This book is based on the assumption that “organic has lost its way”. Paradoxically, it comes at a time when we witness the continuing of growth in organic food production and markets around the world. Yet, the book claims that organic has lost sight of its first or fundamental philosophical principles and ontological assumptions. The collection offers empirically grounded discussions that address the principles and fundamental assumptions of organic farming and marketing practices. The book draws attention to the core principles of organic and offers different clearly articulated and well-defined conceptual frameworks that offer new insights into organic practices. Divided into five parts, the book presents new perspectives on enduring issues, examines standards and certification, gives insights into much-discussed and additional market and consumer issues, and reviews the interplay of organic and conventional farming. The book concludes with a framework for rethinking ethics in the organic movement and reflections on the positioning of organic ethics.

Food Systems Failure

This publication is a summary of the presentations and discussions that took place during the meeting on "Voluntary Standards and Certification for Responsible Agricultural Production and Trade" organized by FAO in April 2004. It presents the situation of the main import markets for certified products and the evolution of demand. Case studies aimed at comparing sustainable farming methods with conventional methods are presented. These comparisons focus on production cost, yield, price premium and net profit. The difficulties with which the producers are confronted are analysed and possible solutions to overcome them are explored. The publication also discusses the roles of nongovernmental organizations, private stakeholders and other institutions involved in sustainable agriculture and explores possibilities for greater collaboration among them.

Smallholder Group Certification

Certification of coffee producers is frequently suggested as a promising strategy for improving the position of smallholder farmers in the market. After the launch of the first Fairtrade label in 1988, several other standards have been promoted either by voluntary agencies (Utz-certified) or by
private coffee companies. Each coffee label relies on different strategies for enhancing sustainable production and responsible trade. Coffee certification in East Africa is of a rather recent nature but has been rapidly expanding, representing currently 26 percent of the world's sustainable certified coffee supply. Marketing channels, cooperative organisation and household structures show notable differences between Kenya, Uganda and Ethiopia. Empirical studies on the effects of standards for smallholders are scarce. This book intends to deepen our understanding on the role and functions of coffee certification regimes, based on three innovative approaches: (1) longitudinal field survey data capturing changes in coffee farming systems and effects on household welfare; (2) in-depth interviews and behavioural experiments regarding risk attitudes, trust and investments at cooperative level; and (3) detailed discourse analyses regarding gender roles and female bargaining power within coffee households. The chapters included in this book provide new and original evidence about the impact of coffee certification based on large-scale field surveys and in-depth interviews.

**Sustainable Food Production Includes Human and Environmental Health**

This title includes a number of Open Access chapters. As we realize the ways in which our food systems contribute and respond to climate change, sustainable agriculture becomes increasingly crucial. It is a complicated, multi-dimensional issue, which should be considered from a variety of angles. This compendium includes the perspectives of science, economics, sociology, and policy. The editor and contributors present an international and comprehensive perspective that examines the concept of sustainability as it applies to the food supply chain from farm to fork.

**India's Organic Farming Revolution**

This comprehensive volume - containing 27 chapters and contributions from six continents - presents and discusses key principles, perspectives, and practices of social learning in the context of sustainability. Social learning is explored from a range of fields challenged by sustainability including: organizational learning, environmental management and corporate social responsibility; multi-stakeholder governance; education, learning and educational psychology; multiple land-use and integrated rural development; and consumerism and critical consumer education. An entire section of the book is devoted to a number of reflective case studies of people, organizations and communities using forms of social learning in moving towards sustainability.

**Ecology and Farming**

Agroecology not only encompasses aspects of ecology, but the ecology of sustainable food production systems, and related societal and cultural values. To provide effective communication regarding status and advances in this field, connections must be established with many disciplines such as sociology, anthropology, environmental sciences, ethics, agriculture, economics, ecology, rural development, sustainability, policy and education, or integrations of these general themes so as to provide integrated points of view that will help lead to a sustainable construction of values. Such designs are inherently complex and dynamic, and go beyond the individual farm to include landscapes, communities, and biogeographic regions by emphasizing their unique agricultural and ecological values, and their biological, societal, and cultural components and processes.

**Re-Thinking Organic Food and Farming in a Changing World**

In this paper, we test the impact of a simulated market premium for food safety, and of bundling rainfall insurance with an aflatoxin-reducing technology (Aflasafe KE01), on smallholder farmers’ adoption of this technology. To identify these impacts, we conducted a randomized trial through which farmers in one of the most aflatoxin-affected regions in the world were given the opportunity to purchase Aflasafe under experimentally varied market conditions. Half of 152 pre-existing producer groups were assigned to a market linkage treatment and offered a premium price for the maize they aggregated if it conformed to the East African aflatoxin standard. The market linkage treatment was cross-cut with a bundled insurance treatment, in which Aflasafe could only be purchased together with an actuarily fair rainfall index insurance product designed to insure against maize losses due to unfavorable weather conditions during the growing period. Farmers not assigned to the bundled insurance treatment who purchased Aflasafe were able to purchase the
Traditional Smallholder Farmers in a Growing Economy and a Globalized World

This report examines the relationship between environmental and health related requirements and market access for developing countries. It considers the key issues involved, and identifies policy options at the national and multilateral levels to assist developing countries to strengthen capacity in order to effectively respond to the trade and development opportunities and challenges presented by these requirements in export markets. It covers both general and sectoral analyses, focusing on two sectors where environmental requirements are critical to market access, relating to electrical and electronic equipment and organic agricultural products.

Organic Agriculture, Environment and Food Security

Social learning towards a sustainable world

Corporate Power in Global Agrifood Governance

Organic agriculture combines tradition, innovation and science to benefit the shared environment and promotes fair relationships and a good quality of life. This book is a compilation of 11 chapters focused on development of organic agriculture, the role of sustainability in ecosystem and social community, analysis of environmental impacts of the organic farming system and its comparison with the conventional one, crop growing and weed control technologies, organic production, effective microorganisms technology. Continuously, a wide range of research experiments focus on organic agriculture technologies, quality of production, environmental protection and non-chemical, ecologically acceptable alternative solutions. In the book Organic Agriculture Towards Sustainability, contributing researchers cover multiple topics respecting modern, precious organic agriculture research.

Analyzing Organic and Fairtrade Certification Schemes: Participation and Welfare Effects on Small-Scale Farmers in Coffee Value Chains
The role of producer organizations in market chains has received increasing attention in recent years, both from governments and donors. In order to lower transaction costs, markets demand that smallholder farmers operate in an organized manner. However, though the policy openings for support seem promising, smallholder market access through farmer-led economic organisations is not easy. This book presents various approaches to support producer organisations in terms of providing economic services to their members, with a focus on developing countries. Markets are increasingly fragmented in value chains that link farmers with specific processors, retailers and consumer segments. Several contributions in this book analyse these dynamics in specific value chains, such as the fair trade and organic agriculture and their potential to provide market outlets for smallholder farmers. The sixteen contributions in the book are organized in three sections:- organisational support for producer organisations;- value chain development with producer organisations;- changes in the institutional environment for producer organisations. This book is the result of a Dutch partnership between policy makers, researchers and practitioners designed to confront ideas with realities. Organized in a platform called Agri-ProFocus, members aim to provide more and better support to producer organisations in the South. Through so-called expert meetings, staff from donor organisations and knowledge centres, government officials, and business representatives, share their experiences and lessons learned. The experiences presented in this book are not recipes for instant success, but instead, highlight that support processes are often more fragile and slower moving than policy makers realise. This book is essential reading for scholars, practitioners and researchers interested in supporting and facilitating trajectories of change led by producer organisations in developing countries.

**Organic certification schemes: managerial skills and associated costs. Synthesis report from case studies in the rice and vegetable sectors**

This book provides a timely analysis and assessment of the potential of organic agriculture (OA) for rural development and the improvement of livelihoods. It focuses on smallholders in developing countries and in countries of economic transition, but there is also coverage of and comparisons with developed countries. It covers market-oriented approaches and challenges for OA as part of high value chains and as an agro-ecologically based development for improving food security. It demonstrates the often unrecognised roles that organic farming can play in climate change, food security and sovereignty, carbon sequestration, cost internalisations, ecosystems services, human health and the restoration of degraded landscapes. The chapters specifically provide readers with: an overview of the state of research on OA from socio-economic, environmental and agro-ecological perspectives an analysis of the current and potential role of OA in improving livelihoods of farmers, in sustainable value chain development, and in implementation of agro-ecological methods proposed strategies for exploiting and improving the potential of OA and overcoming the constraints for further development a review of the strengths and weaknesses of OA in a sustainable development context

**Organic Aquaculture**

**Confronting the Coffee Crisis**

**Organic Agriculture**

The increasing demand for more nutritious and safe food in Asia is creating both market opportunities and challenges for organic farmers. Obtaining access to this market requires certification, and many smallholder farmers lack the capacity to differentiate their organic products from the conventional products. This prevent smallholder farmers from profiting from these new markets. Participatory Guarantee Systems (PGS) are one option to get around this problem. PGS provide an alternative to certify organic production supplying local markets. This certification is based on trust, social interaction and peer-reviews. Drawing on the findings of FAO pilot project on...
PGS covering Cambodia and the Lao People’s Democratic Republic, this publication presents the opportunities and limitations of PGS as a tool for transitioning towards sustainable local food systems. This publication aims to raise awareness of PGS among governments, local authorities, development partners, donors, small and medium-sized enterprises (SMEs) and local non-governmental organizations (NGOs) to encourage them to invest in PGS. Among the reasons for investing in PGS are that they are suitable for smallholder farmers; allow market access; bring opportunities for small-scale entrepreneurs; make available fresh and locally produced food; bridge the extension gap in rural communities and contribute towards empowerment for smallholder farmers. General recommendations to guide PGS efforts by national governments and local partners include to enhance public-private collaboration; support consumer education and awareness-raising; create Participatory Guarantee System friendly policies and regulatory frameworks; monitor the impact in the field; strengthen capacities of stakeholders; make realistic and cost-effective planning for long-term sustainability.

Coffee certification in East Africa: impact on farms, families and cooperatives

This book provides a critical assessment of the contemporary global food system in light of the heightening food crisis, as evidence of its failure to achieve food security for the world’s population. A key aspect of this failure is identified in the neoliberal strategies which emphasize industrial efficiencies, commodity production and free trade-ideologies that underlie agricultural and food policies in what are frequently referred to as ‘developed countries’. The book examines both the contradictions in the global food system as well as the implications of existing ideologies of production associated with commodity industrial agriculture using evidence from relevant international case studies. The book’s first section presents the context of the food crisis with contributions from leading international academics and food policy activists, including climate scientists, ecologists and social scientists. These contributions identify current contradictions in policy and practice that impede solutions to the food crisis. Set within this context, the second section assesses current conditions in the global food system, including economic viability, sustainability and productivity. Case study analyses of regions exposed to neoliberal policy at the production end of the system provide insights into both current challenges to feeding the world, as well as alternative strategies for creating a more just and moral food system.

Organic Agriculture in the Tropics and Subtropics

Beaucoup de bananes et un peu de canne à sucre pour le rhum : la Martinique vit toujours, pour une part importante, de ces grandes cultures tropicales d’exportation. Mais pour combien de temps ? La concurrence de pays voisins à faibles coûts de main d’œuvre, la fragilité des soutiens de l’Union européenne, font aujourd’hui de cette question une urgence. La Martinique s’interroge sur les espoirs qu’elle peut fonder dans le développement d’une « agriculture biologique » pour répondre à ces défis. Dix-sept chercheurs, experts de l’agriculture tropicale d’une part et des techniques « bio » d’autre part, ont ensemble étudié dans quelles conditions le développement d’une agriculture biologique, certifiée ou non, est possible. Comment l’île peut-elle trouver ses débouchés et contribuer à revaloriser l’image de l’agriculture, en tissant de nouveaux liens entre agriculture et alimentation ? Tel est l’enjeu de cette expertise.

Organic Agriculture for Sustainable Livelihoods

This handbook addresses the challenges that agribusiness companies face when working with smallholder suppliers in their value chain.

Reducing Certification Costs for Smallholders? Potential for Participatory Guarantee Systems in GLOBALGAP

Agriculture biologique en Martinique

Investigating over twenty cases, this OECD report examines how environmental requirements can become trade barriers for developing countries.
Why invest in Participatory Guarantee Systems?

This book examines the production, procurement and marketing aspects of the organic produce sector with the focus on marketing agencies and producers in each commodity/product chain. It analyses the various institutional arrangements like contract farming, networking and producer level co-ordination prevalent in this sector. Based on case studies of various type of organic players in India, both in export market as well as in domestic market.

Working with Smallholders

Organic Agriculture Development in India as attempt has been made alongwith analyzing the current status of organic agriculture development in the country, also documents the experiences of all stakeholders to evolve an action plan for the future. In ten units, each covering one important aspect of organic agriculture development the book evaluates the role played by different agencies against international developments in this sector.

Organic Produce Supply Chains in India (CMA Publication No. 222)

Our morning cups of coffee connect us to a global industry and an export crisis in the tropics that is destroying livelihoods, undermining the cohesion of families and communities, and threatening ecosystems. Confronting the Coffee Crisis explores small-scale farming, the political economy of the global coffee industry, and initiatives that claim to promote more sustainable rural development in coffee-producing communities. Contributors review the historical, political, economic, and agroecological processes within today's coffee industry and analyze the severely depressed export market that faces small-scale growers in Mexico and Central America. The book presents a series of interdisciplinary, empirically rich case studies showing how small-scale farmers manage ecosystems and organize collectively as they seek useful collaborations with international NGOs and coffee companies to create opportunities for themselves in the coffee market. The findings demonstrate the interconnections among farmer livelihoods, biodiversity, conservation, and changing coffee markets. Additional chapters examine alternative trade practices, certification, and eco-labeling, discussing the politics and market growth of organic, shade-grown, and Fair Trade coffees. Combining interdisciplinary research with case-study analysis at scales ranging from the local to the global, Confronting the Coffee Crisis reveals the promise and the perils of efforts to create a more sustainable coffee industry. Christopher M. Bacon is a researcher associated with the Environmental Studies and Sociology Departments at the University of California, Santa Cruz. V. Ernesto Méndez is Assistant Professor in the Environmental Program and Department of Plant and Soil Science at the University of Vermont. Stephen R. Gliessman is Alfred Heller Professor of Agroecology at the University of California, Santa Cruz, where David Goodman is Professor of Environmental Studies and Jonathan A. Fox is Professor in the Latin American and Latino Studies Department. Contributors Christopher M. Bacon, David B. Bray, Sasha Courville, Jonathan A. Fox, Stephen R. Gliessman, David Goodman, Carlos Guadarrama-Zugasti, Shayna Harris, Roberta Jaffe, María Elena Martínez-Torres, V. Ernesto Méndez, Ellen Contreras Murphy, Tad Mutersbaugh, Seth Petchers, José Luis Plaza-Sanchez, Laura Trujillo, Silke Mason Westphal

Research Report

Producer organisations and market chains

Saffron: Science, Technology and Health summarizes the scientific, technical and health aspects of this crop. Saffron possesses unique agronomical, ecological, social and physiological characteristics. And, there are various chemical components present in saffron, including carbohydrates, minerals, vitamins, color pigment, aromatic and flavoring agents. Saffron has a long history of use in traditional medicine, and in recent years, the application of saffron in the medical industry as a cancer curing and antidepressant agent has brought more attention. There is also a growing trend of saffron use in the conventional food industry, including saffron desserts, cream, butter, beverages, powders, cake mixes and soups. Intended for nutrition scientists and scientists and technologists working in the areas of food, agriculture, new product development and pharmacology. Summarizes the scientific, technical and health aspects of saffron.
of saffron in the conventional food industry in the development of new products Uncovers the unique agronomical, ecological, social and physiological characteristics of saffron

Voluntary Standards and Certification for Environmentally and Socially Responsible Agricultural Production and Trade

The global food system continues to be threatened by climate change, environmental degradation, food insecurity, and hidden hunger. Consequently, both ecosystem- and human health issues will continue or worsen if no sustainable strategies are adopted. In the search for food system transformation, organic is a promising approach to achieve sustainable food systems. From a food systems perspective organic actors share a value-based ethical vision and follow codified principles that lead to sustainable outcomes. Organic principles are codified in international and national standards and regulations. As a typical cradle-to-cradle approach, organic farming corresponds to the idea of a green technology. Through documenting real-world examples of organic food system cases worldwide, eleven cases have been selected based on predetermined criteria. This book documents real local food system examples around the globe, namely South-West region, Nigeria; Manyara region, Tanzania; Tamil Nadu, India; Bislig City, the Philippines; Goesan County, South Korea; Mouans-Sartoux, France; Södertäje, Sweden; Cilento, Italy; Quito, Ecuador; Pennsylvania, USA; Wellington, New Zealand.

"O controle social no processo de certificação de grupo por auditoria externa: o caso APROVE pela AAOCERT."

Organic and Fairtrade certified coffees have become very popular among socially, environmentally and health conscious consumers in recent years. As consumers pay higher prices for these certified coffees, it is commonly assumed that, compared to conventional coffee, better producer prices are paid and that higher shares of the added value in consuming countries trickle down to the producers. Coffee certifications are thus supposed to benefit the coffee producers. Coffee is an important export good for many developing countries. The majority of global coffee production comes from around 20-25 million smallholder families in developing countries. As individual certifications are too expensive smallholders have to participate in farmer organizations, e.g. cooperatives, in order to access cheaper group certification. Governments and international donors support coffee certification schemes and assume that these link farmers to high-value markets, increase producers’ incomes, change power and information asymmetries in value chains, and contribute to poverty reduction. Yet, there is only weak empirical evidence that justifies this support. There are few quantitative studies which applied random sampling techniques, and analyzed the effects of certification schemes in regard of gross margins, profits, income shares and poverty levels of certified smallholder coffee producers. The role of cooperatives for the success of certification schemes has been neglected by research. The available studies have methodological limitations, for example they are based on qualitative methods only, include no more than one cooperative or one certification standard, or cooperatives are non-randomly sampled. This research seeks to fill the identified knowledge and methodological gaps. Through a combination of qualitative and quantitative research, the production and marketing strategies of small-scale coffee producers in northern Nicaragua are compared based on producers that are organized in conventional, organic, and Organic-Fairtrade certified cooperatives. The analysis addresses (i) the smallholders’ household level and (ii) the organizational and institutional level with regard of the cooperatives and respective coffee value chains. The study aims at, first, identifying the socio-economic costs and benefits of participation in organic and Organic-Fairtrade certified coffee chains with respect to level of coffee and household incomes as well as household poverty. Second, it is examined which role the farmer organizations, their respective business models and upgrading strategies, play for the success or failure of certification schemes. Third, the integration of coffee farmers and their cooperatives into the coffee value chain, the structure and functioning of the value chains and the value adding effect of certification is examined. The survey was conducted in the northern Nicaragua departments Madriz, Nueva Segovia, and Matagalpa on coffee farms situated between 900m and 1300m a.s.l. The coffee of all farmers was classified as ‘Strictly High Grown’; the species is Coffea Arabica. The sample design ensured that the research region was homogeneous with respect to living conditions, socio-economic level, as well as coffee growing characteristics driving performance of coffee farmers. After having randomly selected the cooperatives, 327 coffee producing households were also randomly selected and surveyed with a
structured questionnaire. Qualitative data collection consisted in total of 58 key-person interviews, 67 semi-structured farmer interviews and 24 focus group discussions with coffee farmers. The primary data was collected during two research stays in 2007 and 2008. This research analyzes gross margins, accounting and economic profits of coffee production. The household income is measured and a poverty headcount index elaborated. Principal component analysis is used to determine current relative poverty levels and the development of relative poverty over time. A SWOT analysis identifies the strengths, weaknesses, opportunities, and threats of cooperatives. Through a value chain analysis information on the actors, power and information flows as well as price shares is gained. For identifying the farmers’ experiences with coffee certification schemes, a thematic analysis is applied to the qualitative data by developing an individual code system for data reduction. In the research region, the coffee yields of conventional and certified coffee smallholders are usually 40% to 50% lower than national average due to limited maintenance activities and inadequately managed coffee plantations. Highest yields (on average around 480kg/ha) are achieved by organic producers but yield levels vary, like for conventional and Organic-Fairtrade certified producers, between the cooperatives (ranging from 293kg/ha to 516kg/ha). In comparison to conventional prices, Organic-Fairtrade certified coffee achieved on average 11% and organic coffee 8% higher farm-gate prices; price differences between cooperatives also exist. Organic production processes require fewer purchased inputs but are more laborious. Due to constrained availability of family labor, additional labor has to be hired which offsets saved input costs. The higher prices of certified coffees compensate for production costs but fall to increase per hectare gross margins and profits in the case of Organic-Fairtrade farmers compared to conventional produces. Due to higher yield levels, organic producers experience an increase in per hectare gross margins and profits. They have with 328US$/ha a significantly higher economic profit than Organic-Fairtrade farmers (147US$/ha) and conventional farmers (191US$/ha). Yet, as they tend to have smaller coffee areas and larger family sizes, the increase in gross margins does not result in improved per capita net coffee incomes for organic certified producers compared to the other groups. Also Organic-Fairtrade certified producers do not have higher per capita net coffee incomes than conventional producers. Among organic and Organic-Fairtrade certified producers, a higher share of households is grouped below the extreme poverty line than among conventional producers (45% compared to 30%) – which means that they cannot cover their food requirements. Between 60% and 70% of conventional and certified coffee producers are below the national poverty line. Using principal component analysis to investigate several dimensions of poverty and their development over time, it was found that over a period of ten years, organic certified producers became relatively poorer. In the year 1997, all groups had similar relative poverty levels. The Organic-Fairtrade certified producers first improved their relative poverty status during the coffee crisis (in 2002) and were relatively better off than conventional producers. Since then, the relative poverty levels of Organic-Fairtrade producers deteriorated compared to conventional producers. Irrespective of whether farmers were certified or not, Nicaragua’s coffee smallholders face two to three months of food shortages per year during which they seek off-farm employment, and apply for formal and informal credits. In many cases the credit is used for immediate consumption needs, like food or medicine, and only partially invested in the farm. Consequently, harvested yields stay low, leading to low incomes and new credit requirements. When farmers are financially illiterate or requested higher credits than their payment capacity, they are likely to enter a vicious cycle of indebtedness. Each cooperative has a unique business model; they differ, for example, in member size, functions and services, internal organization, and financial characteristics. Despite their different business models the cooperatives often choose the same upgrading strategies as other cooperatives mainly certification, quality, and own processing. The analysis of strengths, weaknesses, opportunities, and threats (SWOTs) showed that the cooperatives have certain SWOTs in common but there are also cooperative specific SWOTs. The common strength of the cooperatives is the quality potential of the region. The common weaknesses relate to the lack of credit access, a weak extension system, and weak rural infrastructure. The common threats of the cooperatives are high competition among national coffee buyers and cooperatives, corruption and mismanagement, and, according to the qualitative interviews, increasing microclimatic variations and unreliable rainfall patterns. The common opportunities range from more horizontal coordination to reduce transaction costs to share certificates acknowledging the members’ possessions in the cooperative and increased transparency about deductions on payments. Qualitative evaluation indicated no obvious association between the coffee certification strategy of farmers/their cooperative and the coffee gross margins farmers obtained. The upgrading strategies of cooperatives, the strengths and weaknesses as well as the amount of coffee-related services, which the cooperative offers to
producers, tend to be more related to coffee gross margins than the organic or Organic-Fairtrade certification. Farmers are found to have no bargaining power over prices irrespective of the value chain, while certified cooperatives have limited bargaining power towards their buyers compared to cooperatives in the conventional chain. Power is unequally distributed between buyers and sellers of coffee in all chains. The quantity and quality of information flows depends on the cooperative and value chain model. Information asymmetries are fewer in certified chains; yet this also depends on the cooperative. Organic-Fairtrade certified value chains tend to have more and smaller-sized actors, especially in consuming countries, compared to the conventional chain. This increases transaction costs in the certified value chains and thus leads to substantially lower producers’ share of the final coffee retail price (8%-15% in certified chains compared to 24%-34% in conventional chains). The presented results depend strongly on each cooperative and there are large variations within the organic and Organic-Fairtrade certified cooperatives. It can be concluded that higher farm-gate coffee prices do not lead necessarily to higher per capita net coffee and household income, as yield levels, production costs, family and land size, as well as labor availability play important roles. Organic or Organic-Fairtrade certification as an upgrading strategy seems only then successful when the business model of a cooperative, its strengths, weaknesses, and other upgrading strategies are supportive. Given the constraints mentioned above, a well functioning cooperative is a necessary but not sufficient condition. This was shown by the example of one well run Organic-Fairtrade certified cooperative with low gross margins showed. The main causes of continuing poverty among smallholder coffee growers in northern Nicaragua seem not the lack of market access or so-called ‘unfair’ trading conditions. Based on the qualitative analysis, reasons for poverty are lack of entrepreneurial and management skills of farmers and cooperative staff, financial illiteracy and indebtedness of farmers as well as a very weak rural infrastructure. Based on the quantitative results potential reasons for poverty are low yield and productivity levels, land and labor constraints. Certification schemes do not address or are able to solve these problems. Prices for certified coffee cannot compensate for low productivity, land or labor constraints. Therefore, certification schemes can only be part of a viable development policy for poor small-scale farmers in northern Nicaragua; the production, infrastructural, organizational and institutional problems mentioned above require even more attention from policy makers. It is recommended that policies, which aim at increasing smallholder coffee incomes through upgrading, should focus apart from production aspects on the institutional context of smallholders and their cooperatives. Regarding coffee production, policies should address coffee yield levels, for example through research investments in improved, stress-tolerant and locally adapted varieties to encounter the microclimatic variations. Coffee quality in the region should be further strengthened by a supportive coffee sector strategy at the national level, which should include a national coffee institute or federation like in Colombia or Costa Rica. This should be accompanied by investments in rural infrastructure. It is recommended to establish an efficient extension system which also addresses the entrepreneurial skills of farmers. This could be also in form of facilitating the establishment of extension associations which could operate regionally and be financed by their members’ contribution. In order to better link farmers to (high-value) markets and to increase their income, it is recommended to focus more on the structure and functioning of producer organizations and their respective value chains. Business and strategic advice to cooperatives is necessary, as cooperative leaders and staff are not fit for international markets, in which they have to act. A banking system which also provides credits to cooperatives (at market interest rates and lending conditions) would reduce the reliance and dependence on exporters or international credit providers and could ease liquidity constraints of cooperatives. An obligatory annual external auditing of cooperatives, like it exists in other countries, is considered to be important to reduce mismanagement of a cooperative. It will also increase the creditworthiness of cooperatives for banks. Trade, processing, and marketing efficiencies in the organic but especially in the Fairtrade value chains in consuming countries need to be improved in the alternative trade sector with its many small profit or non-profit enterprises and organizations. These actors could consolidate to exert economies of scale and reduce their transaction costs. Consolidation is certainly a new way of thinking in the alternative trade sector but could effectively contribute to improve farmers’ shares of retail prices and raise farm-gate coffee prices.

Can markets support smallholder adoption of a food safety technology? Aflasafe in Kenya

This book addresses, reviews and evaluates key themes in organic aquaculture and is set out to show how these relate to the challenges and bottlenecks for a responsible organic aquaculture
production in Europe. The key themes reflect the main challenges facing the organic aquaculture industry: guarantee and certification system, nutrition, reproduction, production system design and animal welfare. In addition, it assesses the impact of new and future potential development of new knowledge to update and modify the criteria and standards for organic aquaculture. Organic aquaculture is an alternative production approach driven by the growing interest in sustainable utilization of resources. It is rightly viewed as an important contributor to the economy and to the well-being and health of communities. This work will contribute to the scientific knowledge that needs to strengthen effective organic aquaculture. The collation of information on research and data will be of applied value to researchers, university students, end users and policy authorities in the EU and worldwide.

**Organic Agriculture Towards Sustainability**

Should you buy organic food? Is it just a status symbol, or is it really better for us? Is it really better for the environment? What about organic produce grown thousands of miles from our kitchens, or on massive corporately owned farms? Is "local" or "small-scale" better, even if it's not organic? A lot of consumers who would like to do the right thing for their health and the environment are asking such questions. Sapna Thottathil calls on us to rethink the politics of organic food by focusing on what it means for the people who grow and sell it—what it means for their health, the health of their environment, and also their economic and political well-being. Taking readers to the state of Kerala in southern India, she shows us a place where the so-called “Green Revolution” program of hybrid seeds, synthetic fertilizers, and rising pesticide use had failed to reduce hunger while it caused a cascade of economic, medical, and environmental problems. Farmers burdened with huge debts from buying the new seeds and chemicals were committing suicide in troubling numbers. Farm laborers suffered from pesticide poisoning and rising rates of birth defects. A sharp fall in biodiversity worried environmental activists, and everyone was anxious about declining yields of key export crops like black pepper and coffee. In their debates about how to solve these problems, farmers, environmentalists, and policymakers drew on Kerala’s history of and continuing commitment to grassroots democracy. In 2010, they took the unprecedented step of enacting a policy that requires all Kerala growers to farm organically by 2020. How this policy came to be and its immediate economic, political, and physical effects on the state’s residents offer lessons for everyone interested in agriculture, the environment, and what to eat for dinner. Kerala’s example shows that when done right, this kind of agriculture can be good for everyone in our global food system.

**OECD Trade Policy Studies Environmental Requirements and Market Access**

Experts examine the ways transnational corporations exercise power over governance of the global food system and the implications this has for sustainability in today's globally integrated food system, events in one part of the world can have multiple and wide-ranging effects, as has been shown by the recent and rapid global rise in food prices. Transnational corporations (TNCs) have been central to the development of this global food system, dominating production, international trade, processing, distribution, and retail sectors. Moreover, these global corporations play a key role in the establishment of rules and regulations by which they themselves are governed. This book examines how TNCs exercise power over global food and agriculture governance and what the consequences are for the sustainability of the global food system. The book defines three aspects of this corporate power: instrumental power, or direct influence; structural power, or the broader influence corporations have over setting agendas and rules; and discursive, or communicative and persuasive, power. The book begins by examining the nature of corporate power in cases ranging from "green" food certification in Southeast Asia and corporate influence on U.S. food aid policy to governance in the seed industry and international food safety standards. Chapters examine such issues as promotion of corporate-defined "environmental sustainability" and "food security," biotechnology firms and intellectual property rights, and consumer resistance to GMOs and other cases of contestation in agrobiology. In a final chapter, the editors raise the crucial question of how to achieve participation, transparency, and accountability in food governance. Contributors Maarten Arentsen, Jennifer Clapp, Robert Falkner, Doris Fuchs, Agni Kalfagianni, Peter Newell, Steffanie Scott, Susan Sell, Elizabeth Smythe, Peter Vandergeest, Marc Williams, Mary Young

**Sustainable Agriculture and Food Supply**
The conference was developed in five sessions. In the first session, “Aquaculture Growing Strength”, an overview on production and trade was followed by five commodity presentations showing the success in shrimp, salmon, tilapia, catfish and bivalve aquaculture. The second session on “Challenges” highlighted the current and future challenges facing the sector. These included challenges related to assuring food safety in aquaculture products, maintaining and improving consumers' perceptions of the quality and environmental acceptability of aquaculture, improving aquatic animal health management, addressing issues related to feed quality and availability, and improving the view investors take to assure economic and financial sustainability. During the third session, the “Advantages and Opportunities” of aquaculture were covered by taking into account the globalization process and the requirements of processors and the food service and retail sectors, which all seem to have a preference for aquaculture products under special conditions. Seafood and health benefits, and the potential offered new species were seen as driving factors in the aquaculture sector. The opportunities and challenges for the small-scale fish farmers in Southeast Asia were also considered. The fourth session was fully dedicated to the aquaculture sector in China, with presentations on the domestic market, the export potential, safety and quality inspection and China's role in reprocessing seafood for re-export to the global market. In the last session on “Progress - The Future”, the future developments expected for aquaculture were covered. Here the interaction between capture fisheries and aquaculture was analyzed and also presented in a case study on wild and aquacultured salmon. Aquaculture was viewed within the context of other intensive animal production systems. The enormous potential of the technical innovations in aquaculture compared to capture fisheries was highlighted under the term of “Blue revolution”. The last session was closed with a description of the political framework required to allow for the sustainable development of aquaculture.

**Saffron**

With global revenue surpassing twenty-five billion dollars annually, organic agriculture is a highly visible and rapidly growing component of agricultural production. In Organic Agriculture: A Global Perspective, Paul Kristiansen, Acram Taji, and John Reganold, and their international group of contributors scientifically review key aspects of organic agriculture. At the intersection of research, education, and practice, the contributors look at the organic agricultural movement’s successes and limitations. The first half of this book critically evaluates the agricultural production of both plants and livestock in organic farming systems. All major aspects of organic agriculture are explored, including historical background and underlying principles, soil-fertility management, crop and animal production, breeding strategies, and crop protection. This global and comprehensive overview also addresses the economic, social, and political aspects of organic farming. These include economics and marketing; standards and certification; environmental impacts and social responsibility; and research, education, and extension. The book is a unique and timely science-based international work documenting current practices in organic agriculture and evaluating their strengths and weaknesses. For more than two decades, research into organic methods by mainstream scientists has generated a large body of information that can now be integrated and used for assessing the actual impacts of organic farming in a wide range of disciplines. The knowledge of selected international experts has been combined in one volume, providing a comprehensive review of organic farming globally. Researchers, teachers, extensionists, students, primary producers and others around the world who are interested in sustainable agriculture will find this book to be a valuable and reliable resource.

**Organic Food System Cases Around The World**

Diploma Thesis from the year 2008 in the subject Agrarian Studies, grade: 1, University of Bonn, language: English, abstract: Aim of this Diploma-Thesis is to identify possibilities to reduce the certification costs of smallholders or small-scale producers, who want to comply with the GLOBALGAP standard version 3.0-2_SEP07. Therefore, an analysis of participatory guarantee systems, which exist in the organic sector, was done to identify principles of these systems, which could be implemented into GLOBALGAP. These ideas were discussed in terms of interview with selected experts.

**OECD Trade Policy Studies Environmental Requirements and Market Access**
Do environmental regulations block exports from developing countries? Whose responsibility is it to ensure that exports do not end up rotting in the ports of destination? Are voluntary environmental standards, like for organic foods, in fact obligatory for any developing-country exporter who wants to stay in the market? Or do such environmental requirements actually increase export opportunities while reducing environmental impacts and making products safer? Investigating over twenty cases where exports from developing countries faced new environmental requirements, this OECD report addresses these and other questions. These case studies, covering a diverse number of products and exporting countries, trace a number of environmental regulations, standards and labelling schemes, from conception through implementation. In so doing, they highlight the difference that sensitivity to potential trade effects can make when designing environmental regulations and standards. They also show that timely technical assistance has played a crucial role in helping exporters from developing countries adjust to new environmental requirements without suffering adverse trade effects.

Welternährung ökologisch & fair

Organic agriculture is defined as an environmentally and socially sensitive food supply system. This publication considers the contribution of organic agriculture to ecological health, international markets and local food security. It contains a number of case studies of the practical experiences of small farmers throughout the world (including India, Iran, Thailand, Uganda and Brazil) who have adopted fully integrated food systems, and analyses the prospects for a wider adoption of organic agriculture. The book also discusses the weakness of institutional support for nurturing existing knowledge and exchange in organic agriculture.

Organic Agriculture Development in India

The role of producer organizations in market chains has received increasing attention in recent years, both from governments and donors. In order to lower transaction costs, markets demand that smallholder farmers operate in an organized manner. However, though the policy openings for support seem promising, smallholder market access through farmer-led economic organisations is not easy. This book presents various approaches to support producer organisations in terms of providing economic services to their members, with a focus on developing countries. Markets are increasingly fragmented in value chains that link farmers with specific processors, retailers and consumer segments. Several contributions in this book analyse these dynamics in specific value chains, such as the fair trade and organic agriculture and their potential to provide market outlets for smallholder farmers. This book is the result of a Dutch partnership between policy makers, researchers and practitioners designed to confront ideas with realities. Organized in a platform called Agri-ProFocus, members aim to provide more and better support to producer organisations in the South. Through so-called expert meetings, staff from donor organisations and knowledge centres, government officials, and business representatives, share their experiences and lessons learned. The experiences presented in this book are not recipes for instant success, but instead, highlight that support processes are often more fragile and slower moving than policy makers realise. This book is essential reading for scholars, practitioners and researchers interested in supporting and facilitating trajectories of change led by producer organisations in developing countries.

Trade and Environment Review 2006

Smallholder farming plays a central role for the livelihood security of rural families in most low- to middle income countries. Beyond that it contributes to sustain important ecological functions and services. Yet, world-wide, increasing economic pressure threatens its viability, while young and capable labour force is attracted away to urban centres. In the Mexican state of Yucatán - where foremost indigenous Mayan people are practicing traditional farming under adverse natural conditions, using a broad variety of agro-biodiversity - these predominant trends can be observed like in a burning lens. Farming is more and more just performed for subsistence while cash for daily expenses is obtained from other sources. Aware of the sector’s benefits for society, Mexican policy makers recently put its services regarding food and livelihood security, agro-biodiversity, and maintenance of cultural heritage high on the agenda. Starting from that baseline, research teams affiliated to the University of Kassel and the Universidad Autónoma de Yucatán (UADY) conducted
several interrelated research projects. All investigations are grounded in field work, including intensive interviews among local people and experts. The results are assembled in this volume.

**Producer organisations and market chains**

This paper studies alternative certification schemes for organic products in order to draw conclusions regarding the institutional support and technological development required for compliance with organic standards. It discusses third party certification, for both individuals and farmer groups, as well as participatory certification. Case studies from developing countries and countries in transition engaged in organic rice and organic fruit and vegetable production are examined. Issues analysed include the organizational structure and marketing strategies in the organic supply chain. The paper also discusses the institutional development that is needed to provide business and technical services and establish the quality assurance system. Organizational, managerial and business skills required by the lead stakeholders in the organic chain are analysed as well as the costs that they incur for effectively managing organic projects. Similarly, the managerial skills required at the farm level are considered as is the use of cost-benefit analysis. The paper also reviews the legal and institutional framework that facilitates organic production and certification. The paper is aimed at staff of government, private and non-government organizations working at the policy level and in the field, and at donors’ organizations that support organic production and certification.

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