7'615	6'792
Sao Tome and Prince	2007	2'810	–	–
Tanzania	2007	4'316	4'316	–
Total		**151'466**	**113'168**	**30'583**

Source: FiBL/IFOAM survey
'–': No data
For some countries the area for cocoa beans associated with other crops is included.

Coffee

Over 500'000 hectares of coffee are grown organically (including in-conversion areas). This constitutes 5.3 percent of the world's harvested coffee area of 10.2 million hectares 2007 (the leading producers are Brazil, Indonesia, Mexico, Colombia and Vietnam – not for all of these countries data on the organic production were available).[1] Some countries are reaching high shares: 30 percent of Mexico's harvested coffee area is organic.

Table 12: Organic coffee

Country	Year	Organically managed land [ha]	Land fully converted [ha]	Land under conversion [ha
Colombia	2007	16'036	–	–
Costa Rica	2007	1'713	1'713	–
Cuba	2008	3'807	–	–
Dominican Rep.	2007	11'661	7'937	3'724
Ecuador	2007	4'323	3'977	346
El Salvador	2007	3'743	3'230	513
Ethiopia	2007	108'560	108'000	560
Guatemala	2008	7'246	5'964	1'282
Honduras	2008	–	–	–
Indonesia	2007	1'506	500	1'006
Jamaica	2006	2	–	–

[1] FAOSTAT > PRODUCTION > PRODSTAT > CROPS. The FAOSTAT homepage at http://faostat.fao.org/site/567/DesktopDefault.aspx?PageID=567#ancor. Download of January 15, 2009.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Country	Year	Organically managed land [ha]	Land fully converted [ha]	Land under conversion [ha
Kenya	2007	1'240	1'000	240
Laos	2008	1'116	–	1'116
Mexico	2007	239'763	239'763	–
Nepal	2007	558	558	–
Nicaragua	2008	10'875	9'733	1'142
Panama	2005	40	–	–
Peru	2007	72'174	47'650	24'524
Rwanda	2007	–	–	–
Tanzania	2007	23'867	4'096	19'771
Timor Leste	2006	21'325	–	–
Uganda	2006	17'721	17'721	–
Total		547'275	451'841	54'223

Source: FiBL/IFOAM survey
'–': no data
For some countries the area for coffee associated with other crops is included.

Grapes

At least 120'000 hectares of organic grapes are grown, constituting 1.6 percent of the world's grape area (7.5 million hectares). In Europe (approximately 100'000 hectares), 2.3 percent of the grape area is organic. The leading countries are Italy (4.7 percent), France (2.8 percent) and Spain (1.4 percent). Not all of the grape area listed in the table below is used for wine making. The production of table grapes and of raisins is important in many countries, including Turkey.

The area in conversion (included in the above figure) is at least 23'000 hectares. Increases in supply of organic grapes may be expected, particularly from Italy and France.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Table 13: Organic Grapes

Country	Year	Land under organic management [ha]	Fully converted land [ha]	Land under conversion [ha]
Albania	2007	20	–	–
Argentina	2007	3'913	3'913	–
Armenia	2007	8	–	8
Austria	2007	2'477	–	–
Azerbaijan	2007	78	–	78
Bulgaria	2007	299	1	298
Canada	2007	69	–	–
Chile	2007	2'974	2'974	–
China	2007	2'000	–	–
Croatia	2007	82	18	64
Cyprus	2007	174	62	112
Czech Rep.	2007	183	19	164
Denmark	2007	4	4	–
France	2007	22'509	14'632	7'877
Georgia	2007	106	–	–
Germany	2007	3'500	–	–
Greece	2007	4'554	2'664	1'890
Hungary	2007	576	415	161
Iran	2007	625	625	–
Israel	2007	–	–	–
Italy	2007	36'684	26'710	9'974
Lebanon	2007	180	4	176
Macedonia, FYROM	2007	53	–	–
Moldova	2007	4'327	4'327	–
Morocco	2007	20	20	–
Netherlands	2007	23	15	8
New Zealand	2007	540	–	–
Peru	2007	–	–	–
Portugal	2007	2'021	–	–
Romania	2007	340	81	259
Serbia	2007	4	0	4
Slovak Republic	2007	64	50	14
Slovenia	2007	184	45	139
South Africa	2007	262	75	187
Spain	2007	17'189	–	–
Switzerland	2007	301	–	–
Syria	2007	10	10	–
Taiwan	2007	1	–	–
Turkey	2007	5'706	3'948	1'758
UK	2007	35	29	6
Uruguay	2007	40	40	–
USA	2007	9'177	9'177	–
Uzbekistan	2007	515	515	0
Total		121'825	70'372	23'177

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

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Olives

Just over 400'000 hectares were reported to be in organic olives production in 2007. This is approximately 5.2 percent of the world's total harvested olive area (7.7 million hectares).

The data available for a breakdown of the total in fully converted and in-conversion covered approximately half of the total area under organic olives. If the relative figures are indicative of the proportions of the total area, 40 percent of the 400'000 hectares is in-conversion, and will be fully converted in the next few years. This has implications for the availability of organic olives in the near future.

The main countries in which olives are grown are the countries around the Mediterranean, with Spain by far the largest grower, and Italy, Greece, Turkey and Morocco also important producers. Although the same countries are important in organic production, the sequence is somewhat different. Italy has the largest area under organic olives (110'000 hectares), with Spain (94'000 hectares) and Tunisia, which is only eighth on the world list of area under olives, close behind with 89'000 hectares. The next largest grower, Greece, has less than half of the area under organic olives (53'000 hectares) as Italy, the largest organic grower. This means that, in Spain, the percentage of area under organic production is relatively low (3.4 percent), but it is considerably higher in other countries, such as in Italy (9.5 percent), Greece (6.6 percent) and also Turkey (4.3 percent).

Table 14: Organic olives

Country	Year	Organically managed Land under organic management [ha]	Fully converted land [ha]	Land under conversion [ha]
Argentina	2007	6'322	6'322	–
Italy	2007	109'992	72'337	37'655
Greece	2007	52'553	19'357	33'195
Syria	2007	570	570	–
Turkey	2007	26'372	15'339	11'033
Azerbaijan	2007	5	–	5
Albania	2007	20	–	–
Uruguay	2006	425	425	–
Macedonia, FYROM	2007	1	–	–
Cyprus	2007	744	360	385
Lebanon	2007	66	44	22
Croatia	2007	70	15	55
Slovenia	2007	21	2	19
Morocco	2008	1'560	1'560	–
UK	2007	1	–	1
Tunisia	2006	89'324	–	–
Portugal	2007	18'409	–	–
Spain	2007	94'251	–	–
France	2007	850	572	278
Jordan	2007	597	574	23
Total		402'152	117'477	82'671

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

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Wheat

Of the six most important wheat growers in the world, only one (US, the country with the fourth largest land area) provided data on area under organic wheat grown in 2005. It is therefore not surprising that the total area under organic wheat recorded here (700'000 hectares) is only 0.3 percent of the total area of wheat grown in the world (217.5 million hectares). India, the Russian Federation, China, Kazakhstan and Australia are among the world's largest wheat growers, but did not provide data on organic wheat. The largest wheat growers for which data are available (US, Canada, Turkey, Pakistan, Ukraine, Argentina and France all had less than one percent of their total wheat areas under organic management. The largest proportion of organic wheat area can be found in Austria (10.4 percent), followed by Italy (7.1 percent). The rest of the countries recorded less than five percent. Also for wheat, the percentage of the available data indicates a relatively large part of the total (20 percent) to be in-conversion. If this is indicative of the total of the organic wheat, there will be a considerable increase in supply of organic wheat in the near future. Of the countries that provided production data, Turkey showed the highest production of 44'000 metric tons.

Table 15: Organic wheat

Country	Year	Land under organic management [ha]	Land fully converted [ha]	Land under conversion [ha]
Argentina	2007	12'830	12'830	–
Armenia	2007	16	1	15
Austria	2007	30'542	–	–
Belgium	2007	975	840	135
Canada	2005	79'278	–	–
Croatia	2007	598	107	491
Cyprus	2007	31	18	13
Czech Rep.	2007	4'879	3'229	1'650
Denmark	2007	6'083	6'083	–
Estonia	2007	1'778	1'137	641
Finland	2007	5'101	5'101	–
France	2007	34'364	31'509	2'855
Germany	2007	61'500	–	–
Greece	2007	20'744	10'105	10'639
Hungary	2007	13'276	12'516	759
Italy	2007	143'598	112'011	31'587
Latvia	2007	5'894	2'055	3'839
Liechtenstein	2007	55	55	–
Lithuania	2007	8'750	3'048	5'702
Macedonia, FYROM	2007	70	–	–
Moldova	2007	54	–	54
Netherlands	2007	2'656	2'636	21
Norway	2007	1'461	1'119	342
Pakistan	2004	3'800	–	–
Romania	2008	29'626	7'339	22'287
Serbia	2007	364	30	334

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Country	Year	Land under organic management [ha]	Land fully converted [ha]	Land under conversion [ha]
Slovak Republic	2007	4'932	3'072	1'860
Slovenia	2007	280	224	56
South Africa	2007	926	52	874
Sweden	2007	17'699	17'699	–
Switzerland	2007	3'132	–	–
Turkey	2007	18'930	13'903	5'027
UK	2007	22'059	16'629	5'430
Ukraine	2007	50'423	–	–
USA	2005	115'601	115'601	–
Total		702'251	378'950	94'611

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

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]

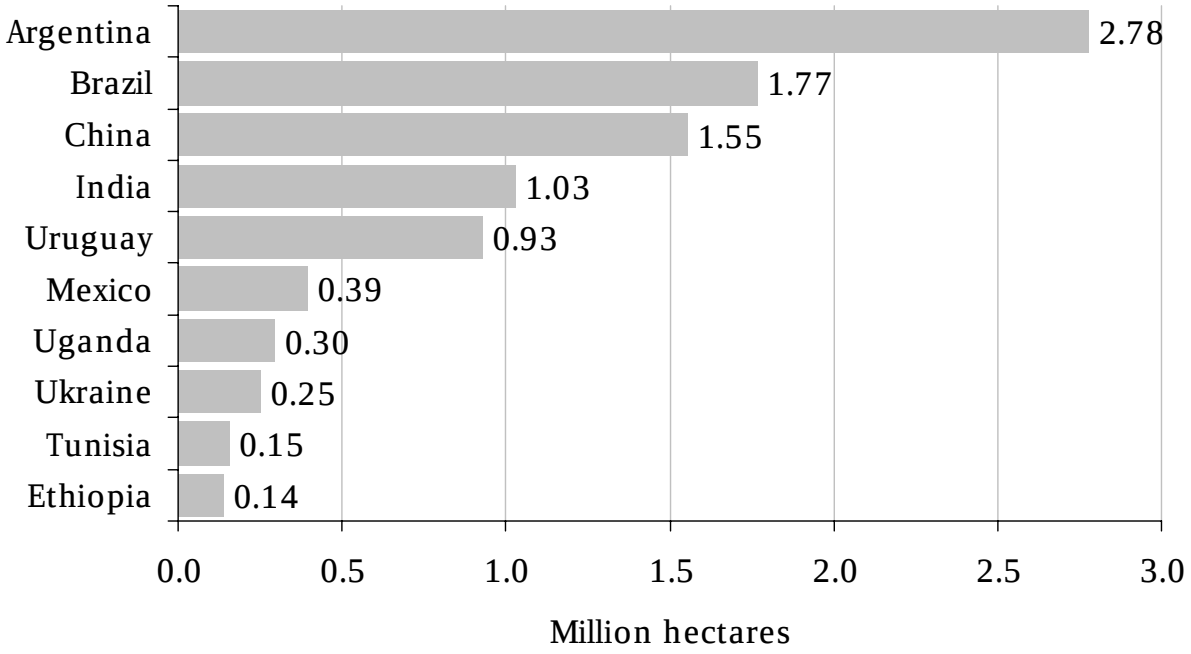


Figure 11: Developing countries: The countries with the largest areas under organic agricultural management 2007

Source: FiBL/IFOAM survey

[1] The list is available at www.oecd.org/dataoecd/23/34/37954893.pdf

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

More than one quarter of the world's organically managed land - nine million hectares- is located in developing countries. Most of this land is in Latin American countries, with Asia and Africa in second and third place. Countries with most area under organic management are Argentina, Brazil, China, India and Uruguay, in that order of importance. Not surprisingly, the first four are the larger countries.

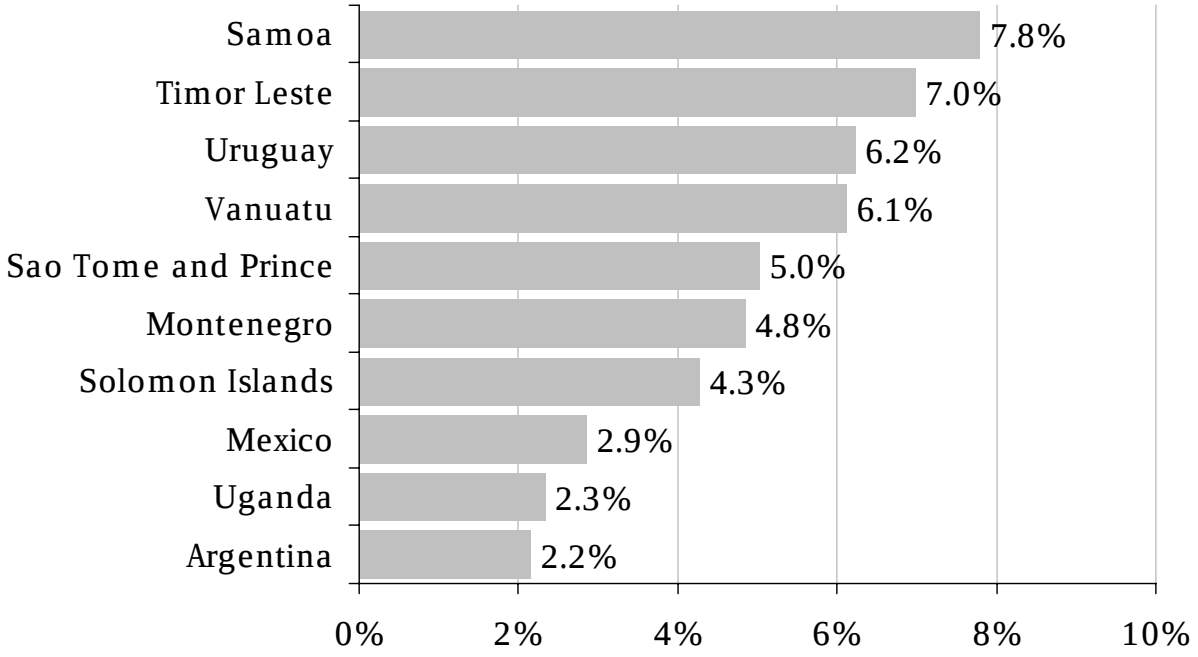


Figure 12: Developing countries: The countries with the highest shares of organic agricultural land 2007

Source: FiBL/IFOAM survey

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, the country with the fifth largest area under organic management in developing countries, has the third highest percentage of total land in agriculture. Argentina, with by far the largest area under organic management with 2.78 million hectares, is tenth on the list of organically managed area relative to total agricultural area agriculture. In these ten countries, the shares of organically managed land of all agricultural land are comparable to those in Europe. These high shares can probably be attributed to a high potential for, and focus on, exports and to several support activities (for instance in Latin America there are various forms of government support; see chapter by Garibay in this book). However, out of the developing countries covered by the survey, only few have a higher share of organically managed land than one percent of the agricultural area. Thus, compared with developed countries, organic farming lags behind in most developing countries.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Land use details were not available for all developing countries. However, the available statistics show that the shares of grassland (more than half of the organically managed land in these countries) and of permanent crops are relatively high as compared with Europe and North America. Arable land 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.

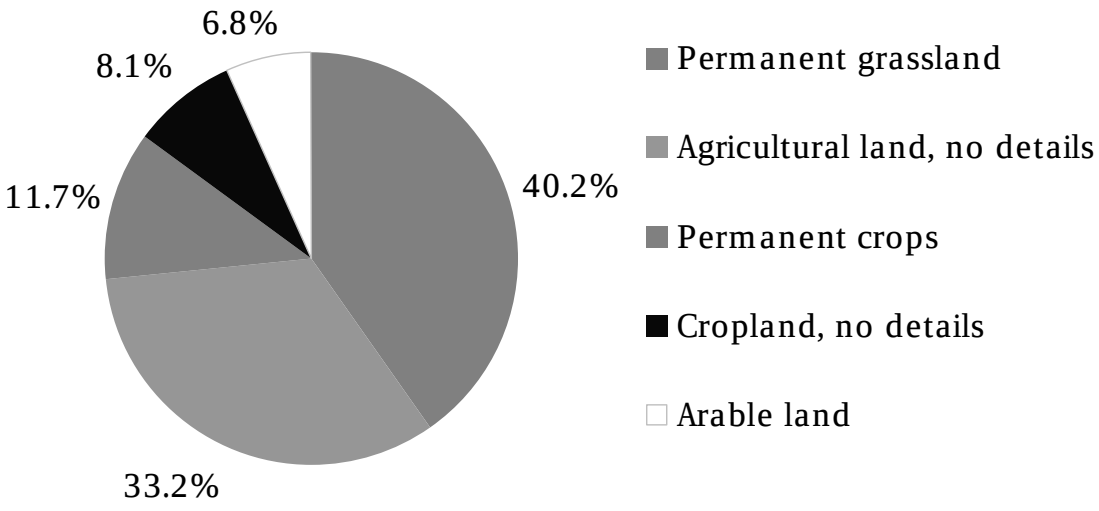


Figure 13: Developing countries: Land use in organic farming 2007

Source: FiBL/IFOAM survey

Data availability

Scope of the Survey: Countries covered

In total, data on organic agriculture were available for 141 countries and 124 countries provided new data compared with the previous survey. Thus, the survey covered approximately 70 percent of all countries (see Table 16).[1] This constitutes an increase compared with the 2007 survey, when data were available for a total 135 countries (Willer 2008). 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.

[1] 192 UN member countries, and Faroer Islands, Niue, Palestine, Taiwan. For list of UN member states see the UN Homepage at http://www.un.org/members/list.shtml

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Data availability: Situation by region

In general, data availability is improving every year. This is because more and more countries are establishing data collection systems (land use, crop, production, and operator data), either by private or government organizations.

According to this survey, 55 countries have well functioning government data collection systems in place, and 33 have private collection systems. For the remaining countries, no permanent collection system is in place.

Table 16: Countries covered by the global organic survey

	Countries with new data (per 2007 or 2008)	Countries with data on organic agriculture	Countries per region	Share of countries that provided data (%)
Africa	25	33	55	60
Asia	29	32	48	67
Europe	43	43	45	96
Latin America	16	23	33	70
North America	1	2	2	100
Oceania	2	8	13	62
World	109	141	196	72

Source: FiBL/IFOAM survey

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 registration of certifiers, including foreign certifiers, with a national authority, thereby creating access to data from the certifiers. In the European Union, the new organic farming regulation describes precisely how data should be provided.[1] Government data collection

[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."

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

systems mostly cover all organic activities (excluding market data). However, there are exceptions: In the case of Israel and Costa Rica, only production destined for export is covered. For Israel, this is to be changed in 2009 when the new law on organic agriculture will come into force.

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 does often not have full access to the data and, therefore, the data may not be as complete as those provided by governments.

Finally, there are countries that have **no collection system** in place. For these countries, FiBL and IFOAM attempted to get the data from major international certifiers or from contacts in the country, who provided the data specifically for the survey. These data are often not complete, and there is a problem of continuity over the years. Particularly in Africa and in Asia, but also in countries in other regions such as Oceania, collection systems are still underdeveloped.

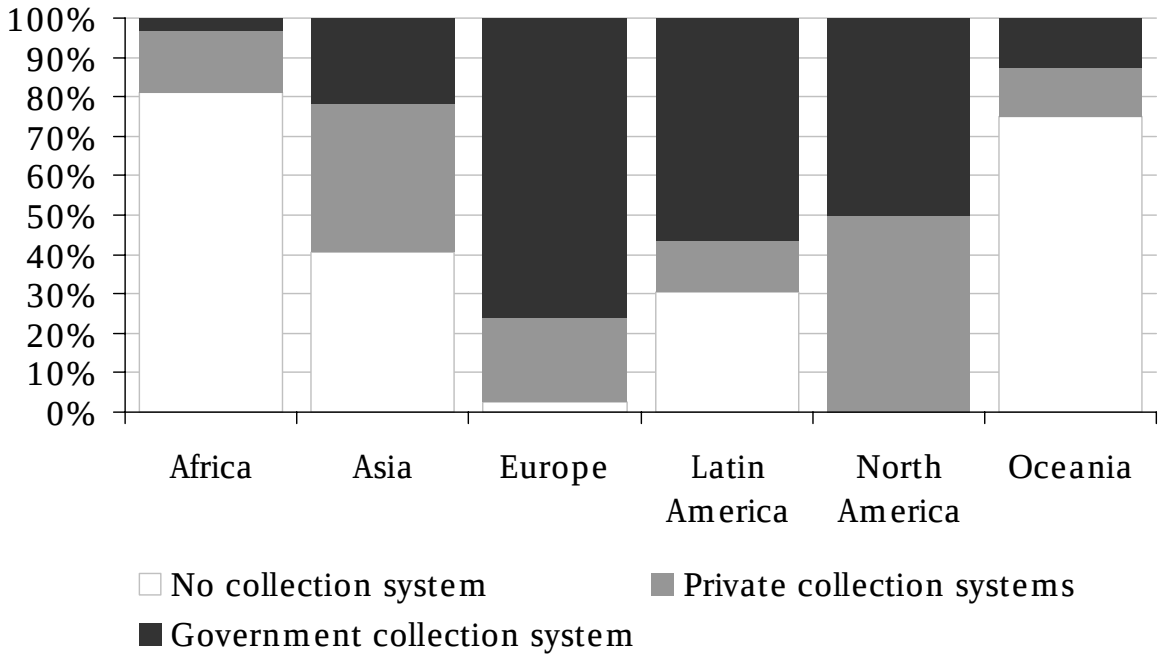


Figure 14: Data collection systems in the countries covered by the FiBL/IFOAM survey by region

Source: FiBL/IFOAM Survey

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

- 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

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

values. Eurostat, the statistical office of the European Union, compiles these data and data are all accessible at the Eurostat homepage.[1]

- The Mediterranean Agricultural Institute in Bari has set up a Network of the authorities (the Mediterranean Organic Agriculture Network (MOAN) 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 few years.
- 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.
- In South America, state authorities in charge of organic farming are coordinating activities, which have supported the establishment of state data collection systems.
- 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.

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 were 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 certification body were available. The picture, therefore, often remains incomplete. For the following countries, data were supplied for the first time: Guinea-Bissau, Namibia and Swaziland.

Asia: More than 60 percent of the Asian countries answered the survey. Data availability is highly variable. In some countries, these data are supplied by government bodies (China, India), 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. For the following countries, data were supplied for the first time: Afghanistan, Bangladesh (aquaculture, processors) and Uzbekistan. Mongolia was dropped from the list, as the wild collection activities reported previously were not reported for this survey.

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. For the following countries, data were supplied for the first time: The Faroe Islands and San Marino (one processor).

Latin America: 70 percent of the countries in Latin America and the Caribbean were covered. In South America, governments are increasingly providing detailed organic farming

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

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

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 (for instance Guatemala and Nicaragua). In other countries, data collection is carried out by the organic sector (for example El Salvador). For Suriname, data were available for the first time this year.

North America: The United States and Canada supply very good data, including breakdowns of land use patterns. For the US, the data are provided by the United States Department of Agriculture every two years (the 2006 and 2007 are to be released in spring 2009) 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. The data for the Pacific Islands were not updated, but the establishment of data collection systems is underway.

Revisions and updates of the 2006 data (published in the 2008 edition of 'The World of Organic Agriculture')

It has been possible to adjust and revise some of the data gained in the previous survey (data as of 2006, Willer 2008). For some countries, it has been possible to make a clearer distinction between certified agricultural area and organic wild collection area. For some countries, revised data have been made available by the authorities in charge. Where the figures differ substantially from those communicated in the 2008 edition of 'The World of Organic Agriculture,' an explanation is given. Complete data sets are available at www.organic-world.net.

- Argentina: In the 2008 edition (data 2006) only the organic cropland (arable land and permanent crops) and the grassland had been considered. The other agricultural land, such as fallow land as part of the crop rotation, had not been included. The figure for the wild collection area has also been revised (see chapter on organic farming in Argentina). The data for 2006 are 2'358'376 hectares of agricultural land and 538'110 hectares of wild collection areas.
- Ethiopia: In previous years, the data of only one certifier had been available. For the current editions of 'The World of Organic Agriculture' data of several certifiers were included, thus the picture is more complete now. The 2006 data were adjusted and, according to new certifier data received, there were 112'601 hectares of organically managed land in 2006.
- India: The data published in the 2008 edition of 'The World of Organic Agriculture' was provisional. These data have now been adjusted by the authority in charge, APEDA. The figure for the year 2006/2007 is 432'259 hectares under organic management (including in-conversion land).

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

- Kenya: Some adjustments of the 2006 data have been communicated by the Kenyan Organic Movement (KOAN). The agricultural land area 2006 was 2'898 hectares and the organic wild collection area 72'872 hectares.
- Mexico: The data published in the 2008 edition of 'The World of Organic Agriculture' had been provisional data for 2007. In the meantime, these data have been adjusted. To document the status of 2006, the 2005 data are used (no survey was done in Mexico in 2006).
- Uganda: The figure reported in the last edition of 'The World of Organic Agriculture' was too low and has now been corrected. There were 246'767 hectares of organic agricultural land and 158'328 hectares of organic wild collection areas. The figures on the development of organic agriculture in Uganda are presented in the chapter on organic farming in Africa by Hervé Bouagnimbeck.
- Ukraine: In the previous edition of 'The World of Organic Agriculture' the figure communicated by FiBL was too high. The correct figure is 242'034 hectares.

The next global organic survey will start early 2009. 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 2010 edition. Corrections will also be posted at www.organic-world.net.

Contact

Helga Willer. Research Institute of Organic Agriculture FiBL, Ackerstrasse, 5070 Frick, Switzerland. helga.willer@fibl.org.

Reference

Willer, Helga (2008): Organic Agriculture Worldwide: Current Statistics. In; IFOAM/FiBL (2008): The World of Organic Agriculture. Statistics and Emerging Trends. IFOAM, Bonn and FiBL, Frick

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

The Global Market for Organic Food & Drink[1]

AMARJIT SAHOTA[2]

Introduction

The global organic products industry continues to go from strength to strength, with Organic Monitor estimating organic food & drink sales reaching the 46 billion US Dollar mark in 2007. The market has tripled in value over eight years; global sales were about 15 billion US Dollars in 1999.[3]

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

The global market has been expanding by over five billion US Dollars a year. However, slower market growth rates are projected because of the international financial crisis. With many countries going into economic recession, the industry is being affected by dwindling investment and declining consumer spending power. Country markets like the US, UK and Germany already started to report slowing growth rates in the latter part of 2008. Organic Monitor expects positive growth to continue in 2009 and 2010, but at lower growth rates.

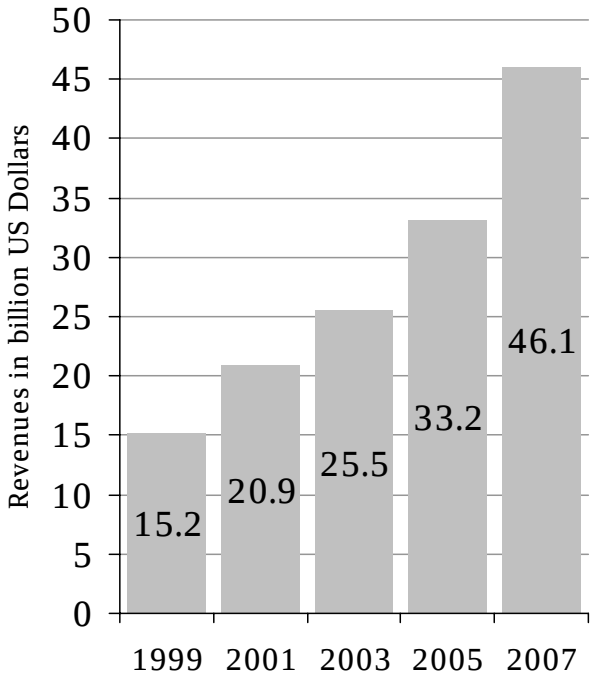


Figure 15: The global market for organic food and drink: Market growth 1999-2007

Note: All figures are rounded

Source: The Global Market for Organic Food & Drink (Organic Monitor).

[1] This chapter has been prepared from an upcoming report: The Global Market for Organic Food & Drink: Future Outlook & Forecasts (Organic Monitor, 2009). No part of this chapter maybe reproduced or used in other commercial publications without written consent from Organic Monitor. To request permission, write to: Organic Monitor, 20B The Mall, London W5 2PJ, Tel. +44 20 8567 0788, E-mail postmaster@organicmonitor.com.

[2] Amarjit Sahota is the director of Organic Monitor, a specialist research & consulting company that focuses on the global organic & related product industries. More details are on www.organicmonitor.com

[3] The data presented in this chapter are based on internal research of Organic Monitor as well as on information from external sources.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Europe

Europe has the largest and most sophisticated market for organic food & drink in the world. Valued at almost 25 billion US Dollars in 2007, the market represents 54 percent of global revenues. The high revenue share is because five of the largest country markets for organic foods are in the region, and the high market share of organic food sales. In some European countries, organic products represent over four percent of food sales.

The German and UK markets were the fastest growing in 2007. The German market is showing high growth as product penetration increases in mainstream retailers. Discounters like Aldi, Lidl and Plus are taking up high market share because of their competitively-priced offerings. Organic products are so widely available in mainstream retailers in the UK that they represent over 80 percent of total sales. Tesco, the leading retailer, markets over 700 organic products under its Tesco Organic private label.

Apart from Germany and the UK, other leading organic food markets are in France and Italy; this quartet comprises almost 75 percent of European revenues. These countries are prominent because of their large consumer markets. Other countries like Sweden and Denmark reported high percentage growth rates in 2007, although their consumer markets are much smaller.

Scandinavian and Alpine consumers are the largest spenders on organic foods. These countries also have the highest market share of total food sales. Organic products now represent over five percent of food sales in Austria and Denmark. In contrast, Southern, Central & Eastern European consumers are the lowest spenders on organic foods, and thus have market shares below one percent.

There is a small but growing market for organic foods in new EU accession countries. Central & Eastern Europe (CEE) comprise about two percent of European revenues. Although organic food production is increasing in these countries, mostly primary crops are grown with most exported to Western Europe. Indeed, countries like Romania and Ukraine are becoming important sources of organic cereals & grains. The lack of organic food processing in CEE countries causes most finished goods to come into the region from the West.

North America

The organic products market continues to show fast growth. Retail sales of organic food & drinks were estimated to have reached 20 billion US Dollars in 2007. The continent has seen a large rise in organic food production in recent years, yet supply is not keeping pace with demand.

The entry of large retailers like Safeway and Loblaw's and food companies like Heinz and Kraft Foods has put a strain on organic food supply. Shortages have led many food companies to set up organic farming projects in Latin America and Asia. Thus, countries like Mexico, Chile and Brazil have become important sources of organic foods. These countries are expected to remain important, especially since demand for organic foods is rising at a faster rate than production. Food inflation and rising production of biofuel crops could make the North American market increasingly reliant on organic food imports.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

The US has the largest market for organic products in the world, worth over 18 billion US Dollars. The market is reporting fast growth as consumers become more aware of organic production methods, and distribution increases in mass market retailers. Organic foods are now widely available in supermarkets, club stores, mass merchandisers and grocery stores. As in Europe, retailer private labels for organic foods are very common. The private label of Safeway is so successful that it is now the leading brand of organic foods in North America. 'O Organics' reported about 300 million US Dollars of sales in 2007; its popularity has led Safeway to start exporting the organic products to Asia in 2008.

North America is home to some of the largest organic food companies in the world. Whole Foods Market strengthened its position as the leading 'supernatural' when it acquired its rival retailer Wild Oats in 2007. Whole Foods also operates organic food retailers in the UK. Hain Celestial, the world's largest natural & organic food company, has operations in Europe and Asia. It is active in over 20 organic product categories. SunOpta, a leading Canadian company, has become a global organic ingredients giant since it acquired the Dutch firm Tradin in 2007. Other important organic food companies include WhiteWave Foods, United Natural Foods Inc., Stonyfield Farm and Earthbound Farms. A unique characteristic of some of these North American companies is that they are publicly-listed, unlike organic food companies in other regions.

Asia

Organic food production and consumption continues to rise in the Asian region. Although the region has around three million hectares of organic farmland, most production is export-oriented. Countries like India, China, Thailand and Malaysia are becoming important exporters of organic products like fruits, cereals, grains, beans, herbs and spices. Because of the export focus, it is common for large producers in these countries to adopt organic standards of Europe, the US and/or Japan.

Demand for organic foods is concentrated in the most affluent countries, notably Japan, South Korea, Taiwan, Singapore and Hong Kong. The region suffers more from supply shortages because of the distortion between producer and consumer countries. Very little organic foods are grown in Singapore and Hong Kong, whereas domestic consumption of organic foods in countries like Thailand and Vietnam is relatively low.

The Asian market is growing by about 15 to 20 percent a year. 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 store openings 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. Previ-

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

ous health scares were Avian flu and Severe Acute Respiratory Syndrome (SARS) and those involving foods included cola drinks (India) and tofu (Indonesia).

Although the region houses almost 60 percent of the global population, demand for organic foods remains subdued, partly because of high product prices. Organic foods can be priced up to five times as much as conventional foods in Japan, Taiwan and Singapore. High import and transportation costs inflate organic food produces. In some cases, organic food products are imported from Europe and Australia since there is no production in Asia. This is especially true for processed foods like baby food, breakfast cereals, beverages and dairy products.

Oceania

Australia has a small market for organic foods, comprising less than one percent of global sales. The small market size may appear surprising since Australia has the largest organic land area. Much of this, however, is used as grazing land by livestock farmers. Another factor is that organic food production in Australia and New Zealand has traditionally been export-oriented.

Australia and New Zealand remain two important exporters of organic products. Products like organic beef, lamb, wool, kiwi fruit, wine, apples, pears and vegetables are exported across the globe. Rising domestic demand is leading the proportion of exports of total production to decline.

The Australasian market for organic products is growing at a steady rate. Although most sales have been of organic fresh products like fruit, vegetables, milk and beef, there has been an increase in organic food processing. The number of mainstream food retailers selling organic products is rising, while new organic food shops continue to open.

Other regions

Production and consumption of organic products is also increasing in other regions. Most developments are in Latin America, where a large number of countries are reporting rises in organic food production. As in Asia, most production is export-oriented. Large amounts of organic products like 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 like 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. However, leading cities like Johannesburg, Dubai, and Riyadh are slowly becoming important consumers.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Conclusions

Preliminary analysis reveals that global sales of organic food & drink reached 46 billion US Dollars in 2007. The market has been growing by over five billion US Dollars a year, although slower growth rates are expected hereafter.

With demand for organic foods concentrated in North America and Europe, the financial crisis of October 2008 has started to impact organic food sales. The poor economic climate in countries like the USA, UK, and Germany is stifling demand for organic foods. Organic Monitor expects positive market growth rates to continue, albeit at lower rates than previous years.

The major challenge the organic food industry faced in 2007 was supply shortages. Demand for organic foods was outpacing supply, with some farmers discouraged to convert to organic farming because of food inflation. Prices of agricultural products reached record highs because of rising fuel costs and growing competition for land from biofuel crops. The global economic slowdown has curbed food inflation, but high interest in biofuel crops like sugar beets and corn remains.

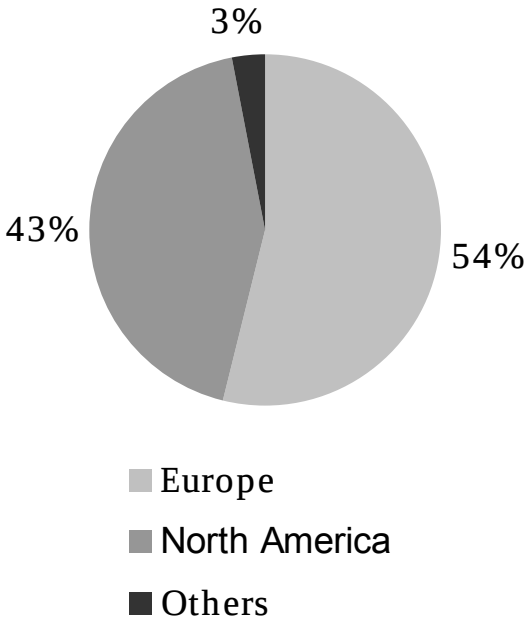


Figure 16: The global market for organic food and drink: Distribution of global revenues by region 2007

Note: All figures are rounded

Source: The Global Market for Organic Food & Drink (Organic Monitor).

With demand slowing, some sectors of the organic food industry could face oversupply. Sectors like organic fruits, grains, meats and dairy could once again experience overproduction. Producers in developing countries are likely to be most affected, especially if they are focusing on export markets. Such producers are advised to look at developing internal markets and diversify their business risk.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Standards and Regulations

BEATE HUBER[1] AND OTTO SCHMID[2]

Introduction

Farmers' associations developed the first standards for organic production in the middle of the last century. The first international standards were published by IFOAM in 1980. The first governmental regulations were introduced by some European countries, including Austria and France, in the 1980s. In 1991, the EU passed the organic EU Regulation 2092/91 and set standards with major implications for international trade; they covered not only production standards, but standards for labeling and inspection as well. Various countries in Europe, Latin America and Asia - including Japan - introduced legislation in the 1990s. In 1999, the Codex Alimentarius approved the first guidelines for organic plant production, which were amended with requirements for livestock production in 2001. In the new millennium, most major economies have established a regulation for organic production. On January 1, 2009, the completely revised Regulation on Organic Production EU Regulation (EC) 834/2007 and its implementation rules came into force.

For a list of countries with regulations or in the process of drafting regulations on organic agriculture, see Table 17. The data on regulations around the world were collected from authorities and experts. The classification of whether the regulation is "not yet fully" or "fully implemented" is based on feedback from the persons interviewed, but was 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. Please send comments or information on countries not listed to beate.huber@fibl.org.

Table 17: Regulations: Countries with regulations on organic agriculture

Region	Country	Remark
European Union (27)[3]	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] 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

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

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
	Luxembourg	Fully implemented
	Malta	Fully implemented
	Poland	Fully implemented
	Portugal	Fully implemented
	Romania	Fully implemented
	Slovak Republic	Fully implemented
	Slovenia	Fully implemented
	Spain	Fully implemented
	Sweden	Fully implemented
	The Netherlands	Fully implemented
	United Kingdom	Fully implemented
Others Europe (11)	Albania	Not fully implemented
	Croatia	Fully implemented
	Iceland[1]	Fully implemented
	Kosovo	Not fully implemented
	Macedonia, The former Yugoslav Republic	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 (11)	Azerbaijan	Not fully implemented
	Australia[4]	Only export regulations
	Bhutan	Not fully implemented[5]
	China	Fully implemented
	Georgia	Not fully implemented
	India[6]	Only export regulations[7]
	Israel	Only export regulations[1]

[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/ publications/ word/quarantine/approg/ nationalstandard2.doc.
[5] National framework, but no labeling regulation.
[6] National program for Organic Production (NPOP), www.apeda.com/organic/index.html
[7] National regulation expected to be passed in 2009.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Region	Country	Remark
	Japan[2]	Fully implemented
	New Zealand[3]	Only export regulations
	Philippines	Not fully implemented
	Korea South	Fully implemented
	Taiwan	Fully implemented
	Thailand[4]	Fully implemented
The Americas & Caribbean (17)	Argentina	Fully implemented
	Bolivia[5]	Fully implemented
	Brazil[6]	Fully implemented
	Canada	Not fully implemented
	Chile	Fully implemented
	Costa Rica[7]	Fully implemented
	Colombia	Fully implemented
	Dominican Republic	Not fully implemented
	Ecuador[8]	Fully implemented
	El Salvador[9]	Not fully implemented
	Guatemala	Fully implemented
	Honduras[10]	Not fully implemented
	Mexico	Not fully implemented
	Paraguay[11]	Not fully implemented
	Peru[12]	Fully implemented
	USA[13]	Fully implemented
	Venezuela	Not fully implemented
Africa (3)	Ethiopia	Not fully implemented
	Ghana	Not fully implemented
	Tunisia	Fully implemented

Source: Huber, Silva, Gelman, FiBL 2006 updated 2009

[1] Regulation for national market will come into force in 2009.
[2] JAS Standards for organic plants and organic processed foods
www.maff.go.jp/soshiki/syokuhin/hinshitu/e_label/specificJAS-organic.htm
[3] New Zealand Food Safety Authority (NZFSA) Official Assurance program for Organic Products
www.nzfsa.govt.nz/organics/index.htm
[4] Homepage of the National Bureau of Agricultural Commodity and Food Standards www.acfs.go.th/eng/index.php
[5] www.aopeb.org/
[6] www.planetaorganico.com.br
[7] www.mag.go.cr/doc_d/reg_ley_mag.html
[8] www.sica.gov.ec/agronegocios/ productos%20para%20invertir/organicos/principal.htm
[9] www.elsalvadororganico.com.sv/
[10] www.senasa.gob.hn
[11] www.senave.gov.py/index.php ?pag=ampliamos&Cod_noticias=102
[12] www.senasa.gob.pe/0/modulos/ JER/JER_Interna.aspx?ARE=0&PFL=0&JER=671
[13] www.ams.usda.gov/nop/indexIE.htm

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Table 18: Countries in the process of drafting regulations

Region	Country
Europe (3)	Bosnia & Herzegovina
	Russia
	Ukraine
Asia and Pacific Region (7)	Armenia
	Hong Kong
	Indonesia
	Lebanon
	Saudi Arabia
	Sri Lanka
	Vietnam
The Americas & Caribbean (4)	Cuba
	Nicaragua
	St. Lucia
	Uruguay
Africa (7)	Cameroon
	Egypt
	Kenya
	Madagascar
	Morocco
	South Africa[1]
	Tanzania

Source: Huber, Silva, Gelman, FiBL 2006 updated 2009

International standards & regulations

IFOAM Organic Guarantee System

The IFOAM Basic Standards[2] 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 worldwide 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 more access to

[1] www.afrisco.net/Html/Product_Stardards.htm

[2] On the homepage of IFOAM 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 may be purchased. The website also provides information on the IFOAM Accreditation Program.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

it. IFOAM decided that the OGS, while always upholding the integrity of organic agriculture, should 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 countries in transition economies.

The Codex Alimentarius Commission was created in 1963 by the FAO and WHO to develop food standards, guidelines and related texts such as codes of practice under the Joint FAO/WHO Food Standards Program; it established the Guidelines for the Production, Processing, Labeling and Marketing of Organically Produced Foods. The Codex Commission approved plant production guidelines in June 1999, and animal production guidelines in July 2001[1] The requirements in these Codex Guidelines are in line with the IFOAM Basic Standards and the EU Regulation (EEC) 2092/91. There are, however, differences with regard to the details and some specific areas that are covered by the varying standards.

The trade guidelines on organic food take into account the current regulations in several countries, in particular the former EU Regulation 2092/91, private standards applied by producer organizations - especially those based on the IFOAM Basic Standards. These guidelines define the nature of organic food production and prevent claims that could mislead consumers about the quality of the product or the way it was produced.

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 for equivalence judgments under the rules of WTO. In terms of developing the market for organically produced food, these Codex Guidelines 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 the criteria for the use of new substances. A working group within the Codex Committee for Food Labeling (CCFL), which meets every year in May and is supported by the government of Canada, is charged with this work. The Codex Commission adopted several amendments in the annex lists that were proposed by the CCFL in July 2008. Other substances, like nitrate, nitrates and ascorbates for meat processing and phosphates as food additives, however, were rejected for inclusion in the Codex Guidelines for organic food. In 2009, the discussion about deleting or restricting substances for pest control (in particular

[1] Information about Codex Alimentarius is available via the homepage www. codexalimentarius.net. The Codex-Alimentarius-Guidelines on organic agriculture can be downloaded from http://www.codexalimentarius.net/download/standards/360/CXG_032e.pdf.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Rotenone) and concerning the use of ethylene other than for bananas and kiwi fruits will continue.

EU Regulation on Organic Agriculture

Revision of the basic rules

In their conclusions on the European Action Plan on Organic Agriculture in 2004, the European Council requested that the EU Regulation 2092/91 on organic farming be revised in order to achieve a simplified, more coherent and less detailed regulation. In July 2007, 'Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labeling of organic products and repealing Regulation (EEC) No 2092/91' was adopted. This regulation describes the objectives, principles and basic requirements of regulations for organic production. It does not cover most of those sections that are currently regulated by annexes I to VIII, including production rules, minimum inspection rules, list of approved farm inputs, ingredients, aids and additives.

The new regulation was completely restructured and rephrased. It replaces EU Regulation (EEC) 2092/91 and came into force on January 1, 2009. Although the European Commission aimed at conserving the main content of the regulation 2092/91, there are abundant changes in the details, some of which may have serious impacts on organic farming in future. Changes relevant to producers and traders can be found in the following areas:

- Labeling requirements: the EU logo becomes mandatory for pre-packaged products produced in the EU from mid 2010 onwards. The use of the EU logo for imported products is voluntary. The EU has announced a revision of the current EU logo. The new design is expected to be published in 2009. Other changes include the introduction of the indication of origin and the labeling of organic ingredients in products that are mainly non-organic.

Overview on the structure of the new EU Regulation on Organic Production (EU Reg. 834/2007 and its implementation rules)

Basic Regulation
- Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labeling of organic products and repealing Regulation (EEC) No 2092/91

Implementation Rules
- COMMISSION REG. (EC) No 889/2008 ... for the implementation of Council Reg. (EC) No 834/2007... with regard to organic production, labeling and control
- COMMISSION REG. (EC) No 1235/2008 ... for implementation of Council Reg. (EC) No 834/2007...regarding the arrangements for imports of organic products from third countries

Further implementation rules,
such as for aquaculture, wine...

Guidelines
Guidance document for ... ... organic producer group certification schemes applied in developing countries
Further guidelines, including thos on imports of organic products into the EU

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

- Flexibility rules: The rules shall be more flexible to reflect different regional frameworks and allow for suitable reactions in catastrophic circumstances.
- There is a standard form for certificates.
- The import scheme will be completely revised (see below).

The IFOAM EU Group has published an introduction and interpretation on the new EU regulation.[1] The revised Regulation 834/2007 and its implementation rules are published on the EUR-Lex website. They are available in all official languages of the European Union.

Revised import procedures

At the end of December 2006, the EU 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 EU. Import authorizations will only be issued 12 months after the EU has published the first list of approved inspection bodies operating in Third Countries. The list is expected to be published in 2010 or 2011.

The existing system for approval of countries in the so-called 'Third Country List' is maintained. In the future, products can only imported into the EU if they have been certified by an inspection body or authority recognized by the European Commission. The EU 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.
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. The provision on compliance with the EU regulation is new.
3) List of countries whose system of production complies with rules equivalent to the EU production and inspection provisions.

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), the Codex Alimentarius shall be taken into account for assessing equivalency.

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 current system, it was difficult for inspection bodies outside the EU to prove the acceptance of their certification in the EU. They depended on European importers willing to take the hurdle to apply for an import authorization with a new or unknown inspection body. The new system allows inspection bodies from non-EU-countries to apply for recognition at their own initiative; they may prove their recognition prior to the

[1] http://www.ifoam.org/about_ifoam/around_world/eu_group/eu_group.html

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

start of trade relationships. This reduces the risk of importers when importing products certified by non-European and/or less known inspection bodies.

Import requirements of major economies

The most important import markets for organic products are the EU, US and Japan. All have strict regimes for the importation of organic products. In the EU, US 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 be achieved by the following options: a) Bilateral agreements between the exporting and the target import country and 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 US, EU and Japan - have options for bilateral recognition. A country may confirm that another country's control system and the standards are in line with the national requirements, and that the products certified in those countries can be sold on the national market. The EU currently recognizes seven countries.[1] The bilateral agreements are largely political agreements that depend on the will and political negotiations of the governments, rather than the results of technical assessments.

So far, the US has accepted few foreign governments' accreditation procedures. Certification bodies accredited according to the US requirements by Denmark, UK, India, Israel, New Zealand and Quebec are accepted by the USDA for certifying according to the US National Organic Program (NOP)[2] without being directly accredited by United States Department of Agriculture (USDA). This is just recognition of the accreditation procedures; the respective certification bodies still have to meet the requirements of NOP to issue certificates accepted by the US.

In addition, the US is negotiating equivalency agreements with Australia, the European Union, India and Japan. This means that USDA would determine that their technical requirements and conformity assessment system adequately fulfill the objectives of the NOP, and double certification would not be necessary for imports. The US announced that equivalency determinations are very complex and time consuming, and for the time being, negotiations with the EU are on hold, especially for animal production.

Acceptance of the certifying agency by the target import country

The US, EU 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.

[1] Argentina, Australia, Costa Rica, New Zealand, India, Israel, Switzerland
[2] National Organic Program (NOP) http://www.ams.usda.gov/nop/indexIE.htm

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

The US NOP requires all produce labeled as organic in the US to meet the US standards, including imported products. The US system provides for the approval of certification bodies as agents to operate a US certification program. Retroactive certification is not possible. Inspections have to be conducted by inspectors trained in NOP requirements using NOP questionnaires, and only certificates issued by certification bodies accredited by the US Department of Agriculture USDA are accepted. It is not relevant whether the certification body is based in the US or elsewhere. So far, almost 100 certification bodies have been accredited according to NOP by the USDA, and only produce certified by these certification bodies may be exported to the US.

Literature

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; eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:189:0001:0023:EN:PDF

Commission Regulation (EC) No 1254/2008 of 15 December 2008 amending Regulation (EC) No 889/2008 laying down detailed rules for implementation of Council Regulation (EC) No 834/2007 on organic production and labelling of organic products with regard to organic production, labelling and control; eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:337:0080:0082:EN:PDF

Commission Regulation (EC) No 1235/2008 of 8 December 2008 laying down detailed rules for implementation of Council Regulation (EC) No 834/2007 as regards the arrangements for imports of organic products from third countries; eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:334:0025:0052:EN:PDF

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; eur-lex.europa.eu/JOHtml.do?uri=OJ:L:2008:250:SOM:EN:HTML

DiMatteo, Katherine (2007) Overview of group certification. Prepared for the 7th meeting of the UNCTAD/ FAO/ IFOAM International Task Force on Harmonisation and Equivalence in Organic Agriculture in Bali, Indonesia. 27-30 November 2007. http://www.unctad.org/trade_env/itf-organic/meetings/itf7/ITF0711_GrowerGroups.pdf

Huber et al. (2008) Standards and Regulations. In: Willer/Yussefi (Eds.) The World of Organic Agriculture. Statistics and Emerging Trends 2007, International Federation of Organic Agriculture Movements IFOAM, Bonn, Germany and Research Institute of Organic Agriculture FiBL, Frick, Switzerland. orgprints.org/10506/

Schmid, Otto, et al. (2007): Analysis of EEC regulation 2092/91 in relation to other national and international organic standards. Report (Deliverable D 3.2). EEC 2092/91 (Organic) Revision project. Research Institute of Organic Agriculture FiBL, CH-Frick. www.organic-revision.org/pub/D_3_2_final%20report_low.pdf. Database www.organicrules.org

IFOAM EU Group (2009): The New Organic Regulation for Organic Food and Farming in Europe: EC 834/2007 - Background, assessment and interpretation for stakeholders. IFOAM European Union Group, Brussels

Websites

www.fao.org/organicag/: Information on organic agriculture by FAO with detailed country reports including the on legal situation

www.ifoam.org/about_ifoam/standards/index.html: IFOAM Guarantee system

www.ams.usda.gov/nop/indexIE.htm: Information about the US National Organic Program (NOP)

www.unctad.org/trade_env/itf-organic/ welcome1.asp: International Task Force on Harmonization and Equivalency in Organic Agriculture (ITF).

www.codexalimentarius.net/ download/standards/360/CXG_032e.pdf The Codex Alimentarius Commission and the FAO/WHO Food Standards Program: Organically Produced Foods, Rome 2007

ec.europa.eu/agriculture/qual/organic: Internet site of the European Commission on organic farming in all EU languages

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

www.ifoam.org/about_ifoam/around_world/eu_group/web_Revision/Revision_info_page.html : IFOAM EU Info page on the Revision process of EU Regulation 2092/91.

www.unctad.org/trade_env/ITF-organic/welcome1.asp: Minutes and working documents of the International Task Force on Harmonization and Equivalence in Organic Agriculture

www.certcost.org: EU project on the "economic analysis of certification systems for organic food and farming"

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

More than a Million Farms Certified by 481 Certification Bodies

GUNNAR RUNDGREN[1]

The Organic Certification Directory 2008 lists 481 organic certification bodies with contact information and further data (The Organic Standard 2008). The main results are presented here.

Current numbers by country and region

While the organic market continues to grow, there has been modest growth in the number of certification bodies. Four new countries have a domestic certification body. Numbers have gone down in the United States and China and increased in Japan. The total is 481, up from 468 in 2007. Most certification bodies are in the European Union, the United States, Japan, South Korea, China, Canada, and Brazil.

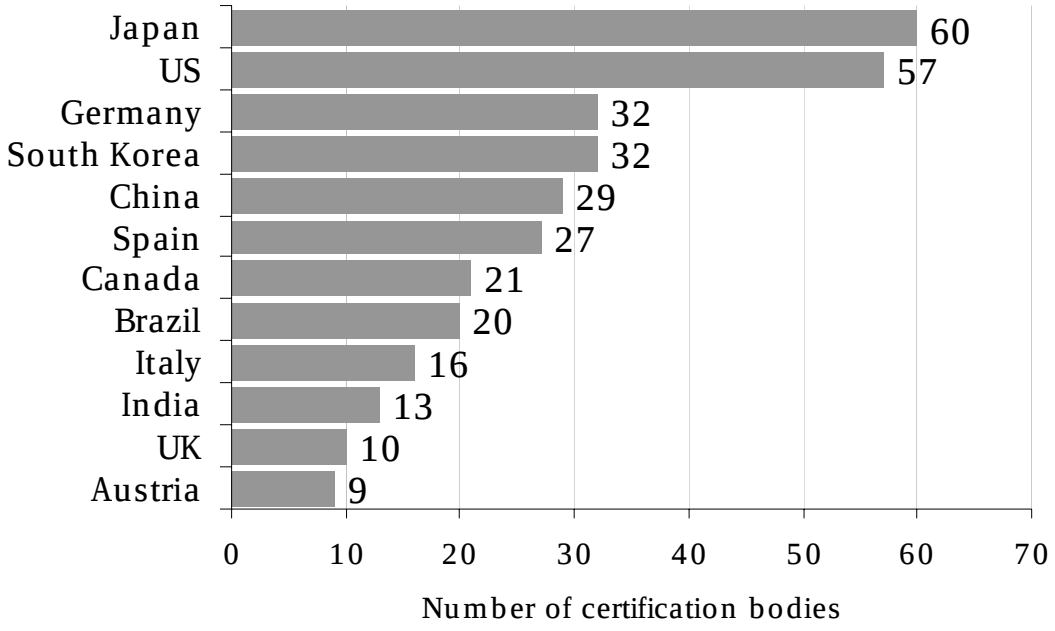


Figure 17: Certification bodies: The countries with the most certification bodies 2008

Source: Grolink, The Organic Certification Directory 2008

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; there is not a single EU-based

[1] Gunnar Rundgren, Chief Editor, The Organic Standard, Grolink AB, Torfolk, 684 95 Höje Sweden, Tel. +46 563 72345, Fax +46 563 72066, E-mail office@organicstandard.com, www.organicstandard.com

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

certification body offering its services in the United States, even when they have the required NOP accreditation. A handful work on several or all the continents.

Seventy-eight countries have a home-based certification organization. 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 157 certification bodies, most of them based in South Korea, China, India and Japan.

Number of certified operators

Certification bodies were asked for information about the number of operators they certify. Two hundred and twenty-five responded, giving a total of 183'450 operators. One hundred and eighty-nine certification bodies gave an answer regarding the number of farmers. They certified in total 969'393 farms, with BCS claiming to certify 350'000 farms. IMO's head office alone reports more than 120'000, and its office in Latin America 36'000. OneCert India certifies 55'000 farms and the Uttaranchal State Organic Certification Agency 29'156. Naturland reports 45'656 farms, and Certimex 29'650 farms. It should be noted that the same farm can be certified twice. To represent this point, many Naturland-certified farmers are also IMO-certified; the two organizations cooperate closely. Nevertheless, the number of certified farms is likely to be more than one million, as data are lacking from many important countries and certification bodies.

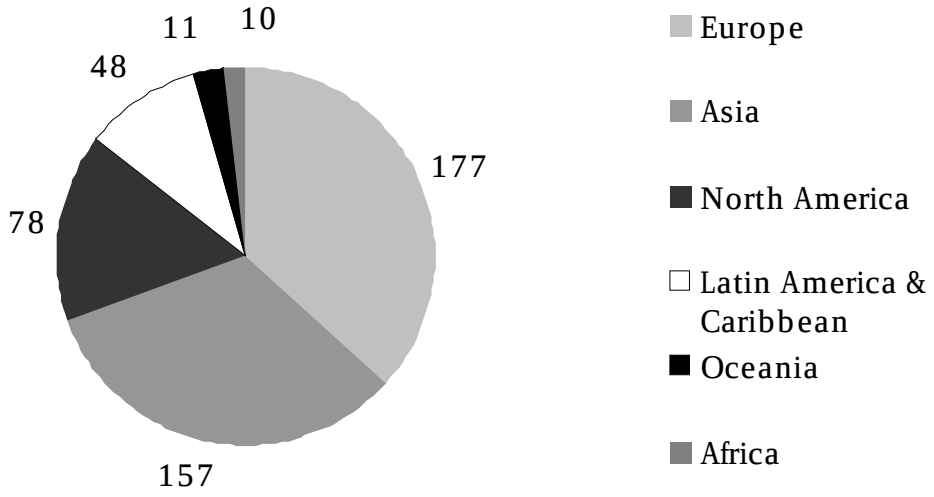


Figure 18: Certification bodies: Distribution by continent 2008

Source: Grolink, The Organic Certification Directory 2008

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Turnover

Most organizations are still not transparent about their turnover. Only 78 organizations responded. Many report figures in the range of 100'000 to 500'000 Euros. The Soil Association reports more than five million Euros. Other organizations reporting a turnover of two million Euros or more are bio.inspecta, ICEA, CCPB, Soulo and Salute, Ecocert, Qualité France, DIO, Biohellas, Skal and Debio.

Start of organic certification

Of the 314 certification bodies that responded to the question concerning the starting date of their operation, only 10 started before 1985; 63 percent started after 1997.

Approval status

There has been little movement in the approval status of organizations since 2007. Despite ISO 65 being claimed by some to be the universal standard for organic certification bodies, less than a third (157) have ISO 65 accreditation. There is a marked increase from 2007, however. The number of organizations approved in Japan increased substantially.

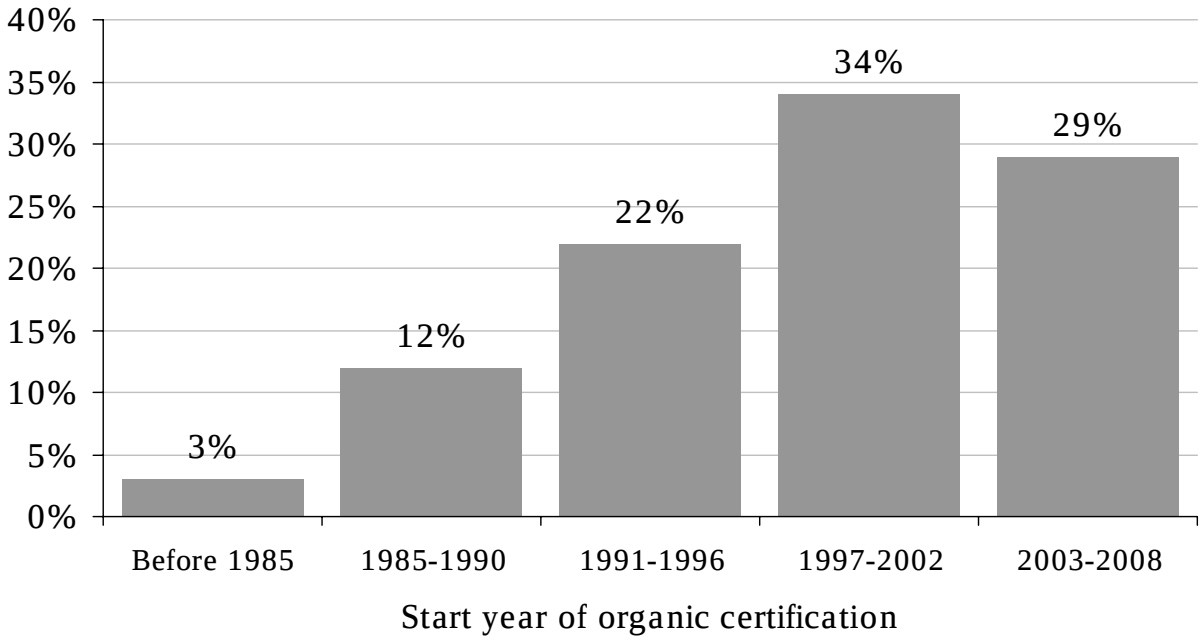


Figure 19: Certification bodies: Start of operation of organic certification

Response from 314 bodies. Source: Grolink, The Organic Certification Directory 2008

The European Union has 179 approved bodies, with 32 non-EU-based bodies recognized within its system. The majority of imports into the European Union come through certification granted under article 11.6, such as the importer's derogation. Under that system, import authorizations were granted from 108 countries in 2005. The U.S. system has 124 approved bodies, of which 68 are outside the United States, a smaller decrease from previous years. Only eight organizations, four Italian and two each from Argentina and Australia, reported all five approvals.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

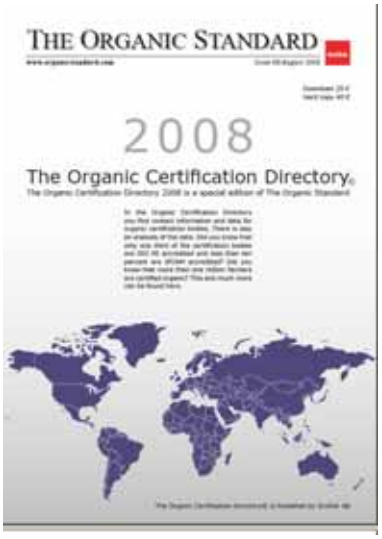
Table: Certification bodies: Numbers and approvals per region

Region	Total	IFOAM	Japan	ISO 65	EU	USA
Africa	10	2	0	4	0	0
Asia	157	6	61	19	14	13
Europe	177	14	14	87	152	32
Latin America & Caribbean	48	5	4	17	6	10
North America	78	6	13	26	0	64
Oceania	11	4	6	4	7	5
Sum 2008	481	37	98	157	179	124

Source: Grolink, The Organic Certification Directory 2008

Reference

The Organic Standard (2008): The Organic Certification Directory. Special edition of The Organic Standard. Issue 88, August 2008. Grolink, Höje, Sweden



'The Organic Certification Directory' lists 481 organic certification bodies with their full addresses and the countries of operation. Furthermore, for many certification bodies the following information is made available: Types of approval, number of operators certified, turnover.

The Organic Certification Directory as well as The Organic Standard can be ordered from:

- Grolink AB, Torfolk
  684 95 Höje Sweden
  Tel. +46-563-72345, Fax +46-563-72066
  E-mail office@organicstandard.com
  An order from available at www.organicstandard.com

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Overview of Group Certification

JOELLE KATTO-ANDRIGHETTO[1]

1 History, Objectives and Prevalence of Group Certification

Smallholder grower groups have been certified since the mid 1980s, which is even before public regulations for organic agriculture were developed. Private certification bodies developed group certification systems in order to facilitate the certification of smallholder farmers in developing countries.

Setting up Internal Control Systems (ICS) allows producer groups to apply for certification of the group as a whole, instead of individual certification of each of its members. An internal control system is the part of a documented quality assurance system that allows an external certification body to delegate the periodic inspection of individual group members to an identified body or unit within the group. This means that the third party certification bodies only have to inspect the functioning of the system, as well as to perform spot-check re-inspections of individual smallholders. Benefits of the group certification system include improved product quality, provisions for technical advice, feedback and stimulation of local development. Such systems enable all producers to participate in the global organic market, implement environmentally safe and sustainable production and develop good management practices.

Since 1994, the IFOAM has promulgated guidelines and accreditation criteria for group certification to bring consistency to the requirements by which certification bodies review smallholder groups seeking organic certification. Under the auspices of IFOAM, and with representatives of the fair trade sector, workshops were organized in February 2001, 2002 and 2003 on the topic of smallholder group certification. The consensus positions from these workshops have been used to revise IFOAM guidance and criteria and to develop a training kit for group certification. The guidance and criteria provided by IFOAM has been adopted by certification bodies and incorporated into government guidance documents. The criteria for certifying, auditing and inspecting group certification follows established international standards, such as ISO/IEC Guide 62: Annex 3 and ISO/IEC Guide 17021.

In 2001, there were about 350 different grower groups existing in developing countries, comprising close to 150'000 smallholders whose organic products are exported. Recent statistics are not available, but given the expansion of market demand for organic products such as coffee and tea, and ingredients such as cocoa, sugar and spices, one can assume that these numbers have increased. In a recent survey of certification bodies undertaken by IFOAM, 67 percent of certified organic grower groups had less than 100 members; 18 percent under 500 members; and 0.5 percent from 3'000 to 15'000 members.

[1] Joelle Katto-Andrighetto, Organic Guarantee System Coordinator, International Federation of Organic Agriculture Movements. Charles-de-Gaulle-Str. 5, 53113 Bonn, Germany, Tel. +49 (0) 228 926 50-10, Fax: +49 (0) 228 926 50-99, headoffice@ifoam.org, www.ifoam.org

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

2 Acceptance of Group Certification by Governments

Although there is a proliferation of government regulated organic standards around the world, only the organic regulations in Argentina do not permit certification of grower groups. Other national organic standards do not specifically address the topic of group certification. At the request of certification bodies, producers or non-governmental organizations, the United States, European Union and Japan have issued statements or guidance documents on this topic.

The requirements for a Production Process Manager (PPM), a category for JAS organic certification under the Japanese organic regulation, is reportedly set with a group organization in mind (The Organic Standard, May 2002). The Japanese Ministry of Agriculture (MAFF) has informed certification bodies that group certification is allowed for organic grower groups according to JAS.

The European Union (EU) Commission approved its Guidance Document for the Evaluation of the Equivalence of Organic Producer Group Certification Schemes Applied in Developing Countries in 2003. The objectives stated in this document are "to overcome the economic difficulties in relation to the inspection of small operators in developing countries (as defined by OECD)." The document recognizes that external inspection bodies verify and evaluate the effectiveness of an internal control system and certify the group as a whole. The guidance allows for a substantial part of the inspection work to be carried out by internal inspectors in the framework of the internal control system set up by the group.

The United States National Organic Standards Board (NOSB) approved a recommendation (20 October 2002) on Criteria for Certification of Grower Groups. In this document, it is noted that Section 205.2 of the US National Organic Program (NOP) Final Rule defines "person" as "an individual, partnership, corporation, association, cooperative, or other entity." As the rule indicates that it is a "person" who seeks certification, it was concluded that grower groups, organized as cooperatives, associations or other legal entities can seek certification as one operation under the NOP without a change to the Final Rule. The NOSB recommendation includes conditions for group certification and recognizes the role of internal control systems in assuring compliance to the organic standard under the annual inspection and evaluation by the certifying agent.

A denial of certification to a grower group in Mexico for specific technical non-compliances and the subsequent appeal led to the US Department of Agriculture (USDA) making a ruling in October 2006 that had a significant effect on grower group certification. The ruling reaffirmed the requirements of Section 205.403 of the NOP Rule for on-site inspections of each production unit, facility and site that produces or handles organic products and that is included in an operation for which certification is requested. The potential disruption of trade and loss of USDA NOP certification for grower groups worldwide was postponed by a NOP statement, issued in May 2007 that the 2002 NOSB recommendation on grower group certification must be used as interim guidance until such time that the new or additional guidance is issued and/or amendments to the NOP regulations are decided.

The US being the largest market for organic products in the world, and group certification being a main model through which developing country organic producers are certified, it was essential for IFOAM to influence the outcome of the NOSB recommendation drafting

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

process. From the beginning of August 2007 and throughout 2008, IFOAM liaised regularly with the CACC, the committee in charge of revising the recommendation and with the US National Organic Program (NOP) to educate on and advocate for the group certification concept based on IFOAM criteria and guidelines. IFOAM also submitted several official comments to the draft proposed by the CACC at various NOSB meeting during the period. It seems now assured that group certification will remain acceptable under the NOP rules. However, the detailed requirements are still under discussion, and IFOAM will continue, as much as possible, to take a leading role in assuring private sector input into the design of the final requirements.

In 2008, the International Task Force on Harmonization and Equivalence in Organic Agriculture (ITF), an initiative lead by IFOAM, the United Nations Conference on Trade and Development (UNCTAD) and the Food and Agriculture Organization of the United Nations (FAO), with the involvement of government representatives, published an international tool for recognizing organic certification bodies. This tool, named *International Requirements for Organic Certification Bodies* (IROCB), recognizes group certification as an option available to certification bodies under certain requirements. The IROCB does not limit the scope of group certification to smallholders, but instead leaves it potentially open to all kinds of operations.

Three Group Certification Principles in Major Guidelines and Governing Norms

A review of the guidelines available on certification of grower groups – IFOAM, NOSB, and European Union – shows there is significant agreement and similarities in these documents on the scope, principles and criteria for group certification. The scope of these documents is to address group certification of operations with similar production systems and centralized marketing, which are organized as a single legal business entity with an internal quality system (also called internal control system) that assures compliance of each farm plot within the group to organic standards in an objective and transparent manner.

The principle, consistent in these guidance documents, upon which group certification is based, is a managed and documented internal quality assurance system responsible for all production units, facilities and sites in the group. The group's quality assurance system is verified at least annually by the certification body through audits and on-site inspections. Individual inspections of farm plots are conducted primarily to validate the functioning of the quality system.

The role of the certification body is to evaluate the effectiveness of the internal control system (quality system) in enforcing compliance with organic standards on the farm plots of the group. The guidance documents, to a greater or lesser extent, provide specific protocols for the effective implementation of on-site inspections of a certified group operation. These protocols include a thorough audit of the quality system through document review, interviews with managers, producers, and field agents responsible for various aspects of the organic system plan, and at least an annual on-site inspection of the offices, facilities and production units, as well as a sampling of the farm plots in the group.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

The Organics Trade Development Programme (OTDP) of the International Trade Centre (ITC)

ALEXANDER KASTERINE[1]

The International Trade Centre (ITC) is the joint technical cooperation agency of the United Nations Conference on Trade and Development (UNCTAD) and the World Trade Organization (WTO). It works with the organic sector in developing countries through its Organics Trade Development Programme (OTDP).

Developing countries face serious obstacles to the export of organic products, including meeting the quality demands of buyers, a lack of information about standards, dealing with the complexities and costs of certification, responding to market trends and establishing partnerships with potential importers. ITC works with small companies and trade support institutions in overcoming these obstacles and to increase access international markets. ITC's Trade and Environment Programme supports the organic sector in developing countries through the provision of market information, by facilitating business-to-business contacts, increasing use of the internet, offering training in standards and certification and providing policy support. The program is currently working in Kenya, Madagascar, Rwanda and Uganda. All UN Member States are eligible to join the program subject to availability of funding.

Building sustainable organic supply and exports in food products and natural ingredients

Food products

ITC runs a training program for organic conversion and marketing in East Africa with the objective of helping small and medium enterprises (SMEs) and farm cooperatives access organic markets.

During 2008, ITC, together with national partners the National Organic Movement of Uganda, Agro Eco and the Kenya Organic Agriculture Network, embarked upon the training in organic production of 5'000 smallholder farmers (coffee, fruits, and vegetables) in East Africa. By the end of the year, they were ready for group certification. By early 2009, these groups will have received organic certificates. In 2009, a new set of farm groups in the region will undergo the same process.

At BioFach 2009, ITC supported the participation of 15 companies from sub Saharan Africa to market their products at the African Pavilion. These exporters are supplied by thousands of farmers!

[1] Dr. Alexander Kasterine, Senior Market Development Adviser, International Trade Centre (ITC), UNCTAD/WTO, Rue de Montbrillant, 54-56, 1202 Geneva 10, Switzerland , Internet: www.intracen.org/organics

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Natural ingredients

ITC will extend this technical assistance approach to the sustainable collection and trade in biodiversity products collected in the wild. In 2007, ITC published the 'World Market for Organic Wild Collection Products,' which demonstrated that there was a rapidly growing market for sustainably sourced, organic and natural ingredients.

ITC began its program of support in the biodiversity products sector by supporting, in collaboration with the Swiss Import Promotion Programme (SIPPO), the business fair side event of the 4th World Congress of Medicinal and Aromatic Plants, WOCMAP IV. The congress is held every five years; in 2008 the theme was 'using plants for the benefit of people.'

ITC supported eight African exporters of herbal products on the basis of their sustainable sourcing policies and their direct involvement with local communities, wild collectors and growers of medicinal plants. The products range from dried herbs, herbal teas, herbal extracts, and essential oils to herbal-based products for the pharmaceutical and dietary supplement industries. Overexploitation is often intrinsically linked with poverty. Environmental sustainability of the resource extraction ensures the long-term economic viability of the trade.

Market information

The 'Organic Market News Service' is a bimonthly publication for small and medium enterprises (SMEs) 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. This initiative from ITC was launched in 2007.

ITC's web portal Organic Link contains an open database of importers and exporters of organic products, NGOs and research centers (www.intracen.org/organics), which enables buyers to find suppliers according to product and country of origin, and similarly, enables exporters to find new buyers. The website also serves as a valuable source of complimentary sector information, with links to several hundred market studies, business news and directories. An FAQ section gives users answers to frequently asked questions on organic and natural products.

Link

- Organic products homepage of the International Trade Centre ITC
  http://www.intracen.org/dbms/organics/index.asp

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

UNCTAD's Work on Organic Agriculture

SOPHIA TWAROG[1]

Why does UNCTAD work on organic agriculture?

A major new report prepared by over 400 scientists released in April 2008[2] clearly stated the need for a radical change in the way the world grows its food if it is to cope with a growing population and climate change while avoiding social breakdown and environmental collapse. Moving towards sustainable agricultural practices and seeing that small-scale farmers are not excluded are key.

Organic agriculture is one of the most promising options in meeting the challenge of alleviating poverty, increasing incomes and enhancing trade, while at the same time protecting the environment. Organic agriculture is sustainable and environmentally friendly production system that offers developing countries a wide range of economic, environmental, social and cultural benefits. It is a promising trade and sustainable development opportunity and a powerful tool for achieving the Millennium Development Goals, particularly those related to poverty reduction and the environment.

What is UNCTAD doing on organic agriculture?

The work of the United Nations Conference on Trade and Development (UNCTAD) on organic agriculture as a trade and sustainable development opportunity has intensified in recent years. It spans research and policy analysis, two action-oriented task forces with key partners, and pro-development advocacy.

A. Research and Policy Analysis

Research carried out in the preparation of the *UNCTAD Trade and Environment Review 2006* and in the context of joint task forces clearly demonstrated the many economic, environmental, social and cultural benefits that organic agriculture can offer. Research also addressed impact of organic exports on economic welfare of smallholder African farmers, how to overcome trade-related challenges and best practices for governments to fully take advantage of this dynamic sector.

B. UNEP-UNCTAD Capacity Building Task Force on Trade, Environment and Development (CBTF)

The results of this research spurred intensified action. Organic agriculture was chosen as a priority area to be addressed by the UNEP-UNCTAD Capacity Building Task Force on Trade,

[1] Dr. Sophia Twarog, Economic Affairs Officer Trade, Environment and Development Branch UNCTAD/DITC E. 8015, Palais des Nations, CH-1211 Geneva 10, Switzerland, Tel. +41 22 917 5082, Fax +41 22 917 0247, www.unctad.org/trade_env

[2] International Assessment of Agricultural Knowledge, Science and Technology for Development, www.agassessment.org

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Environment and Development (CBTF). The concept for the CBTF project on 'Promoting production and trading opportunities for organic agricultural products in East Africa' was launched in 2005 (see chapter on the CBTF by Naqvi in this volume and Twarog, 2008).

C. UNCTAD-FAO-IFOAM International Task Force on Harmonization and Equivalence in Organic Agriculture (ITF)

The UNCTAD-FAO-IFOAM International Task Force on Harmonization and Equivalence in Organic Agriculture (ITF) has worked from 2003 to 2008 to reduce technical barriers to trade in organic agricultural products that result from the lack of harmonization and interoperability of organic regulations, private standards and certification requirements.

The ITF was a forum for dialogue between public and private sector institutions involved in regulating the international organic sector. Since 2003, ITF members have come from 25 Governments (including the National Organic Program of the United States of America), eight intergovernmental organizations, and some 20 private sector bodies. It commissioned technical studies to fill information gaps and met at least once a year to discuss and agree on next steps. It published its work in books (five volumes) and on the website www.unctad.org/trade_env/ITF-organic/welcome1.asp.

The ITF work has led to increased understanding of issues, dialogue between private and public sector and among governments, improved cooperation including catalyzing regional harmonization processes (Asia, Africa, Pacific) and increased influence on new regulations and revision of existing ones. Meeting eight times in six years, the ITF completed a series of studies analyzing impediments to organic trade and formulated a set of recommendations. It has also developed two concrete tools:

- Tool for Equivalence (EquiTool), an international guideline for determining equivalence of organic standards.
- International Requirements for Organic Certification Bodies (IROCB), establishing an international baseline on what organic certification bodies must do to be effective, as a basis for equivalence, mutual recognition and future harmonization.

The ITF encourages all stakeholders to accept, in the context of trade, effective organic standards and conformity assessment that

- are tailored to the agro-ecological and socio-economic conditions of the producing country;
- are equivalent to international standards for organic production either Codex Alimentarius Guidelines (32-1999) or the IFOAM requirements.
- meet international standards for organic conformity assessment (IROCB).

At a launch in Geneva in October 2008, the tools were presented to the public. A 'Beyond ITF' project is envisaged to promote uptake of the ITF recommendations and tools and assist developing countries in reaping benefits. More information on ITF is available on www.itf-organic.org.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

D. Pro-development Advocacy

UNCTAD has also joined forces with ITC, UNEP and IFOAM in advocacy work to ensure that emerging issues do not restrict market access/entry for developing country organic products. A prime example of this is the joint UNCTAD-ITC-UNEP statement decrying the Soil Association's proposed ban on air-freighted organic products, as this would have had devastating impact on small-scale organic farmers in Africa. The action was effective: the ban idea was dropped. UNCTAD and partners are also engaged to try to keep the group certification option open for organic smallholder farmers in developing countries exporting to the United States.

Literature

Twarog, Sophia (2008): East African Organic Product Standard and more. In: The World of Organic Agriculture – Statistics and Emerging Trends 2008. IFOAM, Bonn and FiBL, Frick. Available at www.orgprints.org/13123/

UNCTAD (2006): Trade and Environment Review. UNCTAD/DITC/TED/2005/12, Sales no.: E.05.II.D.27, ISBN: 92-1-112608-6, 296 pages, US$ 40. www.unctad.org/Templates/WebFlyer.asp?intItemID=3725&lang=1 (2008 edition coming soon)

UNCTAD (2008): Certified organic export production. Implications for economic welfare and gender equality among smallholder farmers in tropical Africa. UNCTAD/DITC/TED/2007/7. http://www.unctad.org/trade_env/test1/publications/UNCTAD_DITC_TED_2007_7.pdf

UNCTAD/ FAO/ IFOAM (2004): Harmonization and Equivalence in Organic Agriculture. Volume 1, Background papers of the International Task Force on Harmonization and Equivalence in Organic Agriculture. UNCTAD/DITC/TED/2005/4, ISBN 3-934055-47-8. www.unctad.org/trade_env/itf-organic/publications/Complete Harmonization Book Vol 1.pdf

UNCTAD/ FAO/ IFOAM (2006): Strategy on Solutions for Harmonizing International Regulation of Organic Agriculture. Volume 2, Background papers of the International Task Force on Harmonization and Equivalence in Organic Agriculture. UNCTAD/DITC/TED/2005/15, www.unctad.org/trade_env/itf-organic/publications/ditcted200515_en[1].pdf

UNCTAD/ FAO/ IFOAM (2007): Harmonization and Equivalence in Organic Agriculture. Volume 3, Background papers of the International Task Force on Harmonization and Equivalence in Organic Agriculture. UNCTAD/DITC/TED/2007/1, www.unctad.org/trade_env/itf-organic/publications/UNCTAD_DITC_TED_2007_1.pdf

UNCTAD/ FAO/ IFOAM (2008): Harmonization and Equivalence in Organic Agriculture. Volume 4, Background papers of the International Task Force on Harmonization and Equivalence in Organic Agriculture. UNCTAD/DITC/TED/2007/14, www.unctad.org/trade_env/itf-organic/publications/UNCTAD_DITC_TED_2007_14.pdf

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

The UNEP-UNCTAD CBTF Activities for Promotion of Trade in Organic Agriculture

ASAD NAQVI[1]

Launched in 2000, the UNEP-UNCTAD Capacity Building Task Force on Trade, Environment and Development (CBTF) is a collaborative initiative between the United Nations Environment Programme (UNEP) and the United Nations Conference on Trade and Development (UNCTAD). It provides support to countries on issues related to trade and environment in pursuit of national sustainable development and poverty reduction goals. It was created in response to requests by governments to help developing countries and countries with economies in transition to understand and address the complex trade-environment-development linkages at the national level and also to effectively participate in negotiations at the international level.

By combining UNEP's expertise on the environmental aspects of trade and UNCTAD's expertise on the developmental aspects of trade, and with access to both organizations' global networks and work programs, CBTF provides a highly effective framework for implementing a comprehensive set of capacity building activities that respond to nationally defined needs. In undertaking its activities CBTF also maintains close cooperation with the World Trade Organization (WTO), governments, intergovernmental organizations (IGOs) and non-governmental organizations (NGOs).

Since its inception, the CBTF has provided capacity building support to over 1'200 policy makers and stakeholders from 39 countries. So far, CBTF has convened more than 30 capacity building events in Asia, Africa and Latin America, and has sent advisory missions to China, Jordan, Kenya, Russia, Tanzania and Uganda. In addition, the CBTF has implemented 10 country projects on issues ranging from the promotion of trade in organic agriculture to supporting national wildlife trade policy reviews. The CBTF has also prepared 11 research papers and reports.

The activities of CBTF since 2004 are focused on three thematic areas: (i) Organic Agriculture, (ii) Environmental Goods and Services, and (iii) Trade and Multilateral Environmental Agreements (MEAs).

This chapter provides information on organic agriculture related activities of the CBTF between 2004-2008.

[1] Asad Naqvi, Program Officer, UNEP-Economics and Trade Branch, Coordinator, UNEP-UNCTAD Capacity Building Task Force on Trade, Environment and Development (CBTF), D502- International Environment House, 11-13 Chemin des Anemones, CH-1219 Chatelaine, Geneva, Tel. +41 22 9178620, Fax +41 22 9178076, E-mail asad.naqvi@unep.ch, www.unep.ch/etb, www.unep-unctad.org/cbtf

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

The UNEP-UNCTAD CBTF Organic Agriculture Initiative

In order to demonstrate that environmental protection is not only compatible with economic growth but can also promote trade, generate employment, help address climate change, and reduce poverty, the United Nations Environment Programme (UNEP) and the United Nations Conference on Trade and Development (UNCTAD) selected organic agriculture as one of the three thematic areas to be addressed in the framework of the UNEP-UNCTAD Capacity Building Task Force on Trade, Environment and Development (CBTF).

In 2005, after a year of consultations and preparatory activities, the CBTF launched the initiative 'Promoting Production and Trading Opportunities for Organic Agricultural Products in East Africa.'

The initiative was designed to directly support the Governments of Kenya, Tanzania and Uganda, and indirectly benefit other developing countries in and outside Africa, to capitalize on the environmental, social, economic and trade benefits of organic agriculture. The first part of the initiative comprised of a number of background studies. The second part consisted of country projects that used integrated assessment tools to help develop policy options for promotion of organic agriculture, and the third part, which was implemented in partnership with IFOAM, focused on promoting regional cooperation including through the development of an East Africa Organic Standard. In 2006, Burundi and Rwanda joined regional activities under Part III.

Part I: Background studies

Under the initiative, the following three background studies have been completed and are being widely referenced for work on organics in and outside East Africa:

1) *Overview of the Current State of Organic Agriculture in Kenya, Uganda and the United Republic of Tanzania and the Opportunities for Regional Harmonization*. This study provides an overview of the current state of organic agriculture in Kenya, Uganda and the United Republic of Tanzania (Taylor 2006). For each country, information is provided on the organic sector stakeholders, production, domestic markets, exports, standards, certification and policies. It also highlights the potential benefits of increased regional cooperation in this area, including harmonization of organic standards. Finally, the study makes a number of recommendations to promote the further development of this vibrant sector.
2) *Best Practices for Organic Policy*: *What Developing Country Governments Can Do to Promote the Organic Sector* (CBTF 2008). The report develops 35 detailed recommendations for countries interested in developing their organic sector. These have been divided into recommendations for: 1. General Policy, 2. Standards and Regulation, 3. Markets, 4. Production and 5. Others, including training, education and research. The study notes that in almost all countries, the early drivers of organic sectors are non-governmental organizations (NGOs) and the private sector. Governments are thus advised to work in close cooperation with the stakeholders and start with undertaking an integrated assessment of the sector to understand the conditions of the sector and how current polices affect it. Any organic policy and action plan should be linked to the

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

overarching objectives of the country's agriculture policies in order to make them mutually supportive. It is proposed that Governments should take an enabling and facilitating role rather than a controlling one. They should support the building of organic agriculture supply capacities through education, research, extension services, access to certification services, local and regional market development and export facilitation. High priority should be given to the training of both civil servants and private sector actors. The adaptation of policy measures to the conditions of the organic sector in the country and the stage of its development are vital for a successful development of organic agriculture.

3) *Organic Agriculture and Food Security in Africa*. The evidence presented in this study supports the argument that organic agriculture can be good for food security in Africa — equal or better than most conventional systems and more likely to be sustainable in the longer-term. The 15 case studies examined in-depth have shown increases in per hectare productivity for food crops, increased farmer incomes, environmental benefits, strengthened communities and enhanced human capital. The conclusions of this study are confirmed by the findings and recommendations of the recently released report of the International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) panel, an intergovernmental process, supported by over 400 experts under the co-sponsorship of the Food and Agriculture Organization of the United Nations (FAO), UNEP, the Global Environment Facility (GEF), the United Nations Development Programme (UNDP), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the World Bank and the World Health Organization (WHO). The report strongly stated that 'the way the world grows its food will have to change radically to better serve the poor and hungry if the world is to cope with growing population and climate change while avoiding social breakdown and environmental collapse.' The authors found that: 1. progress in agriculture has reaped very unequal benefits and has come at a high social and environmental cost; and 2. food producers should try using 'natural processes' like crop rotations and organic fertilizers. The authors call for more attention to small-scale farmers and utilizing sustainable agricultural practices, and specifically mention organic farming as an option several times.

Part II: Country projects

The three national integrated assessment country projects have been completed in Kenya, Tanzania and Uganda. These projects were carried out by national institutions under the leadership of government agencies and with the technical support of UNEP-UNCTAD CBTF.

To ensure widest possible participation of stakeholders in the development of policy options, a multi-stakeholder consultative process was made an essential part of the country projects. A national steering committee, which consisted of representatives of national ministries, private sector, NGOs and academia, were set up to provide strategic guidance and technical support to the project. To ensure coordination and exchange of information between the three country project teams, a regional steering committee, which consisted of three members from each country, was set up. In addition, wider national level consultations through national stakeholder workshops were organized at different stages of the

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

project to validate the findings of the national project teams and to provide inputs and feedback into the process.

Country	National Project Teams	
	Lead Government Agency (LGA)	National Institution designated by LGA to undertake the assessment
Kenya	National Environment Management Authority (NEMA)	Bridge Africa
Republic of Tanzania	Crop Development Division, Ministry of Agriculture and Food Security	Environmental, Human Rights Care and Gender Organization (Envirocare)
Uganda	Uganda Export Promotion Board (UEPB)	Advocates Coalition for Development and Environment (ACODE)

The draft reports of the country projects have been uploaded on the UNEP-UNCTAD CBTF website (www.unep-unctad.org/cbtf) for public consultation. These reports provide in-depth information on: the current state of the sector, major stakeholders at the national level and their roles, current policies that have relevance for the organic sector, policy options for promotion of the organic agriculture sector, assessment of potential environmental, economic and social impacts of proposed policy options and assessment of future capacity-building requirements (see literature). A synthesis report of this initiative is also being prepared and will be available in 2009.

Part III: Development of a regional organic standard

When the UNEP/UNCTAD CBTF East African initiative was launched in 2005, at least five public and several private international standards were there for organic agricultural production in East Africa. The stakeholder consultations clearly emphasized that in order to reap the multifaceted benefits that organic agriculture offers, governments must create an enabling environment that helps organic agriculture producers and exporters to overcome a number of obstacles, including a number of non-tariff barriers such as national and regional standards (see also article by Sophia Twarog in 'The World of Organic Agriculture 2008').

The UNEP-UNTAD CBTF and the International Federation of Organic Agriculture Movements (IFOAM) joined forces to support the development of an East African Organic Product Standard (EAOPS) and an associated East African Organic Mark (EAOM).

The process started with a comparison of existing national standards in order to find what were the similarities and differences among them. The second step was the establishment of the Regional Standards Technical Working Group (RSTWG). The RSTWG was a regional public-private sector working group charged with drafting the East African Organic Product Standard (EAOPS). Its members included representatives of the national bureaus of standards, national organic movements, the organic certifying bodies of Kenya, Tanzania, Uganda, Burundi and Rwanda, and the East African Business Council (EAC). This working group was co-chaired by representatives from UNEP-UNCTAD CBTF and IFOAM, who assisted in organizing the regional meetings.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

The whole process involved four meetings of the Regional Standards Technical Working Group, two regional workshops, as well as direct consultations and personal meetings with representatives of Ministries of Agriculture, national bureaus of standards and the East African Business Council; wider stakeholder consultation through national multi stakeholder meetings and electronic means was also an integral component. In total, the process probably reached and involved directly over 1'000 people.

Three drafts of the East African Organic Product Standard (EAOPS) were developed, revised and improved by the actors that participated in the process. The third and final draft was presented by the Kenya Bureau of Standards (KEBS) - who had been asked to be the sponsor for the official adoption of the EAOPS - to the formal EAC standards harmonization process in February 2007. In April 2007, the EAOPS was adopted by the EAC council as its official standard under official document number EAS 456. Through this adoption, the EAOPS automatically becomes the official standard for the member states, and any existing public national organic standards have to be withdrawn.

The Prime Minister of Tanzania launches the East African Organic Product Standards

From Left to Right: Honorable Stephen Masatu Wassira, Tanzanian Minister of Agriculture, Food Security and Co-operatives, Honourable Edward N. Lowassa, Prime Minister of Tanzania, Mrs. Mwatima Juma, Chairperson Tanzania Organic Agriculture Network, Asad Naqvi, Programme Officer, United Nations Environment Programme, Gunnar Rundgren, International Federation of Organic Agriculture Movements (IFOAM)

An East African Organic Conference was held in Dar es Salaam in May 2007 where the Prime Minister of Tanzania officially launched the East African Organic Product Standard

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

(see picture).[1] It is now the second regional organic standard in the world, after the European Union, and the first ever to have been developed through a public-private-NGO partnership. The standard will help East African organic farmers to gain access to export markets and support organic trade and market development within the region and with external export markets.

Support for an African Pavilion at the BioFach 2008

BioFach is the largest organic trade fair in the world and has established itself as a meeting place for those involved in organics. To help increase exports of organic products from Africa and to raise awareness about the EAOPS and the EAO Mark, the UNEP-UNCTAD CBTF joined many other organizations in supporting the first ever Africa Pavilion at the BioFach. Exporters, national organic movements and export promotion agencies showcased the specialties from African countries. More than 73 exporters from thirteen African countries displayed their products. Besides exporters, other related organizations were invited.

In addition to the African Pavilion, a day-long symposium was held to highlight the status of organics in Africa. Participants received updates and information about the opportunities for (and challenges to) trade and development, including the impact of organic agriculture on small-holder farmers and what is being done to promote organic agriculture by governments, the private sector and development partners. A high-level panel with policy makers and opinion makers discussed the potential of organic agriculture to help achieve the Millennium Development Goals.

Initial major impacts of the initiative

- Increased awareness of the benefits of organic agriculture in East Africa, and improved public-private sector dialogue and partnership.
- The EAOPS was developed through a regional public-private sector partnership and adopted by the East African Community.
- As a result of efforts of CBTF and its partners, The Uganda National Export Strategy 2007–2012 has included organic products as a priority sector for export promotion. In addition, Uganda is developing a national organic agriculture policy that is expected to be finalized in the coming months.
- In Kenya, a clear focal point for organic agriculture has been established in the Ministry of Agriculture, and the national food and nutrition policy is currently under review to, inter alia, include a section on organics.
- In Tanzania, organic agriculture has been incorporated into the national agriculture policy. In addition, a National Organic Agriculture Development Programme has been established in line with CBTF recommendation.
- National Gazettes are being issued to institutionalize the use of EAOPS as national standards. The first such gazette was issued by Uganda in May 2008.

[1] ITV coverage of the launching ceremony is available at www.youtube.com/watch?v=S9v9b4TX58k

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Future Plans

UNEP-UNCTAD CBTF has received numerous requests for follow up activities in East Africa and expansion of activities to other regions. However, being an extra-budgetary program that depends on the financial support of donors and contributions from governments and institutions, activities are only launched in phases according to timing and availability of financial resources. The CBTF will welcome partnerships with other organizations, governments and donors interested in support the organic sector. Thanks to a contribution from the Government of Austria, activities in East Africa are continuing in 2008 to 2009. An updated overview of organic agriculture in East Africa (covering Burundi, Ethiopia, Kenya, Rwanda, Tanzania and Uganda) is currently under preparation. In 2009, the CBTF plans to support a national consultation to finalize the text of organic agriculture policy in Uganda, a national public-private dialogue in Ethiopia, and, together with other partners, a regional organic conference in East Africa.

Literature

UNEP-UNCTAD CBTF (2008): Best Practices for Organic Policy: What Developing Country Governments Can Do to Promote the Organic Sector. CBTF/United Nations, New York and Geneva. www.unep-unctad.org/cbtf/publications/Best_Practices_UNCTAD_DITC_TED_2007_3.pdf

UNEP-UNCTAD CBTF (2008): Organic Agriculture and Food Security in Africa. CBTF/United Nations, New York and Geneva. www.unep-unctad.org/cbtf/publications/UNCTAD_DITC_TED_2007_15.pdf

East African Community (2007): East African organic products standard (EAOPS). Arusha, Tanzania. www.unep-unctad.org/CBTF/events/dsalaam2/EAS 456-2007_Organic products standard_PRINT.pdf

UENP-UNCTAD CBTF . (2007): The Integrated Assessment of Organic Agriculture in Tanzania Policy Options for Promoting Production and Trading Opportunities for Organic Agriculture. CBTF/United Nations, New York and Geneva. www.unep-unctad.org/cbtf/publications/Integrated Assessment of the OA Sector in Tanzania.pdf

UENP-UNCTAD CBTF (2007): Organic Agriculture in Kenya: An Integrated Assessment for Policy Advocacy. CBTF/United Nations, New York and Geneva. www.unep-unctad.org/cbtf/publications/Integrated Assessment of the OA Sector in Kenya.pdf

UENP-UNCTAD CBTF (2006): Overview of the Current State of Organic Agriculture in Kenya, Uganda and the United Republic of Tanzania and the Opportunities for Regional Harmonisation. This study provides an overview of the current state of organic agriculture in Kenya, Uganda and the United Republic of Tanzania. CBTF/United Nations, New York and Geneva. www.unep-unctad.org/cbtf/publications/UNCTAD_DITC_TED_2005_16rev2.pdf

UENP-UNCTAD CBTF. (2007): Integrated Assessment of Uganda's Organic Agriculture Sub-Sector: Economic Opportunities and Policy Options to Mitigate Negative Socio-economic and Environmental Impacts. CBTF/United Nations, New York and Geneva. www.unep-unctad.org/cbtf/publications/Integrated Assessment of the OA Sector in Uganda.pdf

Twarog, Sophia (2008): East African Organic Product Standard and more. In: The World of Organic Agriculture – Statistics and Emerging Trends 2008. IFOAM, Bonn and FiBL, Frick http://orgprints.org/13123/

Links

UNEP-UNCTAD Capacity Building Task Force on Trade, Environment and Development (CBTF), Organic Agriculture http://www.unep-unctad.org/CBTF/

http://www.unep.ch/etb/initiatives/GreenEconomy.php

http://www.unctad.org/trade%5Fenv/index.asp

http://www.ifoam.org/partners/projects/osea.html

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Is Organic Farming an Unjustified Luxury in a World With Too Many Hungry People?

NIELS HALBERG,[1] PANNEERSELVAM PERAMAIYAN[2] AND CHARLES WALAGA[3]

The Real Food Problem

The soaring food prices on the global markets over the past one to two years have given proponents of classical Green Revolution thinking an opportunity to renew their claims that high input agriculture based on chemical fertilizer and pesticides is the blanket solution for poor countries and farmers. This situation has also led others to question whether we should abandon all the environmental considerations in agricultural policies over the last 25 years, and relieve the regulatory burden on agriculture, and put food production in full throttle like in the good old days in the 1970s.

However, as always, the solutions proposed depend on the perception of the problem. In fact, there is little evidence that just producing more food in the North will help solve the food insecurity in the South in a sustainable way. Nor is it evident that returning to subsidized artificial fertilizers in the South would make any significant contribution to addressing the food insecurity among those communities of the South that are currently food insecure. Why is that?

First, the so-called 'Food Crisis' is, unfortunately, not a new issue; it just hit the front pages more often in 2008. The reality is that there have been approximately 750 to 850 million food insecure people globally for the last two decades, the majority living in Sub-Saharan Africa and South Asia. At the same time, enough food has been produced in terms of calories and protein to feed everyone; it has just been divided unequally!

Second, the majority of the food insecure live in the rural areas of developing countries, and their biggest problem is that they lack access to basic health and social services that are necessary to sustain one's livelihood. They also often lack access to secure land tenure, and many are too poor to purchase enough food. Moreover, most smallholders are unable to influence markets for their products. Thus, national food security does not guarantee food for all, and this has been demonstrated by the fact that India has been a net food exporter for some years, while it remains home to approximately 212 million food insecure inhabitants (FAO, 2006).

Third, for decades surplus and subsidized production in the North have supplied cheap imported food for the urban populations in many developing countries, for example in Africa, and thus inhibited investment in food production by farmers and the private sector,

[1] Niels Halberg, International Center of Research in Organic Food Systems (ICROFS), Blichers Allé, Postbox 50, DK-8830 Tjele, www.icrofs.dk
[2] Panneerselvam Peramaiyan, Department of Agroecology, University of Aarhus, Blichers Allé, Postbox 50, DK-8830 Tjele, www.agrsci.org/content/view/full/883
[3] Charles Walaga, UgoCert, P.O. Box 33743, Kampala , Uganda, www.ugocert.org

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

while the political will to invest in agricultural development in these same countries has been almost non-existent.

Fourth, because global or national abundance of food is not a sufficient condition for food security for all families, the UN has adopted a broader definition that takes into account four important aspects: food availability, food access, food stability and food utilization (see box).

Fifth, while the "green revolution" of the 1970s helped boosting crop yields, especially in Asia, it has proven very difficult to replicate this model on the African continent, partly because of weaker infrastructure and marketing systems, lower population density, low investments in agricultural development, poor extension services and higher variation in agroecological conditions. Thus, use of synthetic fertilizers has remained low and the crop yields per hectare have barely increased over the last 40 to 50 years in Africa as a whole, and remain very low (less than one metric ton per hectares for most crops according to FAOSTAT, 2007). Moreover, the yield successes of the 'green revolution' in Asia come with considerable environmental and socio-economic costs that are no longer tenable (Shiva 1991).

Therefore, it is unlikely that the chronic food crisis in parts of the south can be solved easily by returning to the intensification paradigm in the North or by increasing the use of high cost external inputs in the agriculture systems of the South. A more flexible approach is needed that takes into consideration the multiple functions of agriculture, which include enhancing environmental and natural resource sustainability and maintenance of livelihood and the social and cultural traditions of the people (Markwei et al., 2008). In this paper, we review some of the available evidence on the potential contribution of organic farming to food security in the south.

Definition of food security

"Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (World Food Summit, 1996).

Food security dimensions used by the World Food Summit and the Food and Agriculture Organization (FAO)

- Food Availability: sufficient quantities of food of appropriate quality

- Food Access: Access, by individuals, to adequate resources and entitlements for acquiring appropriate foods for a nutritious diet

- Food Stability: access to adequate food at all times, resilience to economic and climatic shocks

- Food Utilization: ways in which food contributes to an adequate diet, clean water, sanitation and health care, and in turn, to a state of nutritional well-being where all physiological needs are met

In a report on organic agriculture and food security published by FAO in 2007, it is stated that "the multidimensional nature of food security can be improved by organic agriculture." (Scialabba 2007).

The potential of organic agriculture to alleviate food insecurity

Modern organic agriculture contributes positively to food security by – ideally - improving smallholder farmers' conditions on all four dimensions as outlined in Table 19. In low input areas in Africa and Asia, agroecological techniques such as application of compost and other methods of soil improvement and diversity of crops and crop mixtures increase the yields

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

and the stability of yields and overall resistance towards pests and diseases (Parrot and Marsden 2002). This again improves the stability of food access for the smallholder farmers in times of changing climate including erratic rainfall patterns.

Table 19: Food security: Different ways how organic agriculture can lead to improved food security for smallholder farmers

- Schematic outline of differences in organic agriculture projects in Uganda: Two extreme ends of a continuum of organic farming schemes-

Food security dimension	Focus on cash crop production	Focus on diversified informal organic production for the local market
Food availability	Focus on cash crops Moderate change in management and food crop yields	Focus on food crops Changed management, intensified land use Yield increase.
Access to food	Price premium Increased household income reinvested in food	More food produced home or locally No price premium Sometimes increased income from local market
Food stability	Higher income and reduced debts leads to capital building and secures purchasing power Increased resilience towards economic shocks in the family	Diversity in crops and improved soil fertility increases resilience towards pest and diseases, climatic changes and erratic rainfall Little capital building, so still economically vulnerable
Food utilization	Diversified food purchases	More diverse food crops

After Walaga and Hauser, 2005

This overall picture is also supported by evidence contained in a new report on organic agriculture and food security published by the United Nations Environment Program (UNEP) and the United Nations Conference on Trade and Development (UNCTAD) in 2008 in which Supachai Panitchpakdi, Secretary-General of UNCTAD and Achim Steiner, executive director of UNEP conclude that "... organic agriculture can be more conducive to food security than most conventional systems, and that it is more likely to be sustainable in the long term." (UNEP-UNCTAD, 2008). The study found that out of the 114 projects studied, promoting organic methods in African countries there was a self-reported yield increase of 116 percent compared with the local yields at the beginning of the projects. The International Fund for Agricultural Development (IFAD) (2007) evaluated case studies on organic agriculture and poverty alleviation from China and India, and concluded that organic agriculture showed potential to alleviate poverty for smallholder farmers.

Impact on food security from wide scale conversion to organic farming

The International Center for Research in Organic Food Systems (ICROFS), together with International Food Policy Research Institute (IFPRI), modeled the potential impacts of large-scale conversion to organic farming on food availability and world market prices at

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

regional and global levels to the year 2020 using IFPRI's IMPACT model (Halberg et al., 2006). Two main scenarios were established, respectively organic conversion in high-input agricultural systems in Europe and North America and conversion of the low-input agricultural systems in sub-Saharan Africa (all African countries in south of the Sahara desert). This is a region were the majority of food-insecure people is localized partly due to the decline in per capita food production over the last four decades.

The scenarios of the two regions were both compared to a baseline scenario, which is a series of assumptions on yield growth rates under current and expected conventional agricultural practices, basic economic development, population growth and food demand trends by regions given that no major political, economical or technological changes occur (Halberg et al., 2006). The main assumptions in the alternative scenarios were that organic yields in the high input agricultural systems would be only 50 to 85 percent of conventional yields, while they would be 90 to 150 percent of conventional yields in low input agricultural systems. This rather conservative estimate was then tested with different assumptions of how the yields will grow over time due to technological and managerial improvements in organic agriculture.

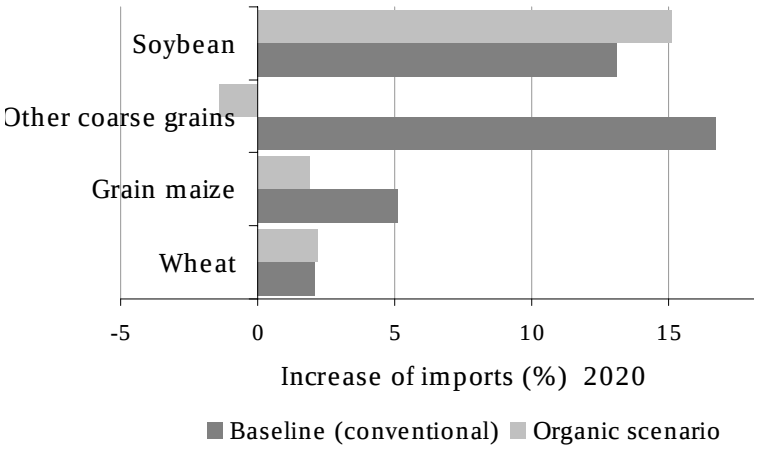


Figure 20: Changes in net trade in important food crops for sub-Saharan Africa

Projected for scenarios of large-scale conversion to organic farming until 2020 (Percent increase in import until 2020 in the baseline and in an organic scenario)

Source: ICROFS and IFPRI 2006

1) The scenario of the conversion of the high input agricultural systems showed that conversion to organic farming of large parts of Europe and North America would not raise global food prices significantly compared to the baseline IMPACT scenario - but only under an assumption of higher productivity gains (yearly yield increase) in organic compared with conventional crops. This is a real challenge for the further development of organic agricultural systems, and will probably only be possible with increased investments in research into eco-functional intensification, better nutrient recycling and plant breeding partly using new smart techniques.

2) Regarding the conversion of the low input agricultural system*s,* the baseline IMPACT scenario projected that the area with cereals in Sub-Saharan Africa would increase by 20 percent, and the yields per hectare would grow by almost two percent per year. But still, due to a high population growth, there would be an increasing dependence on food imports to Sub-Saharan Africa and food security would be compromised, with an increasing number of malnourished children (18 percent more in 2020 compared with 1997). The projected

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

increase in food imports in sub-Saharan Africa over the next twenty years is illustrated, for example, by a five percent increase in corn imports and a 17 percent increase in the import of small grains such as sorghum and millet (Figure 20).

Large-scale conversion to modern, organic agriculture could significantly reduce the needs for food import, thus making the countries less dependent on fluctuating world market prices. This is shown in Figure 20, where the import in "Other coarse grain" was projected to decrease 2 to 3 percent by 2020 in the organic low input scenario compared with the expected 17 percent increase in imports in the baseline scenario. Thus, in the organic scenario, where an increased yield growth rate was assumed, the import would possibly be replaced by a small surplus (shown in Figure 20 as negative import) if the expected yields of organic crops could be realized. At the same time, food access among the rural poor would improve because of (the assumption of) increased yields in traditional food crops such as cassava and sweet potatoes.

The results presented constitute a first attempt to modeling consequences of large-scale conversion. They are not unrealistic, as the assumptions of improved yields under the organic scenarios were conservative in comparison with the actual higher organic yields reported in the UNEP-UNCTAD report mentioned above. ICROFS and IFPRI presently collaborate on improving the use of the IMPACT model to predict the conditions under which organic agriculture may benefit food security among rural and urban poor in food-insecure regions. Unfortunately, the model does not distinguish between people in rural areas and people in the countryside. However, since most of the population that is food insecure in the South is located in rural areas and is dependent on farming for their livelihoods, it can be safely assumed that widespread conversion to organic farming would result in positive food security outcomes. Certified organic agriculture would also create jobs and result into higher returns from marketing of organic products hence generating positive food security outcome for the urban poor.

Badgley et al. (2007) compared the present food production at global level with a 100 percent organic scenario using relative yields deduced from a large number of yield comparisons from the literature. They assumed that organic yields in developed countries would be 96 percent of the present conventional yields, while in developing countries organic yields would be more than twice as high as conventional (213 percent on average). With these assumptions, a 100 percent organic scenario would yield more food than is currently being produced (2785 kilocalories per capita in present food availability versus 4878 kilo calories per capita in organic scenario). They also concluded that nitrogen supply would not be a limiting factor on the general level if the full potential of using legumes and livestock manure is realized.

The challenges for realizing the potential of organic agriculture in developing countries

Evidence from projects and modeling shows that promoting organic agriculture does not increase the food security problems, but is part of the solution - especially because it leads to improvement in productivity of local food systems and access to food. But realizing this potential on a larger scale is presently hampered by major challenges that include lack of

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

significant research and technical support. Organic agriculture and the agroecological methods are knowledge intensive, requiring training and continuous access to information and extension services. The majority of smallholder farmers have little formal training and lack access to information and extension services. Luckily, there are signs that major donors are beginning to refocus development aid and are beginning to support organic agriculture initiatives. Thus, the initiatives by private donor foundations, as well as the Swedish International Development Cooperation Agency (SIDA), the Food and Agriculture Organization of the United Nations (FAO), the German Society for Technical Cooperation and Development (GTZ), the International Fund for Agricultural Development (IFAD), UNEP and UNCTAD, other international bodies and some governments are supporting the development of organic agriculture and are helping to overcome some of the challenges faced in developing organic agriculture in the South.

Even though there is evidence that organic agriculture can improve food security for smallholders, the degree of success may vary between the different types of organic projects (Walaga and Hauser, 2005). Table 19 shows how two ends of a continuum of organic farming schemes may influence the different dimensions of food security. If a project focuses solely on developing an organic cash crop, the smallholder farmers may become vulnerable to fluctuating market conditions. In projects focusing on informal (non-certified) organic production, there are often positive developments in terms of natural and social capital, but not necessarily higher incomes from the marketing of products. Therefore, when NGOs or companies introduce new organic projects among smallholders, they should take precautions to train the farm family to adopt a broad range of agroecological practices.

If organic agriculture is to be a sustainable alternative on a large scale in the developed world, we need to continuously improve the output per unit of land, while at the same time contributing to social and environmental goods. The output from organic farms will be multifunctional, and it is not the goal to mimic conventional agriculture's focus on maximizing yields in mono-cropping systems. Organic farm outputs are a combination of multiple crops and maintenance of eco-functions in soil, water and biodiversity, but we need to take this to the next level in order to be sustainable in light of the global needs for food, fiber, bioenergy and climate mitigation. This eco-functional intensification is the future challenge for the organic sector. Thus, there is a need for significant input of resources for research and for applying classical agronomic disciplines with modern biological, chemical and molecular methods in combination to improve the use of organic principles for self regulation and inducing health at all levels of the food system.

Conclusion

Organic agriculture can contribute significantly to improving food security among smallholder farmers in developing countries, and a large-scale conversion has the potential to reduce the future dependence of food imports in Sub Saharan Africa. However, such a positive scenario depends on well-designed training and extension focusing on building human, natural and financial capital. There is also a huge need for more research and innovation to improve local farming systems and adaptation of agroecological principles.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

References

Badgley, C. and Perfecto, I. 2007. Can organic agriculture feed the world? Renewable Agriculture and Food Systems: 22(2); 80–85

Halberg, Niels; Sulser, Timothy B.; Høgh-Jensen, Henning; Rosegrant, Mark W. and Knudsen, Marie Trydeman (2006) The impact of organic farming on food security in a regional and global perspective, in Halberg, Niels; Alrøe, Hugo Fjelsted; Knudsen, Marie Trydeman and Kristensen, Erik Steen, Eds. *Global Development of Organic Agriculture: Challenges and Prospects*, chapter 10, page pp. 277-322. CABI Publishing

Hauser, M. 2008. Potenziale des Öko-Landbaus nicht voll ausgeschöpft. Ökologie & Landbau, 148, (4) 2008, 33-34.

IFAD 2007. Organic agriculture and poverty reduction in Asia (2005): China and India Focus. Available at http://www.ifad.org/evaluation/public%5Fhtml/eksyst/doc/thematic/organic/

FAO 2007. FAOSTAT database. http://faostat.fao.org, Rome.

FAO 2006. The state of food insecurity in the world. Available at http://www.fao.org/docrep/009/a0750e/a0750e00.hhtm

Markwei C , Ndlovu L, Robinson E, Shah W. 2008.International Assessment of Agricultural Knowledge, Science and Technology for Development, (IAASTD), Sub-Saharan Africa. Available at http://www.agassessment.org

Parrot, N. and T. Marsden. 2002. The real Green Revolution. Organic and Agroecological farming in the South. Greenpeace Environmental Trust. London. UK.

Scialabba N. 2007. Organic agriculture and food security, In International conference on organic agriculture and food security, 3-5 May, 2007, Food and Agriculture Organization of the United Nations, Italy.(OFS/2007/5), available at www.fao.org/organicag

Shiva, V. 1991. The violence of the green revolution. Third World Agriculture, Ecology and Politics. Third World Network, Penang. Malaysia.

Walaga, C. and M. Hauser. 2005. Achieving household food security through organic agriculture? Lessons from Uganda. Journal für Entwicklungspolitik XXI/3. 2005 S. pp 65 – 84.

UNEP-UNCTAD, 2008. Organic Agriculture and Food Security in Africa (UNCTAD/DITC/TED/2007/15), available at http://www.unep-unctad.org/cbtf

World Food Summit. 1996. Rome Declaration on World Food Security and World Food Summit, Plan of Action. FAO, Rome.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Organic Cotton

PAOLO FOGLIA[1] AND SIMON FERRIGNO[2]

Economic dimensions of cotton production

With 33 million hectares, cotton is the largest non-food crop, and represents nearly 35 percent of the world demand for fibers, for a turnover second only to that of cereals. Cotton production has almost doubled from 13.8 million metric tons in 1980/81 to 26.0 million metric tons in 2007/08. In spite of continuously rising production in the last 50 years, there has been no increase in the area devoted to cotton. Thus, all the increase in production came from increases in yields, which rose at an average rate of about 2.5 percent per year (ICAC, 2008). The five largest cotton producing countries of the world, China (Mainland), India, Pakistan, the USA and Uzbekistan, have about three quarters of the world total production.

The development of organic cotton

Compared to the general cotton figures, organic cotton is a small but growing economic niche that, according to data provided by the Organic Exchange (2008) in 2007/08 represents 0.48 percent of the world's harvested area and 0.56 percent of the global production (see Table 19). Nevertheless, with 161'000 hectares producing nearly 146'000 metric tons in 2007/08 (Organic Exchange, 2008), organic cotton has shown an average annual growth rate of 185 percent during the past three years.

Looking at the next harvest, the United States Department of Agriculture (USDA) foresees a reduction of world cotton crop both in terms the area harvested (-1.86 million hectares) and production (-1.67 million metric tons). In contrast with this trend, organic cotton is expected to continue to grow in 2008/09 achieving a production of 224'722 metric tons (0.91 percent of the total production), according to Organic Exchange (2008).

Socio economic impacts of conventional cotton production

Cotton accounts for less than three percent of the world's cropped area, but is responsible for nine percent of all pesticide sales and 19 percent of all insecticides (Cropnosis, UK, 2006).

According to the Secretariat of the International Cotton Advisory Committee (2007), 36 percent of world cotton was planted with biotech varieties in 2006/07, and this area accounts for about 45 percent of the production. At the 67th Plenary of the ICAC in November 2008, it was reported that biotech cotton represents more than half of the world's cotton production the previous season.

The economic situation of many countries and of many agricultural communities gotten much worse due to the fact that real cotton prices, taking inflation into account, have followed a downward trend for the last forty years.

[1] Dr. Paolo Foglia, Manager of Institute for Ethical and Environmental Certification ICEA, Strada Maggiore 29, 40125 Bologna, Tel. +39 051 272986, Fax: +39 051 232011, icea@icea.info, www.icea.info
[2] Simon Ferrigno, Organic Exchange Farm Development Programme, 822 Baldridge, O'Donnell, TX 79351, www.organicexchange.org

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

However, recent indications suggest that projected plantings in organic cotton may be lower as demand growth is behind production for 2009 (Organic Exchange Member Advisory 2009) – this is combining with some new production being grown as 'speculation' rather than against contract to produce

a surplus in 2009 and producer groups may reduce planting as a result.

Table 19: Cotton: Comparison between total and organic production

Year	Total cotton Area Harvested (1'000 ha)	Total cotton Production	Organic cotton area harvested (1'000 ha)	Organic cotton Production
2004/05	35'709	26'439'769	–	25'394
2005/06	34'737	25'382'065	–	37'799
2006/07	34'706	26'560'170	48	57'931
2007/08	33'204	26'244'253	161	145'872
2008/09	31'342	24'573'873	–	224'722

Source: USDA, 2008; Organic Exchange 2008

Looking at the production area, organic cotton is concentrated in just three countries (India, Syria and Turkey) that, according to the Organic Exchange, account for more than 86 percent of the global production (see Table 20 and Table 21).

India is the world leader in production of organic cotton. The country's organic cotton output increased sevenfold between 2005/06, and by 292 percent during 2007/08 compared to the previous year. With a production of 73'702 metric tons, organic cotton accounts for 1.38 percent of the 5'356 million tons of Indian cotton production.

Syria has seen a tremendous growth of organic cotton production as well. The first experimentation on organic cotton started in 2005, with less than 400 hectares invested. In 2006, an impor-

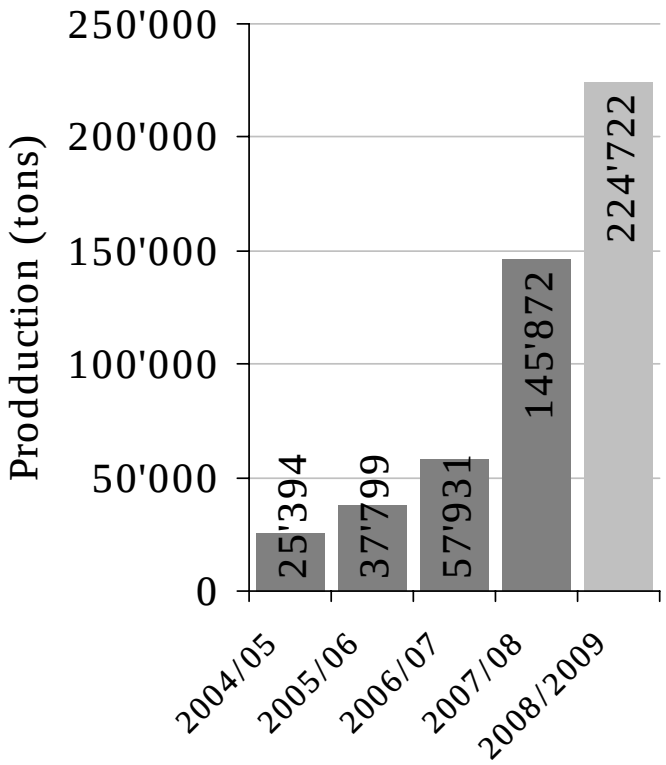


Figure 21: Organic Cotton: Growth of production 2004-2008; forecast for 2008-09

Source: Organic Exchange, 2008

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

tant program for converting cotton was launched, and the organic cotton area increased to 9'636 hectares, mainly concentrated in the two provinces of Alhasakeh and Aleppo, and production rose to 8'185 metric tons (Al Salti 2008). In the 2007/2008 season, the estimated quantity of organic cotton produced in Syria increased by more than 300 percent, reaching 28'000 metric tons and representing more than nine percent of the 300'000 metric tons of cotton harvested in Syria.

The first serious attempt at organic cotton production began in Turkey in the late 1980s under the auspices of a project set up by a European cooperative of five organic food importers called the Good Food Foundation (Myers and Solton, 1999). Since then, Turkey has been the largest producing country, but in 2007/08, India tripled its organic cotton production. According to Organic Exchange (2008), organic cotton production in 2007/08 reached 24'400 metric tons, accounting for 3.62 percent of the 675'000 metric tons of total Turkish production.

In a few other countries organic cotton represents a significant or growing share of production, although this may cause tensions, as is the case in Uganda – putting in place solid support structures for organic cotton is something that is fundamental to farmer-centred growth and success (Ferrigno, 2008).

Table 20: Organic cotton fiber production 2007/08 by region (Mt)

Region	Opening Stock (fiber) August 1, 2007	Fiber Production (2007/08)	Closing Stock (fiber) July 31, 2008	% of global production
South East Asia (Pakistan/India)	3'053	73'908	5'000	50.67
Middle East (Turkey, Syria, Israel)	4'500	52'753	5'000	36.16
China	505	7'354	1'000	5.04
Africa non West African Franc Region (CFA)	589	5'455	535	3.74
North America (USA)	0	2'716	200	1.86
Latin America	158	1'590	335	1.09
Africa West African Franc Region (CFA)	23	1'069	40	0.73
North Africa	0	761	0	0.52
Commonwealth of Independent States	150	194	30	0.13
European Union, Central Europe	59	72	10	0.05
Total in metric tonnes	**9'037**	**145'872**	**12'150**	**100**

Source: Organic Exchange, 2008

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Table 21: Organic cotton: The ten leading countries 2007/08 (amount in metric tons)

Region	Opening Stock (fiber) August 1, 2007	fiber Production (2007-08)	Closing Stock (fiber) July 31, 2008	% of global production
India	3'053	73'702	4'950	51.13
Syria	2'500	28'000	2'400	19.42
Turkey	200	24'440	2'500	16.96
China	505	7'354	1'000	5.10
Tanzania	87	2'852	200	1.98
USA	0	2'716	200	1.88
Uganda	501	2'545	285	1.77
Peru	0	1'339	220	0.93
Egypt	0	761	0	0.53
Burkina Faso	0	436	0	0.30
Total in metric tons	**6'846**	**144'145**	**11'755**	**100**

Source: Organic Exchange, 2008

The market for organic textile and clothing

The global market of organic cotton products continues to grow. It was 241 million US Dollars[1] in 2001 and 1.9 billion US Dollars in 2007. It is expected to have reached an estimated 3.5 billion US Dollars in 2008, five billion US Dollars by the end of 2009 and 6.8 billion by the end of 2010, according to Organic Exchange (2007). Demand in 2009 is expected to be 96'400 metric tons (Organic Exchange Member Advisory 2009).

The forces driving the market growth are basically the commitments undertaken by important brands and specialized retailers aiming at replacing a part of their conventional cotton with organic cotton.

Those commitments could be explained by diverse reasons: the wish to differentiate

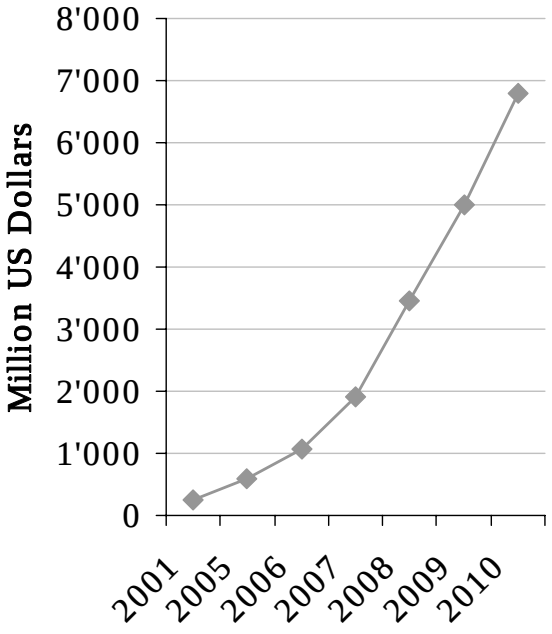


Figure 22: Organic textile products: Estimated global retail sales

Source: Organic Exchange, 2007

[1] Average exchange rate 2008: 1 US Dollar = 0.68341 Euros. Source: The OANDA homepage at www.oanda.com

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

their own brand and production; the duties adopted in the framework of a Corporate Social Responsibility (CSR) policies; the positive consumers' feedback to organic cotton products.

References

International Cotton Advisory Committee – ICAC (2008): World Cotton Situation and Outlook for Cotton Prices. Washington

International Cotton Advisory Committee – ICAC, (2008): Update on Cotton Production Research. Washington.

Organic Exchange (2007): Organic Cotton Market Report 2007. Baldridge, USA

Organic Exchange (2008): Organic Cotton Farm and Fiber Report 2008. Baldridge, USA

Organic Exchange (2009): Organic Cotton Market Advisory, e-briefing, Baldridge, USA

Al-Salti, Muhammad Nayef (2008): Organic Cotton Production in Syria. Cotton Marketing Organization, Aleppo

Myers, Dorothy and Sue Solton (1999): Organic cotton: from field to final product. London.

Ferrigno S., and Lizarraga A., (2008) Components of a sustainable cotton production system: perspectives from the organic cotton experience Paper submitted for the Technical Seminar on 'Improving Sustainability of Cotton Production in Africa', 67th Plenary Meeting of the International Cotton Advisory Committee (ICAC), Ouagadougou, Burkina Faso, November 17-21, 2008

.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

The Production Base for Organic Temperate Fruit, Berries and Grapes

DAVID GRANATSTEIN,[1] ELIZABETH KIRBY[2] AND HELGA WILLER[3]

Fresh fruit consumption is being promoted for health reasons in North America, Europe and other regions. Consumers are responding, as evidenced by the 20 percent increase in per capita fruit consumption in the past 30 years. US consumers have increased fruit consumption by 23 percent, but they still consume half the amount recommended by the dietary guidelines of the United States Department of Agriculture (USDA). Fruit production often requires significant intervention with pesticides to control pests and diseases. Thus, health conscious consumers increasingly see organic fruit as a logical package. Fruit and vegetable sales account for about 40 percent of the retail sales of organic foods in the US (93 percent of this is fresh produce), with fruit estimated to represent about half of this. In Europe, organic fruit sales represent about five percent of all fruit sales, but the market penetration differs considerably by the specific fruit. Apples, pears, grapes (including grapes for wine, raisins and table grapes), strawberries and peaches are among the top temperate fruits consumed in the US and Europe. These fruits can also be grown in those regions and thus supply a significant share of the organic market.

To understand the trends in production of organic temperate stone and pome fruits, as well as berries and grapes, the authors segregated 2007 data collected by FiBL/IFOAM, along with other data sources, to the level of individual fruit species where possible. As a result, estimates of the world production area for each fruit were developed; the total area for this group was approximately 290'000 hectares in 2007.

The data combine both certified (fully converted) and transition (in conversion) land. Organic grapes (wine grapes, table grapes, raisins) account for at least 40 percent of the global area. A large portion of this area was in conversion, and was concentrated in Spain, Italy, and France. About one quarter of the area reported as temperate fruit, berries and grapes did not contain any further detail. Pome and stone fruit are being grown on similar areas (more than 20 percent of the defined fruit, berry and grape area). Berry production is the smallest, but growing, category.

[1] David Granatstein, Center for Sustaining Agriculture and Natural Resources, Washington State University, Tree Fruit Research and Extension Center, 1100 N. Western Ave., Wenatchee WA 9880, Tel. +1 509 663-8181, www.csanr.wsu.edu
[2] Elizabeth Kirby, Center for Sustaining Agriculture and Natural Resources, Washington State University, Tree Fruit Research and Extension Center; see above
[3] Helga Willer, Communication, Research Institute of Organic Agriculture FiBL, Ackerstrasse, 5070 Frick, Switzerland, Tel. +41 62 865-270, www.fibl.org

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

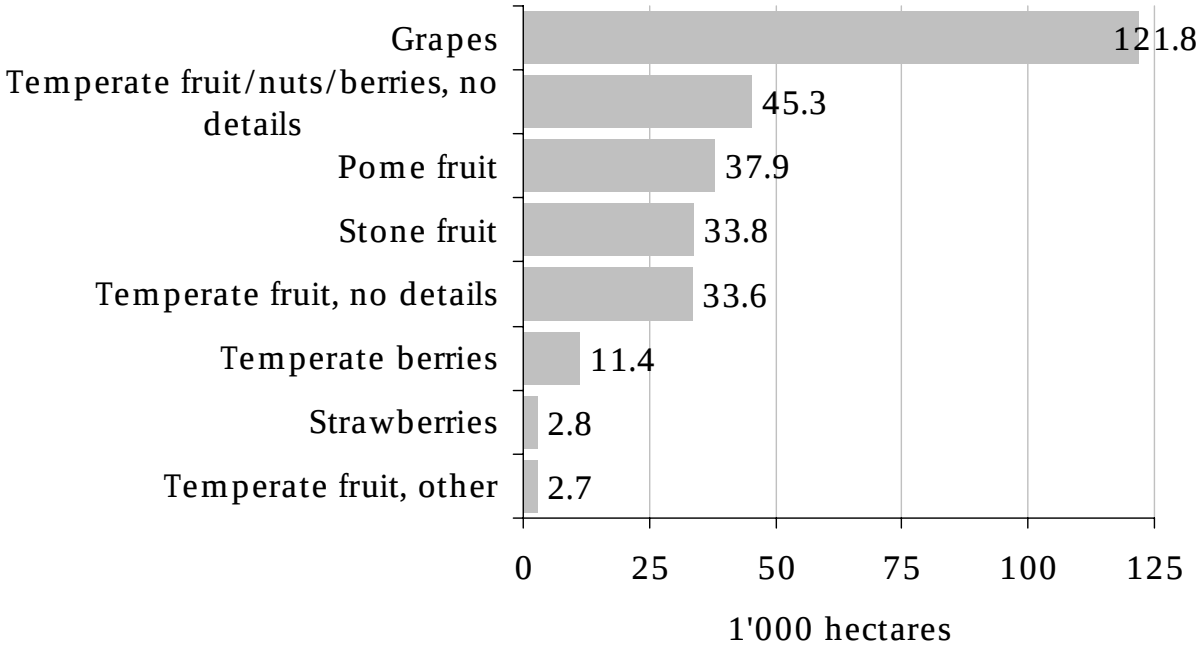


Figure 23: Organic temperate fruit, grape and berry area 2007 (including in conversion area).

Source: FiBL Survey

In the framework of the current FiBL survey, data were separated by converted and in conversion areas for the first time in order to identify where significant new volumes of product may be entering the market. It should be noted that not all countries supply separate data. The data show that more than half of the organically managed area covered by the survey is converted, whereas 16 percent is in conversion (Figure 24). For almost one third of the area no such details were available. Furthermore, some countries only provide data on the converted area.

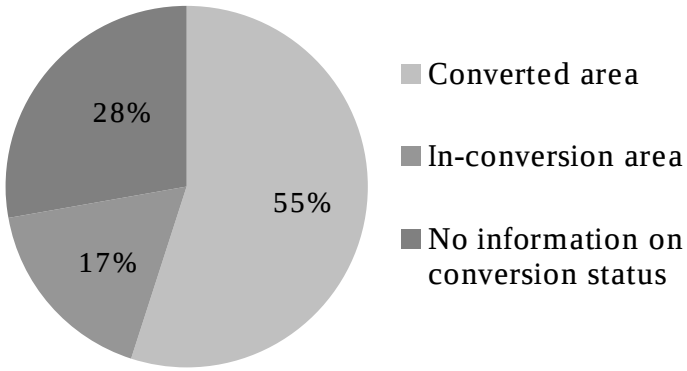


Figure 24: Organic temperate fruit, berry and grape area 2007 by conversion status

Source: FiBL Survey

Organic temperate fruit, berries and grapes are being grown in many countries with contrasting climates.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

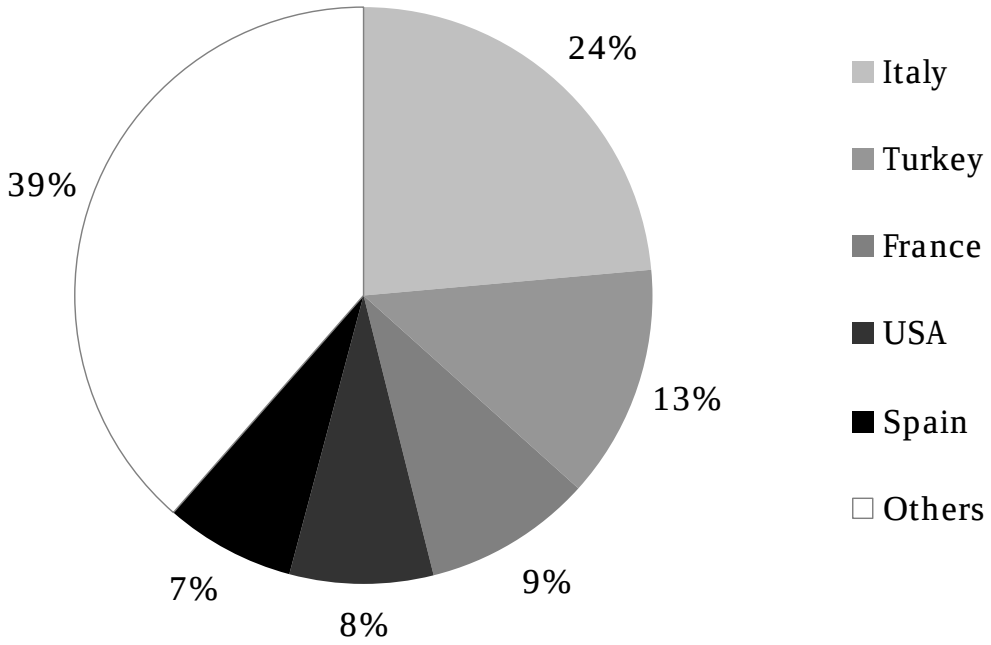


Figure 25: Organic temperate fruit, grape and berry area: Shares of the leading countries 2007 (including in-conversion area)

Source: FiBL Survey

Semi-arid regions with dry summers generally have fewer production challenges for organic fruit, particularly for diseases, than temperate humid regions. In 2007, Italy appeared to be the leading global producer, with 22 percent of the organic temperate fruit, berry and grape hectares (see Figure 25) and a diversity of fruit types. Turkey and the western US have the second and third most hectares, respectively. However, there are significant hectares of commercial organic fruit production across Northern Europe as well, including apples and berries. Leading organic tree fruit producers in 2007 include US for apples (5'793 hectares), Turkey for pear (1'974 ha) and plum (1'588 hectares), and Italy for sweet cherry (1'671 ha). The data refer to the converted areas only.

Considerable uncertainties exist in these estimates. The mechanisms for collecting data differ among countries, and not all certifiers may share their data. Year-to-year data are not always from comparable sources, hindering the ability to accurately track changes in production area. An attempt was made to determine the growth of certified organic apple area from 2000 to 2007 (Table 22). Global area expanded by more than 60 percent over this period, with particularly large increases in European hectares. Further growth is certain, with 2'000 hectares of new certified land in Washington State, US, in 2008 (a 60 percent increase), and an additional 1'700 hectares in conversion.

While prices for organic temperate fruits, berries and grapes have fluctuated over the years, they generally command price premiums of 20 to 100 percent over conventional fruit prices. From the limited number of economic studies available, most require substantially higher costs for fertilizers and weed control. Increases in pest control costs depend on the particular crop and the production region. Organic yields can equal conventional yields in

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

some situations, or be up to 40 percent less in others. The higher prices generally lead to profitable production, but not in every case.

Table 22: Estimated world certified organic apple area (2007)

Region	2007 Hectares		Change from 2000
N. America	6'409		
US		*5'793*	-7 %
S. America	1'870		+300 %
Argentina		*1'511*	
Europe	13'919		+38-88 %
Italy		*2'071*	
Turkey		*3'312*	
Asia / Pacific	2'697		
China		*1'600*	
New Zealand		*947*	-18 %
World total	**25'535**		+63 %

Data compiled by *Granatstein and Kirby, Washington State University;* data mostly 2007, some 2005, 2006. May include some transition land. Does not include non-specified organic fruit area. 'Change' uses available 2000/01 data. Sources: US: WSDA; OTCO; USDA-ERS, CDFA; L. Eggars. Canada: Canadian Organic Growers. Europe: AgenceBio; AMA; MiPAAF-SINAB; ZMP; S. Sansavini, Turkey: MARA; USDA-FAS (00). Argentina: SENASA; E. Sanchez. Chile: ODEPA; E. Sanchez. China: Zhou Zejiang, OFDC. NZ: Pipfruit NZ; Bio-Gro NZ; USDA-FAS. Australia: P. Dargusch, ACO, BFA.

Despite the expansion of organic temperate fruit, berry and grape production, it remains a small fraction of the global sector. Using the numbers generated in this study, along with current FAO data, organic grapes and apricots represent 1.6 percent of global area of those crops, and 0.6 percent for apple. With retail market penetration by organic foods between 5 to 10 percent for some countries, and organic fruit, berry and grape penetration above five percent for some cases, there is ample opportunity for growth. More complete, detailed and reliable statistics on the extent of organic fruit, berry and grape production will be needed to track and understand this growing sector. Once current demand is satisfied, then it will be important to expand the organic fruit, berry and grape area at a pace consistent with the expansion of the consumer base. As the organic market expands beyond Europe and North America, it is likely that these new organic consumers will also be interested in organic temperate fruits, but their buying habits and price sensitivity may be different than those of the dominant consumers today.

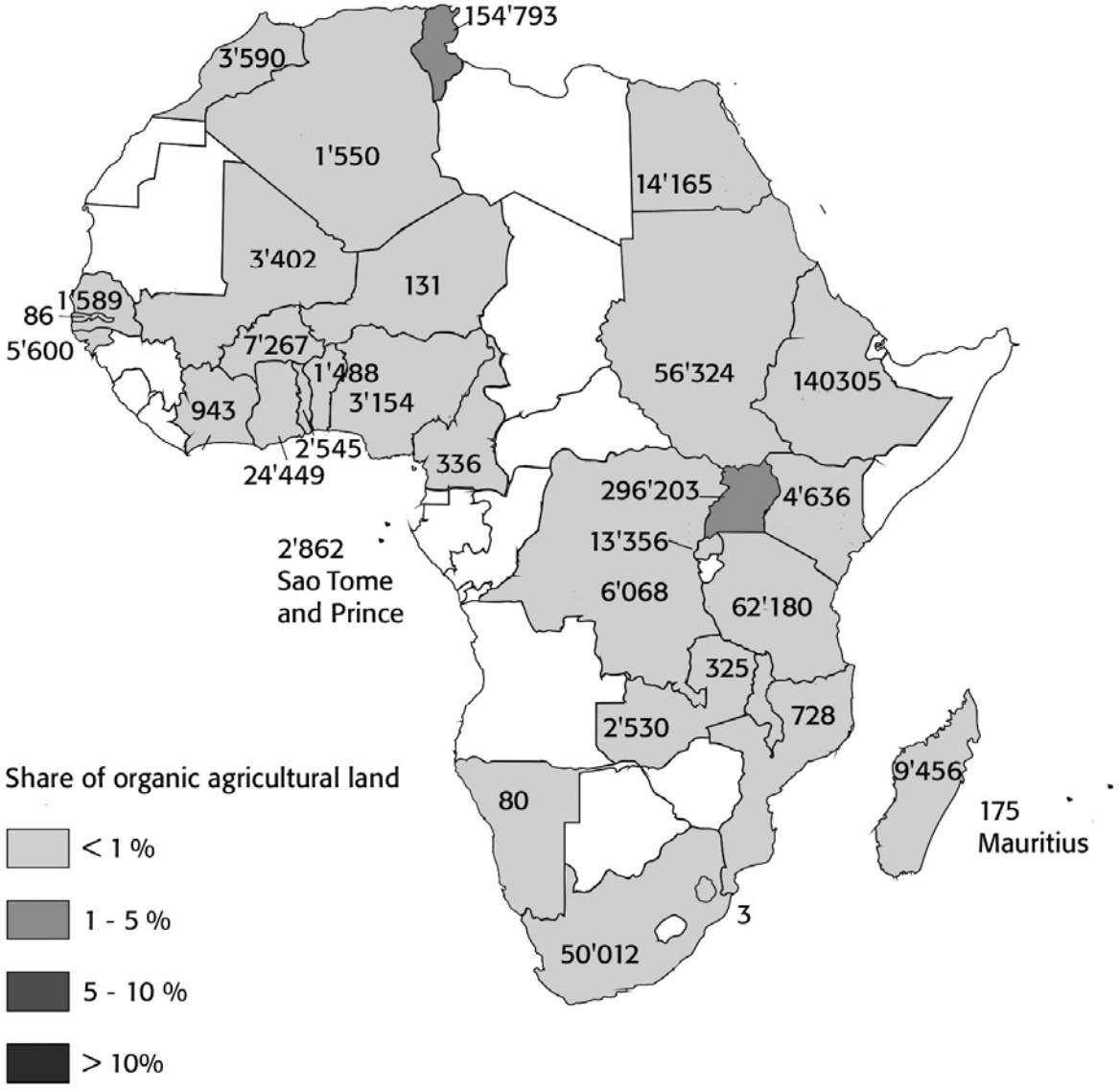
Further reading

Granatstein, David; Kirby, Elizabeth and Willer, Helga (2008) Current World Status of Organic Temperate Fruits. Paper presented at: Organic Fruit Conference, Vignola, Italy, June 16-17, 2008. www.orgprints.org/14664/

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Africa



Map 2: Land under organic management (hectares) in the countries of Africa 2007

Source. IFOAM/FiBL Survey

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Organic Farming in Africa

HERVÉ BOUAGNIMBECK[1]

Introduction

In Africa, there are two different kinds of organic farms:

- Certified organic farms producing for national and export markets.
- Informal organic farms producing for their own households and for local markets.

It is difficult to get a clear sense of the scale of organic production – referring to both certified and informal organic production – in Africa. Data related to organics in Africa has only begun to be collected in recent years, and as such, figures are sometimes approximate and incomplete.

Organic Agriculture appears to be a viable and sustainable development option, particularly for (groups of) smallholder farmers in Africa (Parrott and Elzakker, 2003; FAO, 2007; Lyons and Burch, 2007; EPOPA, 2008; UNCTAD-UNEP, 2008; Wright, 2008) through:

- Contributing to food security;
- Increasing yields over the long term;
- Combating desertification through improving soil fertility, preventing soil erosion and land degradation;
- Maintaining a healthy environment;
- Increasing incomes with low-cost, locally available and appropriate resources;
- Reducing the financial risk by refraining from using expensive chemical inputs and increasing returns to labor;
- Improving farmers' skills and health.

Certified organic land

Statistics for certified production are provided in the tables at the end of this chapter. These statistics are probably incomplete; most countries do not have data collection systems for organic farming. Only the government of Tunisia systematically collects data on organic production, data collection systems of the private sector exist in Ghana, Kenya, Tanzania, Uganda and Zambia. According to these figures, 33 African countries are engaged in certified organic agriculture. Currently, 0.9 million hectares are certified organic and managed by at least half a million producers in Africa. The countries with the largest organic agricultural land are Uganda (296'203 hectares), Tunisia (154'793 hectares), Ethiopia (140'308 hectares) and Tanzania (62'486 hectares). Most of this land is used for permanent crops. The main permanent crops are coffee and olives. However, in terms of share of a country's agricultural

[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, Tel. +49 228 926 50-10, Fax +49 228 926 50-99, Internet www.ifoam.org/africa.html

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

area, Sao Tome and Prince has the highest (5.02 percent), followed by Uganda (2.33 percent) and Tunisia (1.58 percent). In addition to the agricultural land, 9.6 million hectares are certified for bee keeping, forest and wild collection. The largest bee keeping areas are in Zambia (5.2 million hectares). The largest wild collection areas are in Namibia (2.8 million hectares), Sudan (490'000 hectares, mainly gum arabic) and Morocco (550'000 hectares; argan oil).

Markets

Farmers in Africa produce a diversity of organic crops. The table below shows the range of certified organic products currently being supplied by African countries.

Table 23: Africa: Organic produce from Africa (by type and country)

Product Group	Countries
Fresh Vegetables	Cameroon, Gambia, Egypt, Kenya, Madagascar, Malawi, Mali, Morocco, Rwanda, Sao Tome and Prince, South Africa, Tunisia, Zambia
Bananas	Mali, Cameroon, Ghana, Rwanda, Senegal, Uganda
Citrus Fruits, grapes (including wine)	Burkina Faso, Egypt, Morocco, South Africa, Tunisia
Other tropical fresh fruits	Burkina Faso, Cameroon, Egypt, Ghana, Guinea-Bissau, Madagascar, Rwanda, Senegal, South Africa, Tanzania, Togo, Uganda
Dried Fruits	Algeria, Benin, Burkina Faso, Cameroon, Egypt, Ghana, Madagascar, Morocco, Tanzania, Togo, Tunisia, Uganda
Processed fruits incl. juices	Ghana, Tanzania, Uganda
Coffee	Cameroon, Ethiopia, Kenya, Madagascar, Rwanda, Tanzania, Uganda
Tea	Kenya, Tanzania, Rwanda, South Africa
Cocoa	Cameroon, Ghana, Ivory Coast, Madagascar, Tanzania, Uganda, Sao Tome and Prince
Sugar	Cameroon, Madagascar, Mauritius,
Cotton	Benin, Burkina Faso, Egypt, Mali, Senegal, Sudan, Tanzania, Uganda, Zambia
Coconut Oil	Mozambique
Palm Oil	Ghana, Madagascar
Olive Oil	Tunisia, Morocco
Ground Nuts (peanuts)	Cameroon, Mozambique, Tanzania, Zambia
Tree Nuts (cashew, shea)	Burkina Faso, Ghana, Ivory Coast, Kenya, Malawi, Mali, Morocco, Tanzania, Togo, Uganda
Sesame	Burkina Faso, Mali, Mozambique, Senegal, Uganda, Tanzania
Herbs (culinary)	Egypt, Ethiopia, Ghana, Kenya, Madagascar, Malawi, Morocco, Mozambique, South Africa, Tunisia, Zambia, Zimbabwe
Spices (culinary)	Cameroon, Egypt, Ethiopia, Madagascar, Malawi, Mozambique, South Africa, Tanzania, Uganda, Zimbabwe
Medicinal / Therapeutic Herbs and Spices	Egypt, Morocco, Namibia, South Africa, Tunisia, Zambia
Essential Oils	Ghana, Kenya, Madagascar, Tanzania, Uganda, Zimbabwe
Honey	Algeria, Malawi, Tanzania, Tunisia, Uganda, Zambia
Cereals incl. Rice	Egypt, Ethiopia, Madagascar, Mozambique, South Africa, Sudan
Gum arabic	Chad

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Source: IFOAM Survey 2009

Exports

The majority of certified organic produce is destined for export markets, with the large majority being exported to the European Union, which is Africa's largest market for agricultural produce. Export of organic produce from Egypt totaled 12'542 metric tons in 2004, and this figure represented some 90 percent of the organic production from Egypt (ECOA, 2005). The total value for the export of organic produce from Uganda was estimated at 22.8 million US Dollars in 2007. The certified organic products exported from Uganda are summarized in Table 24.

Table 24: Uganda: Export volume 2007

Product	Export volume in metric tons
Dried fruits	19
Fresh fruits	888
Sesame	1'830
Coffee	1'491
Shea	25
Vanilla	175
Cotton	3'310
Dried hibiscus	17
Chilly Pepper	12
Fronzen fruit pulp	39
TOTAL	7'806

Source: NOGAMU 2009

However, there are significant constraints affecting the potential for development of certified organic exports. In part, these are external; they have to do with the costs of certification, problems of infrastructure, maintaining links with distant markets and the vagaries of world markets. There are internal constraints as well, such as poor communication between foreign importers and exporters, lack of up-to-date market information, lack of governmental action to support exports, lack of professional management and lack of reliable supply.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

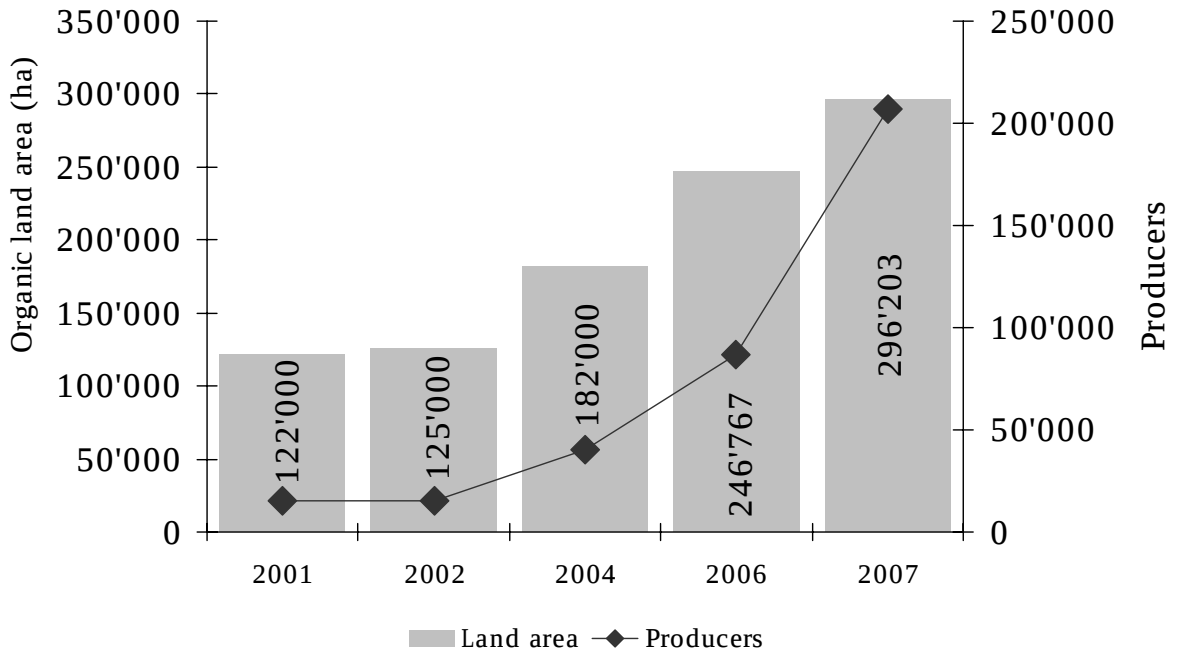


Figure 26: Uganda: Development of organic agriculture: organically managed land and producers

Source: NOGAMU 2009

Africa Pavilion at BioFach 2008

For the first time at BioFach, the largest organic trade fair in the world, African exhibitors were grouped together in an "Organic Africa Pavilion." Under the theme "Taste, Smell, See, Feel & Hear," this fantastic initiative brought more visibility to African exporters and was a great success. At the 2008 Africa Pavilion, more than 80 exhibitors from 13 African countries were displaying the specialties from the Sub-Saharan countries. Over 3000 people visited the Pavilion and talked directly to the exhibitors. About 175 African participants joined within the Africa Pavilion to learn about organic produce, to meet and share experience with each other and to explore marketing opportunities overseas.

In addition to the African Pavilion, a high profile International Symposium on Opportunities and Challenges for the future of Organic Agriculture in Africa was held and attracted more than 70 people. Participants vividly exchanged experiences with the expert speakers, reflecting on the impact of Organic Agriculture on smallholder farmers; topics ranged from what is being done to further promote organic by governments, private sector and development partners to business and trade for development opportunities and how organic practices can contribute to achieving the Millennium Development Goals.

The domestic market

The African market for organic products is still small. The general lack of large domestic organic markets in Africa appears to make commercial organic agriculture a high risk, as it strongly relies on export markets.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Certified organic products are currently recognized in only a few domestic markets, including Egypt, South Africa, Uganda, Kenya, Ghana, Zambia, Senegal and Tanzania. There are a number of factors expanding the domestic market in these countries. To begin, there is a growing middle class – most notably in Egypt and South Africa – that shares similar values with European organic consumers. As a result, there are growing domestic market opportunities for diverse organic products in these locations, including: organic fresh fruit and vegetables; dairy products; meat; wine; herbs; and personal care products.

In Egypt, mainly in Cairo, specialized shops and a number of supermarket chains (Metro and Carrefour) have organic sections, selling mostly fruits and vegetables. Similarly, organic shops in South Africa and Uganda have also raised the profile of organic produce. In South Africa, the major supermarkets stock organic products. The NOGAMU shop in Kampala, Uganda, is directly adjacent to the NOGAMU office. Visitors to the shop have direct access to information about organic agriculture and related issues (Lyons and Burch, 2007).

State support, standards and legislation

With the exception of Tunisia, organic agriculture is not integrated into the main agricultural policies, and many policies still support chemical agriculture. In some countries, mostly in East Africa, policy development is being undertaken and the national organic movements including KOAN, NOGAMU and TOAM are strongly involved in the process (Elzakker et al. 2007).

For export, most African countries are reliant upon foreign standards. To date, the greatest organic production that is certified in Africa has been certified according to the EU regulation for organic products. Some producers are also certified to the US National Organic Program (NOP) or the Japan Agriculture Standards (JAS) and numerous private-sector organic standards, such as those of the Soil Association, KRAV or Naturland. The revised import regulation, as part of the new EU regulation 834 / 2007, aims at facilitating imports from third country products, which may result in positive changes.

Certification services are offered by foreign-based certification bodies. Most have established regional representation or developed closer ties with national bodies. On the other hand, eight local certification bodies have been established in South Africa, Kenya, Uganda, Tanzania and Egypt.

Costs of certification are generally considered to be high. In East Africa, for example, an individual farm will pay 500 to 3'000 US Dollars for foreign certification. However, the cost per individual farmer in an Internal Control System (ICS) can be as low as a few US dollars for very big groups. For a typical ICS with 500 farmers, the cost is likely to be in the range of 10 US Dollars per farmer, and for very small ICS groups maybe as high as 100 US Dollars per farm. There are also substantial costs involved in the operation of the ICS itself (Rundgren, 2007).

For the domestic market, African countries are reliant upon national standards. The countries with organic standards are Tunisia, Egypt, Ghana and the East African countries (Kenya, Uganda, Tanzania, Rwanda and Burundi). The East African Organic Products Standard were developed by a public-private sector partnership in East Africa, supported by

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

IFOAM and the UNCTAD-UNEP Capacity Building Task Force on Trade, Environment and Development (CBTF), and have been in force since May 2007. The ways of ensuring that organic standards are met include third-party certification, ICS and Participatory Guarantee Systems.

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 enhances its impact (Rundgren, 2007). The following national movements have been established:

- The National Organic Agricultural Movement of Uganda (NOGAMU);
- Organic Producers and Processors Association of Zambia (OPPAZ);
- Organics South Africa (OSA);
- The Organic Movement of Madagascar;
- The Kenyan Organic Agriculture Network (KOAN);
- The Organic Movement of Mali (MOBIOM);
- The National Federation of Organic Producers of Senegal (FENAB);
- The Ghana Organic Agriculture Network (GOAN);
- The Ethiopian Association of Organic Agriculture (EAOA);
- The Rwanda Organic Agriculture Movement (ROAM);
- The Tanzania Organic Agriculture Movement (TOAM); and
- The Zimbabwe Organic Producers' and Processors' Association (ZOPPA).

In August 2008, several representatives of the Sub-Saharan African organic movements met in Nairobi, Kenya, to initiate and develop common strategies to drive the organic agenda forward. The meeting agreed on the creation of an African organic agriculture network.

At a regional level, the West Africa Network on Organic Agriculture was launched during the First West African Summit on organic agriculture held November 2008 in Abeokuta, Nigeria. The new established network aims to facilitate the effective networking among West African scientists, farmers, students and other stakeholders.

First West Africa Summit on Organic Agriculture

The First West Africa Summit on Organic Agriculture was held at the Federal University of Agriculture, Abeokuta, Nigeria, from November 17-21, 2008. The theme of the conference was "Organic Agriculture and the Millennium Development Goals." 119 participants from 16 countries, including 5 West African countries, attended the summit to:

- Spread current knowledge, competencies and technology development in organic agriculture throughout Africa;

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

- Share experiences among organic agriculture scientists and practitioners in West Africa;
- Enhance collaborative opportunities in West Africa and beyond.

IFOAM successfully organized training on advocacy for 30 selected participants from 13 African countries in conjunction with the conference and a PGS workshop for all participants at the summit.

The advocacy training aimed to improve knowledge and skills about how the African organic agriculture networks can become more effective in their advocacy efforts at national and continental level. Specifically the training provided useful guidelines and tools that can be used to:

- Strengthen the network's capacity to cooperate and make concerted action;
- Help the network to achieve changes through advocacy work;
- Influence governments, policy makers and international organizations.

The PGS workshop was an occasion to learn from existing African and international PGS experiences, and to identify opportunities and possible actions for the development of PGS in West Africa. The workshop covered aspects such as:

- Background to the development of PGS around the world;
- IFOAM stance on PGS;
- Key characteristics of PGS;
- Examples of how different PGS have evolved to fit with their local situations;
- A PGS case study (how it works in practice);
- PGS and Internal Control Systems interrelationships.

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;
- The Olusegun Obasanjo Center for Organic Research and Development (OOCORD), Nigeria;
- 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 Program (SACDEP-Kenya), Kenya;
- The Sokoine University of Agriculture (SUA), Tanzania;
- The Uganda Martyrs University;
- The World Agroforestry Centre, Kenya.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Outlook

The overriding priority for African agriculture is that of achieving sustainable food security. Organic agriculture has a huge potential in helping meet this aim. The fact that traditional African agriculture is low external input provides a potential basis for organic agriculture as a development option for Africa. Organic farming practices deliberately integrate traditional farming methods and make use of locally available resources. As such, they are highly relevant to a majority of African farmers.

There is undoubtedly room for a substantial increase in certified organic production in Africa, and smallholders engaged in it often derive significant benefits, improving their incomes, nutritional status and livelihoods as a result.

In addition to expanding international market access, there is a need to develop local and regional markets for organic produce in Africa. Increased consumer awareness, cooperation among stakeholders and producers in the supply chain and the development of conformity assessment mechanisms for local marketing that are accessible for smallholders, such as PGS, are key elements to achieving long-term sustainability of organic production systems.

The recently published IFOAM publication on "Building sustainable organic sectors" gives guidance for appropriate development options and guidance for governments, the private sector, development agencies and consultancies on how to achieve sustainable development of the sector in developing countries.

The first African Organic Conference to be held in Kampala, Uganda, from May 19-22, 2009 provides a good opportunity to mobilize support for organic agriculture and take the necessary actions to bring the Organic Agenda to great heights in Africa.

References

ECOA (2005). Background Paper, Egyptian Center for Organic Agriculture, Cairo.

FAO (2007). Website ftp://ftp.fao.org/docrep/fao/meeting/012/j9918e.pdf

Ife, K. (2006). Paper presented at the conference on Harnessing the Role of the Diaspora; Agriculture: a skills or investment option, Commonwealth Secretariat, London, UK.

IFOAM (2004). Genetic Engineering in Agriculture: A Focus on Africa, Book 2.

IFOAM (2005). IFOAM Smallholder Group Certification: Training Curriculum and Guidance Manual for Producer Organizations. CD ISBN Nr. 3-934055-36-2. Compiled by IMO.

Lyons, K. and Burch, D. (2007). Socio-economic effects of Organic Agriculture in Africa, Germany, International Federation of Organic Agriculture Movements.

Mzinga, J. (2005). GMOs: Beyond Fact and Fiction, New Horizon Printing Press: Lusaka, Zambia.

Parrott, N. and and Elzakker, B. van (2003). Organic and like minded movements in Africa, Germany, International Federation of Organic Agriculture Movements IFOAM.

EPOPA (2008). Organic Exports – a way to a Better Life? AgroEco and Grolink. Available at http://www.grolink.se/epopa/Publications/Epopa-end-book.pdf

Elzakker, B. van, Parrott, N., Chola Chonya, M. and Adimado, S. (2007). Organic Farming in Africa. In: Willer/Yussefi (Eds.) (2007): The World of Organic Agriculture. Statistics and Emerging Trends 2007. International Federation of Organic Agriculture IFOAM, Bonn, Germany and Research Institute of Organic Agriculture FiBL, Switzerland, pp. 93-105.

OOCORD (2007). Quarterly publication of OOCORD.

Rundgren, G. (2007). Participatory Guarantee Systems in East Africa, Germany, International Federation of Organic Agriculture Movements. Archived at http://www.ifoam.org/about_ifoam/standards/pgs.html

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Rundgren, G. and Lustig, P. (2007). Organic Markets in Africa, Germany, International Federation of Organic Agriculture Movements.

UNCTAD-UNEP (2008). Organic Agriculture and Food Security in Africa, New York and Geneva, United Nations. Available at: http://www.unctad.org/en/docs/ditcted200715_en.pdf

Wright, J. (2008). Organic Agriculture and HIV/AIDS in Sub-Saharan Africa, Germany, International Federation of Organic Agriculture Movements.

Background: The IFOAM Africa Office

Hervé Bouagnimbeck[1]

The International Federation of Organic Agriculture Movements (IFOAM) established the IFOAM Africa Office in 2004 to help the growth of organic agriculture on the continent. The Africa Office is presently based at the IFOAM Head Office in Bonn, Germany.

The IFOAM Africa Office is funded by Hivos, the Netherlands.

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 on upcoming issues. On the entire continent of Africa, organic ambassadors coming from IFOAM Contact Points and other member organizations make concerted efforts to promote and get recognition for organic agriculture among farmers groups, NGOs, governments and development organizations.

The Africa Office establishes and works through IFOAM Contact Points across Sub-Saharan Africa. The following IFOAM African Contact Points are currently established. Each of them represents or is the coordinating office for a national organic agriculture movement or national or regional organic network:

- Ethiopian Association of Organic Agriculture (EAOA), Ethiopia.
  Contact: Ferede Addisu Alemayehu, E-mail: alfrd05@yahoo.com
- Ghana Organic Agriculture Movement (GOAN), Ghana
  Contact: Samuel Adimado, E-mail: adimadosam@yahoo.com
- Kenya Organic Agriculture Network (KOAN), Kenya; Contact: Wanjiru Kamau, E-mail: wanjiruk@elci.org
- INADES-Formation Côte d'Ivoire, Ivory Coast; Contact: Kadidja Koné, E-mail: konekaridja@yahoo.fr
- Laulanié Green University and Association (LGU and LGA), Madagascar; Contact: Andrianjaka Rajaonarison, E-mail: njakar@gmail.com
- National Federation of Organic Producers, Senegal
- Contact: Ibrahima Seck, E-mail: iseck@yahoo.fr

[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, Tel. +49 228 926 50-10, Fax +49 228 926 50-99, Internet www.ifoam.org/africa

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

- National Organic Agriculture Movement of Uganda (NOGAMU), Uganda; Contact: Susan Nansimbi, E-mail: snansimbi@nogamu.org.ug
- Organic Producers and Processors Association of Zambia (OPPAZ), Zambia
- Contact: Munshimbwe Chitalu, E-mail: mchitalu@organic.org.zm
- Organic Agriculture Project for Tertiary Institutions in Nigeria (OAPTIN), Nigeria, Contact: Dr. Olugbenga Adeoluwa, E-mail: adeoluwaoo@yahoo.com
- Participatory Ecological Land Use Management (PELUM) Regional desk, Zambia, Contact: Marjorie Chonya, E-mail: inforunit@pelum.org.zm
- Sustainable Agriculture Development Network (REDAD), Benin; Contact: Abel Sekpe, E-mail: sulpa74@yahoo.fr
- Tanzania Organic Agriculture Movement (TOAM), Tanzania; Contact: Noel Kwai, E-mail: noelkwai2003@yahoo.com
- Zimbabwe Organic Producers' and Processors' Association (ZOPPA), Zimbabwe; Contact: Fortunate Nyakanda, E-mail: zoppa2008@hotmail.com

The Africa Office publishes an electronic newsletter, the Africa Organic News, on a monthly basis, featuring news on organic agriculture in Africa. It is distributed freely 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 homepage at www.ifoam.org/newsletter/newsletter_africa/Newsletter_Archive_IAO.html

Contact

Hervé Bouagnimbeck, IFOAM Africa Office, c/o IFOAM Head Office, Charles-de-Gaulle-Str. 5, 53113 Bonn, Germany, E-mail h.bouagnimbeck@ifoam.org, Tel. +49 228 926 50-10, Fax +49 228 926 50-99,
Internet www.ifoam.org/africa

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

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

Table 25: Africa: Organically managed agricultural land and producers by country 2007

	Year	Org. managed land [ha]	Share of total agricultural land	Land fully converted [ha]	Land under conversion [ha]	Producers
Algeria	2006	1'550	0.00%	–	–	–
Benin	2007	1'488	0.04%	–	–	2'354
Burkina Faso	2007	7'267	0.07%	7'267		5'808
Cameroon	2007	336	0.00%	267	69	92
Congo (Democr. Rep.)	2007	6'068	0.03%	5'923	145	1'053
Egypt	2006	14'165	0.40%	–	–	460
Ethiopia	2007	140'305	0.41%	138'845	560	165'560
Gambia	2006	86	0.01%	–	–	–
Ghana	2008	24'449	0.17%	24'449		3'900
Guinea-Bissau	2007	5'600	0.34%	5'500	100	401
Ivory Coast	2007	943	0.00%	943		
Kenya	2007	4'636	0.02%	4'250	386	1'811
Madagascar	2006	9'456	0.02%	–	–	5'455
Malawi	2002	325	0.01%	–	–	13
Mali	2007	3'402	0.01%	3'402	–	7'526
Mauritius	2006	175	0.15%	–	–	5
Morocco	2008	3'590	0.01%	3'590	–	
Mozambique	2006	728	0.00%	–	–	1'928
Namibia	2007	80	0.00%	–	–	6'000
Niger	2007	131	0.00%	49	82	–
Nigeria	2007	3'154	0.00%	52	3'102	–
Rwanda	2007	13'356	0.69%	1'656	11'700	2'565
Sao Tome and Prince	2007	2'862	5.02%	–	–	1'179
Senegal	2007	1'589	0.02%	763	825	1'306
South Africa	2007	50'012	0.05%	45'356	4'655	500
Sudan	2007	56'324	0.04%	55'324	–	–
Swaziland	2007	3	0.00%	–	3	–
Tanzania	2007	62'180	0.18%	35'706	26'475	90'222
Togo	2007	2'545	0.07%	2'519	26	4'183
Tunisia	2006	154'793	1.58%		–	862
Uganda	2007	296'203	2.33%	296'203	–	206'803
Zambia	2007	2'530	0.01%	–	–	20'000
Total		**870'329**	**0.10%**	**632'063**	**48'128**	**529'986**

Source: IFOAM/FiBL Survey. For details on data sources and data providers, see annex.

'–': No data

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Table 26: Africa: Agricultural land use and main crop categories 2007

Main use	Main crop category	Land under organic management [ha]
Agricultural land, no details	Agricultural land, no details	331'877
Arable land	Arable crops, no details	2'950
	Cereals	4'478
	Fallow land as part of crop rotation	136
	Flowers and ornamental plants	35
	Green fodder from arable land	1'871
	Industrial crops	35'725
	Medicinal & aromatic plants	12'274
	Oilseeds	11'712
	Other arable crops	752
	Protein crops	243
	Root crops	1'514
	Sugarcane	176
	Vegetables	4'216
Other	Unutilized land/fallow land	11'963
Permanent crops	Citrus fruit	4'944
	Cocoa	9'766
	Coconuts	999
	Coffee	151'388
	Flowers and ornamental plants, permanent	185
	Grapes	282
	Medicinal & aromatic plants, permanent	5'703
	Olives	90'884
	Other permanent crops	69'848
	Tea	11'137
	Temperate berries	4
	Temperate fruit	2'474
	Temperate fruit/nuts/berries	14
	Temperate nuts	4'473
	Tropical and subtropical fruit	22'037
	Tropical and subtropical nuts	7'941
Permanent grassland	Permanent grassland, no details	51'262
Cropland, no details	Cropland, no details	17'069
Total		870'329

Source: IFOAM/FiBL Survey. For details on data sources and data providers, see annex.

'–': No data

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Table 27: Africa: Wild collection areas and bee keeping 2007

Country	Main use	Main crop category	Land under organic management [ha]
Algeria	Wild collection	Tropical and subtropical fruit, wild	850
Burkina Faso	Wild collection	Tropical and subtropical nuts, wild	11'270
Chad	Wild collection	Gum Arabic	2'800
Kenya	Bee keeping	Bee keeping	6'000
	Wild collection	Wild collection, no details	73'903
Madagascar	Wild collection	Wild collection, no details	17'302
Mali	Wild collection	Tropical and subtropical nuts, wild	758
Morocco	Wild collection	Medicinal & aromatic plants, wild	150'000
		Oil crops	400'000
Namibia	Wild collection	Medicinal & aromatic plants, wild	2'803'100
Nigeria	Wild collection	Forest products	100
South Africa	Wild collection	Medicinal & aromatic plants, wild	26'608
		Tea, wild	7'747
		Wild collection, no details	605
Sudan	Wild collection	Gum arabic	490'000
Tunisia	Wild collection	Forest products	65'683
Uganda	Wild collection	Wild collection, no details	158'328
Zambia	Bee keeping	Bee keeping	5'187'442
	Wild collection	Mushrooms, wild	187'441
Total			**9'589'936**

Source: IFOAM/FiBL Survey. For details on data sources and data providers, see annex.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Organic Food and Farming in Kenya

PAUL RYE KLEDAL,[1] HABWE FLORENCE OYIERA,[2] JOHN WANJAU NJOROGE[3] AND EUSTACE KIARII[4]

Geography and economy

Kenya is a country about as large as France, with a population of 37 million. Agriculture is the backbone of Kenya's economy, contributing 26 percent of its GDP and 60 percent of its export earnings. Conventional horticulture and tea alone contribute almost half of these earnings. Approximately 80 percent of the population lives in rural areas, with three quarters of them being poor. About 70 percent of smallholder farmers are women. More than half the population lives below the poverty line, and Kenya ranks among the ten most unequal countries in the world, and the fifth in Africa. HIV/aids has been declared a national disaster by the government, and AIDs-related deaths represent about 40 percent of total mortality[5].

Four climate zones prevail in Kenya, where the Great Rift Valley in the southwest is the most productive. The eastern side of the valley is dominated by the mass of Mount Kenya, a giant extinct volcano, making the Eastern highlands among the world's richest agricultural lands. The farms here, mainly established during the British white settler period, are large compared to the rest of Kenya's many subsistence farmers or nomadic pastoralists, and they are predominantly export oriented within horticulture, fruits, coffee, tea and essential oils. A major part of the organic farm sector is concentrated here and connected to the consumers of Nairobi, international airfreight possibilities as well as feasible transport linkages to the commercial harbor of Mombasa.

History

The growth and development of organic agriculture (farming) in Kenya was initially an initiative of Non-Governmental Organizations (NGOs) and private organizations like the Kenya Institute of Organic Farming (KIOF), formed back in 1986. However, from the mid 1990s, efforts were shifting from isolated individual to more collaborative with the establishment of organizations such as the Kenya Organic Farmers Association (KOFA), initiated by farmers participating in KIOF extension and training programs. The association published organic farming standards for members based on standards by IFOAM and the European Union. KOFA wanted particularly to develop a vibrant organic market - both locally and internationally - for their produce. Larger companies and commercial farmers already in

[1] Dr. Paul Rye Kledal (corresponding author) e-mail: paul@foi.dk Institute of Food and Resource Economics, Copenhagen University, Denmark
[2] Habwe Florence Oyiera, M.Sc. and Graduate Assistant in the School of Public Health and Community Development, Maseano University, Kenya
[3] John Wanjau Njoroge, Director of Kenya Institute of Organic Farming (KIOF)
[4] Eustace Kiarii, National Coordinator in Kenya Organic Agriculture Network (KOAN)
[5] UNDP Human Development Report 2005

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

the export market, though, have organized themselves into the Kenya Organic Producers Association (KOPA). In 2005, organic agriculture stakeholders in Kenya, including KOPA and KOFA, formed the umbrella network KOAN to support the continuing successful growth of the organic sector.[1] [2]

Legislation and certification

There are no official policies for organic agriculture in Kenya, even though there is an increasing public interest and recognition of organic agriculture. The organic sector has developed to date without any explicit official government policy support. The Ministry of Agriculture has established an organic desk to lead in the development of an organic policy under the department of Food Security and Early Warning Systems. The ministry's approach is to develop both a policy for organic agriculture as well as to incorporate it into other policies relating to agriculture, food security and the environment. So far, organic agriculture has been incorporated in the Food Security Policy draft and the Soil Fertility Policy draft.

There are five international certification bodies that are involved in Kenya, namely: Soil Association (UK), Ceres (USA), EcoCert, (France), IMO (Germany) and Bio Suisse (Switzerland). However, to minimize the cost of certification by the external certifiers, most of the certifiers use locally trained inspectors. A national certification body Encert was established in 2005 to certify for the national markets.

In May 2007, the East African Organic Products Standard (EAOPS) was launched after a consultative process, which started in 2005 by harmonizing organic standards that existed in the East African region. Together with the EAOPS, the 'Kilimohai' brand was purposely developed to help promote and boost regional trade. However, a regional brand without an implementation of regional trade-and farm policies on organic farming can quickly be undermined if one of the countries allows growing GMO crops or using DDT to combat malaria. Strong economic and political interest groups are at the moment advocating for these inputs to be used in agriculture in Kenya and Uganda respectively.

The present organic production base

The organic farm sector itself is basically organized around a minor number of large farm enterprises, or various supply organizations, based on purely commercial, community, faith or simply farmer cooperation involved in packaging, domestic or export sales. As illustrated in Table 28, 35 farm enterprises covered the organic production in Kenya's eight provinces. More than half are concentrated in the Central Province, where also most of the outgrowers are connected in relation to the labor intensive crop production within horticulture.

[1] Overview of the Current State of Organic agriculture in Kenya, Uganda and the United Republic of Tanzania and the Opportunities for regional Harmonization by Alistair Taylor for UN (UNCTAD, UNEP) 2006.
[2] The Status of Organic Agriculture, Production and Trade in Kenya – Report of the Initial Background Study of the National Integrated Assessment of Organic Agriculture Sector – Kenya, by Ms. Cecilia Kimemia and Mr. Eric Oyare January 2006

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Table 28: Kenya: Organic farm sector in relation to Kenya's eight provinces

Province	Number of farm enterprises + supply organizations	Number of outgrowers	Agricultural land (ha)	Wild area/ extensive use (ha)	Total (ha)
Central	19	819	3'023	40'500	48'861
Coast	2	474	1'543		2'017
Eastern	4	334	324		658
Nairobi	2		16		16
North eastern	0				
Nyanza	0				
Rift Valley	5	154	276	32'640	32'599
Western	3	100	251		351
Total	**35**	**1'811**	**4'535**	**73'851**	**78'438**

Source: KOAN, Encert, Kledal, field data

Table 29: Kenya: Major organic produce from Kenya's eight provinces (2008)

No of farm enterprises	Major products produced	Provinces
19	Beans, peas, sweet corn, chilies, avocadoes, baby salad, baby vegetables, spinach, potatoes, leeks, indigenous vegetables, cucumber, passion fruit, pear, oranges, bananas, raspberries, essential oils, lemon grass, rosemary, ground-, macadamia- and cashew nuts, tea, coffee	Central
2	Coconut oil, avocado oil	Coast
4	Chamomile, carcade, lemon, grass, mangoes, guava, sweet bananas, Honey and wax, indigenous vegetables, tomato, kale, spinach, onions, pepper, grains	Eastern
2	Indigenous vegetables, tomato, kale, milk, probiotic yogurt	Nairobi
0		North eastern
0		Nyanza
5	Tea, paprika, birds eye chillies, taegetes, enchinecea purpea, coriander, calendula, borage, safflower, strawberry, milk,	Rift Valley
3	Pineapple, Chillies, onions	Western

Source: KOAN, Encert, field data (Kledal. 2008)

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

A total of 1'811 farm outgrowers (smallholders of various sizes) were included to secure the 'critical mass of supply' – either for export or national market chains. The total organic area is distinguished between what is agricultural land and what is considered wild and extensive production. The agricultural land consisted of 4'535 hectares, which together with the area for wild and extensive collection reaching 73'851 hectares, amounted to a total 78'438 hectares certified organic.

In Table 29 the major products being produced are illustrated in accordance with the provinces. The Central province dominates within horticulture, fruits, nuts, coffee and essential oils – five out of the six major organic product categories Kenya produces and exports. Tea is the sixth product, which is produced in the Rift Valley province around the town Kericho.

Markets

Local

Like in many developing countries, the local organic market is mainly placed around the capital city, where a major part of the consumers are foreigners and affluent higher middle class citizens. In Nairobi, more than 10 outlets are selling organic products, and they are situated in the wealthy areas of Karen, Muthaiga, Lavington, Westlands and Gigiri. The outlets are greengrocer shops, health shops and the two Kenyan supermarket chains 'Uchumi' and 'Nakumatt.' The latter is a supermarket chain in the high end concerning product variety and prices. The organic products sold in the supermarkets are typically coffee, tea, honey, sunflower oil, flour, macadamia nuts, and various health products. One of the Nakumatt outlet stores, Westgate, has outsourced floor space to the organic 'Green dreams shop' in the fresh produce section, and Uchumi is in the process of doing the same with 'Masai eco farm.'

Various organic flour products are used for making popular African dishes. Especially corn flour is an important part of the diet for millions of Africans. It is similar to the Italian polenta.

Picture: Paul Rye Kledal 2008

The greengrocers offer, besides some of the products found in the supermarkets, a variety of vegetables and fruits. The main shops are 'Healthy U,' 'Green Corner Shop,' 'Zucchini Green Grocers,' 'Organic Green Grocers,' 'Green dreams Shop' and 'Kalimoni Greens.' There are three organic restaurants in Nairobi, two by the organic restaurant chain, 'Bridges Organic Restaurant' and one by 'Healthy foods creation.' A number of hotels and restaurants, respectively in Nairobi, Kisumu and Mombasa, provide organic on order. In Mombasa by the Indian Ocean, tourism is the main driver for organic food demand.

Export

The major exports are within the six major product categories produced: fresh vegetables and tropical fruits, essential oils, herbs, nuts, coffee and tea. In Table 30, the produce in

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

metric tons per year is illustrated. Data has not been collected on fruits and essential oils. Within all six commodity areas, two to four major companies are in charge of the overall production, packaging and export.

Table 30: Kenya: Major organic export categories in metric tons (2008)

Export category	Metric tons
Vegetables	700
Coconut oil	15
Herbs	150
Nuts	860
Coffee/Tea	400/200

Source: Kledal, August September 2008. Company information collected by interviews

Future prospects

The growth in new organic farm area since 2005 has either been larger areas destined for export, often of a single high value crop, or very small areas producing for a growing home market. Concerning the latter, Kenya is home to a number of UN organizations, including UNEP, HABITAT and the regional UNESCO headquarters. There are also a number of international agricultural research institutes based in the country, and all of them have a large number of foreigners working there and serving as important drivers behind the local organic demand. However, the riots after the election held in December 2007 have caused a downturn in the tourist industry, as well as in the disposal income of most Kenyans, and will put a limit on the growth prospects for the home market in the short run. Likewise, the export market has also been hit by rising fuel costs, as well as the debate on carbon emissions and food miles on products flown from Kenya. The exporters of fresh horticulture products using air freight for transportation are considering changing production towards lighter and higher value crops like herbs, or finding other nearer markets like South Africa. Similar problems face the exporters of durable fruits and vegetables, tea and coffee using container transportation by sea. Due to the increasing raids of pirates from the Somali coast, ships now have to go further out at sea, which has raised transportation costs. The development of organic exports destined for EU could therefore see a decline, but expand and diversify into other potential African and some Asian markets. The liberalization of the Kenyan coffee market could open up for growth in organic coffee, and organic tea is going to double its production to 400 metric tons in 2009. However, the organic tea producers in Kenya face hard competition on labor costs from Uganda and Asian countries as well.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Overall, there is a great need for further investments and donor aid to the Kenyan agriculture, where organic farming has a long and strong tradition addressing and contributing positively to such important and interrelated issues, such as poverty, food security, gender, social and environmental vulnerable farm environments, as well as including smallholders in global supply chains. However, a more dynamic legislative recognition of organic agriculture by the government is necessary for the organic stakeholders to create more efficient, powerful and necessary market institutions and trade network that contribute to the overall wealth of the Kenyan society.

Masai women at the Masai Eco Farm. The farm produces organic vegetables and teaches the women pastoralists how to farm organically. The farm organizes trainings in collaboration with KOAN for 300 farmers to produce and deliver organic produce like fruit, vegetables, egg, meat and dairy products mainly to consumers in Nairobi.

Picture: Paul Rye Kledal 2008

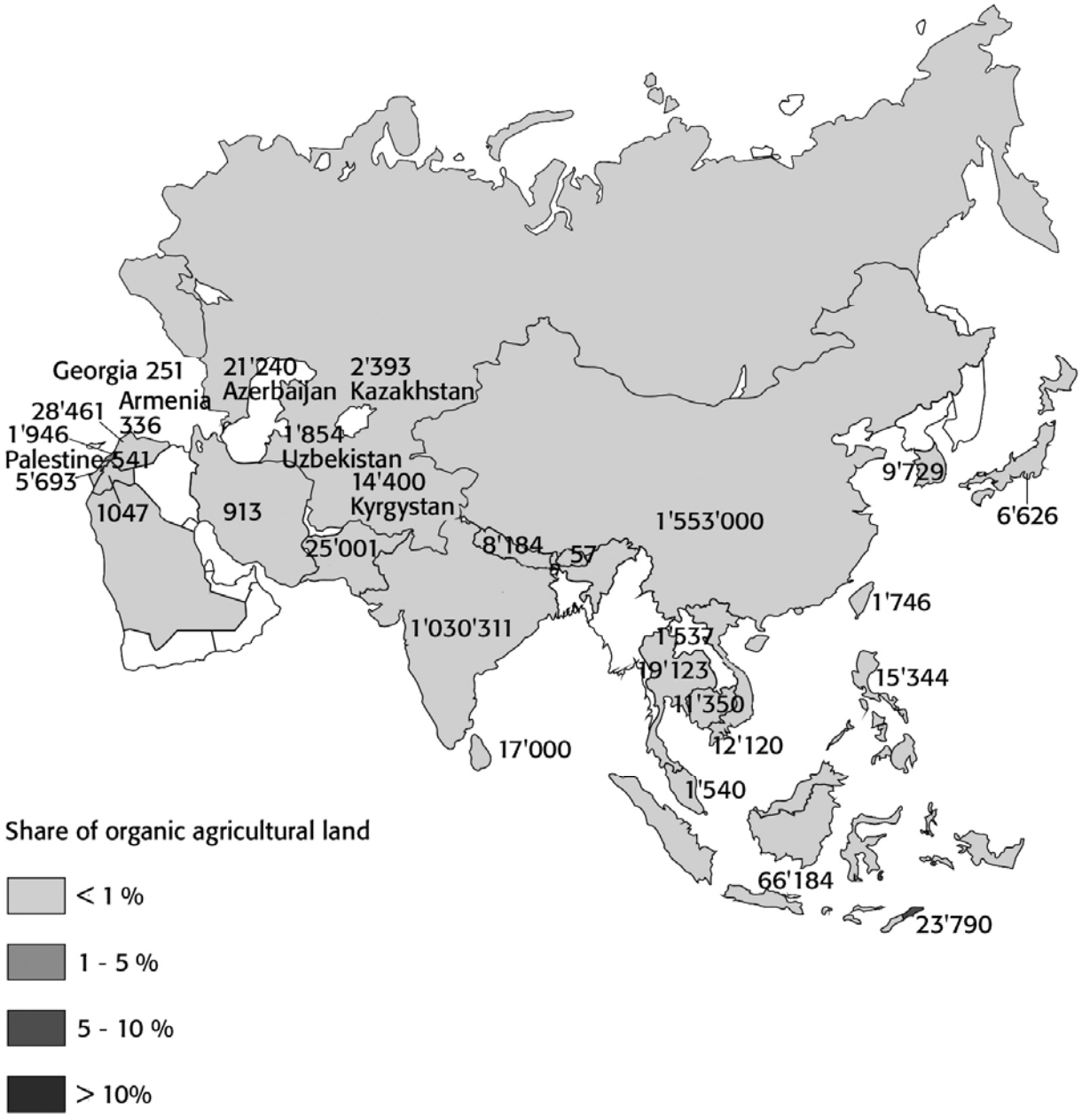
NB: This article has been conducted within the research project GLOBALORG funded by DARCOF (see websites for further information), analyzing the social and environmental impact of globalization on organic farmers in the South.

Websites

Kenya Institute of Organic Farming: www.kiof.org
GlobalOrg project: www.globalorg.dk
Danish Research Centre of Organic Farming: www.darcof.dk

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Asia



Map 3: Asia: Land under organic management (hectares) in the countries of Asia 2007

Source: FiBL Survey

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Organic Asia - From Back to Nature Movement & Fringe Export to Domestic Market Trend

ONG KUNG WAI[1]

Overview

The region with Japan to the North, Philippines to the East, Indonesia to the South and Israel to the West hosts a full spectrum of sector development scenarios, from early development status to one of the largest markets in the world. Far from the marginal position it held in 1993, when 20 odd delegates gathered in a classroom outside Tokyo for the 1st regional organic agriculture workshop, organic today is very much an accepted concept and a growing market and policy trend in the region. Figures in this publication show expansion of the sector in most Asian countries in 2008.

While largely driven by exports from producer-based economies in the region in the past, sector growth is now also driven by imports. Of late, local markets have taken off in many of the big cities in the South and Eastern part of region besides Japan, South Korea, Taiwan and Singapore; Kuala Lumpur, Manila, Bangkok, Beijing, Shanghai, Jakarta, Delhi, Bangalore and other cities are increasing internal consumption of organic products. According to Mintel China, food scares are driving more Asian consumers to organic selections. Leading retail chains in the region are stocking organic selections.

From a sector that was characterized as a hippy/back to nature and fringe export activity, the mushrooming of local markets throughout the region reflects receptivity amongst consumers to the promotion of organic as a lifestyle choice in the newly affluent cities in the region. Regional markets are expected to grow, and with them the emergence of an Asian organic industry with a complementary focus on product development and supply chains for the region - in addition to exporting raw material to Europe and the USA. New product launches of organic food and beverages in the region reportedly experienced a 175 percent increase over 2007, compared to only 90 percent in North America.

Sadly, the organic movement may be its own worst enemy. While agreeing that trade in organic products should receive preferable treatment to conventional products, three of the twelve private organic sector associations at the Conference 'Organic Asia – The Way Forward,' held end October 2008, in Sarawak, Malaysia, did not support equivalence recognition. Domestic development priorities and consumer concerns were cited as reasons. However, there was consensus amongst the public sector officials at Sarawak that acceptance of imports should be on an equivalence basis. They were also open to the option of supervising certification bodies to assess and accept equivalent prior certification from non-regulated markets. Some bureaucrats have understood the futility of demanding similar legislation and compliance from others, while some organic activists are proving to be more nationalists than social environmentalists.

[1] Ong Kung Wai, Grolink, c/o Humus Consultancy, 7, Jalan Nunn, 10350 Penang, Malaysia. Consultant and IFOAM World Board member.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Production & markets

Production of final processed products is growing, although a majority of production is still fresh produce and field crops with low value-added processing, such as dry or processed raw ingredients. A large quantity of exports from developing economies in the region are organized through grower groups by the producers themselves or through contracts with export companies, except where they are normally produced by plantations, including tea. Wild collection takes place in many places. Organic livestock production is not developed due to lack of organic feed and pasture lands. Limited amounts of certified animal products, mainly poultry and pork, are available in some domestic markets. Constraints to comply are such that the first organic JAS certified beef to be sold in Japan reportedly came from an Australian operation in 2008.

Aquaculture (shrimp and fish) on the other hand, is emerging in China, Indonesia, Vietnam, Thailand, Malaysia and Myanmar. Textiles in line with global trend, is hot. Market interest in agrofuels could fuel a significant role in converting vast oil palm plantations in South East Asia.

Domestic organic prices range from 10 to 200 percent above conventional prices, according to market location, quality and product. Strong market trends have lead entrepreneurs to set up shops in the steppes of Mongolia and mountaintops of Nepal. Marketing channels are as diverse as market conditions from rural India to Tokyo, including ad hoc organic bazaars, small retail shops, supermarkets, multilevel direct selling schemes and Internet marketing. Most emergent markets in the region are not regulated. Certified imports share the same shelf space with locally produced self-claimed organic products.

Although the largest market in the region, the Japanese market influence is not as much felt as the EU and USA's influence in the region. Trade within the region is growing, but nothing like the export flows to the EU and USA. Although small, emerging markets in the region are getting on the radar. The region now hosts at least seven annual organic related trade fairs: one in Japan; three in mainland China; one in Hong Kong; one in Taiwan and one in India. There is plan for one more in India. Adjusting to market trends, many conventional fairs in the region have incorporated organic sections. Japan may be the largest organic consumer market in the region, although China and India are the countries to watch.

Standards, certification & regulation

Driven historically by export opportunities, organic standards and certification in Asia is by and large set up in response to import requirements of the major importing organic markets. Lobbied by exporters over the years, many governments embarked and established organic regulations in hopes of establishing recognition from the EU and USA. Production and processing standards in the region in general reflect external requirements rather than local production conditions and the state of development. Organic rules tend to be mandatory in importing countries and voluntary in exporting countries.

Organic regulations, including official accreditation or approval/registration of certification bodies, are now in place in China, Japan, Korea, Israel, Philippines and Taiwan for domestic markets, imports and exports. The Indian regulation currently applies only to exports. It is

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

expected to apply to the domestic market and imports soon. Thailand and Malaysia have published voluntary national organic standards, and they operate government certification programs as well. Indonesia has published voluntary national organic standards and operates a government accreditation scheme for private certification bodies. Sri Lanka, Vietnam, Laos and Cambodia are finalizing their respective national standards.

Israel and India has established recognition agreements with the EU. India also established recognition with the USDA. In addition, domestic regulations in the region offer no help to facilitate exports. No recognition agreement has been reached between governments within the region.

157 certification bodies are listed for Asia in The Organic Standards (TOS) Certification Directory 2008. 140 of which are found in just five countries: Japan (60); South Korea (32); China (29); India (13) and Thailand (6). Not all listed are active. Most exports are certified by international certification bodies working in the regions. Local certification bodies in general are relatively weak and have small or no market share. Few local private certification bodies have established themselves outside of the regulated markets. Seven agencies[1] have teamed up with the Organic Food Development Center (OFDC), China, and ICEA (Italy) to collaborate on inspection and certification under the name Certification Alliance (www.certificationalliance.org). The collaboration was launched in February 2008 at Bio-Fach, Germany. Besides an uphill challenge against international certification bodies, local private certification bodies in Malaysia and Thailand must also manage their offer in relation with their government.

Current development challenges

The critical challenge for sector development in the region is development of private sector, civil society and public sector partnerships. Until recently, sector development flows mainly from two streams. First through sustainable agriculture and development NGOs advocating organic agriculture for work and environmental safety, sustainable use of resources and rural income improvement. The second stream comprises of food processing and business enterprises entering the growing organic market. Sadly, the two streams do not interact much or well with each other.

While NGOs remain the main actors in advocacy and extension, market entrepreneurs have emerged to be the driving force in local market development in many places. Many NGOs are still suspicious of business entrepreneurs to work together as co-development agents. This hampers establishment of united national organic sector movements in the region, a critical factor for sector development. More so as public sector in the region, the third and most recent stream have become pro-active of late.

While public and private interests are growing, infrastructure and competencies to support organic conversion lag behind. Retailers reportedly suffer from inconsistent supply of both local and imported products. Reliable production and market data for development planning

[1] Organic Agriculture Certification Thailand (ACT), Thailand,; Sricert, Sri Lanka; Organic Alliance Malaysia; Organic Certification Nepal; BIOCert, Indonesia; Organic Certification Center Philippines; Lao Cert, Laos

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

is generally not available. The informal nature of many domestic markets makes data collection difficult.

In some markets, local producers face challenges from cheaper imports. In others, imports set attractive benchmark prices for local substitution. Certified operators in non-regulated markets complain of having to compete with self-claimed organic products. Small producers, the majority in the region, cannot feasibly cover third party certification costs. While necessary for exports, certification arguably presents more of a cost burden than a value added solution in this scenario. Participatory Guarantee Systems, as an alternative assurance system, is gaining interest. A national network has been established in India.

While production has improved, local product range is still far from filling a complete food basket. Product development cost remains a major constraint. Extension and training, as well as conversion of processing operations are in many instances too demanding for local private sector investment at current local market sizes. Sadly, the major focus of government initiatives in the region is on standards and certification instead of extension, training and product development.

Lack of international harmonization of regulatory and standard requirements continues to cause difficulties for exporters in the region. Ironically, government standardization initiatives in the region are adopting similar requirements that inhibit the development of domestic and regional markets when implemented. The situation entrenches the need for high market premiums and maintains the tension between farm/market viability and affordable organic food for the average wage earner. Regional sector development is in danger of being constrained by regulations set with market access to EU and USA markets, instead of having local and intra-regional markets in mind.

As a sign of sector maturation, the number of sector associations in the region has grown. Ten of them from Japan, South Korea, Taiwan, Philippines, Thailand, Malaysia, Indonesia, Sri Lanka, India and Cambodia were present at the 'Organic Asia – The Way Forward' conference in Sarawak, Malaysia, together with sector associations from Australia and the South Pacific. Better ties between business and development actors within the organic movement and improvements in public-private collaboration are sorely needed for development of more coherent policy frameworks for the coming years.

The good news is that there was consensus amongst public sector officials present at the Organic Asia conference that acceptance of imports should be on an equivalence basis. However, as most countries have not passed regulations; the business of negotiating equivalence between governments is not applicable to most. After much discussion, instead of requesting countries to regulate, supervising certification bodies in regulated markets to assess and accept prior certification from non-regulated markets as equivalent was regarded as a feasible option for further consideration. The group also expressed the need for common standards in the region.

Eleven certification bodies represented at the conference supported the delegation of authority for recognition of equivalent certification between certification bodies. All nine of the Asian-based certification bodies expressed commitment to development of a regional private sector certification standard.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

The bad news is the private organic sector associations from Japan, South Korea and Taiwan do not support equivalence recognition, even as they agree organic products should receive preferable treatment to trade in conventional products. All supported development of a regional standard, as well as establishing a regional forum. The message was a disappointment to those who hoped the Organic Asia conference would demonstrate there is sufficient mutual respect of different ways organic agriculture is practiced within the region to initiate a process towards multilateral equivalence recognition as a basis to foster regional collaboration for development.

Since the dissolution of IFOAM Asia in 2005, there have been calls to establish a regional forum. There may be interest in development of common regional standards, but not promotion of regional trade, as discussions in Sarawak reveals. Trade has been the primary engine for sector development in the region. It is questionable if the impetus for developing common regional standards will be fruitful if trade is taken out of the context. It would be interesting to find out if the three no votes to equivalence voiced in Sarawak reflect the general sentiment of the countries' organic community or only minority opinion. Interestingly, for a national regulation, there are currently more JAS certified production outside of Japan than in Japan. There are already too many imports, and therefore there is no need for equivalence - some would prefer to say this. Others would label it as neo-colonialism of organic norms. Is continuing enforcement of Japanese norms outside of Japan the right way forward for sector development in Japan and elsewhere?

IFOAM Asia fell apart because there were far more divergent than common interests in the region. The situation does not seem to have fundamentally changed. There is yet no consensus on development strategy throughout the region. Asia remains nations apart.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

History of the Regional Movement in Asia

ONG KUNG WAI[1]

Pre-movement

Until the 1990s, there was hardly any organic movement to speak of in the region outside of Japan and South Korea. Linkages to the international organic movement were limited. Organic agriculture, at the time, did not have much credibility as a concept. The IFOAM workshop held at Emerson College in the United Kingdom in 1990 was a benchmark event for development in the region. Application of organic concepts to agriculture, rural and social development in the South was thoroughly discussed by development activists from Asia, Africa and Latin America. The IFOAM Third World Task Force was subsequently established at the IFOAM general assembly in Budapest soon after the workshop. The IFOAM Third World Task Force then organized a meeting of Asian delegates at the IFOAM conference and general assembly in Sao Paulo, in 1992, which lead to the 1st regional workshop on organic agriculture, hosted by the Japanese Organic Agriculture Association (JOAA) in Japan in 1993. The workshop, outside of Tokyo, where 20 odd delegates slept in a school dormitory and met in a classroom during school holidays marked the beginnings of the organic agriculture movement in Asia.

'Food, Culture, Trade & the Environment' conference, Seoul, 1995

The 2nd regional organic event, a joint effort by the Korean Organic Farming Association and Pesticides Action Network Asia Pacific with the theme 'Food, Culture, Trade & the Environment,' represented a coming together between the organic and sustainable agriculture movements and consensus building to address development issues related to the four subject areas of the conference theme. It lead to the formation of 'organic' networks and an organic development agenda in many of the countries that now boast thriving local organic sectors.

Expanding agenda, fragmentation and dissolution

At the 3rd IFOAM Asia conference held in Bangalore, in 1997, the conference agenda expanded to include a wide range of issues, including traditional agriculture and gender in agriculture. Attention was not as highly paid towards market, trade and the business side of sector development as to production, extension and related social issues.

At the 1999 IFOAM Asia conference in the Philippines, a small trade exhibition was attached to the conference. With official support from the Chinese authorities, the 2001 IFOAM Asia conference in Hangzhou, China attracted good participation, including the launch of a regional organic scientific research and development initiative. However, there were signs that regional collaboration in development and policy advocacy was diminishing. No significant regional collaboration project was undertaken since the Philippine conference. The 2003 regional conference was postponed to 2004 and did not achieve sufficient quorum as a regional assembly. IFOAM Asia as a regional group was consequently dissolved by the IFOAM World Board in 2005.

[1] Ong Kung Wai, Grolink, c/o Humus Consultancy, 7, Jalan Nunn, 10350 Penang, Malaysia. Consultant and IFOAM World Board member.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Organic Agriculture and Market Potential in India

MANOJ KUMAR MENON[1]

Introduction

Organic farming is not new to the Indian farming community. Several forms of organic farming are being successfully practiced in diverse climates, particularly in rain fed, tribal, mountain and hill areas of the country. Among all farming systems, organic farming is gaining wide attention among farmers, entrepreneurs, policy makers and agricultural scientists for a number of reasons. Organic farming minimizes dependence on chemical inputs (fertilizers, pesticides herbicides and other agro-chemicals) and thus safeguards/improves the quality of the natural resources and the environment. It is relatively more labor-intensive and provides an opportunity to increase rural employment and achieve long-term improvements in the quality of the resource base and of human and animal health.

Development of organic agriculture in India

Organic systems have been thriving in various parts of India for 20 to 25 years now, but no systemic and institutional work had happened until 2001. In 2001, the Government of India started the 'National Program on Organic Production' (NPOP). Since then, India's organic sector has shown rapid progress.

In 2003, only 73'000 hectares of cultivated land was certified organic. In 2007/2008 the land under organic management was 1'030'311 hectares (0.6 percent of the agricultural land). Of these 595'413 hectares were in conversion.

India was exporting organic products to the value of only 730 million Indian Rupees in 2003 (14 million Euros), and in 2007 this figure touched 3'000 million Indian Rupees (53 million Euros), constituting almost 0.2 percent of the organic world market. In parallel, the domestic market for organic products in India is also growing, and India's first market survey conducted by the International Competence Centre for Organic Agriculture (ICCOA) indicates a huge potential of over 15 billion Indian Rupees (265 million Euros) in the coming years (Rao Kishore et al.). India should target to reach at least 40 billion Indian Rupees by 2012 (domestic market and exports), thereby capturing approximately 2.5 percent of the current global market for organic products.

History of organic farming in India: Milestones

- January 1994: The 'Sevagram Declaration' for the promotion of organic agriculture is followed by large number of organic producers throughout India.

[1] Executive Director, International Competence Centre for Organic Agriculture ICCOA, 951 C, 15th Cross, 8th Main, Ideal Homes Township, Rajarajeshwarinagar, Bangalore - 560 098, India, Tel. +91 80 28601183, Fax +91 80 28600935, E-mail info@iccoa.org, www.iccoa.org

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

- 2001: The Government of India launches the National Program on Organic Production (NPOP).
- 2001: India develops its own National Standards for Organic Production (NSOP), similar to the IFOAM and other world standards.
- 2001/2002: Establishment of a National Accreditation Body with the Agricultural & Processed Food Products Export Development Authority APEDA as the nodal agency.
- 2001/2002: Organic certified area recorded at 42'000 hectares.
- 2002: Launch auf Indocert, the first local inspection in India, in cooperation with SECO and FiBL.
- 2003/2004: Organic certified cultivated area at 76'236 hectares (total area including forest areas with wild herbs were 2'508'826 hectares).
- 2005: First 'India Organic Trade Fair' organized by ICCOA in Bangalore. Since then it has become an annual event.
- 2006: India's NSOP acquires the status of equivalence with the EU and Swiss Standards. India's accreditation system attains equivalence with the US National Organic Program.
- 2006/2007: The organic certified area (excluding in-conversion area) rises to 340'000 hectares.
- 2007: India Organic Trade Fairs are organized in New Delhi by ICCOA in partnership with the National Centre for Organic Farming (NCOF), the Agricultural & Processed Food Products Export Development Authority (APEDA).
- 2008: 12 organic certification agencies are accredited, and three to four agencies are in the pipeline.

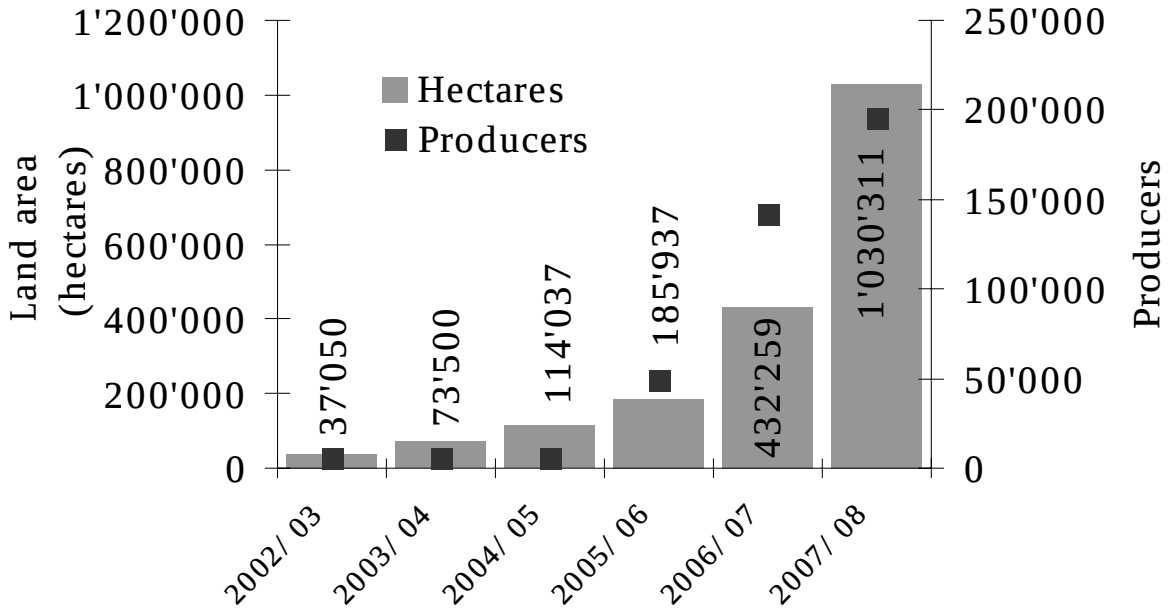


Figure 27: India: Development of the land under organic management and of organic producers

Includes in-conversion land. Source: FiBL/SOEL Surveys, APEDA (2005-2007)

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

India is on a threshold of development in organic agriculture, but is poised towards continuing growth apace. It is only through alternative and competitive technologies and an enhanced level of efficiency across the entire value chain that we can hope to meet the challenges successfully.

Organic agriculture comes across as a promising opportunity for India and its farmers, especially the small and marginal farmers in the dry/rain fed regions or regions that have traditionally practiced low-input farming. To exploit this opportunity for agricultural, economic and social benefits, a strategy is needed to create a technically efficient and commercially viable 'Production to consumption system' in the organic agriculture sector.

Future projections

The area under organic cultivation is likely to cross the two million hectare mark by 2012, according to NCOF as it relates to the Union Ministry of Agriculture and ICCOA.

The market for organic produce from and within India is expected to grow six to seven times in the next five years. India may reach 40 billion Indian Rupees (exports and domestic market, approximately 700 million Euros) by 2012, thereby reaching about 2.5 percent of the current global trade value - the export value is expected to reach about 25 billion Indian Rupees (440 million Euros) and the domestic market 15 billion Indian Rupees (270 million Euros).

Table 31: India: Organic Farming in India 2003 and 2007, projections for 2012

	2003	2007	2012
Organic area	76'000 hectares of cultivated area; ca. 2.4 million hectares wild collection area	455'568 hectares fully converted =0.35 % of the agricultural land	2 million hectares =1.5 % of the agricultural land
Exports from India	730 million Indian Rupees (14 million Euros)	3.5 billion Indian Rupees (54 million Euros)	25 billion Indian Rupees (385 million Euros)
Share of global market		0.2 %	2.5 %
Domestic market		0.9-1.0 billion India Rupees (trade estimate of 15.4 million Euros)	15 billion Indian Rupees (230 million Euros)
Total turnover with organic products (domestic and exports)		4.5 billion Indian Rupees (69 million Euros)	40 billion Indian Rupees (615 million Euros)

Problems/Constraints in the organic sector in India

Today, the organic sector lacks credible research and development. Some of the main challenges are:

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

- The need to develop 'package of practices' (PoP) for organic methods of growing crops.
- Organic systems have been thriving in various parts of India for 20 to 25 years now, but no systemic research has been undertaken to compare organic systems with conventional farming (in terms of productivity, quality of produce and cost of cultivation).
- The non-existence of technically developed successful business models of economic scale in the organic agribusiness sector. Dedicated zones for agribusiness development are needed across different regions in the country.

References

Rao, Kishore V.S.K., Supe, Raj., Menon, M.K., and Partap, T. (2006): Market for organic foods in India: Consumer perceptions and market potential. Bangalore, International Competence Centre for Organic Agriculture

Menon, M.K. (2007): The Market Potential for Organic Foods in India. In: Papers Submitted to the International Conference on Organic Agriculture and Food Security. Food and Agriculture Organization (FAO), Rome, May 3-5, 2007. Available at ftp://ftp.fao.org/paia/organicag/ofs/OFS-2007-INF-rev.pdf, pp. 65-67

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

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

Table 32: Asia: Organically managed land and producers by country 2007

		Total land under organic management [ha]	Share of total agricultural land	Land fully converted [ha]	Land under conversion [ha]	Producers
Afghanistan	2007	22	0.00%	22		233
Armenia	2007	336	0.02%	216	120	35
Azerbaijan	2007	21'240	0.5%		21'240	312
Bangladesh*	2007		–	–	–	852
Bhutan	2007	57	0.01%	57	–	323
Cambodia	2008	11'350	0.21%	–	–	9'350
China	2007	1'553'000	0.3%	905'000	647'000	1'600*
Georgia	2007	251	0.01%	31	220	49
India	2007/08	1'030'311	0.6%	455'568	595'413	195'741
Indonesia	2007	66'184	0.1%	63'088	3'096	–
Iran	2007	913	0.00%	913	–	5
Israel	2007	5'693	1.10%	4'803	890	283
Japan	2007	6'626	0.1%	–	–	2'463
Jordan	2007	1'047	0.10%	1'024	23	13
Kazakhstan	2007	2'393	0.00%	–	2'393	–
Korea, Republic of	2007	9'729	0.5%	–	–	7'507
Kyrgyzstan	2007	14'400	0.1%	–	–	–
Laos	2008	1'537	0.08%	0	1'537	811
Lebanon	2007	1'946	0.50%	522	1'336	190
Malaysia	2008	1'540	0.02%	1'540		21
Nepal	2007	8'187	0.2%	7'737	245	1'424
Pakistan	2006	25'001	0.09%	–	–	28
Palestine	2007	541	0.2%	–	–	303
Philippines	2007	15'344	0.1%	–	–	–
Sri Lanka	2006	17'000	0.7%	–	–	4'216
Syria	2007	28'461	0.2%	28'461	1'931	3'256
Taiwan	2006	1'746	0.2%	–		905
Thailand	2007	19'123	0.1%	–	–	3'924
Timor Leste	2007	23'790	7.0%	–	–	–
United Arab Emir	2008	5	0.0%	5	–	1
Uzbekistan	2007	1'854	0.01%	1'647	207	302
Vietnam	2007	12'120	0.1%	11'365	755	–
Total		**2'881'745**	**0.2%**	**1'496'398**	**1'276'405**	**234'147**

*China: Producer data from 2006
Aquaculture areas are not included: Bangladesh 2'000 ha; China 415'000 ha; Indonesia 1'317 ha, Thailand 33 ha.
'–': No data. Source: FiBL Survey. For details on data sources and data providers, see annex.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Table 33: Asia: Land use and main crop categories 2007

Main use	Main crop category	Land under organic management [ha]
Agricultural land, no details	Agricultural land, no details	1'346'483
Arable land	Arable crops, no details	4'312
	Cereals	32'573
	Fallow land as part of crop rotation	606
	Flowers and ornamental plants	6
	Green fodder from arable land	269
	Industrial crops	28'817
	Medicinal & aromatic plants	6'733
	Oilseeds	3'701
	Protein crops	131
	Root crops	487
	Seeds and seedlings	3
	Sugarcane	997
	Vegetables	3'843
Cropland, no details	Cropland, no details	774'164
Other	Other, no details	4
	Unutilized land/fallow land	22
Permanent crops	Citrus fruit	825
	Cocoa	2'376
	Coconuts	14'413
	Coffee	24'505
	Grapes	3'523
	Medicinal & aromatic plants, permanent	508
	Olives	1'238
	Permanent crops, no details	2'545
	Tea	3'568
	Temperate berries	39
	Temperate fruit	6'957
	Temperate fruit/nuts/berries	258
	Temperate nuts	1'999
	Tropical and subtropical fruit	2'753
	Tropical and subtropical nuts	9'622
Permanent grassland	Permanent grassland, no details	603'466
Total		**2'881'745**

Source: FiBL Survey. For details on data sources and data providers, see annex.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

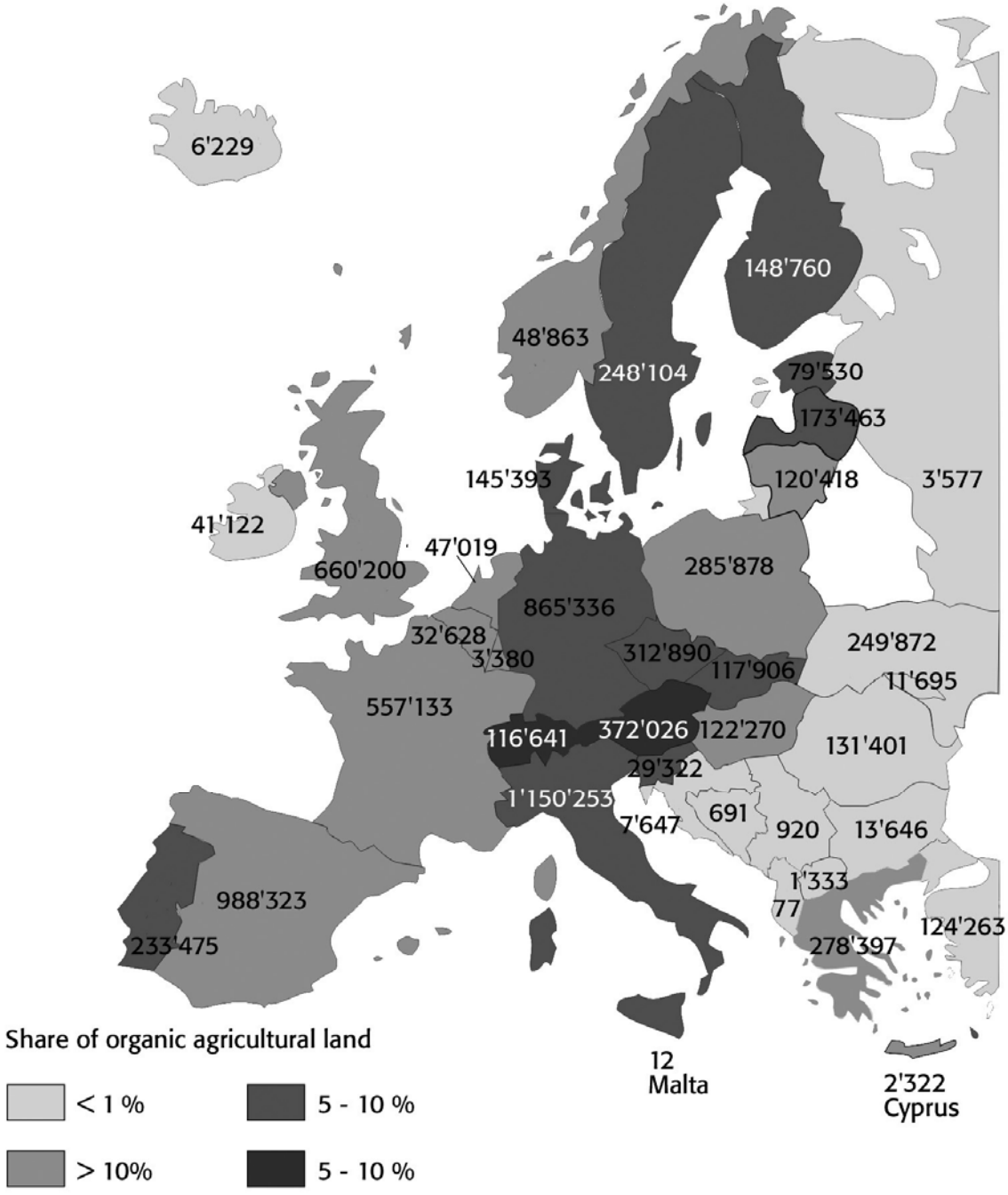
Table 34: Asia: Wild collection areas 2007

Country	Products harvested	Hectares
Armenia	Temperate berries, wild	7'210
	Temperate fruit, wild	2'560
	Tropical and subtropical fruit, wild	4'130
Azerbaijan	Temperate berries, wild	222
	Temperate fruit, wild	62
	Temperate nuts, wild	176
	Vegetables, wild	37
Bhutan	Medicinal & aromatic plants, wild	1'442
China	Wild collection, no details	759'000
India	Wild collection, no details	1'769'689
Indonesia	Forest honey	12'363
	Palm sugar	12'422
Iran	Medicinal & aromatic plants, wild	200
Kyrgyzstan	Wild collection, no details	55'086
Lebanon	Wild collection, no details	112
Nepal	Wild collection, no details	24'422
Vietnam	Wild collection, no details	0
Total		2'649'133

Source: FiBL Survey. For details on data sources and data providers, see annex.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Europe



Map 4: Europe: Land under organic management (hectares) in the countries of Europe 2007

Source: FiBL Survey

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Europe: Overview

HELGA WILLER[1]

Statistical Development: Continued Growth

In Europe, the organically managed land area has continued to grow. Almost 7.8 million hectares (1.9 percent of the agricultural land) were managed organically by more than 210'000 farms in 2007. In the European Union (EU-27), more than 180'000 farms managed 7.2 million hectares organically, constituting four percent of the agricultural area. The major reasons for the continued growth of the European organic land area is due to the growing market – more than 16 billion Euros in 2007 (for details see chapter on the European market by Padel et al in this volume) – as well as due to policy support.

Compared to 2007, organically managed land increased by 0.33 million hectares (+4.5 percent), with substantial increases in countries like in Spain (+61'932 hectares), Poland (+57'869 hectares) and the UK (+55'629 hectares). There have been substantial relative increases in many Eastern and South Eastern European countries.

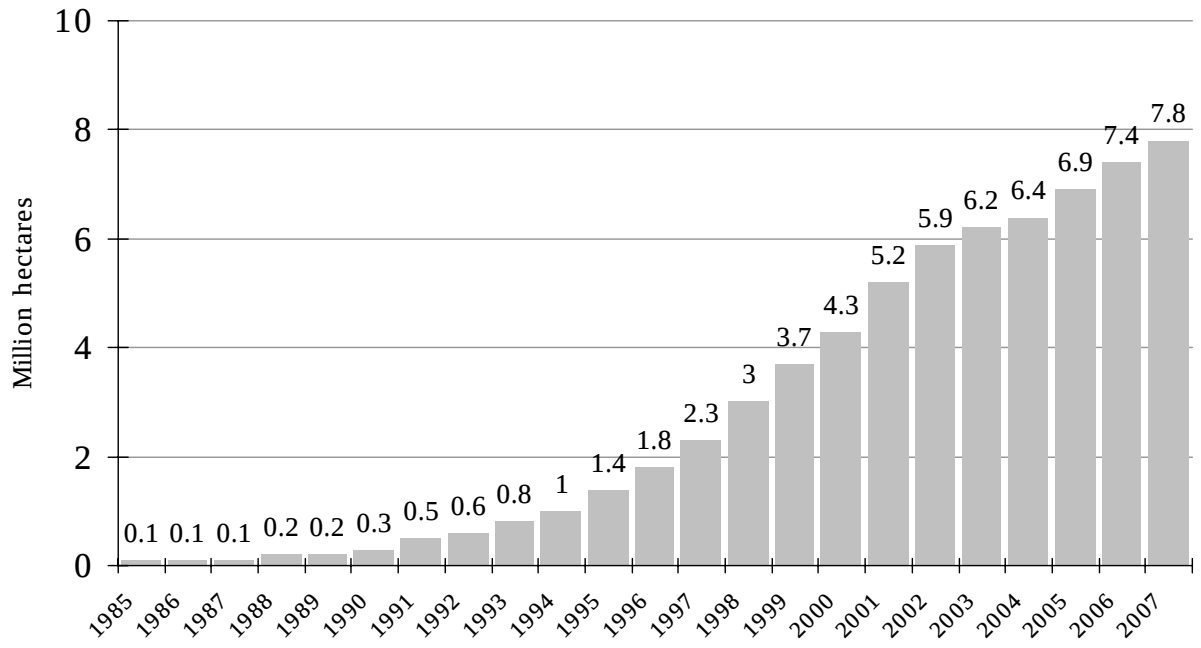


Figure 28: Europe: Development of the organically managed agricultural land area 1985-2007

Source: Institute of Rural Sciences, Aberystwyth University, UK and FiBL, Frick, Switzerland

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

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

More than 13 percent of the agricultural land in Austria is organic; 11 percent in Switzerland, and 9 percent in Italy and Estonia. The country with the highest number of farms and the largest organic land area is Italy, followed by Spain, Germany and the UK (Table 37).

Information about the main land use categories was available for almost all of the organically managed land. The organic agricultural land is mainly used for permanent grassland (41 percent) and for arable cropping (45 percent). Permanent crops account for 9 percent of the land (Table 39). Cereals and fodder crops play the most important role in arable farming. Among the permanent crops, olives, fruits, nuts and grapes are the most important categories; for the European Union, a similar picture emerges (see following article by Diana Schaack). Furthermore, Europe has ten million hectares of certified organic wild collection. Most of this land is in Finland, followed by Serbia and Bulgaria (Table 38).

Support for organic farming in the European Union includes support under the European Union's rural development programs,[1] legal protection under the recently revised EU regulation on organic faming and of the European Action Plan on Organic Food and Farming as well as national action plans. Countries that are not members of the European Union have similar support schemes,

Regulation

On July 20, 2007 the new organic regulation was published - Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labeling of organic products and repealing Regulation (EEC) No 2092/91[2] (see also chapter by Beate Huber and Otto Schmid).The implementation rules were published in September 2008, and the regulation came into force on January 1, 2009. According to a press release of the European Commission,[3] 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 will be mandatory from 2010, but it can be accompanied by national or private logos.

European promotion campaign 'Organic Farming: Good for Nature – Good for you' launched

The information campaign proposed in the European Action Plan for Organic Food and Farming 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 implemented. The campaign homepage[4] offers a wide

[1] A collection of links related to European agripolicy documents is available at www.organic-europe.net/europe_eu/rural-development.asp

[2] The regulation is available at http://eur-lex.europa.eu/LexUriServ/site/en/oj/2007/l_189/l_18920070720en00010023.pdf

[3] European Commission, press release of June 12, 2007: Organic Food: New Regulation to foster the further development of Europe's organic food sector. Available at http://europa.eu/rapid/pressReleasesAction.do?reference=IP/07/807&format=HTML&aged=0&language=EN&guiLanguage=en

[4] Homepage of the European Promotion Campaign http://ec.europa.eu/agriculture/organic/splash_en

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

range of information on organic agriculture and numerous tools (pictures, flyers) to support the promotion of organic agriculture. Many European countries already have national action plans, and a list including their qualitative and quantitative targets, can be found in the chapter on action plans in Europe by Victor Gonzalvez.

Research: More support needed

Today, organic farming research is substantially funded under national research programs or national organic action plans, as well as through European projects.[1] With the beginning of the 7th research framework program in 2008, several projects focusing on organic farming started. One of them is the project CERTCOST - Economic analysis of certification systems for organic food and farming. The project proposes to combine the experience and knowledge of both researchers and SMEs to fulfill the following objectives: analyze the implementation of organic certification systems and estimate all relevant expenditures or transaction costs for different certification systems along the organic food supply chain in various regions of Europe. The project will run for three years and is funded with 2.7 million Euros.

In June 2008, the IFOAM Organic World Congress took place in Modena, Italy, and it included the so-called 'Research Track.' The latter was organized by the International Society of Organic Agriculture Research. In more than 300 papers, the current status of organic agriculture research worldwide was documented (Neuhoff et al.).

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 the policy-makers. The TP's vision paper, published in December 2008, reveals the huge potential of organic food production to mitigate some of the 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). The platform is a growing initiative of 16 EU umbrella organizations and 14 enterprises with a big potential to integrate many more business partners, and national and EU-level public and private actors in the field.

References / Further reading

Commission of the European Communities (2004): European Action Plan for Organic Food and Farming (=Commission Staff working document; Annex to the Communication from the Commission {COM(2004)415 final}), Brussels, 2004. Available at http://europa.eu.int/comm/agriculture/qual/organic/plan/workdoc_en.pdf

Llorens Abando, Lourdes and Elisabeth Rohner-Thielen (2007) Different organic farming patterns within EU-25. An overview of the current situation' Statistics in focus 69/2007. http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-07-069/EN/KS-SF-07

Neuhoff, Daniel; Halberg, Niels; Alföldi, Thomas; Lockeretz, William; Thommen, Andreas; Rasmussen, Ilse A.; Hermansen, John; Vaarst, Mette; Lück, Lorna; Carporali, Fabio; Jensen, Henning Hogh; Migliorini, Paola und Willer, Helga (Eds) (2008) Cultivating the Future Based on Science. Proceedings of the Second Scientific Conference of the International Society of Organic Agriculture Research (ISOFAR), held at the 16th

[1] For a list of projects funded by the European Commission see www.organic-europe.net/europe_eu/research-euprojects.asp

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

IFOAM Organic World Congress in Cooperation with the International Federation of Organic Agriculture Movements (IFOAM) and the Consorzio ModenaBio, 18 – 20 June 2008 in Modena, Italy. International Society of Organic Agriculture Research (ISOFAR), c/o IOL, DE-Bonn, Research Institute of Organic Agriculture FiBL, CH-Frick. http://orgprints.org/13674/

Niggli, Urs, Slabe, Anamarija, Schmid, Otto, Halberg, Niels und Schlüter, Marco (2008) Vision for an Organic Food and Farming Research Agenda 2025. Organic Knowledge for the Future.Technology Platform Organics, IFOAM Regional Group European Union (IFOAM EU Group), Brussels and International Society of Organic Agriculture Research (ISOFAR), Bonn, Germany. http://orgprints.org/13439/

IFOAM EU Group (2009): The New Organic Regulation for Organic Food and Farming in Europe: EC 834/2007 - Background, assessment and interpretation for stakeholders. IFOAM European Union Group, Brussels

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Five Percent More Organic Land in the EU-27 - All Crops on the Increase

DIANA SCHAACK[1]

The organic area in the EU-27 grew again in 2007: 178'000 organic farmers managed 7.2 million hectares of organic land (including transition areas); about five percent more than 2006. Italy, Spain and Germany have the largest areas. The booming organic market in the past years stimulated the conversion of more intensively used areas. Vegetable, forage and fruit areas demonstrated particularly strong growth. The surfaces especially increased in Central and Eastern European Countries, but also in western European countries.

Higher proportion of grassland portion in organic farming

Forty-four percent or 3.2 million hectares of the organic area in the EU were grassland, constituting slightly more than six percent of the EU's grassland area. The United Kingdom (452'734 hectares) and Germany (450'000 hectares) have the largest 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 have also played a role. Therefore, the proportion of grassland is much higher in organic farming than in conventional farming (31 percent). However, for a sufficient supply of the organic market more cropland is needed. In countries like Ireland, Slovenia and the Czech Republic more than 85 percent of the organic area is used for grassland. In Italy, Lithuania, Latvia and Estonia it constitutes only one fifth of the organic area.

Only 17 percent cereals

With cereals, land use differs particularly between organic and conventional farming. While conventional farmers grew cereals on 35 percent of their land, organic farmers did so on only 17 percent. 2008 organic cereals area have been increased particularly in Eastern European countries because of growing demand in Western Europe. In 2007, the organic cereal area grew by 9 percent in 2007 to 1.2 million hectares, which was a little more than 2 percent of EU's cereal area. The countries demonstrating the largest growth in area include Lithuania, Romania, the Czech Republic, Austria and the United Kingdom; altogether approximately 100'000 hectares more were available. 18 percent of this growth took place in the Baltic States and in Poland. In Italy (241'430 hectares), Germany (181'000 hectares) and Spain (102'593 hectares), most of the cereals were grown. Despite the expansion of the area, organic farmers did not harvest sufficient amounts in 2007.

Wheat and rye were responsible for the growth of the organic cereal area, whereas the area for barley, oats and maize stagnated. Wheat is the EU's most important cereal with 410'000 hectares and 1.9 percent of the wheat area in Europe. Italian, French and Hungarian farmers

[1] Diana Schaack , Central Market and Price Report Office ZMP, Rochusstr. 2, 53123 Bonn, Germany, www.zmp.de

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

grew more wheat than in 2006. Rye is a German and Eastern European specialty. Nearly half of the European organic rye is from Germany. Organic pigs and poultry are fed more extensively than in conventional farming; in addition, there is little demand yet for organic beer. Therefore, barley does not have the importance that it has in conventional farming. Only one percent of European barley area (140'000 hectares) is grown organically. In 2007, the maize area remained constant at 45'000 hectares, but the harvest was much better than for other cereals. In 2008, however, maize seems to have increased in importance for usage as fodder grain.

Feeding is more extensive in organic farming

Forage area with clover, temporary grassland, mixed cereals is important in the organic crop rotation and for feeding. With 19 percent of the EU's organic area being forage crops these play a much more important role than in conventional farming. The areas increased by 300'000 hectares - much of this being located in Italy, Germany and the United Kingdom. Only one percent of the oilseed area in the European Union is managed organically. Organic rape seed and soybeans are a real challenge in aspects of plant protection. Major areas can be found in Romania (26'491 hectares), Italy (16'880 hectares) and France (15'262 hectares).

Area for vegetables has increased

EU growers have increased their organic vegetable area. It now constitutes well over 100'000 hectares. In many countries, fruit and vegetables together with milk and dairy products generate most of the organic sales. Farmers reacted to the high demand, particularly of the major retail chains. There is a lot of potential for more growth. The vegetable area grew particularly in the United Kingdom, Germany, France, Greece and Spain. The highest production can be found in Italy (39'803 hectares), the United Kingdom (12'319 hectares), Germany (10'700 hectares), France (7'433 hectares) and Spain (7'044 hectares).

Permanent crops on the increase

Nine percent of the organic area or more than 600'000 hectares is used for permanent crops. Greece, Bulgaria and Portugal most contributed to the increase. The fruit area (including temperate fruit, nuts and berries, excluding strawberries and melons) grew by 16 percent up to 215'000 hectares. Fruit and wine growing pays off more and more with growing demand in many countries. The area is composed of 98'000 hectare pip and stone fruit, 106'000 hectares of nuts and 9'000 hectares of berries. Major areas can be found in Spain (53'841 hectares) and Italy (46'398 hectares), followed by France (9'648 hectares) and Germany (5'600 hectares). The citrus area has grown in all southern European countries and is at 28'000 hectares. Supply has increased significantly in the previous years. Italy remains the major producer country with 22'062 hectares.

Olive production has not changed much since 2007. Nearly seven percent of the olive area or 280'000 hectares are managed organically, with the major production countries being Italy (109'902 hectares), Spain (94'251 hectares) and Greece (52'552 hectares).

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

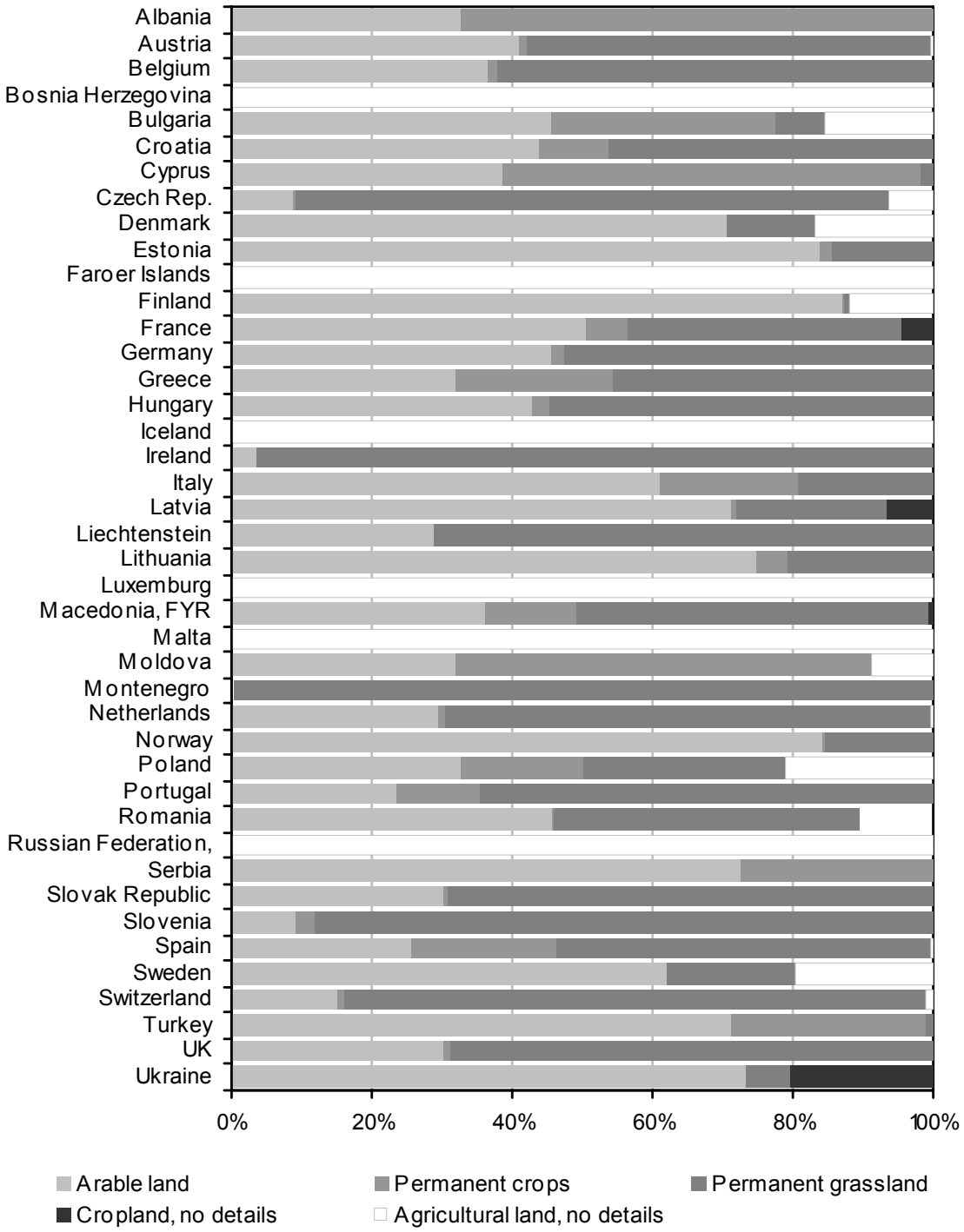


Figure 29: Europe: Land use in organic agriculture in the countries of Europe

Shares of the land use types of total organic agricultural land

Source: FiBL survey in cooperation with ZMP

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Development of the Organic Market in Europe

SUSANNE PADEL,[1] DIANA SCHAACK[2] AND HELGA WILLER[3]

There was considerable growth in several of the major European organic markets between 2006 and 2007, for example in the Czech Republic (+70 percent), in the Scandinavian countries Denmark (+34 percent), Sweden (+26 percent), Norway (+24 percent) and also in Germany (+15 percent), and the average growth rate across all countries was over ten percent. The total value of the European organic market is estimated at approximately 16.2 billion Euros, constituting an increase of almost two billion Euros compared with the 2006 data. The largest markets are in Germany, UK and France. Denmark, Austria and Switzerland have the highest market shares; and they have also the highest per capita spending. The average spending per head was 27 Euros.

However, it is necessary to note that growth in retail sales values does not only indicate an increase in the volume of trade, but can also be the result of a price increases. In most countries, growth has mainly take place in multiple food retailers that are an important sales channel for organic food in all major and well-developed markets (see also chapter by Schaer).

It is very difficult to predict trends for 2008 or indeed for future development. Several factors are likely to be important, but may act in opposite directions. Some consumers in the more developed markets may change where they shop in response to the financial crisis, resulting in a growing market share for multiple retailers and discounters. Others may reduce their organic spending or change what products they buy, and may therefore not respond in the same way for every product category. However, the number of ethically committed consumers and of those that prefer products with a regional identity appears to be increasing.

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 considerable amounts 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, while maintaining the authenticity of 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.

[1] Dr. Susanne Padel, Institute of Biological, Environmental and Rural Sciences, Organic Farming Research, Llanbadarn Campus, Aberystwyth University, UK, www.organic.aber.ac.uk/en/ibers/research/
[2] Diana Schaack , Central Market and Price Report Office ZMP, Rochusstr. 2, 53123 Bonn, Germany, www.zmp.de
[3] Dr. Helga Willer, Research Institute of Organic Agriculture FiBL, Ackerstrasse, 5070 Frick, Switzerland, www.fibl.org

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

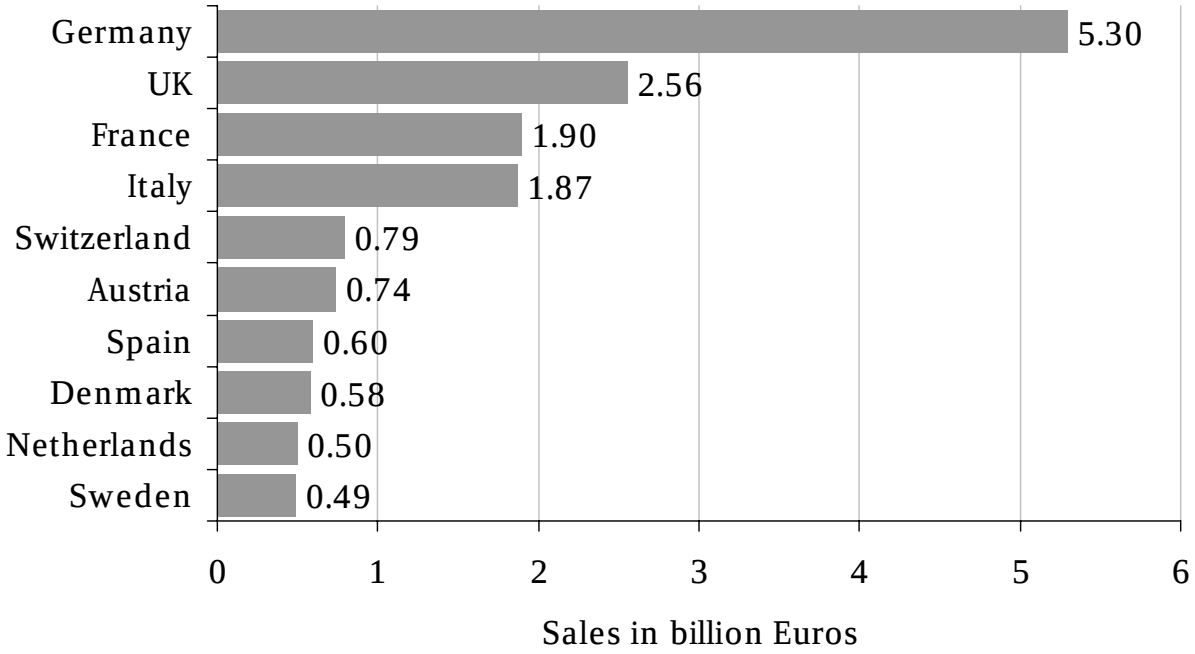


Figure 30: European market for organic food: The ten countries with the highest sales

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 Aberystwyth University, FiBL and ZMP

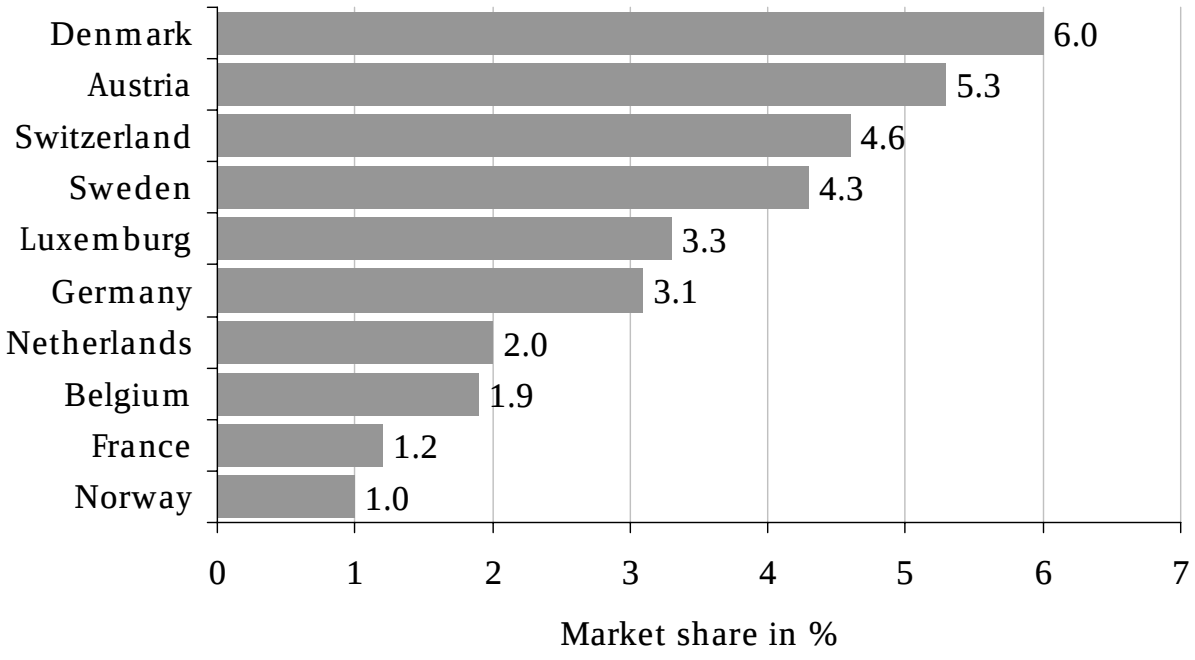


Figure 31: European market for organic food: The ten countries with the highest shares of organic food sales

Compiled by Aberystwyth University, FiBL and ZMP

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

The availability of accurate statistics on the organic market across Europe remains limited and different methods are used. Estimates derived from consumer 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 (such as 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. Data on import/export within Europe remain very limited. Where no published data exist, best estimates from a range of experts have been used, but these were not available for all cases, so sometimes earlier estimates are shown. Values published in national currencies were converted to Euros using the 2007 average exchange rate from the European Central Bank[1].

Germany

Germany remains the largest organic retail market in Europe, supplied both by domestic production and by imports. It experienced a boom in demand for organic products at the beginning of 2007 that was particularly strong in the multiple retailers and 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 considerable. In 2007, multiple retailers (including discounters) accounted for the first time for more than 50 percent of sales. During the first half of 2008, German households spent 9 percent more for organic fresh produce in multiple retailers, 21 percent for organic dairy and 39 percent more for other organic products. Supply in raw material remains a major problem in several supply chains (Hamm and Rippin, 2008). In the multiple retail sector, strongest growth was observed for dairy products including cheese (+28 percent), followed by dry products (processed products like cereals, flour, grocery, juices, oils, deep fried food +27 percent). Sales with fresh produce (+16 percent) that had been a strong growth area in the past grew at a lower rate than average. The certified land area grew only by just under six percent, the vegetable area, however, grew by 20 percent. The most important products in terms of household buying are milk & dairy, followed by vegetable, fruit, bread and meat and meat products. (ZMP analysis on base of GfK household panel and AC Nielsen trade panel, 2008).

UK

The UK organic retail market was estimated to be worth approximately 1.75 billion British Pounds or 2.557 billion Euros. It grew by approximately 10 percent between 2006 and 2007, and this has been slower than in the past but remains higher than in the grocery sector as a whole.[2] It is expected that the market has continued to grow in 2008, albeit at a lower rate than seen previously (Key Note, 2008). Sales through multiple retailers remain the most important outlet overall, but non-multiple outlets are important and also realize growth apart from farmers' market that overall account for less than two percent of the organic market.

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

[2] The 2007 from Key Note is lower than Soil Association values published by us for 2006 (Padel et al. 2008). The difference is likely to relate to differences in the product range covered (Soil Association includes non-food items) and the difficulty in accurately estimating sales through direct sales, box schemes and in the independent sector rather than a lack of growth in the organic sector. The Soil Association has not published an estimate for the size of the market for 2007.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Vegetables and fruit remain the most important product category within organics in value (share of 34 percent in 2007). This is followed by dairy (23 percent), which has seen substantial growth recently, but may experience supply problems in 2008 (Key Note, 2008; Lampkin et al., 2008). Meat, meat products and fish have also shown significant growth over recent years. However, poultry and eggs struggled in 2008 when input prices were passed on to consumers, resulting in some adjustments in favor of free range options. There is growing competition between different ethical food products, including organic, natural, locally sourced, fair trade and carbon foot printing. Organic is positioned as a premium quality product. Some consumer's who do not fully understand the benefits may cut back expenditure on such products when their disposable incomes is more limited, or change to other ethical alternatives, but there is also a growing trend of people seeking ways to make a difference (MINTEL, 2008).

Italy

The market grew between 2006 and 2007 by 10 percent, despite difficult economic circumstances. Growth varied considerably between different product categories and was strongest for baby food (+ 36 percent) and fruit and vegetables (+25 percent), whereas demand for dietary product and bread decreased. In 2007, the largest share of organic sales was noted for dairy products (20 percent), followed by fruit and vegetables (17 percent). Growth was reduced in the first quarter of 2008, with growth reported for very different product categories, such as bread and pasta (ISMEA, 2008). A stronger increase in growth was noted in the South, but more than 70 percent of organic products are sold in Northern Italy (both Northwest and Northeast) (ISMEA, 2008). The Northern Regions of Emilia-Romagna, Lombardia and Tuscany have a growing proportion of operators engaging with short supply chain structures; for example, farm gate sale operators have increased by 37 percent, farms offering holidays by 25 percent and purchasing groups by 60 percent since 2005 (Biobank).

Switzerland

After stagnating development for several years, demand for organic products has grown again since 2006. Growth was noted in all major product categories, but was particularly strong for meat and for vegetables, in the western regions of Switzerland and for direct marketing. Above average growth of more than 10 percent for organic eggs resulted in supply shortages. Eggs and bread are the two product categories that have achieved an organic share of the total retail market of more than 15 percent.

The total organic market accounts now for 4.6 percent of the total food market, with higher shares in some stores (ZMP Ökomarkt Forum 07-2008, Bio Suisse, 2008). The majority of organic sales takes place in the stores of the two multiple retailers of Coop (51 percent) and Migros (24 percent); direct marketing accounts for five percent of the total organic market. The retailer Coop responded to consumer preference for Swiss products with a line of dairy products with a clear regional identity. The Swiss organic farmers' organization Bio Suisse introduced a new label in early 2008, combining the bud (Knospe) with the Swiss flag. It can be used on products that contain at least 90 percent Swiss ingredients.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Austria

Growth of the organic food market in Austria between 2006 and 2007 took place in an environment of stagnation in the food market. A slight decline was reported in the demand for vegetables, but an increase for fruit and growing market share for discounters. 64 percent of the organic products are sold through multiple retailers (including discounters). One of the multiple retailers (Rewe) is actively trying to recruit new producers, because the customers prefer regional organic products. For all lines sold under the companies own label of *Ja natürlich,* approximately 80 percent of raw materials come from Austria, but for all fruit and vegetables the share drops to only 20 percent, although it is much higher for certain vegetable categories, such as apples (80 percent) and onions (60 percent). The company collaborates closely with approximately 1000 Austrian producers of fruit and vegetables (AMA, 2008, ZMP Ökomarkt Forum 1-2008).

Denmark

The most important product category in terms of value remains fresh produce such as milk, dairy products and eggs that account for approximately 40 percent of sales in the multiple retailers, followed by bread and other cereal products (including rice 13 percent) and vegetables (13 percent). Multiple retailers remain the most important outlet for organic produce in Denmark and account for 80 percent of sales. With much stronger growth reported, Denmark overtook Switzerland in terms of consumption per head of the population (Danmarks Statistik, 2008 and Oesch/Schaer, 2008).

Netherlands

While the retail sales values grew between 2006 and 2007, the certified land area declined. The most important sales channels in the Netherlands are multiple retailers and specialty shops that account for approximately 44 percent of total sales each. The most important product categories are fruit and vegetables (26 percent) dairy products and eggs (19.2 percent). Growth was noted in the market for organic meat (+18 percent), most significantly for organic poultry (+30 percent), mostly sold through multiple retailers. Increases were also noted in the sales of organic eggs and, on top of that, 75 percent of all organic eggs produced in the Netherlands are exported to Germany. Multiple retailers increased their share of the market (44.5 percent in 2007), followed by specialty outlets (41.6 percent) (Biologica, 2008).

Belgium

Strongest growth occurred in the multiple retailers that now account for 59 percent of organic sales, followed by specialist organic food shops (28 percent of organic sales. Organic shares of total retail market varies considerable between different product categories of 7 percent for eggs, 3.2 percent for vegetables, 2.3 percent for fruit, 1.1 percent for dairy products and 0.7 percent for meat. The land area in Belgium grew even more than sales, but the area for vegetables declined. Like consumers in many European countries, Belgians prefer regional products, but a considerable proportion of organic sales is imported, mainly from the neighboring countries of the Netherlands, France and also from Germany (BioForum, 2008).

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Sweden

Strong growth of between 25 and 30 percent was noted in the total market in 2007. Organic sales accounted for 4.5 billion Swedish Crowns or 486.5 million Euros, about half of which is imported. Growth of Swedish produced organic food was reported at 15 percent. Sales in the multiple retail outlets account for just over 70 percent in the three main chains of Coop, ICA and Axford. The biggest product category is dairy (52 percent), meat (14 percent), eggs (14 percent) and fruit and vegetables (10 percent). Production does not keep pace with demand including for organic milk, which has been imported from Denmark (Ekologiska Lantbrukarna 2008). Initial estimates suggest that strong growth has continued in 2008, leading to a likely market value of over six billion Swedish crowns.

Norway

A strong re-orientation of the market towards multiple retailers took place, and they now account for more than 80 percent of the market. Organic sales account for approximately one percent of the total food market; higher shares were achieved for baby food (13 percent), eggs (3.4 percent) and dairy products (2.1 percent). The Norwegian market is characterized by imports for fruit and vegetables that are difficult to grow in the Nordic climate, whereas for milk, eggs and meat, domestic proportion very high (91, 100 and 100 percent respectively) (Statens Landbruksforvaltning, 2008).

Finland

Most important product categories are vegetables (27 percent), milk and dairy products (24.7 percent) and breads, cereals and flour (18.6 percent). Considerable growth was also noted in the meat sector, which was stimulated by a debate in the media about intensive animal production. Sales through retail chains make up 85 percent of the organic market (Finfood Luomu / AC Nielsen Kuluttajapaneeli 2007).

Czech Republic

The Czech Republic also has a high share of sales through multiple retailers, including hypermarkets (and discounters) that account for approximately 65 percent of the organic market, followed by specialized organic food shops (22 percent). Currently, dry products (such as breakfast cereals, dried fruit and pasta) account for the 45 percent of organic sales, followed by milk and dairy products (21 percent). The Czech market remains strongly import dependent, which accounts for approximately 62 percent of sales, whereas only 4 percent were exported (ZMP Ökomarkt Forum 31-2008).

Turkey

Ninety percent of the organic production in Turkey is for export, in particular for dry fruit for the German, American and British markets. However, the domestic market is slowly developing, although it remains challenging to ensure transparency and traceability of organic product certification in traditional outlets such as bazaars. (Osch & Schaer, 2008).

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

References

AMA Marketing (2008): www.ama-marketing.at/home/groups/7/Marktentwicklung_Bio.pdf, Download April 30, 2008

Bio Suisse (2008): Medienkonferenz 2008.Bio Suisse, Basel. www.biosuisse.ch/de/bioinzahlen.php

BioForum: puur: Bio in Cijfers, April 2008. BioForum, Antwerpen

Biologica (2008) Bio-Monitor jaarrapport 2007. Biologica, Utrecht

Danmarks Statistik (2008): http://www.statistikbanken.dk/statbank5a/default.asp?w=1152, Download July 10, 2008

Ekologiska Lantbrukarna (2008): Växande Marknad. Försäljning, volymer & trender för ekologisk mat. Ekologiska Lantbrukarna, Uppsala. www.ekolantbruk.se/marknad/skrifter.asp

Finfood Luomu / Nielsen Kuluttajapaneeli (2007): Market. The Finfood homepage www.finfood.fi. Finfood Luomu, Download December 31, 2008, at www.finfood.fi/finfood/luomu.nsf/0/0A297383C3B0A058C225716F003C5895?OpenDocument&lng=Englanti&sh=Kaikille&cat1=Market

Hamm and Rippin (2008): Umsatzsteigerung für Öko-Lebensmittel bei 15 Prozent. Agromilagro, Bornheim, www.agromilagro.de/downloads/umsatzoeko2007pub.pdf

ISMEA (2008) I consumi domestici di prodotti biologici: dinamiche 2007 e primo semestre 2008. ISMEA, Roma, Available at http://www.sinab.it/sezioni/sit/allegati_sit/55/Consumi_Bio_2007.pdf

Key Note (2008) Organic Food & Drink Market Assessment 2008. Key Note Publications Ltd, UK-Hampton

Lampkin, Measures and Padel (2008) 2009 Organic Farm Management Handbook. Aberystwyth University and Organic Research Centre Elm Farm.

MINTEL 2008 Organics UK. Market Intelligence Unit of the UK Economic Intelligence Unit. London

Osch and Schaer (Eds) (2008): Specialised Organic Retail Report 2008. Organic Retailers Association, Vienna

Statens landbruksforvaltning (SLF) (2008) Produksjon og omsetning av økologiske landbruksvarer 1-2008. Statens landbruksforvaltning. Oslo. Available at http://www.slf.dep.no/ > Publikasjoner.

ZMP (2008): analysises on base of GfK household panel and AC Nielsen trade panel ZMP, Bonn

ZMP Ökomarkt Forum 07-2008 : CH: Stagnation des Bio-Marktes überwunden. ZMP, Bonn

ZMP Ökomarkt Forum 31-2008 : CZ: Großes Bio-Wachstum erwartet. ZMP, Bonn

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Table 35: The European market for organic food 2007

Country	Year	Sales[1] [Mio €]	Sales [€/ person][2]	Sales Growth 2006–2007 [%]	Sales: Share [%][3]	Exports [Mio €]	Catering [Mio €]
Austria	2007	739.0	89	Appr. 10	5.3	60.0	80
Belgium	2007	283.1	27	16	1.9	—	–
Bosnia-Herzg.	2007	–	–	–	–	1.2	–
Bulgaria	2007	0.8	0.1	–	–	–	–
Croatia	2007	26.0	6	–	0.6	2.0	–
Cyprus	2006	1.5	2	–	–	–	–
Czech Rep.	2007	51.6	5	70	0.6	4.0	0.25
Denmark	2007	580.0	106	34	6.0	64.0	–
Finland	2007	62.0	12	9	0.9	–	–
France	2007	1'900.0	30	12	1.2	–	–
Germany	2007	5'300.0	64	15	3.1	–	–
Greece	2006	58.0	5	–	–	–	–
Hungary	2006	20.0	2	–	0.2	–	–
Ireland	2007	75.0	17	14	–	–	–
Italy	2007	1'870.0	32	Appr. 10	–	750 (2006)	300
Liechtenstein	2007	3.0	86	–	–	–	–
Luxemburg	2006	40.9	86	–	3.3	–	–
Netherlands	2007	495.5	30	13	2.0	–	23.4
Norway	2007	80.0	17	24	1.0	–	–
Poland	2006	50.0	1	–	0.1	–	–
Portugal	2006	70.0	7	–	0.5	–	–
Romania	2006	2.5	0.1	–	–	–	–
Russian Fed.	2007	30.0	–	–	–	0.2	–
Slovak Republic	2006	4.3	1	–	–	–	–
Slovenia	2006	4.0	2	–	–	–	–
Spain	2007	600.0	13	–	0.7	280.0	–
Sweden	2007	486.5	53	25	3.0	243	–
Switzerland	2007	789.0	105	Appr. 8	4.6	–	–
Turkey	2007	2.2	–	–	–	21.5	–
UK	2006	2'557.0	42	Appr. 10	1.6	–	–
Ukraine	2007	5.0	–	–	–	–	–
Other countries[4]	2007	15	2	–	–	–	–

'–': No data

Compiled by Aberystwyth University, FiBL and ZMP

[1] Sales include retail sales (major retailers and specialized retailers) as well as direct marketing, excluding catering and exports

[2] Per capita consumption compiled by Susanne Padel, Aberystwyth University, based on the current Eurostat data on population of the countries of European Union.

[3] Market share of organic food of the total market as published in national sources. Otherwise, calculated by Diana Schaack, ZMP

[4] Estimate by Susanne Padel, Aberystwyth University and Diana Schaack, ZMP

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Data sources

- Austria: FiBL Austria. The method for data collection has changed for 2007, hence the 2006 data cannot be compared to the 2007 data. The growth rate is based on RollAMA household panel data for fresh products assuming the same growth (as above) rate for processed products;
- Belgium: BioForum;
- Bosnia Herzegovina: Organska Kontrola,
- Bulgaria: Ecozept/ ORA*;
- Croatia: Darko Znaor;
- Cyprus: Ecozept/ORA*,
- Czech Republic: Green Marketing;
- Denmark: Statistics Denmark;
- Finland: Sampsa Heinonen, Finnfood Luomu;
- France: Agence Bio;
- Germany Univ. Kassel/Agromilagro;
- Greece Ecozept/ ORA*; Hungary: Ecozept/ORA*;
- Ireland: Board Bia; I
- taly ISMEA;
- Liechtenstein: Klaus Büchel Anstalt;
- Luxemburg Ecozept/ ORA*;
- Netherlands: Biologica;
- Norway: SLF; Poland: Green Marketing;
- Portugal: Ecozept/ORA*;
- Romania: Ecozept;
- Russian Federation: Eco-control,
- Slovak Republic: Green Marketing;
- Slovenia: Ecozept/ORA*;
- Spain: SEAE and Ecozept/ORA*;
- Sweden: Ekologiska Lantbrukarna;
- Switzerland: Bio Suisse;
- Turkey MARA;
- UK: Key Note 2008;
- Ukraine: Organic Federation of Ukraine.

*Osch, Susanne and Burkhard Schaer (Eds) (2008): Specialized Organic Retail Report 2008. Organic Retailers Association, Vienna

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

The Organic Market in Europe: Trends and Challenges

BURKHARD SCHAER[1]

While 2006 and 2007 organic markets were booming all over Europe, the growth in certified organic farmland was slowing down, meaning Europe's organic farms run the risk of lagging behind market demand. This paper summarizes some of the findings of a major report released early 2008 (van Osch/Schaer 2008).

From Norwich to Malta and from Portugal to Turkey, organic products are becoming mainstream consumption items all over Europe. As different as the European countries certainly are, most of them have three points in common when it comes to the organic market:

- First, the organic market is growing, with strong growth rates of more than 10 percent for most countries;
- Second, the growth rate of organic farmland is lagging far below the market growth or even stagnating; and
- Third, a new group of consumers, strongly committed to a healthy and sustainable – or LOHAS'[2] – lifestyles, is emerging, and it is one of the main underlying forces for organic market growth.

Apart from these phenomena, markets differ importantly with regard to their history and their current structure.

Market structures: Heterogeneous and changing

In 15 out of 27 countries analyzed, conventional supermarket chains hold a share of more than 50 percent of the organic market. Most of EU grocery chains, including the specialized organic retail sector, have been contributing to the development of the organic market as a whole by creating more awareness for organic products through promotion and by extending their organic product ranges.

In Sweden, Norway, Denmark and Finland, market growth has been historically driven by conventional supermarkets. The conventional players, supported by urban based specialized retailers, are similarly pioneering new organic markets in Poland, Hungary and other Central and Eastern European Countries. However, in countries like Spain, Greece, Italy and Portugal, it is the specialized organic retailers doing the pioneering work and dominating market share. The conventional retail sector is still a factor, but their efforts complement the more dominant market development efforts of the specialized retailers.

[1] Dr. Burkhard Schaer, ECOZEPT, 15 rue Albert Leenhardt, 34000 Montpellier, Tel./Fax +33 467584227, www.ecozept.com

[2] LOHAS stands for Lifestyle of Health and Sustainability.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

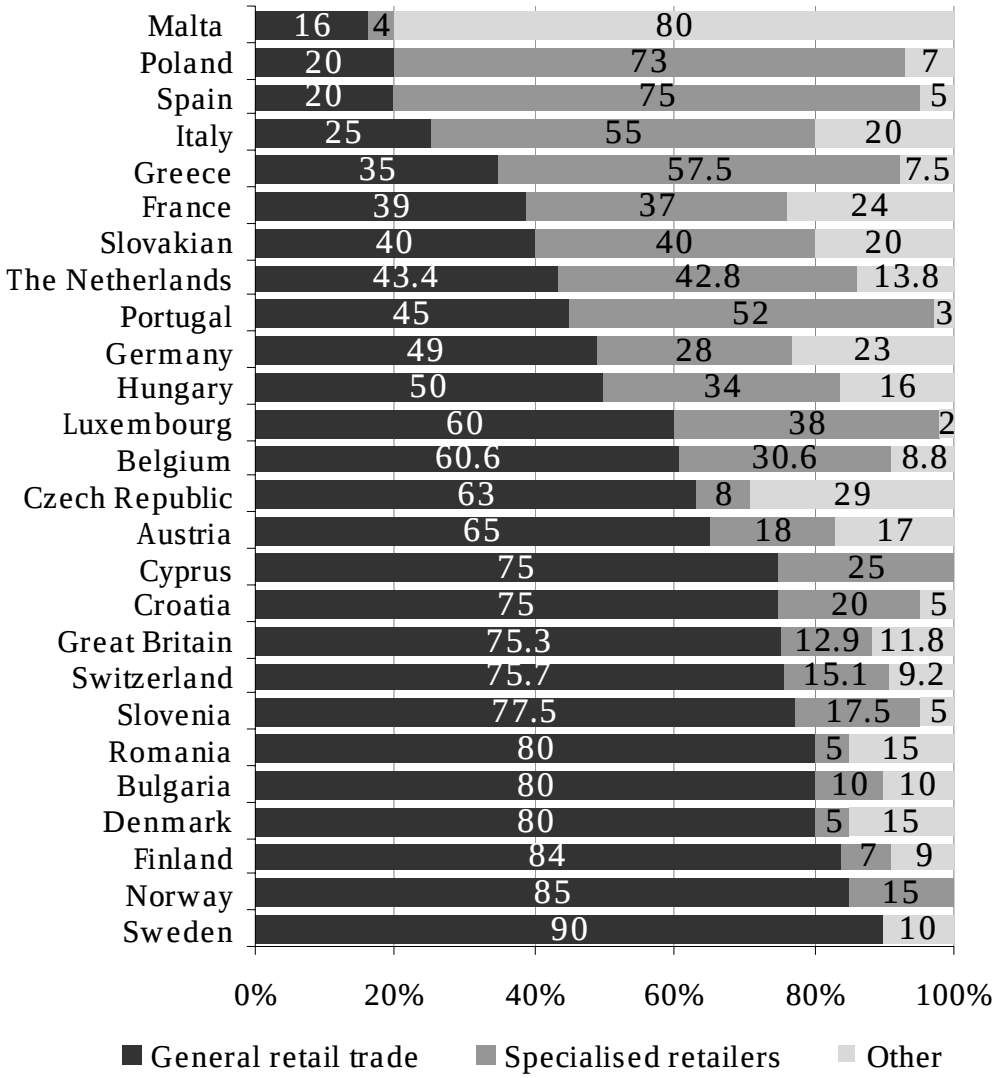


Figure 32: European Market: Marketing channels for organic food in 27 European countries

Source: ECOZEPT, ORA, BIOVISTA, 2008

In the majority of countries in Southern and Eastern Europe as well as in parts of Northern Europe, the organic market is just emerging. International retail companies such as Carrefour can stimulate a sudden growth of the organic market in these countries. In general, efficient supply chain structures, organic retail standards, marketing support or governmental support are still absent to a greater or lesser extent.

Particularly in Central and Western Europe, organic market structures are very well developed, with organic products almost omnipresent, and as a result consumers' awareness of organic products is high. In these markets, a set of market drivers generally at work in the conventional food market are emerging. Namely, declining prices for organic products as a result of increasing competition, the concentration market power among processors and

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

retailers, an increasing importance for discounters and the formation of multinational organic holding companies are typical for these mature markets.

European customers: More and more organic

In 2006, Europe's top spending consumers were the Swiss. In 2006, their average expenditure on organic food was 102 Euros per person. This was closely followed by Austria, with an average of 89 Euros being spent. The 2010 forecast from experts assumes a positive development in terms of purchasing behavior. The highest growth forecasted for consumer expenditures on organic food is expected in Denmark and Sweden. In general, an annual growth of 10 percent is estimated by market experts.

In some European countries, up to 90 percent of consumers are buying organic products, and it is becoming increasingly difficult to define organic customers by socio-demographic criteria. As in the United States, a LOHAS consumer group is emerging. Differing in age, education and wealth, LOHAS consumers share strong common concerns for their health and are highly aware of the environmental challenges. LOHAS consumers mainly live in urban areas, and are defined by their post-materialist ideas. They are activists and believe they have the power to influence the food market trends and ethics through either through buying some products or boycotting others.

Organic supply chains in Europe: Growth and crisis

At first sight, the organic market is developing in a very promising way, with rapidly growing consumer interest and market structures that provide an ever-larger offer of organic products in more and more outlets.

However, the growth brings about, in many countries, paradigmatic change; concentration and price-centered competition make organic supply chains look increasingly like conventional ones. Under such circumstances, it gets difficult to positively define a sharp image of organic and to maintain the values that underpinned its success. The strategic challenge for market actors is to counterbalance price pressures through creative and proud re-invention of what makes organic unique: the best food from the most sustainable farming system, processed with commitment and marketed with competence.

At the same time, organic production is growing much slower than consumption, and is more or less stagnating in several important producing countries. The deepening gap between consumption and production is bridged by growing imports, a fact that unsettles committed organic consumers; they do not accept organic products being shipped from far-away regions. If the 'organic boom without organic farmers,' as several market observers call it, is going to become a lasting pattern, it will be more and more difficult to present organic as a sustainable solution.

Europe's organic supply chain actors, from agriculture to retail, must network up in order to continue offering added value and to consolidate their markets. They have to bear in mind that their consumers want to see the authentic farmer behind the product. Thus, they still

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

have the chance to develop alternatives to the seemingly overwhelming patterns of the conventional food markets: vertical solidarity, from the farm, to the fork.

Further Reading

Oesch, Susann van and Burkhard Schaer (Eds.) (2008): Specialised Organic Retail Report Europe 2008. Practical Compendium of the Organic Market in 27 European Countries. Organic Retailers Association (ORA), Vienna, Ecozept, Freising and BioVista, Ettingen.
The book can be ordered from EKONZEPT, Oberer Graben 22, 85354 Freising, Germany, Tel. +498161 1482-0, www.ecozept.com

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Organic Action Plans in Europe

VICTOR GONZALVEZ[1]

The IFOAM European Union Group, in close cooperation with the Consortium partners of the European research project ORGAP,[2] has collected information about National Organic Action Plans in the European countries in the summer of 2008. In the following table, the results are summarized. More about the European Action Plan for Organic Food and Farming can be found at www.orgap.org

Table 36: Europe: Organic action plans for organic food and farming in Europe

Country	Name of Action Plan	Running from - to Total funding	Quantitative targets
Austria	Action plan organic agriculture 2008-2010[3] Aktionsprogramm Biologische Landwirtschaft 2008-2010	2008-2010 Previous action plan: 2005-2008	20 % organic land area by 2010
Belgium – Flemish part	Flemish Action plan for organic farming 2008-2012 Strategisch Plan Biologische Landbouw 2008-2012[4]	2008-2012	No quantitative targets
Bulgaria	National Plan for Development of Organic Farming in Bulgaria 2007-2013[5]	2007-2013	8 % organic land area by 2013
Czech Republic	Action Plan of the Czech Republic for the development of organic farming until 2010[6]	until 2010	10% organic land area by 2010
Denmark	Action plan II Development in organic farming[7]	1999-2003	12 % organic land area by 2003
Estonia	Estonian Organic Farming Action Plan 2007-2013	2007-2013	
France	Organic agriculture until 2012: New measures to triple the organic surface[8] Agriculture biologique : Horizon 2012: De nouvelles mesures pour tripler les surfaces	2008-2012	6 % organic land by 2012 20 % organic products in government canteens by 2012

[1] Victor Gonzálvez Pérez, Spanish Society for Organic Agriculture SEAE / IFOAM European Union Group, Cami del Port, s/n Edif ECA Patio int. 1º Apdo 397, 46470 Catarroja, Spain, www.agroecologia.net/

[2] Development of criteria and procedures for the evaluation of the EU Action Plan for Organic Agriculture (ORGAP), www.orgap.org

[3] http://land.lebensministerium.at/article/articleview/66073/1/1465/

[4] http://lv.vlaanderen.be/nlapps/docs/default.asp?fid=92

[5] http://www.mzgar.government.bg/MZ_eng/RuralAreas/NOFAP_FINAL_en.pdf

[6] http://www.agronavigator.cz/ekozem/attachments/AP.pdf

[7] http://ferv.fvm.dk/Økologi_1999.aspx?ID=37153

[8] http://www.ambafrance-es.org/article.php3?id_article=2457

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Country	Name of Action Plan	Running from - to Total funding	Quantitative targets
Germany	Federal Organic Farming Scheme[1]	Phase 1 2001-2008 Phase 2: 2008 - 2015	20 % organic land area, but no target year
Ireland	The Organic Farming Action Plan 2008-2012[2]	2008-2012	5 % organic land area by 2012
Italy	Italian National Action Plan for organic agriculture and organic products (Piano d'Azione nazionale per l'Agricoltura Biologica e i Prodotti Biologici)[3] April 2005	2005 with follow-up measures in the subsequent years 5 million Euros 2005	No quantitative target
Latvia	An Organic action plan development program 2007-2013 has been elaborated by the Latvian Association of Organic Agriculture, not yet officially approved by the government		
Netherlands	Policy document on organic agriculture. Beleidsnota biologischelandbouwketen 2008 – 2011. Biologisch in verbinding, perspectief op groei[4]	2008-2011 49.2 Mio Euros Previous plans: 2005-2007 and 2001-2004	Annual growth of 10 % in consumer spending Annual growth of 5 % of the organic land area 10 % of the research money for policy support research allocated to organic farming
Norway	Work on an action plan is in progress		
Poland	Information campaign for organic food and farming (no action plan)		
Portugal	Proposed action plan, but not implemented		7 % in 2008
Slovak Republic	SWOT analysis from 2005 as a basis for a national action plan, action plan not yet implemented		5 % of the agricultural land area 30 % of certified organic products in domestic market
Slovenia	Plan of Long-Term Development of organic farming in Slovenia (Načrt dolgoročnega razvoja ekološkega kmetijstva v Sloveniji	2005-2015	20 % organic land area by 2015 10 % of the organic consumption produced nationally by 2015 10 % market share by 2015 15 % organic farms by 2015 Tripling of organic tourist farms by 2015

[1] http://www.bundesprogramm.de
[2] http://www.agriculture.gov.ie/organics/OrganicFarmingActionPlan.pdf
[3] http://www.sinab.it/allegati_news/352/Piano_Azione_nazionale_plur15aprile05uff.pdf
[4] http://www.minlnv.nl/portal/page?_pageid=116,1640321&_dad=portal&_schema= PORTAL&p_file_id=23687

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Country	Name of Action Plan	Running from - to Total funding	Quantitative targets
Spain	Integral Action plan for Organic Agriculture 2007-2010 (Plan Integral de Actuaciones para el Fomento de la Agricultura Ecológica)[1]	2007-2010 35.8 million Euros	No quantitative target
Spain Andalusia	Andalusian Action Plan for Organic Farming (II Plan Andaluz de Agricultura Ecológica 2007-2013)	2007-2013 Previous Plan: 2002-2006	No quantitative target
Spain Asturias	Organic Farming Strategy Plan (Plan estratégico de Agricultura Ecológica de Asturias 2007-2009	2007-2009 14.7 million Euros	No quantitative target
Spain Castilla-La Mancha	Organic Farming Strategy Plan (Plan estratégico de Agricultura Ecológica de Castilla La Mancha 2007-2011	2007-2011 29 million Euros	No quantitative target
Spain Catalonia	Action plan for organic farming in Catalonia	2008-2012 37 million Euros	Increase the organic area by 30% by 2012 Increase organic consumption by 50 % by 2012
Spain Madrid Region	Promotion Plan for organic production in the Madrid Región (Plan de Fomento de la Producción Ecológica de la Comunidad de Madrid	3 million Euros	No quantitative target
Spain Extremadura	Plan Estrategico de Apoyo y fomento de los productos agroalimentarios ecológicos en Extremadura 2008-2013	2008-2013 3.1 million Euros	No quantitative target
Spain-Galicia	Development Plan for Organic Farming in Galicia (Plan de Desenvolvemento da Agricultura Ecolóxica de Galicia) 2008-2013	2008-2013 49 million Euros	No quantitative target
Sweden	Regeringens skrivelse 2005/06:88: Ekologisk produktion och konsumtion – Mål och inriktning till 2010 [2](2006-03-16) Action plan	until 2010	20 % organic land area by 2010 25 % of the food in public canteens organic
Switzerland	No action plan		
Turkey	Work on an action is in progress-		
UK – England	Action Plan to develop organic food and farming in England - Two Years On[3] The plan ended in 2007.	Until 2007	70 % of the organic consumption produced nationally by 2010 This target has been achieved

[1] http://www.mapa.es/es/alimentacion/pags/ecologica/plan_integral.htm
[2] http://www.regeringen.se/content/1/c6/06/04/96/07b5265d.pdf
[3] http://www.defra.gov.uk/farm/organic/policy/actionplan/pdf/actionplan2year.pdf

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Country	Name of Action Plan	Running from - to Total funding	Quantitative targets
UK- Wales	Second Organic Action Plan for Wales 2005 – 2010[1]	2005-2010	10 -15 % organic land area by 2010
UK - Scotland	Action plan for Scotland. Ended in 2007	Until 2007	Similar to England
UK - Northern Ireland	Northern Ireland: Action Plan 2006[2] Integrated strategic development program for 2009-2012 is currently under development	2006-2008	No quantitative target

Compiled by FiBL, Spanish Society of Organic Agriculture SEAE, IFOAM EU Group, Aberystwyth University

Source: ORGAP Project newsletter No. 6 at http://www.orgap.org/documents/newsletter/orgap-newsletter-6-july2008.pdf with updates

Further reading

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, Rafaele (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. http://orgprints.org/13481/

[1] http://www.organic.aber.ac.uk/policy/docs/orgactionplan2.pdf

[2] http://www.dardni.gov.uk/index/publications/pubs-dard-fisheries-farming-and-food/organic-action-plan-group-gateway.htm

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

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

Table 37: Europe: Organically managed agricultural land and producers by country 2007

	Total land under organic management [ha]	Share of total agricultural land	Land fully converted [ha]	Land under conversion [ha]	Producers
Albania	77	0.01%	–	–	100
Austria	372'026	13.4%			19'997
Belgium	32'628	2.4%	23'842	8'785	821
Bosnia Herzegovina	691	0.03%	426	265	304
Bulgaria	13'646	0.3%	8'387	5'260	240
Croatia	7'647	0.3%	1'846	5'801	483
Cyprus*	2'322	1.5%	1'398	960	305
Czech Rep.	312'890	8.9%	248'046	64'844	1'318
Denmark	145'393	5.5%	133'947	11'446	2'835
Estonia	79'530	8.8%	55'445	24'085	1'220
Faroe Islands	12	0.4%	–	–	–
Finland	148'760	6.5%	133'543	15'217	4'406
France	557'133	1.9%	497'314	59'819	11'978
Germany	865'336	5.1%			18'703
Greece	278'397	3.0%	172'028	106'373	23'769
Hungary	122'270	2.9%	109'208	13'062	1'242
Iceland	6'229	0.3%			36
Ireland	41'122	1.0%	30'830	10'292	1'134
Italy	1'150'253	9.0%	903'254	246'999	45'231
Latvia	173'463	9.8%	73'124	100'343	4'108
Liechtenstein	1'048	29.7%	1'048		39
Lithuania	120'418	4.5%	56'541	63'878	2'855
Luxemburg	3'380	2.6%	2'721	659	81
Macedonia, FYROM	1'333	0.1%	–	–	127
Malta	12	0.1%	10	2	30
Moldova	11'695	0.5%	11'405	290	121
Montenegro	25'051	4.9%	5'003	20'048	13
Netherlands	47'019	2.5%	45'462	1'558	1'374
Norway	48'863	4.7%	40'096	8'767	2'611
Poland	285'878	1.9%	143'087	142'791	11'887
Portugal	233'475	6.4%	–	–	1'949
Romania	131'401	0.9%	-	-	2'238
Russian Federation	3'577	0.00%	1'309	2'268	12
Serbia*	920	0.02%	150	770	35

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Slovak Republic	117'906	6.3%	80'269	37'639	280
Slovenia	29'322	6.0%	23'560	5'765	2'000
Spain	988'323	4.0%	640'536	347'786	18'226
Sweden	248'104	8.0%	248'146	36'524	3'028
Switzerland	116'641	11.0%			6'199
Turkey	124'263	0.5%	135'360	38'891	16'364
UK	660'200	4.2%	510'673	149'529	5'506
Ukraine	249'872	0.6%	–	–	92
Total Europe	**7'758'526**	**1.9%**	**4'338'014**	**1'530'717**	**213'297**
Total European Union	***7'160'607***	***3.9***	***4'141'372***	***1'453'617***	***186'761***

Source: FiBL Survey 2009, in cooperation with ZMP. For details on data sources and data providers, see annex.

*Cyprus and Serbia: Producer data from 2006

Table 38: Europe: Organic wild collection areas 2007

Country	Main crop category	Area [ha]
Albania	Wild collection, no details	1'124
Bosnia Herzegovina	Wild collection, no details	312'000
Bulgaria	Medicinal & aromatic plants, wild	397'836
Croatia	Wild collection, no details	7'000
Faroe Islands	Wild collection, no details	241
Finland	Temperate berries, wild	7'399'023
Hungary	Wild collection, no details	10'616
Iceland	Aquatic products	200'000
	Wild collection, no details	12'474
Luxemburg	Wild collection, no details	209
Macedonia, FYROM	Wild collection, no details	11'162
Montenegro	Wild collection, no details	133'800
Romania	Wild collection, no details	61'431
Russian Federation, European Part	Wild collection, no details	92'000
Serbia	Mushrooms, wild	920'000
	Temperate fruit, wild	350'000
	Wild collection, no details	10'000
Turkey	Medicinal & aromatic plants, wild	50'020
Ukraine	Temperate berries, wild	20'450
	Temperate fruit, wild	45
	Vegetables, wild	300
	Wild collection, no details	9'205
Total		9'998'936

Source: FiBL Survey 2009

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Table 39: Europe: Land use in organic agriculture and main crop categories 2007

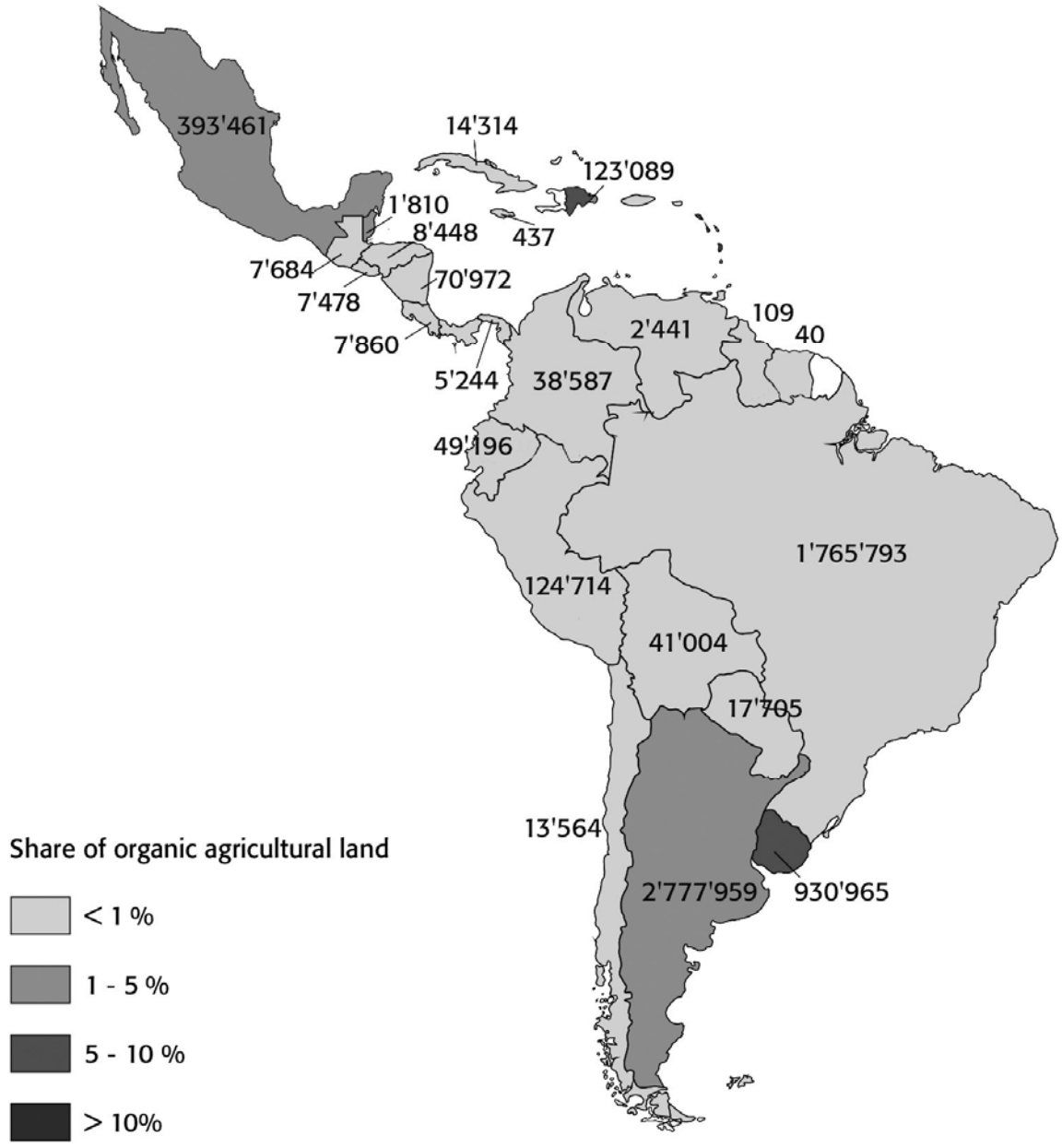
Main use	Main crop category	Organically managed land [ha]
Agricultural land, no details	Agricultural land, no details	168'285
Arable land	Arable crops, no details	109'275
	Cereals	1'324'705
	Fallow land as part of crop rotation	197'499
	Flowers and ornamental plants	3'235
	Green fodder from arable land	1'280'880
	Industrial crops	29'824
	Medicinal & aromatic plants	163'426
	Oilseeds	106'807
	Other arable crops	1'070
	Protein crops	99'131
	Root crops	30'132
	Seeds and seedlings	14'564
	Vegetables	123'930
Arable land total		3'484'477
Other	Forest	189'818
	Other, no details	32'997
	Unutilized land/fallow land	47'548
	Extensive pastures with fruit production	11'500
Other, total		281'863
Permanent crops	Citrus fruit	29'527
	Flowers and ornamental plants, permanent	15
	Grapes	101'308
	Medicinal & aromatic plants, permanent	1'912
	Nurseries	2'349
	Olives	303'283
	Permanent crops, no details	4'333
	Permanent crops, other	18'923
	Temperate berries	7'819
	Temperate fruit	78'101
	Temperate fruit/nuts/berries	41'388
	Temperate nuts	114'227
	Tropical and subtropical fruit	634
Permanent crops total		703'819
Permanent grassland total		3'206'467
Total		7'758'526

Source: FiBL Survey 2009, in cooperation with ZMP

*Total includes correction value for land with double use in Turkey

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Latin America



Map 5: Latin America: Land under organic management (hectares) in the countries of Latin America 2007

Source: FiBL Survey

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

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 see organic agriculture as a way to live, to produce and to maintain ancient Latin American agricultural traditions and to obtain a better income. Other 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 motive to produce organically; there are farmers that consider organic agriculture as 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 certification systems, farmers' organizations can reduce certification costs, and in addition build relationships with the local consumers. Consequently, consumers feel the need to support such farmers to produce organically.

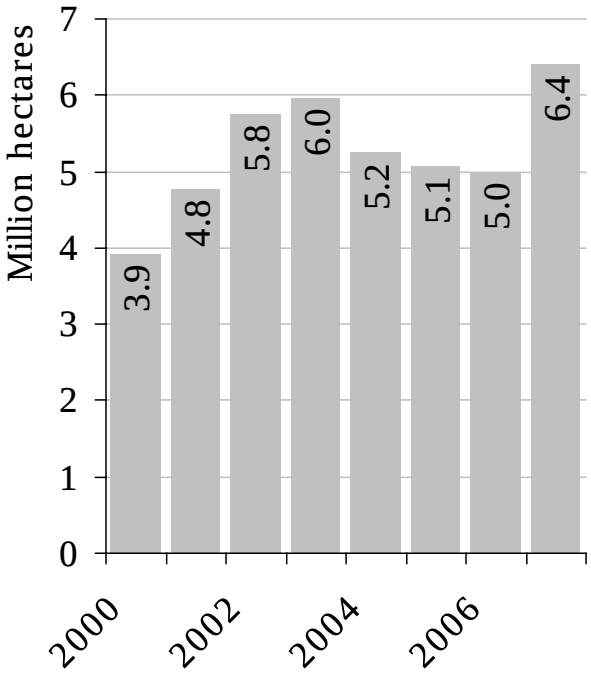


Figure 33: Latin America: Development of the land under organic management in Latin America 1995-2007

It should be noted that the 2007 figures for Brazil include – other than previously - data on the in-conversion area. The drop of the Latin American organic land area 2004-2006 is mainly due to decreases of the organic agricultural area in Argentina as well to a major decrease in Chile in 2005.

Source: FiBL survey

Figure 33 shows that organic agricultural land production jumped from about 5 million hectares to about 6.4 hectares from 2006 to 2007, representing approximately one percent of the total agricultural area for Latin America. The high increase in organic land is partly

[1] Salvador V. Garibay, Research Institute of Organic Agriculture FiBL, Ackerstrasse, 5070 Frick, Switzerland, www.fibl.org

[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,

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

explained by the fact that, for the first time, data on the in-conversion area were available for Brazil (more than 800'000 hectares). There have also been major increases of organic land for instance in Argentina and many Central American countries. In addition to the agricultural land, approximately 6'000 hectares of aquaculture (in Ecuador) and about 7.5 million hectares (most of this in Brazil) of wild collection areas were reported. Furthermore, Argentina reported almost half a million hectares certified for bee keeping.

The leading countries (Figure 34) in terms of organically managed agricultural land (without certified wild collection areas) in Latin America are Argentina, Brazil and Uruguay.

The countries with the highest percentages of organic agricultural land are the Dominican Republic and Uruguay with more than six percent and Argentina and Mexico with more than two percent. All other countries are around one percent or below.

Mexico has the largest number of organic farms, followed by Peru and the Dominican Republic. Whereas in Mexico and other countries in Central America the average farm size is small (Mexico 2.8 hectares), the size tends to be far larger in many South American countries.

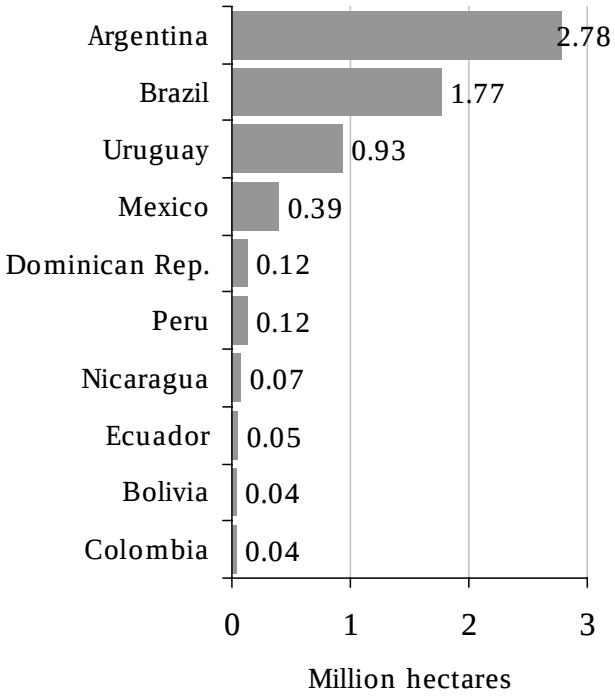


Figure 34: Latin America: The ten countries with the largest organic agricultural area 2007

Source: FiBL survey

More than half of the agricultural land for which land use details area available is grassland. Eleven percent of this land is in permanent crops such as bananas, cocoa and apples. For a major part of the agricultural land, no land use details were available.

The development of agricultural land in Latin America is not increasing in all countries. The main reasons are:

- 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 the production than converting to organic farming.
- Climate change effects are increasing in the Caribbean region. In countries such as Cuba, Haiti and Jamaica, hurricanes have destroyed many crops. The effects of climate change in these countries (hurricane season are longer and stronger) is making it difficult to maintain stable production. This not only applies to organic farming.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

- Pest and diseases are affecting the crops, and for many, solutions have not yet been found. For example, in cacao, the Monilia Pod Rot (*Moniliophthora roreri*) is a serious fungal disease. Its range includes northwestern South America (including Ecuador, Colombia, and Peru) and southern Central America, (from Nicaragua to Panama, including Costa Rica). Damage caused by the disease varies from less than 25 percent in some regions to a total loss of production in other regions. The Asian citrus psyllid (*Diaphorina citri*) is the vector of the devastating bacterial diseases named Huanglongbing or citrus greening. This disease already caused enormous damage to the organic citrus production of Cuba.
- The prices that farmers receive do not always cover the 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 market in Latin America

Many organic products from Latin American countries are sold in the European market, especially those that cannot be produced there 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.

Local Market

- Supermarkets: Many supermarkets in Latin America are selling organic products. The sales of vegetables and fruits, milk and milk products, honey, coffee, and others 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 the urban centers. Different foreign supermarkets were investing, and they are competing strongly with the small stores. In Costa Rica, more than 50 percent of organic food is sold by the supermarkets.
- 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 'consumer cooperative shop.' In many cities and towns, consumers come together and 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, stores are often consumer owned, permitting both lower prices and a fair share for producers.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

- Popular farmers' markets: Arguably, the most popular form of organic trade in Latin America is the neighborhood fair or informal farmers' market. Most towns have a space, such as a park or sports arena, where producers can sell goods directly to the public on a weekly basis, which is a good opportunity for farmers to benefit from the full price without intermediaries. Local governments often support farmers' markets by providing the 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.

Exports

Most organic production from Latin America remains destined for export markets. From the coffee grains and bananas of Central America, to the sugar in Paraguay and the cereals and meat in Argentina, the trade of organic produce has been mostly oriented towards foreign markets. In Mexico, currently, at least 85 percent of the organic food grown in this country is shipped to other nations, including the United States, 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 are buying land to produce organic for export. Increasingly, European and American companies and investors' funds are buying or renting Latin American land for large-scale and technologically advanced organic production projects that benefit from relationships with buying markets and their country of origin; such projects are usually beyond the financial limitations of local companies.

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 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.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

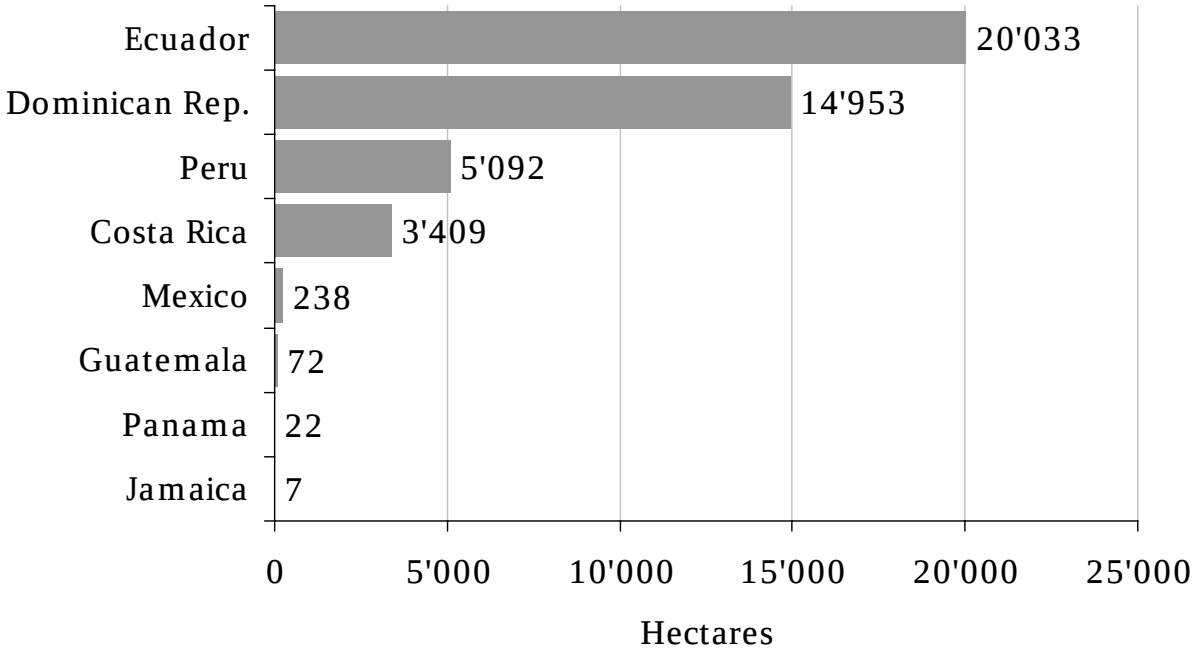


Figure 35: Latin America: Organic banana area 2007 (including in-conversion area)

It should be noted that for Brazil, which has one of the largest banana areas in the world, data were not available.

Source: FiBL survey

Bananas: The most important supply countries for bananas are Ecuador, Dominican Republic, Peru, Colombia and Brazil. For example, seventy percent of the bananas produced in the Dominican Republic are organic. Other suppliers are 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 production volume of organic banana; this remains a limiting factor for supply countries (Garibay 2005).

Pineapples: Since ethylene for the induction of pineapple flowering has been allowed according the EU regulation on organic farming as well as the US NOP, organic pineapple is a growing in many Latin America countries. Limiting factors to production are, however, specific limitations imposed by some standards (ethylene is not allowed for instance by the Bio Suisse standards or those of Naturland), limited availability of organic pineapple and low quality production. 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. Organic grain farmers in several southern countries also face the problem of increasing cultivation of genetically modified soy and corn.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

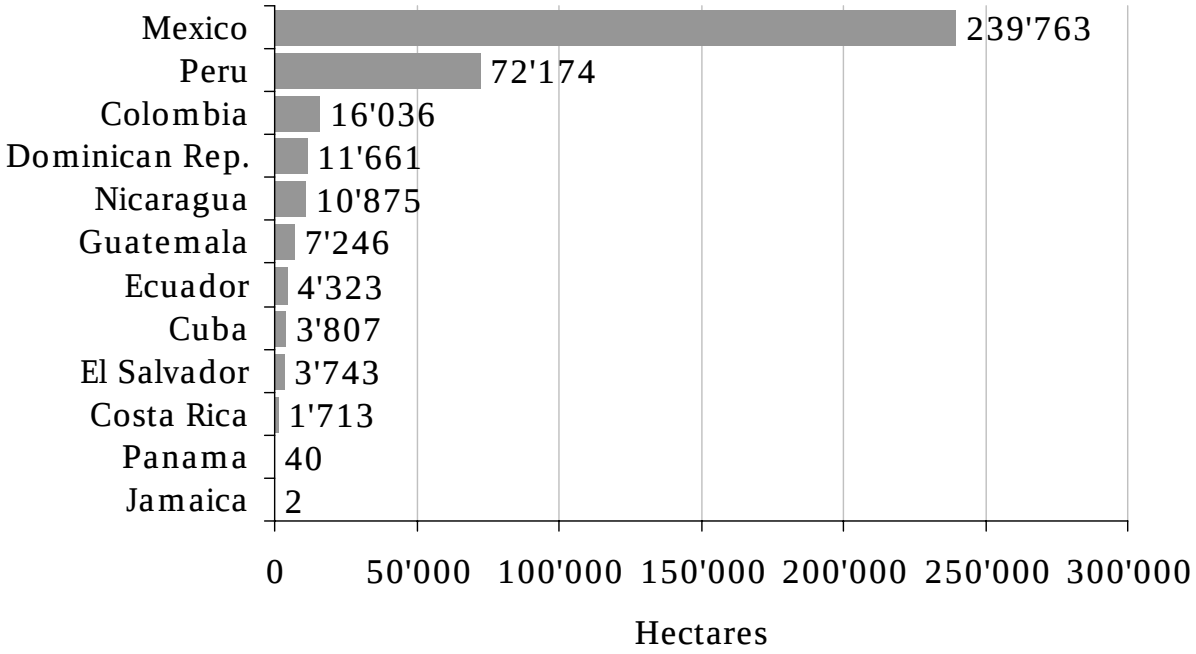


Figure 36: Latin America: Organic coffee area 2007 (including in-conversion area)

Data on organic production were not available for Brazil - the largest coffee producer in the world. See also table on global organic coffee production in the chapter on the global survey.

Source: FiBL Survey 2009

Coffee: Mexico is the largest organic coffee producer in the world, with tens of thousands of tons of coffee beans, mostly harvested by small indigenous farmers, and supplying the world's biggest supermarkets and coffee shops. Guatemala and other Central American countries have significant levels of coffee production with very similar characteristics. Coffee production is primarily defined by ecological forest management systems, creating a valuable alternative to the deforestation process that is taking place in the region.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

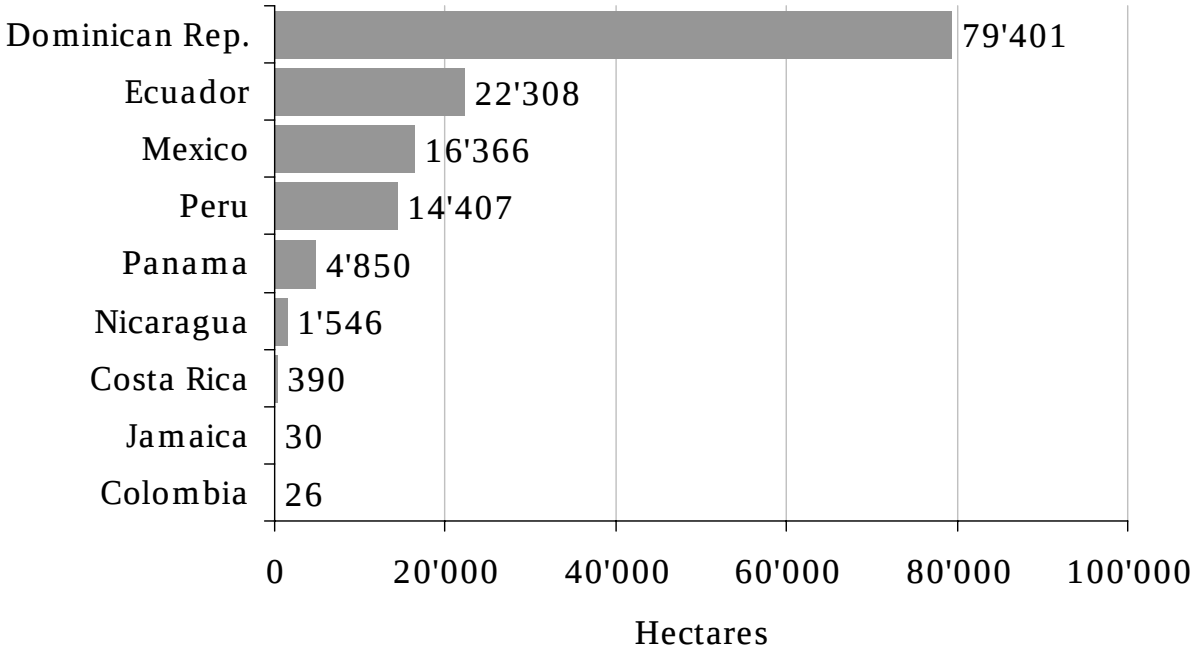


Figure 37: Latin America: Organic cocoa area 2007 (including in-conversion area)

It should be noted that cocoa data was not available for Brazil and Venezuela, two major coca producers. . See also table on global organic cocoa production in the chapter on the global survey.

Source: FiBL Survey 2009

Cocoa: Most of the Latin American countries producing coffee also cultivate cocoa for chocolate, usually processed in Europe under fair trade logos and certified by European companies. It is also a very important source of income for small farmers throughout Central America and the tropical areas of South America. Different projects of organic and fair trade cocoa are starting (including Honduras and Nicaragua). Mexico, Nicaragua, Costa Rica and Bolivia have added value to the cocoa by producing organic chocolate for the local market.

Sugar: Brazil, Paraguay, Ecuador Argentina 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. In Paraguay, more than half of the total sugar produced is organic.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

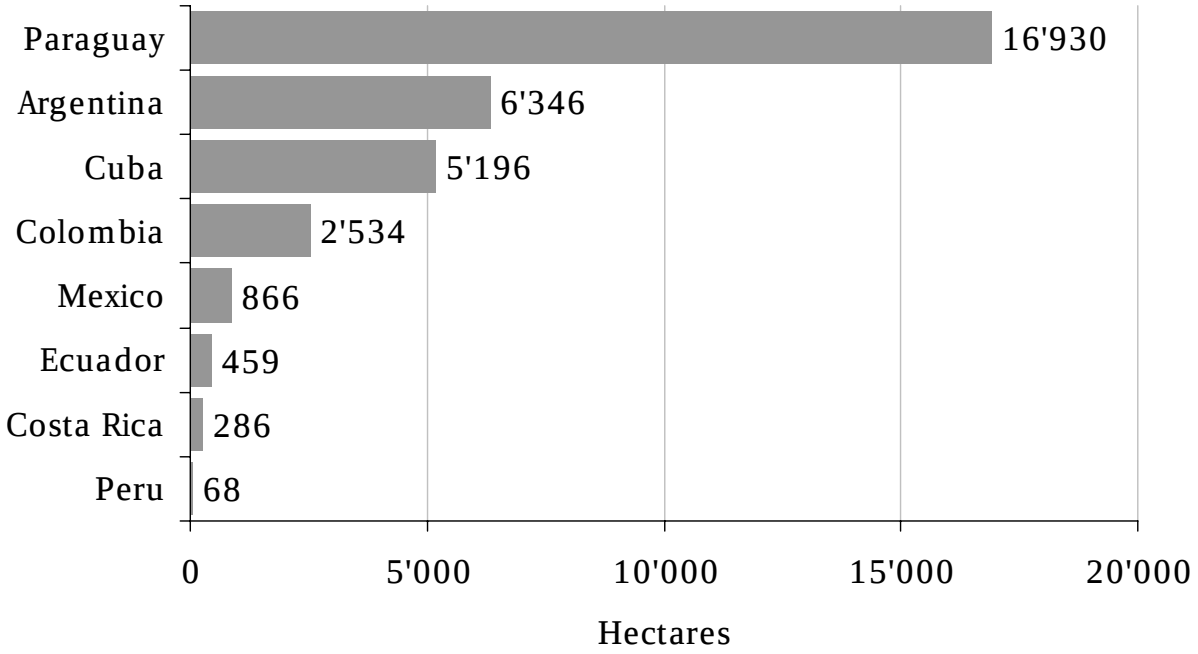


Figure 38: Latin America: Organic sugarcane area 2007 (including in-conversion area)

It should be noted that for Brazil, which has the largest sugar cane producing area in the world, data was not 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 also produce 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 is that organic meat production in Latin America is not moving forward because the main customers from Europe and the US ask only for the best pieces (hindquarter: sirloin tenderloin and pistol cuts). The rest of the meat has to be sold in the national market mostly as conventional.

Wines and spirits: Argentina and Chile are major producers of organic wines. The market of organic spirits in Latin America is beginning. There are marketing development initiatives for traditional spirits from the region such as tequila, mescal and rum for the local and export markets. All these kinds of spirits can be found in Mexico.

Organic guarantee systems

Except for Argentina and Costa Rica, which have Third Country status with the European Union, all other Latin American producers need to be certified by a accredited certification agency to enter the EU market. However, American or European companies certify most 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 and the Insti-

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

tute fur Marktoekologie (IMO) from Europe are very active in the region. Others are Ecocert, Control Union, Ceres.

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, Maya Cert from Guatemala and CertiMex from Mexico. Uruguay has Urucert and Sociedad de Consumidores de Productos Biológicos (SCPB). Apart from the aforementioned, Argencert Argentina has more than 12 certification agencies and OIA, Bio Letis (EU recognized), Food Safety, Agro Productores Organicos de Buenos Aires (APROBA), Ambiental, and Fundación Mokichi Okada (MOA) are also important.

Recently, some countries have created national laws governing organic production, including Costa Rica, Mexico, Uruguay, Chile, Paraguay and El Salvador. Bolivia has issued a decree that regulating organic production. Argentina has had a national law for many years, and its system dates back to 1992.

Latin America is changing rules regarding third party certification. Many farmers do not wish to depend any more of the private certification agencies in order to say that they are producing organically. Various examples of participatory certification systems (PGS) can be found in all parts of the continent (see also article by Joelle Katto in this book). The standards in Brazil accept PGS in local markets, and other countries including Peru, Mexico and Uruguay, are developing similar systems.

Governmental Support

Historically, organic agriculture has had most of its support from NGOs, which have been trying to change the social, economic and environmental scenario the Latin America countries in the last 20 years. In recognition of the growing importance of the organic sector to Latin America's agricultural economy, the governmental institutions have begun to take steps towards increasing 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 (see also country reports), from the promotion of organic agriculture to market access support (through official export agencies). In some countries, there has been support to pay certification cost during the first years of conversion or other 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.

In general, however, the organic movement in Latin America has grown on its own accord, with some seed funding for extension and association building by international aid agencies, especially from Germany, the Netherlands, Belgium, Switzerland and the USAID, 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. For more details, please check the countries report.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Education and Extension

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 the 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 PhD course in agro-ecology of Latin-America. Some other agricultural universities carry 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 studies in Business Development in Organic Products.

Research on organic agriculture in Latin America

Some regional research institutions are increasing their work in agro-ecology and organic agriculture as can be seen from the Latin American country reports in this volume. It is expected that the three CGIAR centers in the region could also help to expand the research agenda for 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 (Ochoa et al. 2006), the second was in Guatemala in 2007 (Fernández Montoya et al. 2007), and the third was carried out in Bolivia in 2008.

References

Fernández Montoya, Marco Vinicio; Ochoa, Gregorio Varela; Garibay, Salvador V. und Weidmann, Gilles, (Eds.) (2007) 2ndo Encuentro Latinoamericano y del Caribe de Productoras y Productores Experimentadores y de Investigadores en Agricultura Orgánica - Memorias de resúmenes [Second Latin American and Caribbean Meeting of Organic Producers and Researchers, held October 1-5, 2007 in Antigua, Guatemala. Summary of the Presentations]. Research Institute of Organic Agriculture (FiBL), Frick, Switzerland.

Garibay, Salvador (2005): Mercado Europeo de banano orgánico. ECOMERCADOS.

Lernoud, Pipo (2008): Organic Farming in Latin America. In: Willer et al. (Eds) (2008): The World of Organic Agriculture. Statistics and Emerging Trends. IFOAM, Bonn, Germany and FiBL, Frick, Switzerland, pp. 166.

Nelson, Erin ; Schwentesius Rindermann, Rita; Gómez Tovar, Laura; and Gómez Cruz, Manuel Ángel (2008): Growing a local organic movement: The Mexican Network of Organic Markets. Leisa Magazine. 24.1, March.

Ochoa, Gregorio Varela; Garibay, Salvador und Weidmann, Gilles (Eds.) (2006) 1er Encuentro latinoamericano y del caribe de productoras y productores experimentadores y de investigadores en agricultura orgánica, 26 al 29 de septiembre de 2006, Managua, Nicaragua. Memorias de resúmenes [First Latin American and Caribbean Meeting of Organic Producers and Researchers, held September 26-28, 2006 in Managua, Nicaragua. Summary of the Presentations]. Research Institute of Organic Agriculture FiBL, Frick, Switzerland.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Organic Farming in Argentina

DINA FOGUELMAN[1]

2008 has been a very fruitful year for Argentina. After 11 years of lobbying of the Argentine Movement for Organic Agriculture (MAPO), the Argentine Program for Organic Agriculture Development started. This was possible with the joint financial support of the National Secretary of Agriculture, Livestock, Fisheries and Food (SAGPyA) and the Inter American Bank for Development (BID). The Inter American Institute of Cooperation for Agriculture (IICA), recently became active in the field of organic agriculture, and administers the funds (900'000 US Dollars). Under this program the following measures are foreseen:

- Funding and enhancing the scanty Argentine technical research in organic farming;
- The creation of an organic library;
- Research and development on domestic organic food processing, which is currently almost absent, and exports are mainly bulk/unprocessed products;
- The strengthening of the main NGOs and organizations, such as the Argentine Movement for Organic Agriculture (MAPO), the Chamber of Commerce (CAPOC) and the Certifiers' Chamber (CA.CER), with MAPO as the hub.

Without public support, it would not be possible to achieve these goals. The key joint activities of MAPO, CAPOC, CA.CER - the main representatives of the organic sector - are geared towards achieving agreements with national and provincial public authorities and strategic planning.

Certification

Four of the local certifying companies are internationally recognized as equivalent to the European organic norms and are supervised by a special department at the Agriculture State Department. This double control system has proven to be highly successful and reliable, and it has been recommended by IFOAM to countries wishing to be considered third countries by the European Union.

Research

Agreements between MAPO and universities as well as technical institutes began to bear fruits in 2008; the National Institute for Agriculture Technology (INTA) set up joint organic programs in four regional experimental stations, the most important regional organic program being located in the heart of the Pampas. It will last for three years and involves 14 sub-programs of experimental, agronomic and of economical research. In 2008, INTA published a volume with 56 papers on its research on organic agriculture. Furthermore, other joint MAPO/INTA programs involving groups of Pampa beef farmers have been consolidated. The Cooperative Program for the Technological Development of the Agro-food and

[1] Dr. Dina Foguelman, Movimiento Argentino para la Producción Orgánica MAPO, Dirección: Sarmiento 1562 Piso 6º Oficina "F" C1042ABD Ciudad Autónoma de Buenos Aires, Argentina, info@mapo.org.ar, www.mapo.org.ar

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Agro-industry PROCISUR[1] has among its five strategic research lines one on organic farming. The Argentine representative is the former IFOAM board member Dr. Pedro Gomez.

With the forthcoming publication 'Argentina Organic – Development of Argentine Organic Markets' by the Postgraduate School in Administration of Organic Enterprises Companies at the Argentine Catholic University (UCA), an important landmark in the cooperation between MAPO and the Post Graduate School was achieved (Madariaga 2008). Some major disclosures concern comparisons between the organic economy in the European Union, the US and Latin America.

Land use and production

The cropped area is now 61'264 hectares. Even though there has been an increase of five percent during 2007, the total is far from being satisfactory and has not yet reached the levels of 2001, when a severe economical crisis affected all Argentine production. The increase during 2007 was mainly due to fruits and industrial crops; the cropped surface of pears went up 38 percent, with that of apples 73 percent. Sugar cane, grapes, juices and wine accounted for another 21 percent increase.

The number of organic farms, of which more than 90 percent are small to medium sized family farms (tenants), increased by six percent in 2007. MAPO led an important campaign towards increasing and empowering organic farmers' associations in order to lower production costs, to standardize produce quality and to share certification, transportation an export duties. This was achieved during 2007 – the third year of this training - through meetings all over the country, sponsored through an agreement between MAPO and the Italian Cooperation Institute of International Cooperation (ICEI) and the Association of Rural Cooperation in Africa and Latin America (ACRA) for the 'Development of Organic Agriculture in Argentina through sponsoring small tenants.'

In Argentina, there are extreme differences in the size and quality of organic farming; on the one hand, the very small tenants in Misiones Province, growing sugar cane, represent 30 percent of all the Argentine organic farmers. On the other hand, the cold and dry deserts of the three Patagonian provinces of Chubut, Santa Cruz and Tierra del Fuego comprise 75 percent of total organic surface, but only five percent of the farms. In Santa Cruz, for instance, the average farm size is 120'000 hectares, and the largest farms may have more than 200'000 hectares.

The Argentina norm for organic TOP Wool was finally set forth, resulting in an unprecedented increase of Patagonian sheep production, and the grassland area increased by 17.5 percent, reaching a total of 2'543'186 hectares (85 percent of the organic land area). Wool production increased and as a result, wool exports increased by 104 percent, amounting to 1'236 metric tons, and lamb meat exports rose from 3'320 to 383'563 kilograms during 2007, most of this being exported to the European Union. These numbers show that even though Argentina has the by far the largest organic land surface in Latin America and the second highest in the world, mean productivity is extremely low.

[1] Mercosur is the common South American market.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

On the other hand, organic beef cattle in the Pampas decreased by 11 percent during 2007, with some 108'000 livestock by the end 2007, due to internal regulations hindering beef export due to lack of local supply.

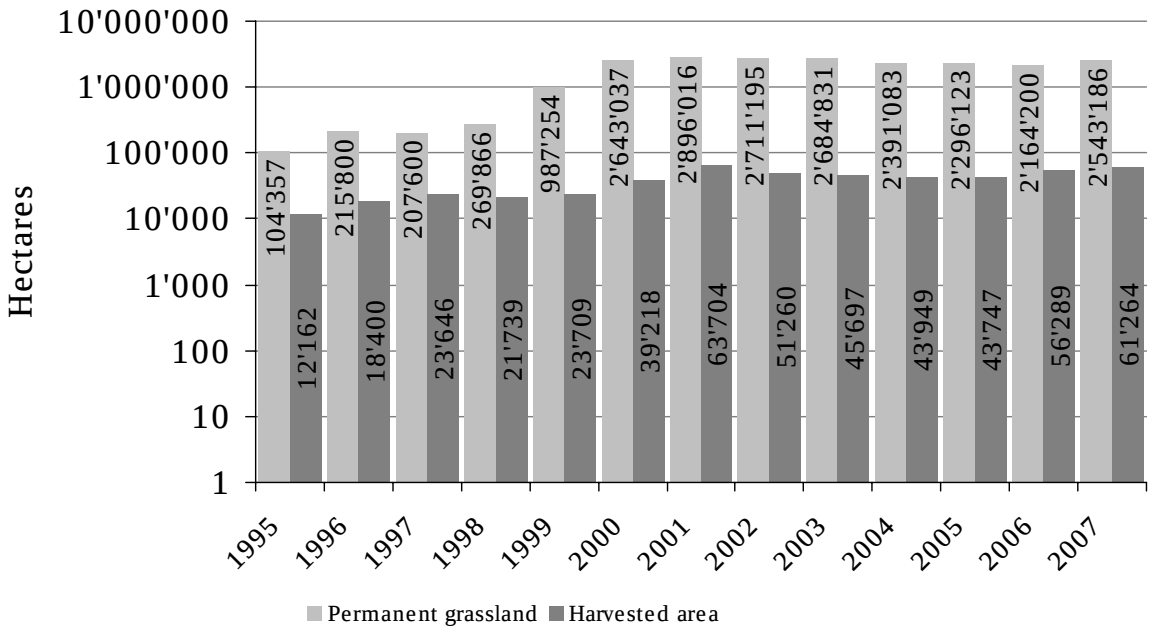


Figure 39: Argentina: Development of the organic grassland and the harvested area 1995-2007

Source: SENASA 2008

Most of the organic production is geared towards exports, the European Union and the US being the main customers. The EU purchases 52 percent of the cereals, 85 percent of the oilseeds, 77 percent of the fruits, 98 percent of vegetables and beans and 72 percent of processed products. The US imported most of the rest, but Japan has also been interested in some processed products, such as sugar and wine must, of which Japan imported 547 metric tons. China is beginning to import raw wool. Honey did well too, with 1'040 exported tons.

Local market development is yet slow. For example, the second biggest dairy company in the country stopped supplying organic milk to supermarkets because of low demand. Higher prices cause consumers to drop purchases, although in 2007 some 320 metric tons of organic food were delivered to local markets. Still, recent market studies led in the frame of the agreement between MAPO and ICEI/ACRA showed that consumers were well acquainted with the meaning of the term 'organic,' and there is a general recognition of higher produce quality among consumers. But demand is yet too feeble to support a constant and significant flow of vegetables and fruits to local markets.

Further Reading

Madariaga, Miguel (2008) Argentina orgánica. Buenos Aires : UCA-Facultad de Ciencias Agrarias

Servicio Nacional de Sanidad y Calidad Agroalimentaria SENASA (2008) Situación de la Producción Orgánica en la Argentina durante el año 2007. Buenos Aires

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Chile

PILAR M. EGUILLOR RECABARREN[1]

History, production and main actors

In the 1980s, NGOs and small farmers were the first actors to promote and implement organic agriculture production systems in Chile. The aim was to introduce new alternatives to help farmers with issues such as self-sufficiency and to promote food security in rural areas. For many years, organic agriculture was not considered as an important activity by policy makers due to the lack of information, production and markets. For this reason, no policies were developed to support the organic sector. When the area under organic cultivation increased and the organic exports started, the government initiated the process to develop and implement policies and programs to support the sector. At the same time, some medium-sized farmers and enterprises converted to organic, certification bodies appeared and the private sector started to get organized.

The main area of organic production in Chile is fruit with 4'161.26 hectares, followed by vineyards with 2'973.62 hectares and berries with 1'758.29 hectares. An important area of 16'878.05 hectares is certified for the collection of wild harvested products. The big advance in area compared to 2006-2007 was the increase of organic berries and a decrease of the wild collection area.

- Chilean Organic Association (AAOCH). AAOCH has existed since 1999 and among its members are farmers, certifiers, traders, consultants, students, professionals and others. Since its creation, AAOCH has been recognized as a representative of the organic sector by governmental authorities.
- Bio Bio Organic Farmers Association. This is a new association of organic farmers (2007) from a southern region of Chile. Its aim is to represent the needs of farmers from a regional point of view.
- National Commission of Organic Agriculture. This commission has been working since 2005. It is a national public and private commission developed for the Ministry of Agriculture. It has the objective to coordinate actions and policies that support organic farming. From the public sector representatives from all the agricultural services and other public institutions participate; from the private sector representatives from several organic farmers associations, NGOs, universities and certification bodies participate.
- The Agricultural Studies and Policies Office (ODEPA) is a service of the Ministry of Agriculture in charge of collecting and releasing useful agricultural information to the sector. It played an important role in the development of the organic regulation and standards as well as gathering organic agriculture information and statistics.

[1] Pilar M. Eguillor Recabarren, Ingeniera Agrónoma MSc., Oficina de Estudios y Políticas Agrarias, Ministerio de Agricultura, Teatinos 40, piso 8. Santiago, Chile, Tel. +56 2 397 3014, Fax +56 2 397 3044, www.odepa.gob.cl

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

- The Agriculture and Livestock Service (SAG) is a service of the Ministry of Agriculture in charge of the plant and livestock sanitary conditions of the country. It is in charge of the Organic Agriculture Law No. 20.089 and the national organic standards.
- Institute for Agricultural Development (INDAP). This service belongs to the Ministry of Agriculture. It is an extension service that has helped to establish a number of networks of small organic farmers in different areas of the country and also provides technical and financial support and advice to small producers.
- National Institute of Agricultural Research (INIA). INIA is a service of the Ministry of Agriculture in charge of conducting research for the sector. It has many research projects and activities related to organic agriculture.
- Agricultural Innovation Foundation (FIA) finances private sector initiatives such as technical visits, technology transfer projects and seminars.
- ProChile, an agency under the Ministry of Foreign Affairs, is in charge of the development of the export market. For many years, it has supported the organic sector through studies, seminars, participation of Chilean farmers and enterprises at BioFach, and also co-financing technical visits to many countries around the world.
- Production Promotion Corporation (CORFO) provides different lines of support related to investment promotion, finance, innovation, quality and productivity. Since 2007, CORFO, ODEPA and AAOCH have been working to develop the first instrument to help farmers during the conversion period.

Some universities in Chile have research projects, are conducting undergraduate and graduate theses. Some of them offer courses in organic agriculture.

Table 40: Chile: Land use and crops 2007/2008

Crops/Land use types	Hectares
Grapes for wine	2'973.62
Fruit trees	4'161.26
Berries	1'758.29
Vegetables (including melons)	304.10
Medicinal plants	99.08
Cereals	124.90
Grassland	115.28
Flowers	5.00
Forest	996.44
Fallow land as part of crop rotation	350.02
Seeds, seedlings and nurseries	4.0
Natural vegetation	2'672.46
Sub-total	13'564.44
Wild collection	16'878.05
TOTAL	30'442.49

Source: ODEPA

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

National and international market

The domestic market is small, and almost 80 percent of the organic production is for export. The domestic market is concentrated primarily in the main cities and in the capital city, Santiago, where some supermarkets sell organic products. There are also many small and specialized shops that sell not only organic products, but also natural products, health and related products. In Santiago and some regions, there are farmer-owned shops in which a group of small organic farmers sells their products, such as Tierra Viva, one of the best known. Finally, there are a few farmers who sell their products directly to consumers, either on the farm or through a home delivery system. The main products in the domestic market are fresh fruits and vegetables, olive oil and wine. On the international market, the main exports are fresh fruit and wine that go to the European Union, U.S.A., Canada and Japan.

Certification and Legislation

Certification in Chile is done by national and foreign certification bodies that must register with the Agriculture and Livestock Service (SAG), the National Authority that has a system of governmental control under the new Organic agricultural law N°20.089. Certification agencies operating in Chile are IMO, BCS and Argencert. In Chile, there is no group certification. However, the law considers that a group of small farmers can certify themselves if they own an internal certification system, fulfill the Chilean organic standards, are registered with SAG and if they sell their products directly to the consumers.

The new organic law No. 20.089 has been in place since December 2007. The law established the National System for Organic Products Certification, created specific regulations, and recognized and protected the terms 'organic,' 'biological' and 'ecological.' This law also regulates labeling, and evaluates and authorizes certification bodies that can operate in the country. Moreover, the law created an official organic seal and established penalties and fines for misuse.

Government support, Development cooperation projects

The Ministry of Agriculture has aided in the development of the organic sector in many ways, including the development of the regulation. It has provided key support in establishing working groups, supporting research projects, distributing information, and offering promotion and marketing support for organic associations. A central area of action is seeking new market opportunities through farm visits, international seminars, market studies and participation at trade fairs. One key area of work for the government is gathering information about the organic sector. In 2008, the Ministry of Agriculture financed a National Organic Survey in order to review and assess the sector. In addition, there has been a major effort to train government officials in charge of implementing the new organic production law.

Since 2003, there has been a cooperation agreement between the Ministries of Agriculture of Chile and Switzerland to transfer technical information and to implement organic systems to help small farmers to produce organic wine and organic dairy products.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Research and extension

Research is being undertaken by the National Institute of Agricultural Research and some universities. The areas of work include insect control, weed control, composting, soil fertility, costs of production and others. Training and education are offered through the private and public sector, through national and international seminars, courses, specific programs, publication of training materials, farm visits in Chile or abroad and participation in trade fairs. Extension is available almost exclusively from private consultants.

Outlook

Organic agriculture has been developing slowly but steadily in Chile, and today there is a great opportunity for the sector to mature due to the new national law, its technical and economic viability, and because of the growth of the domestic market. The new organic law allows the government to play a key role in oversight of methods of production and sale, and in the inspection of farmers and certification bodies, improving transparency and fairness. However, Chile continues to face some challenges, such as operating the new control system, improving access and availability of consumer information, defining the research agenda and facilitating technical assistance. Moreover, increasing the variety and volume of production is another hurdle facing the sector, which will depend upon developing policy instruments to support the transition of small and medium scale farmers to organic.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Colombia

CARLOS ESCOBAR[1]

Since the 1980s, various social and environmental movements have promoted new forms of production that offer more sustainability to the country. The current situation for organic agriculture is a result of such initiatives.

Main actors in organic agriculture

In Colombia, non-governmental organizations, producer associations, and national certification agencies have promoted organic agriculture since its very beginning. In the past decade, governmental institutions, private companies and universities have taken on an increasingly prominent role in this regard.

Even though many organizations work in the field of organic agriculture, there is little coordination among them. The following stakeholders are active:

- Peasant organizations, Afro-Colombians and indigenous people with various economic, technical and socio-cultural interests, who see organic agriculture as a way of life and a way of obtaining an enhanced income.
- Small, medium and large companies involved in organic production, processing and marketing of organic products (food, seeds, inputs, cosmetics etc.) due to business opportunities.
- Private institutions focusing on facilitating various commercial or certification processes.
- Certification agencies that – besides other certification services - also offer organic certification.
- Non-profit organizations, such as foundations, corporations, research centers and universities, as well as for-profit organizations, such as companies and consultants, who support the production, processing and marketing of organic production. Many of these activities have been financed by international and national development agencies.
- Guilds and networks, especially NGOs and producer associations, who focus on promotion and raising awareness of organic production. Some of these organizations are also active at the international level.

In Colombia, some public and private institutions are cooperating in the 'National Interinstitutional Committee of Organic Agriculture,' whose work concentrates on the development of the 'National Program for Organic Agriculture.' Additionally, other environmental authorities manage a national organic marketing program that includes support to various marketing initiatives (including organic agriculture) and the implementation of the national organic market (green market) tracking study. Finally, a national committee on biodiversity

[1] Carlos A. Escobar F., Conexion Ecologica - Desarrollo para el Futuro, Conexion Ecologica, Pangea House, Km 22 Cali – Dagua, Mobile +57 310427608, e-mail: info@econexos.org. http://econexos.blogspot.com/index.html

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

and competitiveness was recently founded, promoted by the Presidency of the Republic of Colombia. Its aim is to take actions regarding the use and development of the products of biodiversity, sustainable agricultural systems and green markets (include organic products).

Other organizations are part of the Platform on Organic Agricultural Production (Mesa Sectorial de Producción Agropecuaria Ecologica) of the National Education Service (SENA). They have developed and evaluated norms for labor competencies (or minimal qualifications for workers) for the organic sector. SENA is also implementing agroecological centers in several cities, with the goal to promote technical training and education in organic agriculture.

Organic farming statistics

Data on organic production show that the organic certified areas have doubled from 25'000 hectares in 2001 to 45'000 hectares in June 2008 (including wild collection; see Figure 40).

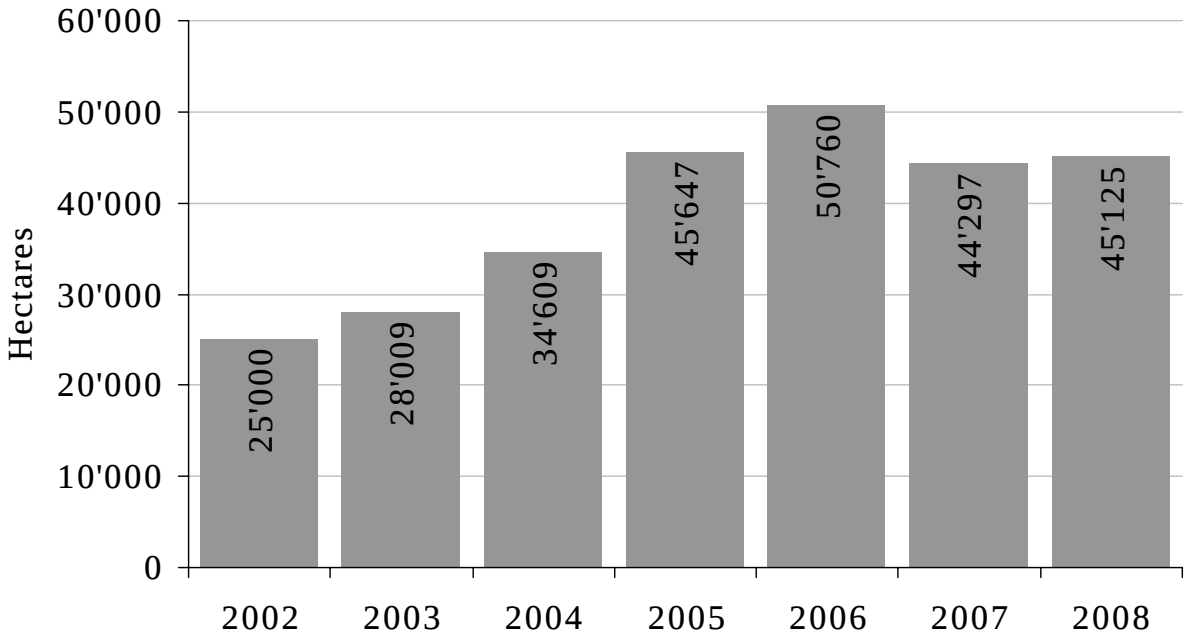


Figure 40: Colombia: Development of the organic agricultural land and wild collection areas 2002-2008

Source: Programa Nacional de Agricultura Limpia, Ministerio de Agricultura y Desarrollo Rural de Colombia, 2008

However, there are no exact figures on the areas that are managed according to organic principles but are not certified. The most common organic production systems in Colombia are:

- Agro-silvo-pastoral systems;
- Polyculture systems;
- Indigenous traditional systems, such as the 'Paez' and 'Naza' models;
- Vegetable gardens;
- Roof garden systems;

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

- Home garden systems;
- Commercial systems with a trend towards monoculture.

Furthermore, there is progress on the production and commercialization of inputs for organic agriculture, based on the national requirements of governmental institutions, such as the Colombian Institute of Agriculture (ICA).

Organic products from Colombia

In Colombia, coffee comprises about one third of the country's organic area and more than half of the organic cropland. Tropical fruits, sugar, palm oil and its by-products, cacao, herbs, medicinal plants, vegetables and basic grains, eggs, milk, yoghurt and cheese account for the remaining two thirds.

Many of these products are sold on the international market, but also on the national market, with continued growth. However, organic products are also being cultivated for the self-sufficiency of peasant families and indigenous communities.

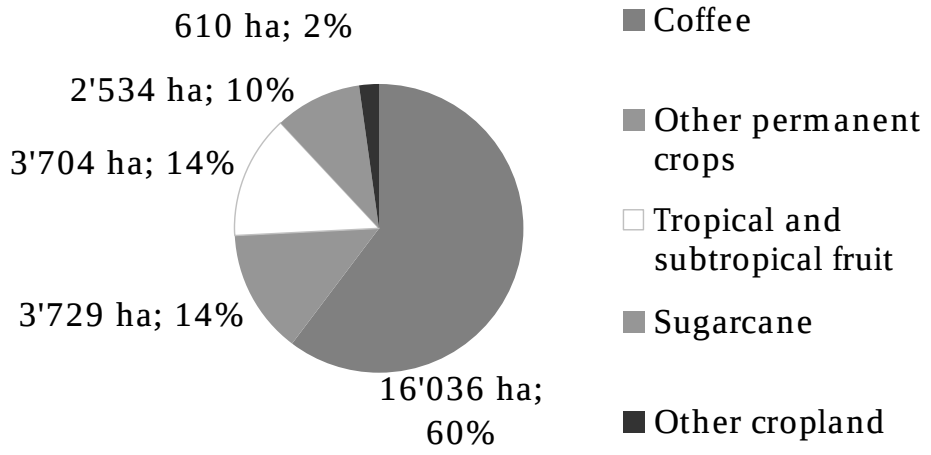


Figure 41: Colombia: Use of fully converted organic and certified in-conversion cropland

Source: Programa Nacional de Agricultura Limpia, Ministerio de Agricultura y Desarrollo Rural de Colombia, 2008

Certification and labeling

There is no national policy on organic agriculture. A number of standards have, however, been developed in the years past, like the Resolution #187 of 2006 on national organic certification. The government of Colombia is also promoting a national organic label, which is used by organic projects certified under third party certification systems (see picture).

Ministerio de Agricultura y Desarrollo Rural
ALIMENTO ECOLÓGICO

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

According to the Superintendent of Industry and Commerce , a governmental authority in charge of national accreditation, six companies are authorized and accredited for the certification of organic products for the national market in Colombia.

However, there are further organic certifiers that also offer international certification, mainly under co-certification schemes. In the past, and especially in 2008, environmental authorities and NGOs promoted participatory organic certification in the peasant and indigenous sector in order to support local market development. Colombia is a partner in a project working on the development of the participatory guarantee system in the Andes region.

Apart from organic certification, other forms of certification based on international standards are prevalent. Bananas and coffee are certified Fairtrade by the Fairtrade Labeling Organization (FLO) and also under the certification system of the Rainforest Alliance. Other various systems of social or environmental certifications schemes operated in the country include UTZ CERTIFIED[1] for coffee, C.A.F.E. (Coffee and Farmer Equity) practices[2] and GlobalGAP[3] for bananas and uchuva/Cape Gooseberry. These schemes are used by many farmers focused on export. So far, there little experience in the field of organic animal production.

The organic market

The organic export volume was approximately 20 million US Dollars in 2006. Data that is more recent is not available, but the trend indicates an increase in sales volumes. The national market is still small. Specialized stores (Bioplaza, Colyflor, Clorofila, Biodiversa, Balu, Los Champiñones, Tierra Viva) and local markets (those organized by the Autonomous Corporation of the Cauca Valley CVC and Recab markets) are the most common marketing channels. In the supermarkets (like Exito, Carrefour, Carulla, Comfandi, la 14, Pomona), the marketing of organic products is in its initial stages. Imported and national organic products can be found in the cities of Bogota, Cali and Medellin, but also in medium-sized municipalities in which a high number of organic community projects are carried out. Since 2000, different governmental institutions, environmental authorities, training centers and NGOs have promoted the development of organic fairs within the big and traditional agricultural trade fairs such as the Bioexpo, Ecovida and Agroexpo.

Government support

In Colombia, there is no specific financial support program for organic agriculture. However, there are some government funds[4] that support the marketing of organic products and animal-friendly production. In addition, international cooperation agencies like GTZ, Swissaid, the Dutch Embassy and the Spanish Development Cooperation Agency (AECID) have

[1] UTZ CERTIFIED http://consumer.utzcertified.org/index.php?pageID=202
[2] C.A.F.E. (Coffee and Farmer Equity) Practices, http://www.scscertified.com/csr/starbucks.html
[3] GLOBALGAP http://www.globalgap.org/cms/front_content.php?idart=3&idcat=9&lang=1
[4] For example, the Programa Agro Ingreso Seguro (AIS), Programa Alianzas Productivas, Fondo Biocomercio Colombia, Fondo para la Acción Ambiental y la Niñez, Fondo Emprender, Agencia Presidencial para la Acción Social y la Cooperación Internacional, Programa Desarrollo de Oportunidades de Inversión y Capitalización de los Activos de las Microempresas Rurales (Oportunidades Rurales) and the Programa Mas Inversión para el Desarrollo Alternativo Sostenible (MIDAS)

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

financed organic projects in Colombia like the Colombia Verde Network, the Ecosierra Network and others organic projects.

Capacity building and training in organic agriculture has been carried out mainly by NGOs, but also by farmers' associations, education centers and agroecological schools. Colombian universities (like the National University of Colombia and the University of Antioquia) have, together with the University of Berkeley, developed the first PhD course in agroecology in Latin America. However, the professionals and advisors trained in organic agriculture are still very scarce.

Bibliography

Escobar, C.A., Lamprea, E.M., Velásquez, J.C. (2008):. Caracterización de la Producción Agropecuaria Ecológica en Colombia. Servicio Nacional de Aprendizaje (SENA). Barranquilla

Galeano, A. (2007): Estado actual y retos de la Agro-ecologia en el contexto de la política agraria Colombia. Documento interno Corporación Ecofondo. Bogota

Ministerio de Agricultura y Desarrollo Rural. (2007, 2008.) Comunicación personal, Programa Nacional de Agricultura Limpia. Bogota

Revista Dinero. (2007) Lo Verde Paga. Revista Dinero No. 286. Bogota

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Organic Agriculture in Cuba: Managing with Limited Resources

Lukas Kilcher[1]

The typical Cuban farming units are large-scale cooperatives, in which farming families are more or less loosely organized. In the low lands, these cooperatives normally specialize in a few products for the market and a higher diversity of self-sufficiency crops. In the mountain areas, these cooperatives produce in diverse agroforestry systems. This is especially the case for the eastern provinces Guantanamo and Santiago. Large-scale plantations were developed by the Spanish and US colonialists, and further developed by the socialist government. After Cuban Revolution in 1959, land was distributed to more than 200'000 small farmer families through the Agrarian Reforms of 1959 and 1963, while 70 percent of the latifundio lands passed over to state control. Since the collapse of the former socialist economic community in the early 1990s, Cuba's agriculture faces multiple challenges; there is a shortage of agricultural inputs and Cuba's farmers must learn to be self-sufficient and to manage with their own resources. This results in difficulties to meet Cuba's production goals. Domestic food markets are periodically under supplied, and export volumes are decreasing. Cuba has the challenging task to increase the output and efficiency of the complete food chain, based as much as possible on locally available resources.

Recycling as a national strategy

At the production level, the solution is low input agriculture. As early as the late 1980s, when agricultural input supplies from the Eastern Bloc slowed down, Cuba began nationwide production of biological pest control agents and, as a result, drastically reduced the use of pesticides. In the 1990s, thousands of primarily urban vegetable gardens for self-sufficiency (*organoponicos)* where established. They are not organically certified, but nevertheless they are one the pillars of the Cuban organic movement and internationally acknowledged for their achievements. Such urban gardens are of high value as they improve decentralized and low input food production near to the consumers. In conventional agriculture, there increasingly exists the strategy to apply synthetic fertilizers, pesticides and herbicides, especially after the hurricane-season 2008. A part of Cuba's agriculture can be considered as "organic by default," as conventional inputs are periodically not available or not available at all.

[1] Lukas Kilcher, Development and Cooperation, Research Institute of Organic Agriculture FiBL, Ackerstrasse, CH-5070 Frick, http://www.fibl.org/en/switzerland/development.html

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Organic agriculture is a very attractive proposal for Cuban farmers as it is based on low input resource efficiency and as it opens new access to high value markets. Therefore, organic agriculture is promoted actively by Cuban producers, scientists and authorities since the nineties. The first certified organic crops from Cuba were coffee, honey, citrus and sugar, starting conversion by the end of the nineties. Step by step, new organic projects were launched; tropical fruits joined the product range, such as mangoes and coconut. The development of organic agriculture in Cuba started very promisingly with some experts even calling Cuba an "organic island," obviously based on wishful thinking. Reality shows that there is a long way to make this vision come true, and there is no governmental policy to support such a vision.

Picture: Compost is the basic fertilizer used on organic citrus farms. The production of good quality compost is a logistic challenge and demands considerable investment.

Picture: Lukas Kilcher

Organic production consolidates on a low level

Organic production reached its highest levels in 2005. Since then, the expansion slowed down and has stayed at a rather modest level, with less than one percent of the agricultural land. Compared to 2005, organic production decreased from 15'443 hectares to 14'314 hectares in 2008. By the end of 2008, there were 2954 certified organic farms in Cuba, many of them part of cooperatives inspected by internal control systems (ICS).

Organic agriculture has the potential to improve food security. Low and high input models are currently a hot issue in Cuba

Picture: Lukas Kilcher, FiBL

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Table 41: Cuba: Organic production in Cuba end of 2008

Crop/Product	Production system	Area (ha)	Farmers (No)	Production (t)
Sugar**	Plantations with crop rotation	5'196	631	3'500
Citrus*	Plantations, agroforestry systems	4'195	579	301
Coffee*	Agroforestry systems	3'807	1'156	451
Coco*	Agroforestry systems	0	0	0
Coconut*	Agroforestry systems	1'056	100	82
Mango*	Extensive plantations	60	1	38
Honey*	Wild collection	27'758 bee colonies	487	1'201
Total		**14'314**	**2'954**	**5'573**

* Source: Ministry of Agriculture
** Source: Ministry of Sugar

Challenges for the development of organic agriculture

The consolidation of the organic agricultural development in Cuba came rather early compared to its young history. The lessons learned from existing experiences show that the investments required to overcome the challenges for organic agriculture in Cuba are rather high. Some barriers are not even in Cuba's control.

Hurricanes: several disastrous storms caused the loss of complete harvests and destroyed plantations, as well as packing and processing facilities. In 2008, Hurricane Ike destroyed a large part of the organic harvest. As a result, the harvest of some cooperatives is too small to justify certification costs. This is especially the case for organic cacao, which was an important organic product a few years ago, and to some extent also for organic citrus. The extension of the hurricane period and higher categorized storms are a direct result of global warming. Cuba suffers the consequences of climate change very dramatically, while its ecological footprint is one of the smallest in the world.

New pests and diseases: Such phenomena are another effect of the climate change, too. A few years ago, the Citrus Greening disease invaded Cuba with the intrusion of the Asian Citrus Psyllid *diaphorina citri*. Its organic management and the management of infested trees are subject of agricultural research. The same counts for the Coffee Berry Borer, *Hypothenemus hampei*, which has invaded Cuba since the nineties and presents a new challenge for organic coffee producers in the eastern provinces. Cuba's scientists are rather well prepared for such challenges, as they are very strong in locally adapted bio-control solutions. However, the harvest losses and research costs are considerable.

Economic constraints: The economic crisis has affected Cuba since the beginning of the nineties. Due to low purchasing power, the local population cannot afford premium products. Generally, the food market is not prepared for quality differentiation. With the excep-

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

tion of small amounts of coffee and sugar, certified organic products are not available on the domestic market. Another barrier is the limited resources available for investments; larger-scale projects would need considerable investments in compost production, soil management practices such as cover crops, processing technologies and marketing. In most cases, such investments require the contribution of foreign capital.

Limited access to agricultural inputs: A challenge for organic producers in Cuba is limited access to agricultural inputs. Low input strategies, therefore, are of high interest. Such strategies are not easy to implement, as there is a great deal of competition in recycling products.

High quality compost production from locally available raw materials such as coffee pulp, manure and sugarcane bagasse is an excellent alternative to synthetic fertilizers. The production of good quality compost, however, is a logistical challenge. For holdings on a scale of 200 hectares and more, quantities of 5'000 to 10'000 metric tons of raw material are needed. Such amounts are relatively difficult to obtain in Cuba, since raw materials are in high demand. Some materials are preferentially used for animal feed, including citrus pulp. Raw materials from animal origin, such as manure, are generally scarce in Cuba.

Undersown legumes supply extra nutrients, improve soil fertility and reduce leaching of nutrients. For large farms, however, the associated additional work is often a barrier.

Picture: Lukas Kilcher, FiBL

Cover crops are an excellent solution for improving soil fertility, adding additional nutrients to the soil while contributing to the management of weeds. *Arachis pintoi*, for example, is very well suited to organic citrus farming, but virtually unobtainable in Cuba. Other legumes, such as *Neonotonia wightii* and *Teranmus labialis,* are reproduced by the Instituto de Pastos y Forrajes, but remains scarce. Some organic farmers reproduce their seeds themselves.

Soil cultivation and fertilization are the factors that make organic production expensive in comparison to conventional production. This is particularly crucial for large-scale farms, where labor is scarce and mechanization for soil cultivation, compost production and compost application is needed. Such investments are difficult to implement in Cuba, as in some cases these tools are not available, and in other cases, the cooperatives cannot afford them.

Opportunities on the international and domestic market

The challenges for organic agriculture in Cuba are many, but at the same time, there are great opportunities. The quality of Cuban organic products is highly regarded on the international market. Some fruit varieties used in Cuba are of extraordinary taste, such as the

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

coconut and the grapefruit varieties predominant in the eastern mountains. Another factor may be the low input and yield level, which leads to a higher concentration of aroma-substances in the harvest.

On the domestic market, the combination of ecotourism and organic agriculture is of considerable interest. Organic coffee producers discovered this opportunity, and they sell their coffee to international tourists. For local tourism, there is a high potential, especially for fruits and vegetables such as guava, papaya and tropical tubers.

Organic products from Cuba are exported with success in Europe. For Cuba, this is the first time that its tropical fruit products are sold with a label of origin

Picture: Lukas Kilcher, FiBL

Domestic food security is a top concern in Cuba, and has become more important since the enormous damage caused by the last hurricanes. One of the strong features of organic agriculture is its reliance on fossil-fuel independent and locally available production assets; working with natural processes increases cost-effectiveness and resilience of agro-ecosystems to climatic stress. Organic agriculture has the potential to improve food security in Cuba, with reduced inputs and environmental impacts. On the political level, this discussion of low input versus high input agriculture in order to solve food security problems is going on very intensively.

Organic movement on the move

The Cuban state has been supportive through the establishment of specialized institutions, legislation, research, teaching and extension, and through productive practice. Drafts for a national legislation are in preparation. However, organic inspection to date has been conducted exclusively by international certification bodies. In the view of the Ministry of Agriculture, the critical mass for a Cuban inspection and certification body has not yet been reached.

The Cuban initiatives on organic agriculture are supported by a grouping of agrarian researchers and advisers who have pooled their specialist knowledge on organic agriculture and organized themselves since 1992 as the *Grupo de Agricultura Organica* (GAO), which was transformed after a couple of year into the *Asociación Cubana de Técnicos Agrícolas y Forestales* (ACTAF). ACTAF periodically organizes national meetings with international guests. The most recent one took place in May 2008, the VII International Meeting on Organic and Sustainable Agriculture. The first years of the Cuban movement (late 1980s and early 1990s) were more focused on technical alternatives, resulting in clear demand for technological support during the transition process for a more sustainable agriculture. Consequently, Cubans have developed an exemplary scientific approach, especially in biological control and other products within a framework of inputs substitution. This has changed in the last years. The Cuban movement is step by step integrating with the small

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

farmers' movement (ANAP - ACTAF) and pursuing a holistic approach, understanding organic agriculture beyond the mere technological tool. Organic agriculture is not only a tool for agroecology; it can also contribute to solving critical national and global challenges, such as food security and climate change.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Dominican Republic

RAFAEL MARTY GARCIA[1]

The Republic Dominican comprises 48'442 km^2 with a population of 8'230'722 habitants. According to State Secretary of Agriculture (SEA), the country has 1'945'700 hectares dedicated to agriculture. Of this surface, 873'300 hectares are in crop production, and 1'072'400 hectares are dedicated to animal production.

Table 42: Dominican Republic: Land use, production and number of farmers in organic agriculture in 2007

Crops	Certified (converted) Area in (Hectares)	Area in Conversion (hectares)	Exported Product (tons)	Number of farmers	Number of farmers in conversion period
Bananas	14'875	77.5	152'552	1'395	130
Cocoa	59'102	20'299	33'156	10'635	180
Mangoes	506.95	15.6	6'176	18	10
Lemon	1'569.7	-	1'950	8	-
Avocados	389.7	3	5,511	50	5
Coffee	7'936.51	3'724	1'133	1'346	1'027
Coconuts	2'878	147	13'954	61	12
Vegetables	0.1	-	12	1	-
Macadamia	148.2	-	9	37	-
Grassland	167	-	-	3	-
Passion fruit	3	-	-	3	-
1Manihot	350.6	-	514	50	-
Oranges	3.8	-	-	12	-
Other agricultural land	10'883.5	-	-	-	-
Total	**98'823.48**	**24'266**	**214'962**	**13'628***	**1'364***

Source: Oficina de control de agricultura orgánica de la SEA, 2007

Please note: This table does not include production for the local market.
*The total number of farmers includes individual growers, companies, groups of farmers, cooperatives and NGOs.

[1] Rafael Marty Garcia, Calle Victor Estrella Liz Num. 6-A, Santo Domingo Este, Provincia Santo Doming, Rep. Dominicana

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

According to the organic certification agencies operating in the country[1] and confirmed by the SEA, more than 120'000 hectares are dedicated to organic production, including areas in conversion. This constitutes about 6.3 percent of the agricultural land, and the share of the cropped area is even higher. Of the total 449'165 farmers registered by the SEA, four percent (18'000 producers) practice organic agriculture, and around 14'000 are certified.

Organic production in the Republic Dominican started at the beginning of 1980s, and it was originally introduced by the US expert Marcos Freeman in a community called Rio Limpio in the province of Elias Pina. In 1995, the Dominican Association of Organic Agriculture (ADAO) was founded. In 1997, cooperation with the Japanese Development Agency was initiated to carry out research on organic agriculture. In June 2001, the National Council of Organic Agriculture was created (by a presidential decree Nr. 695-010). The Department of Organic Agriculture (DAO) was created in September 2003, and by February 28, 2005, the National Organic Program (PRONAO) was established through resolution No. 8.

The main actors in the organic sector are: producers, certification agencies, traders, processors, external inspectors and internal inspectors (internal control systems). The local organic market still very poorly developed; there are, however, some supermarkets and specialized stores offering and selling organic products. The certification system is private, and mostly foreign certification agencies are active in the country. The participatory certification model is a new initiative that is now developing.

The Dominican Republic has the following legislation for the production, processing, and marketing of organic products:

(a) Presidential Decree Nr. 819-03, 820-03, 223-08, establishes the legal base and rules for the production, processing, packaging, labeling, storage, transport and commercialization of products that carry labels referring to organic agriculture and the control system.
(b) Resolution 15-08 creates the regulation for the organic agriculture in the Dominican Republic.

The central government focuses its support mainly on capacity building, technical support, elaboration of organic fertilizers and integrated management of pest and diseases. It also supplies loans through the agrarian bank. On cooperation and development programs, the German cooperation (GTZ) and other programs of the European community are carrying out a cooperative program between the Dominican Republic and Haiti with the objectives of protecting the environment and supporting the development of organic agriculture. The Dominican Research Institute of Agriculture and Forests (IDIAF) is carrying out investigations to control pest and diseases by developing and adapting crop varieties.

Based of the increase in surface cultivated and number of producers being registered for organic production, the Dominican Republic forecasts a promising future for organic agriculture. This is further supported by the success of exports registered in the last years and the signed agreements with the international markets.

[1] The following certification agencies are active in the country: BCS Dominicana, IMO Caribe, Suelo y Salud.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Ecuador

MARÍA A. ROVAYO[1] AND SONIA LEHMANN[2]

Ecuador, a country located in the north of the Pacific coast of South America, is considered as one of the biologically most diverse countries of the world due to its natural resources as well as its different ecosystems (MAE, 2001). According to the official national statistics, 30.8 percent of the total land in Ecuador is used for agriculture (12'355'831 hectares). Most of the land is owned by small farmers; land distribution statistics show that approximately 75 percent of the production units are not bigger than 10 hectares (INEC-SESA, 2000). Approximately, 86 percent of the rural population is considered poor, under the indicator of not satisfied basic needs, while this percentage represents approximately 46 percent in the urban area of Ecuador (SIISE, 2007).

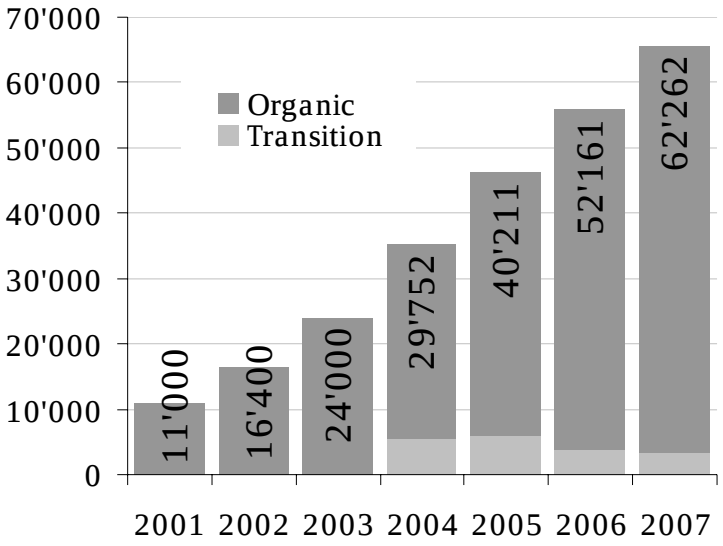


Figure 42: Ecuador: Development of the area under organic production 2001-2007

Source: Data provided by accredited organic certifiers in Ecuador.
Elaboration: authors

Includes aquaculture and wild collection area

Certified and informal organic agriculture

There are two clearly differentiated trends in Ecuador: first, the development of organic certified agriculture for the international markets, and second, agroecology, or organic agriculture without certification. The former is characterized by a close relationship with the world's market demand in products like bananas, coffee, cocoa, shrimp and some new products such as quinoa, mango and sugar cane. The application of agroecological production techniques that address environmental concerns has a clear relationship to the local market with a food security goal (Rodríguez, et. al 2007).

[1] GTZ-Programa GESOREN, Av. Eloy Alvaro y Amazonas, Edif. MAGAP, 4to piso, Quito, Ecuador ,www.gtz.de/ecuador
[2] GTZ-Programa GESOREN, Av. Eloy Alvaro y Amazonas, Edif. MAGAP, 4to piso, Quito, Ecuador ,www.gtz.de/ecuador

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

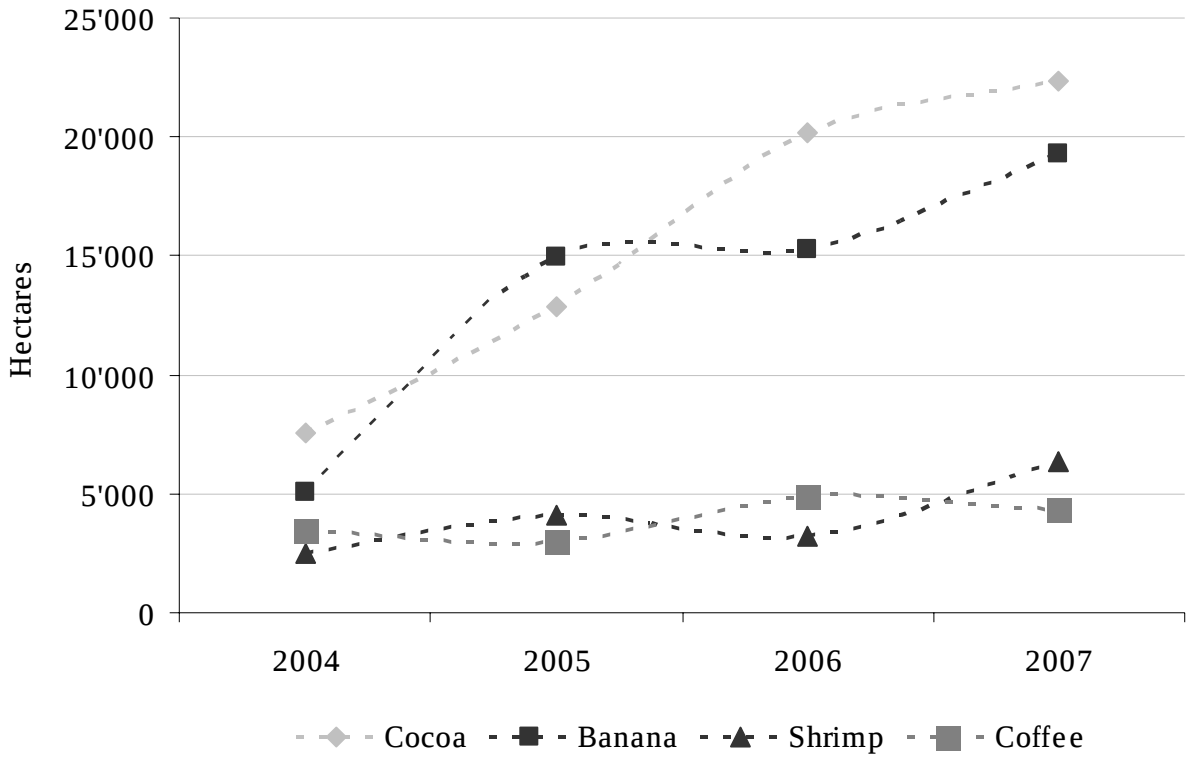


Figure 43: Ecuador: Area under organic production by main products

Source: Data provided by accredited organic certifiers in Ecuador; Elaboration: authors

According to the statistics collected by the German Technical Cooperation (GTZ) from the accredited certifiers in Ecuador, by the end of the year 2007, the area under organic certification had increased to 62'262 hectares, while the area in transition represented 3'316 hectares (including areas for wild harvested products and for aquaculture). The total area of land in organic production (certified and in transition) has been increasing in a range of 17 percent to 49 percent per year since 2001.

Cocoa, banana, shrimp and coffee are the most important organic crops in Ecuador. As shows that cocoa and bananas have demonstrated an increase over the last four years, while coffee and shrimp have been more or less stable. Other products being produced organically in Ecuador are special products from Amazonia, like mushrooms under wild collection, quinoa and other Andean cereals, mango, sugar cane and vegetables. While most of these products are directed to international markets - especially to the European market and to the United States of America, vegetables are mostly consumed in local markets.

Organic agriculture in Ecuador has been developed both by producers with large tracts of land and by small farmers. The latter are usually organized through associations to ensure volumes, quality, access certification and markets. There are 82 producers' organizations in Ecuador working with organic production systems and accredited by recognized certifiers.

A recent case study produced by GTZ showed that small coffee producer associations in Ecuador increased their profits by 114 percent (504'60 US Dollars per metric ton) within two years by exporting organic coffee to the European market (Rodríguez & Rovayo 2007).

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

The same graph also shows that there is a redistribution of the benefits to the organized producers. These results have been achieved as a result of the producers' organization working with organic production systems for a market segment oriented towards high quality.

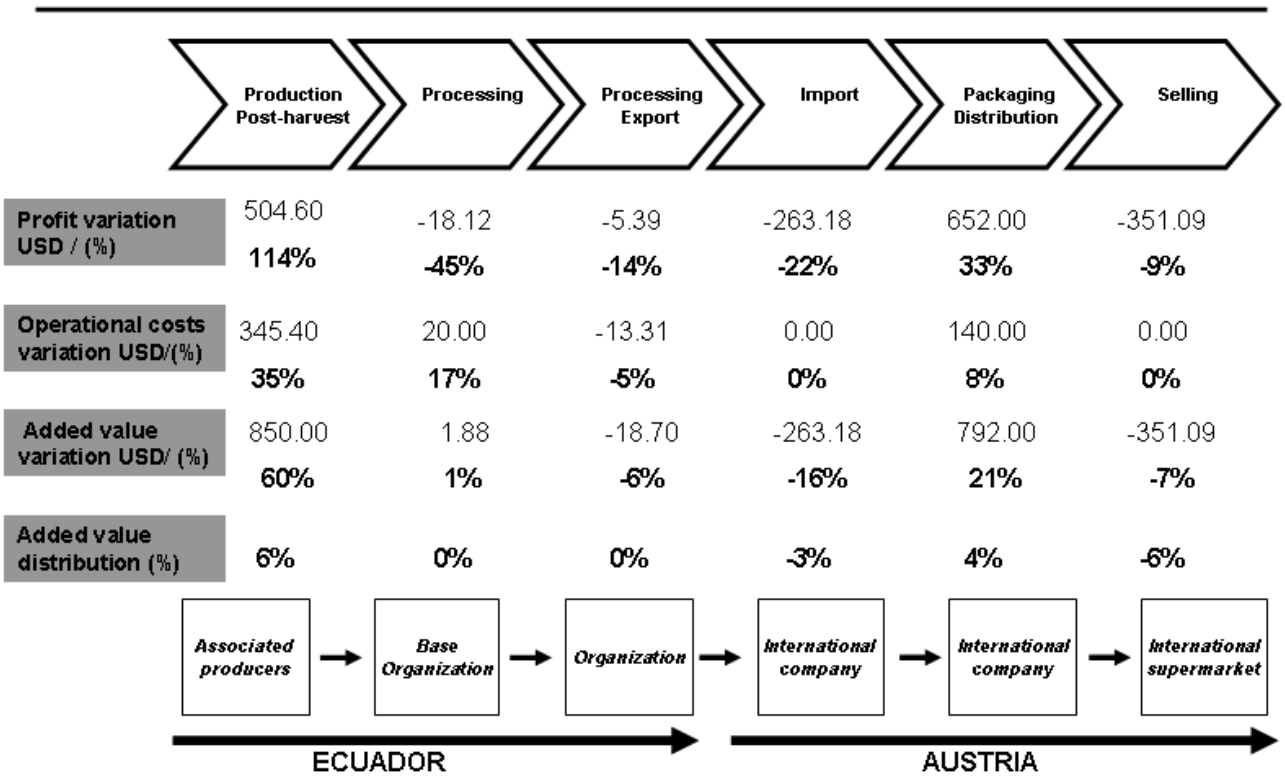


Figure 44: Ecuador: Changes in the value chain of organic coffee for small producers within two years 2004-2006 (US Dollars per metric ton)

Source: Rodríguez & Rovayo 2007

Local and international market

The local demand for organic products has increased over the last several years, due to changes in consumer awareness of health and environmental issues. Some of the organic products offered in Ecuador include vegetables, coffee, fruits and processed food. As mentioned before, Ecuadorian consumers buy certified organic certified products, as well as products from small farmers cultivated through agro-ecological practices. These products can be found in regular markets separated or mixed with conventional products; special markets or fairs, organized mostly by farmers' associations with a specific brand assuring the production under agro-ecological or organic standards, and specialist stores like MCCH or CAMARI also include fair trade aspects.

A study carried out by GTZ in 2007 showed that some certified organic vegetables in local markets receive a price premium. These premiums may vary in relation to the conventional products by 7 percent to more than 100 percent depending on the product. Lettuce may fetch an 8 percent premium, while coffee achieves premiums as high as 170 percent. Although the demand for organic products in the local market is increasing, there is not yet a regular supply. Moreover, there is still need to increase the consumers' awareness of the benefits of organic food.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

The national authority for organic agriculture is the Ministerio de Agricultura Ganadería Acuacultura y Pesca (MAGAP) through its Servicio Ecuatoriano de Sanidad Agropecuaria (SESA) and the Subsecretaria de Fomento Agroproductivo (DIPA). In 2003, the national control authority established the legal framework for organic agriculture in Ecuador. These regulations were adapted in 2006. In 2005, SESA developed the National Control System for Organic Products. Today, only locally accredited organic certifiers can perform organic certification in Ecuador. The accredited certification bodies in Ecuador are BCS Öko-Garantie, Control Union, Ecocert and Ceres. Until now, BCS certifies more than half (53 percent) of the land under organic production in Ecuador, followed by Ecocert (27 percent), BCS and CERES (both 10 percent).

Future potential of organic agriculture in Ecuador

Ecuador has an important potential in the development of organic agriculture, due to its biological diversity. Organic production will be oriented towards international and national markets, and as a result, specific requirements for certification or verification mechanisms must be pursued. As the development of organic agriculture in Ecuador is closely related to international demand, its future still depends on market participation, not only in the quantities demanded, but also in the premium that the market is willing to pay.

On the national side, the recent established national policies are also supporting the development of organic agriculture with a focus in food security. Therefore, the future of organic agriculture in Ecuador also depends on the development of the local market. Organic agriculture still represents an opportunity for small Ecuadorian farmers who can offer specialty products, such as cocoa, to the international markets, while increasing their incomes and producing food for local markets and for their families. The most important challenge for organic producers is the access to markets and the creation of long-term business relationships within the whole value chain.

Bibliography

INEC, SESA (200): III Censo Nacional Agropecuario. Ecuador.

MAE (Ministerio del Ambiente) (2001): Política y Estrategia Nacional de Biodiversidad del Ecuador 2001 – 2010. Ecuador

Rodríguez, J. Flores, J., Cáseres, C., Reyes, M.A., Weiskopf, B., Naranjo M.F. (2005). Producción Orgánica en Ecuador in: Rodríguez,J; Rovayo,M; Flores, J. (2007): Agricultura Orgánica en el Ecuador. GTZ, Ecuador

Rodríguez, J. Rovayo, M. (2007): Distribución y redistribución de ingresos en cadenas de valor: Análisis de casos en asociaciones de pequeños productores del Ecuador de café y cacao. Programa GESOREN, GTZ Ecuador

SIISE (2007): Sistema Integrado de Indicadores Sociales. Ecuador

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

El Salvador

Beatriz Alegría[1]

History

Organic agriculture in El Salvador started at the end of the 1980s – on farms that had been abandoned during the war, but which could then easily be converted. NGOs gave advice and other technical support through international development cooperation funds. CLUSA, an NGO, started its activities in the field of organic agriculture in 1992. These activities were supported by USAID and carried out in cooperation with UCRAPROBEX, an association of cooperative coffee farms. The first exports of organic coffee were realized at a time when coffee underwent a deep price crisis. The organic option constituted a major opportunity and also a motivator for other projects. At the same time, CORDES and other NGOs started organic farming projects in order to diversify production and processing, both for the domestic and international market.

Production

Currently, 7'477 hectares are under organic cultivation, of which 6'166 are certified organic, and a further 1'311 are in conversion. The products with the largest areas are coffee, sesame, cashew and coconut; the first three are also the most important export products, constituting a total value of 9.2 million US Dollars in the time period January to August 2008. Coffee constitutes more than 80 percent of the export value.

The key actors

There are about 2000 producers practicing organic methods. They also serve an important role in disseminating knowledge on organic agriculture, and as a result they are giving an important boost to the growth of the organic sector in El Salvador. Other operators include processors, traders and exporters. In this context, it is important to mention El Salvador Organics that markets the products of the members of the Organic Movement of El Salvador MAOES. 28 groups of producers, as well as small companies that process and market 100 different fresh and processed products, are members of MAOES. NGOs that manage projects financed by international cooperation agencies offer advice and technical support for the development of the organic supply chain. The University of El Salvador is currently the only university that cooperates directly with the organic movement MAOES.

Domestic market

MAOES has two specialized shops, as well as a shop with cafeteria where products of the members of the movement are sold. These activities are carried out by MAOES' marketing branch El Salvador Organics. Supermarkets are selling some fresh vegetables and fruit as well as processed products. There are also local markets in the city of San Salvador and in the interior of the country. Most of them are run by member organizations of MAOES or

[1] Beatriz Alegría, Responsible for Marketing, Consorcio CLUSA-CORDES, www.elsalvadororganico.com.sv

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

organizations supported by the government. The main export markets are the United States, Japan, Canada, Germany, UK, France, Belgium, Italy and Australia.

Table 43: El Salvador: Export value of major products

Product	FOB Value in US Dollars[1]						
	2004	2005	2006	2007	2008*	Share 2008 (%)	Change 2006/ 2007
Cashew nuts	110'612	136'854	104'676	74'590	21	1%	-29%
Organic coffee washed	1446'579	2337'309	2493'544	5133'750	8750'843	84%	106%
Organic coffee roasted	906	2'428	958	400	348	0%	-58%
Sesame seeds in shell	592'947	465'061	352'450	898'685	450'000	15%	155%
Shelled sesame seeds	308'521	91'800	482	8		0%	-98%
Sesame oil	1					0%	
TOTAL	2459'568	3033'452	2952'109	6107'434	9201'212	100%	107%

Source: Based on Inteligencia Competitiva, Ministerio de Economìa (UC) and Centro de Trámites de Exportación-Banco Central de Reserva (CENTREX-BCR) data

Figures for 2008 are from January to August

Participatory Guarantee Systems

In the framework of a project to promote the organic sector (carried out by the consortium CLUSA-CORDES), MOAES initiated three producers groups in different part of the country and started to implement Participatory Guarantee Systems (PGS). It is hoped that, in 2009, this work can be continued with other groups. All of them are expecting to use a PGS seal that should help them to market their products on the national market.

Legislation

There is a directive on organic production, processing and certification (Decreto No. 52 of May 2004). Currently a law is being drawn and a new version of the existing rules for the production, processing, handling and certification of organic products is underway. The new rules were elaborated by the Ministry of Agriculture MAG and the members of MAOES. As a reference the Codex Alimentarius was used.

Government and international support

Some state extension services are offering advice. This is, however, limited, as not all advisors are trained in organic agriculture. The export promotion agency – Exporta El Salvador –

[1] The f.o.b. price (free on board price) of exports and imports of goods is the market value of the goods at the point of uniform valuation, (the customs frontier of the economy from which they are exported). Source: CODED – the Eurostat Concepts and Definitions Database at circa.europa.eu/irc/dsis/coded/info/data/coded/en/gl008349.htm

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

and the Ministry of Agriculture MAG are co-financing the participation of organic enterprises at trade fairs as well as international marketing activities.

The main international cooperation agencies active in the country in the field of organic agriculture are those from Austria, Spain and Switzerland.

Research & Advice

Currently, research is mainly carried out by producers on their own accord. The agricultural research institutes normally do not work on organic agriculture. Some small research projects are carried out by the students of the University of El Salvador and those of other training institutions.

Technical assistance and training for farmers is offered by NGOs in the framework of various projects.

Outlook

It is expected that organic agriculture will see a further positive development in the future. The activities of MAOES in the five past years have made a major growth of the cultivated area possible as well as a diversification of products and markets.

Additionally, the government policy from November 2008 will support organic agriculture. Once implemented, it can be expected that a positive effect on the development of organic agriculture will be felt in the short and medium term.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Guatemala

EDDIE MANOLO DE LA CRUZ BERGANZA[1]

During the 1970s, foreigners living in Guatemala began environmental initiatives focusing on the optimum use of the natural resources and the conservation of the environment. Between the end of the 1980s and beginning in the 1990s, organic agriculture emerged with growth also driven by emerging market demand.

During 2007, Guatemala's organic production further increased due to improved organic registration and control systems (in place since 2006), which makes it possible to accurately document the development and trends in organic production.

The leading organic crop: coffee

Currently, 73 organic operators are registered (individual producers, producer groups, processors, and traders), and there is a total of 5'400 producers. 6'300 hectares are under organic management (fully converted) with an estimated production of 5'400 metric tons, with the national average being 0.85 metric tons per hectare. The leading organic crop is coffee, accounting for more than 90 percent of organically managed land area. Recently, there has been a diversification of organic production and vanilla, black tea and strawberries are of increasing importance.

Picture: Coffee is one of the main export products

Organic farming is strongly promoted by the National Commission of Organic Agriculture (CNAE), consisting of representatives of the public, private, productive, consumer, education and the service sectors. CNAE has the function of supporting the regulatory development of organic agriculture. It also coordinates the promotion and development of organic agriculture with different institutions. Within the public sector, there are two institutions that promote and develop organic production; one is the Organic Agriculture Office at the Unit of Norms and Regulations of the Ministry of Agriculture. It is the competent authority and is in charge of regulatory framework and government support for organic agriculture in Guatemala. PRONAGRO, which is part of the National Food Pro-

[1] Eddie Manolo de la Cruz Berganza, Área de Agricultura Orgánica, Unidad die Normas y G, Domicilio: 7 aveniza 12-90, Zona 13, Anexo Edificio Monja Blanca, Ciudad de Guatemala, Guatemala, Tel. +502 241373-85, Fax +502 24137387, E-mail mdelacruz@maga.gob.gt; www.maga.gob.gt

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

gram of the Vice-Ministry of Food Security, supports organic production focusing on exports.

Local and international market

The local market in Guatemala is not well developed, but there are initiatives like regional markets, some specialized stores and, very recently, the introduction of direct sales to consumers. One weakness of the organic sector is that many products for local consumption are not certified due to the high cost; however, there are initiatives to develop the national market for organic products. The supermarkets have started to sell organic products by opening special areas in their stores. The main products for export are coffee, cardamom, sesame, vanilla, black tee, bananas and strawberries. The main export markets are the European Union, with 47 percent of the exports, and the US (35 percent). 18 percent of the exports go to other countries such as Japan.

In Guatemala, there are six international certification bodies, and three of these are registered by the Government, including the local Mayacert. The others are in the process of registering and there is good coordination between them and the government. Other certification agencies are active, but these are not registered by the authorities. The Participatory Guarantee Systems (PGS) has not been established completely in the country, but it is showing some good results. PGS is an alternative to international certification, but the country's small producers are still undecided over PGS's advantages and disadvantages.

Guatemala has had regulations related to organic agriculture since 1999. The legal framework is set by four ministry agreements and one governmental agreement including:

- Ministry agreement 1173-99; to create the National Commission of Organic Agriculture (CNAE).
- Ministry agreement 1317-2002; to authorize the Technical Manual of Organic Agriculture., - the standard that regulates and promotes organic agriculture in Guatemala,
- Governmental agreement 145-2002; to create the Guatemalan Office of Accreditation (OGA) within the Ministry of Economy.
- Ministry agreement 652-2007; to modify the functions and enlarge the CNAE.
- Ministry agreement 400-2008; to authorize the Manual for the evaluation of the Producer Groups Systems. The EU demanded that Guatemala implement a reference guide for certification agencies, including minimum parameters to be considered for evaluating groups of producers - this manual provides that basis.

The organic regulation has been developed in way that Guatemala will comply as a third country exporter under European Union regulations; however, the regulations need to be adapted to the national reality and to help promote the development of the domestic market in order decrease the dependence on international markets.

The Organic Agriculture Office at the Unit of Norms and Regulations supports the access to new markets, both national and international, supports small producers with the access to different certifications, carries out trainings for producers on the organic regulations, and helps to establish cooperation between institutions in order to support the development of research and the generation of information. PRONAGRO supports the producers directly by

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

providing organic inputs and materials for the production of compost, carries out trainings on the principles of organic agriculture and supports the establishment of organic family gardens with a focus on food security.

Numerous cooperation projects

In Guatemala, there are various international cooperation agencies that support organic agriculture, such as the JICA (Japan), HIVOS (The Netherlands), HELVETAS (Switzerland), VECINOS MUNDIALES (World Neighbors, an international organization), GTZ (Germany) and ADA (Austria) – in cooperation with the Regional Unit for Technical Assistance (RUTA). The Inter-American Institute for Cooperation on Agriculture (IICA) and local authorities have initiated the project 'Organic Production and Knowledge Development,' which aims to facilitate market access for small farmers. A further aim of this project is the development of a National Strategy for the Promotion and Development of Organic Agriculture, involving the entire organic sector of Guatemala.

Research on organic agriculture is not yet established formally in Guatemala. To date, governmental institutions have not seen the importance of generating information through research. The academic sector has done research mainly through student theses, mostly related to organic fertilizers. There are groups and individuals offering consultancy and trainings. The state offers trainings on the organic norms and regulations.

Promising development ahead

The future of organic products in Guatemala is very promising, but more institutional support and financial resources are needed for the organic sector to make progress. The interest in organic agriculture has mainly been driven by concerns related to the protection of natural resources and improvement of agricultural land. The missing institutionalization of the Office of Organic Agriculture within the Ministry of Agriculture is currently a weakness. Commercial organic production in Guatemala is still new, but there is an interest from all parts of the agricultural sector to promote and offer the necessary tools to support organic farming in order to produce more healthy and nutritive products.

Picture: Mixed cropping system

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Mexico

MANUEL ÁNGEL GÓMEZ CRUZ, RITA SCHWENTESIUS RINDERMANN, LAURA GÓMEZ TOVAR, JAVIER ORTIGOZA RUFINO[1] AND ERIN NELSON[2]

In 1967, Chiapas' *Finca Irlanda* certified its coffee production as biodynamic, thus becoming the first organic operation in Mexico to achieve official certification status. During the 1980s, other private coffee producers, including *Rancho Alegre, Finca San Miguel, Finca La Granja* and *Finca Montagua,* began to certify their production as well. One of the most recognized organic coffee producers – the cooperative UCIRI[3] – began the shift to organic agriculture in 1982, largely as a result of the influence that Liberation Theology had on the cooperative's members. UCIRI achieved organic certification in 1988. In northern Mexico, organic vegetable production began in 1985, with the small-scale, low-income producers' cooperative *Productores Orgánicos del Cabo* in Baja California Sur. During these early years of development, the primary actors in the Mexican organic agriculture sector were non-governmental organizations, export-oriented businesses and religious groups. The Mexican state had very little involvement in organic agriculture during this period.

Table 44: Mexico: Economic importance and growth rate of organic agriculture

Year	1996	1998	2000	2004/2005	2007	Annual Growth Rate
Land area (ha)	23'265	54'457	102'802	307'692	403'268[4]	29.61
Number of producers	13'176	27'914	33'587	83'174	128'819	23.03
Jobs created	13'785	32'270	60'918	150'914	172'251	25.81
Foreign currencies (US Dollars)	34'293'380	72'000'000	139'403'992	270'503'000	394'149'000	24.85

Source: CIIDRI – CIESTAAM, 2008

[1] Researchers at the Centro de Investigaciones Interdisciplinarias para el Desarrollo Rural Integral (CIIDRI), Chapingo University, Mexico, Tel. and Fax +52 595 95 2 15 06. E-mail ciidri@yahoo.com.mx, rsr@avantel.com, gomezlaura@yahoo.com, ortigoza_06@yahoo.com.mx

[2] University of Guelph, Canada

[3] Union de Comunidades Indigenas de la Region del Istmo (Union of Indigenous Communities in the Isthmus Region), www.uciri.org

[4] Includes wild collection areas; only land area with full organic status.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Dynamic growth of the organic sector

Today, the Mexican organic sector is characterized by dynamic growth. This stands in stark contrast to other subsectors of Mexico's agricultural economy, which have suffered severely as a result of economic crises. Since 1996, the amount of land dedicated to organic production has grown by approximately 30 percent annually. For the end of 2007, it is estimated that 403'268 hectares were being farmed organically by more than 128'819 producers.

The vast majority (91.6 percent) of the organic land is dedicated to crop production, while the rest is used for livestock and beekeeping. On average, organic agriculture uses 30 percent more labor than conventional production, thus creating 172'000 jobs per year (see Table 44).

Export oriented production

The majority of organic goods produced in Mexico are intended for the export market – primarily going to the United States and the European Union, but also to a lesser extent to Japan and other smaller countries. By far the most significant organic export crop is coffee, which accounts for 61 percent of Mexico's organic land (or 239'763 hectares). In addition, 35'000 hectares are used for vegetable production, 16'000 for cacao, 10'000 for avocado, and significant amounts for agave, mango, coconut, aloe vera, corn, citrus fruits, honey and sesame, all of which are produced almost exclusively for export. In contrast, organic livestock production in Mexico is still in the early stages of development and is currently marketed exclusively within the country. In most cases, organic meat products sold within Mexico are not differentiated in the market from conventional goods.

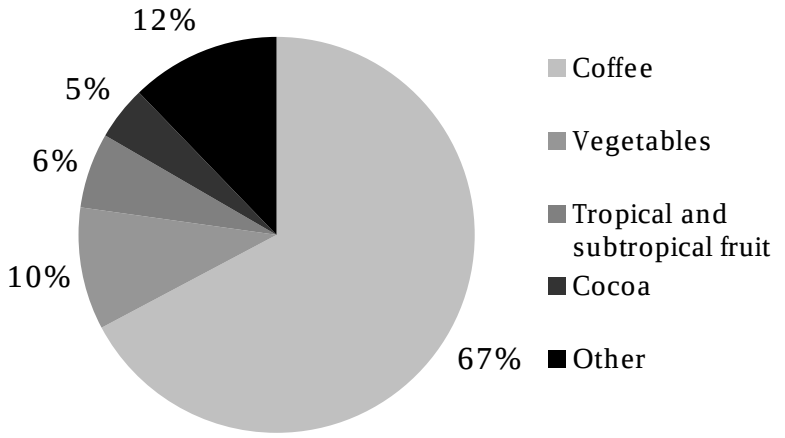


Figure 45: Mexico: Main crop categories. Converted agricultural land

Source: CIIDRI – CIESTAAM, 2008

Although growing numbers of medium and large-scale producers have been drawn to organic production as a means of accessing the lucrative export market and thus increasing income, the Mexican organic sector continues to be dominated by small-scale farmers, many of whom are Indigenous. These producers tend to be organized in groups, some of which represent more than 12'000 members. In 2007/2008, up to 99.9 percent of organic producers were classified as small-scale. These producers have an average of 3.02 hectares, and they farm 93.9 percent of the organic land in Mexico. Between 2004-05 and 2008, the percentage of Mexico's Indigenous organic producers grew from 58 percent to 83 percent. Today, 22 different Indigenous groups are involved in organic production. The most important Mexi-

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

can states in terms of organic production are Chiapas and Oaxaca, which account for 36 percent and 24 percent of the national organic production respectively. Querétaro is responsible for 7.7 percent of the country's organic production, followed by Guerrero, Tabasco, Michoacán, Veracruz, Sinaloa and Jalisco. Ninety percent of Mexico's organic land is located in the aforementioned states.

Twenty-one agencies are involved in organic certification in Mexico. With the exception of Certimex, all of these agencies are based in foreign countries – 11 in the United States, four in Germany, one in Italy, one in Switzerland, one in Sweden and one in Guatemala. Certimex is the most important certifier in the country, certifying 25 percent of all organic land (77'000 hectares). Germany's Naturland and the American Organic Crop Improvement Association (OCIA) are also very prominent. In recent years, participatory guarantee systems (PGS), or participatory certification, has become increasingly important in the Mexican organic sector. PGS is actively promoted primarily by the Mexican Network of Organic Markets and was recognized as a viable certification option in article 24 of the country's new law governing organic products.

Growing domestic market

In spite of the continued dominance of export-oriented production in the Mexican organic sector, over the past five years the internal market for organic goods has also shown significant growth. Today, organic products can be found in supermarkets, specialty stores, health food stores, cafés and restaurants in many of the country's major cities, as well as in tourist zones and areas where organic production is concentrated. In addition, the Mexican Network of Organic Markets, which was founded by four local organic markets 2004, today represents 20 such markets across the country – for example in Chapingo, Oaxaca, Tlaxcala, Guadalajara, Puebla, Jalapa, Cuautla and Los Cabos. In some of these markets, the demand for organic goods currently exceeds the supply.

In recognition of the growing importance of the organic sector to Mexico's agricultural economy, the government has begun to take steps towards increasing involvement. At the state level for example, some governments currently provide assistance to organic producers and to those trying to make the transition to organic production. At the national level, in February 2006 the Mexican government passed a law governing organic products. This law sets standards regarding the regulation and promotion of the organic sector, including the organic guarantee system for local markets. In order to help facilitate the implementation this legislation, the Ministry of Agriculture (SAGARPA) recently created a National Council of Organic Production. This council consists of more than twenty members, representing organic producers, processors, certification agencies, academics and government representatives. To date, the specific details of the law's implementation have not been decided upon. In spite of the importance of this new law, a broad strategy or national policy designed to assist the growth of the organic sector remains lacking.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Venezuela

LUISA DÍAZ JAIMES[1] AND FÉLIX MORENO-ELCURE[2]

History

Organic farming started in 1992 with the production of coffee in the states of Falcon, Merida and Tachira on small family farms with diversified production, which are organized in cooperatives. In the state of Merida, the Friedrich Naumann Foundation (Germany), the Soil Association (UK) and the NGO Cooperation for the Sustainable Development (CODESU) were crucial for the development of certified organic production. There is the experience of the Cooperative Quebrada Azul. A similar development took place in the state of Tachira, where remarkable experiences were made with organic technologies, albeit without certification. In 1990, in Las Lajitas, state of Lara, the Cooperative Alliance initiated organic production of vegetables and medicinal plants, sold at local markets; this production was also not certified. The foundation FUNDAGREA supported the promotion of organic agriculture and the establishment of national and international relations.

Production

Organic production of certified coffee, cocoa, banana, fruits and medicinal plants has increased significantly in the states of Merida, Falcon, Aragua and Miranda. Organic farming has been promoted by foundations, farms and companies; coffee, cocoa, fruits, macadamia nut, cassava, honey, herbs and spices are the most important products. The certified surface is growing, and currently there are 681 hectares of certified organic land. Furthermore, there are about 1760 hectares in conversion. There is also a certified processor of biscuits.

Key players

Even though organic production has been present for more than 10 years, it has not yet established a foothold in the country. Private organizations have played an important role in promoting the establishment of producer organizations (FUNDAGREA, CODESU, Foundation Tierra Viva). Furthermore, national research and education organizations, including the Central University of Venezuela (UCV), the Interamerican Center for Environment and Territorial Development and Research (CIDIAT), the University Simón Rodríguez (USR), the Universidad de Los Andes (ULA), the National Experimental University of Táchira (UNET), the National Agricultural Research Institute (INIA) and governmental institutions like the Ministry of Science and Technology and the Ministry of Agriculture and Land have also played an important role in this process.

[1] Luisa Díaz Jaimes, Instituto Nacional de Investigaciones Agricolas INIA, Hacienda Bramón- Bramon, estado Táchira, Venezuela 5001. www.inia.gob.ve

[2] Felix Augusto Moreno Elcure, Universidad Nacional Experimental del Tachira, Av. Universidad, Edif. B, Decanato de Investigación UNET, Paramillo, San Cristobal, Táchira, Venezuela 5001, www.unet.utafoundation.org and www.unet.edu.ve/lasas

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

The Market

Organic products and the organic labels are well known by consumers; however, many organic products are imported or processed outside Venezuela as processing is not well developed in the country. The experience of the Cooperative 'Alliance' in the state of Lara is the most important experience regarding the marketing of organic fresh products. At the international level, export activities have concentrated on the USA and EU.

Certification

Some certification agencies support the farmers that want to produce organically. CODESU is a national inspection body that cooperates with a UK certification agency and also with IMO Control Latin America. External certifications have been carried out by Biolatina and Soil Association Certification Ltd (SAcert). The cooperative association ACOBIOT (Asociación Cooperativa Biotropico) is a national organic certification agency, while Cacao Bene is a certification agency that accredits and inspects according to the IFOAM standards. Participatory certification is carried out through the Cooperative Alliance (vegetables and fresh herbs). There is an institutional legal basis in the organic law on security and sovereignty of agro food. This addresses the safety and food quality with the aim of developing an organic and sustainable agriculture, reduce the cost of production and increase agricultural productivity. In the state of Táchira, the State Commission for organic production supports the development of organic agriculture.

Legislation

There is no organic national law that supports the organic sector. Support of the sector takes place through strategic plans promoted by the government. An example is the plan for coffee, which includes training about the development of the crop with agroecological methods. The European cooperation program supported sustainable development in the national park Henri Pittier in the framework of the "Park, Man and Cocoa" initiative[1]. Under this program, the first certification of organic cocoa of Venezuela was achieved. Furthermore, there is a project on the development organic production of vegetables in Tacarigua, state of Carabobo, in the framework of the agricultural cooperation agreement between Venezuela and Iran.

Research

Organizations such as the Friedrich Naumann Foundation, Fundagrea, Foundation Tierra Viva and CODESU play an important role in the development of organic agriculture. Some universities and the National Agricultural Research Institute (INIA) have some activities focused on the development of organic inputs and organic seeds. At the level of professional training, the Technical University of Tachira (UNET) teaches the subject of agroecology.

With the advances of the innovation networks of from the Ministry for Science and Technology, the organic sector will see a considerable development in the production as well as the processing.

[1] Information on this project is available at the homepage of the Equator initiative at http://www.equatorinitiative.net/content.lasso?cid=233

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Latin America: Tables: Organic land area, land use, producers

Table 45: Latin America: Organically managed agricultural land and producers by country 2007

Country	Year	Total land under organic management [ha]	Share of total agricultural land	Land fully converted [ha]	Land under conversion [ha]	Producers
Argentina	2007	2'777'959	2.15%	2'777'959	–	1'578
Belize	2000	1'810	1.19%	–	–	68
Bolivia	2006	41'004	0.11%	–	–	11'743
Brazil	2007	1'765'793	0.67%	932'120	833'673	7'250
Chile	2007	13'564	0.09%	13'564	–	550
Colombia	2007	38'587	0.09%	30'092	8'395	–
Costa Rica	2007	7'860	0.27%	7'860	–	2'921
Cuba	2008	14'314	0.22%	–	–	2'954
Dominican Rep.	2007	123'089	6.33%	98'823	24'266	14'992
Ecuador*	2007	49'196	0.65%	45'880	3'316	221
El Salvador	2007	7'478	0.44%	6'166	1'312	2'000
Guatemala	2008	7'684	0.17%	6'366	1'318	11
Guyana	2003	109	0.01%	–	–	28
Honduras	2008	8'448	0.29%	–	–	1'825
Jamaica	2006	437	0.09%	–	–	11
Mexico	2007	393'461	2.86%	357'061	36'400	128'819
Nicaragua	2008	70'972	1.33%	56'648	14'323	7'407
Panama	2005	5'244	0.24%	–	–	7
Paraguay	2006	17'705	0.07%	–	–	3'490
Peru	2007	124'714	0.59%	88'703	36'011	36'093
Suriname	2007	40	0.04%	–	40	1
Uruguay	2006	930'965	6.23%	930'965	–	630
Venezuela	2007	2'441	0.01%	681	1'760	–
Total		**6'402'875**	**1.03%**	**5'352'890**	**960'814**	**222'599**

'–': No data
* Ecuador has 6'382 hectares of shrimps which are not included in the above figure.

Source: FiBL Survey. For details on data sources and data providers see chapter on global organic survey

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Table 46: Latin America: Land use and main crop categories 2007

Main use	Main crop category	Land under organic agricultural management [ha]
Agricultural land, no details	Agricultural land, no details	1'912'979
Arable land	Cereals	34'235
	Fallow land as part of crop rotation	350
	Flowers and ornamental plants	17
	Industrial crops	10'993
	Medicinal & aromatic plants	5'767
	Oilseeds	18'797
	Other arable crops	8
	Protein crops	1'230
	Root crops	851
	Seeds and seedlings	47
	Sugarcane	32'771
	Vegetables	39'553
Other	Forest	996
	Other, no details	11'367
	Unutilized land/fallow land	13'556
Permanent crops	Citrus fruit	10'751
	Cocoa	139'325
	Coconuts	13'296
	Coffee	371'382
	Grapes	6'927
	Medicinal & aromatic plants, permanent	1'791
	Olives	6'747
	Other permanent crops	24'309
	Permanent crops, no details	6'416
	Tea	774
	Temperate berries	2'704
	Temperate fruit	8'407
	Temperate nuts	90
	Tropical and subtropical fruit	73'385
	Tropical and subtropical nuts	1'570
Permanent grassland	Permanent grassland	3'477'055
Cropland, no details	Cropland, no details	174'432
Total		**6'402'875**

Source: FiBL survey. For details on data sources and data providers see annex.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Table 47: Latin America: Wild collection and bee keeping 2007

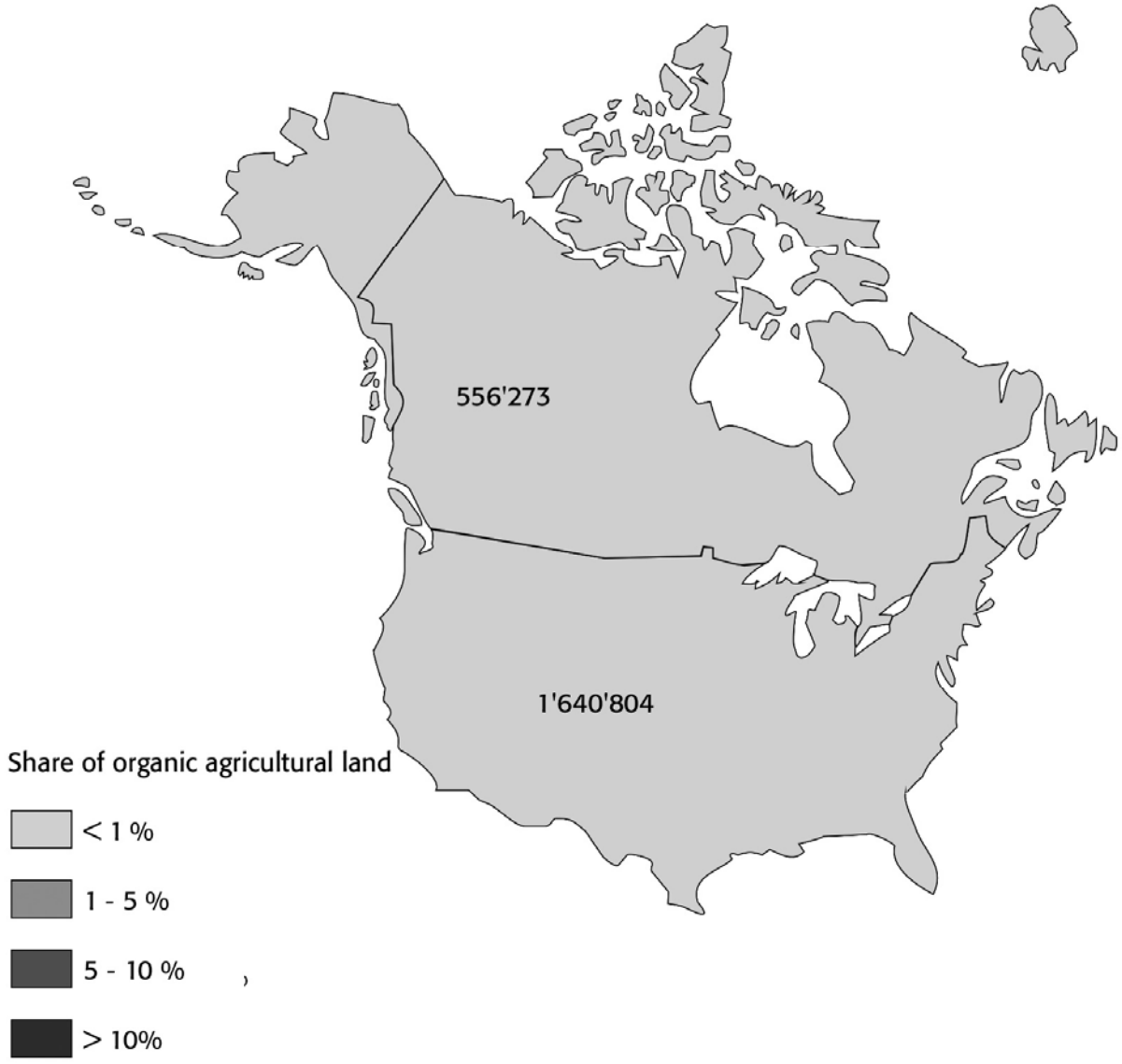
Country	Main crop category	Area [ha]
Argentina	Bee keeping	597'725
	Wild collection, no details	6'639
Bolivia (2006)	Temperate nuts, wild	1'028'556
Brazil	Wild collection, no details	6'182'180
Chile	Wild collection, no details	16'878
Colombia	Palmito, wild	6'800
	Wild collection, no details	6'800
Ecuador	Mushrooms, wild	2'000
	Wild collection, no details	8'000
Mexico	Medicinal & aromatic plants, wild	60
	Temperate fruit, wild	12'192
	Tropical and subtropical fruit, wild	3'527
	Vegetables, wild	230
	Wild collection, no details	30'199
Peru	Temperate nuts, wild	191'532
Uruguay (2006)	Wild collection, no details	2'300
Total		8'095'618

Source: FiBL Survey. For details on data sources and data providers see annex.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

North America



Map 6: North America: Land under organic management (hectares)

Source: FiBL Survey

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

United States

Barbara Haumann[1]

U.S. agriculture in general faced challenges during 2008, with massive floods in the Midwest and two major hurricanes in the South devastating farmland and farm livelihoods during the summer, record-high production costs, volatility in grain and oilseed markets, and food and fuel prices soaring domestically and abroad. The good news for U.S. organic agriculture, however, was the final passage of the 2008 Farm Bill by the U.S. Congress.

The Organic Trade Association (OTA) along with other organizations and companies devoted many hours to advocate for organic provisions in the latest farm bill. Increasing mandatory expenditures on organic agriculture and programs to approximately 112 million US Dollars[2] over the course of its five-year life, the resulting 2008 Farm Bill provides a five-fold increase for the organic sector compared with federal funding in the 2002 Farm Bill.

Specific provisions concerning organic agriculture include the following:

- 78 million US Dollars over five years to increase funding for organic research that will bring new technical, scientific, and marketing analysis to farmers and processors
- 22 million US Dollars to aid organic farmers in financing the cost of conversion
- 5 million US Dollars in mandatory funding, plus up to 5 million USD per year in appropriations, for the U.S. Department of Agriculture (USDA) to collect and distribute price reports for organic agricultural products, to conduct surveys and publish reports relating to organic production, including consumer purchasing patterns, and to provide statistical analysis on organic agricultural products, and
- By 2011, funding for the National Organic Program could triple to help facilitate appropriate enforcement and accreditation, as well as oversight of international production. By 2012, the authorized funding for this program will be 11 million US Dollars.

Two of the biggest winners were research and the certification cost-share programs. For instance, research programs garnered 78 million US Dollars over the life of the bill. It will provide for new research in improving conservation and environmental outcomes of organic farming and in developing new and improved seed varieties especially for organic farming. The increased spending on research will also provide farmers with more technical support for converting to organic production.

Having achieved its goal of securing increased funding for the organic sector in the 2008 Farm Bill, OTA, the Organic Farming Research Foundation, and others within the sector continue to work with USDA to ensure that the organic provisions are implemented and funded.

[1] Barbara Haumann, Senior Writer/Editor, Organic Trade Association, 60 Wells Street, Greenfield, MA 01301, P.O. Box 547, Greenfield, MA 01302-0547, Direct Phone: 413-376-1220, Or: 413-774-7511, Ext. 1220, E-mail: bhaumann@ota.com

[2] Average exchange rate 2008: 1 US Dollars = 0.68341 Euros. Source: The OANDA homepage at www.oanda.com

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Table 48: US: Total mandatory spending on organic agriculture: 2002 and 2008 Farm Bills

Topic	2002	2008
Certification cost share programs	5 million US Dollars	29.5 million US Dollars
Research	15 million US Dollars	78 million US Dollars
Production and market data collection	No specific funding	5 million US Dollars
Total	20 million US Dollars	112.5 US Dollars

Note: In 2000, separate from the Farm Bill process, there was an additional 5 million US Dollars for certification cost share for farms in specific states. In addition to mandatory funding, the 2008 Farm Bill also authorized funds that might be allocated during the appropriation process. This chart focuses only on mandatory spending.

New administration

As this article was going to press, the U.S. organic sector was looking expectantly to new possibilities with the election of Barack Obama as U.S. President.

"The election of Barack Obama as President bodes well for the future of local and organic food in America," according to Jim Slama, president of FamilyFarmed.org based in Illinois. Slama noted that Obama is a long-time proponent of sustainable agriculture and local food systems.

Among Obama's positions during the presidential campaign were pledges to increase funding for cost-share for organic certification to encourage farmers to transition to organic production and to reform crop insurance to make it equitable for organic farmers.

Time will tell if, in fact, these positive expectations will be fulfilled.

Economic fallout

During 2008, rising fuel and food prices led U.S. consumers to re-think how and where they spent their money. Despite the economic downturn, many U.S. shoppers made purchasing decisions based on the issues and values important to them, centering on home, health, family and sustainability as top priorities. As a result, organic products were viewed as part of the solution to issues surrounding global climate change and environmental concerns.

For instance, U.S. shoppers indicated that choosing organic products is important to their health — they want to avoid purchasing foods produced with toxic and persistent pesticides, synthetic growth hormones, genetically engineered seeds, and sewage sludge. Many U.S. consumers see a link between agricultural practices and the health of the earth, and how those systems are interconnected with human health. The core organic consumers in particular equate organic practices with helping to protect water supplies, countering the effects of global warming by keeping carbon in the soil, and building biodiversity.

According to The Hartman Group, 86 percent of Americans trust the "USDA Organic" label.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

With organic products appearing on store shelves in mainstream retail outlets around the country, U.S. consumers have found that buying organic is easier and more affordable than ever before. Lower cost private label products are also widely available and are believed to have made major headway during 2008. For instance, Safeway's O Organics private label food line of more than 300 items reported sales of 300 million US Dollars in 2007, with sales expected to reach 400 million US Dollars in 2008, according to a Sept. 7, 2008, article, "The Story of O," on Brandweek.com.

Because organic agriculture is not as dependent on expensive farm inputs created through burning oil and natural gas, prices for organic products in 2008 did not rise as fast as for non-organic products. This reduced the price gap and made organic an affordable alternative to non-organic products.

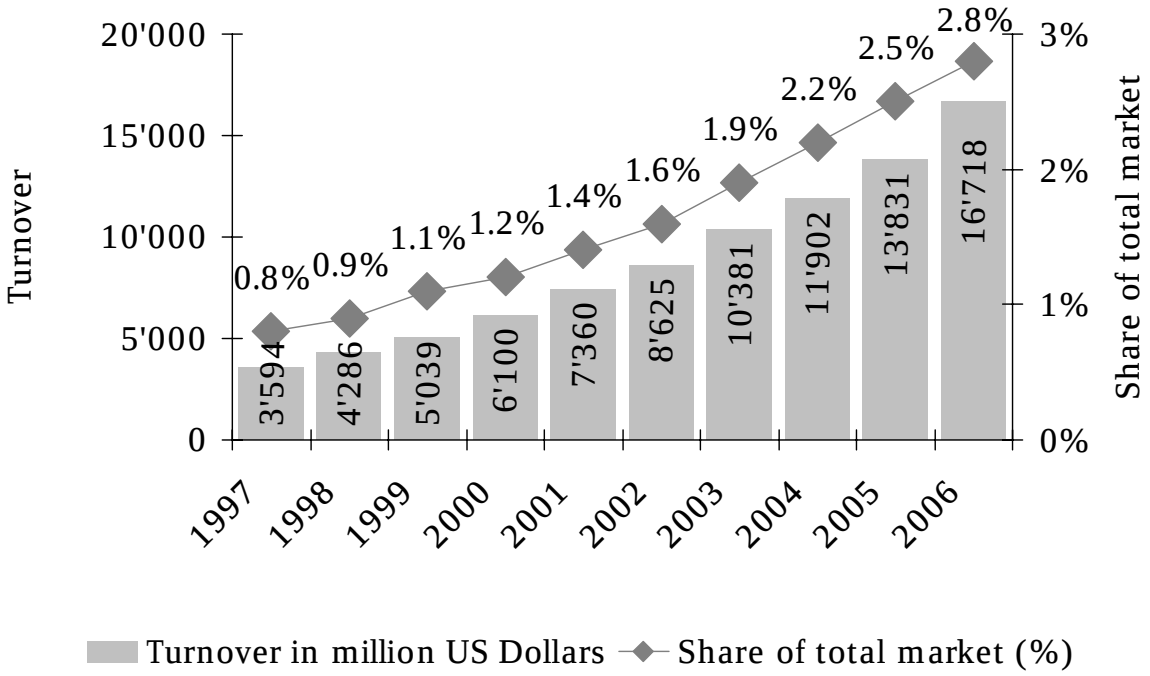


Figure 46: United States: Development of the organic market (turnover and share) 1997-2006

Source: OTA Manufacturer Survey 2007

According to the Organic *Trade Association's (OTA) 2007 Manufacturer Survey*, the U.S. organic industry grew 21 percent in sales in 2006, and was forecast to experience 18 percent sales growth each year on average from 2007 through 2010. Whether this rate will actually be realized is uncertain due to the economic downturn and reduction in consumer spending in the last quarter of 2008. However, organic sales were expected to grow by double digits as organic companies continued to report healthy growth.

For instance, The Hain Celestial Group on Nov. 3, 2008, announced record sales for the first quarter ending Sept. 30, 2008, of its current fiscal year, up 22 percent over the prior year's first quarter sales. "We are pleased that, even with the economic difficulties experienced in many markets, consumers increased their demand for our natural and organic food and personal care products. We are also pleased to see that the sales momentum experienced in

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

the first quarter continued through the month of October," said Irwin D. Simon, president and chief executive officer, in a company press release.

Meanwhile, Green Mountain Coffee Roasters, which sells both conventionally and organically grown coffee, reported its sales grew by 45 percent in its 2008 fiscal year.

This display at a Market Street store in Lubbock, Texas, captured the grand prize in the 2008 Go Organic! for Earth Day™ retail competition. The Go Organic! campaign is a partnership of the Organic Trade Association, Earth Day Network and MusicMatters. More than 3'550 stores took part nationwide in the campaign during 2008.

Picture: OTA

Further opportunities for growth within the organic marketplace exist thanks to the declining price gap between organic and non-organic products. The drop in this gap can be attributed to three factors: 1) in 2008, non-organic food prices were rising relatively faster than their organic equivalents due to heavier dependence on fossil fuels and historic reliance on government subsidies to keep their prices artificially low; 2) organic products are becoming widely available in large-scale retail channels, and are consequently being offered at lower prices than in the past; and 3) lower-priced private label products are assuming a prominent role in the organic marketplace, creating additional downward pressure on the existing organic/non-organic price gap. Together, these factors create conditions under which consumers' purchasing decisions will be driven by issues other than cost.

Consumer research released in 2008 by The Natural Marketing Institute (NMI) revealed that U.S. consumers are increasingly incorporating organic into their lifestyles. Total household penetration across six product categories had risen from 57 percent in 2006 to 59 percent in 2007. The research also showed that the number of core users, has increased from 16 percent in 2006 to 18 percent in 2007. Other findings published by The Hartman Group in 2008 showed over two-thirds (69 percent) of U.S. adult consumers buy organic products at least occasionally. Furthermore, about 28 percent of organic consumers (about 19 percent of adults) are weekly organic users. Organic categories that continue to be of

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

high interest to consumers are dairy, fruit, vegetables, prepared foods, meats, breads and juices, according to the report.

The main reasons cited by U.S. consumers for buying organic products have included taste, environmental responsibility, freshness, social responsibility, and a belief that organic products are better for their children. Consumers have also said they do so

- To avoid products that rely on pesticides or other chemicals
- To avoid products that rely on antibiotics or growth hormones
- For nutritional needs
- To support the environment
- To avoid genetically modified products
- Due to health reasons other than allergies
- Because they taste better
- To support sustainable agriculture.

Shoppers buying organic meat have cited better health and treatment of the animal, better nutritional value, better taste, positive long-term health effects, and freshness. Price historically has been the biggest hurdle to more purchases.

In 2008, consumer interest in buying environmentally friendly products and organic food remained high among Northwest natural and organic product consumers despite tough economic times and rising food and energy prices. Market research by Mambo Sprouts Marketing released in 2008 showed that consumers in Washington and Oregon see buying 'green' as a priority. More than nine in ten consumers (92 percent) reported buying the same (54 percent) or more (38 percent) environmentally friendly products compared to six months earlier. Rather than cutting out such products, consumers report they are using money-saving strategies, such as using coupons, stocking up on sales, and cooking meals at home to stretch their grocery dollars.

Meanwhile, a Harris Interactive® online survey conducted for Whole Foods Market during August 2008 showed that despite rising food prices, 79 percent of consumers did not want to compromise on food quality and 70 percent continued to buy the same amount of natural and organic foods as always. Findings also showed two in three adults preferred to buy natural or organic products if prices are comparable to those of non-organic products. Overall, the survey found that 74 percent of adults purchase natural or organic foods, with 20 percent saying that more than one-fourth of all the groceries they buy are natural or organic. In addition, 66 percent of adults would like to find ways to buy natural or organic foods within their budget.

Female consumers will often purchase or pay more for a brand that is associated with a cause program, according to findings in the 2008 PRWeek/Barkley Cause survey. "Despite current economic troubles, consumers and corporations are investing time and money in various charities," wrote Jaimy Lee in an article in the Oct. 27, 2008, issue of *PRWeek*. Overall, 66 percent of moms surveyed said they have purchased a brand because it supports a cause. Meanwhile, firms interviewed indicated they are responding to consumer demand for cause marketing, with 67 percent saying they have a cause program, and 97 percent of chief marketing officers indicating cause marketing is a valid business strategy.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Studies, such as the 'BBMG Conscious Consumer Report,' show consumers increasingly identify themselves as conscious consumers, choosing products that show socially responsibility and are environmental friendly. In addition, a growing number of consumers prefer to purchase from companies that support social, community, and environmental interests.

According to a Ketchum report, 'Food 2020: The Consumer as CEO,' consumers around the world will expect the way they choose and shop for food will be different. In the survey of 1'000 consumers from the United States, the United Kingdom, Germany, Argentina and China conducted in July and August 2008, 75 percent of respondents said they want businesses to create foods that reduce the risk of major health issues, with 56 percent indicating companies should make foods with more nutrients per calorie. In addition, 63 percent of respondents want to be able to recognize all of the ingredients on a food label. Globally, more than 40 percent said they would be likely to pay more for food if it would improve the quality of water and food and bring medicines to those in need.

Consumer confusion

However, many U.S. consumers still are confused about the meaning of organic. One of the most frequently cited reasons for consumer confusion is the use of technical language to define organic. Also, the challenge is to educate consumers about the true costs and values associated with organic products. Thus, many see the need for the sector to better communicate to consumers the value proposition for organic goods.

As a 2006 Hartman Group survey of consumer attitudes and behavior points out, "Awareness does not necessarily translate into understanding." While 27 percent of respondents thought that the label was reserved for 'totally organic products,' 43 percent admitted that they didn't know the label's meaning. Even among core organic consumers, only 24 percent knew the correct meaning of the 'USDA Organic' label.

The Hartman Group's 'Organic 2008: Topline Insights' study found little progress on this front. In this study, consumers identified 'pesticide-free' and 'hormone-free' among their top considerations (48 percent and 35 percent , respectively) in buying products. Given that U.S. organic products are, by definition, produced without the use of toxic and persistent pesticides and synthetic hormones, one would think the phrase 'organic' would be considered equally as important. However, only 15 percent of those surveyed identified organic as important to their purchasing decisions, suggesting consumers do not connect the term organic to its attributes.

Complicating this challenge is increasing competition from other eco-labels, which are generally ill defined and unregulated. As a result, the Organic Trade Association (OTA) in November announced that the 1'700 member organization was launching an extraordinary consumer marketing and public relations campaign that will reach more than 25 million consumers in the year 2009 alone.

"This unparalleled effort to educate consumers about the benefits of organic comes at an historic point of change for America," explained Christine Bushway, who assumed her position as Executive Director, OTA, in September. "Never has there been as much evidence backing the benefits of organic to public and environmental health, as many organic farmers

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

on the land, and as many educational programs preparing a new generation of organic farmers. But never in recent years has there been as high a level of consumer spending confusion and concern. The role of this campaign is to set the record straight and help consumers make the educated choice."

The campaign will include strategic marketing and public relations initiatives that are being implemented under the direction of organic marketing veteran Laura Batcha, OTA's Marketing Director. Featured components of the plan include:

- Generating trial and purchase of organic products through the award-winning "Go Organic for Earth Day™" retailers program, a new Go Organic™ for Back to School sales promotion, and the bi-annual *Taste for Life* special magazine issues.
- Building organic's cachet among consumers by rolling out a fully integrated advertising campaign for organic, re-launching OTA's consumer web site and e-newsletter The O'Mama Report for greater mainstream appeal, and sponsoring consumer events ranging from intimate in-home consumer parties to large-scale demonstration events.
- Spearheading major on-line presence of organic through proactive use of web 2.0 tools to correct inaccuracies and proactively communicate about organic. Tools include: "Organic on the Green: A Blog to feed the organic revolution in campus dining"; a bi-monthly Blogwatch tracking organic coverage; OTA Blog, to provide an organic perspective; and upgraded Member Forum technology, and
- Delivering information tools to OTA members and increasing their use, especially the OTA Manufacturers Market Survey, and launching the first-ever Organic Input Almanac to quantify and communicate environmental benefits of organic.

Dairy label challenges

Meanwhile, during 2008, a state-by-state campaign challenged dairy farmers' and dairy processors' rights to tell consumers that their products are produced without the use of synthetic growth hormones such as *rBST*.

On June 30, 2008, OTA filed a complaint in Federal District Court against Ohio's Director of Agriculture, Robert J. Boggs, in an attempt to protect the rights and consumers to receive truthful information about organic production practices on milk and dairy product labels, and to protect the rights of organic dairy farmers and processors to communicate truthfully about federally regulated organic production practices.

The final outcome of this lawsuit had yet to be determined by the time this article went to press. However, Monsanto's attack on organic milk labeling forced the industry to fight similar battles in many states simultaneously, putting a drain on industry resources. The issues at stake, however, are monumental, focusing on the whole industry's ability to truthfully communicate the attributes of its products and production practices, including common absence claims.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Regulations and standards issue

On the regulatory and standards front, USDA on Oct. 24 published a proposed rule in the *Federal Register* proposing to amend the National Organic Program (NOP) livestock standards to clarify the role pasture plays in the production of organic ruminants. This was drawn up to help address questions that had arisen since the 2002 rule implementation to strengthen and further spell out requirements specifically for organic dairy herd management. The proposed rule took into consideration previous comments from the organic industry, consumers and other organizations, as well as several National Organic Standards Board recommendations.

Highlights of the proposed rule included:

- A definition of "growing season," and the requirement that all animals over the age of six months must be on pasture throughout the growing season.
- Animals must receive 30 percent of their dry matter intake (DMI) from pasture.
- A definition of "temporary confinement," and clarification of periods of temporary confinement, and
- A pasture practice standard that addresses the management of pasture as a crop.

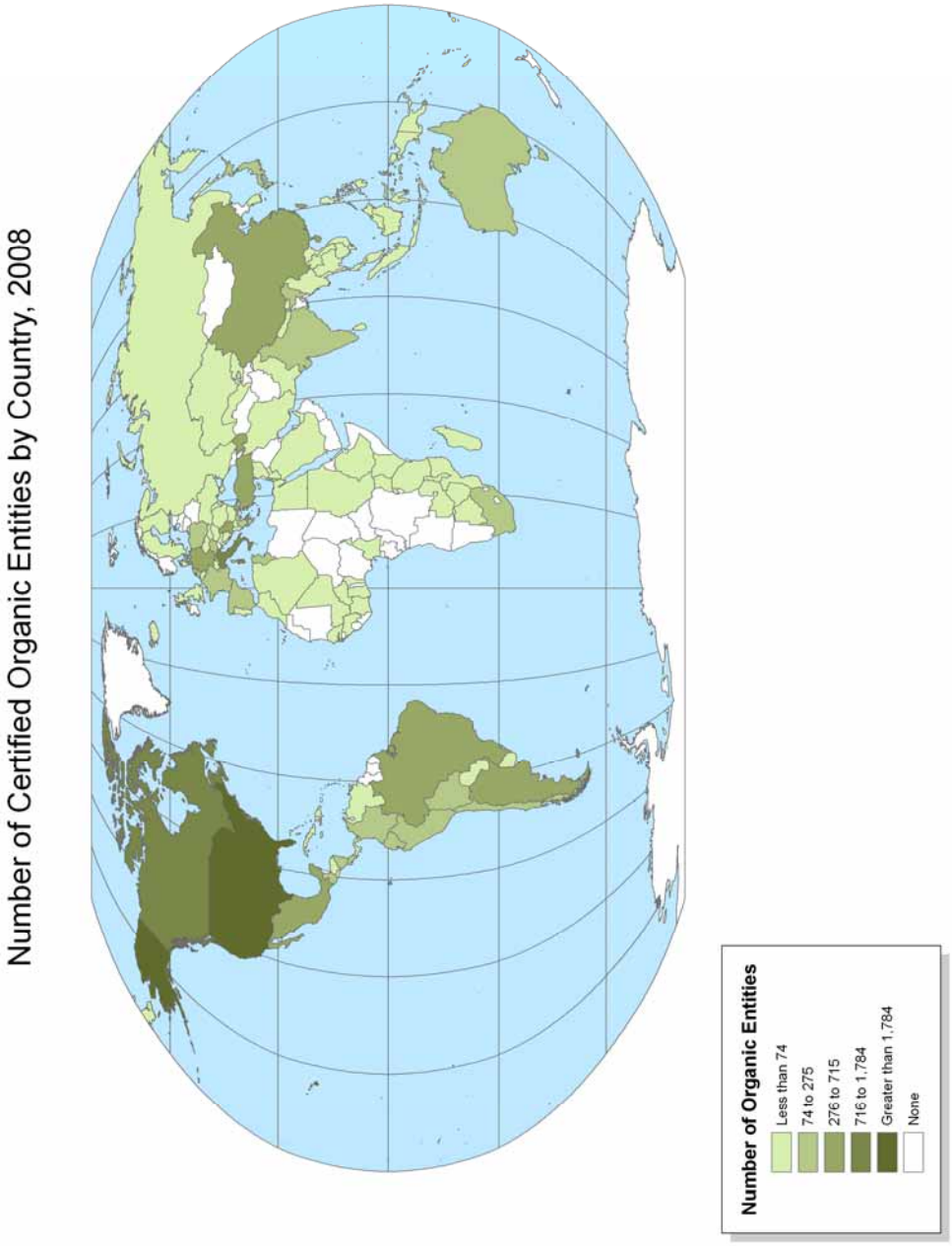
OTA, as well as the National Organic Coalition, Food and Water Watch, Center for Food Safety, other organic organizations, an OTA task force on the issue and other OTA members (retailers, farmer producers, processors, and certifiers), thoroughly studied the proposed rule and planned to submit public comments on its possible strengths and weaknesses.

At its November 2008 meeting, the National Organic Standards Board (NOSB) passed several key recommendations, reviewed materials, and elected new officers as part of its nearly 30 hours of meetings in Washington, D.C. Officers for 2009 include Jeff Moyer of Rodale Institute as chair, Daniel Giacomini, independent livestock nutritionist, as vice-chair, and Julie Weisman of Flavorganics as secretary.

After considerable public input and discussion, NOSB passed recommendations on feed for aquatic animals, and the use of net pens in aquaculture. It made several significant revisions to the proposals including specific recommendations about how net pens must be sited, that native species should be used, and that predators and the surrounding environment must not be adversely affected by the pens.

NOSB also passed recommendations on pet food and multi-site certification systems. Other actions included votes on several petitioned materials. These recommendations now go the National Organic Program staff for the next phase of the process of establishing national regulations in these areas.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick



Map 7: US: Number of certified entities according to the US Organic Standard NOP by country in 2008

Source: USDA, National Organic Program, 2008. www.ers.usda.gov/ briefing/organic

NOP certifications outside the US

According to data provided by USDA's National Organic Program (NOP), certification and governmental bodies accredited by NOP in 2007 certified 27'000 producers and handlers worldwide to the U.S. national organic standards. Of these, approximately 16'000 were certified in the United States, with an additional 11'000 operations certified outside the

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

United States. See Map 7 and Figure 47, provided by Catherine Greene, USDA, Economic Research Service).

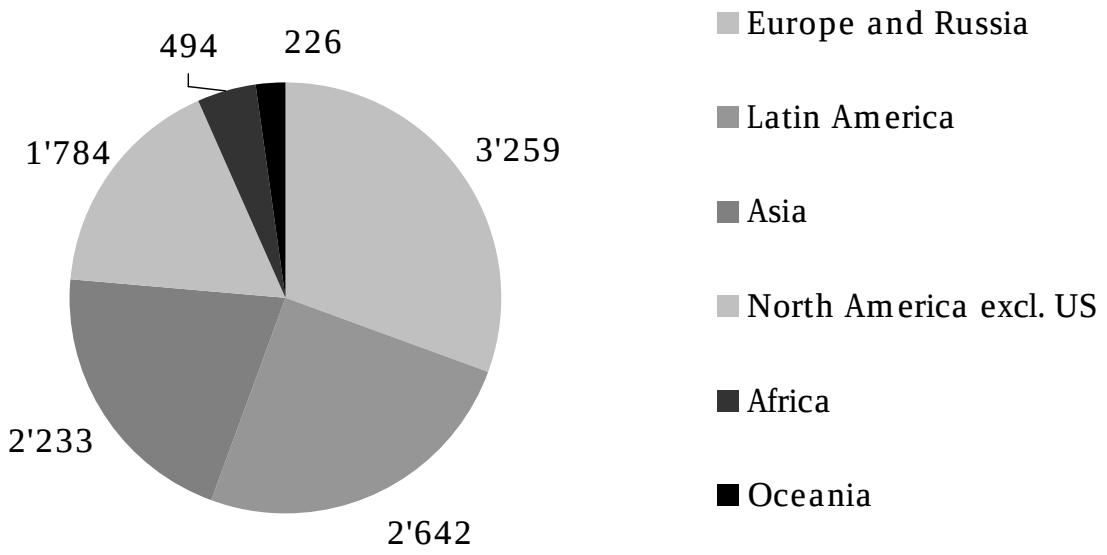


Figure 47: United States: Number of certified entities by the US by region

Source: USDA, Economic Research Service.

Domestic supply

Still of urgent concern for the U.S. organic sector is the gap between the domestic supply and demand for organic goods. Demand continues to outpace supply, and many domestic suppliers are struggling to keep up. This is due, in large measure, to the shortage of organic raw materials—a problem that has persistently hindered the growth of the organic industry and has yet to be effectively resolved.

Domestic manufacturers and retailers have thus been forced to reach out to foreign sources to meet consumer demand. In so doing, they have created conditions of dependency, which could hinder the expansion of the domestic organic industry. Also, some consumers are reluctant to purchase imported products, particularly as people may question food safety oversight in some countries.

There are emerging incentives for more domestic production. The 2008 U.S. Farm Bill included 22 million USD in cost-share funds for farmers to help defray their certification costs. The funding, channeled through the individual states, can provide payments up to 75 percent of an individual producer's or handler's certification costs, up to a maximum of 750 USD per year. However, additional educational efforts for farmers to convert will also need to occur in the coming years.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

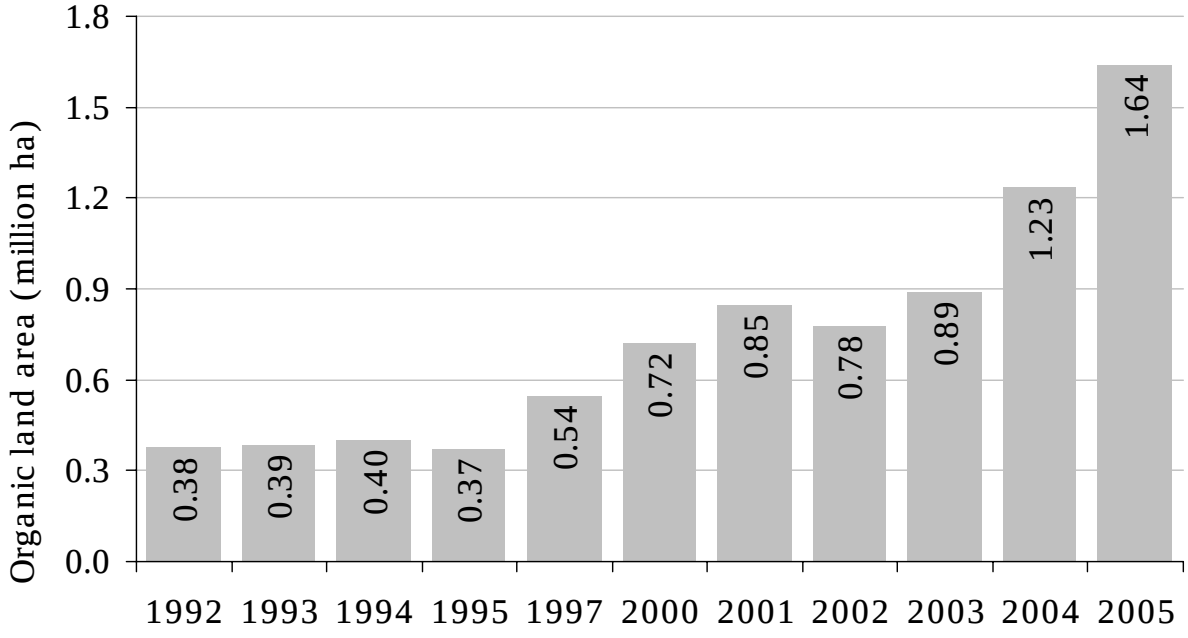


Figure 48: United States: Development of the organic land area 1992-2005

Source: USDA, Economic Research Service

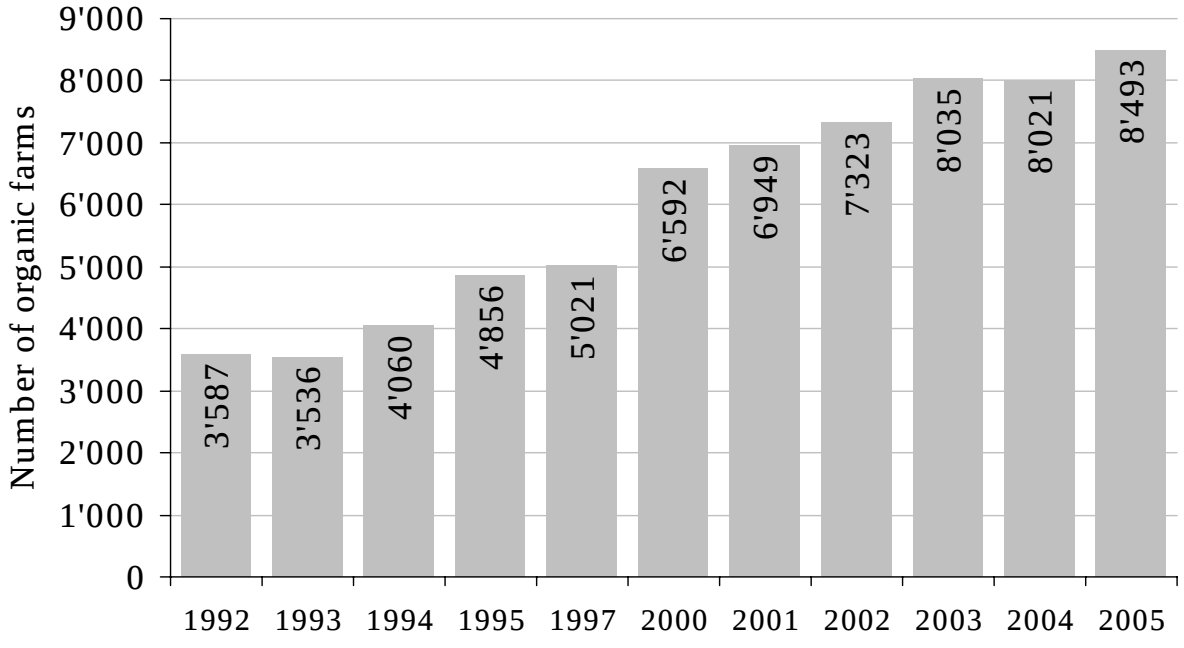


Figure 49: United States: Development of the number of organic farms 1992-2005

Source: USDA, Economic Research Service

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Export barriers are also seen as a threat to the organic industry. These barriers tend to be either technical or regulatory in nature. Adding to export barriers is the lack of equivalency within the international organic marketplace. Different countries have different organic standards, which, in some cases, align with U.S. organic standards and in other cases conflict with them. Now more than ever, there needs to be a focus on achieving international equivalency in order to ensure much-needed free trade of organic goods.

Meanwhile, to meet supply concerns, more efforts are needed to get more farmers on board to meet rising demand for organic products. This will require efforts by governments, states, regions, universities and other educational institutions.

Research

A critical part of this effort will be to build the databank on peer-reviewed research that helps prove the attributes of organic agriculture as well as provide technical research on organic agricultural practices. Although agrochemical companies have funded research at land-grant universities for many years, universities and research centers have had few resources for research on organic agriculture. This could change somewhat with funding for organic research provided as part of the 2008 Farm Bill.

Despite the lack of financial support for organic agricultural research, a number of universities now offer degree and certificate programs in organic agriculture. Some progress already has been achieved in this area. In North America, the University of Guelph in Canada was the first university to offer an organic agriculture degree. Since then, numerous colleges have begun offering courses in organic agriculture and even established organic experimental farms. Here are some examples.

- Iowa State University in 2004 named Kathleen Delate as the first tenured professor in organic agriculture in the United States.
- The University of New Hampshire's Burley-Demerritt Farm in Lee, NH, is the nation's first organic dairy farm at a major land grant college. This organic research dairy farm began shipping organic milk in January 2007.
- New York State awarded a 4.9 million US Dollar grant to help establish the Center for Organic and Sustainable Agriculture at Alfred State College. The new facility houses New York's first on-campus organic dairy herd. The college also developed New York's first degree program in organic agriculture.
- The University of Florida at Gainesville established an organic agriculture undergraduate degree program beginning with the Fall 2006 term. Colorado State University and Washington State University both began offering similar programs in the Fall 2006 semester.
- Beginning in the Spring 2007 semester, Delaware Valley College in Doylestown, PA, offered a course entitled "Organic Crop Science."
- One of the University of Nebraska at Lincoln's four research plots to study production challenges on organic farms has been certified by the Organic Crop Improvement Association International. The certified land at the High Plains Agricultural Lab near Sidney grows organic wheat, proso millet, peas, forage and other crops.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

- Michigan State University started a one-year certificate program in organic farming in January 2007. The university began its student organic farm in 2002.

Meanwhile, the Organic Farming Research Foundation (OFRF) continues to award grants for research projects regarding organic. Between 1990 and 2008, OFRF awarded 268 grants totaling more than 2 million US Dollars. A complete list of the grants since 1990 is available on the OFRF web site (www.ofrf.org).

Conclusions

Until OTA releases its next Manufacturer Survey results (anticipated by March 2009) and USDA's Economic Research Service publishes updated data on U.S. certified organic acreage, it is unclear whether the U.S. organic sector continues to grow at the pace it had been over the past decade. However, it is evident that U.S. consumer interest in organic products continues to remain strong. Despite tough economic times, consumer concerns over global warming as well as more awareness about "green" initiatives and focus on personal values will bode well for the future of organic sales and growth in the United States.

Reference

BBMG, Consumers are Changing the Rules of Marketing. Are You Ready," from the BBMG Conscious Consumer Report, November 2007.

Harris Interactive ®, 2008.

The Hartman Group, The Many Faces of Organic 2008, Summer 2008.

The Hartman Group, Organic 2008: Topline Insights, 2008.

Ketchum, "Food 2020: The Consumer as CEO," 2008 (ww.ketchum.com/food2020_news_release)

Mambo Sprouts Marketing, 2008.

Molyneaux, Maryellen: The changing face of organic consumers, Food Technology 61:22-26, 2007.

The Natural Marketing Institute (NMI), 2008 (www.NMIsolutions.com).

Organic Trade Association's 2007 Manufacturer Survey, October 2007.

Organic Trade Association Strategic Marketing & Public Relations Plan, July 2008.

PRWeek/Barkley Cause survey, 2008, www.barkleysus.com/articles/view_article_pdf/42.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Canada

MATTHEW HOLMES[1] AND ANNE MACEY[2]

Canada's organic market

A quickly growing market

Like much of the world, the Canadian organic market has seen double-digit growth for the past number of years. Now, as Canada readies for the launch of its new mandatory regulation and standards in June 2009, and the heightened awareness of organic products that will come with it, the market is preparing itself for continuing growth and consumer demand.

Although strong regional and seasonal organic markets can meet local demand, the majority of Canada's organic consumer products continue to be imported (estimated at more than 80 percent), with most coming from the United States. Other key source countries include the European Union, Turkey, China, Brazil, Argentina, Mexico, Indonesia, Paraguay and India.

Canada is also a major exporter of both raw commodity and finished products. Statistics Canada reports that many of Canada's organic field crops are exported - not processed, sold or eaten in Canada. According to the Canadian Wheat Board, over 71'000 metric tons of Western Canadian certified organic wheat, durum, and barley were sold in 2005 (over 50 percent of it to the US market).

Following a benchmarking market study released by the Organic Agriculture Center (OACC) 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.[3] Other studies have estimated the market worth as high as three billion Canadian Dollars.

Building on the OACC report, the Organic Trade Association (OTA) in Canada has compared extensive data tracking the import of more than 60 major commodities and packaged products coming into the country over the past few years. Using Statistics Canada's Harmonized Serial Code data for specific organic products, we have been able to extrapolate growth trends and apply them more generally to the market itself (assuming distribution share remains roughly constant).

Given the significant growth in imports between 2006 and 2007, we are able to estimate that the Canadian market would have reached 1.65 billion Canadian Dollars by 2007. Further, using the same data up to the end of June 2008, projections for Canada's organic sales

[1] Matthew Holmes, Managing Director, Organic Trade Association in Canada, PO Box 6364, Sackville, NB E4L 1G6 Canada, www.ota.com/otacanada.html
[2] Anne Macey, Canadian Organic Growers Inc., 323 Chapel Street, Ottawa ON K1N 7Z2, www.cog.ca
[3] Average exchange rate during 2008: Canadian Dollar = 0.68215 Euros and 0.9441 US Dollars. Source: The OANDA homepage at www.oanda.com

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

in 2008 reach 2 billion Canadian Dollars, marking an impressive doubling of the market in two years. However, it is important to note that these figures are estimates and not based on actual point-of-sales data. It is expected that the final quarter of 2008 (not covered by the data) may experience a downturn based on global economic conditions having an impact on the sector. Regardless, the market growth in Canada, paired with the introduction of the new organic regulations, should provide a bright outlook for the organic market in Canada over the coming years.

According to Macey (OACC 2007), mainstream supermarket chains have responded to consumer demand and now sell over 40 percent of all organic food in Canada, estimated at 411.6 million Canadian Dollars in 2006 (representing close to one percent of total retail food sales). Large natural food store chains and independent health food stores accounted for another 329 million Canadian Dollars, and an estimated 174.7 million was sold though smaller grocery stores, warehouse clubs, drug stores and other specialty stores. Direct sales of certified organic produce at farmers' markets across the country and at the farm gate were estimated to be worth at least 50 million Canadian Dollars, while organic food box delivery programs brought in another 20 million.

New consumer data

Macey (2007) demonstrates that consumers in British Columbia buy more than those in other provinces: 13 percent of the country's population buys 26 percent of organic food. Alberta showed the largest annual growth in retail sales, with a 44 percent increase, followed by British Columbia and the Maritimes (34 percent), Ontario (24 percent) and Quebec (21 percent).

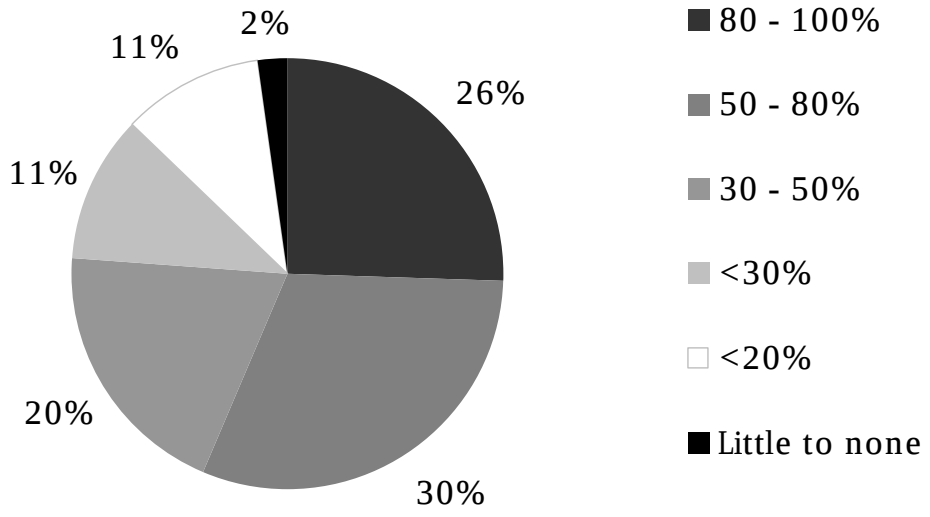


Figure 50: Canada: Percentage of purchases that are organic 2008

Source: OTA and COG, 2008

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

To have a better sense of the priorities for Canadian consumers purchasing organic products, the Organic Trade Association (OTA) in Canada and the Canadian Organic Growers (COG) partnered on a basic Canadian consumer survey in December 2008. The survey was conducted by online polling, and provides a reassuring picture of the commitment Canadian core consumers have to organic. It also sheds some promise on the "new entrants" coming over to organic as well.

Sampling mostly urban consumers, the survey demonstrated a strong commitment to purchasing organic products, and a good understanding of basic organic principles. The survey showed that 82 percent of respondents purchase organic products on a weekly basis, and an impressive 57 percent of all respondents make between 50-100 percent of their total purchases in organic products (see Figure 51). A solid 20 percent of respondents buy between 30-50 percent of their purchases as organic, while the remaining 24 percent buy less than 30 percent per trip. When asked how long they had been buying organic products, 34 percent indicated they had been buying organic for more than ten years, 22 percent more than five years, and 19 percent said three to five years, while a healthy 22 percent are new consumers of organic products and have been buying organic for only one to three years.

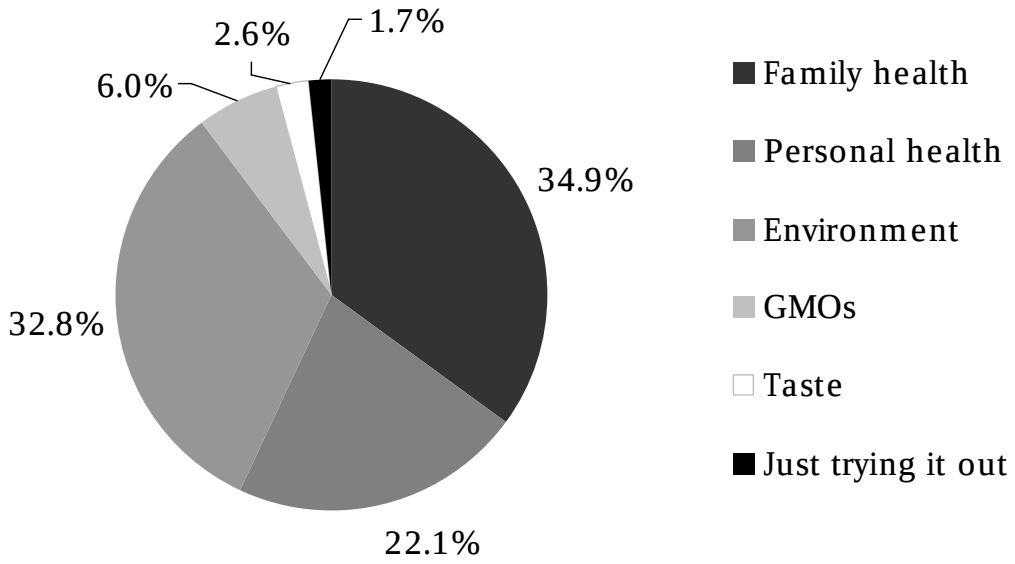


Figure 51: Canada: primary reasons for buying organic 2008

Source: OTA and COG, 2008.

Even though an essential component for current sales and future growth rests on those new entrants who are trying organic for the first time, and may not have an understanding of organic principles, this data suggests that the bulk of Canadian organic sales are still carried by core consumers.

A further insight into Canadian consumers' purchasing decisions came with the question "What is your primary reason for buying organic products?" Respondents were only able to choose one option from the list. Health concerns ranked highest (with "family health" iden-

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

tified as the most significant reason, at 35 percent, and "personal health" coming in at 22 percent). The respondents also proved themselves quite educated on the fundamentals of organic: concern for the environment was chosen as the top reason for 33 percent of those polled. Other reasons, such as the avoidance of GMOs, taste, or curiosity ranked significantly lower.

Production statistics

Organic in Canada has enjoyed a strong producer movement for over 25 years, with overall growth in organic acreage and market share across the country. Update statistics available from the Canadian Organic Growers (COG) show that in 2007 Canada had 3'782 certified organic farms (an increase of over 200 from the previous year, and the highest number on record; see for current provincial breakdowns. The main products are field crops, vegetables, livestock and maple syrup. The area under organic management for 2007 is 556'273 hectares, with over 352'000 hectares in additional (wild) lands. In 2007, Canada recorded 1'012 certified organic processors and handlers.[1]

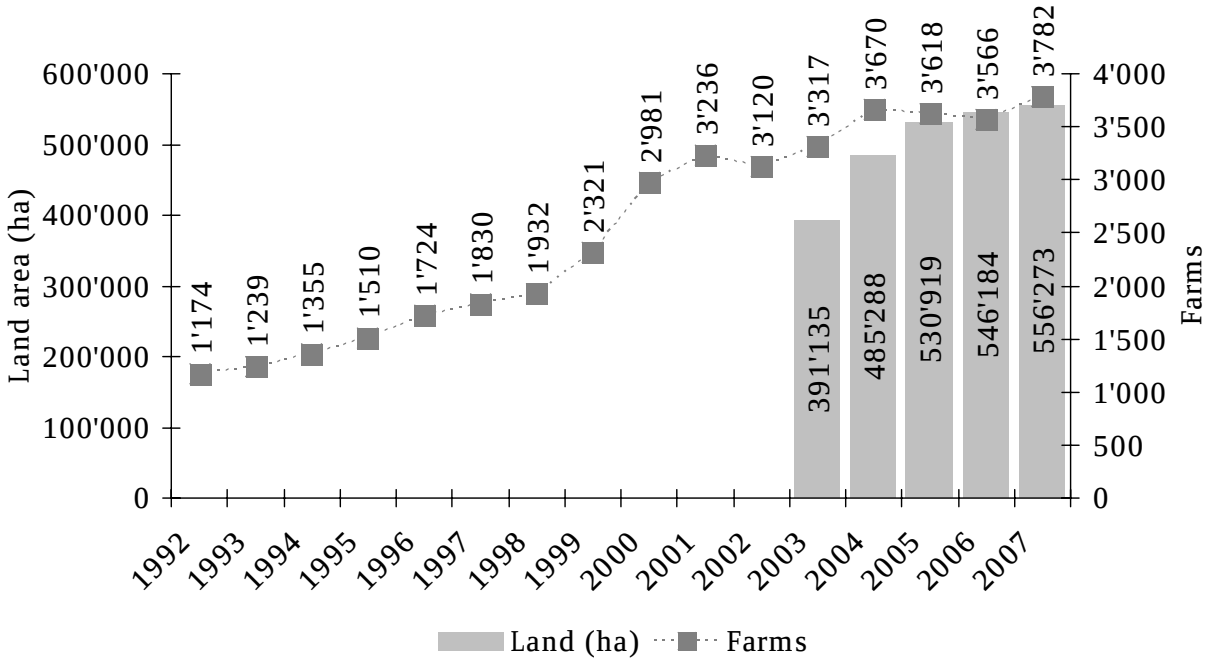


Figure 52: Canada: Development of organically managed land area and number farms

Only fully converted area

Source: Canadian Organic Growers 2008

[1] Please note: 2007 figures should be considered an estimate only. They are based on a combination of actual data for 2007 and extrapolations from 2006 data. Data for 2007 are preliminary figures from the Canadian Organic Growers, as data was not received from all certifying bodies operating in Canada

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Table 49: Canada: Organically managed land area and farms according to province 2007

Province	Number of certified farmers	Number of certified processors and handlers	Hectares (converted)
British Columbia	455	201	13'439
Alberta	231	64	160'765
Saskatchewan	1'104	105	264'734
Manitoba	181	49	36'962
Ontario	669	? (>90)	40'763
Quebec	988	485	35'963
New Brunswick	46	8	2'023
Nova Scotia	57	6	931
Prince Edward Island	43	3	693
Newfoundland	5		
Yukon	3	1	
Totals Canada	**3'782**	**>1'012**	**556'273**

Source: Canadian Organic Growers 2008

A Statistics Canada report released in March 2008 studies Canada's evolving organic farming sector between 2001 and 2006. It reports that field crops and hay are Canada's most common certified organic products. Canada's climate and large expanses of cropland suited to mechanization are ideal for growing grains and oilseeds. The second largest certified organic product category is fruit, vegetable and greenhouse products. Almost 80 percent of all certified organic farms in British Columbia reported growing fruit, vegetable and greenhouse products. Quebec had the second-highest number of certified producers in the fruit, vegetable and greenhouse category.

Statistics Canada's *2006 Census of Agriculture* found that a general decline in all farming in Canada has continued. In the census, 6.8 percent of farms in Canada reported they were producing "uncertified organic," transitional, or certified organic products. In farms adjoining Canada's census metropolitan areas, this proportion was higher (8.3 percent). British Columbia had the largest concentration of organic farms in metropolitan areas, with the city of Victoria taking the crown: 30.9 of Victoria-area farms reported organic production in 2006 (including uncertified and transitional acreage).

Canada's new regulations and mandatory standards

Canada's organic standards and permitted substances list is maintained by the Technical Committee on Organic Agriculture of the Canadian General Standards Board (CGSB), composed of some sixty organic operators and stakeholders who control the content and development of the standards. Although Canada has had this organic standard since 1999, it had been voluntary and not supported by regulation. With a new mandatory regulation on the horizon, the Technical Committee has spent much of 2008 overhauling the Canadian stan-

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

dards in order to update them and prepare them for the shift from voluntary to mandatory protocols. The Canadian Organic Growers have provided the logistics planning and administration for the process with the Canadian General Standards Board, and has secured government support for the Technical Committee to update the Canadian standard. The Organic Federation of Canada[1] is slowly taking on the task of designing the process for ongoing standards maintenance and interpretation.

The Technical Committee of the Canadian General Standards Board has endorsed OTA in Canada's recommendation that it begin discussing specific processing guidelines for organic non-food items such as textiles and personal care products within the organic standards as a whole, though these products will not immediately fall under the new regulations until such ratified standards can be finalized. Similarly, it is expected that a new Canadian General Standards Board committee will commence work in 2009 on organic aquaculture standards, with the aim of eventually regulating this sub-sector as well.

Canada's Organic Products Regulations (OPR) will be fully implemented on June 30, 2009. (The OPR had originally been slated for implementation in December 2008 but due to delays from a general election as well as regulatory and standards amendments, the date they come into force was postponed to summer 2009.) These regulations will make the Canadian Organic Standards and Permitted Substances List (PSL) mandatory for all organic food and livestock feed products sold in interprovincial trade or imported into Canada.

All food, beverage and livestock feed products for sale in Canada will have to be certified to the Canadian standards and accredited by a "Conformity Verification Body" recognized by the Canadian Food Inspection Agency (CFIA). The CFIA will enforce the regulations through the new Canada Organic Office. At this time, the approved accreditors are the Standards Council of Canada, the Committee on Accreditation for Evaluation of Quality (CAEQ, formerly the CAAQ, Quebec), the Certified Organic Associations of British Columbia (COABC), the International Organic Accreditation Service (IOAS/IFOAM), and the German Accreditation System for Testing DAP.

Once accredited and certified, products must to be labeled according to the Organic Products Regulations. Canadian labeling requirements will be very similar to both the US and EU. Products will be identified as "Organic" (95 percent or more), "Made with xxpercent organic ingredients" (70-95 percent), or, for products with less than 70 percent, the organic content may be identified on the ingredient panel (only) without the requirement to certify. Unlike the US, Canada will not allow a "100 % Organic" claim. Unlike the EU, Canada does not have a labeling provision for "Transition to Organic" claims. Organic claims will be required to be printed in English and French. A government logo bearing the official program name "Canada Organic Regime" and a red maple leaf will be available to indicate organic compliance to the Canadian regulation. Use of the seal will be voluntary.

The new version of the regulations also allows the Canadian Food Inspection Agency to enter into equivalency agreements. Equivalency negotiations are already under way between

[1] The Organic Federation of Canada (OFC) is a national body with a mandate to represent the organic industry while working with provincial, territorial and federal governments as partners on national organic regulatory issues. OFC is comprised of one organic industry representative from each province and territory, and one representative from the organic trade sector. More at www.organicfederation.ca/

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Canada and the United States, and Canada and the European Union. The Government of Canada has expressed its interest in pursuing such agreements with its major trading partners, which would herald a positive step forward for global organic trade. Canada will also consider organic equivalency agreements with other countries seeking a preferred trade relationship in organic goods.

Industry developments

In early 2007, Canada became the first country in the world to create special designations to track organic products moving across its border with an initial tracking of 41 commodities imported into the country. In 2008, the Canada's list of Harmonization Serial (HS) Codes was expanded by 20 new codes, and it is anticipated that Agriculture and Agri-Food Canada with Statistics Canada will continue to add codes in 2009. This tracking has provided invaluable data (value, volume, and country of origin) on imports into the country, as well as insight into where existing demand lies for domestic organic producers to target.

Agriculture and Agri-Food Canada has established the Organic Value Chain Roundtable (OVCRT), an industry representative body advising the government on sector-wide issues, including international branding and marketing, building domestic capacity, and regulatory issues. OVCRT is the only Roundtable that is not commodity-oriented. In 2008, the OVCRT advised the government closely on the design and selection of Canada's new organic logo, available for organic products complying with the new regulatory requirements. The OVCRT has also tasked OTA in Canada with developing the Canadian Organic Retailing Practices manual: a voluntary industry best-practices guide for handling and retailing organic products in Canada once the new regulation is in force (in Canada, retailers will not be required to be certified but will have a responsibility to maintain organic integrity of the products they handle).

In 2008, the Saskatchewan Organic Directorate was unsuccessful in proceeding to the Supreme Court of Canada with its class action "to stop genetically engineered wheat and to get compensation for losing canola as a crop due to genetic contamination." They have vowed to continue the legal fight in other areas and with other crops, focusing instead on "what is on the horizon" - the introduction of genetically engineered Alfalfa. In the January/February 2009 issue of *The Walrus Magazine*, journalist Anita Lahey investigates the thwarted attempts to require GMO labeling on Canadian food products. She discusses the challenges faced by Canada's organic sector in this area, and that some organic farms are buying up adjoining land to serve as buffer zones to genetic drift. Meanwhile in 2009, the Organic Value Chain Roundtable (OVCRT) with the support of Agriculture Canada will begin work on an important white paper to identify "the challenges and approaches in mitigating risks associated with adventitious presence of products of GE in organic crop production in Canada". The results of this research will be used to determine the role the Government of Canada can play in protecting the integrity of the Canadian organic sector from such risk.

In early 2007, the Canadian Organic Growers launched the 'Growing Up Organic' (GUO) project. The purpose of the GUO project is to build upon existing efforts to shift Canada towards increased organic production by exploring ways to increase the amount of organically grown food served in Canadian institutions, beginning with childcare centers. In Au-

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

gust 2008, the Federal Agriculture Minister announced over 250'000 Canadian Dollars for this project through the Advancing Canadian Agriculture and Agri-Food Program (ACAAF). The funding will help organic farmers tap into locally based markets such as childcare facilities, hospitals and schools, and encourage the transition of conventional farmers and introduce new farmers to organic practices. The project will also help develop regional organic value chains, including producer cooperatives and the infrastructure needed to support local distribution and storage.

The Organic Federation of Canada (OFC), formed in 2007, continues to support the Canadian organic sector's efforts to update and maintain its standards and to implement adequate regulations for organic in Canada. The OFC hosts a bi-weekly meeting between industry and the Canada Organic Office (COO), which brings the regulatory officials at the Canadian Food Inspection Agency into direct contact with sector representatives to discuss current affairs and preparations for regulatory implementation. The OFC is also assisting the COO by evaluating standards variances between Canada and the US and EU; and initiating discussions with provincial governments to encourage sign-on to the federal regulation so that trade within each province will be regulated. In addition, the Organic Value Chain Roundtable has asked the OFC to conduct a survey to identify regulatory impediments to successful marketing of organic products, both domestically and internationally, building on work conducted in 2007 by OTA in Canada. The OFC is made up of directors representing each of the provincial/territorial organic stakeholders groups, as well as a national trade seat held by OTA in Canada.

References

Kendrick, Jenny (2008): Organic: from niche to mainstream. Statistics Canada, Ottawa. Available at the Statistics Canada homepage at www.statcan.gc.ca/pub/96-325-x/2007000/article/10529-eng.htm" by Jenny Kendrick, released March 2008.

Macey, Anne (2008): Certified Organic Production in Canada 2006. Canadian Organic Growers, Ottawa. At www.cog.ca/OrganicStatistics.htm the 2006 report as well as earlier editions are available.

Organic Agriculture center of Canada (OACC) (2007): Retail Sales of Certified Organic Food Products in Canada 2006. OACC, Truro. Compiled by Anne Macey. Available at www.organicagcenter.ca/Docs/RetailSalesOrganic_Canada2006.pdf.

Statistics Canada (2007): 2006 Census of Agriculture. Statistics Canada, Ottawa. Available at the Statistics Canada Homepage at www.statcan.gc.ca/ca-ra2006/index-eng.htm, released in May 2007.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

North America: Tables: Organic land area, land use, producers

Table 50: North America: Organically managed land and producers by country 2007

	Year	Organically managed land [ha]	Share of total agricultural land	Fully converted agricultural land [ha]	Producers
Canada	2007	556'273	0.82%	556'273	3'782
USA	2005	1'640'804	0.51%	1'640'804	8'493
Total		**2'197'077**	**0.56%**	**2'197'077**	**12'275**

Source: Canadian Organic Growers, USDA

Table 51: North America: Land use and main crop categories 2007

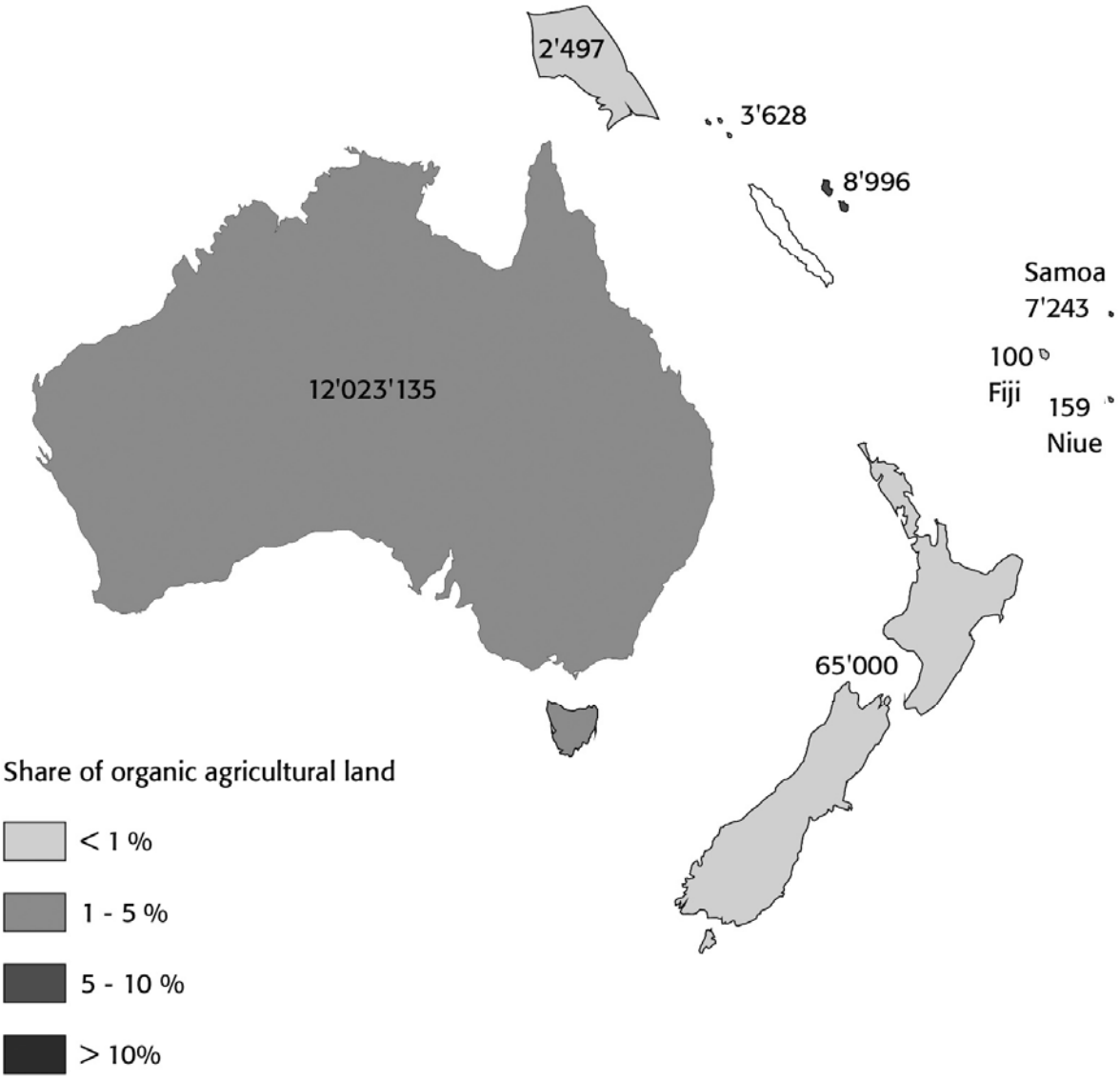
Main use	Main crop category	Organically managed land [ha]
Agricultural land, no details	Agricultural land, no details	192'681
Arable land	Cereals	382'261
	Fallow land as part of crop rotation	120'269
	Flowers and ornamental plants	24
	Green fodder from arable land	254'814
	Industrial crops	49'095
	Medicinal & aromatic plants	2'987
	Oilseeds	8'152
	Protein crops	96'328
	Root crops	3'160
	Vegetables	41'911
Permanent crops	Citrus fruit	4'107
	Grapes	9'246
	Other permanent crops	4'956
	Temperate berries	810
	Temperate fruit	12'935
	Temperate fruit/nuts/berries	15'784
	Temperate nuts	6'532
Permanent grassland	Permanent grassland, no details	991'024
Total		**2'197'078**

Source: Canadian Organic Growers, USDA

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Oceania



Map 8: Oceania: Land under organic management (hectares)

Source: FiBL Survey

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Organic Farming in Australia

ELS WYNEN[1]

Size of the industry

In the early 1990s, the area under organic management was estimated to be 150'000 hectares for 1990 (Hassall and Associates 1995). The estimate for 2007 is 12.0 million hectares (Australian Quarantine and Inspection Service (AQIS) 2008), representing 2.7 percent of total agricultural area of 440 million hectares in Australia (2003-04), for which 1'438 producers were certified. It is a slight decrease of area under organic management in 2006 (12.3 million ha). The number of producers decreased considerably (by 272 or 16 percent from 1'710 in 2006). This was due to the fact that one of the certification schemes, Organic Growers of Australia, has opted out of being audited by AQIS (see below), resulting in being excluded from the official AQIS data. As this scheme is designed especially for small growers, the acreage would not have decreased by much as a result of this change.

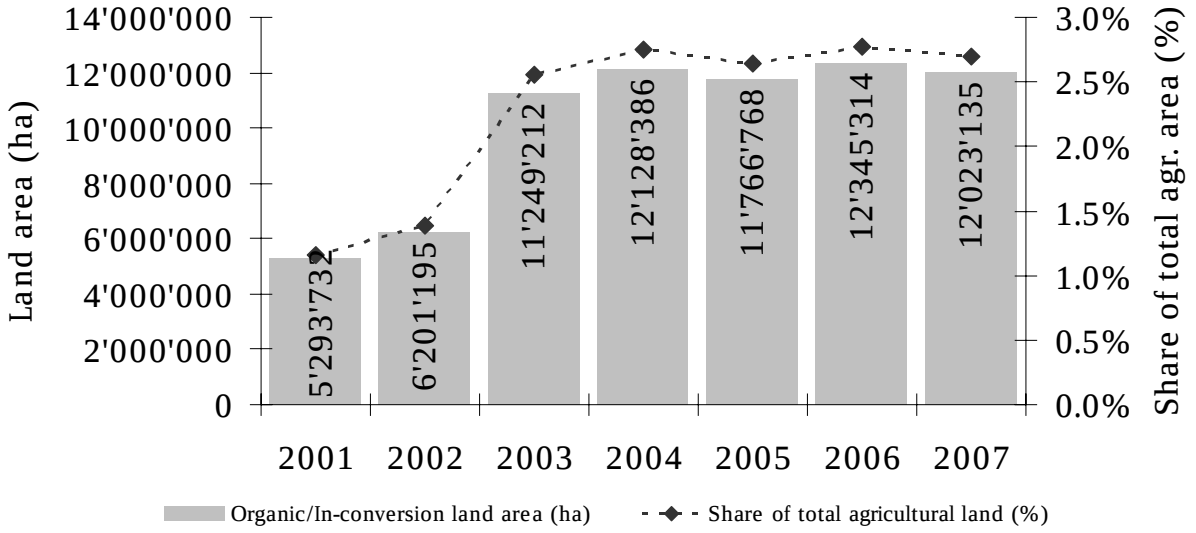


Figure 53: Australia: Development of the land under organic management 2001-2007

Source: AQIS with modifications by Els Wynen

If estimates of the proportion of the total certified area under extensive grazing management of 97 percent in 2005[2] were still valid for 2007, the total of 12 million hectare in 2007

[1] Eco Landuse Systems, Canberra, Australia (www.elspl.com.au).

[2] Thanks to NASAA and the BFA for providing data.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

would mean that close to 360'000 hectares was in non-pastoral areas 2007, which is approximately 0.6 percent of the total conventional area for those industries.[1]

Although the non-pastoral certified organic area was only 3 percent of the total certified area, more than half of the total value of the organic sector originates from those areas. Wynen (2003) estimated that, in 2000-2001, only 38 percent of the total farm income of 89 million Australian Dollars (47 million Euros,[2] including organically grown products sold on the conventional market) was received for beef and sheep products, with around one quarter each for grains and horticulture. That is, the broadacre (grains, oilseeds) and horticultural sector accounted for more than half of the total value of the organic production in that year.

In summary, even though a large part (97 percent) of the area under organic production in Australia is used for extensive livestock production, products grown on less extensively farmed areas have always been very important in organic production in Australia, accounting for at least half of the total value of the organic sector.

Certification

Australia's National Standards are the basis for the private sector's standards. Australian certification bodies have their own standards, which are at least as stringent as the National Standard. For export purposes, AQIS is the accrediting body, that is, AQIS has the task to ensure that the certification bodies certify according to standards at least at the level of the National Standard, and according to accepted rules of complying.

Of the seven currently AQIS-approved certifying organizations, four (ACO, BDRI, NASAA and OFC) are listed under European (and Swiss) law, and as such can provide inspection and certification services for all Australian export consignments to the EU. The same four organizations provide inspection and certification services for products exported to Japan and three organizations have 'conformity assessment' arrangements with the USDA NOP (Table 52), with AUSQUAL having applied for NOP recognition (November 2007), though this is still pending. AUSQUAL has also been listed in Switzerland, but not yet in the EU (pending). Other countries such as New Zealand, Malaysia, Thailand, Singapore and Canada currently (late 2008) accept Australian certified produce that has been issued a government organic export certificate to verify its authenticity. The Korean Food and Drug Administration (KFDA) recognizes Australian Certified Organic (AC), the Biodynamic Research Institute (BDRI), the National Association for Sustainable Agriculture, Australia (NASAA) and Organic Food Chain (OFC) for processed organic foods – though there will be a change in accreditation organization in June 2009, with possible changes in present arrangements. No AQIS-approved certifier is recognized in its own right for fresh organic produce. At present, no foreign certification bodies are operating in Australia, and no local certification bodies work in association with international certification bodies for certification within Australia (Jenny Barnes, AQIS, personal communication, November 2008).

[1] The total for wheat and other crops, mixed broadacre, and dairy for 2003-4 was 60 million hectares. It does not include the horticultural sector.

[2] Exchange rate late November 2008: 1 Euro= 1.88 Australian Dollars

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Table 52: Australian organic certification bodies and their legal export possibilities

		EU/Swiss	USA	Japan
ACO	Australian Certified Organic	Y	Y	Y
AUSQUAL		Y/N	Pending	N
BDRI	Biodynamic Research Institute	Y	N	Y
NASAA	National Association for Sustainable Agriculture, Australia	Y	Y	Y
OFC	Organic Food Chain	Y	Y	Y
SFQ	Safe Food Queensland	N	N	N
TOP	Tasmanian Organic-Dynamic Producers	N	N	N

The National Standard is used for the purpose of export, and does not legally define 'organic' for the domestic market. This meant that not-certified produce could be sold as 'organic' with a low risk of legal repercussions – whether it is or is not organic. It also meant that produce could be certified under standards not accredited by AQIS, that is, lower standards for the domestic than for the export market[1]. The second problem was that, due to WTO rules relating to national treatment, the Australian government could not prohibit imports of products labeled as organic, even if not produced according to the Australian Standard – or any other standard for that matter.

Once the standards and compliance scheme are in place, they will facilitate prosecution of fraud and misrepresentation on the domestic market, and refusal of import of products deemed not to be equivalent to Australian domestic requirements. The same standards will also be used for the export market.

Market

Current market figures for Australian organic produce are not available, and industry figures therefore need to be treated with caution. Farm-gate values for organic products in the early 2000s were estimated to be around 100 million Australian Dollars (53 million Euros). Wynen (2003) estimated farm-gate values including organic produce sold as conventional in 2000-2001 at 89 million Australian Dollars (47 million Euros).

Two later studies were conducted, one for 2003 by Halpin (2004), and a very recent one for 2007 by Kristiansen and Smithson (2008). Both are surveys with around 25 percent response rates, and therefore raising issues of the sample being representative, and the validity of the figures for the total of the industry. For 2003, the total farm gate value of organic produce (sold in the organic and conventional market) was estimated to be 140 million Australian Dollars[2] (74.5 million Euros), and for 2007 231.5 million Australian Dollars (123 million Euros). Of the value for the products sold on the organic market (127.9 million

[1] For more details, see Wynen (2007).

[2] This figure was a rough average of 3 years, estimated by the producers in a survey including 26 percent of all certified organic farmers.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Australian Dollars[1], 68 million Euros), Halpin estimated that 40 percent accounted for beef, close to the estimate of the study by Wynen (2003). Kristiansen and Smithson's estimate remained below half of that, at 13.7 percent for 2007. It is not clear whether such differences are real changes in the market, or whether they are due to the varied effect of the drought on the different farming enterprises, or that the sampling method has played a role.

In all three studies, fruit, vegetables and grain made up around half of the total organic sales – although in the last study this was towards the higher end (57 percent). Kristiansen and Smithson (2008) found high levels of farm gate returns from poultry meat and honey (8 percent and 7 percent, respectively). These were either not reported or very low in the two earlier studies (0.3 percent for poultry meat in Halpin (2004)).

In addition, estimates of retail values (of organic produce sold in Australia) have grown considerably over time. Whereas Wynen (2003) estimated the value for 2000-2001 to be around 100 million Australian Dollars (53 million Euros), the latest survey (Kristiansen and Smithson 2008, p.67) estimated this to have grown to 623 million Australian Dollars (331 million Euros) in 2007. However, this figure includes the value of organic produce sold both on the organic and conventional market (around one third in 2000-2001).

One commodity in which some more research has been undertaken is beef (Wynen 2006). This market has grown considerably since the late 1990s, when the large retailers entered the market. Whereas in 2000-2001 the value of the Australian certified organic beef was only 32 million Australian Dollars (17 million Euros) (farm-gate prices), with less than two thirds going to the organic market, by 2005 the estimated production had doubled to around 60 million Australian Dollars (32 million Euros) (farm-gate prices), with virtually all of the produce being sold in the organic market. About three quarters was estimated to be sold in the domestic market. Dominant export markets moved from Japan and the UK in the early 2000s to the USA in more recent years. Kristiansen and Smithson (2008) estimated the beef market for 2007 to be half of that estimated in 2005 (almost 32 million Australian Dollars (17 million Euros), which could have been a result of the drought that was occurring around mid 2000s and beyond.

On the domestic market, organic produce receives a substantial price premium over that of conventionally grown produce. The latest estimates are by Halpin and Brueckner (2004, p.70), who report weighted average price premium of all goods as being 80 percent, with several products scoring over 100 percent.

Estimates of international trade can be found in Halpin and Sahota (2004, p.112), who estimated imports into Australia in 2003 to the value of 13 million Australian Dollars (6.9 million Euros), with the main sources being New Zealand, the US and the UK. More recently, Kristiansen and Smithson (2008) estimated imports in 2007 at 231 million Australian Dollars (123 million Euros), with exports at 34.7 million Australian Dollars (18 million Euros).

[1] This figure was an estimate by adding all enterprises reported by the producer respondents.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Policy Support

There is little government support to encourage organic agriculture *per se*. However, over the recent past, governments both at Commonwealth and state levels have been supportive of the Australian Standards issue, and it seems likely that supporting regulations will be passed to make the standard effective. In addition, the Australian Competition and Consumer Commission (ACCC) has made funding available to assist in the development of the Australian Standard and promote an understanding amongst consumers.

Accreditation services are provided (through AQIS), although the certification organizations pay 60 percent of the cost of these services - 105'000 Australian Dollars (almost 59'000 Euros) for 2006 to 2007 (Ian Lyall, AQIS, personal communication, November 2006). The outcome of a review of the government contribution of 40 percent to this process is eagerly awaited by the organic industry – as it may well be abolished from mid 2009.

Many possibilities exist for government assistance in the farming sector in general, to help with developing innovations, overcoming marketing problems, attending courses, etc. These are detailed in a report published by the Department of Agriculture, Fisheries and Forestry (DAFF 2004, Chapter 9), but most are available to all, not specifically organic, farmers.

Research and extension

There is one research program (part of the Rural Industries Research and Development Corporation) devoted to organic agriculture since 1996, that has made available up to 270'000 Australian Dollars (144'000 Euros) per year to research and extension. For the next five years, this amount can be increased to a maximum of 450'000 Australian Dollars (271'000 Euros) if the most favorable circumstances occur, where co-funding from other institutions occurs. However, in 2007-8 funding levels remained well below this target, and stayed close to the original 270'000 Australian Dollars (144'000 Euros). A review is underway to advise whether this program for funding of organic agriculture should continue. Most of the six state departments of agriculture have at least one officer dedicated to organic agriculture. Three states (Tasmania, New South Wales and Queensland) now have Ministerial Advisory Committees.

Milestones

Since the early 1990, the organic sector has tried to have the word 'organic' legalized for the domestic market, but little progress was made until early in 2007, when the Organic Federation of Australia applied with Standards Australia (an independent, not for profit body recognized by the Australian government as the standard-setting body) to develop an Australian Standard for Organic and Biodynamic Produce. Mid 2008, the first draft was finished, and sent out to stakeholders. As there were over 800 submissions to Standards Australia on the draft, it is now expected that the final draft will not be released much before the middle of 2009. A compliance scheme should accompany this Standard.

The Australian Standards, developed by Standards Australia with the stakeholders of organic agriculture in Australia, have been published for comments. A record number of 650

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

responses were received. The date of adoption is therefore expected to be not before the middle of 2009, instead of late 2008 as originally planned.

References

DAFF (2004), The Australian Organic Industry: A Profile, Department of Agriculture and Fisheries, Canberra.

Halpin, D. (2004), 'A farm level view of the Australian organic industry' in DAFF (2004), The Australian Organic Industry: A Profile, Department of Agriculture, Fisheries and Forestry, Canberra.

Halpin, D. and Brueckner, M. (2004), 'The retail pricing, labelling and promotion of organic food in Australia' in DAFF (2004), The Australian Organic Industry: A Profile, Department of Agriculture and Fisheries, Canberra.

Halpin, D. and Sahota, A. (2004), 'Australian food exports and imports' in DAFF (2004), The Australian Organic Industry: A Profile, Department of Agriculture and Fisheries, Canberra.

Hassall & Associates (1995) The domestic market for Australian organic produce in Australia: an update. Report prepared for RIRDC, Canberra.

Kristiansen, P. and Smithson, A. (2008), 'Australian Organic Market Report 2008', Biological Farmers of Australia, publication number 08/01, Brisbane.

Wynen, E. (2003), Organic Agriculture in Australia - Levies and Expenditures. Report No. 03/002. RIRDC, Canberra (http://www.rirdc.gov.au/reports/org/02-45.pdf).

Wynen, E. (2006), 'Organic beef production and marketing in Australia', Journal of Organic Systems, 1(1). Cited 20 November 2008 onhttp://www.organic-systems.org/journal/0601/pdf/wynen.pdf.

Wynen, E. (2007), 'Standards and compliance systems for organic and bio-dynamic agriculture in Australia: past, present and future', Journal of Organic Systems, 2(2). Cited 20 November 2008 on: http://www.organic-systems.org/journal/Vol%202(2)/pdf/38-55%20EW%20(7)%20Standards-Revised%20-10December-SH-EW.pdf.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

New Zealand

SEAGER MASON[1]

Introduction

Organic agriculture and food production in New Zealand has developed steadily since the mid 1980s. In 2008, the New Zealand Biological Producers and Consumers Council which trades as BioGro New Zealand, New Zealand's main organic certifier and producers' organization, celebrated its 25th anniversary.

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. There is reasonable recognition in New Zealand of the important role that organics can and does play in moving agriculture and food production towards more sustainable practices, 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 Program (OAP), and this has helped lead significant growth in conversions to organic farming and horticulture over the last two years.

Statistics 2008

A study of New Zealand's organic sector was commissioned by OANZ, and carried out by the Center for the Study of Agriculture, Food and Environment (CSAFE), University of Otago in 2007 (Grice et al. 2007). The summary report of this study was released August 2007. Most of the statistics quoted below use this study as the base, updated by more recent data and estimates where available.

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 kiwifruit production is approximately 5 percent of the total production of kiwifruit in New Zealand.

[1] Seager Mason, Technical Director, BioGro, PO Box 9693, Marion Square, Wellington 6031, New Zealand, Tel. +64 4 801 9741, Fax +64 4 8019742, www.biogro.co.nz.
BioGro NZ is New Zealand's largest and leading organic certifier and organic producers organization.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

The current growth sectors for organic primary production are apples, livestock (particularly lamb and wool), 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. There continues to be strong growth in the number of livestock farms converting in response to very good premiums for organic lamb for export markets, and demand for organic wool.

Some current statistics:

- Certified producers: 1080 certified organic producers with more than 1250 certified organic operations in total.
- Certified land area: 65'000 hectares.
- Exports: More than 130 million New Zealand Dollars[1] in 2008, growing at more than 10 percent per annum.
- Domestic market: More than 200 million New Zealand Dollars, growing at more than 10 percent per annum. Approximately 60 percent of this is produced in New Zealand; 40 percent is imported. This is approximately 1.2 percent of the New Zealand market for food and beverages.
- Kiwifruit: Organic production is approximately 5 percent of the kiwifruit sector (in value).
- Apples: Organic production is approximately 12 percent of the apple sector (in value).
- Vegetables/cropping: Organic production is approximately 2 percent of the sector.
- Dairy and meat: Organic production is still less than 1 percent of the sector.
- Certifiers (approximate numbers): BioGro 600 producers (900 certified operations), Demeter 30 producers, Organic Farm New Zealand (small scale producers scheme) 150 producers, Agriquality 300 producers (370 certified operations).

Markets

Domestic

New Zealand's domestic market grew very rapidly over the period 2000 to 2002, by more than 100 percent each year. This growth was due to a variety of factors, but in particular because of:

- Rejection of genetic engineering;
- The increasing range and high quality of organic products on the market;
- Increasing number of outlets, particularly supermarkets, stocking organics;
- Many people wanting to support organics as being 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 organics due to customer demand. Organic shops are increasing in number and size, with some of

[1] Average exchange rate 2008: 1 New Zealand Dollar = 0.48436 Euros = 0.71461 US Dollars. Source: The OANDA homepage at www.oanda.com

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

the successful organic shops becoming small to medium size organic supermarkets, and there are now some chains of organic shops. The domestic market continues to grow steadily, and part of the growth includes products other than food and beverages such as organic health and body care products, garments, 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 18 years, and are currently more than 130 million New Zealand Dollars per annum. Almost half of the products are exported to Europe, followed by North America (Figure 54).

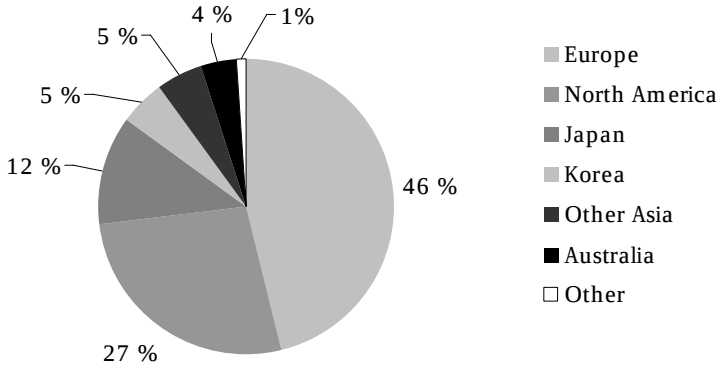


Figure 54: New Zealand: Exports by market 2007

Total: 120.4 million New Zealand Dollars. Source: Grice et al. 2007.

Exports by category 2007 were (Grice et al. 2007 see also Fresh fruit and vegetables – 73 percent; meat and wool – 8 percent; dairy products – 6 percent; processed food – 5 percent; honey – 3 percent, wines, beers, juices – 3 percent, other (aquaculture etc) – 2 percent.

Demand for exports of organic products in most sectors exceeds supply. A key focus of the Organic Advisory Program operated by OANZ is to provide primary producers with information and support for conversion to organics to increase New Zealand's organic production in order to meet this growing demand.

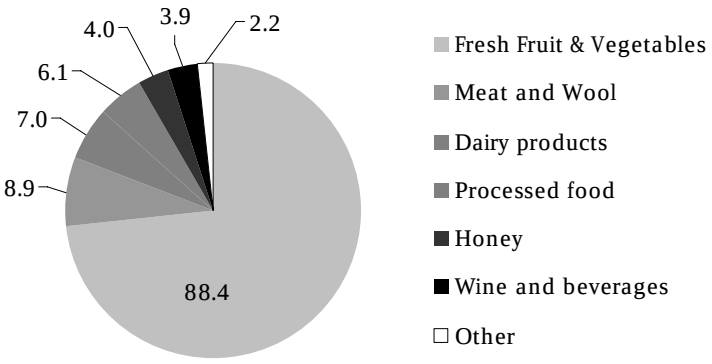


Figure 55: New Zealand: Exports by product category

Total: 120.4 million New Zealand Dollars. Source: Grice et al. 2007

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Standards and legislation

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 labeling laws in New Zealand.

Export

Exports to EU and USA are via the New Zealand Food Safety Authority (NZFSA) Official Organic Assurance Program (OOAP). Through this program New Zealand has Third Country Listing with EU, and USDA recognition for the USDA NOP. 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 Recognised Foreign Certification Organisation (RFCO) status with the Ministry of Agriculture, Forestry and Fisheries of Japan, or through the NZFSA Official Organics Assurance Program's (OOAP) equivalence with JAS[1] Organic.

Exports to Quebec are through the export certifier having recognition with CAAQ (Conseil des Appellations Agroalimentaires du Quebec).

Exports to Canada under the Canada Organic Regime (COR), once implemented, will be through the export certifier having accreditation for the COR.

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, OANZ, to coordinate initiatives in the organic sector. The strategy has set an ambitious target of one billion New Zealand Dollars worth of sales by 2013.

[1] JAS is the abbreviation of Japan Agriculture Standard, which has a standard for organic products. Information is available at the homepage of the Ministry of Agriculture, Forestry and Fisheries of Japan http://www.maff.go.jp/soshiki/syokuhin/hinshitu/e_label/specificJAS-organicStandard&Criteria.htm

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

- 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 (OANZ): OANZ was launched in November 2005 with Government funding to establish.
- Organic Advisory Program (OAP): The Organic Advisory Program also has Government funding, and is operated by OANZ. The OAP provides information and support to producers and processors considering conversion to organics, and also to those already in conversion or with existing organic operations.

Research and Extension

Organic research in New Zealand is carried out mainly by crown research institutes, universities, and the private sector. One example is an organic research farm which is a joint venture between a University and a food processing company. 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 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 an increasing number of agricultural advisers who offer consultancy services for organic producers, mainly through the Organic Advisory Program.

Outlook

- Political: Through the launch of the New Zealand Organic Sector Strategy and the establishment of Organics Aotearoa New Zealand, there is some Government acknowledgement of the importance of organics in New Zealand, but still only very limited Government support compared to other sectors.
- Organic organizations such as Soil & Health Association take a very active public role on issues such as food safety, genetic engineering, and the environment.
- Genetic engineering: Genetic engineering (GE) continues to be a major issue in New Zealand. Several trials of crops and livestock have been approved, but no commercial releases have been approved. A genetically engineered vaccine for horses has also recently been approved for emergency use. There is a very active movement for New Zealand to remain non-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.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

- Sustainability: Organics is now being recognized in sectors such as viticulture as an effective approach to sustainability, such as in reducing energy use, carbon emissions and environmental impact; and adapting to climate change. One of the current challenges 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 current international economic problems may affect 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 conversion. OANZ, 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.

Further reading

Grice, J., Cooper, M., Campbell, H. and Manhire, J. The State of the Organic Sector in New Zealand, 2007- Summary Report. center for the Study of Agriculture, Food and Environment: University of Otago. (2007). Available at www.csafe.org.nz/Organics%20Summary%20Report.pdf

Links

- www.biogro.co.nz: Homepage of the New Zealand Biological Producers and Consumers Council- BioGro NZ with information about organic farming in New Zealand
- www.oanz.org.nz: Homepage of Organics Aotearoa New Zealand
- www.organicnz.org: Homepage of the Soil & Health Association of New Zealand
- www.csafe.org.nz: Homepage of the Center for the Study of Agriculture, Food and Environment (CSAFE), a transdisciplinary research Center at the University of Otago. Research on organic agriculture.
- www.teara.govt.nz: Te Ara – The encyclpedia of New Zealand. For information about organic farming search for ‚organic'.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Organic Agriculture in the Pacific Region

KAREN MAPUSUA[1]

The Pacific region comprises of a number of island countries and includes Cook Islands, Federated State of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu. The Pacific islands region has a collective population of approximately eight million people, and a combined island land mass of 525'000 square kilometers in a sea area of more than 14'00'00 square kilometers.

Pacific Island countries while highly diverse geographically and culturally share common constraints that impede their efforts to achieve balanced economic growth and sustainable food security. Major constraints include small size, remoteness, geographic dispersion and vulnerability to natural hazards, as well vulnerability to external economic conditions. Most people, more than 80 percent in some countries, live in rural areas and rely heavily on agriculture, forestry and fisheries. The export sector generally comprises a narrow range of primarily agricultural commodities.

Organic agriculture development has considerable potential in the Pacific region due to increasing demand for high-quality products, protection of the environment and biodiversity, and the farming family, but there are also limiting factors to consider. The overall quantity of organic production and trading is still very small at present. Furthermore, there is no legal framework on organic agriculture and no overall development strategy under which the main actors could cooperate with each other. The development of organic agriculture in the region might be characterized as driven by farmers' organizations and other NGOs, and subsequently taken up by government agencies. Gradually, partnerships are being formed that might provide participatory development of the sector.

Organic agriculture development in the Pacific

Organic agriculture is not a new concept in the Pacific; it is very much the traditional farming system that Pacific forefathers practiced sustainably for centuries. Today, current farming practices in many communities are still based on 'age-old' systems that are free from the residues of agrichemicals and where environmental integrity remains largely intact. However, the motives for organic farming have changed. In the past, farming was predominantly for subsistence living, but in the cash driven societies that we live in today, there is now a need from overseas markets to ensure that products being labeled and sold as organic produce meet international standards.

Organic agriculture provides important opportunities for Pacific Island Countries (PICs) to export to niche markets a number of high-value, low-volume crops and enhance economic

[1] Karen Mapusua, Associate Director, Women in Business Development Inc., PO BOX 6591, Apia Samoa, www.womeninbusiness.ws

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

sustainability. Meeting the requirements of international certification has posed a number of problems for the countries which include, but are not limited to:

- The relative high costs associated with attaining and maintaining organic certification;
- Governments are not fully aware of the potential benefits of organic agriculture as opposed to currently practiced alternatives;
- The lack of broad based and supporting policies on organic agriculture.

The rationale for the development organic agriculture should also include promotion of local consumers awareness on the benefits derived from the consumption of organic products and to assist with the development of domestic markets including tourism markets.

Apart from the market opportunities, organic agriculture is relevant for the Pacific with regard to the promotion of self-reliance and will effectively address food security and food sovereignty issues, in particular, the possible reduction of food imports.

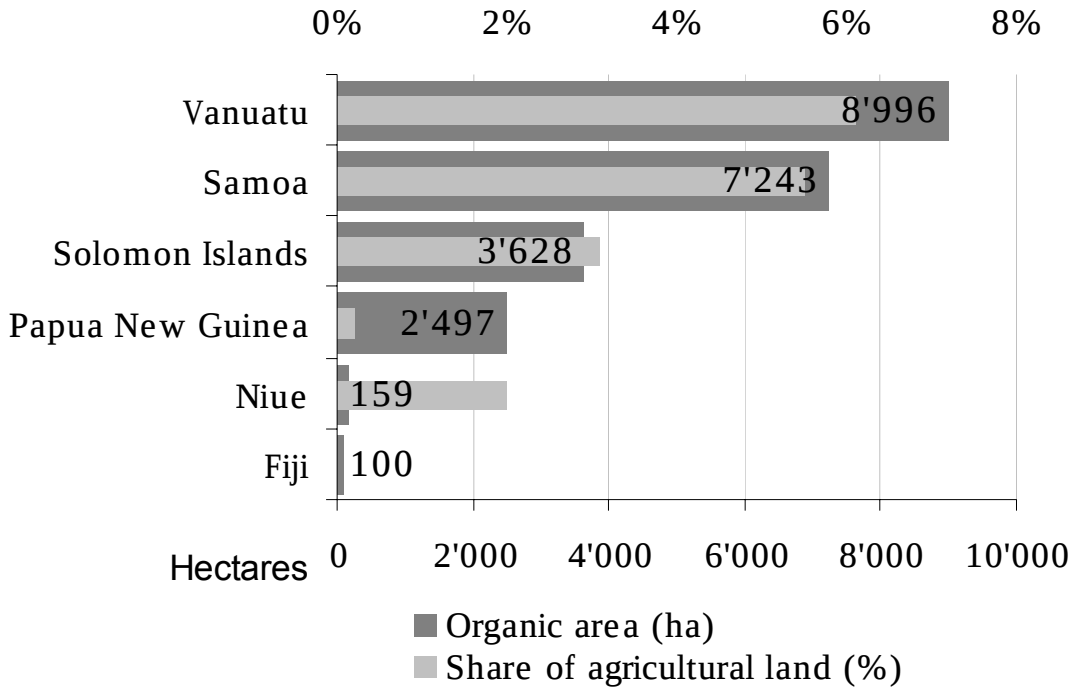


Figure 56: Pacific Region: Organic land area 2006

Source: Survey among the organic certifiers by Karen Mapusua, Women in Business, Samoa

Regional and national policy & frameworks

Regional Level

Presently, a regional policy does not exist specifically for organic agriculture; there are a number of other regional frameworks that mention sustainable livelihoods, but even within

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

these frameworks there is limited reference to organic agriculture and its potential value to PICs. The extent to which organic agriculture issues and benefits are understood by policy-makers is still very much at the elementary stage.

However, the Pacific Islands Forum Secretariat (PIFS) formally endorsed the Regional Strategy for Agriculture Development and Food Security, and the Regional Program for Food Security (RPFS) in the Forum Island Countries (FICs). The Regional Strategy for Agriculture and Food Security in the FICs drew attention to weaknesses in policy and program formulation capacity with respect to addressing food security at both national and regional levels.

In terms of organic agriculture, the strategy notes the 'need to diversify the export base away from traditional commodities has been acknowledged by all governments who are committed to facilitate the upgrading of the production and the exploitation of niche markets. Potential export commodities might include ... certified organic produces ... '.

While this is a positive statement, the strategy has not fully realized the potential benefits of organic agriculture and the positive implications of providing resources towards its development.

The organic movement in the Pacific recognized one of the major challenges facing Pacific Island organic producers is the high cost of certification, auditing and compliance involved in meeting importing country organic standards and/or international standards. In order to address this issue, a project was launched in 2007 funded by the International Fund for Agricultural Development (IFAD) and implemented by the International Federation of Organic Agriculture Movements (IFOAM) - *Building Capacities on Certification of Organic Agriculture.* The main outcomes of this project are to analyze the existing situation of organic agriculture and fair trade production in the Pacific islands and to develop a set of Pacific Regional Standards for Organic Agriculture Products.

In the process of implementing this IFAD/IFOAM project, the need for wider consultation with and support for national organic bodies was identified. In response to this need, a second IFAD funded organic project has been developed implemented by the Secretariat of the Pacific Community (SPC). The IFAD/SPC project *Development of Regional Certification Standard and Strategy for Organic Agriculture in the Pacific Island Countries and Territories* has been closely integrated with the IFAD/ IFOAM project to facilitate the development of a regional organic standard through a locally owned process and to ensure multi-sector participation. This project facilitated development of a regional strategy and national plans to lay the foundation of sustainable organic agriculture development in the region. It also formed two key groupings, who are tasked with driving organics forward in the Pacific. The first, the Regional Organic Task Force, is a technical group representing all sectors and countries involved in organics. This group was charged with developing the Pacific Standard and will be responsible for implementing the Regional Action Plan. The second group, the Pacific High Level Organics Group (PHLOG), consists of Pacific leaders who have shown a commitment to organics development in the region and provide high level political support and advocacy.

The first Pacific Organic Standard was endorsed by Pacific Leaders at a side event during the Pacific Island Forum Meeting in Niue in August 2008 and was officially launched by the

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Chair of the Pacific High Level Organics Group and Prime Minster of Samoa, at the Ministers' of Agriculture and Forestry Conference in Apia Samoa in September 2008. This now provides a platform for further regional policy development around organics.

Table 53: Pacific Islands: Organic policies and standards

Government	Legislation and Policies on OA	National Standards	National Interventions
Cook Islands	No	Cook Islands National Standards for Organic and Bio-Dynamic Produce (2001). Endorsed by the Cook Islands Organic Association (CIOA) and Ministry of Agriculture	Training programs conducted on organic crop production methods
Fiji	No	No	Organic agriculture considered a priority for the diversification of production and exports
Niue	Niue National Strategic Plan and Niue Environment Act 2004 refer to organic agriculture.	No organic agriculture	Niue National Strategic Plan and Niue Environment Act refer to organic agriculture as means to promote the growth of agriculture; close collaboration with the Niue Island Organic Farmers Association (NIOFA)
Kiribati	No (only a law prohibiting the use of chemical fertilizers)	No	Training activities; support to the Kiribati Organic Farmers Association(KOFA)
Papua New Guinea	No	No	Research; training
Samoa	National Organic Advisory Committee (chairmanship of the Prime Minister) National Organic Strategic Plan 2005	No	National Organic Advisory Committee
Solomon Islands	No	No	Explore market opportunities for organic agriculture products
Tonga	National Organic Certification system (NOC) and Organic Coordination and Development Committee (OCD)	No	Development of local certification systems
Vanuatu	No	No	Subsidize livestock certification

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

National Level

Nearly all Governments are generally sensitized to environmental issues and possess some information on economic and social benefits of organic agriculture; many of them do not have any government policy on organic agriculture in place. Some governments are demonstrating an increasing attention to natural agriculture and particularly organic agriculture, such as the Samoa Government. In Samoa, a National Organic Advisory Committee has been created under the chairmanship of the Prime Minister and in collaboration with a local NGO, to drive and promote the development of organic farming in the country. This committee represents an interesting practice of collaboration government - civil society that could be possibly replicated in other countries to lead to shared and effective strategies for the promotion of organic agriculture.

There is some movement towards organic agriculture in several countries, however, as demonstrated by development of national interventions shown in Table 53.

Organic Farmers' Associations and NGOs

Since the beginning of the year 2000, several national associations of organic producers and farmers were founded in the region to organize the individual organic producers in each country. Many of these associations have not developed into well functioning organizations for a number of reasons, including that the farmers were too busy or geographically dispersed and they were not informed enough to input into the development and management of the organizations.

The NGOs supporting organic farmers establish a relationship with farmers groups and provide them with assistance playing a crucial role in implementing activities related to the organic process (training, technical and financial support to certification, and support to the development of Internal Control Systems (ICS). Several local and international NGOs have promoted organic agriculture in the region, considering it as an appropriate technology for small-scale farmers. NGOs emphasize some aspects of organic agriculture, such as its low use of inputs, its independence from agri-business and its care for natural resources, as well as the potential for food security, economical viability and gender equity. Some NGOs, like Women In Business Development Inc. (WIBDI) also have a strong market perspective.

The Regional Organic Task Force undertook a capacity assessment of eight existing national peak organic organizations/NGOs in 2008, and it is developing plans to assist capacity development based on the findings of this assessment. While organic organizations across the Pacific are all at different stages of development, some common capacity gaps were identified as follows:

- Strategic plan development;
- Human resource planning would include identifying the staff required to undertake specific roles;
- Funding to employ appropriate core staff, secure office space and basic office equipment;
- Governance training and development of policy and procedure;

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

- Establishment or improvement of office and administration systems, including documentation of activities;
- Documentation or module development of training offered: there is a considerable amount of training offered by these organizations, but it could be documented in a way that could be shared around the network;
- Establishment (including training) of Monitoring and Evaluation Systems (M & E) systems, including reporting mechanisms;

Development of information advocacy and networking tools.

A further need is for training on building and managing Internal Control Systems (ICS) for group certification, which is essential for increasing opportunities for small farmers to attain certification and enter the organic export marketplace. ICS development cannot take place, however, until robust administrative systems and the resources to implement ongoing training programs are in place in an organization.

Markets

Export Markets

Most of the organically certified products from the Region are for export. The following is a summary table listing the main crops that are currently organically certified and exported from the Pacific region.

Table 54: Pacific region: Main certified organic products

Products	Countries
Vanilla & other spices & nuts	Fiji, Vanuatu, Niue
Cocoa	Vanuatu, Samoa, Papua New Guinea, Vanuatu
Virgin Coconut Oil	Samoa, Fiji, Solomon Islands
Nonu /noni (Morinda Citrifolia)	Cook Islands, Samoa, Fiji, Niue
Banana, Guava & Mango	Fiji, Samoa
Taro	Cook Islands
Papaya (pawpaw)	Cook Islands, Fiji
Bananas	Fiji, Papua New Guinea
Coffee	Papua New Guinea
Beef	Vanuatu

The main international markets for the listed products are Australia and New Zealand, representing the main destination for the export of organic products due to the proximity and to the presence of large communities of Pacific Island emigrates. Japan is a growing market, and other markets include North American and Europe.

There is growing interest and activity in the area of fair trade programmers, and certification and efforts are being made by the Regional Organic Task Force (ROTF) to link organic producers into these systems as a way of adding further value to products and ensuring maximum benefits to the farmers.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Domestic Markets

Generally, the domestic markets for organic certified products are not very developed, and in some cases are non-existent. Organic products are commonly sold as conventional without a premium price. Some initiatives are ongoing or are in the pipeline to promote the awareness of the consumers about organic products. Interesting opportunities could be explored within the tourist structures of several countries that are facing a growth in the presence of tourists (such as Fiji, Cooks and Samoa).

Outlook

The organic farming system is the traditional farming system of the Pacific region, and many of the subsistence farmers still do not use commercial fertilizers, as they are expensive, and imported from overseas. In this context, there is a widespread perception of the great potential of organics among the main players - from farmers to governments - with the concept of organics also accepted and being investigated in the universities and other competence agencies of the region. Interest is shown by almost all the countries in specific sub-sectors of organic agriculture: organic aquaculture, sustainable forestry, sustainable fisheries and sustainable tourism. There is full support from the local stakeholders involved to collaborate in supporting regional development.

The size of the organic sector in the region is, however, very small, and there is a lack of regular and reliable supplies. Other constraints include: a lack of education in the rural areas, especially lack of knowledge about certification; a lack of resources and funds for extension, education; and promotion projects on organics. The variability in the development and knowledge of organic agriculture in the different countries may provide challenges in developing a regional approach, and there is a need for greater organization, coordination and cooperation of the organic movement.

There is a need to increase the public awareness on organic agriculture (consumers), which could lead to development of domestic markets for organic products. On the export front, the quality of products is generally good, but an adequate processing and value adding (packaging, presentation) processing is lacking.

A further issue of concern is that national and regional associations of organic producers are at the early stages of development, and they require capacity building in organic farming practices, business and coordination. While the interest of state governments towards organics is developing and most are in favor of organic agriculture techniques, they still lack policies and legislation related to organic agriculture. The drafting and launch of the Pacific Organic Standard and the formation of the Regional Organic Task Force (ROTF) and Pacific High Level Organics Group are significant positive steps that should facilitate strategic and accelerated development in this area.

References

A Desk Survey of Organics in the Pacific Region Heads of Agriculture and Fisheries Recommendations 2006.

The Regional Strategy for Agriculture and Food Security in the Forum Island Countries

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Oceania: Table: Land under organic management, producers

Table 55: Organic land and producers in Oceania 2007

Country	Year	Land under organic management [ha]	Share of the total agricultural land	Producers
Australia	2007	12'023'135	2.70%	1'438
Fiji	2005	100	0.02%	
New Zealand	2007	65'000	0.38%	600
Niue	2006	159	1.99%	61
Papua New Guinea	2006	2'497	0.23%	4'558
Samoa	2006	7'243	7.79%	213
Solomon Islands	2006	3'628	4.27%	352
Vanuatu	2006	8'996	6.12%	
Total	2006	12'110'758	2.61%	7'222

Sources: Survey by Women in Business Development; AQUIS, BioGro

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Achievements Made and Challenges Ahead

LOUISE LUTTIKOLT[1]

Each year the new edition of 'The World of Organic Agriculture' shows higher figures, growth rates and overall increase of the global organic industry. In the organic sector we almost take these positive messages for granted, it seems. However, there is no reason to take a relaxed attitude, neither for business nor for the movement in general. Growing comes with challenges, like credibility and more competition. In addition, the context of organic agriculture has changed since earlier editions of this report were published. There was a lot to learn from in 2008 that can help to position organic agriculture for continued growth in 2009 and beyond.

The main gathering of the global organic movement, the Organic World Congress, was held in June 2008 in the beautiful city of Modena, Italy, which provided for the opportunity to discuss the prevailing topics within the organic sector. With 1'700 participants, it was the best attended Organic World Congress to date. The event showed the new role organic has in the world; it is no longer niche, but open to embrace and include newcomers, and is moving towards the mainstream, while at the same time firmly rooted in its principles.

In 2008, the world was confronted with riots in several parts of the globe as food prices skyrocketed and daily food was suddenly out of reach for many. This situation, referred to as the global food crisis, is a manifestation of many human induced crises coming together - from climate change to desertification, and from agrofuels to speculation. Is there an organic answer to this situation? Modesty is needed in these severe circumstances; however, the Principles of Organic Agriculture have successfully acted as a guideline for facing difficult situations and bringing new perspectives contributing to sustainability.

- Long-lasting, stable trade relationships with pre-financing structures give producers more security and the space to work on development.
- Agro-ecological measures make the productions system more resilient and fit for adaptation.
- Indications of carbon impacts on packages gives consumers a choice on how to express their solidarity when shopping.

IFOAM focused in its advocacy mainly on the informal organic agricultural sector, that is, production systems that are not (yet) third party certified. Although beyond the scope of statistics in general and this book as well, informal organic producers make up an important sector for further development of the overall organic movement. Many of the informal organic initiatives were presented as an example in international debate, showing how 'business unusual' helps in attaining food security.

[1] Louise W. M. Luttikholt, Strategic Relations Manager, International Federation of Organic Agriculture Movements IFOAM, Charles-de-Gaulle-Str. 5, 53113 Bonn, Germany, www.ifoam.org

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Organic practices were backed as the way forward in April 2008 by the World Agrarian Council (IAASTD). Conceived in 2002 by the World Bank and the UN's Food and Agriculture Organization, the IAASTD began working in 2004, with the objective to improve quality of life, health and prosperity for millions of poor farmers. The core message of the IAASTD report as concluded in April 2008 is the urgent need to move away from destructive and chemical-dependent industrial agriculture and to adopt environmental modern farming methods that champion biodiversity and benefit local communities.

Increasingly, other international civil society movements recognize organic agriculture's role in achieving sustainability. In 2008, IFOAM participated in Planet Diversity, a counter-event parallel to the negotiations on the Cartagena protocol and the convention on biodiversity in Bonn, Germany.

Alongside other ISEAL[1] partners, IFOAM contributed at a high-level ISEAL meeting, showing impact of standards for social and environmental labeling. Organic standards, whether private or public, are increasingly recognized for their contribution to achieving public policy objectives. ISEAL partners come from all sectors, but share the vision of creating a more sustainable world through socially and environmentally certification schemes. Thus, they can learn lessons from IFOAM and the broader organic agriculture movement on relationships with governments and private voluntary standards.

Group Certification stayed an issue in 2008. Already starting in 2007, the Certification, Accreditation and Compliance Committee (CAC) of the National Organic Standards Board (NOSB) of the United States Department of Agriculture National Organic Program (USDA NOP) deliberated on group certification. IFOAM continued its work with the NOP to ensure that group certification is allowed under the USDA NOP by developing its position and organizing concerted feedback towards the USDA. Recognizing group certification has benefits on both sides of trade, for producers and purchasers. It has the potential not only to secure the livelihoods of a considerable number of smallholders in developing countries, but also to generate business for processors and traders who are dependent on the organic products produced by the grower groups.

The General Assembly of IFOAM chose a new World Board.[2] With four women and half of the members coming from the Global South, this board truly reflects the diversity of the global organic movement. The board is dedicated to the IFOAM program 2011 that sustains the growth and development of the organic sector for the coming years.

Also in 2008, the implementation rules for the revised EU regulation were decided upon, as the Council Regulation (EC) No 834/2007 applies from January 2009 onwards. Farmers in Europe, as well as those from importing countries, will have to deal with the new regulation and its changed rules. For the new import regulation, IFOAM and its EU group advocated for clear, fair and transparent implementation rules. This facilitates trade and therewith access to markets, representing development options and improved livelihoods for thousands of farmers in the Global South.

[1] International Social and Environmental Accreditation and Labelling Alliance, see www.isealalliance.org/

[2] The most recent general assembly was held from June 22 - 24, 2008 in Vignola, Italy. Information about the general assembly is available on www.ifoam.org/events/ifoam_conferences/general_assembly/ga.html

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

The Pacific Organic Standard was launched September 9th 2008, the world's third regional organic standard, after the European Union and East Africa. Many products like spices originate from the Pacific. The region will not only focus on exports, and possibilities for local and regional marketing are being explored as well.

Promising moves for more regional collaboration were made during the conference 'Organic Asia – the way forward.' Key players from the movement as well as government representatives put their heads together at the end of October in Sarawak, Malaysia, to look for innovation, challenges and collaboration for the future. One important outcome was the setting of regional collaboration goals for the coming Organic World Congress 2011 that will take place in South Korea. South-East Asia is poised to develop the world's fourth regional organic standard.

Additional work on the facilitation of trade has been carried out by the International Task Force on Harmonization and Equivalence in Organic Agriculture, which developed tools for determining equivalence. The International Requirements for Organic Certification Bodies (IROCB), for example, facilitate the recognition of certification bodies' services in the course of international trade. EquiTool offers procedures and criteria for assessing equivalency of two or more organic standards. The organic sector may look back in ten years' time and find that these tools were decisive in facilitating trade of organic products.

Under the leadership of its new World Board, IFOAM is excited to work on further enhancing organic growth in 2009, through advocacy, the facilitation of trade, and capacity building. In particular, we will be working on a new leadership program. Education and training, both vocational and academic, play an important role in disseminating the benefits of organic at all levels. Planting the seed for future generations will bring healthy and creative change to society. It will raise awareness about the value formation that going organic entails. In this sense, IFOAM aims to create an enabling environment and innovative think spaces to cultivate the organic future.

IFOAM is looking forward to the 1st International IFOAM Conference on Animal and Plant Breeding, 'Breeding Biodiversity' in 2009. Organic farms ideally utilize integrated systems, and bringing both animal and plant breeding together in one international conference explicitly highlights the important interdependences and holistic approach of organic agriculture. Through the conference, IFOAM would like to highlight this often-overlooked aspect of the organic trade chain.

Looking ahead while learning from the past, it seems that the organic sector will grow together, global, harmonized and, at the same time, diverse. It is known that diverse organic production systems show great resilience, needed in times of climate change and other disasters. Likewise, a diversified organic industry, with many diverse verification and marketing systems, is the best guarantee for balanced growth.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Annex: Tables: Organic land, shares of total agricultural land and farms world-wide

Table 56: Organically managed land area, share of total agricultural and producers by country 2007

Country	Year	Total land under organic management [ha]	Share of total agricultural land	Land fully converted [ha]	Land under conversion [ha]	Producers
Afghanistan	2007	22	0.00%	22	–	233
Albania	2007	77	0.01%	–	–	100
Algeria	2006	1'550	0.00%	–	–	–
Argentina	2007	2'777'959	2.2%	2'777'959	–	1'578
Armenia	2007	336	0.02%	216	120	35
Australia	2007	12'023'135	2.7%	–	–	1'438
Austria	2007	372'026	13.4%	–	–	19'997
Azerbaijan	2007	21'240	0.5%	–	21'240	312
Bangladesh	2007	–	–	–	–	852
Belgium	2007	32'628	2.4%	23'842	8'785	821
Belize	2000	1'810	1.2%	–	–	68
Benin	2007	1'488	0.04%	–	–	2'354
Bhutan	2007	57	0.01%	57	0	323
Bolivia	2006	41'004	0.1%	–	–	11'743
Bosnia Herzegovina	2007	691	0.03%	426	265	304
Brazil	2007	1'765'793	0.7%	932'120	833'673	7'250
Bulgaria	2007	13'646	0.3%	8'387	5'260	240
Burkina Faso	2007	7'267	0.1%	7'267	–	5'808
Cambodia	2008	11'350	0.2%	–	–	9'350
Cameroon	2007	336	0.00%	267	69	92
Canada	2007	556'273	0.8%	556'273	–	3'782
Chile	2007	13'564	0.1%	13'564	–	550
China	2007	1'553'000	0.3%	905'000	647'000	1'600 (2006)
Colombia	2007	38'587	0.1%	30'092	8'395	0
Congo (Democr. Rep.)	2007	6'068	0.03%	5'923	145	1'053
Costa Rica	2007	7'860	0.3%	7'860	–	2'921
Croatia	2007	7'647	0.3%	1'846	5'801	483
Cuba	2008	14'314	0.2%	–	–	2'954
Cyprus	2007	2'322	1.5%	1'398	960	305 (2006)
Czech Rep.	2007	312'890	8.9%	248'046	64'844	1'318

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Country	Year	Total land under organic management [ha]	Share of total agricultural land	Land fully converted [ha]	Land under conversion [ha]	Producers
Denmark	2007	145'393	5.5%	133'947	11'446	2'835
Dominican Rep.	2007	123'089	6.3%	98'823	24'266	14'992
Ecuador	2007	49'196	0.7%	45'880	3'316	221
Egypt	2006	14'165	0.4%	–	–	460
El Salvador	2007	7'478	0.4%	6'166	1'312	2'000
Estonia	2007	79'530	8.8%	55'445	24'085	1'220
Ethiopia	2007	140'305	0.4%	138'845	560	165'560
Faroe Islands	2007	12	0.4%	–	–	–
Fiji	2005	100	0.02%	–	–	–
Finland	2007	148'760	6.5%	133'543	15'217	4'406
France	2007	557'133	1.9%	497'314	59'819	11'978
Gambia	2006	86	0.01%	–	–	–
Georgia	2007	251	0.01%	31	220	49
Germany	2007	865'336	5.1%	0	–	18'703
Ghana	2008	24'449	0.2%	24'449	–	3'900
Greece	2007	278'397	3.0%	172'028	106'373	23'769
Guatemala	2008	7'684	0.2%	6'366	1'318	11
Guinea-Bissau	2007	5'600	0.3%	5'500	100	401
Guyana	2003	109	0.01%	–	–	28
Honduras	2008	8'448	0.3%	–	–	1'825
Hungary	2007	122'270	2.9%	109'208	13'062	1'242
Iceland	2007	6'229	0.3%	–	–	36
India	2007/ 08	1'030'311	0.6%	455'568	595'413	195'741
Indonesia	2007	66'184	0.1%	63'088	3'096	0
Iran	2007	913	0.00%	913	–	5
Ireland	2007	41'122	0.1%	30'830	10'292	1'134
Israel	2007	5'693	1.1%	4'803	890	283
Italy	2007	1'150'253	9.1%	903'254	246'999	45'231
Ivory Coast		943	0.00%	943	–	–
Jamaica	2006	437	0.1%	–	–	11
Japan	2007	6'626	0.1%	–	–	2'463
Jordan	2007	1'047	0.1%	1'024	23	13
Kazakhstan	2007	2'393	0.00%	–	2'393	0
Kenya	2007	4'636	0.02%	4'250	386	1'811
Korea, Republic of	2007	9'729	0.5%	–	–	7'507

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Country	Year	Total land under organic management [ha]	Share of total agricultural land	Land fully converted [ha]	Land under conversion [ha]	Producers
Kyrgyzstan	2007	14'400	0.1%	14'400	–	–
Laos	2008	1'537	0.1%	–	1'537	811
Latvia	2007	173'463	9.8%	73'124	100'343	4'108
Lebanon	2007	1'946	0.5%	522	1'336	190
Liechtenstein	2007	1'048	29.7%	1'048	0	39
Lithuania	2007	120'418	4.6%	56'541	63'878	2'855
Luxemburg	2007	3'380	2.6%	2'721	659	81
Macedonia, FYROM	2007	1'333	0.1%	–	–	127
Madagascar	2006	9'456	0.02%	–	–	5'455
Malawi	2002	325	0.01%	–	–	13
Malaysia	2008	1'540	0.02%	1'540	–	21
Mali	2007	3'402	0.01%	3'402	–	7'526
Malta	2007	12	0.1%	10	2	30
Mauritius	2006	175	0.2%	–	–	5
Mexico	2007	393'461	2.9%	357'061	36'400	128'819
Moldova	2007	11'695	0.5%	11'405	290	121
Montenegro	2007	25'051	4.8%	5'003	20'048	13
Morocco	2008	3'590	0.01%	3'590	–	–
Mozambique	2006	728	0.00%	–	–	1'928
Namibia	2007	80	0.00%	–	–	6'000
Nepal	2007	8'187	0.2%	7'737	245	1'424
Netherlands	2007	47'019	2.5%	45'462	1'558	1'374
New Zealand	2007	65'000	0.4%	947	–	600
Nicaragua	2008	70'972	1.3%	56'648	14'323	7'407
Niger	2007	131	0.00%	49	82	0
Nigeria	2007	3'154	0.00%	52	3'102	0
Niue	2006	159	2.0 %	–	–	61
Norway	2007	48'863	4.7%	40'096	8'767	2'611
Pakistan	2006	25'001	0.09%	–	–	28
Palestine	2007	541	0.2%	–	–	303
Panama	2005	5'244	0.2%	–	–	7
Papua New Guinea	2006	2'497	0.2%	–	–	4'558
Paraguay	2006	17'705	0.1%	–	–	3'490
Peru	2007	124'714	0.6%	88'703	36'011	36'093
Philippines	2007	15'344	0.1%	–	–	0
Poland	2007	285'878	1.9%	143'087	142'791	11'887

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Country	Year	Total land under organic management [ha]	Share of total agricultural land	Land fully converted [ha]	Land under conversion [ha]	Producers
Portugal	2007	233'475	6.4%	–	–	1'949
Romania	2007	131'401	0.9%	–	–	2'238
Russian Federation	2007	3'577	0.00%	1'309	2'268	12
Rwanda	2007	13'356	0.7%	1'656	11'700	2'565
Samoa	2006	7'243	7.8%	–	–	213
Sao Tome and Prince	2007	2'862	5.0%	–	–	1'179
Senegal	2007	1'589	0.02%	763	825	1'306
Serbia	2007	920	0.02%	150	770	35 (2006)
Slovak Republic	2007	117'906	6.3%	80'269	37'639	280
Slovenia	2007	29'322	6.0%	23'560	5'765	2'000
Solomon Islands	2006	3'628	4.3%	–	–	352
South Africa	2007	50'012	0.1%	45'356	4'655	500
Spain	2007	988'323	3.9%	640'536	347'786	18'226
Sri Lanka	2006	17'000	0.7%	0	0	4'216
Sudan	2007	56'324	0.04%	55'324	–	–
Suriname	2007	40	0.04%	0	40	1
Swaziland	2007	3	0.00%	–	3	–
Sweden	2007	248'104	8.0%	248'146	36'524	3'028
Switzerland	2007	116'641	11.0%	0	0	6'199
Syria	2007	28'461	0.2%	28'461	1'931	3'256
Taiwan	2006	1'746	0.2%	–	–	905
Tanzania	2007	62'180	0.2%	35'706	26'475	90'222
Thailand	2007	19'123	0.1%	–	–	3'924
Timor Leste	2007	23'790	7.0%	–	–	–
Togo	2007	2'545	0.1%	2'519	26	4'183
Tunisia	2006	154'793	1.6%	–	–	862
Turkey	2007	124'263	0.6%	135'360	38'891	16'364
Uganda	2007	296'203	2.3%	296'203	–	206'803
UK	2007	660'200	4.2%	510'673	149'529	5'506
Ukraine	2007	249'872	0.6%	–	–	92
United Arab Emirates	2008	5	0.0%	5	–	1
Uruguay	2006	930'965	6.2%	930'965	–	630
USA	2005	1'640'804	0.5%	1'640'804	–	8'493
Uzbekistan	2007	1'854	0.01%	1'647	207	302
Vanuatu	2006	8'996	6.1%	–	–	–
Venezuela	2007	2'441	0.01%	681	1'760	–

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Country	Year	Total land under organic management [ha]	Share of total agricultural land	Land fully converted [ha]	Land under conversion [ha]	Producers
Vietnam	2007	12'120	0.1%	11'365	755	–
Zambia	2007	2'530	0.01%	–	–	20'000
Total		32'221'311	0.8%	14'017'390	3'816'065	1'219'526

Source: FiBL/IFOAM Survey; '–': Data not available

Table 57: Organically managed land area by country 2007

Country	Land under organic management [ha]	Country	Land under organic management [ha]
Australia	12'023'135	Ethiopia	140'305
Argentina	2'777'959	Romania	131'401
Brazil	1'765'793	Peru	124'714
USA	1'640'804	Turkey	124'263
China	1'553'000	Hungary	122'270
Italy	1'150'253	Dominican Rep.	123'089
India	1'030'311	Lithuania	120'418
Spain	988'323	Slovak Republic	117'906
Uruguay	930'965	Switzerland	116'641
Germany	865'336	Estonia	79'530
UK	660'200	Nicaragua	70'972
France	557'133	Indonesia	66'184
Canada	556'273	New Zealand	65'000
Mexico	393'461	Tanzania	62'180
Austria	372'026	Sudan	56'324
Czech Rep.	312'890	South Africa	50'012
Uganda	296'203	Ecuador	49'196
Poland	285'878	Norway	48'863
Greece	278'397	Netherlands	47'019
Ukraine	249'872	Ireland	41'122
Sweden	248'104	Bolivia	41'004
Portugal	233'475	Colombia	38'587
Latvia	173'463	Belgium	32'628
Tunisia	154'793	Slovenia	29'322
Finland	148'760	Syria	28'461
Denmark	145'393	Montenegro	25'051

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Country	Land under organic management [ha]
Pakistan	25'001
Ghana	24'449
Timor Leste	23'790
Azerbaijan	21'240
Thailand	19'123
Paraguay	17'705
Sri Lanka	17'000
Philippines	15'344
Kyrgyzstan	14'400
Cuba	14'314
Egypt	14'165
Bulgaria	13'646
Chile	13'564
Rwanda	13'356
Vietnam	12'120
Moldova	11'695
Cambodia	11'350
Korea, Republic of	9'729
Madagascar	9'456
Vanuatu	8'996
Honduras	8'448
Nepal	8'187
Costa Rica	7'860
Guatemala	7'684
Croatia	7'647
El Salvador	7'478
Burkina Faso	7'267
Samoa	7'243
Japan	6'626
Iceland	6'229
Congo (Democr. Rep.)	6'068
Israel	5'693
Guinea-Bissau	5'600
Panama	5'244
Kenya	4'636
Solomon Islands	3'628
Morocco	3'590

Country	Land under organic management [ha]
Russian Federation, European Part	3'577
Mali	3'402
Luxemburg	3'380
Nigeria	3'154
Sao Tome and Prince	2'862
Togo	2'545
Zambia	2'530
Papua New Guinea	2'497
Venezuela	2'441
Kazakhstan	2'393
Cyprus	2'322
Lebanon	1'946
Uzbekistan	1'854
Belize	1'810
Taiwan	1'746
Senegal	1'589
Algeria	1'550
Malaysia	1'540
Laos	1'537
Benin	1'488
Macedonia, FYROM	1'333
Liechtenstein	1'048
Jordan	1'047
Ivory Coast	943
Serbia	920
Iran	913
Mozambique	728
Bosnia Herzegovina	691
Palestine	541
Jamaica	437
Cameroon	336
Armenia	336
Malawi	325
Georgia	251
Mauritius	175
Niue	159
Niger	131

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Country	Land under organic management [ha]
Guyana	109
Fiji	100
Gambia	86
Namibia	80
Albania	77
Bhutan	57
Suriname	40
Afghanistan	22
Faroe Islands	12
Malta	12
United Arab Emirates	5
Swaziland	3

Source: FiBL/IFOAM Survey

Table 58: Share the organically managed land of total agricultural land by country 2007

Country	Share of total agricultural land [ha]
Liechtenstein	29.68%
Austria	13.36%
Switzerland	11.00%
Latvia	9.78%
Italy	9.05%
Czech Rep.	8.89%
Estonia	8.77%
Sweden	7.96%
Samoa	7.79%
Timor Leste	7.00%
Finland	6.49%
Portugal	6.35%
Dominican Rep.	6.33%
Slovak Republic	6.27%
Uruguay	6.23%
Vanuatu	6.12%
Slovenia	6.00%
Denmark	5.46%
Germany	5.11%
Sao Tome and Prince	5.02%
Montenegro	4.84%
Norway	4.72%
Lithuania	4.55%
Solomon Islands	4.27%
UK	4.15%
Spain	3.93%
Greece	3.05%
Mexico	2.86%
Hungary	2.89%
Australia	2.70%
Luxemburg	2.58%
Netherlands	2.46%
Belgium	2.37%
Uganda	2.33%
Argentina	2.15%
Niue	1.99%
France	1.88%
Poland	1.85%
Tunisia	1.58%
Cyprus	1.53%
Nicaragua	1.33%
Belize	1.19%
Israel	1.10%
Ireland	0.99%
Romania	0.89%
Canada	0.82%

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Country	Share of total agricultural land [ha]	Country	Share of total agricultural land [ha]
Sri Lanka	0.72%	Indonesia	0.14%
Rwanda	0.69%	Vietnam	0.13%
Brazil	0.67%	Philippines	0.13%
Ecuador	0.65%	Malta	0.12%
Ukraine	0.60%	Bolivia	0.11%
Peru	0.59%	Macedonia, FYROM	0.11%
India	0.57%	Kyrgyzstan	0.11%
Korea, Republic of	0.52%	Jordan	0.10%
USA	0.51%	Thailand	0.10%
Lebanon	0.50%	Pakistan	0.09%
Turkey	0.49%	Colombia	0.09%
Moldova	0.46%	Chile	0.09%
Azerbaijan	0.45%	Jamaica	0.09%
El Salvador	0.44%	Laos	0.08%
Ethiopia	0.41%	Paraguay	0.07%
Egypt	0.40%	Togo	0.07%
Faroe Islands	0.40%	Burkina Faso	0.07%
New Zealand	0.38%	South Africa	0.05%
Guinea-Bissau	0.34%	Suriname	0.04%
Honduras	0.29%	Benin	0.04%
Croatia	0.28%	Sudan	0.04%
China	0.28%	Bosnia Herzegovina	0.03%
Iceland	0.27%	Congo (Democr. Rep.)	0.03%
Costa Rica	0.27%	Armenia	0.02%
Bulgaria	0.26%	Madagascar	0.02%
Panama	0.24%	Fiji	0.02%
Papua New Guinea	0.23%	Malaysia	0.02%
Cuba	0.22%	Senegal	0.02%
Cambodia	0.21%	Kenya	0.02%
Taiwan	0.21%	Serbia	0.02%
Syria	0.20%	Morocco	0.01%
Nepal	0.19%	Venezuela	0.01%
Tanzania	0.18%	Gambia	0.01%
Ghana	0.17%	Zambia	0.01%
Guatemala	0.17%	Bhutan	0.01%
Mauritius	0.15%	Mali	0.01%
Palestine	0.15%	Georgia	0.01%
Japan	0.14%	Malawi	0.01%

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Country	Share of total agricultural land [ha]	Country	Share of total agricultural land [ha]
Albania	0.01%	Guyana	0.01%
Uzbekistan	0.01%		

Source: FiBL/IFOAM Survey

Table 59: Organic producers by country 2007

Country	Producers	Country	Producers
Uganda	206'803	Thailand	3'924
India	195'741	Ghana	3'900
Ethiopia	165'560	Canada	3'782
Mexico	128'819	Paraguay	3'490
Tanzania	90'222	Syria	3'256
Italy	45'231	Sweden	3'028
Peru	36'093	Cuba	2'954
Greece	23'769	Costa Rica	2'921
Zambia	20'000	Lithuania	2'855
Austria	19'997	Denmark	2'835
Germany	18'703	Norway	2'611
Spain	18'226	Rwanda	2'565
Turkey	16'364	Japan	2'463
Dominican Rep.	14'992	Benin	2'354
France	11'978	Romania	2'238
Poland	11'887	El Salvador	2'000
Bolivia	11'743	Slovenia	2'000
Cambodia	9'350	Portugal	1'949
USA	8'493	Mozambique	1'928
Mali	7'526	Honduras	1'825
Korea, Republic of	7'507	Kenya	1'811
Nicaragua	7'407	China	1'600
Brazil	7'250	Argentina	1'578
Switzerland	6'199	Australia	1'438
Namibia	6'000	Nepal	1'424
Burkina Faso	5'808	Netherlands	1'374
UK	5'506	Czech Rep.	1'318
Madagascar	5'455	Senegal	1'306
Papua New Guinea	4'558	Hungary	1'242
Finland	4'406	Estonia	1'220
Sri Lanka	4'216	Sao Tome and Prince	1'179
Togo	4'183	Ireland	1'134
Latvia	4'108	Congo (Democr. Rep.)	1'053

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Country	Producers	Country	Producers
Taiwan	905	Macedonia, FYROM	127
Tunisia	862	Moldova	121
Bangladesh	852	Albania	100
Belgium	821	Cameroon	92
Laos	811	Ukraine	92
Uruguay	630	Luxemburg	81
New Zealand	600	Belize	68
Chile	550	Niue	61
South Africa	500	Georgia	49
Croatia	483	Liechtenstein	39
Egypt	460	Iceland	36
Guinea-Bissau	401	Armenia	35
Solomon Islands	352	Serbia	35
Bhutan	323	Malta	30
Azerbaijan	312	Guyana	28
Cyprus	305	Pakistan	28
Bosnia Herzegovina	304	Malaysia	21
Palestine	303	Jordan	13
Uzbekistan	302	Malawi	13
Israel	283	Montenegro	13
Slovak Republic	280	Russian Federation, European Part	12
Bulgaria	240	Guatemala	11
Afghanistan	233	Jamaica	11
Ecuador	221	Panama	7
Samoa	213	Iran	5
Lebanon	190	Mauritius	5

Source: FiBL/IFOAM Survey

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Information on the Data Providers and Data Sources

COMPILED BY MAREN ROHWEDDER[1]

Afghanistan

- Data source: Certifier data

Albania

- Data provided by Anula Guda, Sustainable Agriculture Support in Albania (SASA)-Project, Albania

Algeria

- Data provided by / Source: Dr. Lina Al Bitar, MOAN, Mediterranean Agronomic Institute of Bari IAMB, Italy, www.iamb.it. The data refer to 2006.

Argentina

- Data provided by/ Sources: Juan Carlos Ramírez, Dirección de Calidad Agroalimentaria, Servicio Nacional de Sanidad y Calidad Agroalimentaria (SENASA), Buenos Aires, Argentina. Further source: Servicio Nacional de Sanidad y Calidad Agroalimentaria (2008): "Situación de la Producción Orgánica en la Argentina durante el año 2007." Buenos Aires, Argentina.

Armenia

- Data provided by/ Source Nune Darbinyan, Ecoglobe - Organic control and certification body, 375033 Yerevan, Republic of Armenia, www.ecoglobe.am. The data refer to 2008.

Australia

- Data source: Australian Quarantine and Inspection Service (AQIS), Canberra ACT 2601, Australia www.daffa.gov.au/aqis. Additions from Els Wynen, Ecolanduse Systems, Canberra ACT 2615, Australia, www.elspl.com.au.

Austria

- Land use and operator data provided by Elisabeth Klingbacher, Research Institute of Organic Agriculture (FiBL) Austria, 1070 Vienna, Austria, www.fibl.org. Data source: Bundesministerium für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft (Ed.)(2008): Grüner Bericht 2008. Vienna, Austria, www.gruenerbericht.at.
- The market data were provided by Ralph Liebing, Research Institute of Organic Agriculture (FiBL), 1070 Vienna, Austria, www.fibl.org.

Azerbaijan

- Data (land area, land use, operators, market size) 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. Coverage of data: 100 %.

Bangladesh

- Data (on aquaculture area and on processors) provided by international certifiers.

Belgium

- Organic crop area: Eurostat: Organic crop area 2007; Date of extraction: 15 Jan 2009, Last update: Dec 19, 2008. Eurostat, Luxemburg, http://epp.eurostat.ec.europa.eu
- Operators: Eurostat: Number of registered organic operators 2007; Date of extraction: 15 Jan 2009, Last update: Dec 18, 2008. Eurostat, Luxemburg, http://epp.eurostat.ec.europa.eu
- Market data: BioForum (2008): Puur. Bio in Cijfers. April 2008. Download: www.bioforum.be/bioweek/downloads/bio_in_cijfers.pdf

[1] Maren Rohwedder, Ljusdal, Sweden

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Belize

- SOEL Survey 2003; Foundation Ecology & Agriculture (SÖL), 67089 Bad Dürkheim, Germany, www.soel.de

Benin

- Data provided by/ Source: Abdoul Aziz Yanogo, Ecocert West Africa Office, Ecocert 11 BP 203 Ouagadougou, Burkina Faso, www.ecocert.com

Bhutan

- Data provided by/ Source: Kesang Tshomo, Bio Bhutan, PO Box 864, Thimpu, Bhutan, www.biobhutan.com.

Bolivia

- Data provided by/ Source: Nelson C. Ramos Santalla, Asociación de Organizaciones de Productores Ecológicos de Bolivia, PO Box 1872, La Paz, Bolivia, www.aopeb.org. The data refer to 2006.

Bosnia Herzegovina

- Data provided by /Source: Maida Hadžiomerovic, Organska Kontrola (OK), 71000 Sarajevo. Bosnia & Herzegovina, www.organskakontrola.ba.
- Includes the data of all certifiers active in the country.

Brazil

- Data 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. Brazil has a regulation on organic farming since December 2007, but it has not yet been fully applied. The coverage of the data is about 95 %. Please note: The data reported previously by FiBL, SOEL and IFOAM only included the fully converted areas. The new figure presented in this book includes the in-conversion area.

Bulgaria

- Data on land use details provided by: Stoilko Apostolov, FOA Bioselena, 4300 Karlovo, Bulgaria, www.bioselena.com. The data are based on annual reports from the – by the Ministry of Agriculture and Food Supply – accredited control bodies in Bulgaria: Balkan Biocert Ltd., QC&I International Services, CERES Gmbh., Lacon GmbH, BCS O -Garantie GmbH and Control Union Certifications BV.
- Total area (slightly higher that what was provided by Bioselena) according to Eurostat: Organic crop area 2007; Date of extraction: 15 Jan 2009, Last update: Dec 19, 2008. Eurostat, Luxemburg, http://epp.eurostat.ec.europa.eu
- Operator/production/livestock data provided by: Stoilko Apostolov, FOA Bioselena, 4300 Karlovo, Bulgaria, www.bioselena.com

Burkina Faso

- Data provided by/ Source: Abdoul Aziz Yanogo, Ecocert West Africa Office, Ecocert, 11 BP 203 Ouagadougou, Burkina Faso, www.ecocert.com. Differentiation between full organic status and in-conversion was not available.
- Cotton data according to Helvetas, 8021 Zürich, Switzerland, www.helvetas.org

Cambodia

- Data provided by/ Source: Winfried Scheewe, Marketing Advisor to CEDAC, Cambodian Center for Study and Development in Agriculture (CEDAC), Khan Toul Kok, Phnom Penh, Cambodia, www.cedac.org.kh
- Regarding rice: Most of the farmers cooperate with the Cambodian Center for Study and Development in Agriculture CEDAC, an NGO, which has its own organic standards, adopted from IFOAM Standards. CEDAC uses an internal control system to assure organic quality. Furthermore, international certifiers are active and certifying, among others, smaller cooperatives set up by GTZ.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Cameroon

- Data provided by/ Source: Abdoul Aziz Yanogo, Ecocert West Africa Office, Ecocert 11 BP 203 Ouagadougou, Burkina Faso, 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. Not for all certifiers were data available at the time of the survey. Other than in 2006, data on the transition area were not available.

Chad

- Data provided by/ Source: Abdoul Aziz Yanogo, Ecocert West Africa Office, Ecocert 11 BP 203 Ouagadougou, Burkina Faso, 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 partly to the year 2007/2008.
- The number of farms is an estimate.

China

- Data provided by Wang Maohua, Certification and Accreditation Administration of the People's Republic of China CNCA, Beijing 100088, P.R.China, www.cnca.gov.cn.
- The data of 2007 shows a smaller area than the data provided previously. This does, however, not mean, that the organic area has decreased. While calculating the data, CNCA subtracted bee pastures, extensive pastures or other wild collection areas. Furthermore, farms certified by foreign certifiers, certifying against foreign standards were not included.

Colombia

- Data 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.
- 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.

Congo

- Data source: Certifier data

Cook Islands

- Data provided by: Karen Mapusua, Women in Business Development Inc, PO Box 6591 Apia, Samoa, www.womeninbusiness.ws.

Costa Rica

- Data provided by Dr. Jaime E. García-González, Centro de Educación Ambiental (CEA), Universidad Estatal a Distancia (UNED), San José, Costa Rica
- Source: Ministerio de Agricultura y Ganadería, Estatisticas 2007 Agricoltura Organica, www.protecnet.go.cr/SFE/organica1/Or_estadisticas.html

Croatia

- Data provided by Darko Znaor, Independent Consultant, 10000 Zagreb, Croatia and Sonja Karoglan Todorović, Ecologica, 10000 Zagreb, Croatia, www.ecologica.hr. The data cover 100 % of the organic activities in the country.
- Data source for the organic managed area and for the number of producers, processors and importers: Ministry of Agriculture, Forestry and Water Management, 10000 Zagreb, Croatia, www.mps.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.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Cuba

- Data 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.

Cyprus

- Land area: Eurostat: Organic crop area 2007; Date of extraction: 15 Jan 2009, Last update: Dec 19, 2008. Eurostat, Luxemburg, http://epp.eurostat.ec.europa.eu
- Data on producers (2005) provided by Ionanis Papastylianou, Agricultural Research Institute, 1516 Nicosia , Cyprus, http://arinet.ari.gov.cy

Czech Republic

- Data provided by: Karolina Dytrtova, Bioinstitut, Olomouc 77147, Czech Republic, www.bioinstitut.cz.
- Data source for the organic managed land area and the number of operators: Ministry for Agriculture, 11705 Prague 1, Czech Republic, www.mze.cz/en.
- Vegetable area taken from Eurostat: Organic crop area 2007; Date of extraction: 15 Jan 2009, Last update: Dec 19, 2008. Eurostat, Luxemburg, http://epp.eurostat.ec.europa.eu
- Source for the organic production data (primary and processed products in metric tons): Institute of Agriculture Economics and Information (IAEI), 120 56 Prague 2, Czech Republic, www.uzpi.cz. (Coverage 100 %)
- Size of national market for organic products according to Green Marketing, 66434 Moravské Knínice, Czech Republic, www.greenmarketing.cz.

Denmark

- Land use data provided by: Diana Schaack, Zentrale Markt- und Preisberichtstelle für Erzeugnisse der Land-, Forst- und Ernährungswirtschaft GmbH (ZMP), 53123 Bonn, Germany, www.zmp.de. Some of the data were provided by Kirsten Lund Jensen, Erhvervspolitisk konsulent, Dansk Landbrug, Vesterbrogade 4 A, 4.sal, 1620 Kbh. V, Denmark
- Original data source for land use as well as for operator data: Ministry of Food, Agriculture and Fisheries, 2800 Kgs. Lyngby, Denmark, www.fvm.dk. Download: http://pdir.fvm.dk/Ã˜kologi_i_tal.aspx?ID=2134&+
- Market data: Statistics Denmark, www.statbank.dk/statbank5a/default.asp?w=1280. Totals 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 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

- Data provided by: Sonia Lehmann and María A. Rovayo, Gesellschaft für Technische Zusammenarbeit (GTZ), Av. Eloy Alfaro y Av. Amazonas Edf. MAGAP 4to. piso, Quito, Ecuador, www.gtz.de
- The data were collected with the support of SESA - Servicio Ecuatoriano de Sanidad Agropecuaria. The data was provided by the SESA accredited organic certifiers in Ecuador: BCS, CERES, Control Union, ECOCERT.
- SESA is the national authority for organic agriculture control and is currently developing a register of organic producers. Currently the land use data cover 100 %, production data 50 % of the activities. It is expected that more data will be available in the future.
- Shrimps are certified by Naturland through BCS and IMO as well as by Ecocert. The national regulation for organic agriculture does not consider shrimp production.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

- The producer data do not include smallholders. There are 82 smallholder groups in the country.

Egypt

- Data are from 2006; provided by Paul Kledal, Institute of Food and Resource Economics, University of Copenhagen, Denmark, based on data of the certifiers.
- New data were provided by Mohamed Yousri Hashem, Center of Organic Agriculture in Egypt (COAE) and by IMC : Eng. Ehab Abdel Rahman Elmihy, Istituto Mediterraneo di Certificazione srl., Mediterranean Center for Agriculture inspection and certification IMC (S.A.E), 19 El Nakhil Str., Mohandessen, Giza- Egypt, www.imcert.it
  These data were not included as no new data were available from the other certifiers (the 2006 figure from Kledal includes data from all certifiers).

El Salvador

- Data provided by: Beatriz Alegría, Consorcio CLUSA-CORDES, www.elsalvadororganico.com.sv

Estonia

- Data provided by/ Source: Egon Palts, Estonian Plant Production Inspectorate, Teaduse 2, Saku, Estonia, www.plant.agri.ee

Ethiopia

- Data provided by / Sources: Tobias Fischer, BCS Öko-Garantie GmbH, 90402 Nuremberg, Germany, www.bcs-oeko.com; Ines Hensler, Institute for Marketecology (IMO), 8570 Weinfelden, Switzerland, www.imo.ch; Britta Jankay and Gyorgyi Acs Feketene, Control Union Certifications, 8000 AD Zwolle, Netherlands, www.controlunion.com. A part of the data refers to 2007/2008.

Faroe Islands

- Data source: Certifier data

Finland

- Land use and operator data provided by/ Source: Juha Kärkkäinen, Finnish Food Safety Authority, Import and Marketing Control, 00790 Helsinki, Finland, www.evira.fi.
- Market data provided by Sampsa Heinonen, Finfood, Vantaa, Finland, www.ruokatieto.fi/luomu

France

- Land use and operator data provided by/ Source: Katell Guernic, Agence BIO, 93100 Montreuil sous Bois, France, www.agencebio.org
- Market data: The size of the national market for organic products was estimated by Agence BIO.

Gambia

- Data provided by / Source: Ecocert West Africa Office, Ecocert 11 BP 203 Ouagadougou, Burkina Faso, www.ecocert.com. The data refer to 2006.

Germany

- Landuse data and operator data: Zentrale Markt- und Preisberichtstelle für Erzeugnisse der Land-, Forst- und Ernährungswirtschaft GmbH (ZMP): Landwirtschaftliche Produktionsstruktur in Deutschland. Bonn, 2008. Number of operators: Bundesanstalt für Landwirtschaft und Ernährung (BLE)(2008): Strukturdaten der nach der Verordnung (EWG) Nr. 2092/91 des Rates vom 24. Juni 1991 wirtschaftenden Unternehmen in Deutschland nach Unternehmensformen sowie der bewirtschafteten Fläche. www.ble.de www.zmp.de/oekomarkt/unternehmen.pdf
- Market data: Prof. Dr. Ulrich Hamm, University of Kassel, 37213 Witzenhausen, Germany, www.uni-kassel.de.

Georgia

- Data provided by: Mariam Jorjadze and Elene Shatberashvili, Biological Farming Association Elkana, 0177, Tbilisi, Georgia, www.elkana.org.ge. The data refer to October 2008.
- In Georgia the "National Standard on Organic Production" (approved in April 2008) was drafted in accordance with the Codex Alimentarius Guidelines for the Production, Processing, Labeling and Mar-

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

keting of Organically Produced Foods (GL 32 - 1999, Rev. 1 - 2001). There is also a Private Standard of Biological Farming Association Elkana which ompletely corresponds to EC Regulation 2092/91. A Georgian certification body "Caucascert" was accredited according to the ISO 65 and together with Armenian organization Ecoglobe was authorized to certify according to "Green Caucasus" - "Standard for the Production, Processing, Labeling and Marketing of Organically Produced Foods" which was equivalent to the requirements of international organic farming standards, such as IFOAM, Codex Alimentarius and EEC2-92/91 Regulation.

Ghana

- Data provided by: Samuel Adimado, Ghana Organic Agriculture Network (GOAN), P.O. Box 6342 Kumasi, Ghana, Source: Survey among the operators in Ghana. The data are from the end of 2008.

Greece

- Operators: Eurostat: Number of registered organic operators 2007; Date of extraction: 15 Jan 2009, Last update: Dec 18, 2008. Eurostat, Luxemburg, http://epp.eurostat.ec.europa.eu
- Land use: Eurostat: Organic crop area 2007; Date of extraction: 15 Jan 2009, Last update: Dec 19, 2008. Eurostat, Luxemburg, http://epp.eurostat.ec.europa.eu
- 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.

Guinea Bissau

- Data provided by/ Source: Abdoul Aziz Yanogo, Ecocert West Africa Office, Ecocert 11 BP 203 Ouagadougou, Burkina Faso, www.ecocert.com

Guatemala

- Data 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

- Data provided by / Source: Jaime Castro Mendivil, Control Union, Lima, Peru, www.cuperu.com. The data refer to 2003. No updates have been received since.

Honduras

- Data provided by Yolandina Lambur Valle, Dpto, Agricultura Organica, SENASA SAG - Secretaria de Agricultura y Ganadería, Honduras, www.senasa-sag.gob.hn

Hungary

- Data provided by/ Sources: Dóra Kovács, Hungária Öko Garancia Kft., 1033 Budapest, Hungary, www.okogarancia.hu and Biokontroll Hungária, 1027 Budapest, Hungary, www.biokontroll.hu.

Iceland

- Data source: Certifier data

India

- Data were provided by Dr. P.V.S.M. Gouri, Agricultural and Processed Food Products Export Development (APEDA), www.apeda.com. Sources: APEDA, Ministry of Commerce & Industry, Govt of India, New Delhi - 110 016, India, www.apeda.com and National Centre for Organic Agriculture (NCOF), India, dacnet.nic.in/ncof/

Indonesia

- Data provided by: Agung Prawato, BIOCert, Bogor 16165, Indonesia, www.biocert.or.id.
- Source: Certifier data; Some of the data are estimates

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Iran

- Data provided by: Hossein Mahmoudi, Shahid Beheshti University, Environmental Sciences Research Institute, Evin, PO Box 983963113, Tehran, Iran, http://en.sbu.ac.ir/
- Data source: certifier data. The figures do not include area under conversion. The data cover nearly 100 % of the organic area in Iran.

Ireland

- Data on producers and land area were provided by: Eddie Mc Auliffe, Organic Unit, Department of Agriculture Fisheries and Food, Johnstown Castle Estate, Wexford, Ireland, www.agriculture.gov.ie
- 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 http://www.bordbia.ie/eventsnews/ConferencePresentations/Pages/NationalOrganicFoodConference2008-SpeakerPresentations.aspx

Israel

- Data 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

- Data source land use data: Sistema d'informazione nazionale sull'Agricoltura Biologica (SINAB)(2008): L'Agricoltura Biologica in Cifre al 31/12/2007. SINAB, Roma. Download: www.sinab.it/sezioni/sit/ allegati_sit/54/presentazione_bio_in_cifre_07.pdf
- Operators: Eurostat: Number of registered organic operators 2007; Date of extraction: 15 Jan 2009, Last update: Dec 18, 2008. Eurostat, Luxemburg, http://epp.eurostat.ec.europa.eu
- Market data: ISMEA at the SINAB homepage www.sinab.it

Ivory Coast

- Data provided by/ Sources: Abdoul Aziz Yanogo, Ecocert West Africa Office, Ecocert 11 BP 203 Ouagadougou, Burkina Faso, www.ecocert.com

Jamaica

- Data provided by / Source: Dwight Robinson, Jamaican Organic Agriculture Movement (JOAM), PO Box 5728 Kingston 6, Jamaica, www.joamltd.org. The data refer to 2006.

Japan

- Number of farmers 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
- Land area was calculated by multiplication of the number of organic farms with the average farm size in Japan.

Jordan

- Data provided by / Source: Dr. Lina Al Bitar, MOAN, Mediterranean Agronomic Institute of Bari IAMB, Italy, www.iamb.it. The data refer to 2006.

Kazakhstan

- Data source: Certifier data. Data on agricultural land refer to land under conversion in the period 2007 / 2008.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Kenya

- Data provided by / Source: Eustace Kiiari, Kenya Organic Agricultural Network (KOAN), 00200 Nairobi, Kenya, www.koan.co.ke and by Paul Kledal, Institute of Food and Resource Economics, University of Copenhagen, Denmark.

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

- Data source: Certifier data. The data refer to 2007 / 2008.

Latvia

- Operators: Eurostat: Number of registered organic operators 2007; Date of extraction: 15 Jan 2009, Last update: Dec 18, 2008. Eurostat, Luxemburg, http://epp.eurostat.ec.europa.eu
- Land use: Eurostat: Organic crop area 2007; Date of extraction: 15 Jan 2009, Last update: Dec 19, 2008. Eurostat, Luxemburg, http://epp.eurostat.ec.europa.eu

Laos

- Data provided by: Ruedi Lüthi, Helvetas Laos, Vientiane Capital, Laos, www.laosorganic.com. The data refer to 2008, certification of organic farming in Laos was carried out for the first time in 2008; the area is under conversion.

Lebanon

- Data provided by /Sources: Khalil Haddad, Libancert, Beirut, Lebanon, www.libancert.com; Youssef El Khoury, IMC Lebanon, Beirut, Lebanon, www.imcert.it and Milena Belli and Antonio Compagnoni, ICEA, 40125 Bologna, Italy, www.icea.info

Liechtenstein

- Data provided by: Klaus Buechel, 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 area base 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

- Land use: Eurostat: Organic crop area 2007; Date of extraction: 15 Jan 2009, Last update: Dec 19, 2008. Eurostat, Luxemburg, http://epp.eurostat.ec.europa.eu
- Data source for the number of producers: Ekoagros, 44240 Kaunas, Lithunia, www.ekoagros.lt.

Luxembourg

- Data provided by/ Source: Monique Faber, Administration des Services Techniques de l'Agriculture (ASTA), 1019 Luxembourg, Luxembourg, www.asta.etat.lu
- The total number of producers (81) includes 11 beekeepers, which have no land.

Macedonia, The former Yugoslav Republic

- Data provided by: Radomir Trajković, PROBIO consulting company, 1000 Skopje, Republic of Macedonia, www.probio.com.mk
- Source for the data on organically managed land area was Balkan Biosert, 1000 Skopje, Republic of Macedonia, www.balkanbiocert.com. The data cover 100 %, data with differentiation between full organic status and in-conversion was not available.
- Data source for the number of operators (coverage: 100 %): Ministry of Agriculture, Forestry and Water Management, 1000 Skopje, Republic of Macedonia, www.mzsv.gov.mk

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Madagascar

- Data provided by: Andrianjaka Rajaonarison, Laulanié Green Association (LGA), Antananarivo, Madagascar; Source: Sandra Randrianarisoa, Ecocert Madagascar/ East Africa, Antananarivo 102, Madagascar. The data refer to 2006.

Malawi

- The data are from 2003; no new data have been received since.

Malaysia

- Data provided by Ong Kung Wai, Grolink, Malaysia. Source: Certifier data.

Mali

- Data provided by/ Sources: Abdoul Aziz Yanogo, Ecocert West Africa Office, Ecocert 11 BP 203 Ouagadougou, Burkina Faso, www.ecocert.com. Cotton data provided by Frank Eyhorn, Helvetas Swiss Association for International Cooperation, Organic & Fairtrade Competence Centre, 8021 Zurich, Switzerland, www.helvetas.org; www.organiccotton.ch

Malta

- Data 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

Mauritius

- Data provided by / Source: Sunita Facknath and Bhanooduth Lalljee, Faculty of Agriculture, University of Mauritius, Réduit, Mauritius, www.uom.ac.mu/faculties/foa/

Mexico

- Data (land use, production, export value) provided by/ Source: Rita Schwentesius, Universidad Autónoma Chapingo, 56230 Chapingo, México, http://portal.chapingo.mx; CIIDRI – Centro de Investigaciones Interdisciplinarias para el Desarrollo Rural Integral; CIESTAAM – Centro de Investigaciones Económicas, Sociales y Tecnológicas de la Agroindustria y la Agricultura Mundial
- The data cover about 90 % of the organically managed land area, exports and producers.
- 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

- Data 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, pagina, , 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

- Data provided by: Radana Damjanović, Ministry of Agriculture, Forestry and Water Management, 81000 Podgorica, Montenegro, www.gov.me/eng/ minpolj. Data source: certification bodies.

Morocco

- Data provided by: Prof. Lachen 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 (2006) provided by / Source: Michelle Carter and Amilcar Lucas, CARE, CP 4657, Maputo, Mozambique, www.careinternational.org.uk. The data refer to 2006.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Namibia

- Data provided by: Manjo Smith, PO Box 1504, Okahandja, Namibia

Nepal

- Data provided by / Source: Maheswar Ghimire, Kathmandu, Nepal, based on data from the certifiers.

Netherlands

- Operators: Eurostat: Number of registered organic operators 2007; Date of extraction: 15 Jan 2009, Last update: Dec 18, 2008. Eurostat, Luxemburg, http://epp.eurostat.ec.europa.eu
- Land use: Eurostat: Organic crop area 2007; Date of extraction: 15 Jan 2009, Last update: Dec 19, 2008. Eurostat, Luxemburg, http://epp.eurostat.ec.europa.eu
- Market data: Biologica (2008): Bio-Monitor jaarrapport 2007. Biologica, 3512 LC Utrecht, Netherlands. Download: www.biologica.nl/ docs/200810211621051304.pdf

New Zealand

- Data provided by / Source: Seager Mason, BioGro New Zealand Inc., Wellington 6141, New Zealand, www.bio-gro.co.nz.

Nicaragua

- Data 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 operators

Niue

- Data provided by: Karen Mapusua, Women in Business Development Inc, PO Box 6591 Apia, Samoa, www.womeninbusiness.ws.
- Data from 2006; Source: BioGro New Zealand Inc., Wellington 6141, New Zealand, www.bio-gro.co.nz.

Norway

- Operators: Eurostat: Number of registered organic operators 2007; Date of extraction: 15 Jan 2009, Last update: Dec 18, 2008. Eurostat, Luxemburg, http://epp.eurostat.ec.europa.eu
- Land use: Eurostat: Organic crop area 2007; Date of extraction: 15 Jan 2009, Last update: Dec 19, 2008. Eurostat, Luxemburg, http://epp.eurostat.ec.europa.eu
- 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) (2008): Produksjon og omsetning av økologiske landbruksvarer - Rapport for 2007. 0033 Oslo, Norway, Download: www.slf.dep.no/iKnowBase/Content/8423/PRODUKSJON OG OMSETNING AV ØKOLOGISKE LANDBRUKSVARER 2007.PDF

Pakistan

- Data source for total organically managed land (2006): certifier data. Land use data as of 2004 are provided by Ghulam Mustafa, Pakistan Organic Farms (POF), DHA Lahore, Pakistan, www.pakof.com.

Palestine

- Data provided by / Source: Mediterranean Organic Agriculture Network MOAN, c/o Institute of Mediterranean Agriculture IAMB Bari, Valenzano, Italy, www.iamb.it
- The data are not complete; the total organic area is probably higher.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Panama

- Data are from 2004 (published in 'The World of Organic Agriculture 2006') and have not been confirmed since.

Papua New Guinea

- Data sources: National Association of Sustainable Agriculture Australia (NASAA), Stirling SA 5152, Australia, www.nasaa.com.au and Australian Certified Organic (ACO), Chermside QLD 4032, Australia, www.australianorganic.com.au.

Paraguay

- Data provided by / Source: Dr. Fernando Rios, Servicio Nacional de Calidad y Sanidad Vegetal y de Semillas (SENAVE), Asunción, Paraguay, www.senave.gov.py. The data are from 2006.

Peru

- Land use/operator data 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 provided by Lani Katimbang-Limpin, Organic Certification Center of the Philippines (OCCP), Quezon City 1103, Philippines, www.occpphils.org

Poland

- Data provided by Dorota Metera, Bioekspert, 00-621 Warsaw, Poland, http://bioekspert.waw.pl/pl/
- Information source for all data (except for the number of seed suppliers): Agriculture and Food Quality Inspection, 00-930 Warsaw, Poland, www.ijhar-s.gov.pl
- Information source for the number of seed suppliers: Main Inspectorate of Plant Health and Seed Inspection, 01-171 Warsaw, Poland, www.piorin.gov.pl

Portugal

- Data 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

Romania

- Data source for total organically managed land area (190'129 hectares in total, 131'401 hectares without wild collection) and the number of operators are from 2007 taken from the Homepage of the Ministry of Agriculture and Rural Development, 020921 Bucharest, Romania, www.madr.ro / www.madr.ro/pages/page.php?self=01&sub=0107&tz=010710
- Land use details were only available per of November 2008 and were provided by Iulia Grosulescu, Ministry of Agriculture and Rural Development, 020921 Bucharest, Romania, www.madr.ro.
- In order to be able to use the correct total for 2007 but to provide land use details, we inserted a correction value. The total organically managed area was 148'569 hectares in November 2008, the converted area was 80'566 hectares and the conversion land 68'003 hectares.

Russia, European part

- Data provided by: Dr. Andrey Khodus, Eco-control Ltd., 141506 Solnechnogorsk, Russia, www.eco-control.ru.
- Source: Own data of Eco Control, survey among the certifiers and operators. Most likely the data are not complete.

Rwanda

- Data 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 part, which was reviewing the Organic Sector in Eastern Africa.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Samoa

- Data provided by: Karen Mapusua, Women in Business Development Inc, PO Box 6591 Apia, Samoa, www.womeninbusiness.ws. The data refer to 2006.

San Marino

- Data source: Certifier data (one processor). The information refers to 2008.

Sao Tome and Prince

- Data provided by/ Source: Abdoul Aziz Yanogo, Ecocert West Africa Office, Ecocert 11 BP 203 Ouagadougou, Burkina Faso, www.ecocert.com

Senegal

- Data provided by/ Sources: Abdoul Aziz Yanogo, Ecocert West Africa Office, Ecocert 11 BP 203 Ouagadougou, Burkina Faso, www.ecocert.com; Milena Belli and Antonio Compagnoni, ICEA, 40125 Bologna, Italy, www.icea.info and Ines Hensler, Institute for Marketecology (IMO), 8570 Weinfelden, Switzerland, www.imo.ch.

Serbia

- Data provided by: Lidija Acimovic, Ministry of Agriculture, Forestry and Water Management, 11000 Belgrade, Serbia, www.minpolj.sr.gov.yu

Slovakia

- Operators: Eurostat: Number of registered organic operators 2007; Date of extraction: 15 Jan 2009, Last update: Dec 18, 2008. Eurostat, Luxemburg, http://epp.eurostat.ec.europa.eu
- Land use: Eurostat: Organic crop area 2007; Date of extraction: 15 Jan 2009, Last update: Dec 19, 2008. Eurostat, Luxemburg, http://epp.eurostat.ec.europa.eu

Slovenia

- Data for total organically managed land area and operators provided by: Anamarija Slabe, Institute for Sustainable Development, 1000 Ljubljana, Slovenia, www.itr.si. Source Ministry for Agriculture Forestry and Food (MAFF), 1000 Ljubljana, Slovenia, www.mkgp.gov.si/en/
- Source Land use data: Eurostat: Organic crop area 2007; Date of extraction: 15 Jan 2009, Last update: Dec 19, 2008. Eurostat, Luxemburg, http://epp.eurostat.ec.europa.eu

Solomon Islands

- Data provided by: Karen Mapusua, Women in Business Development Inc, PO Box 6591 Apia, Samoa, www.womeninbusiness.ws.

South Africa

- Data provided by/ Sources: Tobias Fischer, BCS Öko-Garantie GmbH, 90402 Nuremberg, Germany, www.bcs-oeko.com, Frederika Jacobs, Ecocert-Afrisco, Lynnwood Ridge, 0040, South Africa, www.afrisco.net and Ines Hensler, Institute for Marketecology (IMO), 8570 Weinfelden, Switzerland, www.imo.ch.
- Not all certifiers that are active in South Africa are included.
- The land use and crop data are from one of the certifiers listed above.

Spain

- Land use, operators: Source: Ministerio de Agricultura, Pesca y Alimentación (2007): Estadísticas 2007, Agricultura Ecológica – España. Download: www.mapa.es/alimentacion/pags/ecologica/pdf/2007.pdf, Madrid, Spain
- Market data: Rankine, Torben (2008): Spain. In: Osch, Susanne and Burkhard Schaer (eds) (2008): Specialized Organic Retail Report 2008. Organic Retailers Association, Vienna; Further data provided by Victor Gonzalves, Sociedad Española de Agricultura Ecologica (SEAE), Catarroja (Valencia), Spain, www.agroecologia.net

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Sri Lanka

- Data provided by / Source: Nalika Kodikara, Sri Lanka Export Development, Colombo, Sri Lanka and Saminathan Vaheesan, Helvetas Sri Lanka, Colombo, www.helvetas.ch. The data refer to 2006.

Sudan

- Data source: Certifier data

Suriname

- Data source: Certifier data. The data refer to area under conversion (one operator).

Swaziland

- Data source: Certifier data; only area under conversion.

Sweden

- Data source for land use and the number of producers: KRAV – Ekonomisk Förening, 751 40 Uppsala, Sweden, www.krav.se. Download: www.krav.se/Documents/arsredovisning/Arsredovisning2007.pdf These data include only organic agriculture according to the KRAV-standard. There is a small (but unknown) number of organic farmers in Sweden, who are not members of KRAV.
- Ekologiska Lantbrukarna (2008): Växande Marknad. Försäljning, volymer & trender för ekologisk mat. Ekologiska Lantbrukarna, Uppsala. www.ekolantbruk.se/marknad/skrifter.asp

Switzerland

- Land use data provided by Helga Willer, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, www.fibl.org, based on data of the three certifiers.
- There was some insecurity regarding the total organic area according to the data of the certifiers, which are being clarified by FiBL and Bio Suisse. Thus, these totals were taken from the data of the Swiss Federal Office of Statistics BfS, Neuchatel, Switzerland, which provides data on the organically managed land (but no crop details) and farms for those organic farms, which receive direct payments from the government (which does, however, not cover all organic farms).
- Market data: Bio Suisse, Basel, Switzerland, www.biosuisse.ch/de/bioinzahlen.php

Syria

- Data provided by/ Sources: Dr. Souhail Makhoul and Haya Abou Assaf, General Commission for Scientific Agricultural Research, Damascus, Syria, www.organicsyria.com

Taiwan

- Data provided by / Source: Perrine Liu, Yu-shi Co., Taipei, Taiwan. The data refer to March 2007.

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 operators.

Thailand

- Data provided by Vitoon Panyakul, Green Net, 10330 Bangkok, Thailand, www.greennet.or.th

Timor-Leste

- Data source: Certifier data; The data refer to 2007 / 2008. Differentiation between full organic status and in conversion was not available.

Togo

- Data provided by/ Source: Abdoul Aziz Yanogo, Ecocert West Africa Office, Ecocert 11 BP 203 Ouagadougou, Burkina Faso, www.ecocert.com and further certifiers.

Tunisia

- Data source: Ministry of Agriculture and Hydraulic Resources, National Bureau of Organic Agriculture, Samia Maamer Belkhiria, DPGA 30, Tunis, Tunisia, www.tunisie.com/APIA/min_agriculturea.htm

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Turkey

- Data provided by/ Source: Erdal Süngü, Ministry of Agriculture and Rural Affairs, Ankara, Turkey, www.tarim.gov.tr
- Some areas contain mixed products or second crops, that can be reaped from the same parcel. Therefore the total of land use detail data exceeds the actual area surface cultivated for organic farming.

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: Operators. The data refer to 2007/ 2008.
- Cotton and sesame farmers account for about 60 % of the certified farmers and land in Uganda. This can be explained by the involvement of multinational cotton companies. There has also been a lot of organic certification support in the cotton projects since 1994 in the northern part of Uganda.
- Based on the figures of the NOGAMU shop, organic production for the local market accounts for about one percent of the total value. This affects formal certified products, but the majority of the organic products goes into informal local markets whose value was difficult to estimate but it was quite big. Products marketed locally include fresh and dried fruits (e. g. pineapples, papaya, apple, banana, mango, passion fruits and avocado), fresh vegetables (cabbage, carrots, broccoli, cauliflower, etc), wine, livestock products (eggs), shea butter, fruit juice- pineapples, gooseberry, passion fruits and spices (eg vanilla).

UK

- Eurostat: Number of registered organic operators 2007; Date of extraction: 15 Jan 2009, Last update: Dec 18, 2008. Eurostat, Luxemburg, http://epp.eurostat.ec.europa.eu
- Eurostat: Organic crop area 2007; Date of extraction: 15 Jan 2009, Last update: Dec 19, 2008. Eurostat, Luxemburg, http://epp.eurostat.ec.europa.eu

Ukraine

- Data (including market data) provided by: Eugene Milovanov, Organic Federation of Ukraine, 01001 Kiev, Ukraine, www.organic.com.ua.

United Arab Emirates

- Data source: Certifier data

Uruguay

- Data on organically managed land use and the number of operators refer to 2006 and are provided by/ Source: Betty Mandl, Ministerio de Ganadería, Agricultura y Pesca (MGAP), Montevideo, Uruguay, www.mgap.gub.uy

USA

- Data source: United States Department of Agriculture (USDA), Economic Research Service, Washington DC, 20036-5831 USA. Download of data sets for organic production at www.ers.usda.gov/Data/Organic/; Download of detailed data at www.ers.usda.gov/Data/Organic/index.htm#tables. The data refer to 2005.

Uzbekistan

- Data source: Certifier data

Vanuatu

- Data provided by: Karen Mapusua, Women in Business Development Inc, PO Box 6591 Apia, Samoa, www.womeninbusiness.ws.

Venezuela

- Data 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.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Vietnam

- Data source: Certifier data. The data refer to 2007 / 2008.

Zambia

- Data provided by Munshimbwe Chitalu, Organic Producers and Processors Association of Zambia (OPPAZ), PO Box 35317, Lusaka, Zambia, www.organic.org.zm. Data source: Survey among the operators.

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick

The 10th edition of 'The World of Organic Agriculture' documents recent developments in global organic agriculture. It includes contributions from representatives of the organic sector from throughout the world and provides comprehensive organic farming statistics that cover surface area under organic management, numbers of farms and specific information about land use in organic systems.

The book also contains information on the global market for organic food, activities of UN organizations, the latest developments in organic certification, standards and regulations and insights into current status and emerging trends for organic agriculture by geographical region.

The latest data are presented annually at
BioFach in Nürnberg, Germany
2010: 17 - 20 February.
See back inside cover for the dates of all BioFach fairs –
Nürnberg, Mumbai, Shanghai, Boston, Tokyo, Sao Paulo.

Supported by

International Trade Centre

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs FDEA
State Secretariat for Economic Affairs SECO

BioFach

In cooperation with

SÖL

ISBN IFOAM 978-3-940946-12-6
ISBN FiBL 978-3-03736-036-4
ISBN ITC 92-9137-364-8

Willer, H. and Kilcher, L. (Eds.) (2009): The World of Organic Agriculture. Statistics and Emerging Trends 2009, IFOAM, Bonn, and FiBL, Frick