



Governance of global organic agro-food networks from Africa

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Thesis

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LIST OF ACRONYMS AND ABBREVIATIONS

ACDI/VOCA	Agricultural Cooperative Development International and Volunteers in Overseas Cooperative Assistance
ADDB	Development Association of the Department Bilenga/ Association Départementale pour le Développement de Bilenga
ADDEPS	Departmental Association for Economic and Social Development of Piéla/Association Départementale pour le Développement Economique et Social de Piéla
AFRONET	African Organic Network
AIC	Association Interprofessionnelle du Coton
AICB	Association Interprofessionnelle du Coton du Burkina
AOM	Agrumes et Oléagineux du Mali
APB	Association Piéla-Bilenga
ARFA	Association for Research and Training in Ecological Agriculture/Association pour la Recherche et la Formation en Agro-écologie
ASI	Agribusiness Services International
ASP	African Stockpiles Programme
ASPABIC	Association for the Promotion of Organic Agriculture in Cameroon
AUC	African Union Commission
BATEX-CI	Bakary Textile Commerce et Industrie
BF	Burkina Faso
BMZ	Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung
BNO	Bio Niayes Senegal
BOAN	Benin Organic Agriculture Network
BRS	British Retail Standard
CAADP	Comprehensive Africa Agricultural Development Program
CAGIA	Coopérative d'Approvisionnement et de Gestion des Intrants Agricoles
CAIA	Centrale d'Achat des Intrants Agricoles
CAMC-O	Centre of Arbitrage, Mediation and Conciliation in Ouagadougou
CARDER	Centres agricoles régionaux pour le développement rural
CBD	Convention on Biodiversity
CBDD	Centre Béninois pour le Développement Durable
CBOs	Community- Based Organizations
CBT	Compagnie Béninoise des Textiles
CDI	Société Cotonnière de Distribution
CEB	Coopérative Equitable du Bandama
CGIAR	Consultative Group on International Agricultural Research
CIAT	International Center for Tropical Agriculture
CIEVRA	Centre International d'Expérimentation et de Valorisation des Ressources Africaines
CIRAD	Centre de coopération internationale en recherche agronomique pour le développement
CITES	Convention on International Trade in Endangered Species
CMC	Cocoa Marketing Company
CMDT	Malian Company for Textile Development/Compagnie Malienne pour le Développement des Textiles

COCOBOD	Ghana Cocoa Board
CODAPEC	Cocoa Diseases and Pests Control Program
COFA	Cocoa Organic Farmers Association
COLEACP	Europe-Africa-Caribbean-Pacific Liaison Committee
COMATEX	Compagnie Malienne de Textiles
COPACO	Compagnie Cotonnière
COTEB	Compagnie Textile du Benin
CPBKB	Club des Productrices de Beurre de Karité Biologique
CRIG	Cocoa Research Institute of Ghana/ Ghana Cocoa Research Institute
CSD	Cocoa Service Division
CSFT	Centre de Séchage des Fruits Tropicaux
CSOD	Clove Stem Oil Distillery
CSPR	Centrale de Sécurisation de Paiement et de Recouvrement
CSSVD	Cocoa Swollen Shoot and Virus Division
DDA	Doha Development Agreement
DDT	Dichlorodiphenyltrichloroethane
DED	German Development Service
DFID	Department for International Development
DGPER	Direction Générale de la Promotion de l'Economie Rurale
EAOA	Ethiopian Association of Organic Agriculture
EAOPS	East African Organic Products Standard
EC	European Commission
ECHOES	Empowering Cocoa Households with Opportunities and Education Solutions
EMS	Environmental Management Systems
EOA	Ecological Organic Agriculture
EPOPA	Export Promotion of Organic Products from Africa
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FARA	Forum for Agricultural Research in Africa
FBOs	Faith-Based Organizations
FENAB	National Federation of Organic Producers of Senegal
FiBL	Research Institute of Organic Agriculture
FLO	Fairtrade Labelling Organizations International
FOB	Free On Board
FRIDGE	Fund for Research into Industrial Development, Growth and Equity
FSC	Forest Stewardship Council
GATT	General Agreement on Trade and Tariffs
GCCSFA	Ghana Cocoa, Coffee and Sheanut Farmers Association
GDP	Gross Domestic Product
GIETEX	Groupement d'Intérêt Economique de Textiles
GIZ	Gesellschaft für Internationale Zusammenarbeit
GlobalGAP	Global Retailer Produce Good Agricultural Practices
GM	Genetic Modified
GOAN	Ghana Organic Agriculture Network
GOAN	Ghana Organic Agriculture Network
GPFS	Swiss Global Programme Food Security
GVC/GCC	Global Value Chain/Global Commodity Chain
HDRA	Henry Doubleday Research Association

IAASTD	International Assessment of Agricultural Knowledge, Science and Technology
ICCO	International Cocoa Organization
ICI	International Cocoa Initiative
ICIPE	International Centre of Insect Physiology and Ecology
ICS	Internal Control System
IFAD	International Fund for Agricultural Development
IFDC	International Fertilizer Development Center
IFESH	International Foundation for Education and Self-Help
IFOAM	International Federation of Organic Agriculture Movements
IITA	International Institute of Tropical Agriculture
ILO	International Labor Organization
IMO	Institute for Market Ecology
iMPACT	Mars Partnership for African Cocoa Communities of Tomorrow
INERA	Institut de l'Environnement et de Recherches Agricoles
IPM	Integrated Pest Management
IPPC	International Plant Protection Commission
ISO	International Organization for Standardization
ITC	International Trade Centre
JAS	Japan Agriculture Standards
KIT	Royal Tropical Institute
KOAN	Kenyan Organic Agriculture Network
LBC	Licensed Buying Company
LCTF	Local CODAPEC (Cocoa Diseases and Pests Control Program) Task Force
LED	Light Education Development
LWR	Lutheran World Relief
MDGs	Millennium Development Goals
MOBIOM	Malian Organic Movement
MoFA	Ministry of Agriculture
MSC	Marine Stewardship Council
MTC	Mufindi Tea Company
NEPAD	New Partnership for Africa's Development
NGO	Non-Governmental Organization
NIPS	Netherlands International Partnership for Sustainability
NOAMs	National Organic Agriculture Movements
NOAN	Nigerian Organic Agriculture Network
NOGAMU	National Organic Agricultural Movement of Uganda
NOP	United States National Organic Program
NPCA	New Partnership for Africa's Development Planning and Coordinating Agency
OAASA	Organic Agriculture Association of South Africa
OBEPAB	Beninese Organisation for the Promotion of Organic Agriculture/Organisation Bénoise pour la Promotion de l'Agriculture Biologique
OCADES	Organisation Catholique pour le Développement et la Solidarité
OCP	Organic Commodity Products
OECD	Organization for Economic Co-operation and Development
OHVN	Office of the Niger Higher Valley/ Office de la Haute Vallée du Niger
OIE	International Office of Epizootics
OPPAZ	Organic Producers and Processors Association of Zambia
OSA	Organics South Africa

PAN	Pesticides Action Network
PBC	Produce Buying Company
PCI	Premier Cashew Industry
PDA	Programme Développement de l'Agriculture
PIC	Prior Informed Consent
POPs	Persistent Organic Pollutants
PPP	Public-private partnerships
PPRC	Producer Price Review Committee
PROFIL	Projet d'Appui aux Filières Agricoles
QCD	Quality Control Division
RECs	Regional Economic Commissions
SA	Société Anonyme
SARL	Société à Responsabilité Limitée
SDA	Sustainable Development Agreement
SDC	Swiss Agency for Development and Cooperation
SIDA	Swedish International Development Agency
SITEX	Société des Industries Textiles
SOCODEVI	Société de coopération pour le développement international
SODECO	Société pour le Développement du Coton
SONAPRA	Société Nationale pour la Promotion Agricole
SOPRADEX	Société des Produits Agricoles d'Exportation
SPS	Sanitary and Phytosanitary Measures (Agreement)
SPU	Seedling Production Unit
SQF	Safe Quality Food
STCP	Sustainable Tree Crops Program
TATEPA	Tanzania Tea Packers
TAZOP	Tanzania Organic Products
TBT	Technical Barriers to Trade
TCW	Timmermans Confectie Wijchen
TNCs	Transnational Corporations
TOAM	Tanzania Organic Agriculture Movement
TOFA	Traditional Organic Farmers Association
TROPEX	Tropical Products Export
TSBF	Tropical Soil Biology and Fertility
U-AVIGREF	Union des Associations Villageoises de Gestion des Réserves de Faune
UEMOA	Union Economique et Monétaire Ouest-Africaine
UK	United Kingdom
UN	The United Nations
UNCCD	The United Nations Convention to Combat Desertification
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	The United Nations Framework Convention on Climate Change
UNPCB	National Union of Cotton Growers in Burkina Faso /Union Nationale des Producteurs de Coton du Burkina
US	United States
USA	United States of America
USAID	United States Agency for International Development

USDA	United States Department of Agriculture
VOMAGA	Volta Organic Mango Farmers Association
WAFF	West Africa Fair Fruit Company
WB	World Bank
WCF	World Cocoa Foundation
WHO/OMS	World Health Organization/Organisation Mondiale de la Santé
WTO	World Trade Organization
WWI	World Watch Institute
ZOPPA	Zimbabwe Organic Producers' and Processors' Association

CHAPTER 1

GENERAL INTRODUCTION

1.1 Agriculture and the global environmental and social crisis

Contemporary agro-food provision is one of the major causes of environmental degradation. In fact, the post-World War II period witnessed a tremendous blossoming of the chemical industry which became one of the propellers of the industrial agriculture and the so-called Green Revolution. Arguably, modern industrial technologies have fuelled to a large extent humankind's capacity to feed its growing population and brought millions of children, women, and men out of famine. The pessimism about the possibilities of feeding ever-growing populations, as exemplified in the writings of Malthus has been dissipated owing to the technological breakthroughs that enabled substantial yield increases (Hazell and Wood, 2007). Modern science and the globalization process with its innovations in transport and communication have facilitated networking and eased access to agricultural inputs and technologies worldwide. As a consequence, global food supply seems adequate today as global production is still growing although serious concerns remain about food distribution and access, particularly for people living in developing countries. Moreover, advances in modern sciences and the globalization process not only fueled the supply of agricultural products, but also generated environmental problems and food safety risks. Mol and Bulkeley (2002) point out that the use of pesticides and fertilizers, the use of hormones in meat production, the practice of large-scale livestock farming, and the use of various additives in food-processing industries are some of the environmental and safety risks we are witnessing in global modernity. It is increasingly understood that global ecological degradation is closely related to the development of modern forms of production. Due to globalization and market liberalization, access and use of modern agricultural technologies have rapidly diffused around the world. Every year 1.5 million tons of pesticides are manufactured (Eddleston et al., 2002), worth US\$30 billion (Oosterveer et al., 2011). This has generated many environmental dangers and food risks. For instance, on a global scale, it is estimated that 20,000 people die of adverse effects of pesticide exposure each year, 3 million people are poisoned and that there are nearly 750 000 new cases of chronic pesticide exposure (WHO and UNEP, 1990; Clay, 2004). The situation is particularly alarming in developing countries where 95% of the poisonings and fatalities due to injudicious use of pesticides occur and where safe spraying equipment and protective clothing suitable for tropical conditions are lacking (OMS, 1990; Watterson, 1991; Vodouhê, 1997; Vodouhê et al., 2001; Glin et al., 2006; PAN UK, 2007). As for the environment is concerned, chemical pesticides may cause water pollution and food contamination, soil degradation, reduction of biological diversity, ecosystem disturbance by extermination of certain species and insect resistance (PAN-UK, 2003). In the long run, chemicals may undermine the productivity of agro-ecosystems because pesticides have an impact on useful organisms and erode natural pest control and nutrient cycling. Other environmental problems associated with intensive use of chemicals are surface water and aquifer depletion, water logging and salinization of soils (Rérat, 1994; Pazou, 2001). Beside the conventional food risks related to microorganisms, food-poisoning, additives and agrichemicals in agriculture, a new category of risks has emerged, of which genetically modified organisms (GMOs) is a prominent part. The routes through which such risks may affect nature and society are more complex, less 'visible' and less easily detectable than

‘conventional’ risks, and their effects are further distanced over space and time (Mol and Bulkeley, 2002: 186).

From a socioeconomic perspective, farmers’ experience in recent years is one of steadily rising costs of agricultural inputs, especially for pesticides and synthetic fertilizers, while at the same time for much of their produce farm gate prices have been falling. This puts farmers, particularly in Africa, in a serious price squeeze and undermines the profitability and future of their farming enterprise and their means of livelihood (Ferrigno et al., 2005). Farmers in developed countries are less vulnerable because of the substantial subsidies they receive from their government. It is also argued that the postwar productivist trends led to ever-increasing levels of production, automation, and capitalization; growing corporate dominance, and a dramatic dis-embedding of commodities from their local social and environmental contexts (McCarthy, 2006). In the same vein, many fear that globalization may aggravate and deepen social inequalities worldwide. The Global Environmental Outlook report for 2000 puts it as follows (as quoted in Newel, 2005: 187).

“The global human ecosystem is threatened by grave imbalances in productivity and in the distribution of goods and services....This unsustainable progression of extreme wealth and poverty threatens the stability of the whole human system, and with it the global environment....Environmental gains from new technologies and policies are being overtaken by the space and scale of population growth and economic development. The processes of globalization that are so strongly influencing social evolution need to be directed towards resolving rather than aggravating the serious imbalances that divide the world today”.

The global organization of the food system is a new dimension of the agro-food related risks as they became cross-border in character. Through agricultural practices, the transport of agricultural and food products around the globe, the processing of food, its storage, and finally the consumption of food over greater distances from production site, risks are externalized, mediated, contested and ingested (Mol and Bulkeley, 2002: 185). Globalization processes with their growing time and space compression catalyze and accelerate the diffusion of these risks globally. However, the question remains to know how these food risks are distributed among different groups and different regions worldwide and how the advantages and disadvantages of technological innovations are spread (Oosterveer, 2007). This question is particularly relevant as far as Africa is concerned, given the dominant context of poverty, illiteracy, and weak institutional and policy background. Furthermore, owing to globalization, the food provision system that was dominated by farming and rural dynamics becomes more influenced by consumption and dynamics in retail (Oosterveer and Sonnenfeld, 2012). These changes generate new challenges such as how to increase sustainability in food provision, how to reduce the negative social impacts of international trade, and how to govern food from a global perspective (Oosterveer and Sonnenfeld, 2012).

In all, the changing nature of environmental and social risks related to the modern food system, in combination with globalization processes and the inadequacies of conventional ways and institutions to address them, can appear apocalyptic. However, the modern global society also has the potential to catalyze changes in the instruments, concepts, approaches,

strategies and institutions that can assess both ‘old’ and ‘new’ social and environmental risks of the food system and manage them (Beck, 1997). However, as these problems become global and cross-border in their scope, nation-state institutions can hardly address them. Thus, a different way is required to cope with them; hence a supra-national way.

In the next two sections, I elaborate successively on national initiatives, international environmental and food regimes, and market- and civil society-led mechanisms as responses to the current global agro-food related risks. It stands out that: (1) at the national level it is difficult to cope with a number of agro-food risks; (2) at the international level the environmental and food trade regimes cannot adequately deal with these risks (as far as these are related to the international state system). Thus, we need to look for other ways of governing these agro-food related environmental risks; hence innovative market- and civil society-led mechanisms are a prospective alternative. Subsequently, the fourth section situates the rise and development of organic agriculture in Africa as an innovative market- and society-led approach towards greening agro-food production and trade. This section ends with the research questions that the emergence of organic agriculture in Africa gives rise to and which are the heart of this thesis. The last section presents the overall structure of the thesis.

1.2 Responses of public institutions to global agro-food risks

1.2.1 Nation-states and global agro-food trade and governance

Initial efforts from nation-states with respect to the governance of agro-commodity trade targeted mainly the negative social effects of market capitalism and food safety, particularly during the post-war period. In fact, states had the power and legitimacy to distribute the benefits of agro-food production more widely over their population (Gale and Haward, 2011). Tax policies, laws, official regulations, formal control and enforcement mechanisms were put in to ensure that the population got enough wholesome food of the kind they expected and that honest manufacturers were protected from unfair competition (Oosterveer, 2007; Tansey and Worsley, 1995). However, there are differences between different countries in terms of the state capacity to deal with these problems at a nation-state level. While OECD¹ countries developed relatively strong agricultural and environmental policy instruments (including subsidies to farmers, regulation on environmental pollution through farming practices, regulation on trade, etc.) to address both social and environmental agro-food issues at national and even regional level, developing countries, particularly Africa, are characterized by a poor institutional and policy infrastructure.

The rise of neoliberalism and globalization processes in the 1990s weakened the position of nation-states and shifted the regulation of the market-capitalist system to the international level and to the negotiation on ‘regimes’ (Young, 1989; Hasenclever et al., 1997; Keohane and Nye, 2002; Gale and Haward, 2011). In fact, globalization is the process in and through

¹ The Organization for Economic Co-operation and Development. Membership (2007) of 30 states with advanced industrial economies. OECD measures have especially addressed environmental questions, taxation, and transborder corporations (Baylis et al., 2008: 452).

which the nation-state and its sovereignty are eroded by the growing powers of transnational actors, their orientations, identities and networks (Beck, 1997: 28). In the last three decades both food production and distribution have been radically restructured in favor of a more global scope and character, with TNCs (Transnational Corporations) playing an increasingly important role, especially in activities ‘upstream’ and ‘downstream’ from farms (Robinson, 2004: 53). The resulting ‘distancing’ of production and consumption relations creates a set of social and environmental risks that governments acting alone or in concert have been unable to regulate effectively (Gale and Haward, 2011). In the same vein, Oosterveer (2007) argues that ‘ensuring safe and sustainable food can therefore no longer remain an issue of national governments regulating either production processes or mere national consumer concerns, but becomes part of the much broader deliberative processes dealing with the challenge to determine what constitutes acceptable food production and consumption practices as well as the institutionalization thereof’ (Oosterveer, 2007: 64). Furthermore, consumers are no longer only concerned about the quality, safety and price of their food but also about the health, social, ethical, ecological and animal welfare impacts occurring at different stages of the supply chain (Oosterveer and Sonnenfeld, 2012). Thus, a major challenge is as how, i.e. through which governance arrangements, the agro-food related risks can be handled or managed in such a global and complex system across differences of perception, belief, identity, nationality and authority. More specifically, the tensions between global and local dynamics of governing food are of particular concern.

However, the state is still playing an important role in global agro-food governance, particularly in curbing the negative impacts of free markets. In an attempt to try to countervail the erosion of their powers, nation-states transferred selected powers to supranational agencies and multinational institutions (Oosterveer, 2007). It is in this perspective that the WTO (World Trade Organization) was established in 1995 to replace the GATT (General Agreement on Trade and Tariffs), with more power and a wider mandate. The GATT was established in 1945 to co-ordinate international trade and the relevant national regulations. The main objective of WTO is to facilitate international trade in support of global welfare. The organization’s approach is based on economic principles according to which the reduction of trade barriers is judged the best guarantee for countries to make use of comparative advantages (Oosterveer, 2007). However, efforts to reform the global trade system to address trade distortions embedded in the WTO agreements themselves have ended in dismal failure (see quotation in the following box).

Within the WTO framework, there are a number of agreements relevant for food, notably the Sanitary and Phytosanitary (SPS) agreement and the Technical Barriers to Trade (TBT) agreement. The SPS agreement, built on the Standards Code of the 1947 GATT, permits measures “necessary to protect human, animal, or plant life and health”, yet requires that regulators base measures on a scientific risk assessment (Jaffee and Henson, 2005: 92). As much as possible, measures should be harmonized through the international standard-setting bodies: the Codex Alimentarius for food safety, the International Office of Epizootics (OIE) for animal health and the International Plant Protection Commission (IPPC) on plant health (Oosterveer, 2012). The TBT agreement, adopted in 1979, tries to ensure that standards, regulations, testing and certification procedures do not become unnecessary barriers to

international trade. The agreement recognizes countries' rights to adopt standards that are appropriate to achieve domestic policy objectives related to consumer protection, environmental protection, and the protection of animal, plant or human life (Hobbs, 2007: 398). However, these standards and regulations must be based on sufficient scientific evidence and only deal with product-related characteristics.

BOX 1.1 FAILURE OF GLOBAL TRADE REFORM WITHIN WTO AGREEMENTS

“In 1999, President Clinton launched the Millennium Round within the WTO negotiations in Seattle, Washington, but demonstrations outside and remonstrations inside blocked progress. Following the ‘Battle in Seattle’, a new attempt at negotiations occurred in Doha, Qatar, in 2001, with agreement reached on the Doha Development Agreement (DDA). The DDA was to focus on securing the benefits of trade liberalization for developing countries, especially with respect to commodity production. This required, in turn, that the Europeans and the Americans agree to a compromise deal on agricultural subsidies and tariff and non-tariff barriers that was acceptable to the South led by the G-33 countries. While the US and the European Union (EU) eventually managed to agree on the parameters of a deal, the compromise ultimately proved unacceptable to developing countries. At Cancun, in 2003, the WTO Ministerial meeting ended in disarray with developing countries refusing to agree on an agenda that did not meet their needs. All subsequent attempts to revive the talks ended in failures.”

Source: Gale and Haward, 2011: 6-7

In all, the WTO regime illustrates the struggle between North and South over how to govern the international trading system with some consideration of food safety issues. However, the WTO regime remains techno-centric and relies only on scientific, objective, and verifiable product-related characteristics. As such, the WTO regime disregards sustainability, process and credence attributes (environmental, social, ethical and animal welfare criteria that may be difficult to detect) while an emerging market segment of consumers desires to purchase products that are socially and environmentally sustainable. With the consumerist turn in the global (commodity) economy, consumers seek assurances that the products they buy are produced and traded under fair conditions, do not contribute to biodiversity loss, and do not damage their own health. However, the World Trade Organization (WTO) refused to act on environmental and social issues fearing that the inclusion of ‘process and production methods’ in trade law would be a slippery slope to protectionism (Gale and Haward, 2011). However, there already are several other state-led international regimes targeting particularly the global environmental crisis including in the area of agro-food production and consumption.

1.2.2 International environmental regimes

To deal with the global environmental crisis and with agro-food risks states and public agencies also engage with the construction of environmental regimes in parallel to the WTO regime. Indeed, this thesis is not concerned with all environmental problems, but those related to agro-food production and consumption. In the global context, an international regime is defined as “a set of integrated principles, norms, rules, procedures, and institutions that actors create or accept to regulate and coordinate action in a particular issue area of international relations” (Downie, 2005: 64). States are the primary and most important creators of international regimes, though they are not the only ones (Downie, 2005). Broadly, regimes are found in most areas of international relations including environment, trade, finance, human rights, communication, and the management of global commons such as the oceans. The most prominent international environmental regimes dealing with agriculture-induced environmental pollution, contamination and risks include the toxic chemicals regime and the global biodiversity regime.

The toxic chemicals regime centers on several international conventions and agreements, of which the 1998 Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (PIC) and the 2001 Stockholm Convention on Persistent Organic Pollutants (POPs) are the most relevant for this study. POPs are chemicals that are highly toxic, persistent, accumulate in the natural environment and also move over long distances. The dramatic growth in chemicals production and trade since WWII increases the potential risks posed by hazardous chemicals and pesticides (UNEP, 2002). Globally, 1.5 million tons of pesticides are manufactured every year (Eddleston et al. 2002), worth US\$30 billion (Oosterveer et al., 2011). Particularly vulnerable are countries lacking adequate capacity to monitor the import and use of such substances. In the 1980s, UNEP and the FAO developed voluntary codes of conduct and information exchange systems, culminating in the Prior Informed Consent (PIC) procedure introduced in 1989 (UNEP, 2002). The new Convention replaced the voluntary arrangement with a mandatory PIC procedure. The Rotterdam Convention on PIC, identifies pesticides that have been banned or severely restricted by governments after carrying out a risk evaluation, and asks other governments whether they prohibit or consent to their import. It also increases the level of information exchange on banned pesticides. The Stockholm Convention on POPs (2001) was a response to the urgent need for global action to protect human health and the environment from ‘POPs’. This Convention seeks the elimination or restriction of production and use of all intentionally produced POPs, eight of which are pesticides (aldrin, chlordane, DDT, dieldrin, endrin, hexachlorobenzene, mirex, toxaphene). Stockpiles must be managed and disposed of in a safe, efficient and environmentally sound manner (UNEP, 2002). The Convention furthermore imposes certain trade restrictions. Nevertheless, all African countries are facing major problems with their stocks of obsolete hazardous pesticides, and therefore recently an African Stockpiles Programme (ASP) has been established by several NGOs and the FAO to clear these stocks.

The Rotterdam and Stockholm Conventions taken together provide sets of largely comparable principles, norms, rules and procedures to regulate different substances and stages of the life

cycle of hazardous chemicals - their production, trade, use, and disposal (Downie et al., 2006).

The global biodiversity regime centers on the 1992 Convention on Biodiversity (CBD), including the 2000 Cartagena Protocol on Biosafety. The CBD came into force in 1993 and was the first global agreement on the conservation and sustainable use of biodiversity. It targets three main goals and serves as a blueprint for national action. The targeted goals are: the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits from the use of genetic resources (UNEP, 2002). The issues addressed include habitat preservation, intellectual property rights, biosafety and indigenous peoples' rights. The CBD stands out as a landmark in international law, noted for its comprehensive, ecosystem approach to biodiversity protection (UNEP, 2002). The treaty has gained rapid and widespread acceptance. A supplementary agreement to the Convention is the Cartagena Protocol on Biosafety, adopted in January 2000. This Protocol addresses the potential risks posed by cross-border trade and accidental release of living genetically modified organisms. A number of species-specific and habitat protection measures also results from the 1993 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the 1979 Bonn Convention on the Conservation of Migratory Species of Wild Animals, and the 1991 Ramsar Wetlands Convention. The 1994 UN Convention to Combat Desertification (UNCCD) and the 1992 UN Framework Convention on Climate Change (UNFCCC) should also be taken into consideration here. The UN Framework Convention on Climate Change was signed at the Rio Earth Summit in 1992 and envisaged the reduction of greenhouse gas emissions (Vogler, 2008).

To sum up, the above mentioned environmental regimes are forceful in addressing the issue of contamination, pollution, and destruction of the environment related to agricultural production and in securing the ecological basis of agricultural production. But, they are less attentive to and do not articulate explicitly with social and environmental processes involved in agricultural trade.

In all, the state-led mechanisms (WTO and international environmental regimes) failed to adequately address the environmental, social, ethical, and animal welfare issues that are central to the consumerist turn in the global food economy. This resulted in a popular distrust in public institutions as far as global agro-food governance is concerned and prompted the naissance of non-state regimes, i.e. market- and civil-society led initiatives towards greening agro-food production and trade.

1.3 Market- and civil- society led mechanisms towards greening agro-food trade

With the failure of the nation-state and WTO regimes as well as of the international environmental regimes to effectively address contemporary environmental and social issues in (global) agro-food trade, civil society and corporations sought alternative mechanisms, especially market-based governance arrangements like voluntary codes of conduct, quality and environmental management systems (EMS) and certification and labeling schemes. The rationale behind these initiatives is to restructure production and consumption relations to

meet the requirements of environmental and social sustainability. These new non-state arrangements try to rebuild consumers' trust in food and have become a dominant feature of the post-Fordist global food regime. As pointed out by Mol (2000) and Sonnenfeld (2002), the present world is witnessing a growing role of environmental social movements in the transformation of societies along more market- and ecologically-oriented lines. Mol (2008) notes that a blossoming of private initiatives can be witnessed from local or national producer/sector-organized initiatives to truly global innovative industry-NGO ecolabeling initiatives. Environmental labeling and certification schemes have become a worldwide phenomenon, in which global network operators and third-party certification agencies ensure the social and environmental quality claims of products. These global networks also seem more fluid and prone to constant reconfigurations than state-based regimes as they need to adapt to changes in consumption patterns and consumers' valorization of different kinds of quality content (Cooke et al., 2008). However, the state may also play a role in these emerging environmentally-oriented market arrangements. For instance, although initially promulgated by the International Federation of Organic Agriculture Movements (IFOAM) and national private voluntary certification organizations, the organic standards and certifications are increasingly included in government regulations and guidelines (e.g., the EC regulation 834/2007 on organic production methods; the USDA organic standards and the guidelines of Codex Alimentarius) (Mol, 2008).

Of the many non-state global arrangements currently in operation, the most important and well institutionalized are the Forest Stewardship Council (FSC), the Marine Stewardship Council (MSC), the organic movement whose many national bodies are organized within IFOAM), and Fairtrade under FLO (Fairtrade Labelling Organizations International). Other certification and labeling schemes include the International Organization for Standardization's Environmental Management Series (ISO 14000), the Global Retailer Produce Good Agricultural Practices (GlobalGAP), the British Retail Standard (BRS), and the Safe Quality Food (SQF).

All these arrangements address in one way or another agro-food related risks including process and credence issues and target the greening of agro-food networks, though each of them has their own particular aims, standards, organizational structure, procedures, and auditing system. Here we define greening as a dynamic process that, as suggested by the ecological modernization approach (Mol and Spaargaren, 2002), systematically incorporates ecological rationality in production practices, in economic and in political decision making (Mol and Sonnenfeld, 2000; Mol et al., 2009; Oosterveer et al., 2011). Ecological rationality means that (potential) environmental impacts of activities and decisions are taken into account beforehand to allow preventive measures and integrated approaches (Oosterveer et al., 2011: 214). This broad conceptualization includes, but is not limited to, pre-defined models like organic agriculture. In all, the question remains to know which governance arrangements make possible and sustain these market- and civil society led initiatives. More specifically, as far as organic is concerned, which rationalities, processes and stakeholders drive the development of (global) organic commodity networks?

1.4 Rise and development of the organic movement, with special reference to Africa

Organics is one of the most dynamic and fast-growing sector in agricultural markets. The organic market aims at both improved environmental and social performance in agriculture. According to IFOAM (www.ifoam.org, accessed 7 November 2013): “organic agriculture is an agricultural production system that promotes environmentally, socially and economically sound production of food and fibers, and excludes the use of synthetically compounded fertilizers, pesticides, growth regulators, livestock feed additives and genetically modified organisms”. Organic agriculture today adheres to globally accepted principles which are implemented in specific, economic, geo-climatic and cultural contexts (Lockie et al., 2006). Organic farming started early in the twentieth century with small groups of pioneer farmers concerned about the increasing intensification of agriculture with its reliance on the use of chemicals and mechanization. According to Vogt (2007) the origins of organic farming need to be understood in the context of four developments going on at that time: (i) a crisis in agriculture and agricultural science; (ii) the emergence of biologically oriented agricultural science; (iii) the Life and Food Reform movements; and (iv) growing Western awareness of farming cultures from the Far East. However, organic farming remained marginal and largely invisible next to the expanding modern industrial agriculture until the 1960s. The countercultural movements of the 1960s and 1970s, along with key publications such as Rachel Carson’s *Silent Spring* and *Limits to Growth* by Dennis Meadows et al., provided a boost for the nascent organic industry (Lockie et al., 2006). With the rise to prominence of the environment as an issue of public concern and political importance, the organic movement became a global phenomenon. The organic movement thus envisioned alternative socially and environmentally integrated sustainable agro-food production systems (Jordan et al., 2006). Currently, the number of organic farmers worldwide has grown to an estimated 1,798,359 managing some 37.24 million ha organically (Willer and Kilcher, 2013). A study of organic agriculture should not only include production but also the regulation of production, transformation, and exchange of agro-commodities because they have profound impacts on people and the planet (Gale and Haward, 2011).

Official organic agriculture is introduced in Africa since the mid-1980s and early 1990s, directed towards meeting environmental and social sustainability goals in agro-food production and trade as well as responding to the increasing demands from the global market. The organic movement arose in Africa as a response to the agricultural intensification strategy imposed by Structural Adjustments Programs and its neoliberal policies. In fact, structural adjustment and neo-liberal policies imposed throughout the South, especially in Africa in 1980s and 1990s put particular emphasis on agricultural intensification as a strategy for food security, income generation and poverty alleviation by improving farmers’ productivity. In both food and cash crops (for local and exports markets), farmers were encouraged to modernize in the conventional way. These policies favored the adoption of intensive agricultural methods, including the application of synthetic inputs (chemical pesticides, mineral fertilizers, and herbicides) in order to boost yields, increase regional development and combat rural poverty (Dowd, 2008). This model of intensification of agriculture in Africa gave rise to a lot of environmental, health, and socio-economic problems. Against this

background, increasingly NGOs, international networks and corporations started promoting organic and fair agriculture as a relevant alternative for improving farming sustainability and farmers' livelihoods whilst not causing harm for the environment (Ton, 2007; Tovignan, 2005; Vodouhe, 1997). Besides, the recent growth in the North/South organic trade also appears to be fuelled by shifting consumption patterns in EU, the United States, and other Northern markets away from conventional agro-industrial foods. Consumers concerns about the healthiness of food and the environmental social implications of corporate production patterns appear to be growing in the wake of recent food scares and the proliferation of controversial genetically modified foods (Oosterveer, 2005; Reynolds, 2000). This is also facilitated by the globalization process of increased trade and expanded communication.

1.5 Research objective and questions

This thesis addresses the ways in which certified transnational organic commodity networks from Africa are governed in the context of increasing globalization and social movement involvement and studies how these governance arrangements affect and (re)shape civil society-business-state relationships. The increasing global concerns with regard to agro-food risks and the subsequent consumerist turn in the global food economy challenges the conventional chemical-intensive agricultural production. In fact, the post-war dominant agro-industrial development fostered the intensive use of chemical inputs, corporate concentration, and standardization of products for mass consumption (Goodman et al. 1987; Reynolds et al., 2007). Despite the success so far achieved with the increases in productivity, this Fordist regime generated several externalities on natural ecosystems and human and animal health. In addition, the further modernization of production techniques (for instance the genetically modified organisms) combined with globalization processes extended the scope and character of agro-food risks, which became global and cross-border. Thus, to be effectively handled, these risks must be addressed from a global perspective; hence within supra nation-state institutions. However, state-led international regimes (WTO and environmental regimes) failed to adequately address modern agro-food related risks, particularly sustainability issues (including environmental, social, ethical, and animal welfare). Thus, several non-state regimes, i.e. market- and civil society-led mechanisms emerged around standards and labeling schemes to respond to these issues while restructuring agro-food production and trade towards more sustainability and rebuilding consumer trust in food. Organic agro-food production and trade is of particular importance among these non-state regimes as this constitutes a major innovation towards the greening of the (global) agro-food economy and the fastest growing food sector worldwide with around 170% increase from 2002 to 2011 (Sahota, 2013). The emergence of organic agriculture production in Africa since the 1980s leads to a number of interesting questions that are central to this thesis.

- How did different rationalities and stakeholders initiate and co-structure the development and further transformation of organic commodity networks from Africa across time and space?

- How is trust (re)created to establish and mediate relationships between the different stakeholders and material substances involved in the production, processing and marketing nodes across the organic commodity networks?
- How and to what extent have the governance arrangements within the organic commodity networks subsequently reshaped civil society-business-state relationships?

Thus, this research aims to understand the governing (f)actors, i.e. rationalities and processes that steered the development of organic commodity networks from Africa and to highlight whether and how these processes transform civil society-business-state relationships. Several reasons justify the choice of Africa as a case study for this thesis. First, Africa has rarely been the main subject of study within the fast growing literature on globalization (Gibbon and Ponte, 2005). Thus, this thesis contributes to fill in this gap by bringing Africa at the forefront of the study of global commodity networks. Secondly, unlike the parts of the globe where organic farming is mainly oriented towards domestic markets, organic agro-food production in Africa is mainly export-oriented. This particularity as well as the rationalities and dynamics therein need to be unraveled to broaden the literature on organic commodities. This will also allow for comparison and generalizability with developments elsewhere. Unraveling the rationalities, processes and dynamics that shape the growth of transnational organic commodity networks from Africa, will inform hypotheses and research questions about transnational organic agriculture in other developing countries and regions (for instance, Asia and Latin America).

1.6 Thesis outline

Chapter 2 presents the theoretical and methodological background of this research. The chapter first highlights a number of trends and developments in the globalization of agriculture in relation to environmental and social concerns. Secondly, I elaborate on the global commodity network perspective as a relevant analytical framework to uncover and make sense of the multi-stakeholders' perspectives and rationalities operating in the governance of global organic commodity networks. As such I move beyond the narrow economic dimension that mostly features conventional commodity chains. Several concepts, including governance and trust, are developed and operationalized from that perspective. Then, the methodology is presented building on a case study approach as research strategy.

Chapter 3 provides an overview of organic agriculture in Africa. First I present a historical account of the development of organic agriculture in Africa. Secondly, I identify the trends in certified organic production. Then, the key stakeholders and major initiatives in organic agriculture are presented and some features of trade and regulation of organic commodities in Africa are highlighted. I conclude by formulating the major challenges that face the development of organic agriculture on the continent.

Chapter 4 reports on a case study of the organic cotton network from Benin by addressing specifically the question how the organic cotton production–consumption network is governed locally and internationally. First, we outline the global value chain (GVC) concept and relate it to governance frames in designing an analytical perspective. Second, a brief

overview of the cotton sector in Benin provides the background against which we reconstitute the historical development of the organic cotton initiative in Benin. The subsequent section addresses the governance structure of the organic cotton network, highlighting the steering role that transnational networks play. The article concludes on the implications of these findings from both theoretical and practical perspective.

Chapter 5 presents a case study on the organic cocoa network from Ghana. In this chapter, we address particularly the question how the state responded to and engaged with civil society actors in the evolving organic cocoa network and to what extent state involvement reshaped state-business-civil society relations in this domain. First, the conceptual framework of the commodity network is introduced with a focus on the role of the state in its governance. Subsequently, recent developments in the cocoa sector in Ghana are presented in order to understand the building of the conventional global cocoa network. The major part of the paper analyzes the rise, development and institutionalization of the organic cocoa sector in Ghana, with special reference to how this alternative commodity network is governed. We conclude with a discussion on the role and relevance of the state in contemporary organic/alternative agro-food supply networks when compared with the conventional global cocoa network.

Chapter 6 reports on a case study of the organic sesame network from Burkina Faso. In this chapter, we examine the structure and development of this network to explain the declining trend in organic sesame export. We address particularly the question whether the organic sesame network is structurally (re)shaped as a conventional mainstream market or whether it still presents a real alternative to conventional sesame production and trade. For this purpose, we elaborate on the concept of *conventionalization* of ‘alternative’ food economies. Subsequently, an overview is given of the international sesame market, followed by a comparison of the governance arrangements within production and marketing of organic and conventional sesame networks. Then, the logic of the growing conventionalization in the organic sesame network in Burkina Faso is analyzed and explained, to conclude with (potential) responses to the shrinking organic sesame trade.

Chapter 7 elaborates on the major findings from the case studies to draw conclusions on the governing (f)actors, i.e. the rationalities and processes that steer the initiation, development and further transformation of the organic commodity networks. Then, we highlight the extent to which the governance of the organic commodity networks reshapes wider civil society-business-state relationships and we discuss particularly the changing role of the state in these processes. Finally, we provide some recommendations for further research.

CHAPTER 2

GOVERNANCE OF GLOBAL ORGANIC COMMODITY NETWORKS: THEORY AND METHODOLOGY

2.1 Globalizing agro-food trade: a historical perspective

2.1.1 From internationalization to globalization

Arguably, the global character of agro-food trade is not a new phenomenon, but dates back many centuries. In fact, already early in the sixteenth century several agricultural products including spices, salt, palm oil and fibers were internationally exchanged between people living far away from each other. Amongst the early international/global commodity networks are the export of sugar from Brazil by Portuguese farmers and spices from South-East Asia by the Dutch traders (Braudel, 1984). Particularly, Africa was at the heart of the slave trade and the most important provider of labor for the sugar cane plantations in America. Following this dramatic era, during colonial times European countries conquered distant lands and established region-specific agricultural production systems such as for cotton, cocoa, sugar, rubber and other crops. These colonial powers also became engaged in exploiting other, non-renewable resources (gold, silver, diamonds) and in all these productive and extractive activities they made use of cheap labor (Willems, 2006). They invested in plantations for the production of agricultural products, set up infrastructure systems to support the transport of goods (mainly agricultural products, minerals and also slaves) from locations inland to the coast for shipping overseas (Willems, 2006). This world trading system in pre- and colonial times created a tripartite structure of the global economy with core, semi-peripheral and peripheral economic areas (Wallerstein, 1974; 1980; 1989). This portrays the international division of labor between the industrial (core) countries producing manufactured goods, and the nonindustrial (peripheral) economies that supplied raw materials and agricultural products to the industrial nations and became a market for basic manufactures (Gereffi, 2005). The semi-periphery consists of states that are in-between the core and the periphery, in that they house within their borders both peripheral processes in relation to core states and core-like processes in relation to adjacent peripheral states (Hopkins et al., 1982).

The industrial revolution, which started around 1800, fostered a number of technological innovations that fuelled the industrialization of the agro-food sector and its further orientation toward a capitalist model. These technological innovations included: the introduction of steam power, petroleum-based engines, and motorized ships and trains, all facilitating international agro-food trade. The decades leading up to 1914 were considered a golden age of international trade and investment. This ended with the First World War and the Great Depression, when most of the world's economies turned inward (Gereffi, 2005).

However, recently globalized trade includes large volumes in their transactions (Busch and Juska, 1997) and networks are expanding beyond a small number of countries. In the decades following the Second World War, trade flows became far more complex with the rise of globalization, involving the functional integration of internationally dispersed activities and the reshaping of the relationships between the developed and developing nations of the global economy (Gereffi, 2005). In fact, world trade underwent both quantitative and qualitative transformation since the 1950s. Quantitatively, the world trade has grown significantly at an average rate of one and a half times the growth of world GDP (Gross Domestic Product) from 1965 to 1990 (Wade, 1996). Robinson (2004) argues that it is finance and cross-border flows of capital that are more truly global and have had the largest influence on the agro-food

sector. Flows of foreign direct investment grew three times faster than trade flows between 1983 and 1990 (Gereffi, 2005; see also Wade, 1996). Technological development has expanded the capacity of merchant fleets and innovations, such as containerization, meant that ever-more goods could be transported at ever-lower cost. Technological developments have interacted with increased trade liberalization, as was strongly institutionalized in the General Agreement on Tariffs and Trade (GATT) and its successor the World Trade Organization (WTO) (Gale and Haward, 2011). Qualitatively, the world economy has become organized at a global level with an expanding interconnectedness resulting in a thickening of networks of global economic and social relations (Frieden and Lake, 1995). It can be argued that transnational corporations (TNCs) have been the most important drivers for the change toward globalization. The activities of TNCs are primarily oriented toward three main objectives: searching for raw materials; finding new markets for their products; and tapping offshore sources of abundant and relatively low-cost labor (Gereffi, 2005; Vernon, 1971). However, TNCs have also caused major debates regarding their role in the global economy. Two important questions that generated great interest in TNCs were: to what extent have TNCs supplanted national governments (Gereffi, 2005) and, are TNCs truly global in their modes of operation (Hirst and Thompson, 1995)? In response to these questions it is argued that since the early 1990s nation-states are no longer the most important actors in global processes (Mol, 2001). And as argued by UNCTAD (1993), we live in a world in which deep integration, organized primarily by transnational companies (TNCs), is pervasive and this involves the production of goods and services in cross-border value-adding activities that redefine the kind of production processes previously contained within national boundaries. To further clarify this, there is a need to theoretically elaborate the concept of globalization and I will do so by discussing its meaning and how is it understood by different schools of thought.

2.1.2 Different perspectives on globalization

Beck (1997) defines globalization as the process in and through which the nation-state and its sovereignty are eroded by the growing powers of transnational actors, their orientations, identities and networks. According to Mol (2001: 4), “globalization is better suited to the social developments of ever-intensifying and ever-extending networks of cross-border human interaction. Such interaction bridges increasing distances in decreasing time, distinguishing the present era of globalization from the era of internationalization”. Globalization is also defined as the main social process characterizing what is often labeled ‘second modernity’. However, globalization is also a contested concept. Different schools of thought define the concept of globalization analytically and normatively from different and even conflicting points of view. Held et al. (1999) distinguish three scholarly perspectives on globalization: advocates (hyperglobalists), critics (skeptics), and a more neutral school of analysts (transformationalists). Hyperglobalists are optimistic and typically economic-oriented in their view on globalization, and they argue that globalization processes should be taken further as they bring prosperity and development around the world. According to this school of thought, globalization is to be considered as the near culmination of capitalism. Thus, capitalist production is seen to replace all that remains of pre-capitalist modes of production around the globe and to unify the world into one single mode of production and one single global

economic system (Oosterveer, 2007; Robinson, 2001). From this perspective it is expected that agriculture in all countries will be restructured in response to the demands from transnational agro-food companies by replacing natural processes with industrial ones, by facilitating the transportation of food products over longer distances, and by creating favorable conditions for the expansion and lengthening of food supply chains (Bonanno et al., 1994). The Fordist way of standardized mass production fits well in this perspective. Skeptics join the hyperglobalization scholars in their qualification of globalization as global capitalism, but their assessment of this development is different. According to the skeptics, economic globalization will lead to the same kind of disasters that befell industrial capitalism before, but now on a global scale (Sonnenfeld and Mol, 2002). They argue that effective environmental regulation and sustainable development is structurally difficult to attain within the framework of global capitalism. The skeptics posit that capitalism ultimately will destroy itself due to inherent internal contradictions, which are both of an economic (the first contradiction) and of an environmental (second contradiction) nature (Sonnenfeld and Mol, 2002). Contrary to hyperglobalists and skeptics, from the transformationalists perspective, the quintessence is not the celebration of globalization or the condemnation of global capitalism but rather the transformational processes that come with globalization. In this respect, globalization should be conceptualized as a set of long-term historical processes replete with contradictions embodying transformations in the spatial organization of social relations and transactions (Oosterveer, 2007). These global transformations should be interpreted as the emergence of transcontinental or interregional flows and networks of activity, interaction and power (Oosterveer, 2007; Castells, 1997; Giddens, 1990). In this sense, globalization of agriculture is seen as changes in (agri-food) networks involving different social actors at diverse and sometimes very distant locations. Transformationalists point at flexibility and heterogeneity in recent transitions and at the importance of combining local and global dynamics in conceptualizing the process of globalization and contemporary food provision (Oosterveer, 2007). The transformationalist's perspective stresses both positive and negative effects of globalization processes and especially accounts for the qualitative changes in the (global) agro-food sector. My theoretical orientation is rooted in this latter, third, perspective given that I am concerned with analyzing the governing processes in global organic commodity networks and the resulting changes (positive or negative) these processes bring in the relationships between civil society, business and state actors.

2.2 Conceptualizing governance in global organic commodity networks

2.2.1 The Global Commodity Chain framework and governance

Historically, the conceptualization and study of the links between production, distribution, and consumption of agricultural commodities is rooted in political economy frameworks (Watts, 1999; Friedmann, 1993). Initially the concept of commodity chain emerged from the world systems theorists Hopkins and Wallerstein, who defined a commodity chain as 'a network of labor and production processes whose end result is a finished commodity' (Ibid., 1986: 159). The political economy perspective stresses the position of the state as a key player in the agro-food economy. However, globalization and liberalization processes favor the rise

and increasing power of transnational corporations (TNCs), which become the major drivers of global commodity chains. The Global Commodity Chain (GCC) framework was introduced to reflect this shift and to reposition/refocus the study of global commodities on transnational corporations and lead firms (see Gereffi, 1994). This does however not mean that states have completely disappeared. Of particular importance in the global commodity chain perspective is the notion of governance. In the (global) commodity research tradition, governance focuses on coordination mechanisms and power relations between economic actors. Governance from this perspective ‘relates closely to the notion of “drivenness”, that is, how, and how much, firms in certain positions in a chain are able to control and steer its functioning to their own benefit, which includes shaping the division of labor and the distribution of rewards along the chain’ (Bernstein and Campling 2006: 245). In this regard, Gereffi (1994) initially distinguished between two ideal-types of chain governance, namely producer-driven and buyer-driven chains on the basis of the nature of their lead firms. In producer-driven chains (for example the automobile industry) the concentration of capital and technological know-how allows producers to dominate the chain while in buyer-driven chains (for example agro-food) distributors dominate the chain via their control over the design process and over market access. However, despite the wealth of valuable insights this simple dichotomous characterization of producer- vs. buyer-driven chains generated, it is criticized and frequently challenged for its failure to include more subtle forms of governance in chains (Raynolds, 2004). In response, Gereffi et al. (2005) elaborated a more refined typology distinguishing five types of governance structures: hierarchy, captive, relational, modular, and market, which range from high to low levels of explicit coordination and power asymmetry (Gereffi et al., 2005). Still this governance typology maintains a restricted perspective and only includes actors directly engaged in GCC. As Tallontire et al. (2011: 430, italics in original) argue ‘it is necessary to widen the perspective beyond *vertical* chain governance, i.e. relations between buyers and suppliers’ and to uncover the ‘multiplicity of actors’ involved. Raynolds (2004) suggests that governance should be understood not as a pre-existing structural feature of commodity chains, but as the relations through which individual and collective social actors ideologically and materially construct, maintain, and transform commodity networks. This is particularly relevant as civil society organizations and some political forces are becoming integral part of the governance of commodity chains and networks in this contemporary Post-Fordist era.

2.2.2 Environmental and social interests in global commodities

Environmental and social movements in agro-food governance fostered an increasing interest in environmental and social issues, in particular in process and credence attributes of agro-food production and trade (including environmental, child labor, social justice, animal welfare) (Hughes, 2001; Friedmann, 2005). It is worth noting that in recent years, many NGOs changed their strategy of operating between and beyond the state and markets as they became less confrontational and more involved in building alliances and coalitions for environmental restructuring (Mol, 1999, 2001; Sonnenfeld, 2002). Environmental and social movements (including consumer groups) are more concerned with environmental, health and ethical considerations than with productivity, price, packaging, and the physical appearance of

food (Robinson, 2004). They aim to include these non-economic considerations in the governance of GCC for instance through labeling of products. Ponte and Cheyns (2013) argue that environmental and social sustainably certified products may have started as a small niche, in several sectors, particularly in the agriculture and food sector, but have grown considerably and gained substantial market shares. Sustainability concerns related to food production and consumption entail, among others, the use of non-renewable (fossil) and renewable (solar and wind) energy and natural resources, the impacts on climate change (greenhouse gas emissions), soil fertility and land and water management, (agro) biodiversity, pesticides use, animal welfare, waste disposal, etc. (Oosterveer and Sonnenfeld, 2012). In sustainable commodity chains and networks, environmental, social, and political rationalities and stakeholders interfere with economic ones and play important roles in shaping the structure and functioning of global commodity chains and networks (Raynolds, 2004). To explicitly capture the complexity involved in (global) sustainable commodity systems, caused by their global scope, fluidity and constantly reconfiguring nature, the network metaphor should replace that of the chain (Hughes, 2001; Raynolds, 2004; Raynolds, 2007). Therefore, I purposively use the term (global) commodity network in the remainder of this thesis. A major question then is to know what this complexity in (global) sustainable commodity networks entails in terms of their governance and how this can be adequately conceptualized.

2.2.3 Governing organic commodity networks

As one of the major environmentally and socially sustainable agro-food systems, organic commodity networks deserve particular attention regarding the issue of governance. Building on Raynolds (2004), I conceptualize governance in organic commodity networks as the ways in which stakeholders, including civil society, state and business actors, are mobilized to initiate an organic commodity network, (re)negotiate its lengthening, overcome resistance and sustain the flow of the (organic) commodity within and across the various nodes (including production, processing, distribution, and consumption). I aim to provide a holistic analysis of the different social and political, as well as economic, actors and institutions and of their interrelations, emphasizing their role in constructing, maintaining and transforming organic commodity networks (Raynolds, 2004). My conceptualization of governance of organic commodity networks involves open, contested and dynamic arrangements where social, environmental, political and economic rationalities interfere to drive and shape the flow of specific commodities. This conceptualization does not give primacy to economic actors nor treats political and social conditions as contextual, but rather acknowledges the importance of political and social actors and their rationalities as integral part of commodity chain governance (Raynolds, 2004). I hypothesize that environmental, social and political rationalities, stakeholders, processes, values and practices interfere and enmesh with their economic counterparts to co-structure and co-shape the emergence and development of organic commodity networks.

The question arises then as by which processes the different rationalities (environmental, social, political, and economic) merge or cohabit to (co)steer and drive the initiation, construction and further transformation of organic commodity networks. Or, to put it differently, how are environmental and social considerations, which are at the core of

organics, integrated in processes of transnational organic production and trade. While the (global) commodity chain perspective focuses on power relations and dynamics around the lead firm as the structuring factor in governance arrangements, the commodity network perspective instead stresses networking (network making) as the major driving process in commodity governance. The focus is on how different stakeholders come together, develop trust, overcome resistance and shape the life and flow of a commodity from production to the market and final consumption. Governance then is seen as performative orderings (always in the making), rather than as systemic entities (already constituted) as the commodity chain perspective would suggest (Whatmore and Thorne, 1997). Commodity network governance is also seen to involve ‘an acting at a distance’ and the recognition of the active part played by *material objects* in connecting people and mediating relationships (Thrift, 1996).

Several networking processes may be distinguished in the governance of (global) commodities. I distinguish here topological and qualitative differentiations. From a topological classification, I notice horizontal and vertical processes, although these processes are also interrelated to some extent. Horizontal networking processes refer to the relational processes between stakeholders within a node (production, processing and marketing) while vertical processes refer to relational processes between stakeholders in different nodes. The qualitative typology is based on the nature and means of the networking processes. By combining both typologies (topological and qualitative) here I may identify at least four different processes: (1) mobilization of social networks and personal ties; (2) mediation of material and natural resources; (3) market networking and relations and (4) transnational events and network building. The first two may have a more horizontal orientation while the last two may have a more vertical orientation. Below, this typology of networking processes is further elaborated.

The first category of networking processes relates to the question how social networks and personal ties can be instrumental in the governance of organics. Bellon and De Abreu (2006) posit that organic agriculture is increasingly considered a possible way to design a new rural society based on new social relationships, as a social strategy committed to create additional spaces for agricultural production in order to rebuild rural communities. Organic commodity networks involve social and cultural interactions leading ‘to a sense of cordiality and partnership among people with different social horizons’ (Bellon and De Abreu, 2006: 249). Social networks and personal ties are also critical in the learning processes within organic commodity networks. Schmitt (2006: 65) suggests when analyzing the role of women pioneers in organic agriculture that “caring for their relationship seems to have been as important as learning from each other or spreading knowledge about organic gardens”. Thus, governance in organic commodity networks entails the involvement of engaged stakeholders with similar ecological, cultural and ethical values thereby (re)producing shared meanings and identities that facilitate social networks and strengthen interpersonal ties.

The second category of networking process concerns the mediation of material and natural resources. Referring to Latour’s actor network theory (1996), my considerations of networking processes in organic commodities encompass not only people but also material dimensions, places and events. Applying the actor network perspective to analyze (organic) commodities means addressing the question how ‘heterogeneous associations’ — involving

people, material dimensions, localities, animals, plants, technologies and texts — are brought together in networks to enable the life and flow of commodities. I am particularly concerned with the role that material dimensions (material resources, places, containers, the commodity itself, etc.) play as a vehicle for a sense of togetherness, connecting people and mediating relationships within organic commodity networks. Several scholars have successfully applied actor network theory to study governance in (organic) commodity networks, including Bush and Juska (1997), Murdoch (2000), Goodman et al. (1987), Goodman and Redclift (1991) and Lockie and Kitto (2000).

Thirdly, the organic commodity network also entails market networking and relations to drive product exchanges and flows from farm to global market. The specificity of the organic markets requires appropriate and trustworthy trading relationships to ensure the final consumer about the quality claim (ecological and social) of the organic product while guaranteeing the premium price to farmers. Various mechanisms such as farming contracts and trade agreements are instrumental in building commercial networking processes in organic commodity networks (Buck et al., 1997; Lockie et al., 2006). In general, it is acknowledged that in international and global trade, upstream stakeholders, particularly smallholder farmers are disadvantaged because of power and information asymmetries (Lebret and Alpha, 2007). The question arises how the attributes of ecological soundness and social fairness, which are at the heart of organic production and trade, are codified (re)negotiated, and implemented to address these power-related issues in global organic commodity networks.

The fourth category of networking processes relates to how and to what extent gatherings and meetings are instrumental in building organic commodity networks. It may be considered as a variant of the second networking process described above. As Reynolds (2000) argues, organic and fair trade initiatives seek to re-embed commodity circuits within ecological and social relations that involve the creation of new consumer/producer links to guide flows of information and capital. The social movement character of organic commodity networks relies on combinations of deterritorialized and situated interweavings of people, ideas, and material dimensions. Increasingly the governance of organic commodity production and consumption is becoming fluid and prone to constant reconfigurations, for instance when attempts are made to adapt to new commercial opportunities (Cooke et al. 2008). In this sense, multi-stakeholder processes and gatherings appear to have become an important medium for this constant (re)adaptation (Ponte and Cheyns, 2013). In particular, the need for assessing, adapting to, and internalizing the changing consumer perceptions and definitions of environmental and social interests as well as the necessity to build a living (global) organic community regularly prompt gatherings at global, regional and local level. These gatherings are also a medium of trust-building and the reenactment of the organic covenant.

2.2.4 Trust building mechanisms in organic commodity networks

The above presented networking processes that are central in the governance of global organic commodity networks depend on and co-create the presence of trust among the stakeholders involved. When analyzing the governance of commodity chains and networks, several social scientists have emphasized the central role of trust building mechanisms (Lyon, 2000; Vieira, 2008). Also, in the case of organic commodity networks, trust is a major ingredient that helps connecting people, their ideas and material dimensions horizontally and vertically in commodity networking processes. Trust is the “social glue” that holds different kinds of stakeholders and organizational structures together within organic commodity networks (Atkinson and Butcher, 2003). Scholars have conceptualized trust from different disciplines and perspectives (Cook et al., 2005; Kramer, 1999; Misztal, 1996; Vieira, 2008). Institutional economics assumes opportunistic behavior as the norm while sociology pays special attention to the emergence and diffusion of trust in relationships (both personal and institutional) (Vieira, 2008). Williamson (1996) defines trust in three different forms: institutional, calculative and personal. Institutional trust exists where agents do not engage in opportunistic behavior because of the costs deriving from punishment imposed by the institutional environment. Calculative trust is related to contracts based on safeguards (Vieira, 2008). Personal or pure trust occurs when an agent places confidence in the accomplishment of a contract, even in the presence of incomplete contracting procedures and bounded rationality (Vieira, 2008). Several trust building mechanisms can be identified. For instance, when analyzing the role of trust in the creation of social capital in agricultural economies in Ghana, Lyon (2000) came up with 4 mechanisms of trust building: working relationships, customer friendships, pre-existing networks and intermediaries may build trust among different actors. Considering the significance of risk and uncertainty in the degree of trust, Molm et al. (2009) suggest another classification: resilient trust and fragile trust. They demonstrate that reciprocal exchanges (in which actors mutually provide benefits to each other without formal agreements) produce a stronger form of trust (resilient trust) than negotiated exchanges secured by binding agreements (fragile trust). Another classification proposes that trust entails two dimensions, cognitive and affective. Cognitive trust is when people choose who or what they will trust through a process of careful and methodical thought in order to determine whether someone or something is trustworthy (Vieira, 2008). This relates to some extent to the calculative trust. Another typology distinguishes personal trust, institution-based trust, and process-based trust (Zucker, 1986; Nooteboom, 2002). In this thesis, I define trust as the belief that the social or economic partner can be relied upon to behave favorably toward the actor according to particular standard requirements and to resist exploiting the actor (Molm et al., 2009). Actual trust is defined functionally – as ‘a state of favorable expectation regarding other people’s actions and intentions’ (Möllering 2001: 412). Trust thus functions as a link between the subjective interpretations of actors (including reasons why to trust the other agent) and expected goals (how things will turn out) (Zagata and Logstak, 2012). In fact, trust in other agents exists, despite the presence of uncertainties, risks and the possibility to act opportunistically (Misztal, 1996; Gambetta, 1988). Trust requires reciprocity and needs to be actively (re)created.

In this research I distinguish personal trust, organization- and institution-based trust, and trust in objects to investigate in particular the question how persons, organizations, institutions and material objects operate as channels for trust building and mediation in the processes of initiation, construction, and further transformation of global organic commodity networks.

2.2.5 Reshaping civil society-business-state relationships

The networking processes and the resulting modes of trust (building) between involved stakeholders, help (re)define, (re)direct, and (re)shape the relationships between civil society organizations, business enterprises and state agencies. The development of the organic movement in its early stage seems primarily being driven by global and local civil society networks and private enterprises (Chapter 3). However, recently a trend may become discernible pointing at the further involvement of the state in governance arrangements of organic commodity networks. Here I am interested in the question how these organic commodity networks evolve over time and how these development trajectories inform changing governance arrangements that involve civil society organizations, businesses and the state. More specifically, I intend to unveil the different roles the state plays in the governance structures of global organic commodity networks. In fact, with the rise of the network society, there is a strong tendency to interpret some of these transformations in terms of a weakening of conventional political institutions such as the state (Spaargaren et al., 2006). Some have even declared the end of the state and sovereignty, advocating the emergence of a stateless society (e.g. Young, 1994). Other authors (e.g. Keohane and Nye, 2002) have developed the idea of networked minimalism to describe the direction of the current trend in governance. They refer to two developments when arguing for this position (Spaargaren et al., 2006). On the one hand, networks of norm- and rule-setting actors emerge on issues that transcend the traditional national government institutions. On the other hand, such governance arrangements will remain inherently minimalistic because traditional states still keep a major check on the depth and width of governance. Hence, the degree of state transformation and the relevance of the state in contemporary (environmental) governance remains open to debate and empirical investigation (Spaargaren et al., 2006). I aim to contribute to this debate as far as governance of organic commodities is concerned. In fact, the increasing development of organic export-oriented agriculture in Africa is currently mainly led by NGOs and international corporations as a response to the problems related to conventional agriculture and to the growing demand for organic products on the global market. In the early stage of the organic movement in Africa, many authors stress the lack of support from nation-state based agricultural services as a structural challenge for the further development of organic agriculture (e.g. Ton, 2007; Ferrigno et al., 2005). However, recently there are some indications of more active state engagement in the organic sector in Africa. The question arises therefore as to how the new governance arrangements are transforming with respect to the involvement of the state in organic commodity networks.

2.3 Methodology

2.3.1 General methodological approach

This research addresses the central question how certified transnational organic commodity networks from Africa are governed in the context of increasing globalization and multiple actor involvement and how this affects and (re)shapes civil society-business-state relationships around/within these commodity networks. For this purpose, I adopt a qualitative research methodology. Qualitative methods are strong in capturing meaning, process and context (Bryman, 1988) and particularly helpful when trying to uncover and highlight the multi-faceted contexts, rationalities and processes shaping the construction and development of organic commodity networks from Africa. Qualitative methods also allow for more flexibility in the different phases of the research process (Kumar, 2005). The (commodity) network perspective that is adopted in this research instead of a single-stranded supply chain approach forces the researcher to identify and investigate all the connections (vertical and horizontal) among the stakeholders of the selected organic commodity networks. In fact, network-inspired analyses go beyond the fixed and unidirectional linearity of links as suggested by commodity chain approaches, but instead recognize that relationships between producers, distributors and consumers are the product of complex flows between interconnected actors that are (being) enrolled in the network (Hughes and Reimer, 2004). The consequence of this is twofold. First, not only economic actors, roles and relationships are considered but also non-market actors, namely NGOs and state actors. This is particularly relevant when dealing with ‘organics’ where environmental NGO networks and state actors may be expected to play important roles. Second, the analysis should not be static, but dynamic to account for the changes over time in the relationships and connections among the involved stakeholders. This entails the incorporation of a historical dimension in the analysis.

2.3.2 Research strategy

Case study as research strategy

For the purpose of this thesis, I use a research strategy based on case studies. The case study strategy is an approach to study a social phenomenon through a thorough analysis of one or more individual cases (Kumar, 2005). Yin (2003: 1) argues that:

“case studies are the preferred strategy when ‘how’ or ‘why’ questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context....The case study is used in many situations to contribute to our knowledge of individual, group, organizational, social, political, and related phenomena”.

For the purpose of this research, three case studies are selected. My aim was to come up with cases with relatively high socio-economic importance and a great diversity to generate relevant empirical and theoretical knowledge and to formulate policy recommendations that could as much as possible be relevant for the wider context of Africa. I aim to generate findings (governing (f)actors of organic commodity networks) that could be generalizable to

all organic commodity networks from Africa to the global market. When selecting three cases I therefore applied a set of different criteria. These criteria include the socioeconomic importance (with a preference for important above marginal commodities/crops), year of establishment (to be able to judge on sustenance), and type of commodity (to allow for different crops). The Table 2.1 below summarizes the application of the criteria on the different organic agrofood commodities from Africa.

Table 2.1 Selection of the case studies

Criteria Potential commodities	Producing countries	Socio-economic importance	Year of establishment (potential to sustenance)	Type of commodity	Overall judgment on the combination of three criteria
Cotton	Benin, Burkina Faso, Cameroon, Côte d'Ivoire, Egypt, Mali, Senegal, Tanzania, Uganda	+++	Mid 1990s	Fiber	+++
Fresh vegetables	Egypt, Kenya, Madagascar, Malawi, Morocco, South Africa, Tunisia, Uganda, Zambia	++	1987	Food	++
Tropical fruits (fresh): avocados, mangoes, pineapples, papaya	Cameroon, Egypt, Ghana, Madagascar, Senegal, South Africa, Tanzania, Uganda	++	1990s	Food	++
Coffee	Cameroon, Ethiopia, Kenya, Madagascar, Tanzania, Uganda	++	Mid 1990s	Food drink	++
Cocoa	Cameroon, Ghana, Madagascar, Tanzania, Uganda	+++	1997	Food drink	+++
Tree nut (cashew, shea and shea butter)	Kenya, Malawi, Morocco, Tanzania	++	Early 1990s	Food	++
Sesame	Burkina Faso, Uganda, Tanzania, Zambia, Zimbabwe	++	1984	Food	+++
Honey	Algeria, Angola, Malawi, Ethiopia, Tanzania, Tunisia,	+	-	Food	+

Criteria Potential commodities	Producing countries	Socio-economic importance	Year of establishment (potential to sustenance)	Type of commodity	Overall judgment on the combination of three criteria
	Zambia				

- +: less important
- ++: important
- +++: highly important

Additionally, when selecting the countries and commodities for the case studies I also took into account some practical operational considerations, namely limits in time and financial resources, previous knowledge about the cases, and access to the involved stakeholders and the relevant networks.

With this procedure, one valuable case was selected within each of the three categories of agro-food commodities (fibre, food drink and food) as follows: the organic cotton from Benin, the organic cocoa from Ghana, and the organic sesame from Burkina-Faso.

I subsequently developed a research plan for each case after initial contacts with key informants and resources persons. For each case I undertook an exploratory study and an in-depth inquiry and I combined several data collection methods in both phases. Though all the case studies contribute to answer the central research question, it was necessary to frame a specific question for each case to better highlight their specificities both empirically and theoretically. I formulated these specific research questions in light of the insights from the exploratory phase.

Finally, it is worth noting that in each case study the organic commodity network has been investigated in relation with the dominant conventional sector as the latter provided the necessary reference for understanding the dynamics at work in the particular organic commodity network.

Brief presentation of the case studies

Case study 1: Organic cotton network from Benin

The organic cotton initiative in Benin originated in the mid-1990s and has demonstrated a certain ability to sustain over longer periods of time. It is export-oriented and involves a range of actors and networks from local to supra nation-state levels, including: farmers, farmers' organizations, inputs providers, NGOs, services providers (ginning, transport), certifiers, and exporters. Presently, in Benin around two thousand small-scale farmers, of which one third are women, depend on organic cotton farming for their livelihoods.

Case study 2: Organic cocoa network from Ghana

The organic coco network from Ghana was initiated in 1997 as an opportunity for smallholder cocoa farmers to secure and improve their livelihood and as a means of enhancing the sustainability of the overall cocoa sector. Currently, more than 7,000 smallholder farmers and

other stakeholders at local, national and supranational levels are involved in the organic cocoa chain, including farmers' organizations, Licensed Buying Companies, NGOs, exporters and several public services.

Case study 3: Organic sesame network from Burkina-Faso

The organic sesame commodity network started operating in Burkina Faso in 1984 as a response to the growing demand for organic sesame in the EU. While the organic sesame network from Burkina Faso was initially led by a private company, today it involves a wide range of stakeholders including farmer' organizations, NGOs, private companies (processing and trading), and development organizations.

Data collection and analysis

Field research for this thesis was conducted from August 2008 to January 2011 according to the following scheme: the cotton case from August 2008 to February 2009, the cocoa case from August 2009 to March 2010, and the sesame case from October 2010 to January 2011. Some additional data have been collected during the process of analyzing the initial findings.

For data collection, I used several qualitative methods during two different phases for each case study: an exploratory and an in-depth inquiry.

Exploratory inquiry

The exploratory phase was dedicated to understanding the overall institutional and organizational framework and the historical development of each of the three organic commodity networks. Initially, a few selected informants were identified and information was collected from them. Then, gradually, and through an iterative process the other relevant stakeholders in the commodity network were identified. I conducted individual and group interviews (informal and semi-structured interviews) with the leaders of several stakeholder groups (farmers' organizations, NGOs, processors, traders, certification agencies, etc.) on a number of topics, including: the genesis of the organic commodity initiative, its development over the years, the relevant stakeholders and their relationships, techniques and organizations within each node (production, primary processing, and marketing), organization and functioning of the internal control system, coaching mechanisms, innovations and learning processes, difficulties and challenges, and relationships and linkages with the mainstream commodity chain. In addition, for each case, I interviewed government officers within the ministries in charge of agriculture and the environment, staff of research institutes, and staff of international organizations supporting developments in the organic commodity network. With the help of these interviews, I addressed particularly the external conditions (economic, institutional and political) in the international and national environment that affected the development of the organic commodity network. I also analyzed in each case relevant policy documents and research reports. I analyzed the compiled data while their collection went along. With the insights gained from this exploratory inquiry, I formulated a specific research question for the in-depth phase of the particular organic commodity network. When this specific research question was determined the questionnaires and checklists for the next

phase, an in-depth inquiry, were designed accordingly. See checklist of topics and an example of the questionnaire in appendices 1 and 2.

In-depth inquiry

The phase of in-depth inquiry targeted mainly the social dynamics and the governance arrangements within each organic commodity network, i.e. the networking processes and trust building mechanisms that connect actors and practices within the particular commodity networks. Depending on the specific research question, I carried out semi-structured interviews with individual actors involved in the organic commodity network, including representatives of farmers' organizations, input providers, NGOs, processors, traders and certification agents. With respect to the selection of individual members of farmers' organizations for these interviews, I performed a two-stage sampling in order to take into account the diversity of situations. First, I took into account the geographical areas covered by the production of the concerned organic commodity and selected a sample from the farmers' organizations in each region (one or two depending on the case). Within each selected farmers' organization, individual farmers were selected combining gender criteria and years of experience. The purpose of this sampling process was not to achieve 'statistical representativeness', but to reach the point of saturation. In qualitative research, to explore the diversity among a particular group of respondents, the saturation point needs to be reached in terms of findings. Beyond this point, no or hardly any new information or data is likely to be obtained from additional interviews. On average, I interviewed around 30 individual farmers in each case study. Regarding input providers, NGOs, processors and exporters, individual agents of each category were interviewed taking into account their years of experience in this organic commodity network and their position within the network.

Next, I also undertook participant observation during several collective activities and meetings to supplement the interviews. Participant observation is a "process of learning through exposure to or involvement in the day-to-day routines activities of participants in the research setting" (Schensul et al., 1999: 91). In particular, I attended and investigated international gatherings and events as 'places' of networking and trust (re)building within the global organic community.

Overall, the data were analyzed and interpreted while applying the (global) commodity network perspective and the governance framework. Where helpful I supplemented this with other concepts like alternative food economy and the conventionalization thesis (see Chapter 6).

2.3.3 Validity, generalizability, and limitations

Of particular relevance in scientific research are the internal and external validity and the generalizability, particularly when it concerns qualitative research. The internal validity of a study is concerned with establishing a causal relationship, whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships (Yin, 2003) while the external validity infers that this causal relationship can be generalized to other situations. This means generalizable across different extents of the causes and effects as well

as across different types of persons, settings and times (Cook and Campbell, 1979). My aim here is to generate findings (governing modes of organic commodity networks) that could be generalizable to other organic commodity networks from Africa (and perhaps even other developing countries) to global market.

To deal with the challenge of internal validity my research strategy relies on triangulation. Triangulation helps to ensure that the research indeed explains what it is designed to explain. Guion et al. (2011) identified different types of triangulation including data triangulation, investigator triangulation, theory triangulation, methodological triangulation, and environmental triangulation. In this research, I combined data triangulation, theory triangulation and environmental triangulation, as in qualitative research usually a combination of different types of triangulation is adopted (Laven, 2010). First, I adopted a multi-case study approach investigating three different global organic commodity networks with different contexts and geographies (environmental triangulation). Secondly, as far as finding data is concerned, I used different sources by interviewing a wide range of actors for each case study. In fact, the unit of analysis (the organic commodity network) invites me to question the different relevant participants and facilitators of the organic commodity network within and across each node (production, processing and distribution) including farmers and their representatives, NGOs, processors, transporters, traders, certification agencies, researchers, development organizations and government bodies. This approach helped to cross-check information and did provide insights into the various perspectives and perceptions about the governance arrangements within each specific organic commodity network. Theory triangulation involves the use of multiple professional perspectives to interpret a single set of data/information (Guion et al., 2011; see also Laven, 2010). I purposively combined the (global) commodity network perspective with the governance conceptual framework. This selection was instrumental in getting a good understanding of the governing (f)actors, i.e. the rationalities and processes that steered the initiation, development and further transformation of the different organic commodity networks.

As far as external validity, i.e. the generalizability of the findings, is concerned, by adopting (multiple)-case studies I aim at expanding and generalizing theories (analytical generalization) instead of at statistical generalization (Yin, 2003). Although the overall research focus relates to the ways in which social, political, and economic actors co-structure and co-govern the development of organic commodity networks, I defined a specific research approach for each case study, to further capture a particularly relevant phenomenon within the specific organic commodity network. This enabled me to highlight and grasp various facets, prospects and limitations of the (global) commodity network perspective. The combination of the three case studies helps to generate findings that could be generalized to other organic commodity networks from Africa to the global market. Furthermore, my findings may contribute to further refining the global commodity network conceptual framework. New hypotheses may be identified that call for further investigation within and beyond the geographical and theoretical scope of this research.

This research only limitedly accounts for consumer perspectives in the governance arrangements of the selected organic commodity networks. Several social scientists integrate consumer perspectives in their analysis of the governance of sustainable commodity chains

Chapter 2

and networks (Oosterveer and Sonnenfeld, 2012). However, because of operational constraints (time and resources) the consumer side, which is the final node of the (organic) commodity networks received little to no attention in this research. I also did not include the retail sector, nor the processing industry beyond the first stage. This has already been studied by others (e.g. Lyons, 2007) while a good account of the role of primary producers (particularly from Africa) in the governance of organic commodity networks is still lacking.

CHAPTER 3

ORGANIC AGRICULTURE IN AFRICA: AN OVERVIEW

3.1 Introduction

Globally, throughout the last three decades, there has been a growing awareness about health and environmental issues. Consumers are increasingly becoming concerned about the quality and safety of the food they eat. Particularly in developed countries, consumers worry about the effects of pesticides, fertilizers, livestock effluent and veterinary drugs on their health and livelihoods.

Alternative and organic agriculture are considered as one approach to reduce these impacts (Hansen, 1996; Wood et al., 2006). Organic agriculture is a production system that aims at sustaining the health of soils, ecosystems and people and relies on ecological processes, biodiversity, cycles adapted to local conditions, and the use of on-farm and local inputs (IFOAM, 2004; FiBL, 2011). The organic farming system emphasizes management over high-technology solutions, and biological relations and natural processes over chemically intensive production methods (IFOAM, 2004; FiBL, 2011). Organic agriculture is practiced in almost all countries of the world, and its share of agricultural land and farms is growing (Rigby and Caceres, 2001; FAO, 2002; Shi-ming and Sauerborn, 2006). As organic food products earn substantial price premiums, organic agriculture constitutes a niche for developing countries' primary producers to have a share of these price premiums and to have a market opportunity that outperforms the declining price trends for conventional food products on the world market (Abele et al., 2007). Thus, in Africa certified organic food and beverage exports have increased steadily over the last decade (UNCTAD, 2008). Organic farming is compatible with the capabilities of rural communities and smallholder farmers who can hardly afford synthetic pesticides and inorganic fertilisers. Most small-scale farmers in Africa already use livestock manure, cover crops and composts in their small gardens and plots, most of which are less than one hectare (UNEP, 2008). Overall, advocates of organic agriculture claim that this mode of production has the potential to contribute to poverty alleviation, food security, and sustainable socio-economic development, especially in Africa (IFAD, 2003; IFAD, 2005; Bolwig et al., 2007; Kilcher, 2007; Gibbon and Bolwig, 2007; Dowd, 2008; Boon and Semakula, 2010; Nicolay, 2013). The IAASTD global report of 2009 also indicates that:

“organic agriculture can contribute to socially, economically and ecologically sustainable development, firstly, because organic practices use local resources (local seed varieties, dung, etc.) and secondly, because the market for organic products has high potential and offers opportunities for increasing farmers' income and improving their livelihood” (IAASTD, 2009:23).

This is why organic agriculture production in Africa is linked to many development challenges, opportunities, and goals (UNCTAD, 2008; AdeOluwa, 2011; Halberg and Muller, 2013). Thus, the development of organic agriculture is receiving increasing attention across the African continent in parallel with the recognition of its contribution to the Millennium Development Goals (MDGs) of improving health and food security, environmental conservation and economic development. Organic farming in Africa is directed towards meeting food security as well as responding to the increasing demands from the global market

(Parrott et al., 2006). Thus, organic agriculture has grown tremendously over the last decades, both as a commercial production and as an environmentally friendly production method.

However, several challenges still underlie the further development of organic agriculture in Africa, such as the absence of local markets and the dependency on global markets; the high costs of certification for smallholder farmers; the lack of policy support and appropriate knowledge infrastructures (research and extension services); issues of specific seeds provision systems in a context of a growing tendency towards GMOs; and the regulation of organic agriculture on the continent. There are also questions and controversies about the potential of organic agriculture to feed the continent's growing population (Grenz and Sauerborn, 2007; Azadi and Ho, 2010). It is still unclear how the current rapid conversion of farmland into organic management systems will affect availability and access to food among producers and in the wider societies (Scialabba and Hattam, 2002; WWI, 2006; UNCTAD, 2008).

Despite the growth of organic agriculture in Africa, the continent represents only three percent of the world's organic agricultural land. For long, the development of organic agriculture has been the privilege of transnational and national NGOs and private enterprises. Only recently, African states and governments started engaging with organic agriculture. While there are various studies and reports on organic agriculture and its magnitude in Africa, an updated and synthetic account of the rationales, seize, historical processes, involved stakeholders, and key challenges of organic production and trade in Africa is lacking. This chapter aims to help filling this gap by focusing mainly on the export of certified organic agriculture. In fact, the domestic market for certified organic products, with the exception of Egypt and South Africa, remains small (Yussefi, 2006), but is growing especially in Uganda, Tanzania and Kenya next to Egypt and South Africa (Bouagnimbeck, 2008; Rosinger, 2013).

This chapter is structured as follows. In the next section I provide an account of the status and development of organic agriculture in Africa. Subsequently, the public and private stakeholders and initiatives in African organic agriculture are presented. Then, I highlight some features of trade and certification of organic commodities in Africa, to end with the major challenges that the development of organic agriculture faces in Africa.

3.2 Certified organic production in Africa

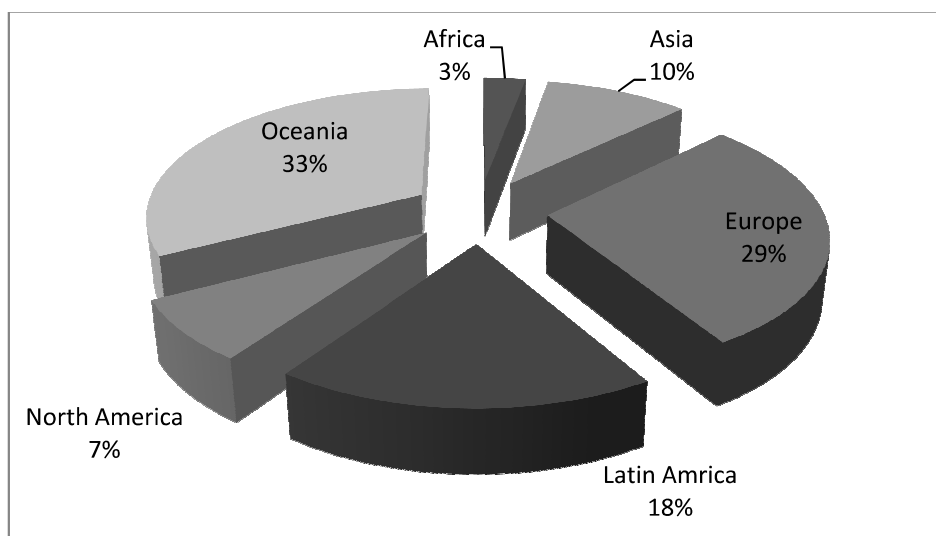
3.2.1 Overview of current certified organic agriculture in Africa

Certified organic agriculture in African countries is mainly export oriented and echoes the idea of creating "development through trade". Overall, smallholder farmers groups are technically supported through development aid programs, such as the Swedish financed Export Promotion of Organic Products from Africa (EPOPA), the bilateral Sustainable Development Agreement between the governments of Kingdom of the Netherlands and those of Benin (and Bhutan and Costa Rica), the Helvetas (Swiss Intercooperation) organic and fair trade cotton program in West Africa, and the European Union supported COLEACP PIP programs which have stimulated the development of the organic sector in a number of countries, including, Benin, Burkina Faso, Mali, Cameroon, Egypt, Ghana, Kenya, Madagascar, Senegal, Sudan, South Africa, Tanzania, Tunisia, Uganda and Zambia,

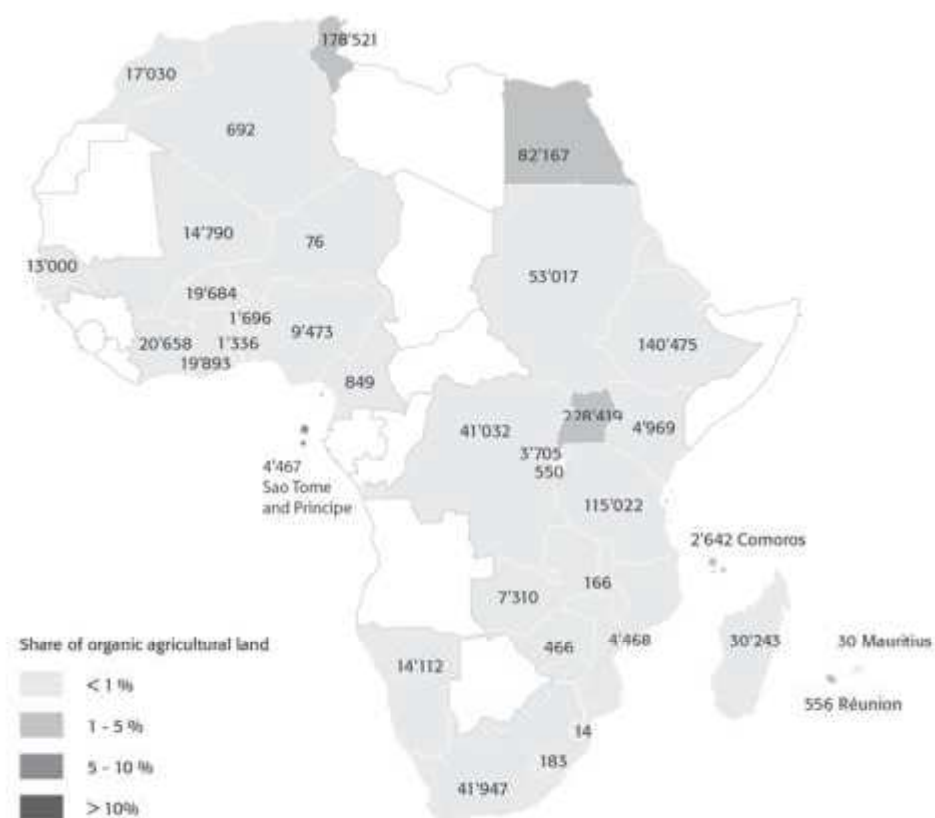
Zimbabwe (Parrott et al., 2006). In general, organic projects aim at maintaining and enhancing soil fertility, combating desertification, promoting tree planting and agro forestry, developing low and no input ways of combating pests, promoting the use of local seed varieties, maintaining the existing biodiversity, supporting the most vulnerable social groups (particularly women), and addressing global warming (Parrott et al., 2006).

According to a recent report of FiBL and IFOAM, 37.2 million hectares of land are currently under certified organic agriculture worldwide (Willer and Kilcher, 2013). Africa has an estimated 1.07 million hectares, equivalent to 3% of the world's total organic farmland (see Figures 3.1). Figure 3.2 displays the countries in Africa engaged in organic agriculture and their organic agricultural area in 2011, while Table 3.1 presents further details about the numbers of producers and the starting year of organic agriculture by country in Africa.

Figure 3.1 Regions' shares of organic agricultural land in 2011 (in surface area)



Source: Willer and Kilcher (2013)

Figure 3.2 African countries engaged in organic agriculture in 2011

Source: Willer and Kilcher (2013)

Table 3.1 Organic agricultural land and numbers of producers by African countries in 2011

Country	Area (ha)	Share of total agricultural land (%)	Number of producers
Algeria	692	0.00	NA
Angola	NA	NA	NA
Benin	1 696	0.05	2,424
Burkina-Faso	19 684	0.16	4,102
Burundi	550	0.03	36
Cameroon	849	0.01	34
Chad	NA	NA	NA
Comoros	2,642	1.7	1,416
Côte d'Ivoire	20,658	0.10	597
Congo Democratic	41,032	0.18	1,122
Egypt (2010)	82,167	2.23	790
Ethiopia	140,475	0.40	122,359
Ghana	19,893	0.13	3 464
Guinea-Bissau	NA	NA	NA
Kenya	4,969	0.02	12,647
Lesotho	183	0.01	1
Madagascar	30,243	0.07	14,550
Malawi	166	0.00	9,004
Mali	14,790	0.04	2,951
Mauritius	30	0.03	4
Morocco (2010)	17,030	0.06	120

Country	Area (ha)	Share of total agricultural land (%)	Number of producers
Mozambique	4,468	0.01	6
Namibia	14,112	0.04	6
Niger	76	0.00	1
Nigeria	9,473	0.01	597
Reunion (France)	556	1.39	115
Rwanda	3,705	0.19	876
Sao Tome & Principe	4,467	7.98	2,056
Senegal	13,000	0.14	22,754
South Africa	41,947	0.04	167
Sudan	53,017	0.04	221
Swaziland	14	0.00	2
Togo	1,336	0.04	2,057
Tunisia	178,521	1.82	2,396
Uganda (2010)	228,419	1.64	188,625
Tanzania	115,022	0.32	145,430
Zambia (2009)	7,310	0.03	10,055
Zimbabwe	466	0.00	3
TOTAL	1,073,657	0.10	540,988

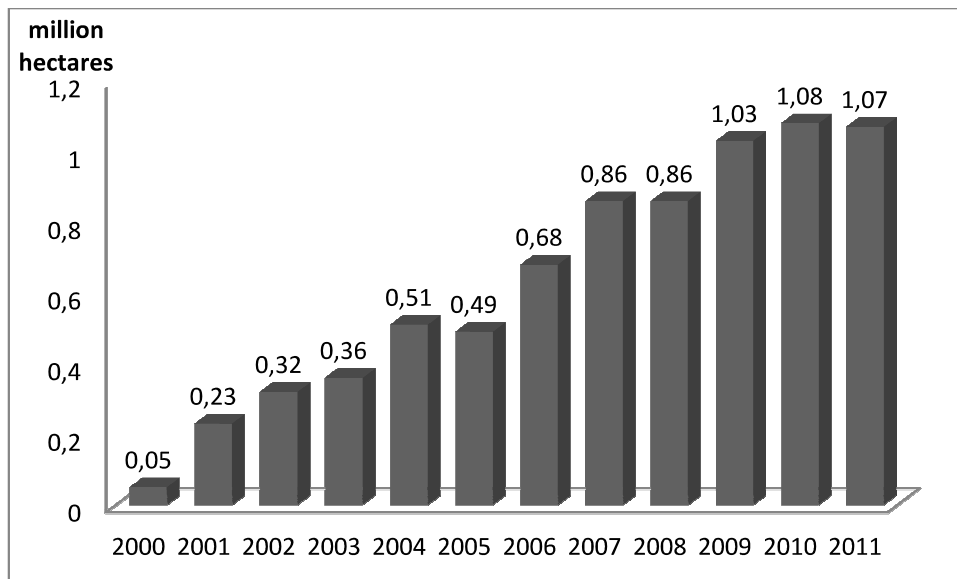
Source: Adapted from Abele et al. (2007), UNEP (2010), Willer and Kilcher (2013)

As can be read from the Figures and Table above, certified organic agriculture is mainly concentrated in Northern and Eastern Africa. The three leading countries in organic agricultural production (Uganda, Tunisia and Ethiopia) are responsible for 42% of the total African area under organic cultivation.

3.2.2 Development of organic agriculture in some African regions

According to FRIDGE (2007) the history of organic agriculture in Africa dates back to 1898 when the first organic garden was established at Peramiho in southern Tanzania. However, it is only in the 1980s and 1990s that formal organic farming started in Africa. Overall, the rise and development of organic agriculture in Africa (see Figure 3.3.) has been mainly a response to problems associated with conventional farming systems (including production decline, increasing trends of input prices, and environmental burdens) and the opportunities of a rising consumer demand for environmentally friendly (food) products. However, the rationale and the specific trajectory of organic production and trade depend on particular regional contexts. I review shortly developments of organic agriculture in West, Central and East and in South Africa.

Figure 3.3 Development of organic agricultural land in Africa, 2000 to 2011 (million hectares)



Source: Willer and Kilcher (2013)

Highlights from West Africa

In West Africa, the socioeconomic and organizational crisis in the mainstream cotton sector in the 1990s and 2000s and the environmental and health disorders associated with the intensive use of chemical pesticides offered fertile grounds for the emergence of organic initiatives. In fact, conventional cotton is the major driver of chemical pesticides access and use, causing environmental and health disorders (Glin et al., 2006; Vodouhe et al. 2001). Thus, pioneer organic initiatives in West Africa targeted the cotton production system and tried to develop alternative technologies for pest and soil fertility management as well as alternative marketing channels (Glin, 2012). This was particularly the case in countries like Benin, Burkina Faso, Mali, and Senegal, where the national economies as well as the livelihoods of millions smallholder farmers rely on cotton production. Parallel to the socioeconomic, organizational and environmental crisis in the conventional cotton sector there was a rising consumer demand in the global organic markets. Then, producer organizations were encouraged to diversify as noted by Van Elzakker and Eyhorn (2010:118):

“Quick expansion of organic cotton production in Asia and the slow-down in global demand due to the economic crisis of 2008 led to an oversupply of organic cotton in 2009. As the crisis also affected some of the buyers of the West African cotton, the producer organizations decided to halt expansion until the market situation relaxes. Therefore, farmers were encouraged to reduce their cotton area to some extent, and to grow instead sesame, peanuts and fonio for which market prospects were better. In the end, the crisis stimulated efforts to diversify production and markets, to increase efficiency and thus reduce the production cost, and to intensify local processing and value addition.”

In Benin, organic certified agriculture started in 1996 under the leadership of the Beninese Organization for the Promotion of Organic Agriculture (OBEPAB). The initiative was centered on cotton and involved a range of transnational NGOs (PAN Trust/UK, Agro Eco,

Solidaridad, PAN Africa). The bilateral Sustainable Development Agreement (SDA) between the governments of the Kingdom of the Netherlands and the Republic of Benin was also key in the development of the organic cotton initiative. The organic cotton chain is witnessing a progressive transformation from an experimental, small-scale and donor-dependent initiative towards a market-oriented, large-scale and self-financing transnational commodity network (see chapter 4). Now, around two thousands smallholder farmers are engaged in the organic cotton in Benin. It is worth noting that over the past five years the organic sector in Benin is experiencing increasing diversification of products and stakeholders. Currently, apart from cotton, organic certified commodities from Benin include pineapples, shea nuts, vegetables, and several fruits (Glin, 2012).

In Burkina Faso, the transnational NGO Helvetas (currently Helvetas Swiss Intercooperation) and its partners (e.g. the national union of cotton growers-UNPCB) have been supporting organic and Fairtrade cotton production since 2004. The rationale is to promote organic and Fairtrade cotton from Burkina Faso in global organic markets, so as to improve producers' living conditions, especially those of women and smallholder farmers through a viable and sustainable mode of production. However, the history of certified organic production in Burkina dates back to 1984, when the French trading company TROPEX engaged in organic sesame business. Over time several civil society organizations (e.g. ARFA-NGO, Association Néerbuli,) and other private enterprises (e.g. Olam, Burkinature) became engaged in the organic sesame network. Meanwhile organic sesame also became integrated to the organic cotton program, next to hibiscus and other crops, as part of a diversification strategy. Currently, organic production in Burkina Faso is extended to other commodities, including shea nuts, cashew and dried fruits.

In Mali, organic agriculture has started in 1998 with organic cotton production, following the crisis in conventional cotton (GIE DORA, 2013). Helvetas (Swiss Intercooperation) Mali pioneered in partnership with the Malian Company for Textile Development (CMDT). The objective was to support cotton farmers in Mali to convert to organic cotton production and to access Fair Trade markets in Europe. Within four years, the initiative that had started with some 200 farmers grew into a producer organization with almost 2,000 members. Helvetas (Swiss Intercooperation) Mali succeeded in organizing and uniting farmer grassroots organizations into an umbrella cooperative called Malian Organic Movement (MOBIOM). In addition, CMDT and HELVETAS (Swiss Intercooperation) Mali linked MOBIOM to a network of actors, including extension and advisory services, research and training organizations, the Office of the Niger Higher Valley (OHVN), textile and trading companies (Reinhart AG, Indian textile industries Prem Durai), donors (SECO, ICCO/EU, Oxfam, UEMOA, Britain Region), and certification agencies (ECOCERT) and Fairtrade (FLO/Max Havelaar). From 2009, with a diversification strategy, the range of organic commodities in Mali was extended to fresh mango, sesame, cashew, shea nut butter, and fonio.

In Ghana, certified organic agriculture started in the early 1980s, with a slow adoption until the mid-1990s (Zemp-Tapang, 1996). But in 2008, already 3,900 farmers in Ghana were practicing organic agriculture on 24,449 hectares, which represented the highest figure in West Africa (AdeOluwa, 2011). International markets are the major driver of the organic sector in Ghana, though there is increased demand from local consumers in urban areas for

fresh organic fruits and vegetables. Transnational and local NGOs and farmers' groups are the main operators in the organic sector in Ghana. The Ghana Organic Agriculture Network (GOAN) has been the main group of organic NGOs and trade associations in Ghana. GOAN collaborates actively with organizations such as the International Trade Centre (ITC), Agro Eco Louis Bolk, Henry Doubleday Research Association (HDRA), the Department for International Development (DfID) of the United Kingdom and Pesticide Action Network/United Kingdom (PAN-UK) in developing the organic sector in the country. Currently, around 19,893 hectares of land are under organic cultivation, which accounts for less than 0.2 % of the total cultivated agricultural area in Ghana (Willer and Kilcher, 2013). The majority of grown organic products are export commodities such as cocoa, palm oil, fresh fruits, bananas, cashew nuts, cotton and vegetables.

In all, the development of organic agriculture in West Africa focuses on export crops and is mainly driven by national and international NGOs. It is also worth noting that the heavy burden imposed on environmental and human health by conventional cotton production has been a major trigger of most organic initiatives in West Africa.

Highlights from Central and East Africa

The development of organic agriculture in Central and East African countries was also mostly driven by export markets. In the early 1990s commercial companies began engaging in organic agriculture, targeting the export market. At the same time, several non-governmental organizations (NGOs), community-based organizations (CBOs) and even some governmental bodies promoted an approach to agriculture that aimed at ensuring food security, increasing incomes and improving livelihoods while maintaining soil fertility and natural resources. Overall, though a real engagement of the state in the organic sector is still lacking in this region, governments have recognized the importance of organic agriculture in several countries (like Tanzania and Uganda). Organic agriculture in East Africa focuses on crops such as coffee, tea, cocoa, cashew nuts, cotton, vanilla, sesame, tropical fruits, herbs and spices.

The pioneers of organic agriculture in Cameroon are Jean-Martin Tetang (EXPORT AGRO) and Jean-Pierre Imele (EXODOM). When EXPORT AGRO was established in 1990, its leader, Jean-Martin Tetang, organized and secured organic pineapple, solo papaya, bananas and other crops through a dense channel of small-scale producers. The objective was to respect local small-scale production and to secure regular revenues to smallholder producers. A collection chain of controlled and certified products has been established in the main provinces of Cameroon. The task of EXODOM, established in Lyon, France, is to prospect the market, to organize marketing and to identify clients. Private funds were mobilized to organize and finance collection, production and exports of organic crops and products. In 1996, a structure called 'EXA biologique' was set up with the objective of managing the production node. Both EXPORT AGRO and EXODOM operate in full autonomy with no

support from governments. They have tried in vain to raise awareness of local authorities for supporting the development of the organic sector¹.

In Kenya, organic agriculture began in the early 1980s with the establishment of several training institutions and horticultural companies, which started growing organic vegetables for export (Taylor, 2006). Rural development NGOs, faith-based organizations, CBOs, private enterprises and individuals were instrumental in the early development of organic agriculture in Kenya by assisting rural farmers. The rationale was to address declining agricultural productivity, land degradation, poverty, food insecurity and low incomes. As Taylor (2006) indicated, organic systems presented a low cost opportunity to improve farm productivity. According to Willer and Kilcher (2013) there are currently 4,969 hectares of land under certified organic agriculture, mainly for export markets.

Certified organic export production in Uganda dates from 1994. Commercial export companies started engaging with the organic sector. Until 1997 only two certified organic exporters existed: the Lango cotton project supported by Swedecorp and the fruit and vegetable exporter Suntrade (now known as Amfri). Later, the Sudanese-owned coffee company Kofti gained approval for a cocoa project in Bundibugyo, which for security reasons, only came into production in 2002-2003 under the ownership of Esco (U) Ltd (Gibbon, 2006). Several other organic production projects have been developed, targeting mostly traditional cash crops (coffee, cocoa, cotton). However, while traditional cash crops remain the backbone of certified organic exports from Uganda, since the year 2000 new operations have been established in higher-value sub-sectors where cooperatives have never played a significant role (Gibbon, 2006). The National Organic Agricultural Movement of Uganda (NOGAMU) and the national certification and inspection body, Ugocert, are central in these new dynamics. As noted by Willer and Kilcher (2013), the success of the organic sector in Uganda is acknowledged by its large organic area (with more than 220,000 hectares) and its large number of organic producers (188,000).

In conclusion, the development of organic agriculture in East and Central Africa has been business oriented since its very beginning. Unlike the West African region where the organic movement has been mainly driven by transnational and national NGO networks, in East and Central Africa both business actors and civil society organizations were highly involved in the development of organic agriculture. Another major difference between East and West Africa is related to the conventional agricultural background. In West Africa, the agrarian systems are mostly dominated by cotton farming (being the major export crop), which relies heavily on chemical inputs and is grown in rotation with food crops that benefit from residual effects of fertilizer applied to cotton (Moseley and Gray, 2008; Nelen et al., 2012). In contrast, in East Africa particularly most land is never fertilized with agro-chemicals (Agro Eco BV and Grolink AB, 2008). Thus, the idea of 'organic by default' applies more to East than to West Africa.

¹ (<http://www.fao.org/docrep/004/y1669e/y1669e0i.htm>) [Accessed 25 July 2013].

Highlights from South Africa

In South Africa, the formalization of the sector is considered to have begun with the establishment of the Organic Agriculture Association of South Africa (OAASA) in 1994 (FRIDGE, 2007). Certified organic produce started with mangoes, avocados, herbs, spices, rooibos tea and vegetables (ITC, 1999) and has expanded to include other products such as wine, olive oil and dairy products (Scialabba and Hattam, 2002; Parrott and Van Elzakker, 2003). According to Mead (2005), organic sales in South Africa remained relatively low until 2003, after which rapid growth was experienced in both local and export markets. It is worth noting that South Africa is among the few countries in the continent with a robust and growing domestic market for organic products. According to Willer and Kilcher (2013) there are 41,947 hectares of land under organic farming with 167 producers, 49 processors and one (1) importer. Hence, the organic primary producers in South Africa are much larger than in many other African countries. There is also an increasing awareness and engagement of the public sector in organic agriculture in South Africa.

3.3 Stakeholders engaged in organic production and trade in Africa

The organic sector in Africa is relatively young and dynamic. A good understanding of the roles and capacities of different stakeholders is essential to understanding how this sector is likely to evolve in the future. In general, stakeholders can be classified into three different categories: (1) civil society organizations and networks, (2) private organisations and enterprises, and (3) development and public agencies. In most African countries, governmental support is still lacking and the organic sector relies mainly on NGO networks, private stakeholders and development funds. However, there are some recent experiences of engagement from state agencies, mostly through public-private partnerships and other hybrid arrangements.

3.3.1 Civil society organizations and networks

Civil society based organizations are the main pioneers and coordinating agencies in the development and promotion of organic agriculture in Africa. These civil society based organizations include NGOs, CBOs, and Producer Organizations and National Organic Agriculture Movements (NOAMs). These organizations are engaged in several activities including capacity building, advocacy, extension, market information dissemination and linkage, promotion and marketing of organic products. Mostly they are part of transnational NGO networks and work closely with private enterprises and to a lesser extent with public agencies. Of particular importance are the National Organic Agriculture Movements, which serve as national platforms unifying the organic sector at country level. The major national NOAMs and organic movements in Africa include the following (see appendix 3 for details):

- The Benin Organic Agriculture Network (BOAN)
- The Ghana Organic Agriculture Network (GOAN)
- The Nigerian Organic Agriculture Network (NOAN)
- The Malian Organic Movement (MOBIOM)

- The National Federation of Organic Producers of Senegal (FENAB)
- The Kenyan Organic Agriculture Network (KOAN)
- The Ethiopian Association of Organic Agriculture (EAOA)
- The Tanzania Organic Agriculture Movement (TOAM)
- The National Organic Agricultural Movement of Uganda (NOGAMU)
- Organics South Africa (OSA)
- The Organic Producers and Processors Association of Zambia (OPPAZ)
- The Zimbabwe Organic Producers' and Processors' Association (ZOPPA)

The relative prominence of civil society organizations in the organic movement in Africa may be explained by several (interrelated) reasons, among which: the dominance of small farming households in organic farming on the continent; the need to provide appropriate support to these smallholders in the face of business actors endowed with more resources (bargaining power, market information, capital, etc.); the close relation between organic farming and sustainability issues (environment, biodiversity, climate change, etc.) while the public sector seems to be absent or ineffective.

However, the vitality and strength of the organic movement differ from one region to another, and also from one country to another. Overall, the organic movement in West Africa is still fragmented, although some progress toward further integration can be witnessed over the last five years. In East Africa, there is more cooperation and integration among organic stakeholders. This supports the increase in organic agricultural activities in that region and favors many regional initiatives (AdeOluwa, 2011), including the East African Organic Products Standard (EAOPS).

In addition, in May 2012 AFRONET (The African Organic Network) was set up and endorsed as the umbrella organization uniting and representing organic stakeholders throughout the African continent (Biovision Africa Trust, 2013). AFRONET aims to create a vibrant African Ecological Organic Agriculture (EOA) sector and help to empower and transform smallholder agriculture by providing sustainable livelihoods and boosting incomes and economic growth. AFRONET is led and steered by an interim committee comprising representatives from all sub-regions in Africa. AFRONET is expected to play the following specific functions: link organic actors and stakeholders across regions and countries; undertake advocacy at high levels (e.g. the African Union, Regional Economic Commissions (RECs), development partners); support capacity building for key players in EOA across the continent; and mobilize resources to promote EOA on the continent (see also section 3.3).

3.3.2 Private organizations and enterprises

The position of the private sector in the organic business in Africa is still limited, but increasing. Private sector schemes come about either as a result of farms or farmers' groups looking to develop new markets, or from buyers in the North looking for new sources of organic products and approaching existing (conventional) producers (Parrott and Van Elzakker, 2003: 25). The private organizations and enterprises working in the field of organic agriculture in Africa are diverse in nature and scope and include among others farmer

cooperatives, private companies, and joint ventures. They are engaged in a wide range of functions and activities, including support to farmer groups and associations, production, processing, packaging, trading, capacity building, coordination, inspection and certification.

Overall, the importance of the private sector in organic business is relatively high in East Africa and Anglophone countries (e.g. Ghana, Nigeria, South Africa) because of the initial market orientation of pioneer organic initiatives in East Africa and the cultural and historic background of Anglophone countries in being more pragmatic and prone to business. However, with ongoing globalization processes, this differentiation is getting blurred, depending on the global-local dynamics at each specific site of production. Table 3.2 summarizes some major private organizations and enterprises engaged in organic business in Africa.

Table 3.2 Major private organizations and enterprises in organic business in Africa

Country	Private organizations and enterprises	Activities
Benin	Fondation Espace Afrique/CIEVRA	Capacity building and research institution. Production of organic vegetables and fruits (pawpaw, mangoes, plantains, etc.)
	Karethic Benin SARL	Development and marketing of organic shea products
	CSFT (Centre de Séchage des Fruits Tropicaux)	Processing and export of Fairtrade pineapple products (dried, juice)
Burkina	Burkinature	Exports of organic and organic/Fairtrade mangoes and sesame
	Club des Productrices de Beurre de Karité Biologique (CPBKB)	Production and exportation of organic shea butter
	Olam	Trades a wide range of agricultural products and food ingredients including cotton, raw cashew nuts, shea nuts, and sesame (conventional and organic)
Mali	Eléphant Vert	Swiss firm which plans to set up a training center on organic agriculture as well as a production unit of organic fertilizers and biopesticides
	Ndomo, BATEX- CI, COMATEX	Active in organic products processing
	AOM, Gebana, IB NEGOCE, Emile Noel	Active in organic products marketing
	Wassoulou Manguie SARL, Société Fruitière de Yanfolila	Active in fruits production, processing and trade
Ghana	Yayra Glover	It is the pioneer licensed organic cocoa producing and buying company operating in Ghana. The orientation, incentives, training and technical supervision of farmers has evolved toward a wider social development oriented approach that includes not only learning about important issues like organic foods, pesticides, and sustainable agriculture, but also the means to effect positive change in their own lives.
	Tropical fruit exporter WAD Ltd	Exportation of dried and fresh pineapple
	Volta Organic Mango Farmers Association (VOMAGA)	Selling mangoes to processors
	Coopérative Equitable du Bandama(CEB)	Production and supply of organic cocoa
Cote d'Ivoire	Ethiquable Company Ltd	Trading of organic cocoa
	GIE Bio Niayes Senegal (BNO)	Established for mangoes producing in Niayes. With the support of AGRECOL Africa and the Department of Horticulture, BNO has obtained Organic and GlobalGAP certifications and export up to 320 tons of mangoes in 2011

Country	Private organizations and enterprises	Activities
Nigeria	Dara/Eurobridge Farm	Known as pioneer organic farm in Nigeria and produces lemongrass, turmeric, ginger, plantain and medicinal herbs
	Olusegun Obasanjo Centre for organic agriculture research and development	Established in 2007 and the first of its kind in Nigeria. It focuses on research and development in organic agriculture
	Organic farmers association of Nigeria	Coordinates the activities of Nigeria's organic farmers;
	Organic fertilizer association of Nigeria,	Coordinates the activities for organic agriculture fertilizer production
	"Nigeria Go Organic"	Focusing on a campaign for "Ibadan Go Organic"
Kenya	Industry and producer associations (including CBO and FBO)	Involved primarily in the production of organic crops
	Commercial farmers (including several large-scale companies and some medium-scale companies), which are certified, and in some cases share overhead costs and management	There are a growing number of certified organic companies and/or operators producing for both the national and international markets
	Processors. In most cases, these are the same companies that produce the raw materials and they do the processing according to buyers' requirements. Some processors buy raw materials from small farmers	There are certified organic companies extracting essential oils from herbs, spices and cold pressed oils from high-value crops. Some are also drying or semi processing herbs
	Traders and retailers. These include greengrocers (such as Healthy U, Green Corner Shop, and ABC Place), Natures Organic (box delivery), Organic Marketers Ltd., Natural Food Marketers, and Findus. They also include Effective Micro-organisms supply and BIOP Ltd.	Local and international trade of raw and semi processed products from primary operators. These stakeholders also deal with input supplies.
	Certifiers and inspection agencies. Africert and Encert are two national companies, which partner with internationally accredited companies.	Certification of organic products for regulated export markets. These companies also offer GlobalGAP certification.
Tanzania	Cooperatives (Kilimanjaro Native Cooperative Union and Kagera Cooperative Union).	Organize farmers for production, processing, and marketing.
	Companies (Biore, PCI, Fida Hussein, Dabaga, Biolands, Lima Ltd, Bombay Burma, TATEPA Ltd, Kimango, Kibidula, MTC Ltd, TAZOP Ltd, Zanz-Germ, CSOD and EPOPA-TZ).	Operators, processing, packaging and exporters.
	Certification bodies (TanCert, IMO, Bio-Inspecta, Ecocert).	Inspection and certification services.
Uganda	Cooperatives (Gumutindo Coffee Coop, Kayunga Organic Agriculture Producers Association, Nombe Organic Producers Association, Masaka Organic Producers, Namulonge Horticultural Producers, Bufundo Organic Agriculture Producers Association, Lusanja Agali Awamu).	Organize farmers for production, processing, and marketing.

Country	Private organizations and enterprises	Activities
	Companies (Lango Organic Farming Promotion, Uganda Marketing Services, African Organ, Bio Fresh Ltd., Masaka Organic Producers, Tropical Ecological Foods Uganda, Sulma Foods, Kawacon, Ibero, Jaksons (U) Ltd., Agricultural Organic Exports, Outspan, Bio Uganda, and Bo Weevil)	Operators, processing, packaging, and exporters.
	Certification bodies (UgoCert, SGSUganda, IMO Kontrol, Krav, Ecocert).	Inspection and certification services
Cameroon	Association for the Promotion of Organic Agriculture in Cameroon (ASPABIC)	ASPABIC provides its members with services of promotion of organic agriculture, information, public awareness, technical monitoring and advice. This has led to a growth in the number of producers, in the range of products proposed and in the number of exporters. It has also led, to some extent, to a change in practices (from a passive type of organic agriculture with no certification to a practice based on precise standards)
	Farmers organized in organic producer association	Production in accordance with local standards and regulations and in conformity with market requirements (both internal and external) and in compliance with the technical packages recommended by extension services

Source: Compiled by the author from various reports and internet sources

3.3.3 Governmental and public agencies

State engagement in organic agriculture in Africa is still very limited or lacking. Recently, some experiences of engagement from the state, mainly through public-private partnerships, can be observed. For instance in Benin, after a consultative process with promoters of organic agriculture, the Government decided in February 2013 to engage in the promotion of organic cotton and appointed the public company called SONAPRA² (the national company in charge of promotion of commodity chains) to undertake henceforth the purchase, payment to farmers, and international marketing of organic cotton fibre, all things that were previously managed by civil society organizations and private enterprises. Currently, a convention of public-private-partnership is underway between SONAPRA and the major organic promoters (OBEPAB and Helvetas Swiss Intercooperation Benin) for the governance of the overall organic cotton network. In Ghana, the state is particularly present in the organic cocoa sector through its control of national markets and international trade relations (See Chapter 5). The Ghana Cocoa Research Institute (CRIG), a public agency, is also quite active in organic cocoa research. In several Southern and East African countries, governments increasingly recognize the importance of organic agriculture. For instance in Uganda, governmental agriculture commodity organizations like the Coffee Development Authority and the Cotton Development Organization view organic coffee and cotton as something that adds value to the crops, and organic production has thus become of interest to them; hence their present support (Walaga, 2003: 48). However, the major turning point of state engagement in the organic

² SONAPRA stands for *Société Nationale pour la Promotion Agricole*

sector in the continent is the African Union-led initiative called Ecological Organic Agriculture. As a result of a long process of civil society activism combined with informal and formal meetings, conferences, and attendance to global organic events, the African Union Executive Council decided upon and endorsed a resolution on organic farming (EX.CL/Dec.621(XVIII)) on 28 and 29 October 2010 in Malawi. In 2011, in Addis Ababa, the African Union Heads of State and Government passed the Decision on Organic Farming requesting the African Union Commission (AUC) and its New Partnership for Africa's Development (NEPAD) Planning and Coordinating Agency (NPCA) to initiate and provide guidance for an AUC-led coalition of international partners on the establishment of an African organic farming platform (EX.CL/631 (XVIII)). Based on this resolution a multi-stakeholder process of consultation and mobilization has been deployed under the leadership of the AUC to build a common understanding of the issues at stake and the potential of organic agriculture to take up the challenges of food security, environmental protection, resilience to climate change and poverty alleviation. Various circles of academia, researchers, civil society, private sector, farmers' organizations, and policy makers from the different sub regions (West, Central, Eastern, and Southern Africa) are engaged in this process. The concept of Ecological Organic Agriculture (EOA) has been adopted to give room to non-certified organic farming. The overall goal of the initiative is to mainstream EOA into national agricultural production systems by 2020 in order to improve agricultural productivity, food security, access to markets and sustainable development in Africa (Biovision Africa Trust, 2012). At the Dakar Planning Meeting on Mainstreaming EOA in Agricultural Plans and Policies, it was decided that the EOA Initiative should be integrated in the CAADP (The Comprehensive Africa Agricultural Development Program) framework at continental, regional and national levels (Biovision, 2012; Glin, 2012). CAADP is a common framework, reflected in a set of key principles and targets, to guide country strategies and investment programs; stimulate and support policy dialogue and review, organizational and capacity development, (regional) peer learning, private sector engagement and agriculture related entrepreneurship development and growth, and facilitate greater alignment and harmonization between efforts of development partners, international and local institutions, knowledge centers and think-tank institutions (www.caadp.org). CAADP is gaining substantial legitimacy at governmental levels and within the donor community as the 'blueprint' for African agricultural development that everyone should relate to. It is both a technical and a political instrument. Out of the 54 countries in the continent, 30 have already ratified the CAADP (Akinbamijo, personal communication 2012). Currently, pilot projects emanating from the EOA initiative are being developed in several countries in West Africa (Benin, Mali, Nigeria, and Senegal), Eastern Africa (Ethiopia, Kenya, Tanzania, and Uganda), and Southern Africa (Zambia).

Also some foreign and international governmental development agencies are active in the organic sector in Africa, including the German Gesellschaft für Internationale Zusammenarbeit (GIZ), Swedish International Development Agency (SIDA), Swiss Global Programme Food Security (GPFS Sub Sahara Africa), US Agency for International Development (USAID), and the European Commission Development and Cooperation (EuropeAid).

3.4 Trade and certification of organic commodities in Africa

3.4.1 Organic trade and marketing

The market for organic products is growing and offers producers and exporters in African countries opportunities to improve their incomes and living conditions. In Africa, the majority of certified organic produce is destined for export markets. The European Union is Africa's largest market for organic commodities. Table 3.3 presents the producing and importing countries of a range of organic product groups from Africa.

Table 3.3 African producing countries and destination markets for a selection of organic products

Product group	Producing countries	Destination markets
Fresh vegetables	Egypt, Kenya, Madagascar, Malawi, Morocco, South Africa, Tunisia, Uganda, Zambia	Switzerland, Germany, Netherlands, France, Australia
Bananas	Cameroon, Ghana, Senegal, Uganda	Belgium, France, Germany, Switzerland
Citrus fruits, grapes	Egypt, Morocco, South Africa	Belgium, France, Germany, Switzerland
Tropical fruits (fresh) Avocados, mangoes, pineapples, papaya	Cameroon, Egypt, Ghana, Madagascar, Senegal, South Africa, Tanzania, Uganda	Switzerland, Germany, Netherlands, France, Austria, Italia, Spain
Dried fruits	Algeria, Burkina-Faso, Egypt, Madagascar, Morocco, Tanzania, Tunisia, Uganda	United Kingdom, Netherlands, Ireland, Denmark, Switzerland, Austria
Coffee	Cameroon, Ethiopia, Kenya, Madagascar, Tanzania, Uganda	Germany, Netherlands,
Tea	Tanzania, Uganda, Kenya, Malawi	Germany, France, Netherlands
Cocoa	Cameroon, Ghana, Madagascar, Tanzania, Uganda	Switzerland, Germany, Netherlands
Cotton	Benin, Burkina-Faso, Cameroon, Côte d'Ivoire, Egypt, Mali, Senegal, Tanzania, Uganda	Netherlands, Germany, Switzerland, Mexico
Palm oil	Ghana, Madagascar, Tanzania	
Tree nut (cashew, Shea and shea butter)	Kenya, Malawi, Morocco, Tanzania	United States, United Kingdom, Netherlands, Germany
Sesame	Burkina-Faso, Uganda, Tanzania, Zambia, Zimbabwe	Netherlands, Germany, India
Honey	Algeria, Angola, Malawi, Ethiopia, Tanzania, Tunisia, Zambia	Germany, United States, France, United Kingdom,

Source: Adapted from Parrott and Kalibwani, 2005

In most African countries, marketing of organic agricultural products is carried out directly by promoters, trading companies or support organizations working in product development. In most cases, civil society organizations, especially NGOs, play a key role as advisors in helping farmer groups to achieve certification and enter export markets (Gonzalez and Nigh, 2005). However, in some cases the positioning of organic products in international markets may be difficult because of failures in long term trading relationships. Given the relative power and information asymmetries between producing groups of farmers and larger trading companies, state involvement seems to be a major condition for the success and sustainability of organic production and marketing.

In summary, while export of organic products enables African smallholders to get access to premium markets, it exposes them to international market constraints and requirements that they can hardly sustain without the support from intermediary organizations and other stakeholders.

3.4.2 Certification of organic commodities in Africa

Most of the organic production in Africa is aligned with the EU regulation for organic certification, as Europe is the major destination of African organic food/agricultural products. However, there is a trend toward diversification of organic markets, favoring an increasing interest in the US National Organic Program (NOP) and the Japanese market governed by Japan Agriculture Standards (JAS). To some extent compliance to these standards by smallholders African farmers is challenging and needs local research and development on relevant regulations. For instance, the NOP has such stringent requirements for composting that even US farmers have problems following them, while the EU's requirement regarding the use of organic seeds is difficult to apply as there are almost no organic seeds available in some East African countries (United Nations, 2006). Also the high transaction costs of these certification mechanisms are an issue of concern. At the same time the limited understanding of export market regulations makes it impossible to develop and implement national or regional standards that are acknowledged by destination markets. This constrains the development of national and regional standards as least for export oriented organic production. In fact, there are two ways for African producers to enter the EU and other international markets: either have a national system of organic certification that is acknowledged by the governments in the destination countries (e.g. the EU acknowledges the system in Tunisia), or individual farmers and commodity chains are certified by an organization that is recognized by the destination market. The EU recognizes the certification bodies either directly or via the so called 'Third Country List'³ (Huber et al., 2013).

In all, in Africa only Tunisia has its own organic standard while countries such as Egypt, Morocco, Senegal, South Africa, Zambia and Zimbabwe are in the process of drafting such a legislation (Huber et al., 2013). In addition, the East African Organic Products Standard (EAOPS), also called 'Kilimohai', was developed through a consultative regional public-private partnership and adopted as the official East African Community organic standard in 2007. Unlike the above mentioned certifications, which are government-driven, the EAOPS was developed by a public-private sector partnership in East Africa under the guidance of the International Federation of Organic Agriculture Movements (IFOAM) in compliance with the United Nation's Codex Alimentarius Commission (FiBL, 2010). However, the EAOPS still requires international accreditation and acknowledgment to be able to facilitate trade.

³ The European Union currently recognizes eleven countries as being equivalent with the EU system, what is known as the Third Country List. These countries are: Argentina, Australia, Canada, Costa Rica, Japan, India, Israel, New Zealand, Switzerland, Tunisia and US (Source: Huber et al., 2013).

3.5 Challenges and prospects of organic agriculture in Africa

The major challenges confronting the development of organic agriculture in most African countries relate to structural, technical, economic and socio-cultural aspects.

From a structural point of view, the challenges that the development of organic agriculture faces in Africa include infrastructural, institutional and policy related issues. Poor road networks, power shortages, high cost of energy, unreliable communication systems, lack of appropriate packaging and storage materials and facilities affect the quality and speed of flows of information and organic produce from farm, via processing, up to export. With regard to policy, most African countries have no organic agriculture policy to guide and support decision-makers, farmers and development stakeholders. There is almost no reference to organic agriculture in most of the existing agricultural policy documents (Boon and Semakula, 2010). Furthermore, the institutional environment of organic agriculture in Africa is still poor, particularly in the West African region. Few formal institutions (including research, education, regulation, etc.) address organics in their mandates, portfolio or curricula. Some projects and initiatives have been developed to address particularly this issue. For instance, the Institutional Capacity Building for Organic Agriculture in West Africa Project aimed to strengthen the institutional environment of organic agriculture in West Africa by increasing the level of awareness of the potential benefits of organic agriculture and increasing expertise in all aspects of organic agricultural production in the West African region. This project specially focused on the higher education sector by networking several agricultural universities and facilitating curriculum development on organic agriculture. The ongoing EOA Initiative is also expected to facilitate the institutionalization of organic agriculture.

From a technical perspective, the organic sector in Africa is confronted with several issues. First, the smallholding and dispersion of organic farms over large areas increases production and inspection costs. Second, the cohabitation of organic agriculture with conventional and genetic modified (GM) crops is complex. Appropriate legislation is still needed to regulate the co-existence of organic, conventional and GM crops to prevent the risk of contamination/pollution of the organic produce. Third, the lack of specific organic seeds breeding and provision systems is a challenge. Organic farming mostly relies on conventional seeds, which are designed and created to better respond to chemical inputs. In addition, there exists an inappropriate knowledge infrastructure with insufficient research and extension to support organic agriculture. Fourth, access to the necessary resources and materials for composting and handling (transport, burying) compost/organic manure in the farm remains problematic. Fifth, problems with pest control (on farm and in storage) undermine the quality and physical appearance of organic products.

Economic challenges facing organically grown crops include high certification costs, limited domestic market demand, and difficult contract enforcement. The dependency on foreign standards and certifiers comes with high direct financial costs of inspection fees, in addition to the opportunity costs of time and energy of administrative activities such as record keeping and reporting (Lockie et al., 2006). These costs are imposed on the production node, thus increasing production cost. Consumers in local markets cannot afford the premium price of

organic products, while the dependency on global markets exposes farmers to price volatility and uncertainty. In quite a number of cases organic crops fetch the same prices as conventionally grown crops and in some cases they are even sold at lower prices, particularly in local markets. Besides, there is the issue of contract enforcement and arbitration in case of failure or conflict between participants in the organic value chains and networks. In particular, the power and information asymmetry between producing groups and trading companies are a potential source of conflict or distrust among these two groups, often to the disadvantage of farmers.

From a socio-cultural point of view, belief systems and misconceptions may negatively affect the development of organic production in the continent. For instance, most people still perceive organic agriculture as a traditional and backward farming system. Others interpret organic production as just the substitution of chemical inputs by organic inputs, or as a 'nature-led' cropping system. This is hampering the appropriation and spread of the organic philosophy, principles and virtues.

Despite the debates and controversies on (the potential of) organic agriculture to feeding the continent's growing population, organic agriculture is increasingly receiving credits as a prospective option to reverse the environmental degradation resulting from conventional production while addressing pressing problems of income generation, poverty alleviation, and climate change in Africa. However, several challenges still undermine the further development of organic agriculture in the continent, as noted above. The extent and scope of most of these challenges differ according to the specific commodities and the particular geographical and socio-economic contexts. Thus, the approach to conquer these challenges should be context-dependent, by taking into account national specificities and priorities, while enabling alignment and synergy at the regional level, particularly around issues like certification and market access and development.

CHAPTER 4

GOVERNING THE TRANSNATIONAL ORGANIC COTTON NETWORK FROM BENIN*

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Abstract

In this article, we attempt to conceptualize the historical development and the governance structure of the transnational organic cotton network from Benin. We aim to discover how the organic cotton production–consumption network is governed locally and internationally. Existing bodies of literature on international agricultural production networks, in particular the Global Value Chains (GVC) perspective, focus on economic dimensions, but find it difficult to incorporate the sustainability dimension. We favour widening the concept of GVCs beyond economics by acknowledging and including environmental rationalities and the representatives of their interests, not as external elements, but rather as co-governing or co-structuring factors (or actors) of sustainable value chains. Our findings reveal that beyond the traditional producer versus buyer dualism, intermediate stakeholders, namely transnational and local environmental NGO networks, are instrumental in the construction, maintenance and transformation of the organic cotton network. It is also apparent that farmers' leaders play an important role in mediating and (re)building trust among organic farmers, though they exert insufficient vertical power in the organic cotton network to control it.

Keywords organic cotton, global value chain (GVC), transnational networks governance, trust, Benin

4.1 Introduction

In recent decades modern agriculture has engendered significant externalities, affecting natural capital and human health, as well as the production base of agriculture per se (Pretty and Hine, 2001). As Mol and Bulkeley (2002) suggest, pesticides and fertilizers, large-scale livestock farming, and the use of various additives by food-processing industries are some of the major risks involved in contemporary food provision. For the last 20 years, structural adjustment and neoliberal policies have encouraged agricultural intensification as a strategy to achieve food security and poverty alleviation in West Africa. This, among other things, has created a lot of health and environmental problems (Glin et al., 2006; Vodouhê et al., 2001). In reaction, an organic agriculture movement has emerged that “focuses on re-embedding crop and livestock production in ecological processes, encouraging trade in agricultural commodities produced under certified organic conditions and processed goods derived from these commodities” (Raynolds, 2000: 297, 299).

Advocates claim that organic agriculture is an alternative that can improve agricultural sustainability and farmers’ livelihoods while not harming the environment (Ton, 2007; Tovignan, 2005). One example of this emerging organic agriculture in West Africa is the organic cotton initiative in Benin. This endeavour originated from initiatives taken after the United Nations Conference on Sustainable Development in Rio in 1992. Benin’s organic cotton sector is currently undergoing a progressive transformation from an experimental, small-scale and donor-dependent initiative towards a market-oriented, large-scale and self-financing transnational commodity network. One of the striking characteristics of this network is the crucial role that local and international NGOs play. At the same time, globalization processes dominated by the North shape and facilitate this transnational organic cotton network.

However, despite the growing importance of organic agriculture in West Africa, policy makers and public research institutes have not shown much interest in this sector, and it has to date received little academic analysis. In addition, the question arises of whether the ‘conventional’ approaches in international food chain research that Friedmann (1993), Gereffi (1994) and others developed initially are adequate for understanding developments and governance in international organic commodity networks.

Hence, in this article we investigate how the Benin-related organic cotton production–consumption network emerged, how it was governed – locally and internationally – and whether the Global Commodity (Value) Chain perspective needs to be reconsidered or widened for a relevant account of the sustainability dimension of international food network governance. For this purpose, we conducted qualitative research combining both structural and actor-centred methods. During the first stage, we investigated the historical development of the organic cotton network in Benin and its overall institutional framework. Starting with OBEPAB (Organisation Béninoise pour la Promotion de l’Agriculture Biologique) – the national NGO leading organic cotton production in Benin, we gradually identified the other relevant actors involved in the organic cotton network from local to supra-national levels, including organic farmers’ organizations, input suppliers, services providers (transporters, ginning companies), a certification body (Ecocert International) and several transnational

NGOs. We conducted open and semi-structured interviews with leaders of these stakeholders on the following topics – the genesis of the organic cotton initiative in Benin; historic events and constellations that affected the development of the organic cotton network; the processes and actors involved; and coaching, innovation and learning processes in the maturation of organic cotton networks.

In the second phase, we analyzed the social dynamics that connect actors and practices within the organic cotton network, particularly flows of information and knowledge, trust building mechanisms, and power relations among actors from production level to global market level. We also attended international events, especially the 2008 Organic Exchange's Global Conference in Portugal, and interacted with stakeholders from the global organic fibre supply chain, including retailers, farmers, manufacturers, representatives of brands, banks, NGOs, certifiers and cotton brokers.

This article is organized as follows. First, we outline the GVC concept and relate it to governance frames in designing an analytical perspective. Second, a brief overview of the cotton sector in Benin provides the background against which we reconstitute the historical development of the organic cotton initiative in Benin. The aim here is not to compare conventional and organic cotton value chains, but to provide the necessary reference to understanding the context of emergence and the dynamics within the organic cotton network. In the subsequent section, we address the governance structure of the organic cotton network, highlighting the steering role that transnational networks play. The article concludes by indicating the implications of these findings from both theoretical and practical perspectives.

4.2 Governing global commodity networks

The Global Commodity (or Value) Chain concept (GCC/GVC) is one of the most pervasive perspectives for thinking about the links between the production, distribution and consumption of goods, especially in the field of agricultural commodities (Friedmann, 1993; Gereffi, 1994). Building on general political economy thinking and World System frames, this approach aims to demonstrate what developments have led to the globalization of agro-production chains and how their internal dynamics can be explained (Busch and Juska, 1997). Political economy approaches account for the transformation and industrialization of capitalist agriculture, the rising power of multinational food and agribusiness corporations and the global integration of the agro-food system (Ward and Almas, 1997). These approaches analyse linear chains or networks whereby commodities are produced in 'peripheral' regions of the global economy for retail and consumption in the 'core' (Barrett et al., 2004; Hughes, 2006), accompanying an unequal distribution of benefits. The different political economy approaches have been criticized for being "overly structuralist and dismissive of social agency and the interests of various actors" (Challies, 2008: 378). According to Busch and Juska (1997), political economy perspectives obscure the interactions among a wide variety of political, economic, social, cultural, technological and natural phenomena that extend across localities, regions and nations and that together define globalization.

Against the background of these critics, GCC and GVC perspectives evolved in an attempt to reconceptualize and re-examine the different ways in which global production and distribution

(and later consumption) systems are integrated, how these are governed and what the possibilities are for firms in developing countries to enhance their position in global markets (Gereffi et al., 2005). To some extent, GVC approaches include a concern for the organizational and governance configuration of the chain, while maintaining an overall focus on the unequal exchange of (economic) value between the different segments/firms involved in the chain. However, do GVC perspectives provide enough conceptual room to analyze the governance of organic value chains? We will selectively review the GVC literature to address this question.

In the GVC research tradition, understanding governance has generally focused on coordination mechanisms and power relations among economic actors. Governance seen through this lens “relates closely to the notion of ‘drivenness’, that is, how, and how much, firms in certain positions in a chain are able to control and steer its functioning to their own benefit, which includes shaping the division of labor and distribution of rewards along the chain” (Bernstein and Campling, 2006: 245). In analyzing governance in GVCs, Gereffi (1994) initially stressed issues of authority and power relationships and distinguished two ideal types, namely producer-driven and buyer-driven chains. Producer-driven chains are characterized by the concentration of capital and technological know-how allowing producers to dominate the industry (for example automobiles), while buyer-driven chains are those that distributors and retailers dominate via their control of the branding, design and market functions (for example garments). The nature of the lead firm and the location of key barriers to entry is the basis of that analysis (Gibbon and Ponte, 2005). Although such a conceptualization of governance in commodity studies has proved insightful, especially when wider socio-political and cultural contexts are drawn into the analysis, the simple dichotomy of producer- versus buyer-driven chains has been frequently challenged, especially following empirical research. Gereffi himself conceded that the dichotomy does not adequately explain some of the characteristics of certain contemporary value chains (Gibbon and Ponte, 2005). In an effort to refine the typology of governance in GVCs, Gereffi et al. (2005) proposed five types of governance structures, combining three variables. These were (1) the complexity of transactions, (2) the ability to codify information in transactions (through standards, certifications), and (3) the capabilities of the suppliers to fulfill transaction requirements. The five types of GVC governance thus generated are hierarchy, captive, relational, modular, and market, which range from high to low levels of explicit coordination and power asymmetry (Gereffi et al., 2005: 78). This new governance typology is still rooted in inter-firm links and strongly in-between hierarchy and markets. It delegates non-economic influences to the context and provides almost monopolistic roles for economic agents and rationales in governing value chains. Such a conceptualization of governance might overlook how, in particular, the ethics, ideology, identity, symbolic and environmental values of such chains may condition stakeholders’ participation and determine forms of alignment and coordination within commodity networks. Such quality and environmental standards can be expected to be particularly relevant as far as ‘organics’ are concerned and may affect the governing structure of organic value chains by rebalancing or diverting sources of power from the economic realm towards, for instance, the environmental one. Murdoch (2000) has been one of the few to argue that GVC approaches indeed have to go beyond their traditional emphasis on the

directly involved economic actors by including the roles of external factors such as transnational and national NGOs. What does it mean to bring non-economic actors and interests into the organic value chain analysis?

Many commodity studies emphasize the political and contested nature of quality issues, as well as the mechanisms of its mediation through standard setting and certification procedures, which actors in the dominant chain use as a tool through which to exert their power. They pay less attention to the role of consumers, civil society and social movements in shaping and coordinating more environmentally friendly supply chains. In fact, when studying the role of civil society and social movements in commodity chain governance, the focus has often been on one of three other factors. These are standard setting and implementation (Bartley 2003; Klooster, 2005; Oosterveer, 2006); how civil society organizations try to influence transnational trading relationships via forms of protest and resistance (Crewe, 2004; Freidberg, 2004); or how environmental activists use commodity chain analyses to carry out their campaigns (Bair, 2009). Very few studies address the roles of transnational civil society networks in constructing and transforming commodity networks *per se*. Even studies on the importance and codification of trust in value chains (see Sturgeon, 2002) remain focused on trust between economic actors within the supply chain, and the role of standards and certifications in codifying such trust and reputation. However, non-economic agents, especially environmental NGOs, play a strong part in mediating trust in organic markets, so we cannot place them outside the value chain. Hence, although we can witness GVC studies and frames paying growing attention to the emerging importance of environmental values and activists, the authors of these studies place them outside their conceptual frames and view them in their politics as external environmental claims on value chains and as external users of global chain analytical frames. They do not interpret or conceptualize environmental rationalities and those who represent their interests as co-governing or co-structuring the GVCs' factors or actors.

Raynolds (2004: 728) suggests that governance should be “understood not as a pre-existing structural feature of commodity chains, but as the relations through which key actors create, maintain, and potentially transform network activities”. To open the value chain concept to governance, we draw on the governance literature in political science and international relations. Here the conventional idea of state governance and authority has been widened over the past two decades, making conceptual room to understand the emergence of multiple authorities and governance actors, for instance in global environmental politics (Mol, 2010a; Treib et al., 2007). Kern (2004) has made a useful classification by identifying three types of transnational governance – (1) international and intergovernmental cooperation; (2) global policy networks; and (3) transnational network organizations (see Table 4.1). Although not intended for commodity chain analyses, Kern's conceptualization of transnational network organizations is useful in that it widens the value chain perspective. It is of particular interest to our analysis of transnational organic cotton networks because it (1) opens commodity chain governance beyond the continuum between hierarchy and markets, and (2) enables the inclusion of non-economic governance actors and perspectives. This creates a conceptual space in which to interpret transnational civil society networks and to see them as (co-)constitutive forms of governance in creating and structuring commodity networks. As we

elaborate and illustrate below, it is impossible to understand the emergence and governance of the international organic cotton networks from Benin without a wider perspective of civil-society-based transnational network organizations.

Table 4.1 Forms of transnational governance

Forms of Transnational Governance		
Type of institutionalisation	Definition and implementation of standards	
International and intergovernmental cooperation	Without self-organisation	Through nation states
Global policy network	With self-organisation	With nation states
Transnational network organisations	Through self-organisation	Without nation states

Source: following Kern 2004.

If such a much more inclusive perspective on commodity chain governance helps our understanding of Benin-based organic cotton chains, then we need to ask the following question. Should it be understood in relation to (1) the specific character of the chain (organics); (2) the more general inclusion of environmental concerns in commodity chains following the global surge of sustainability; or (3) the relatively recent emergence of organic cotton chains? We shall address this question further in the conclusion.

4.3 The cotton sector in Benin

Cotton is Benin's main export crop. Cotton production and processing is enormously important to both national and household economies. An estimated two-thirds of the population depends on cotton for its livelihood. Cotton accounts for between 50 and 70 per cent of export revenues in Benin (Ton, 2002). Benin's annual cotton production varies from 250,000 tonnes to 400,000 tonnes and it exports more than 95 per cent of its cotton fibre, which has a good reputation on the international markets. The textile industry (spinning, knitting/weaving, coloring, confection) is limited to only a few industries, namely COTEB, CBT and SITEX.

For nearly two decades, the parastatal company SONAPRA (Société Nationale pour la Promotion Agricole) governed Benin's cotton sector. It took care of most of the industry's commercial side, including buying and distributing seeds and chemical inputs, directly purchasing cotton from farmers, determining the price, ginning and exporting the cotton lint (Gergely 2009; Kutting 2004). The rural development agencies (CARDERs) provided the extension services. Then, in the early 1990s, with the introduction of structural adjustment programs and attempts to improve the competitive position of the cotton sector (Sinzogan, 2006), the industry was liberalized and the direct participation of state agencies withdrawn from its economic activities. Consequently, progressive privatization of input distribution, transport and ginning took place under a government licensing system. A new category of actors emerged including farmers' organizations, from village to national level. The AIC (Association Interprofessionnelle du Coton), a multi-stakeholder organization consisting of producers' representatives, inputs suppliers and ginners, now assumes responsibility for

coordinating the sector. CAGIA (Coopérative d'Approvisionnement et de Gestion des Intrants Agricoles) is in charge of granting input supply licences to input providers; and CSPR (Centrale de Sécurisation de Paiement et de Recouvrement) is the clearing house for all financial transactions in the sector.

Following a series of crises in the new organizational framework, and convinced of the need to pursue the privatization process, especially with respect to the ginning link, two new arrangements were set up in 2008. These consisted of a public-private joint venture, SODECO (Société pour le Développement du Coton), which took over the industrial component of SONAPRA, and the CAIA (Centrale d'Achat des Intrants Agricoles), which took charge of coordinating and managing the inputs provision sub-sector. Currently, a new reform is underway to tackle the 'caution solidaire' issue, which is one of the major bottlenecks of the cotton industry. The caution solidaire is the collective repayment obligation that gives responsibility to farmer-based organizations to secure inputs and financial credits provided to farmers and guarantee their reimbursement. Unfortunately, indebtedness and bad management created a crisis of confidence among cotton producers and an increasing number are abandoning the crop (Sinzogan, 2006: 46). The new reform aims to overcome this problem with its special focus on restructuring farmers' organizations and the repayment mechanism.

Over the last few years, the crisis in the reform, combined with global cotton market trends, has caused a sharp decline in cotton production in Benin, which has now fallen to less than 200,000 tons (Gergely, 2009). However, cotton still contributes significantly to the national economy although cotton industry inflicts much damage on the environment and degrades the natural production process (Glin et al., 2006; Tovignan, 2005). Indeed, conventional cotton production relies on intensive synthetic inputs, which damage ecosystems, as well as human and animal health. Between 1993 and 2003, cotton production in Benin accounted for an annual average of two million liters of chemical pesticides (Glin et al., 2006). In addition, economic liberalization exposes producer countries and farmers to unstable world market prices, which have been fluctuating for decades but overall show a declining trend. This situation raised awareness among farmers and national development institutions of the seriousness of the problems related to growing conventional cotton and created a favorable context in which to search for alternatives.

4.4 The rise of organic cotton production in Benin: from international regimes to transnational network governance

Our aim in this section is to highlight how one might find the constitutive basis for the emergence of an international organic cotton network from Benin at the intersection of intergovernmental cooperation and transnational environmental movements.

As stated above, the context of increased awareness about the problems in conventional cotton created a favorable situation for alternatives to the conventional farming system. This favorable context came together with international developments. Since the 1992 United Nations Conference on Environment and Development, significant changes have taken place in discourses, policies, institutions and practices, targeting environmental issues at both

international and national levels. In 1994, the governments of the Kingdom of the Netherlands and the Benin Republic signed a bilateral Sustainable Development Agreement (SDA). As Verhagen et al. (2003: 28) stated, the SDA “was about finding a new way for countries to tackle their common problems of unsustainable development”. The agreement provided the legal and institutional framework for the development and implementation of policies, arrangements, programs and projects aiming to promote effectively every aspect of sustainable development, including ecological, economic, and social ones (UN, 1998). Even though the SDA claims to uphold the principles of reciprocity, equality and participation, no private and civil society stakeholders were involved in the negotiation and the execution of the agreement. National agencies – Centre Béninois pour le Développement Durable (CBDD) in Benin and the Royal Tropical Institute/Netherlands International Partnership for Sustainability KIT/NIPS in the Netherlands – executed the agreement. This form of governance corresponds with Kern’s definition of governance through international cooperation (Kern, 2004; Table 4.1).

The SDA identified the possibility of setting up a sustainable Benin–Netherlands textile chain and organic cotton appeared to be a viable opportunity in this respect. Since the early 1990s, a coalition of Dutch NGOs (united in the Schone Kleren Overleg, Clean Clothes Platform) questioned clothing shops in the Netherlands about their social responsibilities and the need to switch to organic cotton (NIPS, 2004). Timmermans Confectie Wijchen (TCW), a company located in the Netherlands, identified itself as a supplier of products such as baby clothes, bed linen and curtains made from organic cotton. In Benin, as mentioned above, the conventional cotton system was increasingly associated with environmental and health deterioration as well as with the deterioration of socio-economic conditions for smallholder farmers. Against this background, organic cotton production began in Benin in 1996. The newly created national NGO OBEPAB became the local agency for implementing a ‘sustainable cotton supply chain’. During a delay in the SDA’s financial mechanism, the organic cotton initiative benefited from financial support from the Pesticides Trust (currently Pesticides Action Network (PAN)–UK) during the pilot phase from 1996 to 1998. As an environmental movement, PAN is committed to pesticide reduction and to promoting organic agriculture (Myers, 1999). From 1998 to 2004, the SDA supported the organic cotton initiative. An organic agricultural consultancy, Agro Eco, a transnational NGO also responsible for awareness raising and marketing initiatives in the North, provided technical support. Thus, a ‘kind of global policy network’, including government agencies (CBDD in Benin and KIT/NIPS in the Netherlands), transnational movements (PAN–UK and Agro Eco) and a local NGO (OBEPAB), led the development of organic cotton production in its early phase. In terms of power relations, both Agro Eco and OBEPAB, which depended on state agencies for their finances, were the implementing agencies. For several reasons – namely the experimental nature and project orientation of the initiative, certification requirements, and the initial reluctance of conventional cotton stakeholders – the organic cotton network in Benin was set up and developed outside the conventional cotton institutional arrangement, even though some relations existed. This is quite different from other organic cotton initiatives in West Africa (for example Burkina-Faso and Mali), which are at least partially embedded in the conventional cotton institutional framework (Bassett, 2010). In addition, for

traceability reasons organic farmers may not grow conventional cotton or have access to chemicals. All this makes organic cotton in Benin a distinctive commodity chain even though it negotiates or hires some services (especially access to seeds and ginning) from conventional stakeholders.

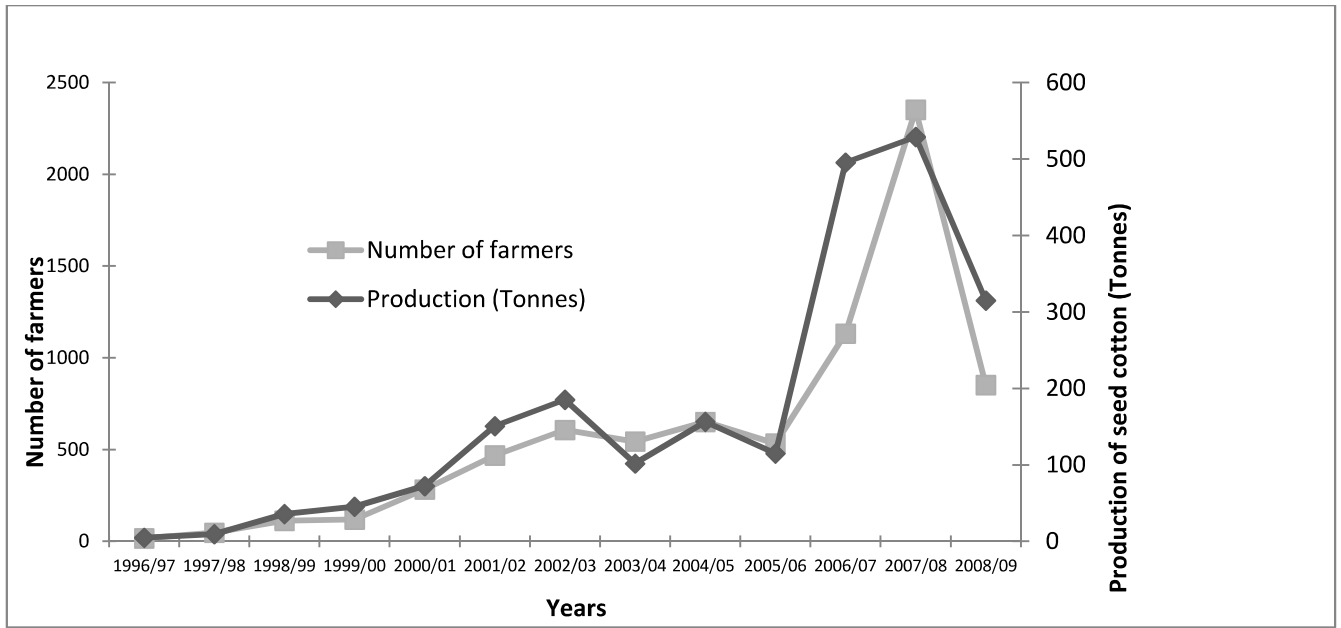
From 2004, the SDA stopped financial support to organic cotton development. Thus, the organic cotton network had to move progressively from an experimental, small-scale and donor dependent initiative toward a market-oriented, large-scale and self-financing one, where transnational as well as national networks are instrumental to the (re-) constitution and maintenance of the organic cotton network. The organic cotton network currently involves a range of actors and networks from local to supra-national levels, including farmers, farmers' organizations, input providers, national NGOs, service providers (ginning, transport), certifiers and transnational NGOs. Around 2000 small-scale farmers, one-third of which are women, depend on organic cotton farming for their livelihoods in Benin. They farm two to eight hectares of land and sow organic cotton on about one-third. The organic cotton farmers live in more than 40 different villages spread out over all the major cotton-growing areas in Benin – the Dassa, Djidja, Glazoué, Kandi and Sinendé districts. They produce an annual average of 500 tonnes of certified organic seed cotton for export to the EU and USA. This production represented 0.2 per cent of Benin's national cotton production towards the end of the first decade of the twenty-first century. Figure 4.1 displays the statistics of organic cotton production in Benin.

Parallel to the production network around OBEPAB, Helvetas-Benin in partnership with GIZ and the U-AVIGREF (Union des Associations Villageoises de Gestion des Réserves de Faune) started a new organic cotton project in the surrounding areas of the Pendjari biosphere reserve in North West of Benin in 2008. The rationale behind this is to protect the reserve from pesticide contamination while generating sustainable income to local communities. We do not address this case given its recent character.

4.5 Governing the transnational organic cotton network

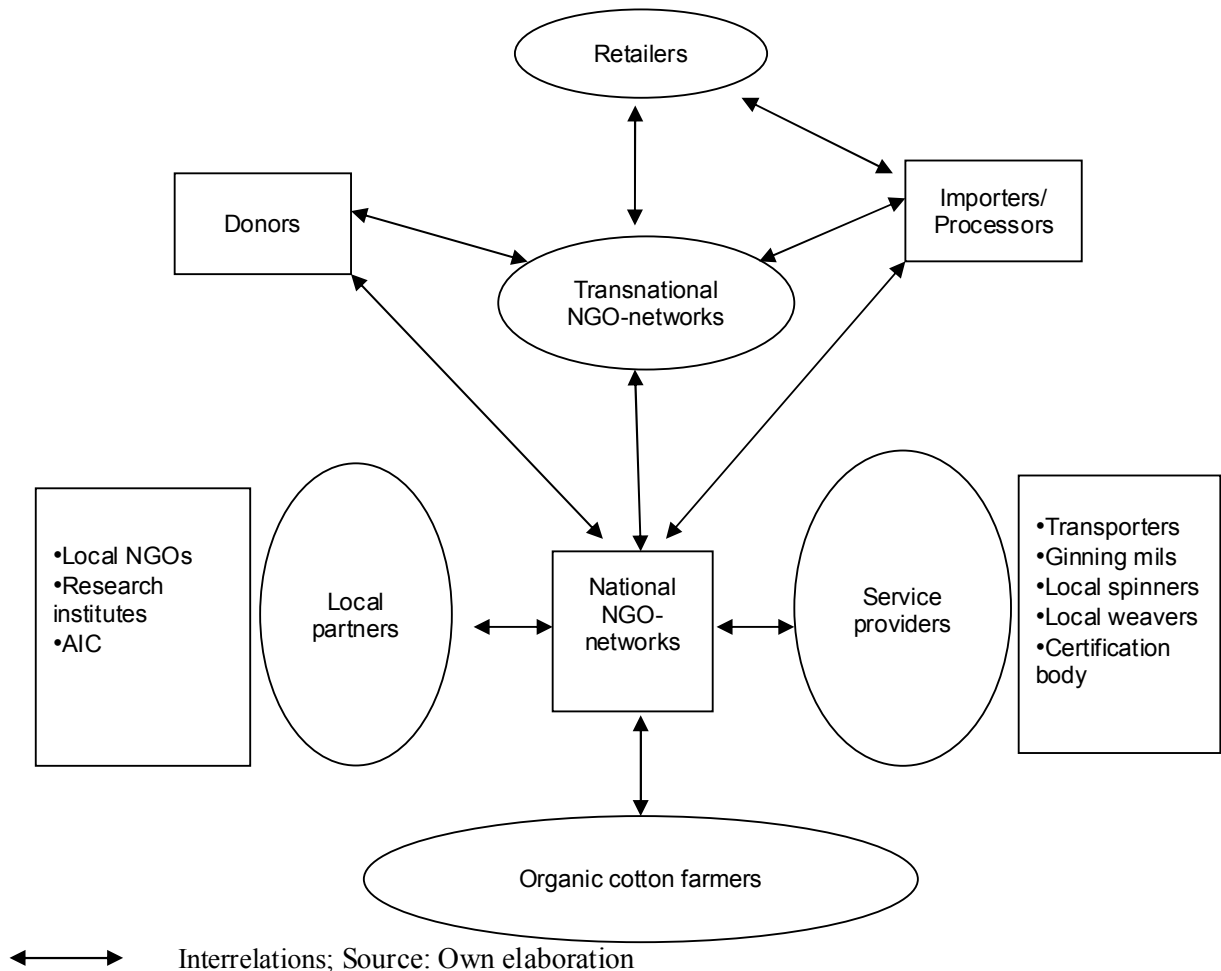
How is this organic cotton commodity network organized and governed from local production to global markets and consumption? As mentioned above, we conceptualize a governance structure as the relations through which key actors create, maintain and potentially transform network activities. We identified two coordination structures within the organic cotton network – one around the production and processing at the national level and a second around the marketing of the organic fibres and by-products. The first coordination structure is arranged around the national NGO, OBEPAB, and the second around transnational NGO networks (Figure 4.2). This is in line with the argument by Dicken et al. (2001) that any view of social actors and their networks in the global economy must always be sensitive to the geographical and organizational scales at which they operate.

Figure 4.1 Statistics of organic cotton production in Benin



Source: OBEPAB

Figure 4.2 The transnational organic cotton network



4.5.1 Production networks

At the national level, OBEPAB – a national NGO created in 1995 during the process of democratization and the emergence of civil society organizations in Benin – is at the heart of the organic cotton network. Since 1996, it has become the leading actor in organizing and implementing the organic cotton chain in Benin and it still plays a major role in organizing and coordinating the organic cotton production process. While SONAPRA formerly played the coordination role in the conventional cotton production chain, the ongoing reform attributes this responsibility to the AIC.

The motivations for producing cotton differ markedly between conventional and organic farmers. The reasons why conventional farmers grow cotton are mainly associated with the better organization of this commodity chain (compared with the others), which gives farmers access to chemical inputs (a part of which they divert to other crops), financial credits and a cash income. However, the crisis in the cotton sector seriously challenged these perceived advantages. Most of the organic cotton farmers we interviewed converted to organic production because of the lack of transparency in the conventional sector and their experiences with pesticide-related accidents and health problems. In addition, some farmers took a particular interest in organic cotton because it embodies economic and social advantages, with the attainment of stable revenues and the prevention of indebtedness being the most notable. Producing organic cotton becomes feasible when only locally available resources are used. Furthermore, to ensure producer loyalty to the organic scheme, the organic farmers generally obtain a premium for their produce in compensation for any yield loss (Dowd, 2008; Ton, 2007). In Benin, organic cotton farmers receive a premium of around 20 per cent over and above the price paid for conventional cotton. Other considerations for organic preferences are the allotted time for payment and the transparency and trust in the mechanism of payment. Organic farmers always express their motivation for organic cotton farming by comparing it with conventional cotton, and not in terms of their ideological commitment to organic production per se.

The social advantages of organic farming lie in the social learning that validates the farmers' knowledge of and views about technological development. Whereas the conventional farming system relies almost entirely on the use of chemicals (pesticides and fertilizers), the organic system relates the cotton to its ecosystem and needs expertise to optimize the synergy between the two. To deal with this issue and to improve the farmers' decision-making capacities, the organic cotton system constructs a participatory knowledge and extension approach. Moreover, from a gender perspective, organic cotton farming enables women to hold a separate cotton farm and thus increase their economic independence, whereas with the conventional system they depend mainly on the farm of the (male) head of the household (Tovignan, 2005). As most of the resources needed for organic cotton farming are available locally (especially ingredients for sprays such as neem seeds and pawpaw leaves), and are risk free, women also have access to the necessary inputs. In the conventional system, women can barely afford to acquire and handle the necessary chemicals. All the female farmers we interviewed underlined this aspect as an important factor in their motivation to opt for organic farming.

Contracting organic cotton farmers: bringing trust back in

Unlike conventional cotton producers, organic cotton farmers work through a system of contracts. Every year, OBEPAB signs a contract with each individual organic farmer through his or her organization. The contract sets out the norms and technical requirements with which organic farmers have to comply in farming organic cotton on the one hand, and OBEPAB's obligations to guarantee technical and organizational support and to purchase the organic seed cotton at a premium price on the other. To be able to honor these obligations, OBEPAB has to market the organic cotton fibre and by-products, so farmers must supply the organization with all the cotton they harvest. The farming contracts are also a key element in the internal control system to ensure the traceability of the organic cotton and its certification. However, interviews with organic farmers revealed that their trust in OBEPAB and, subsequently, in the overall organic supply system is not based on this contract. Rather, they refer to the long-standing trade relationship they have with OBEPAB. The farmers we interviewed trusted OBEPAB and appreciated the way in which it had always fulfilled its commitment to make speedy payments for the cotton, including the premium. They base their trust in the future continuation of the arrangement on their experiences of the past and not on the annual contract. Organic farmers often express their appreciation of OBEPAB by comparing it favorably with the conventional cotton sector, which is much slower to pay for the cotton.

However, unsuccessful marketing over the last two years saw organic farmers being paid later than conventional ones, which created distrust among many organic farmers and quite a few subsequently withdrew from organic cotton production (Figure 4.1). In this situation, organic farmer leaders play an important role in mediating and rebuilding trust among their peers. That the organic farmers had such a good working relationship with the leaders of the farmers' organization partly offset the distrust that arose in the organic system through the delay in payment. These leaders act locally as an 'extension' of OBEPAB's staff and play an important role in the exchange and communication of information. They are in charge of relaying the information and technical advice among organic farmers in their areas, so channel the transmission of inputs to farmers such as spraying materials and cottonseeds. These field agents also transmit the farmers' needs to OBEPAB. They organize and supervise the cleaning of the land that serves for weighing and purchasing the organic cotton. Farmer leaders are also an important component of the internal control system. They visit farmers, learn about their farming practices and sensitize them in cases of non-compliance. In addition, farmer leaders are the main channel through which newcomers in organic cotton production get in contact with the 'organic message' and become susceptible to trying it. As a consequence, many organic farmers 'owe' their membership in the organic cotton network to their local leaders. These leaders play important roles in forming and sustaining common values and goals in farmer networks. The success of leaders depends on their reputation and trust among their peers, as illustrated in the statement from a farmer of Sinanwongourou village, Kandi district in northern Benin:

“I would have abandoned organic cotton given the delay in cash payment we are witnessing these last years. The only thing that keeps me growing organic cotton is Alidou, our leader. He is struggling for organic cotton. He always visits my farm and any information I need, I get from him. I trust him”.

Despite the importance of organizing organic farmers, their groups do not yet have enough power in the organic commodity network to deal with service providers other than through OBEPAB or organic cotton buyers. The reason for this situation is twofold. First, because cotton, conventional as well as organic, is a rather complex industry that requires specific technical, management and market skills, farmers’ organizations can hardly manage by themselves, but rely instead on an intermediary organization. The second reason lies in the organic farmers’ fear that their organization might simply become yet another intermediary that functions to skim off the profits. Because of the corruption they witnessed in the conventional cotton system, most of the farmers oppose the idea of according business-like responsibilities to farmers’ organizations. Table 4.2 shows what goes into providing the services required to produce organic cotton. It is worth noting that, unlike the conventional cotton chain, organic cotton fibre does not have its own specific organic ginning facility. As a consequence, through a formal contract OBEPAB negotiates and pays the ginning service of SODECO under specific cleaning and handling measures to prevent risks of contamination. Afterwards, OBEPAB gets the cotton fibre and proceeds to the storage and export.

Reconfiguring existing social networks

Because of the specific approach and expertise it requires, organic farming gives rise to a reconfiguring of existing social networks. In fact, unlike the conventional cotton system, which focuses mainly on the cotton plant, growing organic cotton needs to take place within a farm system that aims to optimize the larger agro-ecosystem (van Elzakker, 1999). This calls for a change in farmers’ attitudes and behavior, as well as new knowledge and skills. The latter include the ability to identify, name and learn about the ecology and life cycles of pests and natural enemies; know about a range of plants with biopesticide effects; assess levels of organic matter and be able to recognize the various soil fertility indicators. Thus, organic farmers are engaged in a learning process through farmers’ field school sessions, farmer-led informal experiments, and other forms of training in the field. Furthermore, organic farmers often rely on each other to share resources, for instance spraying materials and carts, because of the internal control system and certification requirements to prevent contamination, and the feeling of belonging to a new ‘community of practice’.

Table 4.2 Service provision in organic cotton production in Benin

	Service providers	Form of negotiation	Procedures/ Modalities
Seeds provision	AIC (<i>Association Interprofessionnelle du Coton</i>)	Working relationship without a formal agreement	<ul style="list-style-type: none"> • Free of charge; • OBEPAB sends a demand to the Permanent Secretary of AIC indicating the quantity needed;
Transport	Private actors	Formal service provision contracts agreed annually with OBEPAB and farmers' organisations	<ul style="list-style-type: none"> • Contract stipulates specific conditions for handling organic cotton to avoid risk of non-compliance with the organic standard; • Cash payment
Ginning and storage	SODECO (<i>Société du Développement du Coton</i> , former SONAPRA)	Formal service provision contracts agreed annually with OBEPAB.	<ul style="list-style-type: none"> • Contract stipulates specific conditions of ginning and storing organic cotton to prevent risk of non-compliance with the organic standard; • Cash payment
Certification	Ecocert International	Formal contract agreed annually with OBEPAB	<ul style="list-style-type: none"> • External certification basing on EU standard (CEE 2092/91), and occasionally on the United States (NOP) and Japan (JAS) depending on demand from the buyer.

Source: This research

Organic farming also reconfigures gender relations within and across households by reducing the dependence of women on men in accessing and handling external inputs. As Bassett (2010: 53) notes, “women are typically excluded from conventional cotton growing because of its high costs and discrimination by extension agents and men”. Organic cotton farming improves the position of women by valuing their participation and facilitating their direct access to locally available organic inputs.

Another important element in how the introduction of organic cotton production restructured the existing social network relates to the use of cow manure for soil fertility management. Culturally, cow breeding in Benin is the traditional province of the ‘Fulani’ people (Peulhs in French), a socio-cultural group spread over all agroecological areas in Benin and neighbouring countries (Burkina-Faso, Niger, Nigeria, Togo, Mali). Some Fulani groups live in permanent settlements, but others are transhumant and move their livestock seasonally across the country and region in search of pastures. In general, the relationship between Fulani herders and farmers is tense because of the recurring conflicts that arise over the devastation of crops and plants by Fulani cattle. With the importance of cow manure in organic farming, organic farmers tried to develop good relationships with the Fulani to facilitate their access to the manure. In exchange for cow manure, organic farmers allow the Fulani herds to graze on their fallows and harvested farms and, in the event of any crop destruction, Fulani and organic farmers usually come to an amicable arrangement. The importance of cow manure opened ways for better cohabitation between organic farmers and Fulani groups.

4.5.2 Marketing networks

Benin exports about 95 per cent of its cotton for trade in the global cotton market. At the national level, a quota mechanism operates with the eight cotton companies. The AIC allocates a quota to each company based on its installed capacity and each ginner is informed where to buy his cotton and how much (Goreux and Macrae, 2003). On this basis, each company positions the cotton fibre, mainly as fixed-price forward contracts via global cotton trading companies. The major cotton-trading companies operating in Benin include (SONAPRA, personal communication): Louis Dreyfus Group International Cotton NV (based in Antwerp), Compagnie Cotonnière SA (COPACO) (Paris), Paul Reinhart AG (Winterthur), Société Cotonnière de Distribution (CDI) (Lausanne), and Dunavant Enterprises Inc. (Geneva). In general, Benin's cotton fibre, like most African cotton, ends up in Southeast Asia, Europe or Brazil. The marketing process is very different in the organic cotton chain.

In fact, since the beginning of the organic cotton initiative in Benin, trading of the fibre has been one of the major bottlenecks (van Dok, 2005). For a long time, the sector relied on the Dutch textile consortium TCW to market its organic cotton fibre. TCW formed institutional ties with the organic cotton initiative and agreed to liaise between the production and marketing sectors and to set up a cotton processing chain for the manufacture of baby clothes and hospital linen. For this purpose, the firm claimed to need between 4000 and 5000 tonnes of organic cotton. However, because COTEB, the national (Benin) company contracted for spinning and weaving services, faced a series of bureaucratic, technical and financial crises, the processing project never really got off the ground. On the marketing side of the operation, TCW bought 20 tonnes of organic cotton fibre in the year 1999/2000. Between 2001 and 2004, the total production (almost 200 tons) was stored because there was no buyer. Then, in 2005, Lindalu Afrique-Timmermans bought the entire stock for export and processing in Turkey (van Dok, 2005). In 2005, TCW collapsed and no other long-term trading agreement was established. This coincided with the withdrawal of support from SDA. Thus, networks of actors were set up at national and international levels to create synergies and facilitate the expansion of the organic cotton market. In 2005, OBEPAB linked up with the French investor BIOCOTON and several local companies to establish a joint-venture trading company, named Organic Benin. This was to facilitate processing, exporting and liaising with buyers. Successful trials took place from 2005 to 2007 involving local companies such as the spinner CBT, the weaver COTEB, and the local design and production company GIETEX. Unfortunately, because of misunderstandings and distrust between the partners, Organic Benin collapsed in 2008. To deal with marketing issues OBEPAB now relies largely on transnational networks of NGOs, and these play an important brokering role in the transnational organic cotton network. Mato (1995) proposes that links between local and global dynamics should be defined in terms of what he calls 'complexes of transnational brokering', emphasizing the role of outside forces on the actors in organic networks. Transnational brokers are those whose interactions with other relevant actors fuel or carry the connections between global and local-level dynamics in the context of the global economy. Thus, they act to stimulate interactive, complementary and coupling effects with actors at lower as well as higher levels along the network (Coe et al., 2008). The concept is of great importance in helping one to appreciate better the role of transnational networks and NGOs in

the development and maintenance of the organic cotton-marketing network from Benin. The transnational actors playing a significant role in the organic cotton-marketing network in Benin include Agro Eco, PAN (UK, Germany, Asia, International), Solidaridad and Organic Exchange. Through their aim to strengthen the international organic movement and discourse, these transnational networks and NGOs are “bound together by shared values, a common discourse, and dense exchanges of information and services” (Keck and Sikkink, 1998: 2; see also Mol, 2006). They are the main catalyst for marketing opportunities for organic cotton fibre at the international level. Over time, these transnational NGOs trigger a cumulative process through which international conferences and events (like the Biofach annual sessions and the Organic Exchange global and regional meetings) serve as important locations in which to enact linkages between organic cotton promoters and businesses and to renew the overall ‘organic covenant’. International organic events are instrumental in (re)building trust among organic product suppliers, retailers and consumers. The following statement from a retailer attending the 2008 Organic Exchange Global Meeting in Porto (Portugal) is quite expressive:

“I’m really enthusiastic to attend such a meeting. It brought me into the actual organic world. Dealing with products coming from thousands of miles far away, even certified; when you have an opportunity like this one to meet and interact with those ‘hands’ behind those products, you discover the actual meaning of things. You are more trustful”.

(Personal communication, 14 October 2008)

Every year, the above-mentioned transnational NGO networks support OBEPAB and representatives from farmers’ organizations to attend international events in the organic cotton sector. These transnational networks either arrange or otherwise facilitate almost all the market opportunities for organic cotton fibre. These NGO networks successfully broker Benin producers with international organic buyers and are trusted. Thus, they act as intermediaries, a kind of trust carrier, between OBEPAB/organic farmers in Benin and buyers in the organic cotton market globally. Because of the intermediation of these transnational NGO networks, OBEPAB is currently engaging commercial partnerships with Both ENDS and PK textiles for the trading of the organic cotton fibre. These transnational NGO networks are more crucial to the construction, maintenance and transformation of the transnational organic cotton network from Benin than one might expect. Hence, they are crucial governing actors in the organic cotton commodity chain. Table 4.3 summarizes some of the specific interventions these transnational networks and NGOs have undertaken in the organic cotton sector in Benin.

Table 4.3 Specific interventions by transnational networks and NGOs in the organic cotton chain from Benin

Transnational actors	Specific interventions
Agro Eco	<ul style="list-style-type: none"> ▪ Raises awareness of sustainability in textiles & clothing in the textile industry and among traders and the general public in the Netherlands ▪ Set up a Dutch Organic Textile Platform, along with Goede Waar & Co. ('Good Stuff & Co.!' formerly the Alternative Consumers' Union AKB) and the Foundation Nature & Environment (SNM) ▪ Act as agent for cotton marketing ▪ Manages technological development in pest and soil fertility ▪ Elaboration of communication support (posters)
PAN (UK, Germany, international)	<ul style="list-style-type: none"> ▪ Raises awareness about pesticides and their related risks ▪ Makes posters ▪ Co-edits books and papers ▪ Organizes financial support for documentation on incidents and fatalities associated with pesticides ▪ Finances attendance at international events ▪ Organizes subsidies
Solidaridad	<ul style="list-style-type: none"> ▪ Financial supports capacity building in farmers' organisations ▪ Intermediary for cotton marketing; ▪ Financial support to attend international events
Textile Exchange (formerly Organic Exchange)	<ul style="list-style-type: none"> ▪ Financial support to farmers' organisations capacity building; ▪ Organizes cotton marketing; ▪ Finances attendance at international events ▪ Supplies posters
Helvetas	<ul style="list-style-type: none"> ▪ Co-promotes a new organic cotton project ('Projet Alafia') in the bordering areas of Pendjari biosphere reserve (northwest Benin) ▪ Supports capacity building in farmers' organizations ▪ Supports internal control system (ICS) setting and certification ▪ Acts as agent in cotton marketing ▪ Shares information
GIZ (formerly GTZ)	<ul style="list-style-type: none"> ▪ Co-promotes the new organic cotton project, 'Projet Alafia' ▪ Co-edits technical and economic references on organic cotton
IFOAM	<ul style="list-style-type: none"> ▪ Shares information ▪ Edits books and papers

Source: This research

4.6 Conclusion

Initiated by intergovernmental sustainable development cooperation, a transnational organic cotton network evolved into a hybrid structure, combining private economic actors and domestic and international NGOs. To understand the emergence, coordination and governance of this Benin-based transnational organic cotton network, we proposed widening the concept of GVCs beyond economics to include national and transnational governmental agencies and NGO networks; we also stressed the importance of environmental rationalities. National and international NGO networks opened up spaces for value sharing and information exchange and played a brokering role in linking local producers to the global organic cotton market in Europe and vice versa. International conferences and events provided important occasions for establishing linkages between organic cotton promoters and businesses, and they strengthened the organic movement. Trust was a critical factor in recruiting farmers and ensuring their continued participation in the organic cotton production system and in securing the organic profile for European customers. Farmers' organizations as well as national and

international environmental NGOs are instrumental in mediating and (re)building social networks among organic farmers and with the other actors in the supply chain. Political and economic rationalities are insufficient to understand and explain the dynamics of transnational organic cotton networks, as are the analytical frameworks that rely solely on them. This substantiates Murdoch's (2000) argument in favor of including external (trans)national NGOs in GVC analysis. In the transnational organic cotton commodity network, it is a mistake to regard noneconomic actors and rationalities as external elements, for they form an integral part of the value chain and structure and govern the commodity network. Organic commodity or value chains are not only about economics, as the dominant GVC perspectives seem to suggest; they are also about environmental politics and hence actors and interests other than economic ones are able to claim space in organizing and governing the value chain. This is not to say that the emphasis on the economic factor in the GVC approaches that World System theorists like Friedmann, Gereffi et al., Gibbon and Ponte, and others developed is wrong. In the majority of the value chains, it might well still stand firmly, but in the case of organic cotton from Benin, one can no longer consider non-economic actors and interests as external to the value chain. They are integral to value chain governance. Hence, following empirical research on organics (see also Reynolds, 2004), conventional GVC theory should make conceptual space for a broader notion of governance, much as Gereffi et al. (2005) did earlier.

We can put forward three potential explanations for why conventional commodity chain approaches cannot adequately address our Benin-based organic cotton chain, though each has different consequences for adapting the GVC approach. First, with the emerging centrality of sustainability since 1992 other, non-economic, considerations are becoming increasingly relevant in structuring commodity chains. Non-economic actors, in both civil society and government, play hugely important roles in articulating these non-economic rationalities, which can be ecological, social or ethical. If this is the case, the consequences are not directly evident. One reading could be that, as sustainability becomes more and more relevant, the conventional (political economy) commodity chain approach will lose its value for many agro-food chain analyses. At the same time, scholars working on ecological modernization have shown that, in organizing commodity chains and networks, economic actors can and often do incorporate wider sets of criteria (see Mol et al., 2009).

Second, and partly following this ecological modernization argument, it could be that the rather young character of the organic cotton chain, as well as the centrality of sustainability claims, means that non-economic interests and criteria have not yet been integrated into the economic heart of the commodity network. One can anticipate that a further institutionalization of organic cotton production, and an interest in sustainability extending to the mainstream economy, may render conventional commodity chain analyses more valuable in the future than they are at the moment. Within, say, ten years, the role of economic actors in the organization and governance of transnational organic commodity chains will again be dominant (though not exclusive).

The third explanation would argue that the nature of organic production and marketing is fundamentally different from conventional agro-food production and marketing. Hence, this specificity causes different network structures in which noneconomic actors dominate the

coordination and governance of the chain. If that is indeed the case, non-economic commodity network coordination is here to stay in transnational organic chains.

This opens up a new research agenda on transnational organic commodity networks. Global organic supply chains clearly display the importance of environmental dimensions, complementing economic and social ones. The values of the organic movement motivate many actors to take great efforts in making this initiative successful, beyond what short-term private interest would dictate. By comparing different organic product chains with one another and by comparing these with more modest environmentally friendly or fair trade product chains, we could unravel which of the three explanations given above holds.

CHAPTER 5

GOVERNING THE ORGANIC COCOA NETWORK FROM GHANA: TOWARDS HYBRID GOVERNANCE ARRANGEMENTS?*

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Abstract

In this paper we examine the processes of initiation, construction and transformation of the organic cocoa network from Ghana. We address in particular how the state responded to and engaged with civil society actors in the organic cocoa network and to what extent state involvement reshaped state-business-civil society relations? While most of the literature argues that globalization and liberalization processes weakened the state's position as key player in the development and management of agro-food networks, the case of the (organic) cocoa sector in Ghana is often depicted as an exception because of the strong position the state still occupies in it. Employing a global commodity network perspective to analyze the Ghanaian organic cocoa case, this paper demonstrates that although the state is still a major player in the contemporary (organic) cocoa network some hybrid governance arrangements, involving state, transnational and national NGO-networks, and businesses, are emerging. The organic cocoa network also prompted a double process of 'dis- and re-embedding' at the local level that helped shape and strengthen the organic cocoa network.

Key words: Organic cocoa, global commodity network, governance, state, trust, Ghana.

5.1 Introduction

Many contemporary environmental problems are rooted in agro-food provisioning systems. These systems are held at least partially responsible and accountable for reductions in biodiversity, destruction of eco-systems, surface and ground water pollution and global warming (Oosterveer et al., 2011). Hence, greening agro-food production, processing, and marketing can be a major contribution to sustainability. The emergence of post-Fordist production regimes that put quality issues – including environmental concerns – at the heart of agro-food provisioning systems should be interpreted in this line.

In the cocoa sector, improving sustainability performance is emerging as a strategy within global commodity chains and networks (Ton et al., 2008; Bitzer et al., 2012). A number of initiatives by both public and private actors are being introduced at different levels to make the global cocoa network more sustainable. A major driver of this trend is the rising consumer demand for more environmentally friendly and socially fair products. For instance, according to Euromonitor International, sales of organic chocolate reached US\$ 304 million in 2005, an increase of 75 percent in comparison to three years earlier (ICCO, 2007: 28). West Africa deserves particular attention because it is the globally leading production region, providing more than seventy per cent of all cocoa, and also the location of several fair-trade and organic initiatives. In Ghana, which is the second cocoa producing country, organic cocoa farming started in 1997 and from 2005 onwards Ghana's organic cocoa is certified and exported to the global market. Currently, more than five thousand smallholder farmers are involved in the organic cocoa network, besides other stakeholders at sub-, national and supra-national levels such as farmers' organizations, licensed buying companies, NGOs, several public organizations and institutions, and importers.

This study examines how this Ghana-based organic cocoa network has been initiated, constructed, and transformed over time, and addresses in particular how the state responded to and engaged with organic cocoa and to what extent state involvement reshaped state-business-civil society relations. Many authors argue that not only globalization and liberalization processes but also the rise of organic/alternative agro-food markets weakened the state's position as key player in the development, organization, and management of food production, processing, and marketing (e.g. Joosten and Eaton, 2006). It is argued that in alternative agro-food networks (such as organic, fair trade, slow food) civil society organizations (mainly NGOs) take over the state's central role, and become the main institution in governing (alternative) agro food commodities (e.g. Busch and Bain, 2004). However, the Ghana (organic) cocoa sector is always presented as an exceptional case. In fact, unlike the full liberalization of cocoa marketing systems in other countries, the Ghanaian government opted for gradual and partial reforms in the cocoa sector (Fold, 2002; Laven, 2011). Thus, most studies portray the (organic) cocoa network from Ghana as still mainly state-led. This research is challenging this view by analyzing the actual state-civil society dynamics as they occur in the Ghanaian cocoa sector.

This paper builds on the results from empirical research in Ghana. We adopted a qualitative and holistic research strategy through a two-stage inquiry. First, we undertook a preliminary inquiry to review the historic background and the overall institutional arrangements of both

the conventional and the organic cocoa networks and the linkages between the two. In this regard, we carried out 16 semi-structured interviews with officers of key agencies in the Ghana cocoa economy including the Ghana Cocoa Board (COCOBOD), the Ghana Cocoa Research Institute (CRIG), and the extension division of the Ministry of Food and Agriculture (MoFA); leaders, field agents, and internal control officers of organic cocoa promoting agencies and organizations, namely Agro Eco LB, Yayra Glover (ltd) and the Cocoa Organic Farmer Association (COFA); coordinators of cocoa related programs and companies including Cadbury Public-Private Partnership, World Cocoa Foundation, Sustainable Tree Crops Program (STCP), and the West Africa Fair Fruit Company (WAFF). These three categories of stakeholders were selected on the basis of their position in and knowledge of the Ghana cocoa economy as well as their potential interest or involvement in the organic cocoa network. The preliminary inquiry was instrumental in highlighting the institutional, social and economic conditions and factors that determined the trajectories of both the conventional and organic cocoa networks and how each deals with controversial issues, particularly with sustainability and child labor, which became of prime importance in the global cocoa markets. Secondly, we undertook an in-depth inquiry into the motivating factors, social dynamics and governing arrangements within the organic cocoa network from the production node to export with a special focus on the roles and the evolving relationships between state and non-state actors in those processes. Hereby we conducted six group interviews and 30 individual interviews with organic cocoa farmers within six organic cocoa communities (Bontomuruso, Ntroboso, Akwedun, Ateibu, Kro-Mameng, and Aponoapo) spread over the three major regions of organic cocoa farming in Ghana: Ashanti, Eastern, and Central (see also Figure 5.4). On the upper level of the organic cocoa network we interviewed two purchasing agents from the Produce Buying Company (PBC) and five officers from the Quality Control Division (QCD) and the Cocoa Marketing Company (CMC). With the latter categories we stressed specifically the buying, handling, processing and export of the organic cocoa beans. Of particular importance were issues of traceability of the organic cocoa, trust building mechanisms with organic farmers (downstream) and buyers (upstream), and price setting arrangements (including the organic premium).

This paper is organized as follows. In the next section the commodity network framework is introduced with a focus on the role of the state in its governance. Subsequently, the recent development of the Ghana cocoa sector is described in order to understand the building of the conventional global cocoa network. The major part of the paper analyzes the rise, development and institutionalization of the organic cocoa sector in Ghana, with special reference to how this alternative commodity network is governed. We conclude with a discussion on the role and relevance of the state in contemporary organic/alternative agro-food supply networks when compared with the conventional global cocoa network.

5.2 Conceptualizing governance in the organic cocoa network

Cocoa is an exemplary global commodity as it is produced in Africa and in Latin America, mostly processed in Europe and the United States and subsequently consumed all over the world. There is a recent move of transnational grinders into West Africa (Cote d'Ivoire and Ghana) aiming at increasing the local cocoa-grinding capacities. But still, only 18 per cent of cocoa beans are processed in Africa compared to Europe which processes 41 per cent (World Cocoa Foundation, 2010).

The global commodity chain perspective is often applied to grasp the dominant organizational structure governing modern day capitalism, by shifting the focus of attention from the state as a powerful driver of economic change, towards the increasing power of multinationals and businesses (see Gereffi and Korzeniewicz, 1994; Gereffi et al., 1995). In spite of its power to explain these economic transformations, characteristic for the contemporary era of globalization, this perspective has also been criticized in many respects. With its roots in world systems theory, the commodity chain perspective portrays a structuralist and linear connection between commodity production in the 'peripheral' regions of the world-economy and processing, retail and consumption in the 'core' (Hughes and Reimer, 2004). Busch and Juska (1997) criticize this structuralist perspective arguing that it "obscures the interactions among a wide variety of political, economic, social, and cultural, technological and natural phenomena that extend across localities, regions and nations that together define globalization" (p. 689). Moreover, this (global) commodity chain perspective seems to concentrate on inter-firm links with less consideration of non-market actors' roles and rationalities while political conditions are treated as contextual. Recent conceptualizations of global commodity chains (e.g. the global value chain) reflexively try to adapt to some of these criticisms by incorporating agency in their account for global processes. But, still the structuralist, linear and economic orientation seems dominant. Overall, the commodity chain approach falls short when trying to capture the roles of non-market actors, particularly state and civil society actors in the development of commodities such as (organic) cocoa in Ghana.

Interestingly, the burgeoning literature on commodity network helps to address these shortcomings. In fact, the commodity network perspective "recognizes that relations between producers, distributors and consumers are the product of complex flows between hosts of interconnected actors that have become enrolled in the network" (Hughes and Reimer, 2004: 5). Governance according to this network perspective refers to how individual and collective social actors ideologically and materially construct, maintain, and transform commodity networks throughout the life-cycle of a commodity from production via processing and trade to retail (Raynolds, 2004). We will therefore use a global commodity network perspective to analyze the formation of the Ghanaian cocoa network and to determine the evolving role of the state and other governance actors, particularly the involvement of transnational and national networks in the actual functioning of this global commodity network. Many authors argue that in the current era of globalization and liberalizing markets, the development, organization, and management of commodity production, processing, and marketing are primarily the responsibility of the private sector and the civil society (Joosten and Eaton, 2006). The state's role shifted from key player in commodity development to external agent,

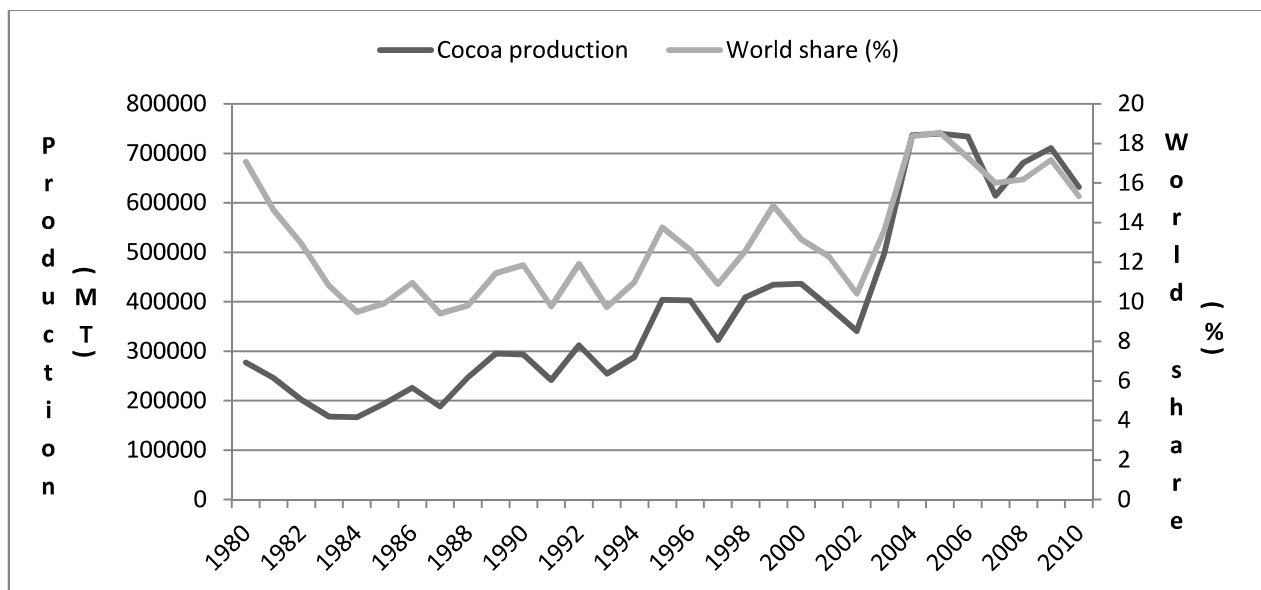
co-setting the conditions for production and trade and not actively intervening. According to Gale and Howard (2011) and Mol (2008), with the state increasingly ineffective in regulating global production networks, business and civil society actors have sought to create alternative governance institutions. However, the Ghanaian cocoa case is well-known as an exception. While at the upper levels in the cocoa networks, a growing concentration and integration amongst manufacturers and processors can be noted next to a sharp decline in the number of specialized traders, the local part of the global cocoa network in Ghana resists to the imperatives for full liberalization. In fact, the liberalization of the cocoa sector in West Africa created effects such as the degradation of cocoa quality and increasing risks for banks and international traders (ICCO, 2007: 22), undermining the competitiveness of the whole cocoa network. In reaction to these negative experiences with full liberalization in the region, the Ghanaian government opted for gradual and partial marketing reforms (Laven, 2011). As a result, the Ghanaian cocoa sector remains largely governed by the state. The question, therefore, is how the state reacted to the emerging sets of process standards in the North requiring certainty of ethically acceptable working conditions and food safety (Hughes, 2001). Particularly concerning organic cocoa, we may expect another mode of governance arrangements through the active involvement of other social actors and different roles of familiar economic and political actors, including a more active role of transnational and national networks. Glin et al. (2012) posit that because of concerns about quality and environmental issues, governance in organic commodity networks may challenge the dominant position of powerful economic actors by revaluing or diverting sources of power from the economic realm towards the environment where agency of transnational and national NGOs and networks is of prime importance. Other authors, however, argue that nowadays social and environmental quality attributes become internalized within strategies of corporate competition (Raynolds and Wilkinson, 2007) giving rise to hybrid governing arrangements blurring the distinction between state, market, and civil society actors (Spaargaren et al., 2006). In this study we therefore compare the organization of the conventional cocoa network with the alternative organization of the organic cocoa network, with particular attention to the participation of the state and civil society actors. We hypothesize that the introduction and subsequent governance of the organic cocoa network opens up the way for hybridization of the governing structure of the cocoa sector in Ghana, because concerns about environmental impacts and social fairness demand the intervention of civil society actors next to the state and economic actors.

How and through which governance arrangements the state and civil society actors participate in the processes of creation, construction, and institutionalization of the organic cocoa network is an important question. To adequately answer this question, we first elaborate on the recent developments in the conventional cocoa sector to provide the historical and contextual background of the rise of the organic cocoa network. Next we make a grounded comparison between the two, particularly with regard to the role of the state and civil society actors.

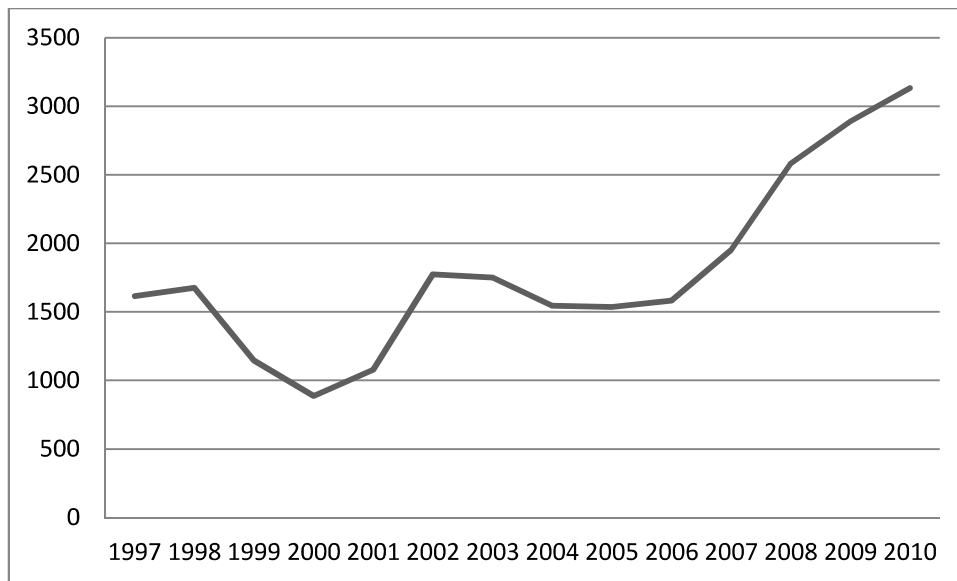
5.3 Background of the Ghana cocoa industry

Ghana is the second largest cocoa producer worldwide, although its national production and relative share of the global cocoa production varies over the last years (see Figure 5.1). Over 90 per cent of its cocoa beans are exported and around 20 per cent of global cocoa trade originates from Ghana over the period 2005-2009 (ICCO, 2010). Despite efforts to diversify, the Ghanaian economy has been vitally dependent on the export of cocoa over the last century (Milburn, 1970). In fact, cocoa is the backbone of Ghana's economy and the most important source of income and foreign exchange for the country. In the first decade of this millennium cocoa contributed to around 10 per cent of Ghana's GDP and to 25-30 per cent of Ghana's export earnings (ICCO, 2010). Around 6.3 million Ghanaians, representing almost a third of the population, depend on cocoa for their livelihoods (Laven, 2010). About 720,000 farmers are engaged in cocoa cultivation in Ghana spread over seven 'cocoa regions': Eastern, Ashanti, Brong-Ahafo, Central, Volta, Western North and Western South (Barrientos et al., 2008). Despite the importance of cocoa in Ghana's economy, several challenges need to be addressed to secure the future of the sector. These challenges include the high price volatility on the global market (see Figure 5.2); accusations of using child labor; low productivity (around 400 kg/ha); and the present extensive farming practices (thereby increasing the areas under cultivation at the expense of biodiversity). This all puts the sustainability of the sector at risk and calls for alternatives.

Figure 5.1 Cocoa production in Ghana (in MT and as share of world production)



Source: FAO stat

Figure 5.2 Cocoa world price trend from 1997 to 2010 (\$ US/ton)

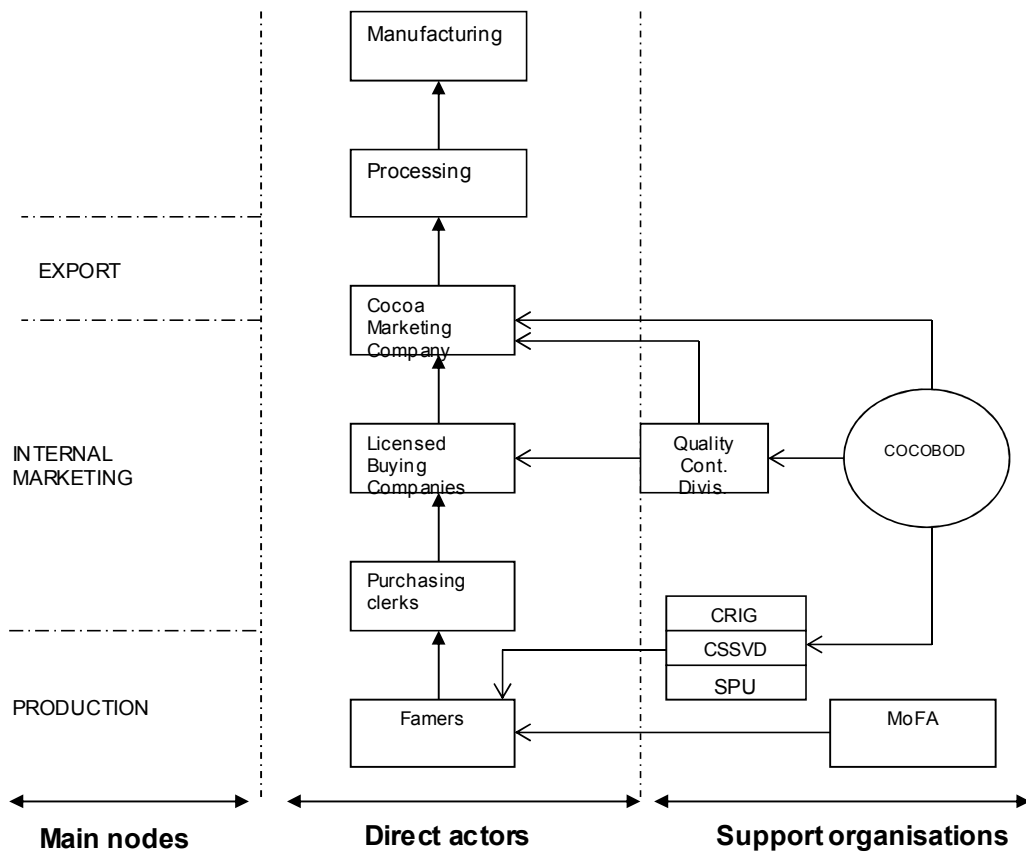
Source: ICCO and FAO

Laven (2010) and Ton et al. (2008), distinguished three periods in the development of the cocoa sector in Ghana: the pre-colonial and colonial period (1890s-1940s); the period of independence (1950s) up to the 1980s; and the period of restructuring from 1990 onwards. For the purpose of this paper, we build on their analysis of the recent dynamics in the cocoa industry since 1990 as a basis for understanding innovative governance arrangements within the organic cocoa network.

In the early 90's, with agreement of the Ghana government, the World Bank engaged in a privatization process of the cocoa industry. But, unlike the situation in the other cocoa producing countries in West Africa, Ghana resisted a full privatization of the cocoa sector and opted for a gradual and limited reform (Ton et al., 2008). This reform included the liberalization of domestic cocoa purchasing, the privatization of input distribution, a reform of the extension services, a reorganization of processing activities and a drastic reduction in the Ghana Cocoa Board (COCOBOD)'s staff (Laven, 2010). Starting in 1992, the liberalization of the internal marketing system was almost complete in 2011, with about 25 private Licensed Buying Companies competing at the farm gate to buy the cocoa from the farmers (Gilbert and Varangis, 2004), next to the state-owned Produce Buying Company (PBC), which remained the largest buyer by far. The rationale of this reform was that private sector participation and competition in this sector could reduce marketing costs and margins, increase the share of the fob-price farmers receive and increase transparency (Gilbert and Varangis, 2004). Beyond the reform of the marketing system, COCOBOD also underwent an institutional reform. Its extension division, the Cocoa Service Division (CSD), merged with the Ministry of Agriculture (MoFA). As a result, its monopoly of inputs provision and distribution ended and this responsibility was taken over in 1995 by the Ghana Cocoa, Coffee and Sheanut Farmers Association (GCCSFA) (Ton et al., 2008). Figure 5.3 portrays the currently existing conventional cocoa network in Ghana.

Parallel to this reform process, international market dynamics, such as the increasing consumer demand for product quality and differentiation, favored the involvement of private stakeholders and NGOs and the opening up of alternative marketing channels, such as Fairtrade, organic, Rainforest Alliance and UTZ Certified cocoa. Several programs and partnerships addressing the sustainability (technical, social, and economic) of the overall cocoa sector are underway and foster both cooperation and competition among the various standards and schemes (Bitzer et al., 2012; Laven and Boomsma, 2012). Table 5.1 portrays the major programs and partnerships addressing sustainability in the cocoa sector in Ghana. One important transversal issue is the eradication of child labor. In fact globally, the members of cocoa industry and government officials were compelled to sign the so-called Harkin-Engel Protocol and commit themselves to eradicating the worst forms of child labor in compliance with International Labor Organization (ILO) conventions (Bitzer et al., 2012: 357). All this contributes to some extent to building an environment conducive for alignment and collaboration between different stakeholders in the cocoa economy.

Figure 5.3 Schematic overview of the conventional cocoa network in Ghana



→ : Support (Institutional, technical and organizational)

→ : Cocoa beans flow

<p>Key: COCOBO- Ghana Cocoa Board CRIG- Ghana Cocoa Research Institute CSSCV- Cocoa Swollen shoot and Virus Division MoFA- Ministry of Agriculture and Food SPU- Seedling Production Unit</p>
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Source: Own elaboration

Table 5.1 Major programs and partnerships addressing sustainability in the cocoa sector in Ghana

Programs and partnerships	Stakeholders involved	Specific areas of intervention
ILO Cocoa communities Program	International Cocoa Initiative (ICI) and International Labor Organization (ILO)	<ul style="list-style-type: none"> - Public certification on labor conditions - Information provision to partners on best practices on child labor
Sustainable Tree Crops Program (STCP)	International Institute of Tropical Agriculture (IITA), USAID, World Cocoa Foundation, the Ministry of Finance and Economic Planning, and Cocobod	<ul style="list-style-type: none"> - Farmer training : Farmer Field School, IPM - Sharing of practice and research related information - Support replanting of hybrid cocoa varieties in former cocoa growing areas - Address the environmental and social impacts of cocoa production - Facilitation of partnerships between researchers, local communities, donors, and companies
World Cocoa Foundation (WCF)	The World Cocoa Foundation is a leader in promoting economic and social development and environmental stewardship in 15 cocoa-producing countries around the world. With nearly 70 member companies from the Americas, Europe, Asia and Africa.	<ul style="list-style-type: none"> - Overall interventions include : cocoa sustainability, support to cocoa communities, education, field programs and scientific research - Specific interventions include: <ul style="list-style-type: none"> o Reinforcement of partnerships capacities and linkages in the cocoa sector o Provision of a forum for stakeholders (industry, civil society and government) to meet and cooperate o Facilitating the incorporation of sustainability considerations into the mainstream market o Information release to the public and consumers
Cocoa Livelihoods Program	World Cocoa Foundation in collaboration with a consortium of five organizations including Agribusiness Services International (ASI) an ACDI/VOCA affiliate, GTZ, GmbH, the International Institute of Tropical Agriculture (IITA)/Sustainable Tree Crops Program (STCP), SOCODEVI and TechnoServe	<ul style="list-style-type: none"> - Farmer training - Improving production and quality at the farm level - Equipping farmers with business skills - Promoting diversification of income, and - Improving access to inputs and support services.
Cadbury Cocoa Partnership	A public-private partnership involving Cadbury, UNDP Ghana, Cocobod, two ministries (Ministry of Finance and Planning and the Ministry of Employment and Social Welfare) and three international NGOs (World Vision International, Care International, and Voluntary Service Overseas).	<ul style="list-style-type: none"> - Sustainable livelihoods (from cocoa and other means) <ul style="list-style-type: none"> o Increasing productivity, quality and the rehabilitation of farms o Strengthening farmer' organizations o Youth engagement in cocoa production o Increasing household incomes from alternative livelihoods o Increasing household food security - Community-centered development (basic social infrastructure, education, health care, water)

Programs and partnerships	Stakeholders involved	Specific areas of intervention
		- Institutional engagement
Roundtable for a Sustainable Cocoa Economy	The Round Table brings together representatives from cocoa farmers, cooperatives, traders, exporters, processors, chocolate manufacturers, wholesalers, retailers, governmental and non-governmental organizations, financial institutions, as well as donor agencies.	- Sustainability standards - Promotion of best practices in the cocoa value chain - Addressing social issues in the cocoa sector
Empowering Cocoa Households with Opportunities and Education Solutions (ECHOES)	Implemented by Winrock with the sponsoring of USAID	- Education policy strengthening that mobilizes government ministries - Focus on the next generation of cocoa farmers - Development of school gardens and demonstration cocoa plots - Applied learning training for out-of-school youth - Enhancing community participation
Mars Partnership for African Cocoa Communities of Tomorrow (iMPACT)	International Cocoa Initiative (Participatory Development Associates), AFRICARE, GIZ, IFESH, Rainforest Alliance and STCP	- Promotion of an integrated approach that includes agriculture, environment, education, and health aiming at improving incomes and welfare of cocoa communities through: <ul style="list-style-type: none"> o Capacity building of cocoa farming communities o Reduction of worst form of child labor o Environment preservation o Awareness raising on health issues (HIV, Malaria) o Promotion of better agricultural practices
Millenium Villages Program	Japanese grant through the UNDP	- Targeting a whole package of improvements in health care, education, infrastructure and agriculture productivity to improve livelihoods of cocoa farmers
Rainforest Alliance Ghana	Agro-Eco Louis Bolk, Rainforest Alliance	- Building knowledge and understanding on the Rainforest Alliance standard for sustainable agriculture - Developing local indicators for sustainable cocoa and other crops
Kuapa Kokoo cooperative	Kuapa Kokoo Association, TWIN grant support, Comic Relief	- Promotion of fairer trading practices - Trainings in quality control, record keeping and farmer society book keeping, gender issues
Cocoa Abrabopa Association	Cocoa Abrabopa Association, IFDC, Technoserve, CRIG	- Promotion of a business approach: basic business training to farmers - Training on protection of natural resources, management of health/sanitation
Armajaro -Sourcing traceable cocoa	Armajaro , Cocobod, Lindt, Cadbury, and Japanese chocolate industry	- Investment in software systems and training to provide traceability
Utz Certified certification of sustainable cocoa in Ghana	West Africa Fair Fruit Company, Solidaridad	- Development of Utz Certified Code of Conduct - Implementation of a series of pilot projects to test Utz Certification in Ghana

Programs and partnerships	Stakeholders involved	Specific areas of intervention
Tradin Cocoa WA (organic cocoa production)	Tradin, Agro Eco Louis Bolk, CRIG, and Cocobod	<ul style="list-style-type: none"> - Expansion of organic cocoa production in Ghana - Training on organic agriculture - Farmer mobilization - Certification activities
Yayra Glover organic cocoa program	Yayra Glover Ltd, Pakka Trade Ltd, and Cocobod	<ul style="list-style-type: none"> - Promotion of organic and sustainable cocoa production in Ghana - Trading of organic and sustainable cocoa beans - Training on organic and sustainable cocoa farming

Source: Fieldwork 2009-2010, WAFF 2008, Bitzer et al. 2012

5.4 Rise and development of the organic cocoa network in Ghana

We identify three phases in the initiation and construction of the organic cocoa network in Ghana: the mobilization of a seed network around organic cocoa, the renegotiation and lengthening of the cocoa network, and the further orientation toward a more commercial operation.

5.4.1 Mobilizing a ‘seed’ network around organic cocoa

Organic cocoa production in Ghana originated some twenty years ago, when cocoa farmers at Brong-Densuso, near Akwedum, a village in Suhum district (Eastern region) of Ghana, stopped spraying their cocoa fields with chemical pesticides, despite the government’s mass spraying program. The main reason for abandoning spraying related to health concerns as chemical pesticides are known for their negative effects for both human and animal health. The idea of organic cocoa farming was brought to Ghana by one of the cocoa farmers who travelled and returned from overseas. Having heard about formal organic cocoa farming with the possibility of premium prices, Brong-Densuso cocoa farmers sought to engage in organic production and set up the Traditional Organic Farmers Association (TOFA). In 1997, the TOFA linked up with Organic Commodity Products (OCP), an American organic marketing company willing to develop its business in the organic cocoa sector in Ghana. In the absence of a well-organized entity supporting organic farming, OCP had to enroll and mobilize itself relevant stakeholders, resources, knowledge, and above all negotiate political support for such a network in a situation where cocoa was still largely controlled by the state. Technically, to grow organic cocoa one must have shade, crop diversity and not use synthetic fertilisers and agrochemicals (Agro Eco 2008). CRIG (Cocoa Research Institute of Ghana), a subsidiary of COCOBOD, had the research infrastructure and knowledge about alternative methods that could be used in organic cocoa farming (AgroEco, 2008). Organic cocoa farms were seen as test plots for non-chemical techniques that might later benefit the entire industry (AgroEco, 2008). Beyond this, CRIG benefitted from the political legitimacy of COCOBOD to take action in the cocoa sector. Thus, OCP established contacts with TOFA and agreed with COCOBOD, through CRIG, to fund CRIG’s research on alternative technologies regarding

soil fertility and pest management. In 1999, CRIG, TOFA and OCP started a collaborative research project to determine the effectiveness of neem in controlling capsids, to improve soil fertility in organic cocoa production, and to eventually buy organic cocoa beans at a premium price from farmers once organic certification would be achieved (Ayenor, 2006; AgroEco, 2008). OCP also paid for the costs involved in organic certification. CRIG was given the responsibility, on behalf of the COCOBOD, to verify that organic cocoa farming was done properly and sustainably. CRIG also demarcated the area as chemical-free. In 2001, organic certification was achieved. Unfortunately, OCP collapsed in 2002, due to institutional and financial complications. Indeed, the institutional agreement between OCP and COCOBOD suffered from misunderstandings and resulted in distrust between the partners. While OCP claimed it funded research on organic cocoa in four regions within four years with the idea to be allowed to purchase the organic cocoa from all areas, COCOBOD argued that the agreement gave OCP only the exclusive right to purchase organic cocoa from Brong-Densuso once the cocoa has been certified (Ayenor, 2006).

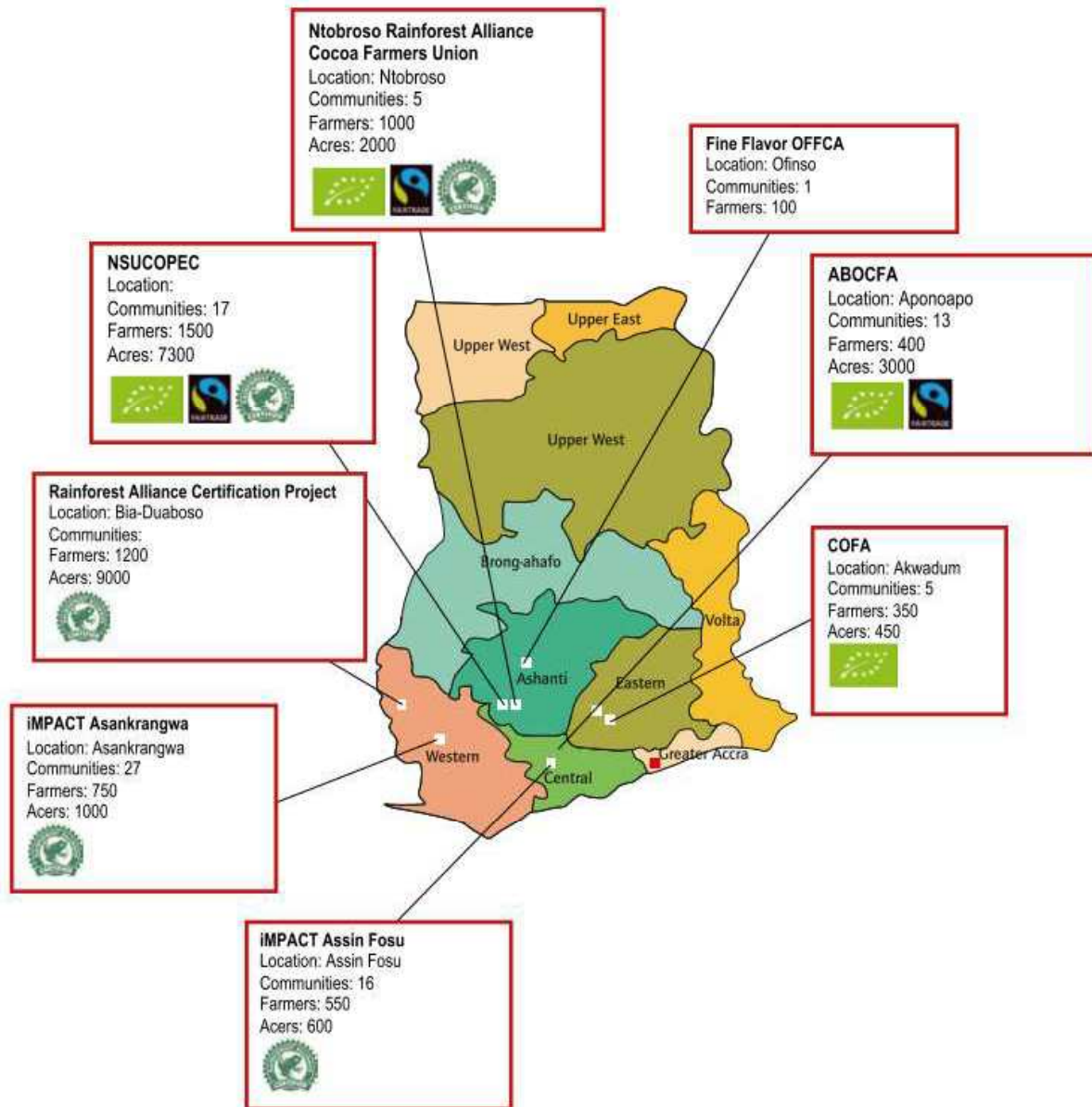
The organic cocoa initiative emerged through a bottom up process from farmers. But, for this initiative to prosper a facilitator, a network lengthening agent, was needed to facilitate the mobilization of a larger web of relevant actors and connections in order to develop and sustain organic cocoa production and export. OCP was in a delicate position, as it was a business operator, but also wanted to play the role of a trustful network mediator. The business orientation of OCP, in the context of ‘resistance’ to privatization of the entire cocoa sector, seems to have worked against its success. For a private “incursion” in the cocoa sector to be successful, a profit-free and long-term orientation was needed to develop working experience and build trust over time. OCP did not manage to do that and was therefore marginalized in the organic cocoa network.

5.4.2 Renegotiating and lengthening the organic cocoa network

In 2004-2005, Agro Eco, a Dutch advisory agency in organic and fair trade agriculture, entered the organic cocoa network in Ghana. Agro Eco had been working in West Africa since the 1990s, providing organic farmers access to niche markets with premium prices. Agro Eco was particularly interested in supporting the development of organic cocoa in Ghana and contacted CRIG, which introduced Agro Eco in Brong-Densuso. Agro Eco directed its interventions on strengthening the capacity of farmers and their organizations and on setting up an internal control system for compliance with organic standards. As a result, the farmers’ organization TOFA evolved and became the Cocoa Organic Farmers Association (COFA) in 2004. Agro Eco also provided these farmers with training in organic farming practices and helped COFA in fundraising. The objective was to empower COFA so that it could gradually take over the management and coordination of the organic cocoa business. In this, Agro Eco collaborated closely with CRIG and involved other major actors, namely the Produce Buying Company (PBC), the Quality Control Division (QCD), the Ministry of Agriculture (MoFA), the Department of Cooperatives, the Ministry of Manpower, Development and Employment, and the (Dutch) Rabobank Foundation. The collaboration with CRIG targeted pests and disease control techniques and the provision of organic inputs. The collaboration with QCD and PBC facilitated addressing the issue of quality management

and the need for separating organic cocoa from conventional cocoa all along the supply network, up to the harbor. PBC designated a special warehouse for organic cocoa beans. MoFA recruited two field agents to provide technical support to farmers and monitor the internal control system. Those field agents and COFA staff benefited from technical and organizational trainings from the Department of Cooperatives. The Rabobank Foundation financially supported the COFA organic cocoa project for a three year period (2006-2009). Due to Agro Eco's support and mediation, COFA received the first organic certification in 2005 from Control Union Certifications. Agro Eco also helped liaising the producers with international traders, especially with Tradin B.V, a Dutch company. Agro Eco "organized the sale, price negotiation and the premium distribution of the first containers of organic cocoa" (Adimado et al., 2007: 6). In all, Agro Eco succeeded in establishing and fuelling a dynamic network around organic cocoa by mobilizing relevant partners, both in the public and the private sector, up to the point that "Agro Eco has been designated by COCOBOD as the facilitator and contact organization for any initiatives in the field of organic cocoa in Ghana" (Adimado et al., 2007: 6). Agro Eco's role as a facilitator, but not a 'business', played an important role in mobilizing actors and constructing trust among stakeholders. Meanwhile, Agro Eco initiated another organic cocoa project covering two new areas: Aponoapo in western Suhum-Eastern Region, and Ntobroso in western Kumasi-Ashanti Region. Currently, Agro Eco is engaged in several other cocoa projects including Rainforest Alliance and FairTrade. See Figure 5.4.

Figure 5.4 Locations of Agro Eco-led Organic, Rainforest and FairTrade cocoa Projects in Ghana



Source: Agro Eco LB

5.4.3 Bringing business back in

With Agro Eco's investments in the organic cocoa sector, encouraging results were achieved with respect to capacity building of the farmers' organizations, internal control system management, regular certification of organic cocoa, and network building of relevant stakeholders. However, the scale of the organic cocoa production in Ghana remained small, with an annual cocoa production varying from 27 to 37 metric tons between 2006 and 2008 (see Table 5.2). Many critics attribute this limited growth to a lack of business orientation in Agro Eco's strategy. In 2007, after a long process of negotiation and administrative and legal procedures with the COCOBOD, a private company, Yayra Glover Ltd., entered the organic cocoa sector as the first organically licensed buying company. Yayra Glover Ltd. is a joint

venture associating the Swiss company, Pakka Trade Ltd., and the local Ghanaian investor M. Glover, who had his business experience abroad, particularly in Switzerland. Yayra Glover Ltd. intended to build a strong organic cocoa business relying on a public-private partnership with COCOBOD and MoFA. Yayra Glover is "convinced that organic cocoa, and organic and fair trade products in general, can contribute to alleviate global syndromes of poverty, resource base erosion and migration. However, this needs to be approached by private sector means, or at least with the concurrence of the private sector which can offer greater economic sustainability" (Yayra-Glover, 2008: 4). Upon the recommendation of CRIG the Eastern region, specifically the Suhum district, was chosen to start operations. District authorities and divisions of MoFA and COCOBOD were duly sensitized prior to selecting the first communities (Yayra-Glover, 2008). In October 2009, around four thousand farmers were engaged in organic cocoa production with Yayra Glover, of which 550 had fulfilled the organic standard requirements completely and would be certified in the course of 2009 (Yayra-Glover, 2009).

Table 5.2 Figures of organic cocoa production by COFA

Year	Number of farmers	Production of beans (tons)	Acreages (hectares)
2006	150	27	250
2007	230	37	265
2008	280	37	370
2009	280	-	492

Source: COFA

In all, while the international markets and the overall trend towards sustainability in the global cocoa sector provided a fertile ground for green innovations in this sector, it stands out that the organic cocoa idea and projects were mainly driven by agencies, businesses and civil society actors. These stakeholders had to negotiate with the state agencies to gain space and legitimacy. After some initial resistance, the state eventually engaged in, or at least allowed the development of the organic cocoa network. The question is whether and how the state internalizes the organic standard within its own organizational structure or engages in innovative governing arrangements involving civil society and business actors. Or, to put it otherwise, which multi-stakeholder or hybrid arrangements have emerged to help comply with the organic standard and make possible the life and flows of organic cocoa from the farm to international markets.

5.5 Governing arrangements within the organic cocoa network: from farm to market

Here we analyze how the organic cocoa network in Ghana evolved from farm-level to international market-scale with a focus on the governance arrangements involved (Raynolds, 2004; Glin et al., 2012). In this respect, we consider two key nodes within the organic cocoa network – the production and the marketing nodes. Before elaborating on this, we first address the motives for farmers to convert to organic cocoa farming.

5.5.1 Enrolling farmers into organic cocoa production

Despite its involvement in international markets, conventional cocoa farming is perceived as ‘traditional’ due to its historical place in the Ghanaian agrarian economy. Actually, most conventional cocoa farmers grow or exploit their cocoa farms in a traditional manner without active use of modern technologies apart from the national Cocoa Diseases and Pests Control (CODAPEC-)organized mass spraying. This seems to be a major cause for the stagnating or even declining trend in the Ghana cocoa yields compared to other producing countries (Ayenor, 2006). The traditional character of the conventional cocoa farming, associated with these low yields, could also explain the reluctance among the youth to become involved in the cocoa sector and even their withdrawal from that sector, leading to a high proportion of aged farmers. As argued by Laven and Boomsma (2012) the cocoa business is currently rather a traditional subsistence lifestyle than a profitable business, leading young people to abandon the cocoa sector. This situation offers a fertile ground for promoting organic cocoa farming. In fact, unlike the general (mis)perception of ‘organics’ as a backward innovation, farmers in Ghana associate organic cocoa farming with modernity compared to conventional cocoa farming. A local farmer portrayed organic cocoa as “AKUAFO ADAMFO” (in Twi local language), meaning: “A friend from outside could even be better than a brother from home; the organic cocoa farming brought from outside is better than the traditional conventional cocoa farming”.

Several motives drive farmers to enter and stay committed to organic cocoa production. From our interviews with organic cocoa farmers five major categories of factors were identified that determined their conversion to organic cocoa farming. These factors relate to livelihoods, finances, environment, quality of support, and relationships in the commodity network and they are somehow interrelated although not of similar order and relevance for each farmer. Table 5.3 below summarizes these factors.

Table 5.3 Motivations of farmers for converting to organic cocoa farming

Livelihoods	Finances	Environment	Quality of support	Relationship in the value chain
<ul style="list-style-type: none"> - Health - Saving money - Life expectancy - Community incentives (basic infrastructures: sanitation, market, school etc.) 	<ul style="list-style-type: none"> - Credit and financial incentives - Better and stable yields - Premium price 	<ul style="list-style-type: none"> - Soil conservation - Water quality maintenance 	<ul style="list-style-type: none"> - Technical assistance (training in good farming techniques, farms visits) - Neem and material provision - Quality of relations with promoting agencies 	<ul style="list-style-type: none"> - Fairness - Transparency - Cash payment - State's guarantee

Source: This research

Most factors mentioned by farmers motivating their conversion to organic cocoa farming are related to health and financial reasons. Besides, several organic cocoa farmers also mentioned the interventionist aspects of the organic cocoa project and considered this beneficial due to the diverse kinds of support and incentives supplied. These farmers have high expectations from their conversion into organic and may become disappointed over time when these expectations are not (fully) met. For other farmers, the fact that the state has 'its hand' in the organic cocoa business fosters a feeling of security and reliability. Or in the words of a farmer: "the Glover organic cocoa project was launched here at Ateibu. When I saw with my eyes that it was the Minister of Finance, M. Kwadwo Baah Wiredu, himself who proceeded to the launching, I took seriously the organic cocoa, and I believe that it won't fail".

5.5.2 Shaping the production node

At farm level, organic cocoa production has direct influence on the organization of production. In general, cocoa production in Ghana relies on smallholdings (Ruf and Siswoputranto, 1995; Shillington, 1995; Bijen, 2007; Barrientos et al., 2008; Ludlow, 2012). The average acreage per farmer is about two hectares (Barrientos et al., 2008). Several (interrelated) reasons may explain the smallholder nature of cocoa farming in Ghana. First, contrary to experiences elsewhere, for instance in São Tomé and Príncipe where the state owns the plantations (Gunnarsson, 1978), cocoa farming in Ghana since the colonial time has remained in the hands of the indigenous people (Hill, 1961; Gunnarsson, 1978). This helped preserve the traditional mode of small scale cultivation. A second reason is the inheritance system, where a farm may be bequeathed to siblings who may decide to divide the land and operate farms separately (Barrientos et al., 2008). A third reason could be linked to the cocoa farm management arrangements. As argued by Hill (1961), the introduction of cocoa in (colonial) Ghana also introduced a new man-land relation (Gunnarsson, 1978) with new landownership rights based on individual titles next to the traditional collective form. Also a caretaker system emerged "where sometimes the farm is split into two between the landowner and the caretaker" (Barrientos et al., 2008: 44). The caretaker system is a semi-permanent arrangement under which an owner hands over a farm on an 'abusa'-crop-sharing basis to the caretaker, who undertakes all the farm work and receives a part (from one-third to two-third) of the proceeds of cocoa sales (Beckett, 1972). This caretaker system raises

important challenges with respect to the internal control system, traceability, and the distribution of the organic cocoa premium. Particularly where absentee-owners, the so-called ‘absentees’, are numerous, like in Aponoapo area, conflicts between caretakers and landlords occur often because the labor-intensive character of organic farming requires more effort from the first while the latter is accused of free-riding, being the ones benefiting from the premium. In fact, given the relative ‘novelty’ of organic cocoa farming, its specificities seem not yet institutionalized in the (old) caretaker arrangement and thus constitute a source of distrust.

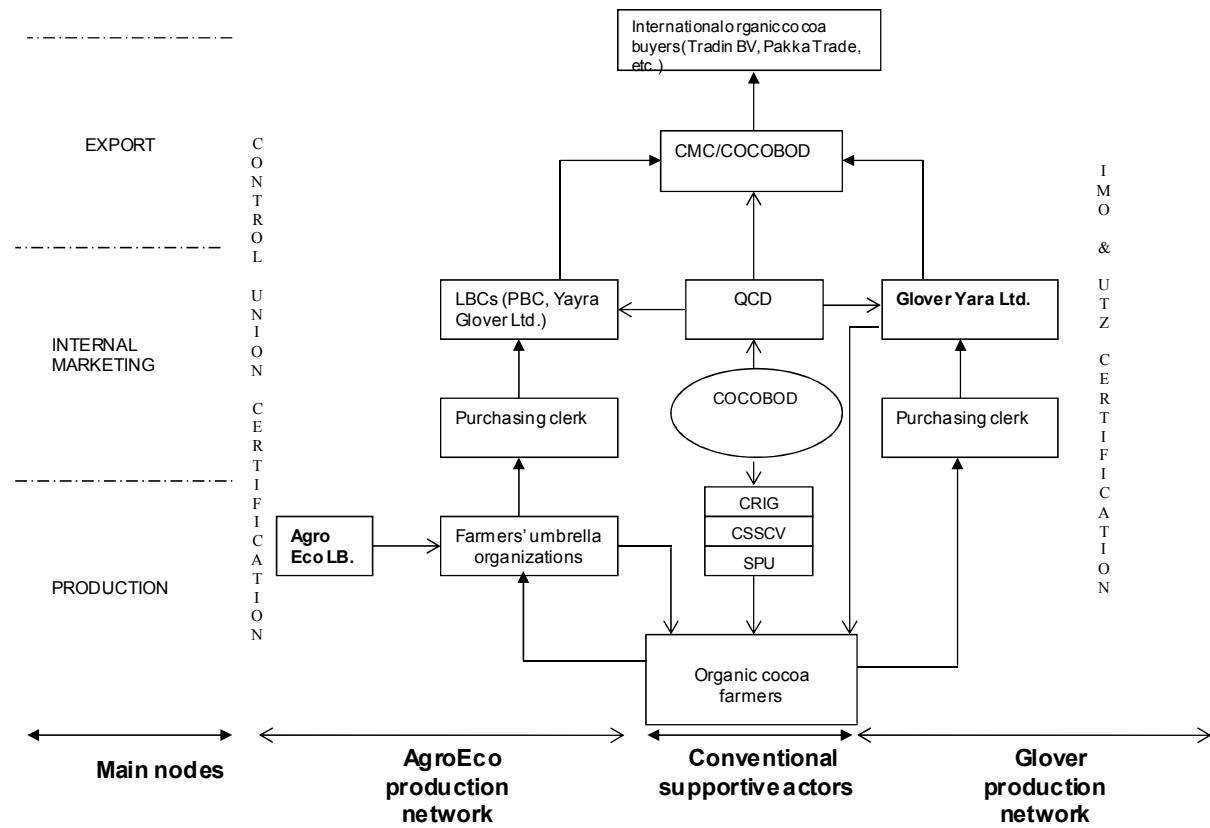
In spite of the still marginal production volume of organic cocoa compared to conventional cocoa in Ghana, the initiative is clearly driving restructuring and organizational change at local and national level. At the local level, the organic cocoa network triggers and shapes a new kind of ‘innovator’ farmers. The move from conventional to organic cocoa farming not only implies the abandonment of conventional farming practices, but also a dis-embedding from the socio-organizational configuration supporting this commodity and a ‘re-embedding’ in a newly formed socio-organizational configuration. This new socio-organizational framework supporting organic cocoa includes a new marketing channel, new standards and a new community of practice. In fact, organic farmers often have recourse to each other for sharing resources such as trucks for transportation, spraying materials, pluckers, pruning equipment etc. This is not only driven by the internal control system and the certification requirements introduced to prevent the risks of contamination with conventional cocoa, but also seems to be fostered by the feeling of belonging to a new “community of practice” which helps to establish trust between the organic cocoa farmers (Glin et al., 2012; Glin et al., 2013). Some activities necessitate collective action and seem critical in connecting organic farmers mutually and in catalyzing their social coherence like managing the nursery for seedlings, pruning activities, pod breaking, trainings and work meetings, etc. A network of organic cocoa farmers’ organizations is set up from hamlet level to the district or regional level to support, construct and maintain the new socio-organizational configuration. These networks also help to make contact with support services and organizations, and with other stakeholders higher up in the organic cocoa commodity network.

Besides, some specific arrangements are put in place to address activities like the internal control system (ICS) and the spraying of cocoa farms. Each organic cocoa community has an internal control officer and a sprayer, the so-called gang. The ICS officer is responsible for the registration, the follow-up of farming data and for ensuring the traceability of the organic cocoa beans at hamlet/village level while the sprayer performs the spraying of organic cocoa farms according to the recommended practices. The ICS officer and the gang do not receive fixed salaries for their work, but get some punctual incentives from their peers and the promoting agencies. Most importantly, they receive social recognition and prestige in the local community and in some cases become central in the social networking and trust mediation among farmers. However, sometimes, mostly within the Yayra Glover production network, the spraying arrangement builds upon the practices known from the conventional cocoa system, CODAPEC. This government-led program employs the services of spraying gangs but also encourages individual farmers to adopt and use synthetic pesticides themselves (Ayenor, 2006). CODAPEC is structured at village level as the Local CODAPEC Task Force (LCTF), consisting of seven stakeholders: the chief farmer of the village, the chief of the

village, one LBC representative, one gang leader, two farmers' representatives (one man and one women), and one assembly member of local government. The LCTF serves as a social control instrument to make sure that inputs are used for the right purpose. Actually, only the gangs spray the cocoa farms. They are paid by COCOBOD which provides them as well with all the required spraying equipment, fuel and chemicals. In its intervention areas, Yayra Glover valorizes this established organizational structure and only provides the recommended organic products for spraying on the organic cocoa farms. This is made possible because of the existing public-private-partnerships between Yayra Glover Ltd, COCOBOD and the MoFA (Ministry of Food and Agriculture). This strategy is justified by the absence of strong organic farmers' organizations (which are still only in-the-making) in Yayra Glover's areas, but it also helps to minimize intervention costs and most importantly articulates the organic cocoa network in relation with the existing conventional socio-organizational framework. This could potentially favor the social coherence of the organic cocoa network as part of the overall cocoa network, even though the effectiveness of such a mechanism is questionable and contains risks regarding the traceability and integrity of the organic cocoa beans. Both Agro Eco LB and Yayra Glover Ltd production networks benefit from support from CRIG for technical assistance in soil fertility and pest management technologies and from the Seedling Production Unit (SPU under CRIG) for improved seeds.

The organic certification scheme is driven by private sector parties, whereby the organic cocoa promotion agencies (Agro Eco LB, Yayra Glover) and farmer groups (COFA) negotiate, arrange, and finance the certification. Presently, two certifying agents operate in the organic cocoa certification in Ghana: the Control Union and IMO (Institute for Marketecology). Figure 5.5 depicts a simplified overview of the organic cocoa network.

Figure 5.5 Schematic overview of the Ghana organic cocoa network



—> : Support (Institutional, technical and organizational)

—> : Organic cocoa beans flow

Key:
CMC- Cocoa Marketing Company
COCOBO- Ghana Cocoa Board
CRIG- Ghana Cocoa Research Institute
CSSCV- Cocoa Swollen shoot and Virus Division
LBCs- Licensed Buying Companies
PBC- Produce Buying Company
QCD- Quality Control Division
SPU- Seed Production Unit

Source: Own elaboration

From the description above it stands out that as far as production is concerned, the agencies promoting organic cocoa (Agro Eco LB and Yayra Glover) control their own production networks in their respective agreed spheres of intervention with more or less articulation with the mainstream cocoa organizational arrangement. The intervention of the state agencies in the production node is limited to institutional and technical support. When it comes to marketing, the situation is however different, as shown in following section.

5.5.3 Linking production to market

According to Gunnarsson (1978), the organization of the marketing chain from the individual producer to the final market is specific for the Ghana cocoa industry. In fact, the cocoa marketing system is a socially and politically embedded arrangement and constructed over several decades. In the past, the internal marketing system relied on indigenous merchants, the so-called brokers, who managed and mediated credits and cash flows to the cocoa farmers and cocoa flows to foreign companies (Gunnarsson, 1978). Under the current (partial) liberalization of the cocoa industry, a major piece of the internal marketing system reposes on the purchasing clerks (PCs), working on behalf of the LBCs (Licensed Buying Companies). The PC is responsible for purchasing (organic) cocoa beans at the farm level. The PCs are individual agents who work on commission and receive a fixed price per bag of cocoa (Fold, 2002; Bijen, 2007). Among the about 25 LBCs, only the (the state-owned) PBC and Yayra Glover purchase organic cocoa beans. Organic cocoa is only purchased from registered organic farmers. The promoting agencies provide these PCs with lists of organic farmers (including references of acreage, estimated yields, etc.) to ensure traceability of organic cocoa beans and prevent risks of cheating. They perform the first quality checks (moisture content, fermentation, alterations, bean size) and accept the purchase on the basis of the farmer's organic status, acceptable bean quality and weight. Due to the technical support and training in good farm practices they received, organic cocoa farmers are known to ferment their beans adequately, which are therefore often of better quality according to the PCs. Beyond their commercial role, PCs also play an important role in stimulating producers, allocating informal credits and serving as support in case of emergency (medication, schooling fees, etc.). On behalf of LBCs, PCs may also promote formal credit schemes and help construct basic social infrastructures (sanitation, hospitals, etc.). On the other hand, PCs are sometimes also accused of cheating farmers by manipulating the weight of collected cocoa beans. Overall, PCs are the face of the market from the perspective of farmers and key in mediating and (re)producing trust between farmers and the overall cocoa marketing system. PCs are also responsible for the collection of cocoa beans from farmers, the repackaging and the storage at village warehouses. Warehouse and evacuation managers take over the transport at the district depots, where the Quality Control Division (QCD) tests and seals the beans in bags. Unlike conventional cocoa beans, the organic cocoa beans are transported straight from the district warehouse to the harbor at appointed schedules under the responsibility of the CMC. This is possible because CMC has segregated the physical flow of certified cocoa from the financial flow, which CMC still controls (Laven and Boomsma, 2012). With certification, organic cocoa promoting agencies and certificate holders are able to access global markets for the organic cocoa. However, price setting and negotiation as well as export arrangements are under the responsibility of CMC, which still has the monopoly of all cocoa exports (conventional, organic, Fairtrade, Rainforest Alliance, and UTZ Certified).

Despite the partial liberalization, the Ghanaian government still determines a pan-seasonal and pan-territorial producer price in advance of the harvest season, starting with the light crop (May-June) (Fold, 2002). The minimum price of cocoa is determined on the basis of the world cocoa price in combination with the Free On Board (FOB) price (Bijen, 2007) set by the Producer Price Review Committee (PPRC). The PPRC is a multi-stakeholder structure

composed of representatives from various state and market organizations.¹ The annual producer price increased from 56 percent of the FoB in 1998-1999, up to 70 percent in 2004-2005 and 76 percent in 2011-2012 (Laven and Boomsma, 2012). Twice a year LBCs receive seed funds from COCOBOD to purchase (organic) cocoa from farmers on a commission basis but they may pay them higher prices than the approved official minimum price. In the case of organic cocoa, besides the above mentioned mechanism, COCOBOD, promoting agencies (Agro Eco, Yayra Glover), organic farmers' representatives and commercial organic cocoa beans merchants come together to negotiate and agree upon a premium offered on top of the conventional price and how to share this premium between promoting agencies and farmers. This premium is introduced to (partially) cover the costs of certification, and technical and organizational support, and to motivate farmers and sustain their commitment to organic. The premium may vary from 15 per cent to 30 per cent of the conventional price. As conventional cocoa from Ghana already gets a quality premium in the international market (approximately 10 per cent) because of its extensive quality control system (Bijen, 2007), the additional organic premium may set its market price too high and put the competitiveness of Ghanaian organic cocoa at risk. For this reason, in 2008 Ghana organic cocoa beans failed to be sold at a premium price on the international market, since organic cocoa from Caribbean and South America was cheaper (Adimado and Toose, 2008). Thus, Ghana organic cocoa beans were sold in 2008 at the same price as conventional ones. COCOBOD, through the CMC, also has to make sure that contracting clauses and obligations are fulfilled and that farmers receive their share of the organic premium in case the organic cocoa is sold against a premium on the global market. As far as the export of cocoa is concerned, CMC handles the sale of cocoa on the forward and spot markets, through the day-to-day sales of cocoa beans to traders and cocoa processors (Barrientos and Asenso-Okyere, 2009). The trust buyers vested in COCOBOD allows it to sell cocoa in advance on the forward market, which provides better prices and greater security than other mechanisms (Barrientos and Asenso-Okyere, 2009). In the case of organic cocoa, the export mechanism differs because promoting agencies often engage in commercial contacts or partnerships with interested organic companies and associate afterward with the CMC/COCOBOD to lead the negotiation process, price setting, contract arrangements and follow-up. Companies buying Ghana organic cocoa beans include Pakka-Trade (Switzerland), Coop, Halba, Felchine (Italy), Armajaro London, Green and Black (England), Tony's Chocolonely and Tradin (Netherlands).

This analysis has shown that, unlike the production node, the marketing of the organic cocoa is still largely controlled by the state although some hybrid governance arrangements involving civil society and business actors are emerging.

¹ Consisting of the Ministry of Finance and Economic Planning, COCOBOD, the Cocoa, Coffee and Sheanut Farmers Association, the Licensed Buying Association, the Cocoa Haulers Association, the Institute of Statistical, Social and Economic Research (ISSER), the University of Ghana, Legon, and the Bank of Ghana (COCOBOD personal communication, November, 19th, 2009).

5.6 Conclusion

The construction of the organic cocoa network in Ghana is ongoing and involves a variety of rationalities, multiple social actors and the mobilization of a web of connections (political legitimacy, socio-technical ties), horizontally and vertically, from local level to global level. Our research on this dynamic process resulted in three major conclusions.

First, it came out that the tendency toward sustainability in the global cocoa industry with its increased attention for transversal critical matters (eradication of child labor, health safety, good farming practices) offers a fertile ground for newcomers (civil society and business actors) in the cocoa sector as well as the emergence of hybrid governance arrangements to support specifically the organic cocoa network. But, this is no to say that the processes of initiation, construction, and transformation of the organic cocoa network were linear and predetermined. The newcomers had to face, negotiate and gain space and legitimacy from the state agencies. The reaction of the latter evolved from a *cautious resistance* (characterized by the reluctance and fear of offering room to a private incursion in an area considered as the *chasse gardée* of the state) to a *cautious openness* (i.e. acceptance under the condition that the rules of the game are under the control of the state). The long term investments in networking, trust building, and social capital creation of a profit free organization, Agro Eco LB, played a significant role in this process.

Secondly, it stands out that the Ghanaian state is still a major player in the cocoa networks. In fact, the state operates simultaneously in multiple roles; as a network-partner, co-mobilizing knowledge, research and material infrastructures; as a policy agent regulating the internal organic cocoa trade, providing buying licenses, and leading the price setting mechanism; as a network-actor holding a monopoly on the export of cocoa beans; and most importantly as a guarantee for the whole process and a trust mediator between business and farmers. However, the active role of the state is less pronounced in the organic cocoa network than in the conventional one. The rise of the organic cocoa network opens up some space for redistributing power to other stakeholders, such as transnational networks, NGOs and organic cocoa promoting businesses. These latter stakeholders control to a large extent the organic cocoa production node and get involved as well in commercial partnerships and participate in the negotiation process at the national level through multi-stakeholder arrangements and public-private partnerships. Thus, even though the conventional cocoa network dominated by the Ghanaian national state still plays a crucial role in the organic cocoa network as well, some hybrid governance arrangements are emerging, creating more important roles for non-state actors. Once again, the facilitating role played by Agro Eco LB is of key importance in this transformation process and facilitated the lengthening of the initial organic cocoa 'seed network'.

Thirdly, the rise of the organic cocoa network also prompted a socio-organizational and institutional reconfiguration at local level. The organic cocoa initiative engendered not only the abandoning of conventional farming practices, but also a 'dis-embedding' from the related socio-organizational system and a 're-embedding' in and the formation of an alternative socio-organizational system. New institutions and organizations are set up to support, construct and maintain a new socio-organizational framework at the local level, which is

conducive for building the organic knowledge system, managing the material and resources flows, promoting social control of compliance to the organic standards and encouraging the sense of belonging to a community of practice. Contrary to the often expressed view of 'organic' as moving towards traditional farming practices, this movement indicates that farmers in Ghana perceive organic cocoa farming as a modern practice.

This paper addressed the question whether the state is still leading in the emerging organic cocoa network from Ghana, pursuing its position in the conventional cocoa network. Our analysis demonstrated that the growing importance of the alternative, organic cocoa, market did not lead to a real weakening of the national state in Ghana as is expected by many scholars. The Ghanaian state remains a major player also in the globalizing organic cocoa network through its control of national markets and international trade relations. However, civil society organizations and private companies were not only the catalysts in creating the organic cocoa network, and today control the production node, they also have become well integrated in the emerging hybrid organic cocoa governance arrangement. International NGOs and private companies are playing key roles in establishing local producer networks and in brokering international deals for exporting organic cocoa.

CHAPTER 6

CONVENTIONALIZATION OF THE ORGANIC SESAME NETWORK FROM BURKINA FASO: SHRINKING INTO MAINSTREAM*

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Abstract

*This research examines the structure and development of the organic sesame network from Burkina Faso to explain the declining trend in organic sesame export. The paper addresses particularly the question whether the organic sesame network is structurally (re)shaped as a conventional mainstream market or whether it still presents a real alternative to conventional sesame production and trade. It is found that over the last decade organic sesame is increasingly incorporated into mainstream market channels. But contrary to the well-known case of conventionalization in California, where organic agriculture **grew** into mainstream agro-food arrangements, this study illustrates a case where organic sesame agriculture **shrank** into mainstream agro-food arrangements. The weak coherence between the production and marketing nodes in the organic sesame chain resulted in failures to vertically mediate information, balance power relationships in and across sesame chains, build trust, and limit price volatility and speculation, resulting in a shrinking organic sesame market. For developing a viable alternative to conventional sesame trading, relations between production and trading nodes in the organic networks need to be strengthened through public-private partnerships, combined with other public and legal reinforcement.*

Keywords Organic sesame, Conventionalization, Alternative food economy, Governance, Trust, Burkina Faso

6.1 Introduction

The recent dynamics within the global agro-food sector, which moves from industrial mass standardized production to differentiated and flexible production schemes, put quality concerns, including social and environmental, at the heart of the production, processing, and distribution. Thus, a new quality economy is emerging, moving away from competition only on price and relying also on differentiation and competition through quality standards and certification. With this quality turn in the (global) agro-food sector, research is increasingly interested in the organization of nonmainstream commodity networks, particularly the question of how new quality attributes are created and reinforced (Marsden et al., 2000; Murdoch et al., 2000; Reynolds et al., 2007). Of particular importance is the organic agro-food market, which is the fastest growing global food sector (with around 25% growth annually).

The organic agro-food sector arose first with pioneer farmers and citizen-consumers concerned with the heavy reliance on chemical-based technologies in agriculture, the homogenization of the ecosystems around farmlands, and the sidelining of the health-giving benefits of food (Reed and Holt, 2006). The motives of these pioneers were broad in terms of their political, environmental, ethical, and philosophical intentions (Kaltoft and Risgaard, 2006). With the rise of the environment as an issue of public concern and political importance around the world, the organic movement flourished and became a global phenomenon over the last 20 years, advocating alternative, socially and environmentally integrated, sustainable agro-food production systems (Jordan et al., 2006). Regulation and labeling schemes, supported by formalized auditing and certification processes, have been instrumental in the expansion of the organic food sector through providing trust among consumers (Lockie et al., 2006). Several authors (Buck et al., 1997; Guthman, 1998; Tovey, 1997; Clunies-Ross, 1990) suggested that the growth and institutionalization of organic certification diluted the social movement component of organic agro-food and replaced it with an industrial approach (Constance et al., 2008).

This gave rise to debates on whether the organic sector is witnessing a deep and inevitable transformation by developing toward conventional farming and marketing structures and organization. Based on research in California, Buck et al. (1997), among others, introduced the concept of ‘conventionalization’ to capture and interpret this phenomenon. Conventionalization refers to a process through which organic agriculture resembles increasingly the conventional agro-food sector in terms of structure, organization, and ideology (Lockie et al., 2006). Best (2008) posits that the conventionalization argument as developed by Buck, Guthman, and colleagues includes the replacement of small family farming with capitalist entrepreneurship, a change of direct interactions between farmers and customers towards alienated market relations, and a loss of the social and cultural benefits of organic production. Following the California research on conventionalization many other researchers have investigated the conventionalization thesis in other regions, with controversial findings. Some of them contradicted or criticized the conventionalization argument (Coombes and Campbell, 1998; Campbell and Coombes, 1999; Campbell and Liepins, 2001; Rosin and Campbell, 2009; Campbell and Rosin, 2011 in New Zealand; Hall

and Mogyorody, 2001 in Canada; Kaltoft, 2001; Lynggard, 2001; Michelsen, 2001 in Europe), while others supported it (Lockie et al., 2000 and Lyons, 1999 in New Zealand and Australia) or produced mixed results (Constance et al., 2008 in Texas and Guptill, 2009 in New York).

The conventionalization hypothesis has never been applied in the context of organic agro-food production in sub-Saharan Africa. The introduction and development of organic agriculture in African countries was motivated by pesticide reduction (with beneficial socioeconomic, environmental, and health effects) and market opportunities. In sub-Saharan Africa, where rural livelihoods are particularly vulnerable, organic agriculture is expected to strengthen farmer communities' resilience and contribute to poverty alleviation. Thus, a conventionalization development of organic agriculture could be socially destructive for smallholder farmers with limited resources and poor bargaining power. But does it take place? And if conventionalization of organic farming in Africa occurs does it take similar forms and dynamics compared to conventionalization in more developed regions? We selected organic sesame from Burkina Faso as case study for studying African agro-food conventionalization for three reasons. First, organic sesame production in Burkina Faso in 1984 was one of the earliest organic certified initiatives in Africa. Burkina Faso has been a major producer of sesame in West Africa. In 2006, Burkina Faso supplied 1% of global sesame export and ranked respectively 12th and 2nd at global and regional levels (West Africa). The organic sesame production in Burkina Faso followed the overall trend of growth and globalization and exports peaked in 2001, when about half of the global organic sesame supply came from Burkina Faso. Second, against all trends in organic agro-food trade, organic sesame export from Burkina Faso has decreased strongly since its 2001 peak. Are these decreasing organic sesame exports from Burkina Faso part of a conventionalization process? Third, the governance of sesame commodity (both conventional and organic) globally has to date received little academic attention.

To investigate similarities, differences, connections, and integration between the organic and the conventional sesame agro-food networks in Burkina Faso, qualitative research through document analysis, semi-structured interviews, and focus groups with market and nonmarket actors has been executed through a two-stage process. Firstly, we investigated the organization and functioning of the overall sesame economy through 15 interviews with government officers (DGPER¹) and projects managers (PROFIL²), international development officers, researchers, traders, and conventional sesame farmers, through group interviews with conventional farmers in Dedougou and Nouna in the northwestern region, and through analyzing several policy documents and research reports on sesame. This also provided in-depth understanding of the regional and national policy context and the interventions by governmental agencies and developmental organizations. Secondly, we investigated specifically the organic sesame network to determine its rationale and governing structure and what makes it distinct from—and connected to—the conventional sesame agro-food network. For this purpose, we carried out individual and group interviews with around 35 organic

¹ DGPER: 'Direction Générale de la Promotion de l'Economie Rurale' is the public office in charge of the rural economy.

² PROFIL: 'Projet d'Appui aux Filières Agricoles' is a government project promoting agro commodity chains.

sesame farmers and farmer organization leaders in the southcentral region (Nazinga village) and the east region (in Piela and Bilenga villages). In addition we carried out 10 interviews with representatives from organic businesses, NGOs, and certification agencies.

The article is structured as follows. The next section explains and conceptualizes the ‘alternative’ food economy as well as the concept of conventionalization. Subsequently, an overview is given of the international sesame market, followed by a comparison of the governing arrangements within production and marketing of organic and conventional sesame networks. Then, the logic of growing conventionalization of the organic sesame network is analyzed and explained, to conclude with (potential) responses to the shrinking organic sesame trade.

6.2 Conventionalization of the alternative food economy

The concept of ‘alternative’ economy, though not very well elaborated, relates to the idea of a new counter-hegemonic moral economy, opposing the hegemony of a neoliberal economy, central in the so-called Washington consensus (Peck and Tickell, 2002; Watts et al., 2005). The post-war hegemonic agro-industrial development relied on the increasing appropriation of nature, intensified use of chemical inputs and mechanization, corporate concentration, and standardization of products for mass consumption (Goodman et al., 1987; Reynolds et al., 2007). This Fordist production system increased productivity but proved unsustainable and has been challenged by the rise of ‘alternative’ food economies that focus on quality, health, environment, and fair trade, rather than just productivity increase (Robinson, 2004).

However, the definition and agenda of such an ‘alternative’ economy is still disputed and debated in both academic circles and domains of (development) practitioners. Different alternative food networks are built around multiple and competing definitions of quality, reflecting differences in farming practices, cultural traditions, organizational structures, consumer perceptions, and institutional and policy support (see Oosterveer and Sonnenfeld, 2011; Renting et al., 2003). While recognizing the value of the debates on alternative food networks, Holloway et al. (2007) consider the concept ‘alternative’ rather opaque, as it represents a collection of other terms and interpretations, and is used in a polarized manner as part of a conventional-alternative dualism. Thus, there is a need to specify what makes such economies ‘alternative’, and ‘alternative’ to what (McCarthy, 2006; Whatmore et al., 2003). To answer this question, more general and more specific responses have been formulated. Some authors interpret the ‘alternative’ agenda as attempting to craft alternatives to capitalism in general (McCarthy, 2006), while others articulate more particular dimensions such as greater authority for local communities, socially responsible production, or environmental sustainability (Mutersbaugh et al., 2005). Commonly identified features of an alternative agro-food economy are: intensive face-to-face interactions, short physical and social distance between production and consumption, a thorough embedding of the economy in the local social context, emphasis/reliance on social capital, cooperation and mutual dependency, and environmental sustainability.

Traditionally, an important feature of alternative agro-food commodity production relates to the embedding in ‘localities’: their cultural values, histories, and specific geographical assets.

While, initially alternative agro-food economies brought consumers and producers locally together, this is less and less the case, evidenced by the growing globalization of certain parts of the alternative agro-food economy. To assure distant consumers about the social, environmental, and geographic claims, the alternative food economy relies strongly on third-party certification and auditing (Hatanaka et al., 2005). Third-party certification helps mediate, across time and space, reliability and trust between market actors and plays a major role in connecting quality production to consumer markets. Consequently, an alternative food economy requires a distinct governing arrangement, involving market and nonmarket actors, transparency and certification, and specific rewarding mechanisms (monetary as well as non-monetary). The extensive involvement of civil society organizations, such as environmental, farmer, consumer, and development organizations, gives evidence of the ‘social movement’ character of the alternative food economy (Buck et al., 1997; Glin et al., 2012). These organizations articulate broad social and environmental concerns and thus market demand, and mediate and build trust among stakeholders within and between the food production and food distribution network nodes (see Glin et al., 2012; Mol, 2010b). In the end it depends on the market whether premiums are paid for commodities that are better for the environment, producers, consumers, or the society in general (McCarthy, 2006).

Organic agro-food production and distribution is a prototype of the alternative agro-food economy. Initially, it resembled many of the ideals, values, and features of alternative agro-food economies, but that seems to be in debate lately. Buck et al. (1997) noted that the explosive growth and global spread of the organic sector since the late 1980s is both cause and effect of the growing number of new entrants who are attempting to capture part of the lucrative niche markets lurking behind organic products and organic labels. With the success and globalization of organic agro-food production and markets, the question and debate is to what extent this results in the mainstreaming and conventionalization of organic production and marketing. Conventionalization of organic agro-food networks is widely seen as undesirable, as it tends to undermine the fundamental aims of organic food production and provision. The idea of conventionalization emerged from research in California by Buck et al. (1997), who noted the increasing resemblance of the organic sector with the conventional one. Not only did agribusiness capital enter the organic sector, but it also reconfigured the structure and characteristics of organic food production and marketing (Buck et al., 1997).

Following this initial formulation of the conventionalization thesis, it was widely researched in Canada, Australia, New Zealand, USA, and the EU, among others. From the rich literature and debates on conventionalization (see Constance et al., 2008), we want to emphasize three controversies: (1) the (in)evitability/unidirectionality of conventionalization, (2) the bifurcation thesis, and (3) the impacts of conventionalization on smallholder farmers and the future of organics. Following their Californian case study, Buck et al. (1997) predicted that formal certification standards would inevitably accelerate conventionalization as agribusiness would reshape organic agriculture to its own advantage. Guthman (1998) further concluded that California is exemplary for a broader process whereby nature is appropriated through the regulation and cooption of the organic label. Magdoff et al. (2000) suggest that once niche markets become mature, such as organic farming, producers can expect to face pressure from agribusinesses, which penetrate and monopolize niche markets and turn them into large-scale

lucrative markets. This deterministic and linear view of corporatization and instrumentalization of organics is contested and criticized by several authors. Campbell and Liepins (2001) see organic food production and consumption as a discursive and dynamic field in which “corporate involvement, and issues of standards and meanings around organics,” are contested (p. 23). From their New Zealand case they conclude that the local organic industry is not engaged in a linear trajectory toward conventionalization but will continue to act as a counterpoint, a moment of contestation, or site of dialogue with the globalizing conventional food system. Likewise, Rosin and Campbell (2009) posit that the single trajectory toward capitalist forms of production implicit in the concept of conventionalization is untenable because of the complexity and heterogeneity that characterize the organic sector in New Zealand.

The second controversy in the conventionalization debate is the bifurcation thesis. Bifurcation refers to the process through which organic agriculture adopts a dual-structure of industrial profit-maximizing farming and marketing orientation (generally for export markets) and smaller, lifestyle, or more ideological-oriented farming (often for local and direct markets). From the early work of Buck et al. (1997, p. 8) in California, it stands out that

“there is a bifurcation among organic growers, with many large operations becoming specialized in the mass production of a few high-growth, high-profit crops, while smaller farms continue to diversify their strategies, employing artisanal methods to grow a variety of marketable crops that also increase soil fertility, improve nitrogen self-sufficiency, reduce pests and so forth.”

Bifurcation has been investigated extensively in different contexts. Some findings support, at least partially, the bifurcation thesis by concluding that early organic adopters tend to be more ideological and lifestyle oriented in their commitment and practice of organic farming while newcomers tend to be larger and more (export) market oriented (Best, 2008). Other findings challenged this bifurcation view by nuancing the distinction between farmers supplying a domestic market and those supplying export markets and drawing attention to the role of extra-economic factors (such as quality insurance audits) on the viability of organic production systems (Rosin and Campbell, 2009).

The third source of debate within the conventionalization literature relates to the perceived impacts of the increasing corporatization and industrialization on organics. Buck et al. (1997), Tovey (1997), and Guthman (1998, 2004) see structural trends towards further industrialization of the organic sector. According to those authors, the ongoing conventionalization will affect negatively the survival of organic smallholder farmers as well as the sustainability of organics itself. Guthman (2004, p. 307) points out three negative impacts of agribusiness entry in and appropriation of organics: (1) a political threat of lowering standards, “commandeering the organic label” and diluting the meaning of organic; (2) a direct economic threat, as agribusiness can substantially undermine the livelihoods of existing, presumably more committed, organic producers; (3) a threat that agribusiness practices organic farming in a more ‘shallow’ fashion, reducing the distinction between organic and conventional farming. This pessimistic account of the structural changes in the organic sector is challenged. Constance and colleagues (2008) indicate that even with

conventionalization, organics performs better on environmental quality compared to conventional farming. Darnhofer (2006) interprets the structural changes in the organic sector as a modernization or professionalization of organic farming, resulting in desirable consequences. Best (2008) concurs that professionalization could result in more efficient and sustainable organic production, lower prices for the customers, and concurrent growth in the market, thus resulting in an aggregate increase in animal welfare and environmental protection.

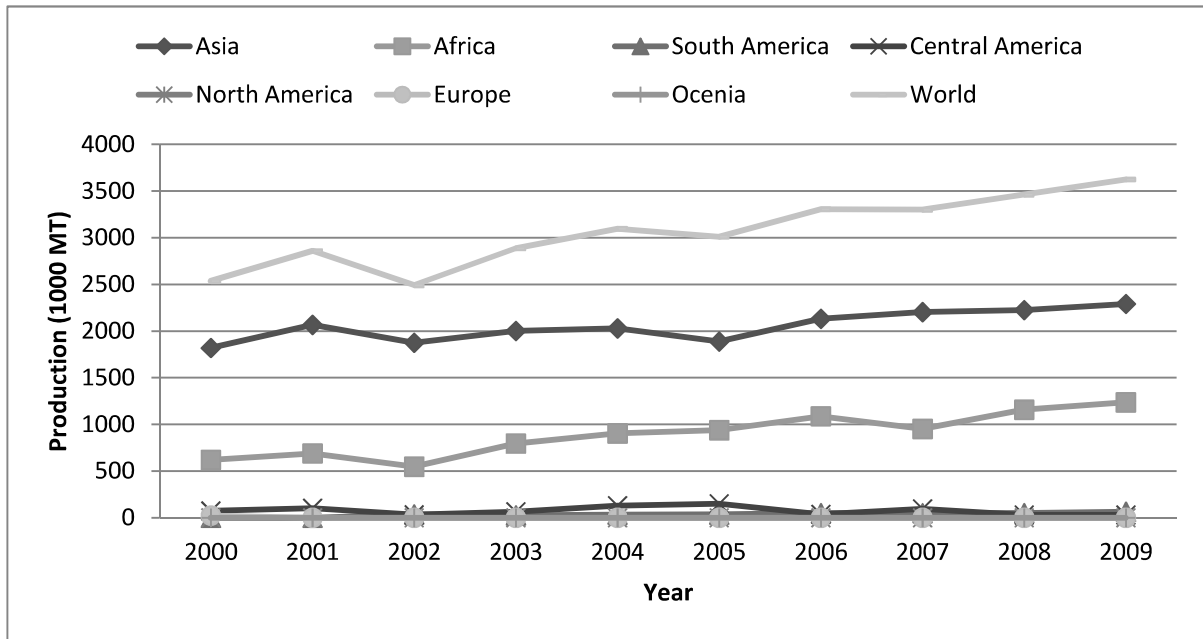
In all, it appears that the overall debate on conventionalization focuses on *internal* dynamics within organics, i.e. whether, how, to what extent, and with what consequences the core values, institutions, and practices of the organic sector change when it takes up a professional/modernized/capitalist/large-scale mode similar to mainstream agriculture. The question whether the mainstream sector can also *externally* influence, reconfigure, and conventionalize the organic sector and its outcomes has never been addressed. For organic sesame from Burkina Faso that last question seems very relevant: how is the international commercial pressure of the mainstream sesame value chain affecting the organic sesame network, leading to a deviation of substantial organic sesame flows into conventional sesame marketing channels.

6.3 The international sesame market

In order to understand the linkage between global trends and local phenomena in the (organic) sesame economy in Burkina Faso, this section provides an overview of the international sesame economy. Sesame is one of the most ancient oil seed used by humans (Aysheshm, 2007) and ranks sixth in the world among vegetable oils (Olowe et al., 2009). The world sesame seed market is worth a billion dollars and supports the livelihoods of millions of farmers throughout the world (USAID, 2010). The sesame seed market is diverse and includes a range of products such as raw seeds, used mainly in confectionery and bakery, and oil used in cosmetics, essential oils, sweets, sauces, butter, flour, etc. Over 60 countries worldwide produce significant quantities of sesame seed. Since the early 1990s, the global supply of sesame seed has been increasing. Good quality seed is highly valued on the world market, whereby quality criteria include purity (lack of dirt), uniformity (a homogeneous product), color/size (for hulled seeds, white and big is preferred to dark and small), and degree of humidity (low is preferred) (Artola, 2000). Out of the 3.66 million tons of sesame produced in the world, Asia and Africa account for 2.55 and 0.95 million tons, respectively (Olowe et al., 2009), or 70% and 26%. The world's largest sesame producing countries include India, Myanmar, China, Sudan, Ethiopia, Uganda, Somalia, Nigeria, Tanzania, and Paraguay. Sesame is grown in 23 countries in Africa with Sudan, Uganda, and Ethiopia as leading countries. West Africa's production amounts to 120,000 tons with a tendency for growth and export-orientation.

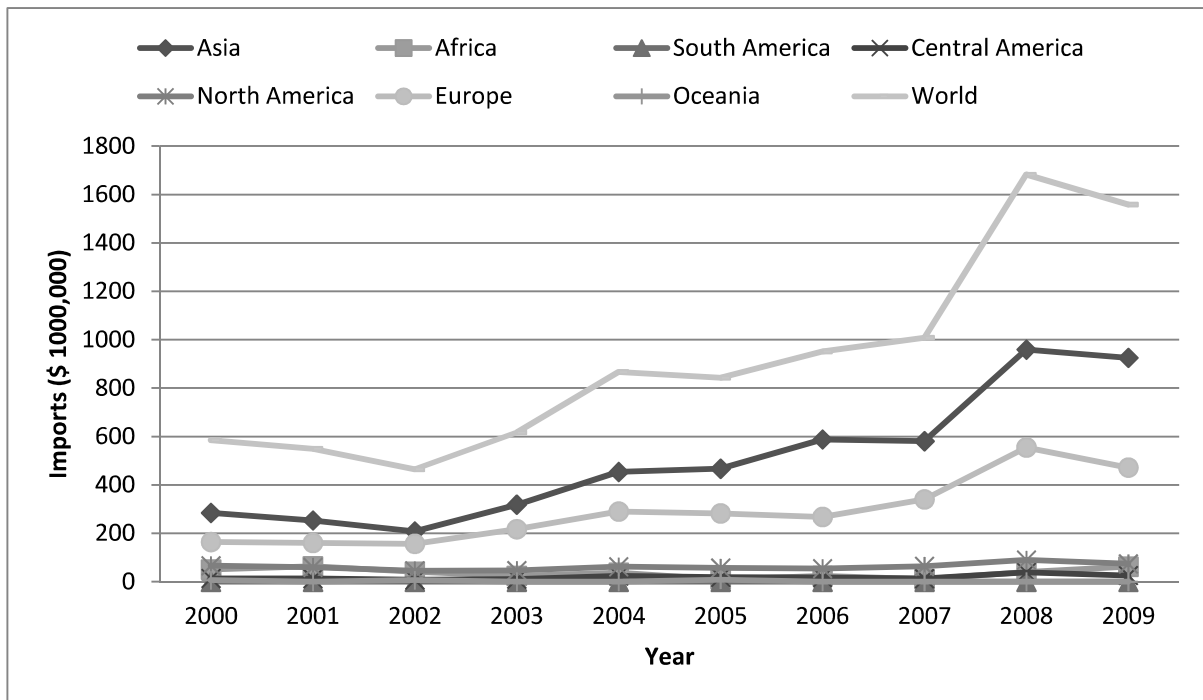
The international trade in sesame accounts for only 25% of the global production, as domestic consumption is highly important in producing countries, especially in Asia. Figures 6.1, 6.2, and 6.3 display some key trends in global sesame production and trade.

Figure 6.1 Global sesame production, 2000-2009, in 1,000 metric tons

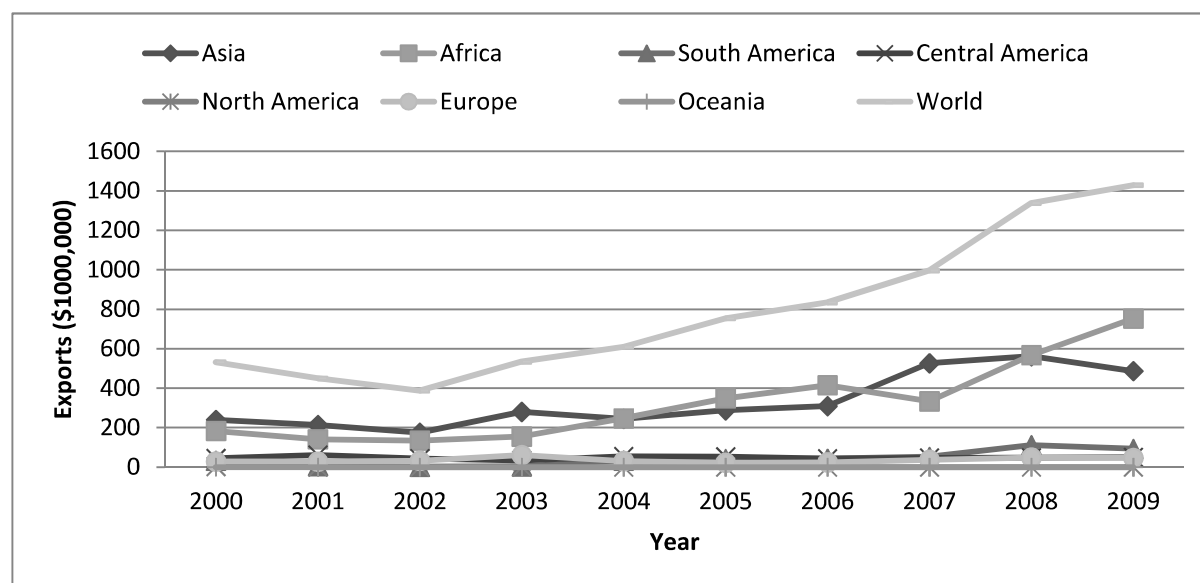


Source: Authors, based on FAO statistics (<http://faostat.fao.org/site/339/default.aspx>)

Figure 6.2 Global imports of sesame, 2000-2009, in \$1 million



Source: Authors, based on FAO statistics (<http://faostat.fao.org/site/339/default.aspx>)

Figure 6.3 Global exports of sesame, 2000-2009, in \$1 million

Source: Authors, based on FAO statistics (<http://faostat.fao.org/site/339/default.aspx>)

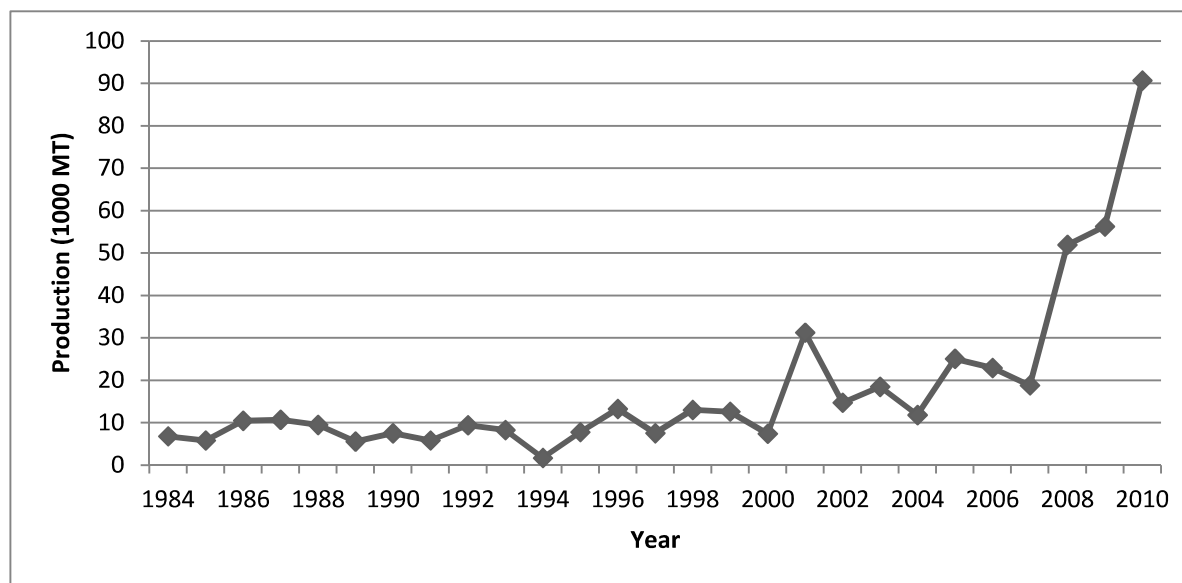
India, Ethiopia, and Sudan are the leading exporters of sesame seed, accounting for 46% (491,790 tons) of the total world export (1,067,512 tons) in 2008 (USAID, 2010). Japan, China, the EU, Turkey, and USA are the largest importers of sesame seeds, together accounting for more than two-thirds of global sesame imports. Particularly in Japan, demand is strongly increasing, prompting many traders working for Japanese companies to settle down in Africa to ease procurement and export of sesame seeds. The trend toward import from Africa is not only driven by available supply but also by price differences, because sesame from South America is getting more expensive. In general, the price of sesame seed has increased steadily for most of the last decade. The annual average world market price for sesame seed has increased from \$893/ton in 2005 to \$1,311/ton in 2009 (USAID, 2010). The peak of \$1,668/ton was reached in 2008. Unlike commodities such as coffee, for which the price is subject to the price fluctuations of the ‘New York Coffee Contract’, there is no public price-setting mechanism on the global sesame market (Artola, 2000). Thus, transparent price information is not readily available on this market, which relies almost completely on personalized relationships between the main market actors.

Sesame is currently underexploited as an organic crop despite its great potential, as sesame is generally grown in traditional agriculture without using synthesized chemical products. Organic sesame is sold particularly in the USA, the EU, and Japan, where prices are substantially higher (around 20 to 30%) than those for conventional sesame products because of attributes of ‘ecological soundness’ and ‘social fairness’ (Artola, 2000; EPOPA, 2005).

6.4 Sesame market in Burkina Faso

Next to cotton, sesame is the most important export crop of Burkina Faso. Recently, the production of sesame has witnessed a remarkable increase from less than 10,000 tons in 1997 to 90,649 tons in 2010, signifying a 47.62% average annual growth (see Figure 6.4).

Figure 6.4 Trends in sesame production in Burkina Faso, in 1,000 metric tons.



Source: Authors, based on FAO statistics

(<http://faostat.fao.org/site/567/DesktopDefault.aspx?PageID=567>)

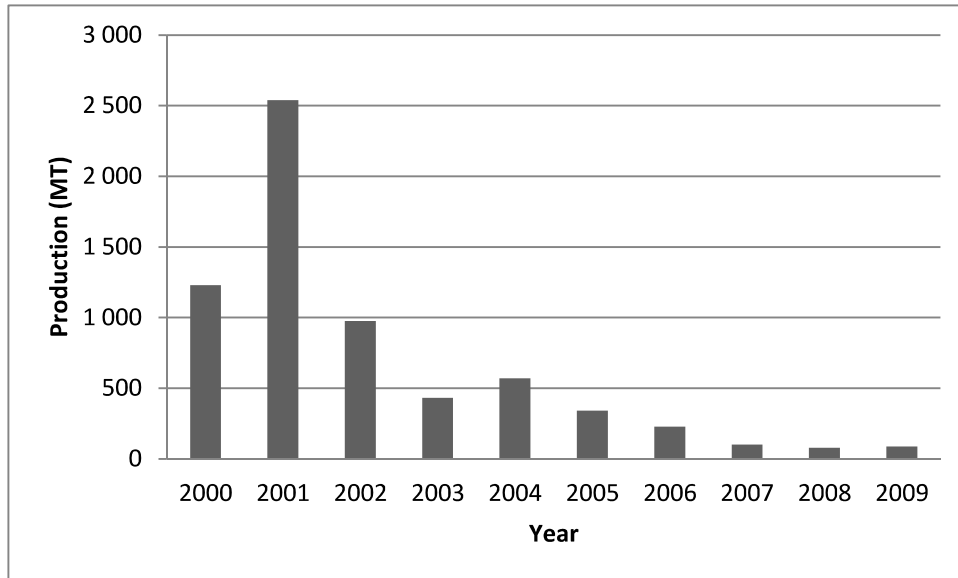
Most (around 95%) of the sesame produced in Burkina Faso is exported. The main importers of sesame from Burkina Faso are Japan, Switzerland, Egypt, the Netherlands, France, Germany, China, Spain, United Kingdom, and Dubai (PDA, 2008). Sesame is also exported to neighboring countries especially Ghana, Togo, and Cote d'Ivoire. In 2007 the exported volume amounted to 29,888 tons representing \$20.19 million.

A major concern in the sesame industry in Burkina Faso is the quality. In fact, as the chain is not well organized with a multiplicity of market actors, the quality of sesame sometimes suffers from the presence of impurities and rot, threatening its reputation on the international market. Moreover, some cases of salmonella-contaminated sesame from Burkina Faso have been witnessed at the borders of the European market, putting the issue of quality as a priority on the sesame sector development agenda (Portail sur le développement du Burkina Faso, 2008). The EU recommended strengthening the organization of the Burkina Faso sesame industry around the distribution of certified seeds, quality control, the establishment of cleaning operation points, and introducing a "Burkina" label for products complying to these quality standards (Portail sur le développement du Burkina Faso, 2008).

In line with demand for high-quality sesame on the international market, the organic niche market is developing particularly in the EU and the US. In Burkina Faso, the organic sesame commodity chain started operation already in 1984, driven by the French trading company TROPEX (Tropical Products Export), exporting exclusively to Provence Régime, a French organic business company (Portail sur le développement du Burkina Faso, 2008). In 1989,

around 300 tons of organic sesame were exported and in 2001 a record export of over 2,500 tons was reached. The recent trend in organic sesame exports from Burkina Faso is shown in Figure 6.5.

Figure 6.5 Trend in organic sesame exports from Burkina Faso, 2000-2009, in metric tons



Source: PDA (2008); Fieldwork 2010-2011

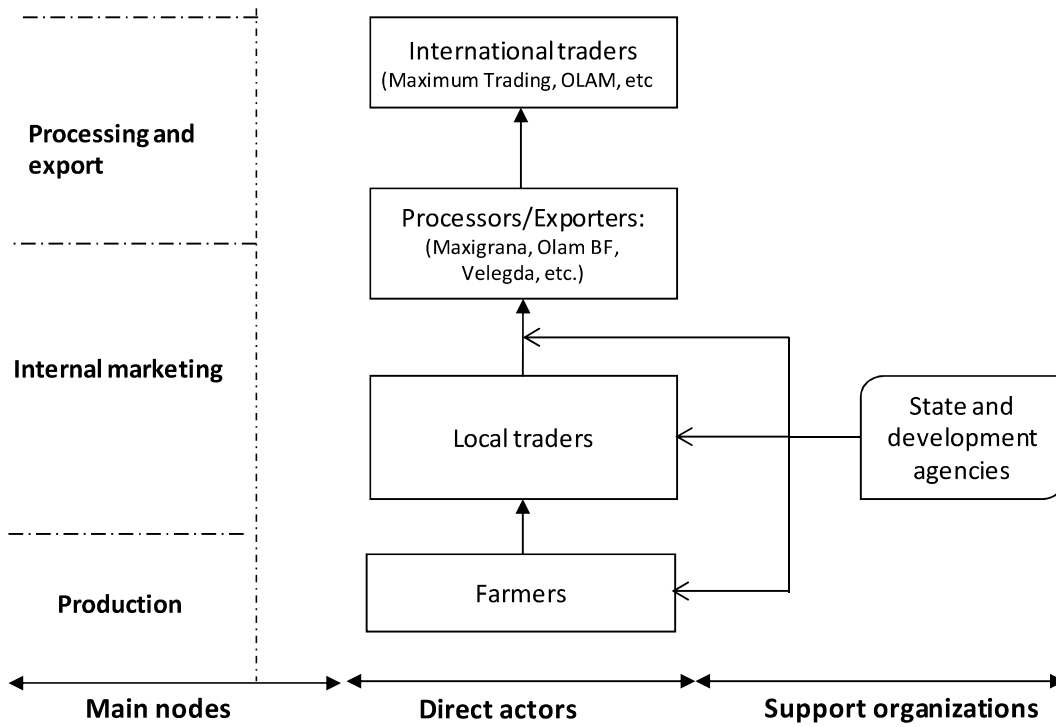
Overall, these figures indicate that the export of organic sesame sharply declined over the last decade. Identifying the major reasons for this decreasing trend is the subject of the next section.

6.5 Governing the supply of the organic sesame

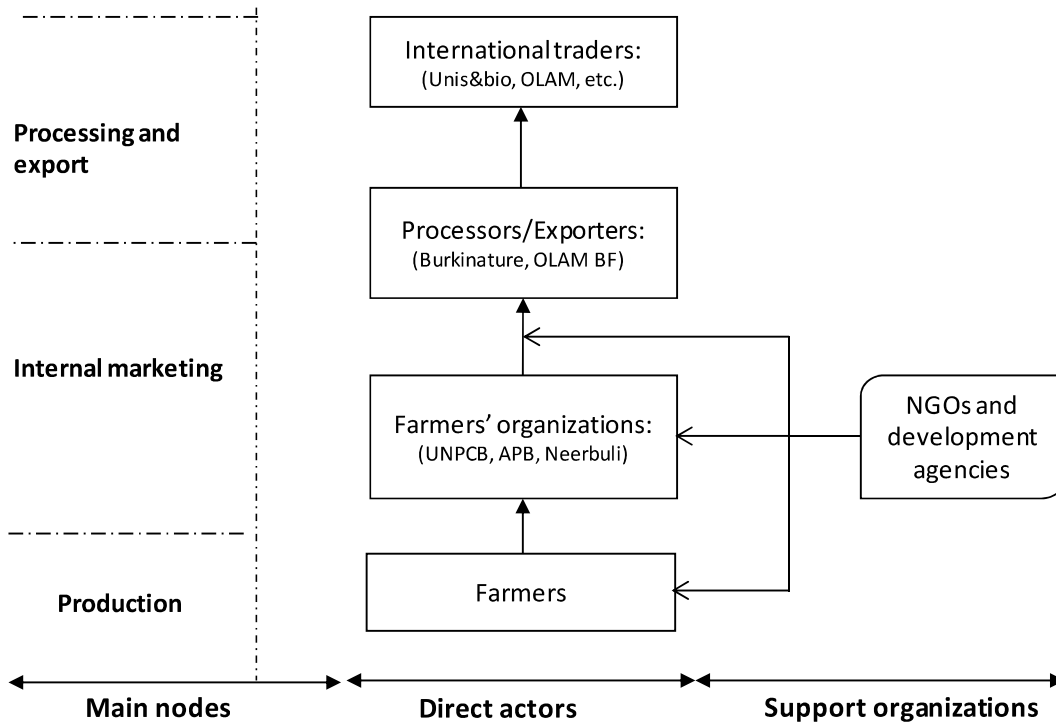
The international market is a major driver of organic sesame business. Usually, international traders drive their local representatives and partners to contract existing organic farmers or initiate new organic production. Alternatively, farmers' organizations with the support of technical partners, take the lead of prospecting and engaging commercial partnerships with established and interested organic sesame traders. The third way of enacting organic sesame business comes from international development agencies, which consider organic farming an opportunity in their strategy towards poverty alleviation and diversification of the local economy.

While in the conventional sesame sector, local buying agents/traders are central in the sourcing of sesame from producers and handing it to processors and exporters, in organic sesame networks the management of sesame procurement and selling to exporters lays mainly in the hands of farmers' organizations. Figure 6.6 represents the conventional (panel a) and the organic (panel b) sesame networks, respectively, which are further analyzed below.

Figure 6.6 Simplified overview of the two sesame network chains in Burkina Faso



(a) Conventional sesame chain



(b) Organic sesame network

Source: Own elaboration

6.5.1 Farmers' organizations in organic sesame networks

Currently, three major umbrella farmers' organizations are operational in the organic sesame network in Burkina Faso: the UNPCB (National Union of Cotton Growers in Burkina Faso), APB (Association Piela-Bilenga), and Association Neerbuli (see Table 6.1). The UNPCB is the national farmers' organization of cotton growers, conventional as well as organic. Unlike the situation in other countries in West Africa (e.g., Benin, Mali) where organic cotton is driven by specific organizational arrangements, in Burkina Faso since 2002 the UNPCB has taken a central position in the organizational framework supporting the conventional cotton network as well as the organic cotton network. Moreover, the UNPCB is allowed to develop its own technical support arrangement for organic cotton farmers, while as far as conventional cotton is concerned the *sociétés cotonnières* (commercial cotton companies) and the newly built Association Interprofessionnelle du Coton du Burkina (AICB) have this monopoly. Sesame is promoted as a major rotation crop in the cotton farming system, and still lacks a real national federation. So since 2008 UNPCB has also engaged in the organic sesame network with the backing of Helvetas-BF (Burkina Faso).

A second umbrella organization involved in the organic supply chain in Burkina Faso is APB. APB is an umbrella organization created in 2001 through the merging of two organizations at the department level: ADDESP (Departmental Association for Economic and Social Development of Piela) created in 1991, and ADDB (Development Association of the Department Bilenga) created in 1994. APB targets the socio-economic development of the two neighboring departments, Piela and Bilenga, located in eastern Burkina Faso. APB's interventions include hydraulics, education, health, gender equity, and organic agriculture, particularly organic sesame (APB, Annual Reports 2008 and 2010). The Association Neerbuli—the third farmers' organization—was created in 1997 through a bottom-up process, prompted by the local NGO Association pour la Recherche et la Formation en Agro-écologie (ARFA), one of the pioneers of organic sesame promotion in Burkina Faso. ARFA has been supporting farmers and grassroots farmers' organizations on environmentally friendly technologies and innovations, and organic agriculture for almost two decades in the district of Farda N'goma and the surrounding areas in the eastern region. As part of its scaling up strategy, ARFA encouraged and facilitated the construction of the Association Neerbuli, which was initially composed of 35 grassroots organizations. Currently, around 1,800 organic sesame farmers are involved in Association Neerbuli (Association Neerbuli, personal communication). All three above-mentioned umbrella farmers' organizations are structured downstream in multi-level local organizations, from department to hamlet level (see Table 6.1).

The most important service these farmers' organizations provide is technical assistance to farmers. This technical support to farmers includes: sensitizing and training about organic standards and norms, good farming practices, internal control systems, quality management, etc. Fieldworkers are engaged and trained by the farmers' organizations for this purpose. In addition, some on-farm research experiments are undertaken on technical issues, such as performance of certain varieties, and farming techniques. The three farmers' organizations are also active in managing sesame seed provision and distribution among organic farmers, and

facilitating price negotiations with traders. Sesame seed provision is a major bottleneck in both conventional and organic sesame supply networks (PDA, 2008). An effective seed supply mechanism responsive to the increasing demand for sesame is still lacking, despite several efforts deployed by INERA (Institut de l'Environnement et de Recherches Agricoles) in recent years (APB, Annual Reports 2008 and 2010). Traditional varieties in use for decades are no longer appropriate to meet the quality and performance standards of the international market. Traditionally in Burkina Faso, sesame is reused for sowing and informal social networks are instrumental for its distribution. Not only has the productivity of the traditional seeds decreased over time, but variety blending is also common. This undermines yields and quality of the harvested sesame. In response, INERA created a new hybrid variety (known as S42), which is more productive with higher quality attributes (color, taste, oil content, etc.) (Chetail et al., 2003; PPMS, 2009). Still, an effective organizational and institutional arrangement needs to be constructed to ensure regular supply of sesame seeds at the farm level, as the private sector is absent in this field (Traoré and Son, 2009). Currently, INERA encourages and assists local farmers' organizations in seed breeding by providing training and necessary technical support and by facilitating the certification process. Particularly in the organic sesame network, farmers' organizations increasingly appoint local farmers as seed-bearers, with technical support from INERA to be able to fulfill farmers' needs locally, and to export the surplus if necessary (Association Neerbuli, personal communication).

Organic farmers' organizations set the purchase price of sesame seeds and have to ensure the fulfillment of obligations both from the farmers' and from the seed-bearers' sides. As far as organic sesame trading is concerned, farmers' organizations operate as facilitators between grassroots farmers and traders/processors (Sopradex, Olam, Burkinature, etc.). They prompt and coach price discussions with farmers at the grassroots level and come up with proposals that are re-discussed and renegotiated with traders, although power relations between the two categories seem uneven. Overall, farmers' organizations play a very important role by integrating local farmers into global organic sesame markets.

Table 6.1 Characteristics of the three major farmers' organizations in the organic sesame economy in Burkina Faso

Characteristics	UNPCB	Association Piela-Bilenga	Association Neerbuli
Governing structure	National board with a technical assistance office	Regional board with a technical assistance office	Regional board with a technical assistance office 3 permanent technical committees
Involved civil society organizations and number of farmers	107 grassroots farmers' organizations, mainly in organic cotton production areas Major support from Helvetas and GIZ 1,003 organic sesame farmers (including 257 women)	Two department-level organizations 10 downstream organizations Major support from BMZ, Freundeskreis Bareka, and DED Around 2,000 organic farmers	Three province-level organizations 35 grassroots organizations Major support from ARFA-NGO and LWR (Lutheran World Relief) 1,800 organic sesame farmers
Broad social and development targets	Improving and diversification of	Provision of several types of development	Protection of the environment

Characteristics	UNPCB	Association Piela-Bilenga	Association Neerbuli
	farmers' incomes Promotion of organic agriculture (cotton and rotation crops including sesame)	assistance: hydraulics (construction of drillings), education (school equipment), health (basic infrastructures, HIV) Promotion of organic agriculture/sesame	Facilitating agro-ecological and environmentally friendly innovations Promotion of organic agriculture/sesame
Geographical scope/focus	Nationwide: all the cotton growing areas	Locally built and embedded (Piela and Bilenga departments in the eastern region)	Locally built and embedded (eastern region)
Specific services in the organic sesame network	Technical and organizational support to organic sesame farming and marketing: Extension and trainings Provision of seeds Management of the internal control system Liaising with organic market Coordination	Technical and organizational support to organic sesame farming and marketing: Extension and trainings Provision of seeds Management of the internal control system Liaising with organic market Coordination	Technical and organizational support to organic sesame farming and marketing: Extension and trainings Provision of seeds Management of the internal control system Liaising with organic market Coordination
Mode of operation	Adoption and diffusion of packaged innovations to increase crop yields (cotton and sesame) Extension worker-farmer relationship	Facilitating social learning Improving farmers' collective and individual decision-making capacity	Facilitating social learning Improving farmers' collective and individual decision-making capacity
Certification agency	Ecocert International	Certisys	Ecocert International
Commercial partners	Burkinature (currently) Olam BF (formerly)	Burkinature SOPRADEX (formerly)	Olam BF Burkinature Maxigrana

Source: This research

6.5.2 International markets

Overall, the still increasing international sesame demand is far higher than global supply, particularly in the conventional market. This exacerbates the pressure on producers and traders throughout the sesame commodity chain and has fostered some structural changes over the last decade. In Burkina Faso exporting companies used to be located abroad or in neighboring countries on the coast, and relied for the procurement of sesame on local traders in Burkina Faso, the so-called *grossistes* (wholesalers) (Traoré and Son, 2009). With increasing demand from international markets, most exporting companies relocated to Burkina Faso to shorten the commodity circuit and translate international demand to Burkina Faso supply.

Two trading companies currently dominate the organic sesame sector: Burkinature SARL and Olam-BF. Other companies only occasionally purchase organic sesame and export it through conventional trade channels. These include: Maxigrana, SDV-Groupe Boloré, Ets Nalcomme

Transit and Ets VELEGDA Mamounata. After the collection of sesame, mainly carried out by farmers' organizations and local buying agents in the organic and conventional networks respectively, the trading companies take care of storage, quality upgrading, packing, transporting, and shipping.

Burkinature, established in 1999, is a joint venture with stakeholders from Burkina Faso, the EU, and Japan. It targets specifically the development and international trade of organic agro-foods, mainly sesame, mangoes, and pawpaw. For the international marketing of the organic sesame, Burkinature partners with Unis & Bio, which is an organic sesame oil production company. Owing to successful working relationships over many years, Unis & Bio and Burkinature succeeded in setting renewable annual contracts with farmers and in planning long-term production. To secure the procurement of organic sesame Unis & Bio invested in capacity building and quality management. Olam BF is the local branch of Olam International based in Singapore and trades a wide range of agricultural products and food ingredients including cotton, raw cashew nuts, sesame, and shea nuts. Olam BF entered the sesame business in 1995 and operates primarily in the conventional sector (with an annual trade of 21-56 tons between 2004 and 2009; its organic sesame is less than 1% of its total sesame turnover). Olam BF exports sesame via Olam International, which may assist with financial and market facilities (Olam BF, personal communication).

6.6 Conventionalization of organic sesame

This section analyzes the logics of conventionalization in the organic sesame network and (potential) responses in the making.

6.6.1 Spatial differentiation of the sesame economy

Historically, sesame production in Burkina Faso has been concentrated in the western region, which has more favorable agro-ecological conditions and provides now more than 70% of the national sesame production. The organic sesame initiative started in the same area, specifically in Kossi province in 1984. This region is also known as the major area of conventional cotton farming with a great reliance on chemical pesticides and mineral fertilizers, and the subsequent risks of contamination and pollution. In contrast, the southeastern region with more fragile agro-ecological conditions (lower rainfall patterns, etc.) remained almost free of industrial production and use of agrochemicals, and became the major region for agro-ecological and environmentally friendly innovations (techniques of stony cords, agriculture-breeding integration, etc.) and hosting protected areas. Hence, the southeastern area became an attractive area for organic farming in general and for sesame in particular. The local NGO ARFA has significantly invested in the development of environmental innovations and has been the pioneer of organic sesame promotion in the region since 1998. Although, sesame production in this area was historically marginal (and only applied in mixed cropping practices) organic sesame became of significant economic importance (and increasingly grown in monocropping). Even eating habits and diets in this area are affected by this trend. It was expected that within a few years the southeastern region would become the major bastion of organic sesame, while the western region would remain

the major provider of conventional sesame. This principle seemed even informally adopted or at least considered by market actors and development agencies when they considered their interventions though any legal or institutional instrument is not (yet) applied to strengthen that differentiation in Burkina Faso. This spatial differentiation can be interpreted as a dis-embedding and separation of conventional and organic sesame chains, and the attachment of organic sesame to ‘localities’ and their values as of the *appellation d’origine controlee* (country of origin labels).

But spatial differentiation does not guarantee separation between conventional and organic value chains, especially when value chains are of international or global nature. Moreover, the southeastern region of Burkina Faso is geographically close to the major regional markets of conventional sesame of Niger and Nigeria, facilitating the diversion of organic sesame into conventional circuits. And this is what increasingly seems to happen.

6.6.2 Conventionalization of the organic sesame network

The procurement of sesame starts at the point of collection. Sesame is delivered by farmers or small buying agents in small lots. In the case of conventional sesame, networks of buying agents collect and aggregate sesame in sizable quantities. In the organic sesame network, farmers’ organizations take over this operation. Moreover, while individual delivery of the sesame is common practice in the conventional sesame network, only collective marketing is practiced in the organic sesame network. The need to distinguish organic sesame to enable traceability and certification entails the formation of a community of practice for sharing knowledge and material resources (Glin et al., 2012) and prompts the construction of a cooperative network among organic sesame farmers. First, the costs of certifying smallholdings of organic farmers, particularly in developing countries, favors certification at the level of farmer groups or cooperatives, instead of individual farmers (Lockie et al., 2006; Ton et al., 2007). Second, shifting from the conventional ‘crop-orientation’ to the organic ‘agro ecosystem-orientation’ requires collective networks of and social learning among organic farmers to operate collectively and gain new knowledge and skills. Alternative agriculture triggers and pushes for more cooperation and community building than conventional agriculture with its emphasis on self-interest and competition (Beus and Dunlap, 1990).

However, although certification and regulation of organic sesame prompt collective action within the production node, those mechanisms fail to vertically construct or mediate the trust necessary to ensure cohesiveness and coherence between the production and marketing nodes. In fact, via their organizations organic sesame farmers are engaged in annual contracts with traders on farming and trading. Very often the contract is signed between February and October, while the actual purchase and delivery of the organic sesame at the farm gate take place only in December. The rationale of a contract in organic farming is to materialize farmers’ commitment to fulfill specified production standards, and thereby to be qualified for the resulting socio-economic benefits, especially the price premium. The contract also appears as an important device for long-term trading relationships, opposite to the short-term orientations of the mainstream free market. Thus, farming and trading contracts are common

in export-oriented organic networks from Africa. Buck et al. (1997) argue that contract farming is to the advantage of trading firms as they gain access to rural products without having to deal with production risks. Moreover, trading companies have more bargaining power to successfully renegotiate contract clauses in their interest. Market conditions or financial difficulties may trigger trading companies to postpone the purchase of sesame or lower the agreed transaction volume one-sidedly. For instance, though a purchasing contract was agreed upon between SOPRADEX and APB, the former failed to purchase the sesame in 2005 because of financial difficulties. This forced the leaders of APB to seek other commercial opportunities to sell their produce (APB, personal communication). In 2009 while organic farmers and their organizations in Nazinga village (in the southcentral region) managed to get the sesame ready for marketing in December as stipulated in the contract, the trading company (Olam) was not ready to purchase the produce at that moment because of a delay in cash provision. Farmers interpreted this as a strategy from Olam to bypass the period of high demand where prices are high, to reach a period of high supply during which the firm could renegotiate the purchasing price according to actual market conditions. Theoretically, farmers can also initiate contract revisions through their organizations, especially when the conventional market offers a better price at the moment of selling sesame seed, as was the case during the last years. But reality is that farmers' organizations hardly succeed in changing contracts to their advantage. In general, the price of organic sesame is based on the purchasing price of the previous year and the local market price at the moment of contracting, although at the moment of purchasing, some adjustments may be made to take the prevailing price situation into account. The difficulties of setting favorable prices for organic sesame through contracts are further complicated by international price volatilities. In the absence of any mechanism for regulating prices, international conventional markets and traders showed high price competition and high price volatility over the last decade. During purchasing periods in 2010 and 2011, the conventional sesame price at farm gate fluctuated between US\$0.66 and US\$1.33 per kg. This made it impossible for organic businesses to use the conventional price as a fixed standard upon which they could add a premium for the organic standard. Hence, many organic farmers were tempted to sell their sesame to conventional traders, who could offer a better price as they did not previously invest in the provision of seeds, farming equipment, and technical support. The already weak ties between production and marketing in the organic sesame network made it vulnerable to pressure from the conventional sesame market, in which it increasingly became incorporated. Since 2007, the price for conventional sesame has exceeded the price offered for organic sesame through contracts, due to increasing demand and pressure from the conventional international market.

On the farmers' side fulfilling contract obligations may also be endangered by their static nature and the sometimes short-term direct need of farmers for credit, as a farmer in Bilenga illustrates:

“Assume that the purchase of organic sesame is set in two weeks' time, and today your child gets sick and you need money for medical cares. Could you wait two weeks seeing your kid dying? Though you have the good will to be faithful to the contract you signed, you may take some produce (sesame) and sell it on the local market or to the trader knocking on your door, just for the sake of your child's life.”

The existence of the conventional sesame market also undermines the contracts on organic sesame. The conventional sesame market in Burkina Faso is a typical free market with hardly any regulation and where individualism, profit maximization, speculation, and price volatility prevail. Long-term investments and trading contracts are almost completely absent because of the opportunistic and free riding behavior of market actors, who offer a marginally higher price to capture the produce someone else has invested in (by providing technical, material, and financial support). Hence, conventional sesame traders also started targeting the organic producers, thereby complicating the supply of sesame by organic traders, which they hardly manage despite many investments. For instance, with the support of CAMC-O (Centre of Arbitrage, Mediation and Conciliation in Ouagadougou) Olam invested in 2008 in building farmers' capacity on contract management, but without much success. Eventually, Olam included municipal and local leaders in contract arrangements with farmers' organizations in certain districts (Moussoudougou in 2008-2009, Dori in 2010), in order to mediate trust between organic farmers and Olam and to secure the supply of organic sesame. But also here results were not satisfactory.

As a consequence, important quantities of organic sesame are diverted from organic to conventional channels. According to leaders of farmers' organizations, currently less than one third of the organic sesame produced is actually sold through organic trading arrangements, while roughly two thirds is marketed via the conventional market. Due to this mixing with the conventional markets, accurate data on the actual organic sesame production is lacking. It is widely held that over the last decade organic sesame production in Burkina Faso has not decreased as dramatically as has the international organic sesame trade (see Figure 6.5). However, local demand for sesame oil is also increasing and may have absorbed a significant part of the produced organic sesame.

What would be the implications of the conventionalization on the organic sesame network, and particularly on smallholder farmers in the near future? This sesame case is quite complex with the enmeshment of global and local, conventional and organic, and perceived immediate and future interests. Obviously the shrinking of organic sesame into conventional sesame endangers the existence of the organic sesame network itself. In fact, if this trend continues not only mistrust and distrust between organic farmers and traders will increase, but also investments (logistics, trainings, standard setting) in organic sesame may become irrelevant and non-profitable, particularly for traders. As far as smallholder farmers are concerned, the shrinking of the organic sesame into conventional, with the consequence of exposing them to free market rules and realities, may bear several implications. Smallholders as well as large-scale farmers may lack the necessary business skills (bargaining power, access to market information) to adequately deal with traders in the absence of any control or third party support. Specifically, smallholder farmers will be more vulnerable to price fluctuation and will likely be constrained to sell all their sesame in the harvest period when prices are particularly low. The absence of any premium and incentives may progressively affect farmers' willingness to keep applying good farming practices and environmental friendly techniques that the organic standard requires. To counter these consequences organic farmers and their leaders could reorganize/restructure themselves, searching alliances with other stakeholders, and strengthen their capacities to (re)negotiate with traders and re-enact the

contract-based organic sesame trading. Development agencies could support this by further assisting farmer' organizations and brokering public-private partnerships in the (organic) sesame sector.

6.6.3 Public-private partnerships in organic markets

The weak ties between production and marketing practices and nodes make the organic sesame network vulnerable to the pressure from a strong conventional market, leading to its increasing incorporation into conventional supply channels. The conventional sesame chain has even weaker ties between production and marketing than the organic sesame market has, but does not (have to) rely on and work through contracts. To bridge and strengthen these ties, several development agencies (e.g., GIZ, Helvetas BF, LWR, UNDP, CIRAD, OCADES) are involved as intermediaries in both the conventional and the organic sesame chains. They target mainly the liaising of production to markets through the formation of public-private partnerships (PPPs) and the provision of financial, material, and technical assistance. In PPPs in the sesame sector in Burkina Faso a private entity (mostly a trading company) partners with a public development agency by agreeing on an action plan and resources for developing the sesame economy in a region. Sometimes farmers' organizations are also involved in such a partnership. The development agencies GIZ, Helvetas BF, Freundeskreis Bareka, LWR, and BMZ are active in constructing such partnerships in the organic sesame sector. For them, supporting organic sesame means increasing smallholders' income as part of an overall poverty alleviation strategy. For example, GIZ (public entity), Olam BF (private entity) and the *Union des producteurs de sesame de Po*, a sesame growers' organization, formed a public-private partnership in the southern region. This partnership constructed contract-based trading relations between Olam and the *Union des producteurs de sesame de Po* for the procurement of both conventional and organic sesame. GIZ served as *garantie morale* (a kind of legal warranty) of the partnership, while providing technical and financial support, including training of farmers (in good farming practices), payment of field workers, provision of spraying equipment, and coaching the fulfillment of contract obligations. The farmers' organization sold all the produced sesame (conventional and organic) to Olam. Olam had the obligation to pay the farmers at an agreed premium price. GIZ supported this process for two years. But just one season after the exit of GIZ the partnership between Olam and the *Union des producteurs de sesame de Po* collapsed because of difficulties in fulfilling the contract obligations (Olam BF, personal communication). The *Union des producteurs de sesame de Po* was unable to provide the agreed quantity of sesame, while Olam was accused of not offering attractive and interesting payment conditions.

Public-private partnerships are expected to favor the working relations between farmers and private businesses and to build trust between them. However, according to some farmers' organization leaders, this may also be an opportunistic tool for businesses seeking public funds for their own profit. A farmers' organization leader expressed this as follows: "I have the feeling that as these business guys know that we get financial support from donors to undertake some activities, they implicitly hide under this to not hasten to pay their dues, and if they do they are not willing to pay good prices." Development agencies feel that leaving farmers alone in dealing with traders would be socially devastating. Coaching and facilitation

of NGOs and other development agencies is seen as important to compensate partially the power disadvantages of farmers, but not enough to secure long-term contract-based trading in organic sesame networks and also in conventional ones. These partnerships seem unable to control price volatility and speculation. The combination of partnerships with price regulation seems necessary to be able to control the volatility of sesame prices and limit speculation and opportunistic trading behavior and prevent the undermining of contract-based trading in organic as well as conventional sesame. The articulation/incorporation of a fair trade standard within organic, as currently driven by Helvetas BF, might also offer some chance to address in particular the issue of fairness and transparency between production and marketing nodes.

6.7 Conclusion

This research extended conventionalization research into a new geography, by investigating whether—and if so how—the organic sesame network in Burkina Faso has become subject to conventionalization. Is the organic sesame sector in Burkina Faso still clearly distinct from its conventional counterpart or has it increasingly taking up characteristics of and thus become ‘dissolved’ in mainstream production and trading practices?

Within production, the organic sesame network still differs significantly from the conventional one. The internal control system and the certification requirements of organic sesame foster the construction of ‘a community of practice’ for social learning and the generation and sharing of new knowledge and skills where farmers’ organizations play a pivotal role. But the organic sesame trading system is strongly affected by fierce price competition and volatility in the conventional sesame sector and the free market behavior of conventional sesame traders. This makes the organic sesame network vulnerable and permeable to the international commercial pressure from the mainstream conventional sesame market. As a consequence, the differentiation in the production process is partly dissolved during trading with the increasing incorporation of the organic sesame flows into the mainstream commercial channels. Most of the organic sesame farmers are tempted by the short-term, occasionally higher price offered by opportunistic conventional traders at the expense of long-term contract-based trading relations with organic businesses. Even the spatial differentiation of the Burkina Faso sesame production, where the eastern region becomes most favorable to organic sesame, does not free organic farmers in that area from challenges resulting from the proximity to transnational conventional sesame trading reservoirs. Under these conditions organic sesame arrangements fail to vertically mediate information, balance power relationships, build trust, regulate prices, and insure cohesiveness and coherence between the production and the marketing nodes. This has put the viability of the organic sesame economy at risk, despite efforts deployed by development agencies to more effectively connect production to the market. In that sense one can conclude that the organic sesame sector faces conventionalization into the mainstream sesame economy. But that is only half of the story.

Contrary to the case of conventionalization in California, described by Buck and al. (1997) and Guthman (1998, 2004), where organic agriculture *grew* into mainstream agro-food arrangements, this study illustrated a case where organic agriculture *shrank* into mainstream

agro-food arrangements, perhaps not (yet) so much in the production stage but especially in the commercialization stage. Another main difference is that most research on conventionalization focused and found *internal* dynamics within organics as the main mechanism of conventionalization: agribusiness and capitalism penetrate and subsequently restructure and transform the organic sector toward further industrial and conventional models. This case illustrates that dynamics outside the organic sector can also be a major cause that *externally* affects the organic commodity networks and drives it towards conventionalization. This opens up a new research agenda on the external drivers of conventionalization in alternative food economies. For instance, are these drivers perhaps mainly or especially relevant for organic commodity chains from developing countries?

What can be done to turn around this shrinking into mainstream of organic sesame in Burkina? The organic standard does provide the technical conditions of organic production and processing, and organized organic producers into cooperative organizations. But the standard has not been able to adequately extend its influence into trading. The organic standard, mainly driven and governed through private and civil society networks, proved hardly able to address issues of chain inequity, power imbalances, price speculation, and volatility, and the lack of trust across the chain, all central in (global) agro-food governance. In situations of relative powerless organic producers and marketing channels the state and public agencies should address these limitations and protect the organic chain from becoming subsumed and dissolved by mainstream conventional international trade. To be successful, the product and spatial specialization needs to be combined with institutional specialization and legal reinforcement.

CHAPTER 7

GENERAL DISCUSSIONS AND CONCLUSIONS

7.1 Introduction

The counter hegemonic social movement of the 1970s that advocated for a moral economy resulted in the emergence and development of alternative agro-food networks worldwide in the 1990s. In fact, modern technologies, particularly synthetic chemical inputs (pesticides, fertilizers, herbicides, etc.) that proliferated in post-World War II period have prompted a rapid agricultural development, which contributed to overall growth, reducing poverty and food insecurity (Koning and Mol, 2009). However, the resulting externalities on the environment, ecosystems, human health, and above all on the perpetuation of production cycles and the sustainability of life itself are questionable. Further, over time the concerns about the impacts of chemical use in agriculture expanded to include others, such as animal welfare, food safety, energy use, landscape, biodiversity and climate change (Oosterveer and Sonnenfeld, 2012). As a result, food production and consumption have evolved into a multifaceted sustainability concern (op cit: 39). The global organization of the food system also crystallized the ‘globalization’ of food related risks through the growing time and distance compression and the subsequent intensification of commodity flows and exchanges globally. However, globalization processes also facilitated networking processes and alliance and coalition buildings between various stakeholders within and across regions, aiming for sustainable food provision; hence the double phenomenon of ‘globalization of agro-food risks’ and the ‘reflexive globalization of alternative agro-food’. Thus the growing public awareness of environmental, health and ethical trading issues fostered the emergence and development of the organic and alternative food economy. More recently some food scares of which the BSE crisis and the avian influenza have further triggered consumer concern and demand for food safety and environmentally friendly products (De Krom, 2009). Increasingly, producers, processors, agro-food companies and food retailers are incorporating consumer demands for environmental security, food safety, and fair trade (Hughes, 2001; Friedmann, 2005). This in turn affects and reshapes the structure and governing arrangements of commodity chains and networks by giving more space and consideration to other than economic rationalities, stakeholders and actions including social, environmental and political ones.

In Africa, organic agriculture emerged as response to the environmental and health burden of conventional farming techniques and the growing demand for organic products from the North as a result of the emergence of new consumption patterns. The neo-liberal policies and the adjustment programs of years 1980s and 1990s in most African countries favored agricultural intensification as a strategy for food security and poverty alleviation. Farmers were encouraged to modernize by using more chemical products, particularly in the West African cotton belt (Benin, Burkina Faso, Mali, Côte d’Ivoire, and Senegal). The increasing reliance on chemical inputs resulted in several environmental and health disorders and even numerous cases of fatalities were experienced (Glin et al., 2006). Parallel to this, the declining trends of cotton price in international markets contrasting with the increasing costs of chemicals have seriously affected smallholder farmers’ livelihoods (Ferrigno et al., 2005; Dowd, 2008). Thus, the introduction of organic agriculture in Africa is geared to respond to the environmental, health and socioeconomic issues associated with conventional farming as well as to meet the increasingly global organic markets (Parrot et al., 2006). Owing to globalization, agricultural

products flows and exchanges between Africa and the other regions of the globe, particularly the Europe Union, have been intensified. The Europe Union is a major destination of most agricultural product exports from Africa. Thus, more demand in sustainable agro-foods in global and EU markets affects agricultural production systems in Africa towards more sustainability. In all, given the particular importance of agricultural exports for national and household economies, the fragility of natural resources and the vulnerability of livelihoods Africa is witnessing the double phenomenon of ‘globalization of agro-food risks’ and the ‘reflexive globalization of alternative agro-food’. In this respect, it may be expected that the introduction of organic agriculture in Africa could help address the pressing challenges of income generation for smallholder farmers, poverty alleviation, and resilience of production systems and natural resources (land, water, forests, etc.). Thus, understanding the governance arrangements of transnational organic commodity networks from Africa is crucial to inform policy makers, development organizations, civil society and business actors as well as scientists and academia about the underlying rationalities and processes, the challenges and prospects of organic agriculture in the continent.

This final chapter reflects and builds on the major conclusions of the cases studies on transnational organic commodity networks from Africa. This thesis addressed specifically the following research questions: (1) how did different rationalities and stakeholders initiate and co-structure the development and further transformation of organic commodity networks from Africa across time and space? (2) how is trust (re)created to establish and mediate relationships between the different stakeholders and material substances involved in the production, processing and marketing nodes across the organic commodity networks? (3) how and to what extent have governance arrangements within the organic commodity networks subsequently reshaped civil society-business-state relationships? For this purpose I adopted a qualitative and holistic methodology by employing the (global) commodity network perspective.

This chapter is structured as follows. First, I elaborate on the major commonalities and dissemblances of the case studies. Secondly, I draw conclusions on the governing (f)actors and processes that steered the initiation, development and further transformation of the three organic commodity networks studied. The networking processes and trust building mechanisms that are instrumental in shaping the organization and development of the organic commodity networks are emphasized in particular. Thirdly, I highlight the extent to which the governance of the organic commodity networks subsequently reshapes civil society-business-state relationships and discuss in particular the changing role of the state in these processes. Finally, the chapter concludes with a final reflection with policy and research recommendations.

7.2 Major commonalities and dissemblances between the cases

The three investigated cases in this thesis are the organic cotton network from Benin, the organic cocoa network from Ghana and the organic sesame network from Burkina Faso. Each case has its own history, geography and development trajectory and reflects the dynamics and features of the emerging globalizing green economy. The aim here is not to provide a systematic comparison of these case studies, given that each case focused on a specific research question emphasizing a particular facet of the governance of organic commodity network. Instead, I highlight some of the major commonalities and dissemblances of these cases.

7.2.1 Major commonalities between the case studies

From the empirical findings, it came out that various rationalities, stakeholders, processes, values and practices interfere to co-structure and shape the development and life of the commodity network. Several networking processes, different in their scope and importance, are instrumental in the construction, (re)shaping, and (re)configuration of the organic commodity networks. These networking processes include: (1) mobilization of personal social networks and interpersonal social ties; (2) mediation of material and natural resources; (3) market networking and relations and (4) transnational events and gatherings. Trust appears to be a major determinant of connectivity and networking among individuals, organizations, places, and material objects involved in the organic commodity networks from local to global and vice versa. In particular, the three case studies prove the importance of environmental rationality in the governance of organic commodity networks. In particular, the story of the rise and development of the organic cotton network from Benin highlights that this commodity network emerged at the intersection of intergovernmental cooperation and transnational environmental movements (Chapter 4). Environmental networks were not only determinant in the process of creation of the organic cotton network, but they also proved crucial in its further lengthening and transformation from an experimental initiative towards a mature transnational commodity network. With respect to the organic cocoa network in Ghana, the initial primacy of the economic logic of OCP (the organic commodity company) failed to sustain a viable organic cocoa network. Again, the intervention of a transnational pro-environmental NGO, Agro Eco, which invested in networking, capacity and trust building among stakeholders was instrumental in lengthening the initial organic cocoa ‘seed network’, and in facilitating its further development (Chapter 5). The story of the emergence of the organic sesame network in Burkina Faso is to some extent similar to that of the organic cocoa network in Ghana through the engagement of a trading company (TROPEX), a typical business enterprise, to export organic sesame to satisfy the demand from the EU. However, (national and international) environmental NGOs and development agencies articulated the perspectives and interests of environment protection, poverty alleviation, and diversification of the local economy (Chapter 6). These later organizations were central in maintaining and further transforming the organic sesame network. Overall, these empirical findings challenge the chain approaches and World Systems theorists that give primacy to economic rationality, transnational corporations (TNCs) and lead firms as major drivers of global production chains

and networks. Instead, it came out that as far as organics in Africa is concerned other rationalities, stakeholders, processes, values and practices interfere and enmesh with economic rationality and interests to co-structure and shape the development and life of the organic commodity network.

Besides, external factors – particularly the institutional, technical, and commercial conditions of and relationships with the mainstream commodities – are also determining factors in the growth and viability of organic commodity networks. In this respect, in all three case studies the organic sector relies on the mainstream sector for the provision of seeds as there is no specific organic seed breeding and provision system. It also was found that although the organic movement in Africa is mostly export oriented it prompts local transformations of the relationships between civil society, business, and state actors, resulting in partnership building, interactive learning processes and increasing working relationships between representatives of the three sectors.

7.2.2 Major dissemblances and specificities of the case studies

The above mentioned commonalities between the case studies do not suggest that the governance arrangements and dynamics are linear or similar across the three cases. In fact, it stands out that the degree and relative engagement of each category of stakeholders and rationality evolved over time and differs from one case to another. Firstly, while the leading position of a national NGO is remarkable throughout the processes of initiation, construction, and transformation of the organic cotton network from Benin, in the two other cases (cocoa and sesame), the engagement of civil society organizations was particularly crucial in the stage of ‘lengthening networks’. Secondly, while in the ‘initial (seed) networks’ the state’s intervention has been crucial in the cases of cotton and cocoa, in the case of sesame the role of the state was almost negligible at that stage. Thirdly, the nature of engagement and the relative position of business actors in the governance dynamics of the commodity networks were different in the three case studies. In the case of organic cotton network, the relative role of business is quite limited from the initial stage to the late development of this commodity network. However, in the cases of cocoa and sesame networks, the engagement of business was at least remarkable at one stage or another, in particular at the beginning of the initiatives.

It also stands out that the nature of the connection to the mainstream commodity networks is an important variable that distinguishes the three case studies. In fact, the degree and nature of the connections between the organic commodity network and the mainstream agro-commodities influence the life and viability of an organic commodity network. The institutional framework of the mainstream commodity constitutes a major landscape which sets the possibilities and limits the growth of the organic commodity. It operates as an enabling or constraining factor. The possibility of benefiting from the mainstream knowledge infrastructure (research, extension and advisory services) is key in the development of an organic commodity network, particularly at its early stage. Across the three case studies, it stands out that this relation to the mainstream institutional framework was particularly strong in the organic cocoa network since the very first stage of the initiative. In fact, CRIG (the Ghana Cocoa Research Institute) was actively involved in mobilizing and co-constructing the

necessary technologies (in soil fertility and pest management) that would profit the organic cocoa farmers. Several collaborative research projects have been co-developed by CRIG, the organic promoting agencies (Agro Eco LB and Yayra Glover Ltd) and the organic farmers' organizations. The organic cocoa network also benefitted from the extension and advisory services operating in the mainstream cocoa network. Through the public-private partnership between COCOBOB (Ghana Cocoa Board), MoFA (the Ministry of Agriculture) and Yayra Glover Ltd, the latter valorizes the locally established organizational structure of CODAPEC (Cocoa Diseases and Pests Control Program) dealing with pest control for the benefit of organic cocoa farmers (Chapter 5). The mainstream institutional framework may also be constraining in case of an antagonism, like the issue of the coexistence of genetically modified crops. Besides, the structuration and organization of the mainstream marketing system and its linkage with the organic sector also affects the viability of the organic commodity network. On the one hand, the possibility of trading the organic produce through the mainstream market may offer a second chance to organic farmers in case of failure in the organic market for one reason or another. But, on the other hand, this may also trap the sustainability of the organic commodity itself as in the case of the organic sesame in Burkina Faso. In fact, because of the increasing pressure from the international mainstream market and the price volatility at local level, it became difficult to set a fixed price for organic sesame, based on the conventional price with an additional premium. Thus, when the price of conventional sesame increases, it may surpass the price for organic sesame which remains constant throughout the year. As a consequence, important quantities of organic sesame are traded in conventional marketing circuits (Chapter 6). This 'shrinking into the mainstream' undermines the viability of the organic sesame network itself.

In conclusion, despite some commonalities the trajectories and development paths of the organic commodity networks are uneven, context-dependent, and changing over time. The importance and preeminence of each category of stakeholder, their rationality and their interrelationships evolved depending on the particular context.

7.3 Governing (f)actors of organic commodity networks

7.3.1 Networking as driving process of organic commodity development

The formation and maintenance of the organic commodity networks is mainly steered through processes of networking. Formal and informal spaces and coalitions of stakeholders drive and facilitate the development of the organic idea and project. Various networking processes serve as channels for (re)building ideas, meanings and expectations about organic production and trade. I identified four main processes in this regard: (1) mobilization of personal social networks and interpersonal social ties; (2) mediation of material and natural resources; (3) market networking and relations and (4) transnational events and gatherings. The first two processes operate mainly horizontally within stakeholders categories, particularly at farmer level, while the last two processes have a more vertical dimension.

Firstly, to grow locally, organic production networks rely on sensitization of farmers and the mobilization of peers. Pioneer organic farmers and local leaders play an important role in these processes. They contribute to enlarge the small initial organic circle by convincing and

bringing in their relatives, neighbors, friends, and associates. The rationale of this is twofold. First there is the search for what I term ‘social backing’, a somewhat strategic social support to transcend the feeling of isolation in this new enterprise. As organic farming is a new endeavor, pioneer organic farmers find it necessary to secure themselves mentally and emotionally by creating a social network around the initiative. Secondly, from a technical perspective, organic farming requires new knowledge, farming techniques and competencies, which mostly are constructed through social learning and informal experiments (Vodouhe and Glin, 2001). This catalyzes a double process of ‘dis-embedding’ from the initial socio-technical network and ‘re-embedding’ in a new one (Chapter 5). The re-embedding process demands an active networking with peers to access the necessary information, knowledge, and technologies. Social control and the internal control system for organic agriculture reinforce this process.

With respect to the second process, i.e. mediation of material and natural resources, it’s worth noting that in line with the above argument, organic farmers mostly rely on their peers to share materials and resources, for instance spraying materials and carts, because of the internal control system for organic agriculture and the organic certification requires the prevention of contamination. There is also an aim for belonging to a new ‘community of practice’ (Chapters 4 and 5). In the same vein some joint activities that necessitate collective action (for instance nursery for seedlings, pruning activities, and pod breaking in the case of organic cocoa) are critical in connecting organic farmers mutually and in catalyzing their social coherence.

Regarding the third process (market relations) the movement of organic commodities from the farm to the global market is driven by contract-based marketing relationships. Each year, an intermediary agency, either a farmer organization or a NGO, signs contracts with individual farmers detailing the (estimated) quantity, price, norms and technical requirements for the organic commodity. In general, the modalities of the contract are informed by the conditions agreed with the exporter or the marketing agency at downstream levels. In some cases, this may require intense processes of negotiation whereby the bargaining power of stakeholders is crucial. Overall the relational skills and competences (ability, benevolence, and integrity) of farmer leaders are also crucial in shaping vertically the organic business. Farmer leaders invest in social capital and operate as mediator among farmers and between farmers and the other stakeholders at downstream levels in the commodity networks.

The fourth process also operates more vertically by connecting several nodes and functions in the supply network (production, processing, and marketing, research, certification, etc.). For instance, international conferences and events served as important locations where linkages are enacted between organic cotton promoters and businesses and where the overall ‘organic covenant’ is renewed (Chapter 4). International organic events are instrumental in sharing information, in getting acquaintance with people and putting faces to names, in developing a common sense of the organic philosophy, its challenges and prospects and in (re)building trust among organic product suppliers, retailers and consumers. As Mol (2008) puts it, in spite of the informational configurations of the networked economy, trust, reliability and contracts still need face-to-face or handshake-based, interactions. This (re)creates new identities and

fosters somehow a social and emotional attachment to the organic project depending on the internal vitality of the particular commodity network.

In all, it can be concluded that the formation and maintenance of the organic commodity network is steered through particular network making processes (linking local to global and vice versa) where shared meanings, values, and expectations play a key role. This is in line with Sayer's argument that "material economic processes are themselves part of 'nature' as well as of the 'lifeworld', the 'identities, discourses, work cultures and the social and cultural embedding of economic activity'" (Sayer, 2001:688; see also Coe et al., 2008). This may not be surprising at first sight, as organic agriculture is originally concerned with re-establishing authentic local food ecologies, cultures and tradition (Lockie et al., 2006). However, with the growing global character of organic commodity networks as a result of formalized auditing and certification processes, several authors argue that the emotional, cultural, and social values of organic became diluted and blurred. The findings of this thesis suggest otherwise. The transnational organic commodity networks from Africa still incorporate and make sense of immateriality in economic processes. The question is how this is made possible in a transnational and global context, given the (growing) distance between stakeholders and material substances across the production, processing and marketing nodes and the difference in value, belief, and culture.

7.3.2 Trust as the connector in organic commodity network

The processes described above generate a network and a sub-culture that is constitutive of and conducive to trust-building and -mediation between the stakeholders involved. In fact, while the literature on (global) commodity chains emphasizes the role of (economic) power as central in the configuration of governance structures and main determinant in inter-firm relations (in conventional commodity chains), the findings of this research reveal that also trust is a key element that shapes relationships within and between stakeholders and makes possible and maintains the life and flow of organic commodities. Atkinson and Butcher (2003) describe trust as the 'social glue' that can hold different kind of organizational structures together. I distinguished different ideal-typical forms of trust in the development and governance of the organic commodity networks in Africa, including *trust in persons*, *trust in organizations/institutions*, and *trust in things*. In organic commodity networks practices these forms of trust often intermingle.

With respect to personal trust, as argued previously, personal links and ties are crucial in the mobilization of the initial seed network around the organic project and also in the process of its lengthening. To spread the 'organic message', pioneer farmers, leaders or promoters deploy resources (information, data, and technical knowledge) and their social credibility. The extent to which peers are mobilizing other farmers at the local level depends on how successful the initiator or promoter of the organic project is in building personal trust with his/her target group. Furthermore, the survival and existence of the emerging socio-technical network also depends on the quality of personal ties and connections, which favor information flows and social learning among engaged stakeholders. One can understand the major role played by farmers' leaders in mediating and re(building) trust among peer farmers, even in

cases of mistrust or distrust (Chapter 4). Informal trials, mutual exchanges and farm visits are key in the development of the organic production networks. The quality of personal relationships also conditions the capacity and extent to which the necessary local inputs are mobilized (cow manure, neem, seeds, etc.). Most of the organic farmers rely on personal connections with pastoralists and animal breeders to get access to cow manure, which is an important resource for soil fertility management in organic farming. Personal trust not only drives horizontal connections and networks, but is also instrumental in connecting stakeholders vertically across the organic commodity networks. Farmer organizations' leaders and purchasing clerks (buying agents in the organic cocoa case) operate successfully through the mobilization of social capital and trustful relationships with organic farmers upstream and with the marketing system downstream. They are key in mediating and (re)producing trust between farmers and the overall cocoa marketing system (Chapter 5).

With respect to organization-based trust, it appears that trust in organizations is critical in creating, maintaining, and reinforcing relationships between individuals and organizations and between different organizations. In fact, vertically from upstream to downstream, three types of relationships between stakeholders can be distinguished: professional affiliation, services provision and chain relations. The professional affiliation entails typically the relationships between individual farmers and their organizations. Organic farmer organizations operate mostly as cooperatives and service suppliers. The membership may be free or depending on the payment of a fixed fee. Organic farmers are required to access the necessary inputs and materials (for instance spraying equipment) from within their organization. They also have to sell their produce through these organizations. The organic farmer organizations are responsible of the provision of the necessary technical and organizational support including: technical training support, management of the internal control system and certification (in collaboration with a support organization), contacts with processors, marketing partners and support organizations, and payment to farmers. The farmer-organization interface is shaped and driven through perceived trust in the organizational support and transparency of the latter.

Service provision includes relationships with input suppliers (seeds, organic inputs), processors and external trainers. These relationships are mainly governed through contracts (formal and informal), which serve as trust mediator between the involved stakeholders. The reliability of these contracts depends mostly on past experiences and perceived quality of the support. Likewise, the chain relation within the organic commodity networks is also contract-based. In the case of the organic sesame network from Burkina Faso, the absence of an appropriate and mutually satisfying marketing agreement and its fulfillment by the economic actors involved proved a major source of distrust and mistrust, affecting the coherence between the production and the marketing nodes and favoring important deviations of organic sesame flows into the conventional marketing channel (Chapter 6). In the case of the organic cocoa network from Ghana, a multi-stakeholder arrangement (consisting of public, private and civil society organizations) was set up, dealing particularly with the issue of price setting. In the case of the organic cotton network from Benin, until recently, a national NGO was at the centre of the internal and international marketing of the organic cotton. Since 2012, a new institutional arrangement, a public-private partnership, is underway.

With respect to organization-based trust it can be concluded that stakeholders at the downstream level in the organic commodity networks mostly vest their trust in the agreed contract, while farmers often base their trust upon past experiences with the clients and not on the contract itself. Hence, for farmers organization-based trust has a significant element of personal trust.

Materials and objects are key factors in organic commodity networks and they have to be trusted as well. First, the perception and construction of organic as ‘virgin’¹ as a somewhat ‘holy’ form of agriculture (at least chemical-free) crystallizes attention on all materials, inputs, containers, and places (farm, storehouse, etc.) involved in the organic commodity networks and flows. Because of the need to be safe and free of chemicals and to prevent any risk of contamination, objects (materials, inputs, containers, places, weighing, transportation and processing equipments) became not only a matter of special care (special cleaning, traceability) but also a mediator of trust between the stakeholders. The precaution, use and circulation of those materials within and across organic farmers’ communities carries a sense of cooperation and contributes to the construction of a feeling of a community of practice. The organic commodity itself (be it cotton fiber, sesame seed, or cocoa beans) beyond its material dimension is also a condensed form of shared values, meanings, and joint efforts linking the stakeholders in the organic commodity network, from the organic farmer to the final consumer via several intermediaries.

To conclude, trust appears to be a major determinant of connectivity and network making among individuals, organizations, places, and material objects involved in the organic commodity networks from local to global scale and vice versa. However, this trust is sometimes challenged because of opportunism, information and power asymmetry, and suspicion between producer groups and traders, potentially resulting in severe consequences for the success of organic commodity networks. In this case, a mediation process (often led by farmer leaders or a third-party, in general a development organization) may be necessary to rebuild trust and reconnect the ties between these categories. Otherwise, this situation may ultimately lead to mistrust and distrust in, and put at risk the viability of the organic commodity network.

7.4 Reshaping civil society-business-state relationships: bringing the state back in?

The governance of organic commodity networks opened up the way for (further) collaboration and partnerships between civil society organizations, private enterprises and public agencies. In fact, these three categories of organizations have different cultures, traditions, practices, interests, and expectations and bringing them together was not a given beforehand. In the development of organic commodity networks these actor categories came together, to negotiate, to learn, and move beyond their individual and organizational interests, biases and fears. Organic agriculture and business is at the crossroads of several key social and developmental issues including environment protection, biodiversity and resilience to

¹ In Benin, farmer communities in the Centre part call organic cotton as ‘avokan sègbédji’ (meaning virgin cotton in local language Fon)

climate change, income generation, empowerment of women and smallholder farmers and poverty alleviation. This necessitates the creation of partnerships between the different stakeholders. Civil society organizations and development agencies engage in organics mainly for the purpose of environment protection, diversification of the local economy, and poverty alleviation. Business actors are mostly interested in the commercial opportunities resulting from the growing demand for environmentally friendly products on the global markets. State agencies are primarily concerned with export revenues and development issues (poverty alleviation) and with providing the necessary policy and institutional support and knowledge infrastructures (research and extension services).

The stakeholder perception matrix² (see Table 7.1) can be used to highlight and synthesize how the relationships between civil society organizations, business actors, and the state have evolved from the initial stage to the latter stage in the development of the organic commodity network in each of the case studies. A qualitative assessment is presented of the changes in the relationships between categories of stakeholders, based on the perception of key informants (promoters of organic commodities, farmer leaders, and researchers) in each case.

Table 7.1 Stakeholder perception matrix on changing relationships within organic commodity networks

Organic commodity networks	Stakeholder relationships	Perception of the relationships at early stage	Perception of the relationships at current stage
Organic cotton network from Benin	CSOs-Businesses	+	++
	Businesses-State	0	+
	State-CSOs	+	+
Organic cocoa network from Ghana	CSOs-Businesses	+	++
	Businesses-State	+	++
	State-CSOs	+	++
Organic sesame network from Burkina Faso	CSOs-Businesses	++	-
	Businesses-State	0	+
	State-CSOs	0	+

Legend: ++ Strong collaboration + Collaboration 0 Absence or limited relationship - Distrust and mistrust

² Stakeholder matrices compare and contrast the information available about different stakeholders. Putting the information in a matrix or table easily allows comparisons to be made. Specifically, a stakeholder perception matrix can assist in:

- discovering the range in perceptions of the different stakeholders of a problem/situation under analysis.
- identifying conflicting and shared perceptions of the problem/situation.

Source: ICRA learning resources: http://www.icra-edu.org/page.cfm?pageid=anglohome&loginas=anon_e

Overall, the organic commodity network in its early stage has mainly been the result of a web of global and local civil society networks and private enterprises. In this phase, the involvement of the state was limited, be it to varying degrees. In the case of the organic cotton network from Benin, the intervention from the government, although decisive at the beginning, was limited to the financial support from the bilateral Sustainable Development Agreement with the Kingdom of the Netherlands until 2004. The state agencies were absent in the governance arrangements within the organic cotton network. Thus, the organic cotton network grew mainly through the channels of national and transnational NGO networks. However, recently a new dynamic occurred in the organic cotton sector in Benin with the return of state involvement. In fact, through its efforts and will to invigorate the overall cotton sector in Benin, the government engaged in a consultative process with the promoters of the organic subsector to reorganize the organic cotton industry and facilitate its scaling up. Eventually, a formal decision was taken in February 2013 by the Government of Benin to engage in the promotion and the governance of the organic cotton subsector (extract of '*Communiqué du Conseil des Ministres du 13 Février 2013*'). Consequently, a new institutional arrangement i.e. a public-private partnership, consisting of the major organic cotton promoters (OBEPAB and Helvetas Swiss Intercooperation Benin) and the SONAPRA, is being set up to develop a strategy and a new governance arrangement for the organic cotton sector.

Likewise, also in the case of the organic sesame network from Burkina Faso, intervention from the state was almost absent at the very beginning of the initiative. International and local businesses and civil society organizations (NGOs and farmer organizations) have been the main drivers of the organic sesame network. But later on, public-private-partnerships emerged under the leadership of international development agencies to address particularly the weak ties between the production and the marketing nodes by investing in the working relations between farmers and private businesses to build trust between them (see Chapter 6). In the case of the organic cocoa network, the situation was at the beginning already a bit different given the historically strong position of the state in the Ghana cocoa economy. The state was engaged, next to private enterprises and civil society organizations, at the early stage of the organic cocoa initiative and provided institutional and technical support (see Chapter 5). Furthermore, throughout the processes of lengthening of the organic cocoa network and its further transformation, the collaboration between the state, private enterprises, and civil society organizations intensified. Hybrid governance arrangements emerged involving the state, national and transnational NGO-networks, and businesses at the production node as well as in the marketing stage (Chapter 5).

It can be concluded that in general throughout the processes of initiation, development and further transformation of the organic commodity networks the relationships between the three key players (State, Businesses, and CSOs) have been reshaped as result of ongoing working relationships and further collaboration that fostered social capital and trust among them.

Besides, at continental level there is an increasing political will and engagement among African states in favor of the development of the organic sector. The African Union-led

initiative called Ecological Organic Agriculture (EOA) is quite illustrative. The EOA³ initiative aims to favor the mainstreaming of the principles and values from organic and ecological farming into agricultural development policies and strategies in order to improve agricultural productivity, resilience to climate change, food security, access to markets and sustainable development in Africa (Biovision Africa Trust, 2012).

In all, the recent experiences of engagement of the state and the emerging hybridization of public and private governance structures in the organic commodity networks may support the argument of Halberg et al. (2006) that increasingly governments in developing countries are participating in and supporting the export of organic commodities. However, several scholars (e.g., Jänicke, 1986; Young, 1994; van Tatenhove et al., 2000; Mol, 2002; Spaargaren et al., 2006) argue that in the current global network society, the state is weakened and can no longer adequately respond to the pressing issues of environmental and food safety risks and the demand for more ecologically and socially sound agro-food provisioning systems. To a large extent the governance arrangements in the three case studies at their early stage confirm this. The question therefore is how the recent experiences of state engagement in the organic sector reflect the reorienting forms of the state. In the case of the recent change in the organic cotton sector in Benin, although a political decision to promote organic cotton was made by the Government Council, a clear and well-established institutional framework is still lacking. Likewise, the continent-wide EOA initiative, although endorsed by a resolution from the African Union heads of states and governments, is still a way ahead from appropriation into national agricultural policies and plans. The question then remains whether and how far the increasing political will and state engagement, and the resulting new relationships between the state, civil society, and business in the organic sector, will sustain. Are we witnessing structural transformations of state policies and institutions that could ultimately restructure African agriculture into organic or ecological directions, or are these ideas just a temporary interest that will not get translated and institutionalized into real changes in practice?

7.5 Final reflection and recommendations

Globalization processes have not only led to globalization of risks but have also facilitated the globalization of the awareness of and answers to those risks. Risks that are perceived as common threats favor new coalitions of individuals, businesses, networks, friendships, identities, and alliances, which surpass narrowly defined geographical territories. It became clear that the initiation of organic commodity networks was favored by shared understandings and concerns about the environmental and health risks associated with conventional farming as well as by the opportunities offered to reshape a new direction to agro-food provisioning systems. This research focused on the governance of organic commodity networks and the resulting changes in civil society-business-state relationships in the context of globalization. Various rationalities, processes, and stakeholders from different spheres (political, environmental, social, and economic) proved to co-determine the birth, life and development of the organic commodity networks. As Coe et al. (2008: 271) argue unraveling the

³ The EOA Initiative emanated from a decision by the African Heads of the States and Governments in 2011 in Addis Ababa to promote organic farming (DECISION ON ORGANIC FARMING; Doc. EX.CL/631 (XVIII)).

complexities of the global economy, with its fundamental geographical unevenness and huge inequalities, poses immense conceptual and empirical difficulties. The commodity network perspective applied in this thesis helped to conceptualize and capture the diverse, fluid, and dynamic processes involved in the governance of organic commodities from Africa. My research methodology based on a multi-case study and a qualitative approach unraveled the multifaceted factors, rationalities, processes, and realities of the governance arrangements and dynamics of the organic commodity networks from Africa. To some extent, the findings of this thesis may apply to or inform, at least partially, other organic commodity networks worldwide although each organic commodity network is unique with its own context, history, geography and development trajectory. The commodity network framework is, however, less meaningful to adequately address structural processes like political modernization, politics of regulation, and power mechanisms, all issues that are of great importance in the context of globalizing organic agro-food production and trade. In fact, the organic standard proved hardly able to address issues of chain inequity, power imbalances, price speculation, and volatility, and the lack of trust across the chain, all central in (global) agro-food governance (Chapter 6). This is in line with Reynolds's (2004) and Bush et al.'s (2013) argument that northern-based certification systems reproduce and deepen global inequalities through the imposition of new qualifications and auditing systems and related certification costs on Southern producers and the concentration of market advantages in the hands of corporate enterprises. Unraveling these challenges and imbalances of global organic agro-food trade may require more power oriented frameworks to address those issues that can hardly be addressed by the commodity network perspective alone. Thus, the commodity network framework needs to be adjusted to adequately investigate and understand structural processes and challenges in global organic commodity networks.

In light of the findings of this thesis I recommend the following for the further transformation and sustainability in the governance of organic commodity networks in and from Africa.

7.5.1 Policy recommendations

My recommendations for policy making follow directly from the analysis carried out in this dissertation and focuses on four areas: (1) policy and regulation; (2) public investments in research; (3) strengthening the ties between the production and marketing nodes; and (4) regional market development.

Policy and regulation on organic: the organic sector in Africa still lacks a supportive policy and institutional environment. Only a few countries have elaborated a policy and/or a regulation on organic agriculture. To fully capture the potential of organic agriculture to tackle environmental and natural resources degradation, rural poverty alleviation, and resilience to climate change, agricultural policies should integrate organic agriculture as a strategy towards more sustainability. A regional perspective should be adopted by taking into account the socio-cultural background and the farming diversity as well as national and regional institutional and legal frameworks while being attentive to processes and dynamics at global level (for instance at WTO and EU level). As far as standards are concerned it would be beneficial if different regions in Africa develop organic standards, which could serve as a

basis for a unique African Organic Standard. A unique African Organic Standard may have a stronger political legitimacy to be recognized by EU, the United States, and Japan which are the major destinations of exported organic products from Africa. A successful establishment and recognition of an African Organic Standard will ultimately help decrease certification costs and increase the competitiveness of organic agro-foods from Africa. The current Ecological Organic Agriculture Initiative can be regarded as an opportunity to that end.

Public investments in research: producers and operators would benefit greatly from government policies that support research to resolve organic production constraints and improve the supply of organic commodities (Scialabba, 2000). The further development of the organic sector in Africa will depend on the engagement of public investments in research in some key issues including seed breeding and provision systems for organic and low input agriculture, sustainable soil fertility and pest management and weed control as well as innovative financing and marketing systems. Above all, what is needed is a reform of the agricultural research in the continent, an ecological modernization of the agricultural innovation systems through the restructuring of the mandate, agenda, and practices of agricultural research services towards more ecological paths. Environmental rationality and criteria, next to productivity and economic performance, should guide the organization, functioning and outcomes of agricultural research. The very nature of organic agriculture requires participatory and trans-disciplinary research that integrates the perspectives, knowledge, and actions of the various stakeholders including farmer groups, research and extension services, civil society organizations, the private sector, and policy makers.

Besides, there are currently several regional research projects and programs on organics including FiBL⁴ led research programs in West and East Africa and the International Centre of Insect Physiology and Ecology (ICIPE)⁵ activities. Further synergy between these programs should be encouraged, as well as the identification of scaling up strategies to broaden their scope and to multiply their effects. In this respect, it may be necessary to engage African national governments to support the development of a continent wide research platform on organic agriculture to support the development of organic innovations while reinforcing collaboration and synergy among the ongoing research programs and organizations and facilitating information flows on organic and ecological technologies.

Strengthening the ties between the production and marketing nodes: the trust based relationships between the organic operators are frequently challenged by power and information asymmetries and opportunism. This could ultimately result in suspicion, distrust

⁴ FiBL (Research Institute of Organic Agriculture) is leading several research programs on various issues of organic agriculture in Africa including soil fertility and pest management, agronomy, and socioeconomic impacts. The most important are following:

- Syprobio Project (2011-2015) funded by EuropeAid and implemented through a consortium of stakeholders including Helvetas and national research organizations and farmers' groups from Benin, Burkina Faso and Mali;
- Long-term farming systems comparison trial in the tropics (Kenya) (2007-2015) funded by SDC, LED, Coop Sustainability Fund, Biovision;
- ProEcoOrganic Africa (2013-2016) funded by SDC and Hivos and implemented in Ghana and Kenya.

⁵ ICIPE has a long standing tradition in working with national and international organizations and is home to some local/regional offices of CGIAR centers, namely; the International Center for Tropical Agriculture – The Tropical Soil Biology and Fertility (CIAT-TSBF). ICIPE research programs focus mainly on pest management.

and mistrust and puts at risk the fulfillment of contract obligations from one side or another. Overall, the organic commodity networks lack a third-party coaching and monitoring mechanism to monitor and facilitate the enforcement of production and marketing contracts. The point is that the organic standard deals mainly with technical requirements about organic production and is dismissive of issues like fairness, transparency, democracy, price speculation and volatility, and cohesiveness across the various nodes. This makes smallholder farmers particularly vulnerable when facing business oriented traders. As Lebret and Alpha (2007) argue, the weak organization in the value chains for most agricultural products from Africa is in part related to farmers' organizations weaknesses when it comes to their ability to negotiate fair prices for their goods with traders. In the same vein, Ndugire (2010) posits that organic small farmers are in a relatively weak position in negotiations with firms because they have limited information and poor organization. Thus, I would suggest three strategies to strengthen the links and coherence between organic producer groups and traders: (1) strengthening and empowerment of organic farmer's organizations; (2) setting a third-party coaching mechanism; and (3) developing innovative organic business models.

Regional market development: addressing the issue of price volatility and uncertainty also demands the reorientation of the organic markets. The dependency of organic commodities on global markets exposes farmers to high price fluctuations of a fragile global economy. However, there is some potential of local and regional markets. In fact, while Africa's share of international trade is falling, Africa's intra-regional trade share doubled from 6 per cent to 12 per cent between 1990 and 2011 (WTO, 2013), revealing the potential of regional markets in Africa (Lebret and Alpha, 2007). Rundgren and Lustig (2007) indicate that domestic markets for organic products have good prospects and are likely to grow if appropriate policy and market incentives are promoted.

7.5.2 Recommendations for further research

Several questions remain or have emerged from this research process that open up interesting venues for further investigation within and beyond the geographical and theoretical scope of this research.

The first line of further research would be to pursue comparative research on the governance of organic commodity networks combining other major commodities (coffee, vegetables, tree nuts) and different regions within Africa (Central, East, Southern, and Northern Africa) and outside Africa (Asia, Australia, Latin America). Employing a similar theoretical framework and research design on other combinations of countries/regions and organic commodity networks will help confirm the consistency and generalizability of the findings of this thesis while highlighting new insights and specificities that could ultimately help further refine the (global) commodity network framework.

Secondly, with the case of the organic sesame network I discovered a new form of conventionalization that is the *shrinking* of organic into mainstream agro-food networks, which is different from the well-known case of conventionalization in California where organic agriculture *grew* into mainstream agro-food networks (Chapter 6). Likewise, I found that external dynamics may also influence, reconfigure, and conventionalize the organic sector

while the overall debate on conventionalization only focuses on internal dynamics within organics. In this respect, I would suggest expanding research on the conventionalization thesis in Africa and other regions (in particular the developing world) by focusing more on external drivers, i.e. factors beyond the organization and governance arrangements of the organic commodity itself, that may lead to its conventionalization.

Thirdly, as a limitation, this study did not address consumers' perspectives and rationalities about organic commodities and how these may affect or shape the governance arrangements of organic commodity networks. As Oosterveer and Sonnenfeld (2012) argue, consuming food requires people to permanently trust its quality and safety. As far as organic commodity is concerned, it would be interesting to further investigate how the determinants of consumer trust in organic attributes are actively integrated and codified in the governance arrangements of the commodity network and how these, on the other hand, reshape the consumer's attitude towards organic products. Thus, in-depth research on the governance of organic commodity networks from the retailer and consumer perspectives is needed.

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APPENDIX 1 CHECKLIST OF TOPICS FOR UNSTRUCTURED INTERVIEWS WITH ORGANIC COTTON STAKEHOLDERS

Historical and external conditions

- External conditions (political, institutional and economic) that contributed to the rise of the organic cotton network
- Trajectory of the organic cotton network
- Historic events and constellations that have affected the development of the organic cotton network

Networking and trust building between actors

- Role of social networks and personal ties
- Importance of material objects (natural resources, localities, inputs, technologies, collective activities) in connecting stakeholders
- Economic and market relationships between stakeholders
- Role and importance of gatherings and international events

Power relations

- Overall coaching of the organic cotton network
- Processes and actors involved in decision making with regard to: production, transport, ginning, storage, certification, export, marketing etc.

Production

- Organic cotton farming practices
- Mobilisation/ construction of technologies and knowledge
- Inputs provision
- Land tenancy arrangements
- Contract-farming arrangements
- Support from other actors
- Challenges

Transport

- Organization of the transport from the field to the ginning mill
- Contracting process

Ginning and storage

- Specific requirements for ginning organic cotton
- Contracting processes
- Quality control practices

Appendix 1 Checklist of topics for unstructured interviews with organic cotton stakeholders

- Packaging
- Organization and conditions of storage
- Certification standards
- Organization and functioning of the internal control system
- Organization of the certification process

Export activities

- Transport of the organic cotton fibre to the harbour
- Quality control practice in the harbour
- Organization of the sea transport
- Actors involved in the harbour and export activities

Marketing

- Market contracts
- Price setting mechanisms
- Relationship between farmers and export organization
- Marketing strategies
- Role of the export organizations
- Role of the foreign (European) importers

APPENDIX 2 QUESTIONNAIRE FOR INDIVIDUAL ORGANIC COTTON FARMERS

Fiche N°..... Name of interviewer.....Date :

Hamlet: Village.....District.....

1. Identification of the interviewee

1.1 Name:

1.2 Gender

1.3 Age.....

1.4 Origin (Autochthon, migrant/ place).....

1.5 Education.....

1.6 Marital situation

1.7 Membership in the GPCB (Organization of organic cotton farmers).....

1.8 Main crops cultivated

.....
.....

2. Genesis and trends of organic cotton production

2.1 Where did you hear about organic cotton the very first time?

.....

2.2 Which message or information did you receive about organic cotton?

.....

2.3 When did you try for the very first time the production of organic cotton?

.....

.....

2.4 What were the reasons that motivate you to try the production of organic cotton?

.....

.....

2.5 Have your expectations been fulfilled? Why?

.....

2.6 Which area of organic cotton did you cultivate the first time? (ha).....

2.7 Which production did you achieve? (T).....

2.8 What is the trend of your production of organic cotton?

.....

2.9 How do you explain this trend?

Appendix 2 Questionnaire for individual organic cotton farmers

.....

2.10 What are your achievements in organic cotton production the last five years?

	07-08	06-07	05-06	04-05	03-04
Areas (ha)					
Productions (kg)					

2.11 Which events so far, did affect positively your engagement in organic cotton production?

.....

2.12 Which events so far, did affect negatively your engagement in organic cotton production?

.....

3. Access to production factors

3.1 What are your landholdings (ha)?

Mode of access	Heritage	Purchase	Gift	Hiring	Tenant farming
Area (ha)						

3.2 Which inputs do you use in the production of organic cotton?

.....

3.3 How do you negotiate these inputs?

Inputs	Access points	Modalities of access
Cotton seeds		
Cow manure		
Palm oil cake		
Guano		
Seeds of 'neem'		
Urine of cow		
.....		

3.4 Which equipments do you use in the production of organic cotton?

.....

3.5 How do you get these equipments?

Equipment	Access point	Mode of access			
		Private ownership	Collective ownership	Hiring	Borrowing
Sprays material					
Cart					
Draft oxen					
.....					
.....					

3.6 Who could you count on in case of need of money for organic cotton activities? Why?

.....

3.7 Have you got access to credit (If yes, mention the source and the modalities of access; if no, why?)

.....

3.8 Which types of labour forces do you mobilize for organic cotton activities?

.....

3.9 If cooperation, what criteria underpin the cooperation and collective action?

.....

3.10 If wage earning workers, where are they from and what types of contract do you rely on?

.....

4. Relationships with the other organic cotton farmers

4.1 What events or activities bring you together with the other organic cotton farmers?

.....

4.2 What information and knowledge do you exchange with the other organic cotton farmers?

.....

Appendix 2 Questionnaire for individual organic cotton farmers

4.3 How do you exchange information and knowledge with each other?

.....
.....

4.4 What resources or materials do you exchange with the other organic cotton farmers?

.....
.....

4.5 How do you trust the other organic cotton farmers in terms of collaboration and fulfilment of the organic production requirements?

.....
.....
.....

5. Relationships with the GPCB committee (organic farmers' organizations at village level)

5.1 How important/useful is the GPCB committee for you?

.....
.....

5.2 What relationships do you have with the GPCB committee?

.....
.....

5.3 What information do you receive from the GPCB committee?

.....
.....

5.4 What information do you provide the GPCB committee with?

.....
.....

5.5 In which occasions do you meet the GPCB committee and what do you discuss about?

.....
.....

5.6 What resources or materials do you receive from the GPCB committee?

.....
.....

5.7 Are you involved in the decision making process within the GPCB? Why?

.....
.....
.....

5.8 How do you trust the GPCB committee members?

.....
.....
.....

6. Relationships with the conventional farmers

6.1 What relationships do you have with the conventional farmers of the village?

.....
.....

6.2 What events or activities bring you together with the conventional farmers of the village?

.....
.....

6.3 What agricultural information/knowledge do you receive from the conventional farmers?

.....
.....

6.4 What agricultural information/knowledge do you provide the conventional farmers with?

.....
.....

6.5 Which material or resources do you share/ exchange with the conventional farmers?

.....
.....

6.6 How do you trust the conventional farmers?

.....
.....
.....

7. Relationships with OBEPAB (the ONG providing the technical and organizational support to organic farmers)

7.1 What relationships do you have with OBEPAB?

.....
.....

7.2 In which occasions do you meet with OBEPAB representative (s)?

.....
.....

7.3 What information/knowledge do you receive from OBEPAB?

.....
.....

7.4 What information/knowledge do you provide OBEPAB with?

.....
.....

7.5 Which from OBEPAB?

resources or material do you receive

.....
.....

Appendix 2 Questionnaire for individual organic cotton farmers

7.6 Are you involved in the decision making processes within the organic cotton networks (organisation of the production and the ginning, price setting, organisation of the marketing)? How/why?

.....
.....
.....

7.7 How do you trust OBEPAB?

.....
.....
.....

8. Other networks or organisational memberships

8.1 To which other networks or organisations do you belong?

.....

8.2 What do you gain (information/ knowledge, position, resources etc.) through those networks and organisations

.....
.....

8.3 Does that contribute somehow to your activities of organic cotton production? (If yes, how)

.....
.....

8.4 Which other meetings do you use to attend?

.....

8.5 What do you gain (information/ knowledge, position, resources etc.) through those meetings

.....
.....

8.6 Does that contribute somehow to your activities of organic cotton production? (If yes, how)

.....
.....

9. Problems and perspectives

9.1 What do you think about the future of organic cotton?

.....
.....

9.2 Which problems could undermine the development of organic cotton?

.....
.....

9.3 Who could play a leading role for overcoming these problems?

.....
.....

9.4 Which solutions could you suggest for that purpose?

.....
.....

Other observations and comments:

APPENDIX 3 MAJOR NATIONAL ORGANIC AGRICULTURE MOVEMENTS (NOAMS) IN AFRICA

The Beninese Organisation for the Promotion of Organic Agriculture (OBEPAB/BOAN)

OBEPAB is a Non-Governmental Organization founded in 1995 with the aim to contribute to reduce pesticide use in agriculture and to promote organic agriculture. OBEPAB's approach relies on participatory approaches and values local knowledge as well as local resources. OBEPAB has been a pioneer in the promotion and early development of organic agriculture in Benin. Using a web of networks and relationships at national and international levels, OBEPAB initiated and led the organic cotton network. OBEPAB also played a leadership role in the West Africa subregion in terms of capacity building in organic agriculture (www.obepab.org). Currently in Benin, a new dynamic is underway with the creation of the Benin Organic Agriculture Network (BOAN), a national platform regrouping the major organic stakeholders in the country.

The Ghana Organic Agriculture Network (GOAN)

The Ghana Organic Agriculture Network was founded in 1995 as a national network of ecological/environmental organizations and farmer groups/associations as well as institutions and individuals interested in or working in the organic agriculture sector. The rationale was to share information, ideas and experience on tropical organic and sustainable farming and agro-forestry practices in Ghana. The organization also provides training, education and extension advice to farmers. The network has been encouraging organic vegetable and cocoa production among farmers but still requires co-operation among interested buyers and/or supporters to extend these activities. GOAN has evolved to become a single active NGO promoting eco-farming/organic agriculture among the resource-poor farmers in both peri-urban and rural communities in Ghana.

The Nigerian Organic Agriculture Network (NOAN)

The Nigerian Organic Agriculture Network is the umbrella organization of the organic agriculture sector in Nigeria. The secretariat of NOAN is located at the city of Ibadan, Nigeria. The mission of NOAN is to coordinate and facilitate the development of sustainable organic agriculture related activities in Nigeria. Membership is drawn from farmers, scientists, processors, exporters, individuals, institutions, NGOs and organizations that are key players in the organic agriculture sector in Nigeria. NOAN also serves as a linking body between organic agriculture stakeholders in Nigeria and international bodies interested in organic agriculture. NOAN also plays a key role for the further development of organic agriculture at regional level and was instrumental in the creation of the West Africa Network of Organic Agriculture, which was launched during the First West African Summit on organic agriculture held November 2008 in Abeokuta, Nigeria (Willer and Kilcher, 2009). (www.noannigeria.net).

The Malian Organic Movement (MOBIOM)

The Malian Organic Movement was incepted in 2002 thanks to the organic cotton program initiated by Helvetas (Intercooperation) Mali since 1998. From the original federation of 16 co-operatives with a membership of 174 farmers, MOBIOM grew up to 76 co-operatives with 10, 000 members. MOBIOM aims at organizing smallholder organic farmers to better position themselves and to be stronger on the global organic commodity markets. The rationale is to contribute to improving farmer's revenues in a harmonious economic, ecological, and social environment. MOBIOM is member of the Union of Cotton Producer Societies and of the Union of Mango Producer Societies (www.fairtrade.org.uk/producers/cotton/mobiom_mali).

The National Federation of Organic Producers of Senegal (FENAB)

The National Federation of Organic Producers of Senegal (FENAB) was created in 2008 in Thies. FENAB is determined to promote organic farming in strict respect of the laws and regulations of the international organic agricultural standards. FENAB lobbies for the recognition of organic agriculture in the national agricultural policy and the development of agro-biological research in Senegal. It consists of six supporting organizations (Enda Pronat, AGRECOL Africa, Green Senegal, ASPAB, GIT and CEAS) and eighteen producer organizations in six regions (Thies, Fatick, Diourbel, Saint Louis, Tambacounda and Kaffrine).

The Kenyan Organic Agriculture Network (KOAN)

The Kenya Organic Agricultural Network (KOAN) started in 2005 as the national coordinating body of organic agriculture related activities in Kenya. The organic practitioners agreed to come and work together to achieve the synergy required for developing the organic sector. Specifically, KOAN aims to develop competencies, skills and strategies in areas such as marketing, certification and standards, training, extension and information exchange, networking, policy and advocacy and production. KOAN is a membership organization with members across the country and brings together producers, exporters, traders, NGOs and other like-minded individuals and organizations in promoting organic agriculture in Kenya. The organization represents over 35,000 farmers and works with partner organizations throughout the country (<http://www.koan.co.ke>).

The Ethiopian Association of Organic Agriculture (EAOA)

The Ethiopian Association of Organic Agriculture (EAOA) was established in 2007 with the goal to achieve sustainable agriculture, poverty reduction and environmental stability in the country. This association is now the umbrella organization for organic agriculture in Ethiopia. EAOA's mission is to coordinate and promote organic agricultural development, networking and marketing. The Association is established to unite producers, processors, marketers, consumers, trainers and other stakeholders who are interested in promoting organic agriculture. Since 2007, EAOA has developed a strategic plan to guide its future activities to

enhance the organic sector development by networking among the various organic actors and operators in the country.

The Tanzania Organic Agriculture Movement (TOAM)

The Tanzania Organic Agriculture Movement (TOAM) is the umbrella organization for organic agriculture in Tanzania. Incepted in 2004, this movement aims at stimulating, developing and promoting organic farming through the following activities: to provide authoritative information on organic agriculture and its application, to promote and facilitate research, training and extension in organic sector, to promote appropriate technologies and infrastructure for the development of the organic sector, to sensitize, lobby and advocate for organic production, processing, marketing and consumption, to facilitate co-operation and networking among its members and to establish linkage and networking with regional and international organic bodies (<http://en.convdocs.org/docs/index-62909.html>). Other institutions involved in organic agriculture in Tanzania include: Sokoine University, Agricultural and Livestock Training Institutes, Neem Botanical Research Station and Tengeru, Institute of Sustainable Development. Those organizations have significantly contributed to the development of certified organic production in Tanzania.

The National Organic Agricultural Movement of Uganda (NOGAMU)

NOGAMU was founded in 2001 and by mid-2005 had attracted over 300 individual members and 80 corporate members representing producers, processors and exporters. Overall NOGAMU is linked to 25,000 stakeholders in the organic sector. NOGAMU works with a designated partner organization in different localities, thereby spreading its influence nationwide. In the north of the country it works with the Lango Organic Farming Promotion, in the east with the Students Partnership Worldwide, and in the west with the Sustainable Agriculture Trainers Network. The leadership of NOGAMU in the organic sector in Uganda has allowed the organic agricultural movement in Uganda to lobby as a body against the proposed use of DDT by the Ministry of Health; to attend international trade fairs as a body, slowly carving out a solid reputation for Uganda in the international organics market and lobby government for a policy on organic agriculture etc. (United Nations report, 2006).

Organics South Africa (OSA)

Organics South Africa is a non-profit organization formed in 1994 by concerned individuals wishing to ensure that organic agriculture finds its rightful place in South African farming and food processing. Known as OSA, it interfaces with farmers, retailers and the government to further the aims and objectives of the organic movement to the benefit of producers, processors, consumers and the environment. It provides a network for all organically minded people to interact and co-operate for the sustainable protection of natural resources, especially agricultural soils. Membership is open to all and the organization lists fresh produce growers, producers, processors, meat producers, wine farmers, the essential oil industry, the Cape tea producers, dairy, eggs and poultry producers and increasingly the processors of fresh produce into end products both for the local and overseas market. (<http://organicsouthafrica.co.za>).

The Organic Producers and Processors Association of Zambia (OPPAZ)

OPPAZ is a national organic movement operating in Zambia in the Southern African Region. OPPAZ was created in 1999 by a group of farmers keen to promote and expand the opportunities of organic agriculture. The objectives of OPPAZ are: to support and promote the development of income generating and diversification opportunities for Zambian organic farmers and processors, to support and promote the development of smallholder rural-based primary production and processing of organic agricultural products, to develop and actively promote sustainable methods of organic agricultural production, to encourage and support the development of mutually supportive networks with strategic partners, to lobby the government and advocate for pro-organic policies and a national organic regulatory framework, to represent the organic fraternity and maintain integrity of the organic sector in Zambia. (www.oppaz.org).

The Zimbabwe Organic Producers' and Processors' Association (ZOPPA)

Zimbabwe Organic Producers and Promoters Association is a national movement that brings together organic producers, promoters and processors for the development of the organic agriculture sector in Zimbabwe. Registered as a trust in 2008, the organisation is membership-driven and relies on participation of its members in its activities. The objectives of ZOPPA are to promote production, harvesting and marketing of organically produced food according to set standards, to lobby and advocate for a policy that supports organic agriculture production in Zimbabwe, to establish and monitor an agreed set of standards and to offer use of label to those who comply with set standards as required by the local or international market. (www.zoppa.org.zw).

SUMMARY

The increasing global concerns with regard to agro-food risks and the subsequent consumerist turn in the global food economy challenges the conventional chemical-intensive agricultural production. In fact, the post-war dominant agro-industrial development fostered the intensive use of chemical inputs, corporate concentration, and standardization of products for mass consumption (Goodman et al. 1987; Raynolds et al. 2007). This prompted a rapid agricultural development, which contributed to overall growth, reducing poverty and food insecurity (Koning and Mol, 2009). Despite the success so far achieved, this Fordist regime generated several externalities on natural ecosystems and human and animal health. In addition, the further modernization of production techniques (for instance the genetically modified organisms) combined with globalization processes extended the scope and character of agro-food risks, which became global and cross-border. The global organization of the food system crystallized the ‘globalization’ of food related risks through the growing time and distance compression and the subsequent intensification of commodity flows and exchanges globally. Thus, to be effectively handled, these risks must be addressed from a global perspective; hence within supra nation-state institutions. In parallel, the concerns about the impacts of chemical use in agriculture also expanded over time to include others, such as animal welfare, food safety, energy use, landscape, biodiversity and climate change (Oosterveer and Sonnenfeld, 2012). However, state-led international regimes (WTO and environmental regimes) failed to adequately address modern agro-food related risks, particularly sustainability issues (including environmental, social, ethical, and animal welfare). However, globalization processes also facilitated networking processes and alliance and coalition buildings between various stakeholders within and across regions, aiming for sustainable food provision; hence the double phenomenon of ‘globalization of agro-food risks’ and the ‘reflexive globalization of alternative agro-food’. Thus, several non-state regimes, i.e. market- and civil society-led mechanisms emerged around standards and labeling schemes to respond to these issues while restructuring agro-food production and trade towards more sustainability and rebuilding consumer trust in food. Organic agro-food production and trade is of particular importance among these non-state regimes as this constitutes a major innovation towards the greening of the (global) agro-food economy and the fastest growing food sector worldwide with around 170% increase from 2002 to 2011 (Sahota, 2013).

In Africa, organic agriculture emerged as response to the environmental and health burden of conventional farming techniques and the growing demand for organic products from the North as a result of the emergence of new consumption patterns. Owing to globalization, agricultural products flows and exchanges between Africa and the other regions of the globe, particularly the Europe Union, have been intensified. The Europe Union is a major destination of most agricultural product exports from Africa. Thus, more demand in sustainable agro-foods in global and EU markets affects agricultural production systems in Africa towards more sustainability. In all, given the particular importance of agricultural exports for national and household economies, the fragility of natural resources and the vulnerability of livelihoods Africa is witnessing the double phenomenon of ‘globalization of agro-food risks’ and the ‘reflexive globalization of alternative agro-food’. In this respect, it may be expected

Summary

that the introduction of organic agriculture in Africa could help address the pressing challenges of income generation for smallholder farmers, poverty alleviation, and resilience of production systems and natural resources (land, water, forests, etc.).

Broadly, this thesis aims to contribute to the understanding of the governance arrangements of transnational organic commodity networks from Africa to inform policy makers, development organizations, civil society and business actors as well as scientists and academia about the underlying rationalities and processes, the challenges and prospects of organic agriculture in the continent. More specifically, this research aims to understand the governing (f)actors, i.e. rationalities and processes that steered the development of organic commodity networks from Africa and to highlight whether and how these processes transform civil society-business-state relationships. In this respect, the following research questions are addressed: (1) how did different rationalities and stakeholders initiate and co-structure the development and further transformation of organic commodity networks from Africa across time and space? (2) how is trust (re)created to establish and mediate relationships between the different stakeholders and material substances involved in the production, processing and marketing nodes across the organic commodity networks? (3) how and to what extent have governance arrangements within the organic commodity networks subsequently reshaped civil society-business-state relationships?

For this purpose we adopted a qualitative and holistic methodology by employing the (global) commodity network perspective (See Chapter 2). The commodity network approach is rooted in the (global) commodity chain tradition of investigation and analysis of the links between production, processing, and distribution of commodities. The commodity network perspective aims to provide a more holistic analysis of actors, institutions, and their interrelations. Governance in this lens refers to how social and political as well as economic actors ideologically and materially construct, maintain, transform, and sustain commodity networks (Raynolds, 2004). Purposively, three cases are selected and investigated in this thesis: the organic cotton from Benin, the organic cocoa from Ghana, and the organic sesame from Burkina-Faso.

Prior to these case studies, Chapter 3 provides an overview of organic agriculture in Africa. The trends in certified organic production as well as the history and development of organic agriculture in the continent are presented. The organic sector in Africa is relatively young and dynamic with some nuances and differentiations across sub-regions in terms of orientation, driving forces and leading stakeholders. Overall, the organic sector in Africa relies mainly on NGO networks, private stakeholders and development funds while government support is lacking. However, there are some recent experiences of engagement from state agencies, mostly through public-private partnerships and other hybrid arrangements. Chapter 3 also presents some features of trade and regulation of organic commodities in Africa and highlights the major challenges that face the development of organic agriculture on the continent.

Chapter 4 addresses the case of the organic cotton network from Benin by responding specifically to the question how the organic cotton production–consumption network is governed locally and internationally. The findings reveal that beyond the traditional producer

versus buyer dualism, intermediate stakeholders, namely transnational and local environmental NGO networks, are instrumental in the construction, maintenance and transformation of the organic cotton network. It is also apparent that farmers' leaders play an important role in mediating and (re)building trust among organic farmers, though they exert insufficient vertical power in the organic cotton network to control it. International conferences and events provided important occasions for establishing linkages between organic cotton promoters and businesses, and they strengthened the organic movement. The findings favour widening the concept of Global Value Chain beyond economics by acknowledging and including environmental rationalities and the representatives of their interests, not as external elements, but rather as co-governing or co-structuring factors (or actors) of sustainable value chains.

Chapter 5 presents the case study on the organic cocoa network from Ghana and addresses particularly the question how the state responded to and engaged with civil society actors in the evolving organic cocoa network and to what extent state involvement reshaped state-business-civil society relationships. While most of the literature argues that globalization and liberalization processes weakened the state's position as key player in the development and management of agro-food networks, the case of the (organic) cocoa sector in Ghana is often depicted as an exception because of the strong position the state still occupies in it. The chapter demonstrates that although the state is still a major player in the contemporary (organic) cocoa network some hybrid governance arrangements, involving state, transnational and national NGO-networks, and businesses, are emerging. It came out that the tendency toward sustainability in the global cocoa industry with its increased attention for transversal critical matters (eradication of child labor, health safety, good farming practices) offers a fertile ground for newcomers (civil society and business actors) and the hybridization of the governance arrangements of the organic cocoa network. The organic cocoa network also prompted a double process of 'dis- and re-embedding' at the local level that helped shape and strengthen the organic cocoa network.

Chapter 6 addresses the case study on the organic sesame network from Burkina Faso. Specifically, this chapter examines the structure and development of this network to explain the declining trend in organic sesame export and addresses the question whether the organic sesame network is structurally (re)shaped as a conventional mainstream market or whether it still presents a real alternative to conventional sesame production and trade. For this purpose, the chapter elaborates on the concept of conventionalization of 'alternative' food economies from governance perspective. It is found that over the last decade organic sesame is increasingly incorporated into mainstream market channels. But contrary to the well-known case of conventionalization in California, where organic agriculture *grew* into mainstream agro-food arrangements, this study illustrates a case where organic sesame agriculture *shrank* into mainstream agro-food arrangements. In fact, the organic sesame trading system is strongly affected by fierce price competition and volatility in the conventional sesame sector and the free market behavior of conventional sesame traders. This makes the organic sesame network vulnerable and permeable to the international commercial pressure from the mainstream conventional sesame market. The weak coherence in the organic sesame chain resulted in failures to vertically mediate information, balance power relationships in and

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across sesame chains, build trust, and limit price volatility and speculation, resulting in a shrinking organic sesame market. For developing a viable alternative to conventional sesame trading, relations between production and trading nodes in the organic networks need to be strengthened through public-private partnerships, combined with other public and legal reinforcement.

Chapter 7 elaborates on the major findings from the case studies to draw conclusions on the governing (f)actors, i.e. the rationalities and processes that steer the initiation, development and further transformation of the organic commodity networks from Africa. By doing so, this chapter also responds to the research questions of the thesis. From the empirical findings, it came out that various rationalities, stakeholders, processes, values and practices from different spheres (political, environmental, social, and economic) interfere to co-structure and shape the development and life of the commodity network. Several networking processes, different in their scope and importance, are instrumental in the construction, (re)shaping, and (re)configuration of the organic commodity networks. These networking processes include: (1) mobilization of personal social networks and interpersonal social ties; (2) mediation of material and natural resources; (3) market networking and relations and (4) transnational events and gatherings. However, this does not suggest that the governance arrangements and dynamics are linear or similar across the three cases. In fact, it stands out that the degree and relative engagement of each category of stakeholders and rationality evolved over time and differs from one case to another. As Coe et al. (2008: 271) argue unraveling the complexities of the global economy, with its fundamental geographical unevenness and huge inequalities, poses immense conceptual and empirical difficulties. The commodity network perspective applied in this thesis helped to conceptualize and capture the diverse, fluid, and dynamic processes involved in the governance of organic commodities from Africa. The research methodology based on a multi-case study and a qualitative approach unraveled the multifaceted factors, rationalities, processes, and realities of the governance arrangements and dynamics of the organic commodity networks from Africa.

Trust appears to be a major determinant of connectivity and networking among individuals, organizations, places, and material objects involved in the organic commodity networks from local to global level and vice versa. Three trust building mechanisms are identified including *trust in persons*, *trust in organizations/institutions*, and *trust in things*. In organic commodity networks practices these forms of trust often intermingle. However, this trust is sometimes challenged because of opportunism, information and power asymmetry, and suspicion between producer groups and traders, potentially resulting in severe consequences for the success of organic commodity networks. In this case, a mediation process (often led by farmer leaders or a third-party, in general a development organization) may be necessary to rebuild trust and reconnect the ties between these categories. Otherwise, this situation may ultimately lead to mistrust and distrust in, and put at risk the viability of the organic commodity network.

It also appears that the governance of organic commodity networks opened up the way for (further) collaboration and partnerships between civil society organizations, private enterprises and public agencies. In fact, throughout the processes of initiation, development and further transformation of the organic commodity networks the relationships between the three key players (State, Businesses, and CSOs) have been reshaped as result of ongoing

working relationships and further collaboration that fostered social capital and trust among them.

Finally, the commodity network framework seems less meaningful to adequately address structural processes like political modernization, politics of regulation, and power mechanisms, all issues that are of great importance in the context of globalizing organic agro-food production and trade. In fact, the organic standard proved hardly able to address issues of chain inequity, power imbalances, price speculation, and volatility, and the lack of trust across the chain, all central in (global) agro-food governance (Chapter 6). This is in line with Reynolds's (2004) and Bush et al.'s (2013) argument that northern-based certification systems reproduce and deepen global inequalities through the imposition of new qualifications and auditing systems and related certification costs on Southern producers and the concentration of market advantages in the hands of corporate enterprises. Unraveling these challenges and imbalances of global organic agro-food trade may require more power oriented frameworks to address those issues that can hardly be addressed by the commodity network perspective alone. Thus, the commodity network framework needs to be adjusted to adequately investigate and understand structural processes and challenges in global organic commodity networks.

In light of the findings of this thesis and to further the transformation and sustainability in the governance of organic commodity networks in and from Africa, I suggest recommendations for policy making on four areas: (1) policy and regulation; (2) public investments in research; (3) strengthening the ties between the production and marketing nodes; and (4) regional market development.

Summary

SAMENVATTING

De toenemende zorgen wereldwijd rond landbouw- en voedselrisico's en de daaropvolgende toenemende aandacht voor de consument zet de conventionele intensieve landbouw die is gebaseerd op het gebruik van chemische hulpstoffen onder druk. De dominante agro-industriële ontwikkeling sinds de Tweede Wereldoorlog stimuleerde het intensieve gebruik van chemische inputs, concentratie in grotere ondernemingen en het standaardiseren van producten voor massa-consumptie (Goodman et al. 1987; Raynolds et al. 2007). Dit resulteerde in een snelle ontwikkeling van de landbouw die bijdroeg aan algehele groei, reductie van armoede en vergroting van voedselzekerheid (Koning and Mol, 2009). Ondanks deze positieve resultaten leidde dit Fordistisch regime tot verschillende negatieve externaliteiten voor natuurlijke ecosystemen en voor de gezondheid van mens en dier. Bovendien, de doorgaande modernisering van productie technieken (zoals genetische modificatie) in combinatie met het proces van globalisering verbreedde de schaal en het karakter van landbouw- en voedselrisico's, die werden globaal en grensoverschrijdend. De globale organisatie van het voedselsysteem betekende tevens de 'globalisering' van de voedselgerelateerde risico's door de groeiende compressie van tijd en ruimte en de intensivering van de goederenstromen en de wereldwijde uitwisselingen. Het effectief aanpakken van deze risico's vereist een global perspectief; dus de hulp van supranationale instituties. Daarnaast namen de zorgen over de impact van het gebruik van chemische stoffen in de landbouw toe en werden andere zorgen betrokken, zoals dierwelzijn, voedselveiligheid, energiegebruik, landschap, biodiversiteit en klimaatverandering (Oosterveer and Sonnenfeld, 2012). Echter, overheids-geïnitieerde internationale regimes (de WTO en milieuregimes) faalden in het adequaat aanpakken van de modern landbouw- en voedselrisico's, vooral van de duurzaamheids-issues (gerelateerde aan milieu, sociale, ethische, en dierwelzijns zorgen). Echter, het globaliseringsproces faciliteerde ook processen van netwerkvorming en het bouwen van allianties en coalities tussen verschillende stakeholders binnen en tussen regio's, gericht op duurzame voedselvoorziening; vandaar dat we kunnen spreken van het gecombineerde fenomeen van 'globalisering van landbouw- en voedselrisico's' en 'reflexieve globalisering van alternatieve landbouw en voedselvoorziening'. Verschillende private regimes, i.e. door markt en civiele samenleving geleide mechanismes werden gevormd rond standaarden en labeling schema's om de landbouw en voedselvoorziening meer te sturen in de richting van duurzaamheid en het opbouwen van consumentenvertrouwen in voedsel. Biologische landbouw en voedselproductie en -handel is van bijzonder belang onder deze private regimes omdat zij een belangrijke innovatie vormen in de richting van verduurzaming van de (globale) landbouw en voedsel economie en de snelstgroeiende voedselsector vormen met een wereldwijde groei van ongeveer 170% tussen 2002 en 2011 (Sahota, 2013).

In Afrika vormt de biologische landbouw een reactie op de milieu- en gezondheidsbelasting van de conventionele landbouwtechnieken en de groeiende vraag naar biologische producten in het Noorden als gevolg van de opkomst van nieuwe consumptie-patronen. Als gevolg van globalisering nam de omvang van de stroom landbouwproducten tussen Afrika en de andere regio's van de wereld, in het bijzonder met de Europese Unie, sterk toe. De EU is een belangrijke bestemming voor veel landbouwproducten uit Afrika. Deze toenemende vraag naar duurzame landbouw- en voedselproducten, zowel wereldwijd als in de EU, beïnvloeden de landbouwproductiesystemen in Afrika in de richting van meer duurzaamheid. Gegeven het grote belang van landbouwexporten voor de nationale en de lokale economieën, de kwetsbaarheid van de natuurlijke hulpbronnen en van het bestaan van de lokale bevolking, is ook Afrika getuige van het fenomeen van 'globalisering van landbouw- en voedselrisico's' en 'reflexieve globalisering van alternatieve landbouw en voedselvoorziening'. Het valt daarom

te verwachten dat de introductie van biologische landbouw in Afrika kan helpen bij het oplossen van urgente uitdagingen als het vergroten van de inkomens van kleine boeren, het verminderen van de armoede en verduurzamen van de productiesystemen en natuurlijke hulpbronnen (bodem, water, bossen, etc.)

Dit proefschrift wil bijdragen aan het begrijpen van de governance arrangementen van transnationale organische productnetwerken uit Afrika om beleidsmakers, ontwikkelingsorganisaties, de civiele samenleving en private actoren, evenals wetenschappers en academici te informeren over de onderliggende rationaliteiten en processen, de uitdagingen en de perspectieven voor organische landbouw op het continent. Meer in het bijzonder wil dit proefschrift de sturende (f)actoren begrijpen, i.e. de rationaliteiten en processen die de ontwikkeling van biologische productnetwerken vanuit Afrika oriënteren en te belichten of en op welke wijze deze processen de relaties tussen de civiele samenleving, het bedrijfsleven en de staat transformeren. Op basis van dit doel zijn de volgende onderzoeksvragen geformuleerd: (1) Op welke manier initieerden en co-structureerden verschillende rationaliteiten en belanghebbenden de ontwikkeling en verdere transformatie van de biologische productnetwerken vanuit Afrika in tijd en ruimte? (2) Op welke manier is het vertrouwen (opnieuw) gecreëerd om relaties op te bouwen en voort te laten bestaan tussen de verschillende belanghebbenden en de materiële substanties die zijn betrokken in de productie, verwerking en marketing knooppunten van de biologische productnetwerken? (3) Op welke manier en in welke mate hebben governance arrangementen binnen de biologische productnetwerken vervolgens de relaties tussen de civiele samenleving, het bedrijfsleven en de staat getransformeerd?

Voor het onderzoek is gekozen voor een kwalitatieve en holistische methodologie door gebruik te maken van het (globale) productie-netwerk perspectief (Zie Hoofdstuk 2). De productie-netwerk benadering komt voort uit de (globale) productie-keten traditie van onderzoek en analyse van de verbanden tussen productie, verwerking end distributie van producten. Het product-netwerk perspectief richt zich op een meer holistische analyse van de actoren, instituties en hun onderlinge relaties. Governance vanuit dit perspectief verwijst naar de wijze waarop sociale en politieke evenals economische actoren in ideologische en materiële zin product-netwerken construeren, onderhouden, transformeren en behouden (Raynolds, 2004). Drie cases zijn daarom geselecteerd en onderzocht in dit proefschrift: biologische katoen uit Benin, biologische cacao uit Ghana, en biologische sesam uit Burkina-Faso.

Voorafgaand aan deze case studies, voorziet hoofdstuk 3 in een overzicht van de biologische landbouw in Afrika. De belangrijkste trends in gecertificeerde biologische productie evenals de geschiedenis en ontwikkeling van biologische landbouw op het continent worden gepresenteerd. De biologische sector in Afrika is relatief jong en dynamisch met nuances en verschillen tussen sub-regio's in de zin van orientatie, drijvende krachten en belangrijkste betrokkenen. Overall geheel genomen steunt de biologische landbouwsector in Afrika vooral op NGO-netwerken, private actoren en ontwikkelingsfondsen terwijl steun van de overheid veelal ontbreekt. Er zijn echter enkele recente voorbeelden van een meer actieve overheidsbemoediging, voornamelijk via publiek-private samenwerking en andere hybride arrangementen. In hoofdstuk 3 worden ook enkele aspecten van de handel en regulering van biologische producten in Afrika gepresenteerd en tevens de belangrijkste uitdagingen toegelicht die de ontwikkeling van biologische landbouw op het continent ontmoet.

Hoofdstuk 4 presenteert de studie van het biologische katoennetwerk vanuit Benin en behandelt in het bijzonder de vraag hoe dit biologische katoen productie-consumptie netwerk wordt bestuurd zowel lokaal als internationaal. De resultaten laten zien dat naast de traditionele tweedeling tussen producent en consument, intermediaire betrokkenen, namelijk

transnationale en lokale netwerken van milieu-NGOs, instrumenteel zijn in het totstandbrengen, onderhouden en transformeren van het biologische katoennetwerk. Het wordt ook duidelijk dat boerenleiders een belangrijke rol spelen in het opbouwen en onderhouden van vertrouwen onder de biologische boeren, hoewel zij te weinig verticale macht bezitten in het biologische katoennetwerk om dit effectief te controleren. Internationale conferenties en gebeurtenissen verschaften belangrijke gelegenheden om verbindingen tot stand te brengen tussen de promotoren van biologische katoen en bedrijven en hiermee versterkten zij de beweging die biologische landbouw promoot. Deze resultaten ondersteunen het verbreden van het concept van globale product ketens buiten de economische dimensie door (de vertegenwoordigers van) milieurationaliteit te erkennen en op te nemen, niet als externe elementen maar veeleer als mede-sturende en mede-construerende (f)actoren van duurzame product ketens.

Hoofdstuk 5 presenteert de resultaten van de studie naar het biologische cacao-netwerk vanuit Ghana en bespreekt in het bijzonder de vraag hoe de overheid reageert op en onderhandelt met actoren uit de civiele samenleving in het zich ontwikkelende biologische cacao-netwerk en in welke mate deze overheidsbetrokkenheid de relaties tussen overheid-bedrijfsleven-civiele samenleving verandert. Terwijl in de wetenschappelijke literatuur over het algemeen wordt beargumenteert dat de processen van globalisering en liberalisering de positie van de staat als centrale speler in de ontwikkeling en het management van landbouw-voedsel netwerken verzwakken, wordt de (biologische) cacao-sector in Ghana vaak als een uitzondering beschouwd vanwege de sterke positie die de staat daarin nog altijd inneemt. Het hoofdstuk laat echter zien dat hoewel de staat nog steeds een belangrijke speler is in het hedendaagse (biologische) cacao-netwerk, verschillende hybride arrangementen worden geïntroduceerd waarin naast de overheid ook transnationale en nationale netwerken van NGOs en private bedrijven een rol spelen. Het blijkt dat de trend in de richting van duurzaamheid in de globale cacao-industrie met haar aandacht voor kritische problemen (afschaffing van kinderarbeid, gezondheid en veiligheid, goede landbouwpraktijken) een vruchtbare bodem verschaft voor nieuwkomers (civiele samenleving en private bedrijven) en voor de hybridisering van bestuursarrangementen van het biologische cacao-netwerk. Het biologische cacao-netwerk stimuleert een dubbel proces van ont- en herkoppeling op het lokale niveau dat helpt het biologische cacao-netwerk te vormen en te versterken.

Hoofdstuk 6 behandelt de studie naar het biologische sesam-netwerk vanuit Burkina Faso. Dit hoofdstuk behandelt in het bijzonder de structuur en ontwikkeling van dit netwerk om de afname te verklaren in de export van biologische sesam en om de vraag te beantwoorden of het biologische sesam-netwerk structureel is georganiseerd als een conventionele markt of dat het nog steeds een werkelijk alternatief vertegenwoordigt op de conventionele wijze van sesam-productie en -handel. Voor dit doel bespreekt dit hoofdstuk het concept van conventionalisering van 'alternatieve' voedsel economieën vanuit governance perspectief. Het blijkt dat tijdens het afgelopen decennium biologische sesam in toenemende mate is opgenomen in de conventionele marktkanalen. Maar, in tegenstelling tot het bekende voorbeeld van conventionalisering in Californië waar biologische landbouw *groeide* in de conventionele landbouw-voedsel arrangementen, laat deze studie het voorbeeld zien van biologische sesam die *kromp* in de conventionele landbouw-voedsel arrangementen. De handel in biologische sesam wordt in hoge mate beïnvloed door een sterke prijscompetitie en variabiliteit in de conventionele sesam sector en het vrije markt gedrag van de conventionele sesam handelaren. Dit maakt het biologische sesam-netwerk kwetsbaar en gevoelig voor internationale commerciële druk vanuit de conventionele sesam markt. De zwakke samenhang in de biologische sesam-keten resulteerde in problemen om informatie vertikaal door te geven, om machtbalansen binnen en tussen sesam-ketens meer evenwichtig te maken,

vertrouwen op te bouwen en prijsschommelingen en speculatie te beperken, resulterend in een krimpende markt voor biologische sesam. Voor de ontwikkeling van een levensvatbaar alternatief voor de conventionele sesam handel moeten de relaties worden versterkt tussen de productie- en handels-fases in de biologische netwerken via publiek-private samenwerkingsverbanden, in combinatie met andere vormen van publieke en juridische ondersteuning.

Hoofdstuk 7 bespreekt de belangrijkste resultaten van de verschillende deel-studies teneinde conclusies te trekken over de sturende (f)actoren, i.e. de rationaliteiten en processen die de opbouw, ontwikkeling en verdere transformatie sturen van de biologische product-netwerken van Afrika. Hiermee beantwoordt dit hoofdstuk ook de onderzoeksvragen van dit proefschrift. Op basis van de empirische bevindingen is het duidelijk geworden dat verschillende rationaliteiten, belanghebbenden, processen, waarden en praktijken vanuit verschillende sferen (politiek, milieu, sociaal en economie) een rol spelen in het co-structureren en vormgeven van de ontwikkeling en het leven van het product-netwerk. Verschillende processen van netwerk bouwen, verschillend in omvang en belang, zijn instrumenteel in de constructie, (her)vorming, en (her)configuratie van de biologische product netwerken. Deze processen van netwerk constructie omvatten: (1) mobilisering van persoonlijke sociale netwerken en andere sociale verbanden; (2) bemiddeling van materiële en natuurlijke hulpbronnen; (3) markt netwerken en relaties en (4) transnationale gebeurtenissen en bijeenkomsten. Deze conclusie wil echter niet suggereren dat de bestuurlijke arrangementen hetzelfde zijn in alle drie bestudeerde gevallen. Het blijkt dat de mate van betrokkenheid tussen de verschillende categorieën betrokkenen en rationaliteiten veranderde in de loop der tijd en ook verschilt van geval tot geval. Zoals Coe et al., (2008: 271) beargumenteren, het ontrafelen van de complexiteiten in de globale economie met haar fundamentele geografische onevenwichtigheid en grote ongelijkheid, betekent een grote conceptuele en empirische uitdaging. Het product netwerk perspectief dat is toegepast in deze studie heeft bijgedragen aan het conceptualiseren en begrijpen van de diverse, fluide en dynamische processen die bijdragen aan het besturen van biologische product-netwerken vanuit Afrika. De onderzoeksmethodologie, gebaseerd op verschillende case-studies en een kwalitatieve benadering droeg bij aan het ontrafelen van de complexe factoren, rationaliteiten, processen en realiteiten van de bestuurlijke arrangementen en dynamiek van de biologische productnetwerken vanuit Afrika.

Vertrouwen blijkt een bepalende factor te zijn voor het samenwerken en netwerken tussen individuen, organisaties, locaties en materiële objecten betrokken bij de biologische productnetwerken van lokaal tot globaal niveau en vice versa. Drie mechanismes voor het opbouwen van vertrouwen werden geïdentificeerd: *vertrouwen in personen*, *vertrouwen in organisaties/instituties*, en *vertrouwen in dingen*. In de praktijk van biologische product-netwerken worden deze vormen van vertrouwen vaak vermengd. Dit vertrouwen wordt soms ondermijnd door opportunisme, ongelijkheid in informatie of macht en door wantrouwen tussen producenten-groepen en handelaren, soms leidend tot serieuze consequenties voor het success van de biologische product-netwerken. In dit geval kan een bemiddelingsproces (vaak geleid door boerenleiders of een derde partij zoals een ontwikkelingsorganisatie) noodzakelijk zijn op het vertrouwen te herstellen en de banden tussen de verschillende categorieën te verbeteren. Anders kan deze situatie leiden tot permanent wantrouwen en de levensvatbaarheid van het biologische product-netwerk bedreigen.

Het blijkt ook dat het beheer van de biologische product-netwerken de mogelijkheid heeft geopend voor (verdere) samenwerking en partnerschappen tussen organisaties uit de civiele samenleving, private ondernemingen en overheidsinstanties. Gedurende het proces van opbouw, ontwikkeling en verdere transformatie van de biologische product-netwerken hebben

de relaties tussen de drie centrale spelers (overheid, bedrijfsleven en civiele samenleving) zich ontwikkeld als gevolg van de permanente werkcontacten en de verdere samenwerking die hun sociaal kapitaal en hun onderling vertrouwen vergrooten.

Tenslotte, het product-netwerk perspectief lijkt minder zinvol om structurele processen te analyseren zoals politieke modernisering, de politiek van regulering en machtsmechanismen, die van het grootste belang zijn in de context van de globaliserende biologische landbouw- en voedselproductie en handel. De internationale biologische standaard blijkt nauwelijks in staat om problemen aan te pakken zoals ongelijkheid binnen de keten, machtsongelijkheden, prijsspeculatie en schommelingen en het gebrek aan vertrouwen in de keten, die belangrijk zijn in (globaal) landbouw- en voedselbeleid (Hoofdstuk 6). Dit bevestigt Reynolds's (2004) en Bush et al.'s (2013) argument dat certificeringsschema's die ontwikkeld zijn in het Noorden globale ongelijkheden reproduceren en versterken door het introduceren van nieuwe kwaliteitseisen en audit-systemen en bijbehorende certificeringskosten aan de Zuidelijke producenten en de concentratie van de marktvoordelen in de handen van grote bedrijven. Het uiteenrafelen van deze uitdagingen en ongelijkheden in de globale biologische landbouw- en voedselhandel vereist een meer op macht georiënteerd conceptueel raamwerk om problemen aan te kunnen pakken die nauwelijks kunnen worden benaderd met het product-netwerk perspectief alleen. Het product-netwerk perspectief moet dus worden aangepast om in staat te zijn deze structurele processen en uitdagingen in de globale product-netwerken te kunnen onderzoeken en begrijpen.

In het licht van de bevindingen van dit proefschrift en om de verdere transformatie en duurzaamheid te promoten in het beheren van de biologische product netwerken binnen en vanuit Afrika, stel ik beleidsaanbevelingen voor op vier terreinen: (1) beleid en regulering; (2) publieke investeringen in onderzoek; (3) versterken van de banden tussen de productie en marketing knooppunten in de netwerken; en (4) ontwikkeling van regionale markten.

RESUME

Les préoccupations mondiales croissantes en ce qui concerne les risques agro-alimentaires et l'émergence subséquente du consumérisme dans l'économie mondiale des produits agroalimentaires défient l'approche conventionnelle de production axée sur les produits chimiques. En effet, le modèle agro-industriel dominant de l'après-guerre a favorisé l'utilisation intensive des intrants chimiques, la concentration des entreprises et la standardisation des produits de grande consommation (Goodman et al., 1987 ; Raynolds et al., 2007). Cela a engendré un développement agricole rapide et contribué à la croissance de l'économie mondiale tout en réduisant la pauvreté et l'insécurité alimentaire (Koning et Mol, 2009). En dépit des succès ainsi obtenus, ce régime Fordiste a généré plusieurs externalités sur les écosystèmes naturels et la santé humaine et animale. En outre, la modernisation avancée des techniques de production (par exemple, les organismes génétiquement modifiés), combinée avec les processus de mondialisation a accru la portée et l'étendue des risques alimentaires devenus un phénomène mondial et transfrontalier. L'organisation mondiale de la chaîne logistique des produits agroalimentaires a favorisé la 'mondialisation' des risques alimentaires par la compression croissante du temps et de la distance et l'intensification conséquente des flux et échanges de marchandises au niveau mondial. En conséquence, pour être efficacement gérés, ces risques doivent être abordés dans une perspective mondiale, c'est-à-dire à travers des instances supra nationales. Parallèlement, les inquiétudes quant aux impacts de l'utilisation de produits chimiques de synthèse et des technologies modernes dans l'agriculture se sont élargies au fil du temps pour inclure d'autres paramètres tels que le bien-être animal, la sécurité alimentaire, l'utilisation de l'énergie, les paysages, la biodiversité et le changement climatique (Oosterveer et Sonnenfeld, 2012). Malheureusement, les régimes internationaux étatiques (OMC et régimes environnementaux) n'ont pu traiter convenablement les risques agro-alimentaires modernes, en particulier les questions liées au développement durable (y compris la protection environnementale, la justice sociale, l'éthique et le bien-être animal). Néanmoins, les processus de mondialisation ont également facilité des processus de mise en réseau et de création d'alliances intra et inter-régionales dans la perspective du renforcement de la durabilité des systèmes de production, de transformation et de distribution des produits agro-alimentaires; d'où le double phénomène de 'mondialisation des risques agroalimentaires' et de 'mondialisation réflexive de l'agriculture et du commerce alternatifs'. Ainsi, plusieurs régimes non étatiques, c'est-à-dire orientés vers le marché ou portés par la société civile, ont émergé autour des standards et des mécanismes de certification pour répondre aux risques soulevés et restructurer en conséquence la production et le commerce des produits agro-alimentaires vers plus de durabilité tout en reconstruisant la confiance des consommateurs. Au nombre de ces régimes non étatiques, l'agriculture biologique est particulièrement importante et constitue une innovation majeure vers l'écologisation de l'économie agro-alimentaire mondiale. Elle constitue le secteur alimentaire ayant la plus forte croissance dans le monde avec environ 170 % de croissance de 2002 à 2011 (Sahota, 2013).

En Afrique, l'agriculture biologique a émergé comme réponse au fardeau environnemental et sanitaire des techniques conventionnelles de production et la demande croissante de produits biologiques du Nord, conséquence de l'émergence de nouveaux modes de consommation. En raison de la mondialisation, les flux et les échanges des produits agricoles entre l'Afrique et les autres régions du globe, en particulier l'Union Européenne, se sont intensifiés. L'Union Européenne est une destination majeure des exportations de produits agricoles de l'Afrique. Ainsi, plus la demande en produits agroalimentaires durables augmente sur le marché international, en particulier le marché européen, cela affecte et tire les systèmes de production

agricoles en Afrique dans le sens de la durabilité. Somme toute, compte tenu de l'importance particulière des exportations agricoles pour les économies nationales et les ménages agricoles, la fragilité des ressources naturelles et la vulnérabilité des moyens de subsistance le continent Africain est particulièrement concerné par le double phénomène de 'mondialisation des risques agro-alimentaires' et de 'mondialisation réflexive de l'agriculture et du commerce alternatifs ». À cet égard, on peut espérer que l'introduction de l'agriculture biologique en Afrique pourrait aider à relever les défis pressants de génération de revenus pour les petits exploitants agricoles, de lutte contre la pauvreté et la résilience des systèmes de production et des ressources naturelles (terres, eaux, forêts, etc.).

D'une façon générale, cette thèse vise à contribuer à la compréhension des mécanismes de gouvernance des réseaux transnationaux (ou filières) de produits biologiques en provenance de l'Afrique afin d'informer les décideurs politiques, les organismes de développement, les organisations de la société civile, les entreprises ainsi que les scientifiques et universitaires sur les rationalités sous-jacentes, les processus, les défis et perspectives de l'agriculture biologique sur le continent. Plus spécifiquement, cette recherche vise à comprendre les déterminants de la gouvernance, c'est-à-dire les rationalités et les processus qui ont sous-tendu le développement des réseaux ou filières de produits agricoles biologiques d'exportation de l'Afrique et de mettre en évidence si et comment ces processus transforment la relation Etat-entreprise-société civile. À cet égard, trois questions de recherche sont abordées: (1) comment différents rationalités et acteurs sont mobilisés pour initier et co-structurer le développement et la transformation des réseaux ou filières de produits agricoles biologiques d'exportation dans le temps et dans l'espace? (2) comment la confiance est (re)créée afin d'établir et arbitrer les relations entre les différents acteurs et les substances matérielles impliqués dans les maillons de production, de transformation et de commercialisation des réseaux ou filières de produits agricoles biologiques ? (3) comment et dans quelle mesure les mécanismes de gouvernance au sein des réseaux ou filières de produits agricoles biologiques ont remodelé la relation Etat-entreprise-société civile ?

À cette fin, nous avons adopté une méthodologie qualitative et holistique en employant la perspective 'réseau (mondial) de produit' (voir Chapitre 2). Cette perspective est enracinée dans la tradition de chaîne de produit/ valeur (mondiale) d'analyse des liens entre la production, la transformation et la distribution de produits et denrées. La perspective 'réseau (mondial) de produit' vise à fournir une analyse plus globale des acteurs, des institutions et de leurs interrelations. Cette perspective cherche à capturer la complexité des filières et chaînes de valeur durables avec leur caractère transnational/mondial, fluide, enclin à une perpétuelle reconfiguration. Selon cette perspective, le concept de gouvernance désigne comment, idéologiquement et matériellement, les acteurs sociaux, politiques et économiques co-initient, transforment et maintiennent durablement les réseaux de produits agricoles biologiques (Raynolds, 2004). Trois cas ont été sélectionnés et étudiés dans cette thèse : le réseau coton biologique du Bénin, le réseau cacao biologique du Ghana et le réseau sésame biologique du Burkina-Faso.

En prélude aux études de cas, le Chapitre 3 fournit un aperçu général de l'agriculture biologique en Afrique. Les tendances ainsi que l'histoire et le développement de l'agriculture biologique certifiée sur le continent sont présentés. L'agriculture biologique certifiée en Afrique est relativement jeune et dynamique avec des nuances et des différenciations entre sous-régions en termes d'orientation, de forces motrices et d'acteurs principaux. Dans l'ensemble, le secteur biologique en Afrique est principalement porté par les réseaux d'organisations non gouvernementales, les opérateurs privés et les fonds de développement. Pour une large part, l'accompagnement des gouvernements et du secteur public manque encore. Il y a certes quelques expériences récentes d'engagement des organismes publics,

notamment par le biais de partenariats public-privés et d'autres arrangements hybrides. Le Chapitre 3 présente également quelques caractéristiques du commerce et de la réglementation sur l'agriculture biologique en Afrique et met en évidence les principaux défis auxquels est confronté le développement de l'agriculture biologique sur le continent.

Le Chapitre 4 aborde l'étude de cas sur le 'réseau coton biologique' du Bénin en répondant spécifiquement à la question comment le réseau de production-consommation du coton biologique est gouverné localement et internationalement. Les résultats révèlent qu'au-delà du dualisme traditionnel producteur *versus* acheteur, les acteurs intermédiaires, notamment les réseaux nationaux et transnationaux d'ONG environnementales, jouent un rôle essentiel dans la construction, la maintenance et la transformation du réseau coton biologique. Il ressort aussi que les responsables d'organisations de producteurs biologiques jouent un rôle important dans la médiation et la (re)construction de confiance entre producteurs biologiques même s'ils exercent peu d'influence verticale sur le réseau de coton biologique. Les conférences et événements internationaux sont des arènes importantes pour l'établissement de liens entre entreprises et promoteurs de coton biologique d'une part, et d'autre part pour le renforcement de l'idéologie et du mouvement biologique. Les conclusions de cette étude militent en faveur de l'élargissement du concept de chaîne de valeur (mondiale) au-delà de la rationalité économique pour reconnaître et intégrer la rationalité environnementale ainsi que leurs porteurs d'enjeux et intérêts, non comme des éléments extérieurs à la chaîne, mais plutôt comme des (f)acteurs de co-gouvernance ou de co-structuration des chaînes de valeur durables.

Le Chapitre 5 présente l'étude de cas sur le 'réseau cacao biologique' du Ghana et aborde notamment la question comment l'État a-t-il répondu et s'est engagé aux côtés des acteurs de la société civile dans le réseau cacao biologique et dans quelle mesure cette participation de l'État a remodelé les relations État-entreprises-société civile. Alors que la plupart de la littérature fait valoir que les processus de mondialisation et de libéralisation affaiblissent la position de l'État comme acteur majeur dans le développement et la gestion des filières et chaîne de valeur agroalimentaires, le cas de la filière cacao (biologique) au Ghana est souvent dépeint comme une exception en raison de la forte position que l'État y occupe encore. L'étude montre que même si l'État est toujours un acteur majeur dans la chaîne de valeur cacao (biologique) contemporaine, certains arrangements ou mécanismes hybrides de gouvernance impliquant l'État, les réseaux d'ONG nationales et transnationales et les entreprises privées, font leur apparition. Il transparaît que la tendance vers la durabilité dans l'industrie mondiale du cacao avec l'attention plus accrue sur des questions transversales critiques (éradication du travail des enfants, la sécurité sanitaire, les bonnes pratiques agricoles) offre un terrain fertile pour les nouveaux arrivants (société civile et acteurs de l'entreprise) et l'hybridation des arrangements et mécanismes de gouvernance du réseau cacao biologique. Le réseau cacao biologique a également suscité un double processus de 'dés-intégration et ré-intégration' au niveau local qui a contribué à le façonner et le renforcer davantage.

Le Chapitre 6 porte sur l'étude de cas sur le réseau sésame biologique du Burkina Faso. Plus précisément, ce chapitre examine la structure et le développement de ce réseau pour expliquer la tendance à la baisse dans l'exportation de sésame biologique. La question spécifique abordée est de savoir si le réseau sésame biologique est structurellement (re)façonné comme une chaîne de valeur conventionnelle ou si elle présente toujours une véritable alternative à la production et au commerce du sésame conventionnel. À cet effet, le chapitre a élaboré sur la notion de 'conventionalisation' des économies alimentaires alternatives et ce, dans une perspective de gouvernance. Il se trouve que durant cette dernière décennie le sésame biologique est de plus en plus intégré aux circuits commerciaux conventionnels. Mais

contrairement au cas bien connu de conventionalisation en Californie, où l'agriculture biologique grandit en ressemblant (structurellement) aux systèmes de production conventionnelle, cette étude illustre un cas où la production du sésame biologique s'est plutôt infiltrée dans les circuits conventionnels. En fait, la commercialisation du sésame biologique est grandement affectée par la forte compétition et la volatilité des prix du secteur conventionnel ainsi que l'attitude mercantiliste et offensive des commerçants du sésame conventionnel. Cela rend le réseau sésame biologique vulnérable et perméable à la forte pression commerciale du marché international de sésame conventionnel. En effet, la faible articulation et cohérence entre les maillons production et commercialisation du réseau sésame biologique a entraîné une défaillance dans la médiation verticale de l'information, l'équilibre des rapports de force et la construction de confiance entre opérateurs ; toutes choses devant permettre de limiter la volatilité des prix et la spéculation. Cela a eu pour corollaire l'infiltration des flux du sésame biologique dans des circuits commerciaux conventionnels. Pour développer une alternative viable au sésame conventionnel, les relations entre les maillons production et commercialisation du réseau sésame biologique doivent être renforcées par des partenariats public-privés combinés avec d'autres instruments de régulation.

Le Chapitre 7 élabore sur les principaux résultats des études de cas pour tirer des conclusions sur les déterminants de la gouvernance, c'est-à-dire les rationalités, processus et acteurs qui gouvernent l'initiation, le développement et la transformation des réseaux de produits biologiques d'exportation de l'Afrique. Ce faisant, ce chapitre répond également aux principales questions de recherche de cette thèse. Il ressort des résultats empiriques que divers rationalités, processus, acteurs, valeurs et pratiques de différents domaines (politique, environnemental, social et économique) interfèrent pour co-structurer et façonner le développement et la vie des réseaux de produits biologiques. Plusieurs processus de réseautage, différents dans leur portée et importance, contribuent à la (re)construction et à la (re)configuration des réseaux de produits biologiques. Ces processus de réseautage comprennent: (1) la mobilisation des réseaux et connections personnels, interpersonnels et sociaux ; (2) la médiation des ressources naturelles et matérielles ; (3) le réseautage économique ou d'affaires (4) les événements et regroupements transnationaux. Toutefois, cela ne signifie pas que les mécanismes et dynamiques de gouvernance sont linéaires ou similaires dans les trois études de cas. En effet, il ressort que la prévalence de chaque type de rationalité et l'engagement relatif de chaque catégorie d'acteurs ont évolué au fil du temps et diffèrent d'un cas à l'autre. Comme le soutiennent Coe et al. (2008: 271), démêler les complexités de l'économie mondiale, avec ses différences géographiques et ses inégalités de fond, pose d'énormes difficultés conceptuelles et empiriques. La perspective réseau de produits appliquée dans cette thèse a permis de conceptualiser et de capturer les processus divers, fluides et dynamiques impliqués dans la gouvernance des produits biologiques d'exportation de l'Afrique. La méthodologie qualitative axée sur plusieurs études de cas a permis de mettre en lumière les multiples facettes des rationalités, processus et réalités des arrangements et dynamiques de gouvernance des réseaux de produits biologiques en provenance de l'Afrique.

La confiance apparaît comme un déterminant majeur de la connectivité et la mise en lien des individus, organisations, lieux et objets matériels impliqués dans les réseaux de produits biologiques du niveau local au niveau mondial et vice versa. Trois mécanismes de construction de confiance ont été identifiés à savoir : *la confiance dans les personnes*, *la confiance dans les organisations/institutions* et *la confiance dans les objets matériels*. Dans la pratique ces trois mécanismes de confiance s'entremêlent pour déterminer la vie des réseaux de produits biologiques. Toutefois, cette confiance est parfois hypothéquée à cause de l'opportunisme, des asymétries d'information et de pouvoir et la suspicion entre les groupements de producteurs et les commerçants de produits biologiques entraînant parfois de

graves conséquences sur le succès et la viabilité des réseaux de produits biologiques. Dans ces cas, un processus de médiation (souvent dirigé par des leaders de producteurs ou un tiers, en général une organisation de développement) peut être nécessaire afin de rétablir la confiance et de renouer les liens entre les différentes catégories d'acteurs. Dans le cas contraire, cette situation pourrait déboucher sur la méfiance et la défiance et mettre en péril la viabilité du réseau de produit biologique.

Il apparaît également que la gouvernance des réseaux de produits biologiques a ouvert la voie au renforcement de la collaboration et des partenariats entre les organisations de la société civile, les entreprises privées et les organismes publics. En effet, tout au long des processus d'initiation, de développement et de transformation des réseaux de produits biologiques, les relations entre ces trois catégories d'acteurs (société civile, entreprises privées et Etat) ont été remodelées avec les relations de travail et de collaboration qui ont favorisé le capital social et la confiance mutuelle.

Enfin, la perspective du réseau de produits semble moins opérationnelle pour appréhender convenablement les processus structurels comme la modernisation politique, les politiques de régulation et les mécanismes de pouvoir ; toutes choses qui revêtent une importance cruciale dans le contexte de mondialisation de la production et du commerce des produits agricoles biologiques. En effet, la réglementation biologique semble inopérante pour résoudre les problèmes d'iniquité, d'asymétrie de pouvoirs, la spéculation et la volatilité des prix et le manque de confiance qui sont au cœur de la gouvernance (mondiale) des produits agro-alimentaires (Chapitre 6). Ceci confirme l'argument de Reynolds (2004) et de Bush et al. (2013) selon lequel les systèmes de certification inspirés du Nord reproduisent et creusent les inégalités dans le monde à travers l'imposition de nouvelles qualifications et de systèmes d'audit et les coûts de certification y afférents aux producteurs du Sud avec la concentration des avantages de marché dans les mains des grandes entreprises. Dénouer ces défis ainsi que les déséquilibres du commerce mondial des produits agricoles biologiques devra nécessiter le recours aux perspectives théoriques et analytiques plus concentrées sur la notion de pouvoir. A cet égard, la perspective réseau de produit doit être encore ajustée et enrichie pour pouvoir convenablement investiguer et cerner les processus structurels et les défis liés au commerce international des produits agricoles biologiques.

À la lumière des conclusions de cette thèse et dans la perspective de renforcer la durabilité des mécanismes de gouvernance des réseaux de produits agricoles biologiques en provenance du continent africain, des recommandations politiques ont été formulées dans les quatre domaines suivants: (1) politique et régulation; (2) investissements publics dans la recherche; (3) renforcement des liens entre les maillons production et commercialisation; et (4) développement de marchés régionaux.

Résumé

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At ENP, I quickly discovered new fields of social science research. In fact, my experience and knowledge of sociology was limited to micro phenomena at local community level (village or other). Of course, there is still a wealth of knowledge to be discovered or constructed at this scale as far as rural development is concerned. However, the idea of moving beyond society seen as ‘a container’ to a global account of social phenomena impressed me and I decided to take up this challenge. Thus, I gave up my original proposal, which aimed to make a socio-economic analysis of farmers’ use of chemical pesticides in the catchment area of the Ouémé River in Benin. I started reading and thinking ‘globally’ to discover a new field of interest for my PhD research. Eventually, I came up with the idea of researching the organic movement in relation with globalization. Indeed, this also has to do with my professional background having several years of experience in organic agriculture in Benin. I took successfully the required courses and exams and fully developed a new research proposal during my first 5-month stay at Wageningen in 2008.

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Name of the learning activity	Department/Institute	Year	ECTS*
A) Project related competences			
Social Theory and the Environment (ENP 32806)	Environmental Policy Group	2008	6
Methods, Techniques and Data Analysis for Field Research B (RDS 33306)	Rural Development Sociology Group	2008	6
Research Methodology: From topic to proposal	WASS (former Mansholt Graduate School)	2008	4
Advanced Environmental Economics and Policy (ENP 32306)	Environmental Policy Group	2009	6
Scaling and Governance	PE & RC and WASS	2009	1.5
Social Learning in Nature-Society Relations: Politics & Creative Methods in Action Research	NRML and ARALIG	2009	4
Atlas-ti	WASS	2011	0.5
B) General research related competences			
Introduction course	WASS	2008	1.5
Research seminar	WASS	2008	1
'Origin and development of organic cotton in Benin: An institutional perspective'	6th Organic Exchange Global Conference, Porto, Portugal	2008	1
'Conventionalization of the organic sesame network from Burkina Faso: Bringing the state back in?'	2nd African Organic Conference, Lusaka, Zambia	2012	1
C) Career related competences/personal development			
Techniques for writing and presenting scientific paper	Wageningen Graduate School	2008	1.2
Project and time management	Wageningen Graduate School	2008	1.5
Personal efficacy	Wageningen Graduate School	2008	0.5
Total (30 - 45 ECTS)			35.7

*One credit according to ECTS is on average equivalent to 28 hours of study load

ABOUT THE AUTHOR

Laurent Camille Glin was born on July 22nd, 1974 in Porto-Novo, Republic of Benin. He began the University of Abomey-Calavi (formerly, National University of Benin) in 1994 at the Faculty of Agricultural Sciences. He obtained the degree of Agronomist in 1998. From 1998 to 2000, he specialized in agricultural economics and rural sociology and defended his engineer thesis (MSc level) on participatory management of forest resources. From 2001 to 2008, he has been working with the Beninese Organization for the Promotion of Organic Agriculture (OBEPAB) as production officer and scientific assistant. He enrolled in several academic and professional trainings on agricultural innovations, management of projects and organizations and governance of value chains. He attended particularly the ICRA (International Centre for Development oriented Research in Agriculture) training Program on Facilitation of Agricultural Research for Development from September 2006 to March 2007 in Montpellier, France. In 2008, he started his PhD at the Environmental Policy Group (ENP) at Wageningen University. Besides, he was engaged in consultancies for various development and international organizations including GIZ, ICRA, RUFORUM, COLEACP, IFDC and PAEPARD. In 2012, he started working with FiBL (Research Institute of Organic Agriculture) in West Africa as principal socio-economic researcher. Currently his fields of expertise include governance of global agro-commodity networks and chains, organic agriculture, and multi-stakeholder innovations. He contributed to several scientific articles and international events on organic agriculture. He has been reviewing for a number of academic journals including: Global Networks, Organic Agriculture, Agriculture and Human Values, European Journal of Development Research, and International Journal of Agricultural Sustainability.

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