

# DIPLOMARBEIT

Titel der Diplomarbeit

## Free Trade and Industrialization of Agriculture as Obstacles to Food Sovereignty

The Implications of the EU-ACP EPAs, the EU CAP and the Green  
Revolution for African Smallholders

Verfasserin

**Carla Weinzierl**

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Betreuer: Prof. (FH) Mag. Dr. Johannes Jäger



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I hereby declare that I have written this Bachelor thesis myself and independently and have used no other sources or materials than those expressly indicated.

This Bachelor Thesis has neither been previously presented as an examination paper in this or any other form nor published in its entirety or in parts in Austria or abroad.

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## ABBREVIATIONS

ACP	African, Caribbean and Pacific Group of States
AGRA	Alliance for a Green Revolution in Africa
AoA	Agreement on Agriculture
CAP	Common Agricultural Policy
CARIFORUM	Caribbean Forum
EBA	Everything But Arms
ECOWAS	Economic Community of West African States
EEC	European Economic Community
EPA	Economic Partnership Agreement
EU	European Union
FAO	Food and Agriculture Organization
FTA	Free Trade Agreement
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GMO	Genetically Modified Organisms
GSP	Generalized Scheme of Preferences
IMF	International Monetary Fund
IPC	International Planning Committee for Food Sovereignty
IPCC	Intergovernmental Panel on Climate Change
LDC	Least Developed Country
MDG	Millennium Development Goal
MFN	Most Favored Nation
NAFTA	North American Free Trade Agreement
NFIC	Net Food Importing Countries
NGO	Non Governmental Organization
OECD	Organization for Economic Co-operation and Development
RoO	Rules of Origin
RTA	Regional Trade Agreement
SACU	Southern African Customs Union
SADC	Southern African Development Community
SAP	Structural Adjustment Program
SDT	Special and Differential Treatment
SPS	Sanitary and Phytosanitary (Measures)
SSA	Sub-Saharan Africa
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organization
URAA	Uruguay Round AoA
USA/US	United States of America
TNC	Transnational Corporation
TRIPS	Trade Related Aspects of Intellectual Property Rights
WTO	World Trade Organization





## 1. INTRODUCTION

Agriculture is in crisis.

According to the United Nations (UN) Special Rapporteur on the right to food, Olivier de Schutter, every six seconds a child dies from malnutrition (UN News Centre 6.04. 2009). When in 2007/08 the prices of agricultural commodities on world markets rose rapidly, the number of people living with hunger spiked up to a shocking 1.2 billion – approximately every 6<sup>th</sup> human being on Earth (Vanhaute 2011: 48), indicating the dangers of connecting the world's poorest to increasingly volatile global markets.

This, however, was not an outlier indicating a particularly bad year for global agriculture, but much more of an eventuality in the context of a long-term trend: Between 1950 and 2000 total agricultural output rose by a factor 2.6, faster than world population growth, which increased by a factor 2.4. This shows the benefits of industrialization processes in agriculture, especially since the labor force employed in agriculture decreased from 65 to 42 percent globally during that time period (Vanhaute 2011: 47). The downside however is the following: while the average food supply per person rose by 20 percent between 1960 and 2000, the number of undernourished people doubled. (ibid: 48). And even more striking: currently about two thirds of the world's hungry are actually farmers themselves (Choplin, Strickner, Trouvé 2011: 94). Food injustice and asymmetric access to food supplies therefore clearly increased – a trend that culminated in the world food crisis in 2007/08.

The reasons for the crisis are multiple and systemic: Eric Holt-Giménez, agricultural development researcher and executive director of Food First/Institute for Food and Development Policy states: "The current global food crisis – decades in the making – is a crushing indictment against capitalist agriculture and the corporate monopolies that dominate the world's food systems" as he identifies the role of agribusiness in creating food insecurity and criticizes the "self-serving neoliberal solutions proposed by the world's multilateral institutions and leading industrial countries" (Holt-Giménez 2010: 207). With the (often involuntary) spread of neoliberal policies to so-

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called developing countries, governments no longer held food reserves to compensate for 'bad' years when harvests are low and prices rise (Choplin, Strickner, Trouvé 2011: 84). At the same time investments in agriculture decreased and agricultural systems were oriented towards export-led growth via the production of cash crops as opposed to ensuring food security of local populations (Patnaik 2010: 95; Weingärtner, Trentmann 2011: 54). On a global level neoliberalism also contributed via the financialization of agricultural markets making room for speculation and increased price-volatility (Pentzlin et al./FoEE 2011; Nissanke 2012; Staritz 2012; Muller/IATP 2008).

Looking at world production levels prior to the crisis, it becomes clear that hunger is a problem of social inequality, not underproduction: world agricultural production levels before the crisis were between 35 and 50 percent higher than needed to feed every person worldwide. Instead, the problem is one of inequality in access, waste after production, and especially diverted use of agricultural production factors. Over the two decades prior to the crisis, growth in global food supply outstripped global population growth (2 vs. 1.4 percent per year respectively). Contrary to this popular misbelief, hunger is due to the fact that "over 90 percent of the world's hungry are simply too poor to buy enough food." (Holt-Giménez 2010: 209). In 2010 only 47 percent of the global production of wheat, rice and corn – staple foods all over the world – were actually used for feeding people. The rest was further processed to either feed livestock (which in turn hardly feeds the planet's poorest) or into agrofuels. (Weingärtner, Trentmann 2011: 51, 55; Bové, Dofour 2001: 99; Holt-Giménez 2010: 209). Rising demand of feed and agrofuels (related for instance to EU regulation) in the Global North competes with food production over land and water resources and contributes to their exploitation via unsustainable, industrialized agricultural practices (Choplin et al 2011: 84, 101). The production of agrofuels additionally led to the relatively new phenomenon of land grabbing, often dubbed as 'the second colonization of Africa', depriving African farmers of their land and livelihoods and leading to food insecurity (Hoering 2007; Choplin, Strickner, Trouvé 2011: 27; GRAIN 2010).

Critical authors regard the crisis as inevitable in many ways, given the current neoliberal food regime (Herren 2010: 59ff; Strickner 2009: 225) and the agricultural

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policies of the so-called developed countries based on subsidizing farmers, overproduction and dumping exports, leading to import dependencies in less developed economies (Weingärtner, Trentmann 2011: 56ff, 71ff). Another contributing factor to the so called food-feed-fuel crisis is climate change and its implications on (sub)-tropical regions, leading to poor harvests and in turn – due to gloomy prognoses – to even more speculation on world food markets. (Choplin, Strickner, Trouvé 2011: 84).

Climate change itself is another indicator why agriculture is in deep crisis all over the planet. While oil-based industrial agriculture and meat production are among the main culprits behind climate change (Choplin, Strickner, Trouvé 2011: 23-28), agricultural systems worldwide, but especially in poor regions, are in turn heavily affected by its implications of water scarcity or droughts on one hand, and floods on the other (Herren 2010: 57). The Intergovernmental Panel on Climate Change (IPCC) estimates in this context, that if global temperatures keep rising, between 75 and 250 million people in Africa alone would be under increased water stress, and crop yields from rainfed agriculture could be reduced by half as early as in the year 2020 (Magdoff, Tokar 2010: 27).

But agriculture's crisis does not end at the high number of starving people and the unequal power structures behind it, and not even at the multiple challenges that arise from a changing climate. The way food is produced and consumed furthermore leads to massive health problems in 'Western' societies. While on the one hand hunger and starvation are on the rise, on the other side of the coin overweight and obesity affect a staggering one billion people and of course national health systems. Worldwide about 20 million children under the age of 5 are overweight, while in the 'developing world' on average 19 million newborn babies weigh less than 2.500 grams every year. (Weingärtner, Trentmann 2011: 25, 30) Furthermore, 11 out of the 15 leading causes of death in the United States are connected to nutrition with an estimated medical cost of well above one trillion US dollars (Murphy, Xu, Kotchanek 2012).

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Even though the links are complex and elusive a clear picture emerges: agriculture and food production face a long list of challenges: climate and environmental change, persistent high numbers of people living with hunger and malnutrition, inequalities in access to food, land, water and other resources, globalized markets and supply chains that connect small-scale farmers with giant supermarket chains, rising numbers of food riots, disastrous working conditions in industrial food production leading human rights organizations to speak of 'modern slavery' in countries like Spain or Italy, so called diseases of civilization and animal pandemics, and rising demand for food in the future, connected to continued high rates of population growth and urbanization.

From this complex set of problems connected to the agricultural regime arise a number of questions, to which innovative answers will need to be found: What should be produced? Who should produce it? Where should it be produced? How should it be produced? And last but not least, who should have control of these processes?

The global movement of peasants and agricultural workers Via Campesina developed such a socially innovative concept in the light of the World Trade Organization (WTO) Agreement on Agriculture, which was signed in 1994. As a response to the potential dangers of liberalized agricultural markets, the idea of food sovereignty was born. The concept has the potential of mitigating many of the issues raised above.

The purpose of the underlying thesis is however not to answer if, when, where and how the concept should be implemented, but primarily to evaluate its potential to secure the human right to food for the most vulnerable groups of people on the planet, while simultaneously reducing environmental pressures, and to identify obstacles arising from a globalization context that could hinder the implementation of processes leading to food sovereignty on a local scale. The international trade regime and the interests of agribusiness behind globalized industrialization processes are identified as such obstacles, as they minimize a local population's

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policy space and freedom to opt for production structures conducive to food sovereignty.

Their impacts are analyzed theoretically from a political economy and food regime perspective (Chapter 6) after a short introduction to neoclassical analysis of agricultural policies (Chapter 5). This overview of theoretic approaches to agriculture is followed by an empirical part, where social, economic, political, cultural and ecological implications of the links between the EU Common Agricultural Policy (CAP), the Alliance for the Green Revolution for Africa (AGRA) (Chapter 7) and the EU-ACP (African, Caribbean and Pacific Group of States) Economic Partnership Agreements (EPAs) (Chapter 8) are discussed.

## 2. RESEARCH QUESTION

The research question underlying this thesis asks how free trade agreements and industrialization processes in agriculture affect food sovereignty in African societies from a political economy and food regime perspective. In order to answer this broad question empirically, the EU-ACP EPAs serve as examples of free trade agreements, while industrialization effects are analyzed via the examples of the EU CAP, as well as the strategies proposed by AGRA.

The contribution of this thesis to academic discourse is a theory-based overview of the complex linkages between the international trade regime, the interests of global agribusiness, and the EU as a geopolitical global player, as well as of the implications of this interplay for farmers in Europe and in Sub-Saharan Africa. While food sovereignty has increasingly gained attention in civil societies both in Europe and Africa over the past two decades, the subject is still relatively new to academic discourse. The result is a large amount of literature written on the basis of ideological or political convictions, often lacking an explicit theoretic foundation; and a limited number of academic journal articles on the subject in general. However, an increasing number of conferences on food sovereignty, such as the one held by Yale University in September 2013, indicate that academic publications on the issue might be picking up in the future.

As the research question includes 'industrialized' agriculture, this term should be defined for the scope of this thesis. Industrial and smallholder farming do not form a dichotomy of good versus bad, even though in policy papers relating to food sovereignty they often seem to carry this connotation. It has to be kept in mind that there are unsustainable, and also unproductive ways of smallholder farming. The methods used both in industrial and in smallholder farming are not homogenous.

However, throughout this thesis, the terms are used indicating the following trends: Industrial agriculture is based on the standardization and simplification of a mechanized production process, resulting in ever growing plot sizes and homogenous products; production units are hierarchically organized and profit-oriented, and therefore the capitalist necessity of continuous growth is inherent in

them. Industrial food production is increasingly organized on a global scale, i.e. involving multiple stakeholders at different stages of a production cycle, connected via global production chains. It is the result of modernization processes in agriculture during the mid-20<sup>th</sup> century in the US and in Europe: the idea was to follow the example set by the industrial sector and thus emancipate agriculture from nature: intensification of production, specialization of farms, rationalization and segmentation of working processes, and standardization of products (Bové, Dufour 2001: 101, 123).

Smallholder farming, on the other hand, does not follow this inherent necessity to grow, as its main objective is not profit maximization but food production and sustaining resources for the future instead. It allows for a multitude of heterogeneous and culturally sensitive, as well as ecologically resilient and adapted crops and products, and works on smaller plots, as it is less, if at all, mechanized. Smallholder farming is less integrated in global production chains and remains localized; producer and customer are therefore more closely connected. This form of farming relies largely on human labor, little external input and renewable or self-produced energy (Pérez-Vitoria 2005: 84f). The term is not synonymous with subsistence farming, and in this thesis is used as an umbrella-term for a multitude of approaches or production processes, including the concepts of permaculture, agroecology, regenerative agriculture, sustainable organic farming and potentially, where sustainable, traditional agriculture.

Another concept in need of definition for this thesis is that of 'dumping'. According to the WTO, selling a commodity below the home market price constitutes dumping. This thesis however follows the definition used for instance by Via Campesina or ATTAC (association pour la taxation des transactions financières et pour l'action citoyenne), according to which dumping happens when a country sells commodities on foreign markets at a price below production costs. (Choplin, Strickner, Trouvé 2011: 52)

### 3. UNDERLYING SCIENTIFIC PHILOSOPHY

The complexity and broadness of the research question calls for a certain scientific approach: that of critical realism.

Critical realism, as opposed to critical rationalism, generally underlies theories of political economy, which understand societal realities and theories about them as a result of historic processes and of an interdependency of material processes, individual action and societal structures (Jäger, Springler 2012: 26). Mainstream or neoclassical economic theory on the other hand is based on positivist analytics and has foundations in critical rationalism; its essence, so Tony Lawson, “is an insistence on methods of mathematical-deductivist modeling” (Lawson 2003: 3).

The argumentation of this thesis is based on an analysis of the realities resulting from the interplay of EU CAP, AGRA and the EPAs with the help of the theoretic frame of political economy and its critique of the neoclassical approach. In order to contextualize this political economy approach, however, a short overview of the neoclassical approach with respect to agricultural and trade policies is given as well.

The approach underlying this thesis therefore rejects the positivism associated with critical rationalism, which postulates a supposedly clear cut between factual knowledge and value judgements, and ignores the connection between theory production and specific interests (Jäger, Springler 2012: 27). Regarding ontology, positivism or empiricism furthermore assumes that only that which can be empirically observed and tested is reality. Critical realism on the other hand, having roots in hermeneutics and dialectics and partly in constructivism, assumes an embeddedness of (economic) theories in societal processes (ibid). It however also differs from idealism or hermeneutics in that it allows for a phenomenon to be ‘real’, regardless of human understanding and interpretation of it (in hermeneutics even the material is seen as a mere manifestation of human ascription of meaning and in the context of symbolism). Socio-economic realities are neither merely seen as the result of individual action, nor can they be entirely explained by structures; critical realism instead conceptualizes them as the outcome of an interplay between



structures and individual conduct, where societal structures are not only seen as boundaries, but also have the potential to free the individual who acts based on these structures, but in their action can either reproduce or change them (ibid: 33).

The critical realist attempt at establishing a dialogue with mainstream economics is mainly based on critical assessments of the latter. At a general level the critique points to a mismatch between the mathematical-deductive methods allegedly adhered to by mainstream economists and the properties of social reality as seen by critical realists. According to critical realism social reality is an open and evolving system comprising intentional individual agents and emerging, layered social structures. The social structures of society, it is argued, enable and restrict individual actions, while at the same time being reproduced and potentially transformed by such agency. Mainstream economics is considered unable to capture this reality due to its adherence to a deductive mode of explanation in which event regularities of the form 'whenever event x then event y' are claimed to play a crucial role. (Davidsen 2009: 41).

The most important merit of this approach is that it is not based on reducing socio-economic realities to universalistic, mechanistic processes and monocausal laws, but instead acknowledges complexity and assumes a plurality of causes to every empirical outcome (Jäger, Springler 2012: 27,32).

It allows the inclusion of differing perspectives and incorporates power relations and asymmetries between different groups of societies (ibid: 28f). This is critical for the underlying thesis, as the research questions involve structures between so-called developed and so-called developing countries. The goal of this critically realist approach is furthermore not to formulate universal truths, or to work for a supposedly definable common greater good, but to bring attention to and deconstruct societal structures in order to create space for emancipatory perspectives, empowerment and the reduction of exploitative structures (ibid). In this sense, this approach was chosen because it allows an analysis of the different, contradictory factors influencing food sovereignty within complex societal systems, placed in the context of international and intranational power relations and diverging interests of a multitude of actors. In other words, critical realism fosters an understanding of 'the big picture' as is relevant to the question of how the effects of industrialization processes in agriculture and international trade rules jointly affect aspects of food sovereignty in Europe and Africa.

## 4. DEFINING FOOD SOVEREIGNTY

### 4.1. FOOD SOVEREIGNTY VS. FOOD SECURITY

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The terms food sovereignty and food security are often used as synonyms, but the concepts behind them could hardly differ more.

At first glance they might share a goal of ending hunger, but at closer examination they turn out to be supported by different groups of actors, promote different food and agricultural production regimes, have different impacts on farmers as well as consumers and entail different consequences on the climate and our planet's ecosystems as well as on the global economic and political arena.

These differences stem from the two following underlying concepts of food self-sufficiency or food self-reliance, the former meaning the meeting of domestic demand of food by domestic production (i.e. ruling out food imports), the latter implying a focus on generating enough income through the export of any possible commodity in order to be able to import enough food to satisfy domestic demand (FAO 2003: 35).

Food security is based on the concept of self-reliance and promoted by institutions such as the World Bank, the WTO or Food and Agriculture Organization (FAO), who see the global hunger crisis as a result of limited supply of food, based on what they perceive to be 'inefficient' use of land and resources. After three decades of expanding the definition of food security, FAO now sees food security as a given "when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life" (FAO 2003: 29).

This concept follows the (neo-)liberal doctrine of comparative advantages whereby all actors will benefit if each country specializes in the production of certain commodities (based on their factor endowment) and then engage in free trade. This, however, favors industrial production systems, which in turn consolidates the market power of big transnational corporations, and undermines the

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democratization of the food system.

Food sovereignty on the other hand is based on a much more holistic understanding of the socio-cultural, economic and environmental dimensions of agriculture, defined as the ‘multifunctionality of agriculture’, which deals with the fact that agriculture serves “many environmental and social needs beyond providing goods such as food, feed, fiber and fuel” (Anderson 2004: 12) as shown in Table 1.

Table 1: The Multifunctionality of Agriculture

	Environmental	Social	Food Security	Economic	Cultural
Global	Ecosystem resilience  Mitigation of climatic change (carbon sequestration, land cover)  Biodiversity	Social Stability  Poverty	Food security/ food for all	Economic Stability  Foreign Exchange  Employment  Tourism	Cultural Diversity
Regional/ National	Ecosystem resilience  Soil conservation (erosion, siltation, salinization)  Water retention/availability (flood and landslide prevention)  Biodiversity (agricultural and wildlife) Pollution abatement	Balanced migration  Social stability (and sheltering effects during crisis)  Unemployment prevention  Poverty alleviation	Access to food  National security  Food safety	Foreign Exchange  Employment  Tourism  Economic Stability	Landscapes  Cultural heritage  Cultural identity  Social Capital
Local	Ecosystem resilience  Soil conservation  Water retention  Biodiversity  Pollution abatement	Social stability (employment, family)  Livelihoods  Balanced gender relations	Local and household food security	Employment effect on secondary and tertiary sectors	Indigenous, local knowledge  Traditional technologies  Landscapes  Cultural identity

Source: IAASTD (2009): 21.

Its proponents are not necessarily contra-trade or pro-autarky, instead there is a belief that food should not be treated like any other commodity and countries should have the right to deny free trade in foodstuffs if it puts their population at risk of losing food sovereignty.

Therefore, the concept of food sovereignty affirms the human right to food as postulated in the United Nations Declaration of Human Rights in 1948; Article 25 (UN General Assembly 1948), "but not simply through access to food (following the FAO's definition of food security), but through the right of democratic control over food and food-producing resources" (Holt-Giménez, Shattuck: 2011: 128).

In other words, food sovereignty is the re-appropriation of food and agriculture by the citizens and the struggle against the undermining of human rights by the subjugation of the food system to market powers.

### **4.2. PRINCIPLES OF FOOD SOVEREIGNTY**

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While the concept of food security was formulated by western 'experts', the concept of food sovereignty was La Via Campesina's answer to the creation of the WTO and the Agreement on Agriculture (AoA) in 1994. La Via Campesina is an international peasant movement, bringing together "millions of peasants, small and medium-size farmers, landless people, women farmers, indigenous people, migrants and agricultural workers from around the world" (Via Campesina 9.2.2011)

In 1996, the movement defined food sovereignty as the right of all peoples, communities and states to define their own agricultural policy as well as the obligation to not compromise other countries' agriculture (Choplin, Strickner, Trouvé 2011: 98).

The concept was further developed at the Nyeleni summit in 2007 in Mali, where peasants from around the world gathered to organize their struggle and to draft the Nyeleni Declaration, in which they call for the right to environmentally sound and culturally appropriate food, to participation in decision making processes, and to egalitarian relations of today's as well as future generations (Via Campesina 2007).

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The International Planning Committee for Food Sovereignty (IPC) defines food sovereignty as

“the right of individuals, communities, peoples and countries to define their own agricultural, labor, fishing, food and land policies, which are ecologically, socially, economically and culturally appropriate to their unique circumstances. It includes the true right to food and to produce food, which means that all people have the right to safe, nutritious and cultural appropriate food and to food-producing resources and the ability to sustain themselves and their societies.” (Windfuhr, Jonsén/FIAN 2005: 12).

The Nyeleni Declaration, and the concept of food sovereignty in general, puts the human being instead of market forces and corporations in the centre of agricultural policy and postulates seven principles (Windfuhr, Jonsén/FIAN 2005: 17; Choplin, Strickner, Trouvé 2011: 105-7, Via Campesina 7.6.2012: [viacampesina.org](http://viacampesina.org))

### **Food as a Basic Human Right**

Food sovereignty puts the right to sufficient, healthy and culturally adequate food for all individuals and communities, including those who suffer from hunger, live in conflict zones or are marginalized, in the center of agricultural policies. It rejects the food industry treating food as a commodity like any other.

### **Agrarian Reform**

Ownership and control of the land has to be given to the landless and to those who work it. The practices of peasants, pastoralists, fishers, forest dwellers and indigenous people must be valued. The policies and practices that devalue such producers of food and endanger their livelihood must be rejected.

### **Protecting Natural Resources**

Land, Water, Seeds and livestock breeds have to be managed sustainably, and biodiversity has to be conserved free of restrictive intellectual property rights. Agro-ecological and diversified production methods using few external inputs, optimizing ecosystems and increasing their resilience to climate change must be promoted. Intensive animal husbandry and fishing as well as monocultures and GMO technologies destroy ecosystems and waste resources and must therefore be avoided.

### **Reorganizing Food Trade**

Agricultural Policy must prioritize production for domestic demand and food self-sufficiency. Food imports must not displace local production or depress prices. Producers and consumers of food must be brought closer together again. Countries must have the right to protect their population from dumping practices.

### **Ending the Globalization of Hunger**

Multilateral institutions and market speculation undermine food sovereignty. Multilateral Organizations' economic policies facilitate the growing control of multinational corporations over agricultural policy which globalizes hunger.

### **Social Peace**

The ongoing displacement, forced urbanization and oppression of smallholder farmers must not be tolerated. Food must not be used as a weapon.

### **Democratic Control**

Smallholder farmers must be enabled to give direct input and formulate agricultural policies at all levels. Resources as land, seeds and livestock have to be managed according to socially and ecologically sustainable criteria. The privatization of natural resources through international and national laws, trade agreements and intellectual property rights is rejected.

## **4.3. FOOD REGIMES**

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Food regime analysis is a relatively new field that “combines political economy, political ecology and historical analysis to explain how particular relations of food production and consumption are central to the functioning and reproduction of global capitalism.” (Holt-Giménez, Shattuck 2011: 110). A food regime is “a rule governed structure of production and consumption of food on a world scale” (ibid), or the interplay of regulation and accumulation processes. Regulation can be intentional, i.e. based on actions of various actors in the field, such as governments, interest groups and corporations, or structural, for example given by the

## Defining Food Sovereignty

environment, or influenced through class relations or cultural aspects. The accumulation side refers to the process of adding value along the commodity chain: from production, to processing, to distribution and finally to consumption; as well as to the networks within which these processes occur.

Generally three global food regimes are distinguished (see Table 2): the first one was characterized by a fuelling of industrialization in Europe by imports of cheap food and agricultural commodities (and raw materials) from the tropical and temperate settler colonies. The second food regime “reversed the flow of food from South to North [and] was characterized by the global spread of industrial agriculture through the ‘Green Revolution’ [...]” (ibid).

Table 2: Global Development of Agri-Systems 1800-2010

	Proto-Globalization	Globalization Regulated By Colonial State	Globalization Regulated by Industrial States	Market-Regulated ('Neoliberal') Globalization
Time Period	1800-1870/90	1870/90-1930/50	1930/50-1970/90	since 1970/90
Metabolism	solar energy based, agricultural	transition to industrial regime	fossil fuel based, industrial	transition to 'postindustrial' regime?
Growth	labor intensive	extensive (settler colonies)	capital intensive	flexible
Organization	entrepreneurial (agricultural capitalism)	farmer-based (without economies of scale)	farmer-based / collectivized (with economies of scale)	entrepreneurial/ farmer based
Product	grains	grains, meat	grains, meat, processed foods	industrially processed and organic products
Commodity Chain	meeting demand of urban-industrial centres	exports from settler colonies to Europe	subsidized export of oversupply from industrialized countries	segmentation of world market based on quantity/quality
Regulation	regional / national	nation state / international	nation state / international	supranational (EU) / global (TNCs & WTO)
Discourse / Policy	liberal	protectionist	dirigiste	(neo-)liberal

Source: based on Langthaler 2010: 162.

The third, or corporate food regime is the focus of this thesis. In the context of neo-liberal capitalist expansion, it is characterized by a supranational and global regulation structure, starting with the Structural Adjustment Programs (SAPs) in the 1980s. These “reflected the growing sway of market fundamentalism in the most powerful developed countries” (Havnevik et al. 2007: 16) as they “broke down

tariffs, dismantled national marketing boards, eliminated price guarantees and destroyed national agricultural research and extension systems in the Global South.” (Holt-Giménez, Shattuck 2011: 111). The SAPs furthermore led to the neglect of African agriculture, and investment in smallholders’ productivity was abandoned for three decades, as still evident in the low productivity rates and high food insecurity of African smallholders today (Havnevik et al. 2007: 37ff) The establishment of the WTO in 1995 and the connected AoA “institutionalized the process of agricultural liberalization on a global scale by restricting the rights of sovereign states to regulate food and agriculture.” (ibid). Today these policies are further embedded in international treaties and bilateral or multilateral free trade agreements.

Holt-Giménez and Shattuck (2011: 111) concisely sum up the most problematic aspects of this neoliberal food regime: “unprecedented market power and profits of monopoly agrifood corporations, globalized animal protein chains, growing links between food and fuel economies, a ‘supermarket revolution’, liberalized global trade in food, increasingly concentrated land ownership, a shrinking natural resource base, and growing opposition from food movements worldwide”. They furthermore offer an analytical framework contextualizing different perspectives on the current food regime and its various crises, as presented in Table 3.



## Defining Food Sovereignty

Table 3: A Food Regime / Food Movements Framework

	Corporate Food Regime		Food Movements	
Politics	Neoliberal	Reformist	Progressive	Radical
Discourse	Food Enterprise	Food Security	Food Justice	Food Sovereignty
Main Institutions	International Finance Corporation (World Bank); IMF; WTO; USDA; USAID; GAFSP; Green Revolution/CGIAR; Millennium Challenge; Global Harvest; Bill and Melinda Gates Foundation; Cargill; Monsanto; ADM; Tyson; Carrefour; Tesco; Wal-Mart	International Bank for Reconstruction and Development (World Bank); FAO; HLTF; CFA; CGIAR; IFAP; mainstream Fair Trade; Slow Food; some Food Policy Councils; Worldwatch; OXFAM-AMERICA; CARE; Feeding America and most food banks and food aid programs	CFS; Alternative Fair Trade & many Slow Foods chapters; many organizations in the Community Food Security Movement; CSAs; many Food Policy Councils & youth food and justice movements; Coalition of Immokalee Workers and other farmworker & labor organizations	Via Campesina and other agrarian-based farmers' movements (ROPPA, EAFF, ESAFF); International Planning Committee on Food Sovereignty; ATTAC; World March of Women; and many Food Justice and rights-based movements
Orientation	Corporate/Global market	Development/Aid	Empowerment	Entitlement/Redistribution
Model	Overproduction; corporate concentration; unregulated markets and monopolies; monocultures (including organic); GMOs; agrofuels; mass global consumption of industrial food; phasing out of peasant & family agriculture and local retail	Mainstreaming/certification of niche markets (e.g. organic, fair, local, sustainable); maintaining northern agricultural subsidies; 'sustainable' roundtables for agrofuels, soy, forest products, etc; market-led land reform; microcredit	Agroecologically-produced local food; investment in underserved communities; new business models and community benefit packages for production, processing & retail; better wages for ag. workers; solidarity economies; land access; regulated markets & supply	Dismantle corporate agri-foods monopoly power; parity; redistributive land reform; community rights to water & seed; regionally-based food systems; democratization of food system; sustainable livelihoods; protection from dumping/overproduction; revival of agroecologically-managed peasant agriculture to distribute wealth and cool the planet
Approach to the food crisis	Increased industrial production; unregulated corporate monopolies; land grabs; expansion of GMOs; public-private partnerships; liberal markets; microenterprise; international sourced food aid; GAFSPF – The Global Agriculture and Food Security Program	Same as neoliberal but with increased middle peasant production & some locally-sourced food aid; microcredit; more agricultural aid, but tied to GMOs & 'bio-fortified/ climate-resistant' crops; Comprehensive Framework for Action (CFA)	Right to food; better safety nets; sustainably produced, locally sourced food; agroecologically-based agricultural development; Committee on World Food Security (CFS)	Human right to food; locally sourced, sustainably produced, culturally appropriate, democratically controlled; focus on UN/FAO negotiations
Key documents	World Bank 2008 Development Report	World Bank 2008 Development Report	IAASTD	Declaration of Nyelení; Peoples' comprehensive framework for action to eradicate hunger; ICAARD; UN Declaration of Peasant Rights; IAASTD

Source: Holt-Giménez, Shattuck 2011: 117f.

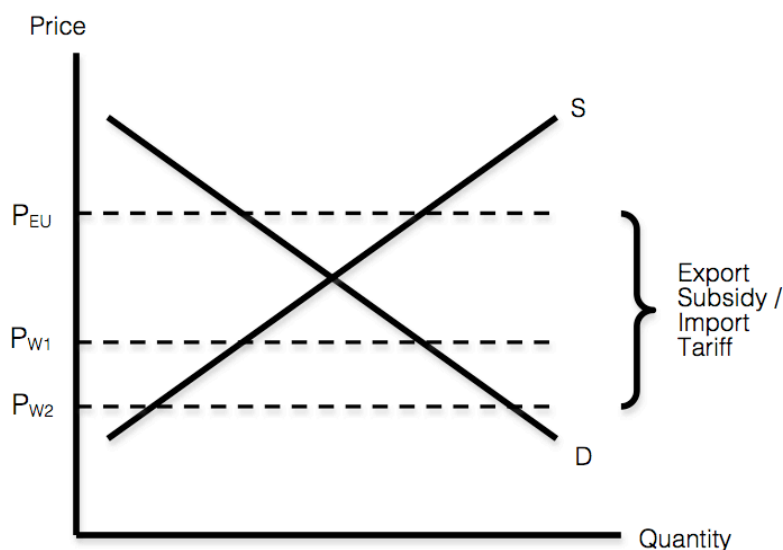
## 5. AGRICULTURAL AND TRADE POLICIES IN NEOCLASSICAL THEORY

Neoclassical economic theory postulates that markets – assumed to be in a state of perfect competition – are the best allocation mechanisms: land, resources, labor and capital are most efficiently distributed via the ‘invisible hand’, a term coined by Adam Smith in the late 18<sup>th</sup> century (for an introduction to the market mechanism see Pindyck; Rubinfeld 2005:52ff). Given this assumption, it easily follows that neoclassical policy recommendations demand a retreat of the state in economic affairs. (Jäger, Springler 2012: 239f). This has straightforward implications for agricultural policies for neoclassical thinkers.

### 5.1. EFFECTS OF AGRICULTURAL SUBSIDIES

In neoclassical theory, subsidies generally have no or very little legitimacy as they lead to market distortions (Newfarmer/World Bank 2006; Forster, Baar 2012: 273; Havnevik et al. 2007: 15ff).

Figure 1: Price-Effects of Subsidies and Tariffs



Source: own graph, based on FAO 2003: 40.

This Figure shows the effect of agricultural subsidies on world market prices. Assuming the world market price without intervention – in our case by the EU – would be  $P_{W1}$ , the EU would have to import the difference between EU internal demand and supply at this price. But if the EU sets its internal price at the higher  $P_{EU}$ , producers have an incentive to overproduce. The arising surplus needs to be exported, which depresses the world price down to  $P_{W2}$  as the quantity of the given commodity offered on the world market rises. To support this development, the EU may give an export subsidy of the amount of  $P_{EU}P_{W2}$ . At the same time it can protect its own market from external suppliers wanting to take advantage of the higher EU price, by imposing an import tariff in the same amount (FAO 2003: 40).

As a result of the export subsidy, EU exporters can offer the commodity at  $P_{W2}$ , which is below production costs and actually below the free-market price  $P_{W1}$ . This constitutes dumping in neoclassical theory.

In this scenario we have assumed that the EU takes price support measures to compensate its farmers for price volatility due to production fluctuations. This, however, is no longer WTO-compatible. Instead, as we shall see in Chapter 7, the EU gives now direct payments to its farmers, which are decoupled from production. This has the effect of moving the EU internal price closer to the world market price, while at the same time maintaining the farmers' higher income.

This kind of subsidy is not shunned as much as a price support measure by neoclassical theorists as they are thought to not influence a farmer's behavior, and therefore not leading to overproduction. In conclusion, proponents of the neoclassical paradigm postulate that a subsidy can only lead to overproduction when it is given as price-support, while direct income support is conceptualized to not have any impact on the market price of agricultural commodities or the quantities produced (Chopin, Strickner, Trouvé 2011: 50f).

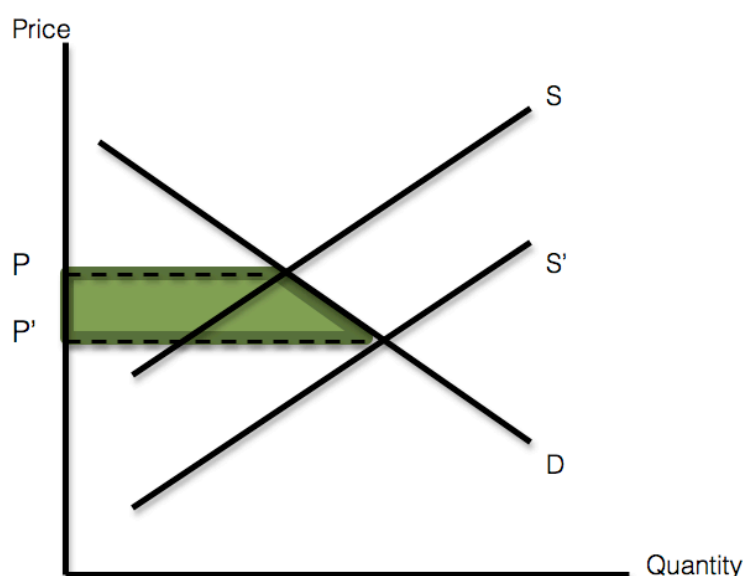
The effect of a subsidy given as direct income support is then straightforward: as it doesn't lead to overproduction, clearly there is no possibility of dumping. In neoclassical thinking, only an export subsidy or a subsidy based on production

volume would have such effects (for a detailed analysis of subsidies in mainstream economics see for instance Pindyck, Rubinfeld 2005: 433-441).

## 5.2. EFFECTS OF INDUSTRIALIZATION OF AGRICULTURE

The idea behind the industrialization of agriculture is to rationalize production processes and cut production cost so as to lower the prices of foodstuffs for consumers. This should raise consumers' rent and general welfare as depicted by the green area in Figure 2.

Figure 2: Effect of Industrialization on Consumer's Rent in Neoclassical Theory



Source: own graph, based on Pindyck, Rubinfeld 2005: 404f.

Producers of course are expected to benefit from industrialization processes too: those who are able to compete will benefit from lower production cost due to rationalized production, while those who cannot and are forced out of farming will find employment in industries, including the newly industrialized agricultural sector, i.e. as agricultural workers (Murphy 2010: 105f; Hoering 2007: 150).

Agricultural industrialization is seen as the cure to hunger, a problem perceived to arise solely from underproduction (Yumkella et al./UNIDO 2011: 47ff; Shiva 2004: 24ff). Industrialization processes such as promoted in Green Revolutions are expected to eradicate hunger as they result in higher production volumes caused by

the simplification, mechanization and standardization of production processes and the homogenization of products, while the cutting of production costs in turn leads to lower market prices. Power issues such as unequal access to a given amount of food supplies are not raised within neoclassical theory.

Mainstream economics does not per se theorize about health issues arising from agricultural production processes, but, as shown in Chapter 7, promoters of agricultural industrialization generally see no problem in the resulting homogenization of produce, as advance in technology is perceived to be able to cure the issues arising from negative externalities: crop diseases can be curbed by the use of chemicals and livestock pandemics are prevented by constantly mixing feed with antibiotics. Thus, the homogenization of products and production processes is paradoxically thought to raise food safety (Yumkella et al./UNIDO 2011: 77 97, 130). Regarding the effects of industrialized agricultural production on the environment, the production process is generally deemed efficient as long as it is cost effective. This leads to problems where there are negative social or environmental externalities, as they have to be monetized in order to include such concerns into a neoclassical model, bypassing issues of non-commensurability and generally downgrading environmental concerns. Instead, economic growth remains the main priority within the neoclassical frame: Environmental costs, caused for instance by oil-dependency of industrialized agriculture, are not necessarily seen as a threat to the growth dogma (or the survival of humankind for that matter) as neoclassic theorists have a strong faith in technology and its ability to save the growth economy from any environmental disaster or social unrest connected to it<sup>1</sup> (Spash 1999: 414f).

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<sup>1</sup> This can currently be observed in the debate surrounding the 'Green Economy' concept. For a contextualization of this approach see p.e. Pirgmaier 2012.

### 5.3. EFFECTS OF FREE TRADE

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Murphy describes the idea of free trade with the following image:

“The pure form of the concept is perhaps best captured by the image of a bazaar: a place where people come to sell and buy wares, stall after stall often selling the same things, and where haggling is common so that both buyer and seller must decide what price they can settle for, based on the alternatives they see around them. Earlier in the day the buyer gets the best choice and later in the day, the quality falls but so do the prices. It is up to the consumer to decide her preference for quality over price and to the seller to decide what price is profitable and still generates sales.” (Murphy 2010: 104).

Neoclassical theories are based on this paradigm of the free market: individual choice under conditions of perfect information and stable preferences. The realities of unequal (market) power structures, institutional settings and domestic as well as multilateral political struggles are neglected in order to allow for clear cut formalized models, which supposedly offer universally applicable answers. In other words, the neoclassical call for free trade and the liberalization of agricultural markets across the globe is much rather based on the assumptions of perfect competition and full information, than on the realities of power asymmetries between subsidized and small-scale farmers, between advanced and less developed economies, or between governments of the so called Global North and South (for an example of such a model see Valenzuela et al. 2004).

With regard to food production, the argument for free trade by neoclassical economists is quite simple: tariffs as well as government-controlled food reserves and subsidies to producers deemed ‘inefficient’ are to be discontinued in an effort to liberalize agricultural markets. Such liberalization would result in a rise in agricultural prices and thereby benefit farmers (Murphy 2010: 105; FAO 2003: 38), and it would also lead to the allocation of food and agricultural supplies to where they are needed most. Given this hypothesized outcome, the neoclassical solution to any hunger crisis is then straightforward: more liberalization, creating more competition and

therefore leading to an increase in productivity and efficiency (Anderson 2009: 2ff; Forster, Baar 2012: 274; Choplin, Strickner, Trouvé 2011: 61).

Consumers shall also benefit via lower food prices as deregulated markets increase efficiency by exposing farmers to global competition. (Murphy 2010: 105).

The answer proponents of free agricultural trade provide to the problem of those unfortunate farmers who are not able to compete in a globalized market is just as simple: Even they “would win in the end, because wider economic development [is] said to depend on releasing labor from agriculture for other sectors, so the displaced farmers and farm laborers would hypothetically find work in the industrial or service sectors in cities or non-farm rural activities instead.” (Murphy 2010: 105f)

Clearly, the neoclassical paradigm follows the idea of food security based on food self-reliance as discussed in section 4.1.: economies specialize according to comparative advantage and then trade with each other so as to satisfy all needs and wants of the population. In theory, therefore, some countries could completely outsource food production, and instead of engaging in basic agricultural production to meet the dietary needs of the population, specialize in any manufacturing or service activity and import the necessary food supplies entirely.

Ricardo’s theory of comparative advantages, today the basis of the most widely used neoclassical trade approach – the Heckscher-Ohlin model, is the mainstream economist’s solution to poverty: by specializing according to an economy’s advantages and engaging in free trade, poorer countries will catch up with more advanced economies (Jäger, Springler 2012: 335; Mbatha, Charalambides 2008: 415). This theoretic outcome is however based on a couple of very restrictive assumptions that are rarely met in reality (Binswanger 2009 gives a good introduction to the theory and underlying assumptions in Chapter 1; see also: Mbatha, Charalambides 2008: 415ff). The logic behind it is based on full factor mobility, i.e. labor and capital move according to their marginal product. In lesser developed economies, the marginal product of capital is higher, so capital will flow in, while the assumed mobility of labor leads to an approximation of income levels across countries. In reality these production factors (especially labor) are often not

as mobile as assumed in Ricardo's theory, but free trade can compensate for the immobility of these factors: the result of two countries specializing according to their comparative advantages and engaging in free trade will also be the assimilation of labor and capital incomes in both these countries. (ibid: 335f) This shows that in neoclassical theory – given the absence of power relations – economic growth automatically leads to a reduction in poverty (the so-called trickle-down effect); the reason for poverty in this line of thinking is that people are cut off from the benefits of the market (Forster, Baar 2012: 274).



## 6. AGRICULTURAL AND TRADE POLICIES IN POLITICAL ECONOMY

### 6.1. EFFECTS OF AGRICULTURAL SUBSIDIES

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#### 6.1.1. PRICES

Critical theories on the political economy of food and agriculture differ from the neoclassical analysis of the effects of subsidies in the way that subsidies can not only lead to overproduction (and consequentially lead to dumping) if the subsidy is given as price support (Choplin, Strickner, Trouvé 2011: 52). Instead, subsidies distort markets in general as they influence a farmer's behavior. This does not necessarily mean they are not justifiable, but they don't benefit all actors in the same way: Via the distortion of market prices they create winners and losers.

Contrary to neoclassical theory, political economists postulate that a mere decoupling of subsidies from production levels does not necessarily prevent farmers from overproducing. The only measure that would regulate production directly is the introduction of maximum production quotas. Forcing farmers to set land aside could indirectly impede overproduction too, but in practice this is hardly effective as farmers of course set aside the least productive piece of land and then overexploit the remaining area (Choplin, Strickner, Trouvé 2011: 44, 110f; Salzer 2013: 16).

Chapter 7 will show that the EU currently neither applies quotas, nor forces farmers to let fields lie fallow. Instead, direct income support (as opposed to the WTO-incompatible price support) is currently being paid on the basis of farm size. This does not prevent overproduction.

On the contrary, direct payments based on hectares increase the need for mass production: before the introduction of land-based direct payments, a farmer's income consisted of the quantity produced times the price received for the respective product. In this case, farmers double their income if they double the quantity produced. But if the price drops to 50 percent and the lost income is compensated for via direct payments (as was the case when product subsidization

was discontinued in the EU after 1992), farmers can now only focus on half the quantity to increase their income. If farmers double the quantity now, they only double half of their income, while the other half (the subsidy based on land holdings) remains equal – therefore, the income margin is halved. As a result, farmers will intensify production to increase their income within the remaining margin. (Hirte 2013: 19).

The following example displays this mechanism and explains why subsidies can be seen as a reason why European farmers are able to export their products in the first place, in spite of the higher production costs in Europe.

Let's assume a European farmer produces 1.000 units of product X for intra-EU demand at a price  $P_{EU}=1$  Euro and production costs of  $C_{EU}=1,1$  (this is a realistic assumption as agricultural prices in the EU generally do not cover production costs (Choplin, Strickner, Trouvé 2011: 55)). Once these first 1.000 units are sold within the EU, the European market is saturated. She can exploit economies of scale: if she produces 2.000 units the production cost drops to  $C_W=0.8$  Euros. Based on her farm size she receives a subsidy of 2.000 Euros. The world price is  $P_W = 0.9$ .

Table 4: Effects of a Decoupled Subsidy on Farmer's Behavior

	$Q_{SSA}$	$C_{sub}$	$Profit_{EU}$	$Profit_{SSA}$	$Profit_{Total}$
Case A: Production Satisfying Home Market	0	$(1000*1,1-2000)/1000$	$1000*(1-1,1)$		$(-100+2000)$
		-0,9	-100	0	<b>1900</b>
Case B: Overproduction and Export	1000	$(2000*0,8-2000)/2000$	$1000*(1-0,8)$	$1000*(0,9-0,8)$	$(200+100+2000)$
		-0,2	200	100	<b>2300</b>

Source: Own calculations.

As the table shows, if she only produces 1.000 pieces for the European market, the effective production cost ( $Cost_{sub}$ ) drops: due to the 2.000 Euro subsidy she receives, regardless of the production volume, she, instead of losing 1.1 Euros per produced unit, effectively gains 0.9 Euros. Without the subsidy she could not survive, given that her profit prior to the subsidy would be negative (the market price is lower than

production costs); with the subsidy her profit however is 1.900 Euros. Economies of scale cause the production cost to drop with an increasing number of units produced. If she now produces 2.000 units with the intent to export what cannot be sold within the EU (1.000 units), her production cost drops to 0.8 Euros and she will actually make a profit within the EU (the cost is now lower than the price she receives) and has an incentive to export: overall she will earn 400 Euros more than if she only produced 1.000 units.

This simple example shows that unless subsidies are combined with a maximum production threshold, their design – whether WTO-compatible or not – cannot prevent overproduction and the dumping of EU products on third-country markets: the European farmer clearly sells on the world market at a price below the European market price, which constitutes dumping according to the WTO. The numbers can easily be modified to show the same will be true even if the production cost (including economies of scale) remains higher than the world price, which would constitute dumping according to the alternate definition.

This furthermore illustrates, that in ‘bad years’, when prices in Europe are too low, farmers should theoretically not produce anything at all, reducing the over-supply and therefore raising the price. However, agriculture is an inelastic sector: it cannot adapt quickly to price changes (Oxfam 2002: 159). If, for instance, milk prices rise, farmers will want to hold more livestock, possibly needing to remodel the cowshed or to purchase another milking machine etc. Additionally the farmer will have to wait for a couple of years before the new cow can actually give milk. By then the price will have dropped and risen several times, and clearly he cannot slaughter his livestock every time the price drops. Overproduction in times when the price is low is therefore to be expected in the agricultural sector. Farmers furthermore don’t want to be dependent on subsidies; many farmers instead take pride in their profession, as captured in the social dimension of the multifunctionality of the agriculture concept (see Section 4.1). And since the price is not stable, they have an incentive to overproduce with the hope that the price will rise.

One furthermore has to remember, that the European agricultural sector is not homogenous: of course there are industrial producers whose production cost really is below the market price due to the aforementioned economies of scale; these producers of course have an incentive to produce as much as possible. This, however, results in increased quantities and consequently in falling prices, exacerbating the situation for smaller farmers whose production cost is above the internal EU price anyway. But farmers need to be seen as entrepreneurs in this setting: their rationale is not based on increasing overall societal welfare; it is not primarily influenced by macro-economic processes, but by business calculations: As long as the subsidy is not contingent upon a production threshold, and as long as it remains at the same amount every year and indifferent of the amount produced, farmers will have an incentive to produce more rather than less in order to maximize profits by exploiting economies of scale.

One might now conclude that exploiting such economies of scale must be a good thing since they lower the prices of foodstuffs. Such thinking however reduces the individual to a consumer, and overall welfare to their purchasing capacity. At a closer look it becomes clear that European consumers do not only reap benefits of such 'cheap' food. The reason is that food produced within such a system is in fact not as cheap as it appears, "largely because of hidden subsidies and ignored environmental **costs**, both of which are ultimately paid by the consumers these trends supposedly benefit" (Norberg-Hodge, Merrifield, Gorelick 2007: 71; emphasis added). Consumers "pay – via their tax dollars – for everything from research into chemical and biotech agriculture to the military expenses of keeping the supply of oil flowing" (ibid: 72), and also to infrastructure required by large-scale industrial operations, such as long-distance transport networks or global communication facilities (ibid).

### 6.1.2. EXPORTS

As mentioned above, the EU has reformed its agricultural policy via the process of decoupling. While it may appear that this transition was reluctantly implemented

due to WTO-pressure, at closer examination it becomes clear that the main winner of this reform is the EU itself.

Thanks to the decoupling of farmers' income support, the EU internal price falls. First of all, this benefits the European food processing industry, which is supplied by cheaper agricultural raw materials and can therefore raise its profits (Echessah 2007: 532).

At the same time, thanks to the decline in prices, the EU becomes more competitive on world markets and exports will rise, or not fall, even if expensive export subsidies are lowered or even discontinued. The EU can therefore benefit in two important ways from adjusting agricultural prices to world market prices: it can lower export subsidies (and fall into the WTO's good graces) and enjoy higher competitiveness (ibid).

These exports can, however, have severely negative impacts in the importing countries, as the local producers cannot compete with subsidized EU products. Consumers in these markets, in our case in Sub-Saharan Africa, will opt for the cheaper imported goods. This will cause the displacement of local producers and the loss of their livelihoods, because the vast majority of the agricultural producers in Africa are smallholders without viable alternative income opportunities (Hoering 2007: 150).

Furthermore, for those African farmers who do produce for export markets, the EU policy reform has negative impacts as well, as it depresses world market prices (from  $P_{W1}$  to  $P_{W2}$  in Figure 1), and therefore their income from export earnings.

But African economies are harmed by the EU reform in yet another way: those countries that already enjoy free market access to the EU (i.e. Least Developed Countries (LDCs) benefitting from the Everything But Arms (EBA)-initiative) will suffer additionally from preference erosion as the EU internal price declines. This means the value of their access to the European market diminishes. This development is even exacerbated as the cost of exporting to the EU rises dramatically by the EU's imposition of Non-Trade-Barriers such as the sanitary and phytosanitary measures (SPS). (Echessah 2007: 532)

## 6.2. EFFECTS OF INDUSTRIALIZATION OF AGRICULTURE

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### 6.2.1. CONSUMERS

Neoclassical thinkers postulate consumers should benefit from the industrialization of agriculture via reduced prices. However, the prices consumers pay in stores do not appropriately indicate the real cost of food in an agricultural system based on subsidies.

As explained above, the price consumers pay for food in the EU does not cover production costs. Instead, farmers need to be supported via subsidies of different kinds. These are paid for by the consumers as well: via their tax payments. The prices consumers perceive in stores and farmers' markets are therefore deceptive, as it leads them to thinking they spend a smaller share of their income on food than they actually do (Norberg-Hodge, Merrifield, Gorelick 2007: 71f).

In addition to the amount of taxes used for agricultural subsidies, externalities of the industrial agricultural production system also let prices appear to be lower than they really are. If consequences of this production model such as climate change and social inequality were internalized, prices would rise, and make the idea that industrialization of the agri-food-system benefits consumers obsolete.

From a food sovereignty point of view, the industrialization of agriculture also has a negative impact on consumers as it deprives them of their right to directly participate in the decision of what and how food should be produced, or what they want to eat. As the industrialization process is based on homogenization and thus establishes monocultures, it leads to a loss of agri-biodiversity, i.e. a limited range of foods to choose from, which cannot be reversed. Agricultural raw materials are lost forever, largely without the consent of the consumers. Recent studies however show that even the poorest on the planet don't necessarily buy the cheapest food that will satisfy them the longest; instead, even people who are faced with hunger and malnourishment spend their money on food that tastes good to them (Banerjee, Duflo 2011). This could indicate that the poor and hungry are not necessarily receptive to the handful of grains that take over the planet's agricultural systems in

monoculture settings, but instead have a preference for variety. This additionally challenges the neoclassical conviction that hunger is merely a problem of underproduction.

In sub-Saharan African economies, the above points are valid for consumers of foodstuffs produced locally, as well as for imports from the EU (except for the tax argument). They are, however, confronted with yet another problem: While urban workers might actually benefit from cheap food imports, those who are being displaced by them – the vast rural majority – certainly do not. If smallholders are being displaced by cheap dumping imports and therefore lose their main income source, cheap prices will not benefit them. If they additionally lose their land – p.e. via the industrialization of their own agricultural system – they will not only lose an income, but a food source - and food insecurity will rise. As Sub-Saharan Africa (SSA) economies are largely agricultural with a large number of semi-subsistence farmers, the effect of the industrial agri-system on producers is likely to be graver than the possibly positive effect on urban consumers can compensate for (Bryceson 2010).

### 6.2.2. PRODUCERS

Agricultural markets are characterized by a large number of suppliers (farmers) who are forced to produce a small number of homogenous products by the inelastic demand of a small number of large buyers (the food processing industry). In combination with this inelastic demand, the industrialization of agriculture results in a diminishing producers' surplus, as it causes prices to fall (Binswanger 2009: 35).

As the produce demanded becomes more and more homogenous, the only option for farmers to separate themselves from one another is via predatory pricing and destructive competition. This results in a declining number of farmers, as smallholders are generally not able to compete with large enterprises, while prices – and therefore farmers' income – are falling (ibid: 30).

But productivity gains are not per se bad for farmers. The impact on farmers depends on whom they produce for.

If the produce is sold on local markets, which allow for a greater agri-diversity, productivity gains equal more food for the local population. In this scenario higher productivity in smallholder farming will cause higher food security.

If, however, smallholders produce cash crops for world markets and are dependent on export earnings to buy imported food, productivity gains will raise the quantity offered, while – as is the case with agricultural products – demand will not rise. This will result in a lowering of prices for their commodities and therefore negatively affect local smallholders as their income drops in spite of rising quantities produced (Ocampo, Rada, Taylor 2009: 68ff; FAO 2003: 45; Binswanger 2009: 46). In return their purchasing power falls and they will have to spend an increasing share of their income on food. This will lead to food insecurity and even crises if they only plant export crops without dedicating any of their land for their own food production.

One of the ideas behind the industrialization process is that the displaced smallholders will find work in the agricultural industry. But this is delusive because in SSA the numbers of smallholders who will lose their livelihoods due to this process will exceed the number of agricultural workers needed for industrial farming many times (Bryceson 2010). The idea itself is actually quite the paradox, since it is the definition of industrialization to build on mechanization and the reduction of labor in agriculture – originally to free up the labor force for other more productive sectors. As a result, it is delusive to believe the millions of farmers who continue to work with very low technology inputs in Africa would not be put out of work if their agricultural system were mechanized.

In most SSA economies the industrial and service sectors are not yet ready to accommodate the vast majority of the population. Industrializing African agriculture will therefore inevitably lead to rising unemployment and massive rural-urban migration with the development of slums around major cities as displaced smallholders will not find alternative livelihood sources (Bryceson 2010: 77f).

Furthermore, agricultural workers around the world are among the most vulnerable social groups. The agri-industry recruits workers who are already in precarious conditions, such as illegal immigrants in Europe, and it pushes them further into



marginalization and poverty. They are subject to extraordinarily loose labor protection laws and social security, while their jobs are inherently associated with seasonal fluctuations and the close contact with dangerous chemicals used in pesticides and fertilizers. (Oxfam 2002: 157f) From a developmental point of view it is certainly questionable to expect smallholders to give up the freedom of owning land and deciding what and how to produce in order to become part of an industrial labor force, putting themselves at various social and health risks.

The low income in agriculture also leads to social marginalization as it pushes smallholders towards the poverty line. But also farmers with larger holdings in the EU suffer from the devaluation of knowledge that farmers have accumulated for thousands of years, as industry makes their decisions for them, but also from the EU policy that renders them dependent on income support (Choplin, Strickner, Trouvé 2011: 70f). This disqualification of traditional knowledge denies the fact that it has resulted in climate-resilient, ecologically adapted and culturally appropriate crops, and turns farmers all over the globe into mere puppets of high power corporations, and farming – the economic sector most relevant to every human being – loses its attractiveness (Pérez-Vitoria 2005: 84ff).

As the agricultural market is not one of perfect competition (a polypol) as mainstream theory assumes, but instead is characterized by an oligopoly of a handful of large corporations on the demand side, farmers are pushed out of the value-adding process and receive less for their commodities than they would if they were directly linked to the consumers. Consumers, on the other hand, would also be better off if they were directly linked to farmers and not be dependent on the oligopoly of the food processing industry. (Binswanger 2009: 54)

The only clear winners of the industrialization of agriculture are therefore downstream as well as upstream industries. The former supply farmers (who have been rendered dependent) with machinery, fodder, seeds, pesticides and fertilizer. The latter, constituted of the food processing industry, export business, and

supermarket chains, benefit from the supply of cheap agricultural inputs and the entire value-adding process. (ibid: 33)

### **6.2.3. FOOD SAFETY OR QUALITY OF FOOD**

Proponents of the industrialization of agriculture tell us that food safety is increased through the homogenization of foodstuffs. However, industrial agriculture is based on the intensified use of chemical pesticides and fertilizers, which are conducive neither to human, nor to animal, nor to plant health.

Their function is not to increase food safety; it could be argued that their function is not even to increase output (and possibly food security), but to ensure the dependency of farmers on a handful corporations leading in agri-chemistry and in general integrating agricultural markets that have not yet been reached by the neoliberal logic of globalization, privatization and liberalization into global supply chains (Hoering 2007: 139f; Holt-Giménez 2010: 221f).

It is not just the chemicals used in the production of agricultural raw materials that can pose a threat to human health (Pérez-Vitoria 2005: 111) but also the processing of these commodities by the food industry, as nutrients are lost in preservation processes.

While these points are less obvious, the argument of increased food safety certainly reaches absurdity in industrial meat production. Keeping ever increasing numbers of livestock concentrated in production units continuously decreasing in size gives rise to epidemics. This cannot be fully prevented. In order to do so, however, livestock is injected with and fed antibiotics, which leads to resistances, and then in turn to even more serious diseases. This also has negative impacts on human health, as hormones and antibiotics consumed with meat alter human physiology and cause antibiotics resistances as well (Shiva 2004: 137; Bové, Dufour 2001: 124ff).

An even more controversial topic is the increasing use of genetically modified organisms (GMOs), since the industry-proclaimed environmental safety of this technology, as well as its supposedly harmless effects on human as well as animal health are called into question by independent researchers. This is supported by the large number of human deaths and allergic reactions and instabilities in the

hormone cycle in livestock following the first introductions of genetically modified foods and feed, or feed treated with GMO herbicides. (Shiva 2004: 131, 137ff) GM crops furthermore need to be treated with chemical herbicides and pesticides, which lead to the development of resistant 'super-weeds', which in turn lead to ever increasing amounts of increasingly poisonous chemicals. Additionally, they contaminate non-GM fields, even across borders and therefore pose a threat even to countries abstaining from GMO technology. (Goethe 2004: 128; Shiva 2009: 44ff)

### 6.2.4. EFFICIENCY OR QUANTITY OF FOOD

When asking about the efficiency of various production processes, efficiency should first be defined. Mainstream economics has a legitimacy problem as economic growth is not necessarily seen as a means to an end, such as human welfare or happiness, but is rather perceived as an end in itself. This is especially problematic in the area of food and food production: as the right to food is a human right, it follows that food is not a commodity like any other. Therefore efficiency should be defined in a more holistic way (Pérez-Vitoria 2005: 105): a food production and distribution process should not be deemed efficient merely because it is the most cost effective way without regarding social and environmental externalities.

The concept of food sovereignty puts the human being in the centre of economics: a process could be deemed efficient if it respects and promotes the human right to food, thereby necessarily looking at ethical questions of equity and power relations as well as acknowledging that merely relying on market forces cannot guarantee the implementation of any human right.

Efficiency is therefore a question of indicators. One of the most central problems is the question of yield (of one crop) vs. total output. If only yield is measured, mainstream economics will come to the conclusion that there are economies of scale in industrial agriculture, and that mono-cropping is therefore more efficient than smallholder farming. Of course a large farm, based on monoculture, will have higher yields of e.g. corn, than a small-scale agri-ecological farmer. This conclusion however ignores the fact that smallholder agriculture is based on polyculture and is

not intended to only produce one crop – in our example corn. Total output of food will actually be higher than in an industrial large-scale farm. Furthermore, smallholder farming uses fewer resources more intensively and benefits from the natural synergies of polyculture, which means that the productivity of smallholder farming is higher, or that there is an inverse relationship between farm size and output. In summary, from the point of view where the total amount of food produced is more important than the amount of one (export) crop produced (total output vs. yield), smallholder farming is more efficient than industrial agriculture. (Altieri 2010: 257f; Shiva 2004: 25f; Pérez-Vitoria 2005: 119; Norberg-Hodge, Merrifield, Gorelick 2007: 76ff; Havnevik et al. 2007: 35ff)

The productivity of small-scale farms is furthermore severely underestimated as proponents of agri-business emphasize labor efficiency over land efficiency: “Since local food systems rely much more heavily on labor-intensive rather than capital-intensive methods, productivity per unit labor is of course much lower on small farms than on highly mechanized farms. But smaller farms are actually far more efficient if the most productive use of land is the goal – which it should be, given that the world’s population must be fed on the planet’s limited amount of arable land.” (Norberg-Hodge, Merrifield, Gorelick 2007: 76).

### 6.2.5. ENVIRONMENTAL DAMAGE

The industrialization of agriculture is a vicious circle: productivity is raised through (among other things) mechanization, and as a result the quantity produced and offered rises (the supply curve of the mainstream equilibrium model shifts to the right). In return, prices fall and in order to compensate for the lower prices, i.e. the lower farmer’s income, productivity needs to rise even more so that a higher quantity supplied can make up for the lower price received (Choplin, Strickner, Trouvé 2011: 68).

This would be no problem if productivity gains based on industrialization had no negative externalities. But this is not the case as an oil-based system of

mechanization contributes heavily to climate change and severely disrupts the planet's ecosystems.

Deforestation, the act of turning forestland into arable plots, causes the loss of nutrient topsoil, as the roots of the trees hold soil particles together and store water. Already existing plots of land need to be expanded, which means hedges and trenches make way for big agricultural machines, allowing winds and rainwater to travel over the fields much faster. Chemical fertilizers and pesticides kill the binding factors in the soil and heavy machinery breaks it up. Mono-cropping kills natural synergies between crops and weeds, and the grazing needs of extensive meat production kill the vegetative cover that protects the soil. All these factors cause soil erosion (through wind and water), and inevitably lead to a loss of biomass in the soil. This in turn negatively affects agricultural productivity as ever-increasing amounts of chemical fertilizers are needed to compensate for the lost biomass, contributing significantly to environmental pollution. Depending on the climatic region, soil erosion even causes irreversible desertification, increasing the need for irrigation systems, putting pressures on the global water supply or making agriculture permanently impossible. (Herren 2010: 62f; GRAIN 2011; Choplin, Strickner, Trouvé 2011: 78ff; Via Campesina 2009b; Vandermeer et al. 2009)

### **6.3. EFFECTS OF FREE TRADE**

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#### **6.3.1. DEPENDENCY VS. SELF-DETERMINATION**

Free trade agreements between unequally strong economies are based on the universalist idea that one policy path fits all economies at all stages instead of acknowledging the need for contextualization of space and time (Bové; Dofour 2001: 221). This implies an underlying concept of equality, whereas where different partners are involved the concept of equity is much more fruitful, and allows for different solutions, i.e. policy measures, for different problems (in this case, different economic stages). Consequently the implementation of free trade between unequal partners can then be thought of as a fundamental attack on development efforts, especially if a free trade agreement (such as the EPAs proposed by the EU as discussed in chapter 8), takes away previously existing preferential access for the

weakest economies (Groth, Kneifel 2007: 83). Where there are substantial differences in productivity levels, as there are in the case of African agricultural economies and the EU agrarian sectors, liberalization must clearly be overcome (Amin 2004: 25).

Additionally, the call for liberalizing (agricultural) trade is based on the illusion that the market forces are not politically managed, or, in the case of the highly oligopolistic agricultural market, even controlled (Norberg-Hodge, Merrifield, Gorelick 2007: 134).

Liberalization does therefore not necessarily create a level playing-field as postulated by mainstream economics. On the contrary, free trade agreements significantly decrease a poor country's policy space, i.e. they curtail the possibilities of managing the domestic economy and protecting it - for instance against the negative implications of the industrial policies in the 'Global North' (p.e. EU CAP). But historically, all of today's developed countries have protected their economies, especially their agrarian sectors (Chang 2002). Denying the same macro policy options to developing countries today is therefore clearly a double standard (Oxfam 2002: 96ff).

It makes sense to protect the agricultural market because it is substantially different from other markets, as supply and demand are less responsive to price changes (Oxfam 2002: 159); but also because, due to the heavy subsidization, agricultural food prices do not convey correct information about the allocation of scarce resources, and are a misleading indicator of efficiency due to heavy subsidization (Watkins/Oxfam 1996: 55). This violates a major assumption of the neoclassical market doctrine. In general, the analysis of which country has a comparative advantage in agriculture (on which the idea of the Green Revolution is founded) only holds as long as world prices are good indicators for these advantages (FAO 2003: 45f). Furthermore, agriculture suffers from an inherent disadvantage in relation to other sectors, as it is dependent on land, which cannot be constantly increased. This means that farmers cannot keep up with industry and services in constantly increasing competitiveness, and they inevitably fall behind (Binswanger 2009: 53). It is a clear argument against liberalization between economies based on primary and

economies based on secondary or tertiary sectors. As mentioned in the previous chapter, mainstream economists do not regard such issues as a serious threat, as technological advancement is expected to make them obsolete. In this context, the Green Revolution tries to do away with this comparative disadvantage of agriculture via the industrialization of agriculture, intended to constantly increase land productivity. The methods used, however, are not ecologically sustainable as shown in the previous section. Besides these ecological boundaries, the technological progress proposed with the call for a Green Revolution is also economically questionable, the following increase in productivity can – in the context of free trade – severely decrease the level of prosperity of a country that's dependent on exporting goods characterized by inelastic demand, such as agricultural commodities (Binswanger 2009: 46). Consequently, this approach to the inherent disadvantage faced by economies largely dependent on the primary sector cannot be a long-term solution. For political economists it therefore follows, that the survival of agriculture is highly dependent on protective measures (ibid: 53).

But not only is the agricultural market different from other markets in its behavior, but agricultural commodities, or, more specifically, basic foodstuffs, are different from other commodities as well, since they satisfy a basic human need and are necessary for the survival of mankind. Given the human right to food, agricultural production is not just a question of cost-efficient production to be handled by market forces, but necessarily involves ethical questions of, for instance, distribution as well.

Free trade agreements in agriculture inevitably decrease a state's room for policy maneuver and can render the entire economy dependent on an external supply of basic foodstuffs. But importing food that can easily be produced domestically is in itself questionable, as it eats away scarce foreign exchange reserves that would better be used for sectoral policy designed to stimulate growth and industrialization projects with a job-creation objective (Watkins/Oxfam 1996: 57).

The above points address the dependence of the state in designing policies and the dependence of the economy on exports of products with low value-added as well as on imports of food staples. But looking at agricultural producers – farmers as well as laborers – and consumers of food imports reveals even more complex pictures of dependency and loss of self-determination.

Free trade agreements enable the EU to dump the foodstuff surplus generated by heavy subsidization, as discussed above, onto African markets. As African smallholders cannot compete with the prices of dumping-imports, they cannot keep a livelihood in agriculture any longer. In other words, free trade agreements in agriculture can lead to severe displacement, which constitutes a loss of choice for farmers. This in turn can lead to heavy urbanization pressures and the death of rural communities and cultural landscapes, and can cause political destabilization. (Bryceson 2010: 74ff).

As we shall see in section 7, the EPAs as currently envisioned by the EU would allow for exclusion lists – lists of ‘sensitive’ or ‘special’ products that are not immediately to be freely traded – thereby addressing the issue of displacement at least in the short-term. However, the danger of exclusion lists, if they are too restrictive in the choice of products, is that the likelihood of consumers opting for substitution products that are imported at dumping prices rises, especially in countries with a majority of people living in poverty; in this case even an exclusion list cannot spare an economy from the negative effects of displacement, i.e. the destruction of local production structures and livelihoods (Sharma 2009: 13f).

At the same time, those farmers that manage to keep up with dumping imports and can continue to sustain a livelihood in agriculture face a loss of self-determination that is similar to the farmers in the European agricultural sector: via the industrialization of agriculture – in Europe advanced via the CAP, in Africa via the movement for the Green Revolution – power is taken from farmers and shifted to the food industry (see section 6.2.2). This constitutes a direct loss of choice for farmers, regarding the seeds and production techniques involved. With the privatization and monopolization of seeds (but also pesticides, herbicides and



fertilizers), farmers are pushed into dependency on a global scale, this development is especially grave where hybrids and GMOs are involved as they not only cause dependency in the present, but lead to future dependency as well, since hybrids have to be re-bought every season, and the industry is looking to include the so-called Terminator technology in GMO crops, which would achieve the same. They can furthermore contaminate the soil in ways that make it impossible to use natural seeds after the cultivation of hybrid and GMO-crops again (Shiva 2009: 44ff; Shiva 2004: 112, 131, 137ff; Bové, Dufour 2001: 136f). The patenting of life is a very controversial issue and connected to complex phenomena such as bio piracy, which has severe repercussions on the global scale, but especially for indigenous peoples whose knowledge is stolen, and whose livelihoods are destroyed. While the WTO TRIPS agreement (agreement on trade-related aspects of intellectual property rights) gives companies ever increasing patenting rights and therefore power, the UN convention on biodiversity lacks focus on these issues, and there is not much progress in the Nagoya Protocol, which is designed to tackle negative aspects of GMO use, and could possibly be an instrument against bio piracy. In any case, a precautionary approach is necessary with regard to GMOs, as long-term repercussions are far from clear, but according to independent researchers certainly entail negative consequences beyond the obvious loss of biodiversity (Shiva 2004: 137ff).

Another picture of dependency created by industrialization processes is that of agricultural laborers, which are among the most exploited and vulnerable social groups on a global scale. They are forced to work under extreme and hazardous conditions, as they are exposed to chemicals and are rarely protected by social security nets (Oxfam 2002: 157f). European examples in Spain for instance exemplify how the food industry is able to exploit already vulnerable groups – such as illegal immigrants – and push them even further into marginalization (Sekinger 2004).

Last but not least, consumers lose choice too as food and the connected consumption patterns are westernized with increasing food imports. Recalling the multifunctionality of agriculture, food has a cultural and an identity-creating

component as well, which is lost when traditional crops make way for foodstuffs identified with the Western way of life. This indirectly leads to the deterioration and homogenization of diverse cultures, which results in a loss of knowledge, self-esteem, value-systems and social coherence – components that can be seen as necessary for a people's development (Norberg-Hodge, Merrifield, Gorelick 2007: 82f).

### 6.3.2. CRISES AND RESILIENCE

The liberalization of agricultural trade creates economic risks in addition to the natural risks already associated with industrial agricultural production. Countries relying on the export of primary commodities do not only face environmental challenges, such as prolonged droughts or frequent floods that are exacerbated by global climate change, but are increasingly vulnerable to price volatility on the global markets (Nissanke 2012; Staritz 2012; Muller/IATP 2008).

The idea of raising exports in order to be able to import the necessary food supplies with the generated foreign exchange has disastrous effects on net food importing countries (NFICs) when the prices of food staples rise (Nissanke 2011; Muller/IATP 2008). This has been the case during the 2007-08 world food price crisis, that left 1.2 billion people on the verge of starvation, especially due to the wheat price surge.

Crises are inherent in the capitalist production model, price volatility on global markets is thus something that can be expected in the future. Exposing weak economies to such risks via the liberalization of trade can directly lead to humanitarian crises in the case of poor NFICs, when foreign exchange is insufficient to keep up with the price surges of basic foodstuffs needed to keep the population healthy. Even actors promoting free trade such as the FAO, which strongly advocates for the Green Revolution as the solution to Africa's hunger problem, recognize that liberalization can increase the risk of shocks and a country's vulnerability to them (FAO 2003: 32).

### 6.3.3. TERMS OF TRADE

The Prebisch-Singer hypothesis stated already in the 1950s that the terms of trade for exporters of primary commodities would decrease to the benefit of producers and exporters of manufactured goods, this theorem is largely supported by the empirical data (see for instance Ocampo, Rada, Taylor 2009).

The call for a Green Revolution in Africa does not address this issue; instead, it relies on productivity advances via the industrialization of African agricultural sectors, while at the same time free trade agreements are supposed to give African exporters of these industrially produced agricultural commodities access to European markets. The problem is that, as economies grow richer, the demand for agricultural products declines in relation to the demand for manufactures and at best remains constant, while the supply continuously rises due to increasing productivity. As a result, the terms of trade have to worsen. (Binswanger 2009: 54; Ocampo, Rada, Taylor 2009: 68ff)

Consequently, the relative costs of importing manufactured goods rise for the so-called developing countries, hindering development and growth.

Falling terms of trade are furthermore especially harmful during financial crises, against which a developing country's protection measures are severely constrained if it enters free trade agreements (Oxfam 2002: 159).

Besides the falling terms of trade, agricultural exports are risky for a number of other reasons (FAO 2003: 42ff), including the fact that the so-called LDCs are price takers on the global market and the composition of the agricultural global supply chain. It is characterized by a large number of producers of agricultural raw materials confronted with a small number of buyers, namely the processing industry (oligopsony). In the absence of national price regulation mechanisms (such as the former state marketing boards), combined with high barriers to entry for new buyers (due to economies of scale associated with vertical integration), this leaves farmers, but especially smallholders, in a weak negotiating position and gives rise to an increasing inequality between the industry's profits and farmers' income (Oxfam 2002: 163).

Another important aspect largely forgotten by proponents of the Green Revolution in combination with free trade is the fallacy of composition: liberalization does not necessarily entail a rise in export revenues. Contrarily, liberalization of trade can even lead to a decrease of export earnings if the countries entering free trade produce homogenous products (which is clearly the case in a Green Revolution setting). The explanation is that, if world markets are swamped with the same product while demand does not rise, the world market price is of course pushed down (FAO 2003: 45). In turn, in order to compensate for the price deterioration, countries relying on the export of such commodities need to raise production. This however further decreases the price, effectively starting a vicious circle (Binswanger 2009: 46).

### **6.3.4. ECONOMIC GROWTH AND INDUSTRIALIZATION**

The concept of food sovereignty is easily misunderstood and often misinterpreted. It is neither about autarky nor about de-industrialization. “The question is not between autarky and unrestricted free trade; it is about the nature of the exchanges, who controls the agenda and what the rules should be” (Hansen-Kuhn 2011: 2). It is also not about demonizing investment, quite on the contrary, proponents of food sovereignty demand investment in Africa’s agricultural systems, pointing to the fact that it has been abandoned during structural adjustment. But investment does not need to be investment in agribusiness: “Of course we need investment, but investment in food sovereignty, in a million local markets and in the three billion farmers and farm workers who currently produce most of the food that our societies rely on – not in a few mega-farms controlled by a few mega-landlords.” (GRAIN 2011: 148). Food sovereignty is also not designed to attack development efforts or undermine the benefits, which technology, productivity growth, and trade can bring, given the appropriate strategies for a specific context. Contrary to mainstream belief, the poor’s agricultural systems are also not static but rely on local technologies and thrive with knowledge creation and transfer: “Food Sovereignty is a set of principles and ideas that envisage a whole new approach to knowledge production and dissemination as well as implementation [...] though it may be based in part on the way people have been living for thousands of years. Above all else, it

promotes a sense of open communication about methodology used, seeds planted, ways of combining tree cultivation with field crops, and hundreds of diverse bits of information.” (Mencher 2013: 10) With regard to this role of knowledge creation and technology, Via Campesina proclaimed at the Nyéléni summit in 2007:

“Our knowledge is alive, shows itself in many ways and is essential for food sovereignty. It is local, collective, and diverse and is ever changing and dynamic – not static – and gathers strength through exchange and solidarity. [The] technologies for intensive monocultures including those for agrofuel production, industrial aquaculture and destructive fisheries that are imposed through the green (crops), blue (aquaculture) and white (milk) revolutions, are now being re-imposed on Africa, are having devastating impacts on our local knowledge systems, technologies and environment” (Via Campesina 2008: 7).

Considering small-scale farmers across the globe and the state of food security in Sub-Saharan Africa, the concept of food sovereignty allows a focus on the human right to food. It puts this fundamental right first, along with a proclaimed right to self-determination and democratization of the food production and allocation process.

Proponents of the concepts argue, the liberalization discourse often appears to proclaim liberalization, either as the goal or as the instrument of development, but the real end of development should be human well-being, with economic development or Gross Domestic Product (GDP)-growth and liberalization merely being a means to that end (Strickner 2009: 232; Bové, Dufour 2001: 210; Via Campesina 2008: 2f).

In this regard, the human right to food has to be put first, liberalization and economic growth cannot be goals in themselves to be prioritized over basic human needs. This thought is central to the concept of food sovereignty: no country, especially not one dependent on the export of primary and agricultural commodities, should be dependent on food imports in a globalized world with volatile markets. Food production for the local population needs to be given priority over export promotion with the intent to earn foreign currency (see section 4.2).

African economies have been encouraged to specialize in agricultural or primary products with little value added and deteriorating terms of trade – most are still highly dependent on traditional cash crops, such as coffee or tea, merely cultivated

for export by which – so the idea – enough foreign reserves can be accumulated to finance the necessary imports (Nissanke 2011; Nissanke 2012). It cannot be stressed enough that the concept of food sovereignty is not opposed to all forms of export promotion or trade liberalization per se, but instead exposes the paradox of this system in the case of agricultural exports and basic foodstuffs imports, as these basic foodstuffs could be grown on the fields and using the resources appropriated for the agricultural export sector, in effect bypassing the volatility of international markets, and creating self-sufficiency.

Clearly then, however, industrialization and productivity growth would have to be focused on different sectors, new strategies would have to be designed in order to create jobs and generate growth (see the following excursus). The purpose of this thesis is, however, not to identify the path forward regarding sectoral policies for African economies, but to determine a way to maintain or create food sovereignty and therefore also food security. The issue of how industrialization of African economies is supposed to take place after the abandonment of export-led agriculture in favor of food sovereignty remains thus open to research.

The effects on economic growth of a de-industrialized agricultural sector might be negative, but at the same time it would give African economies the opportunity to invest the freed up resources into sectors with less detrimental terms of trade.

The impact of less free trade on growth, however, is less clear. While supposedly accelerated growth is the main argument for trade liberalization and usual legitimization by its proponents, empirical evidence of this theory is weak. Liberalization does not automatically lead to growth (FAO 2003: 48; Ocampo, Rada, Taylor 2009: 68ff)

Economic orthodoxy for instance explains the Asian miracle largely with the opening of markets; but at a closer look it becomes clear that “the spectacular growth of these countries [...] is fundamentally due to activist industrial, trade and technology (ITT) policies by the state.” (Chang 2002: 49). Trade was liberalized only in specific sectors, policies were designed to increase productivity via investment and innovation, and the main goal was economic diversification (Schwank 2008).

Economic structure is important, as growth miracles show that as an economy develops, industrial and agricultural output increase and decrease respectively (Ocampo, Rada, Taylor 2009: 27, 39-42, 122-130). Investing in dynamic sectors is crucial to create competitiveness and avoid deteriorating terms of trade (Prebisch 2008 [1964]; Ocampo (w.Y)), as “[f]ailing to diversify exports toward products with higher domestic value-added and technological content always carries risks of adverse terms of trade movements that affect primary commodities but increasingly also low-tech manufactures, which are associated with low-demand elasticities and low wages in producing countries.” (Ocampo, Rada, Taylor 2009: 68; Erten 2011).

### **Excursus: The Way out of Primary Commodity Dependence?**

As explained above, primary commodity dependence has negative developmental effects, due to deteriorating terms of trade of primary commodities such as agricultural raw materials. These include slower growth, worse governance and a higher incidence of civil war than other regions experience, which have comparative advantages in for instance manufacturing (Collier/World Bank 2002: 2-9). Today’s developed economies grew when they shifted from agriculture-based structures to manufacturing (and then later to the service sector and the knowledge economy). As mentioned above, the Asian Tigers successfully employed industrial policies and were able to create competitiveness in the manufacturing sectors, actively managing development. The solution to Africa’s primary commodity dependence proposed by the Green Revolution and the current Post-Washington Consensus development discourse is a move upwards the global supply chain by industrializing and modernizing African agricultural production systems and exporting products with higher value added. However, the question under which conditions this shift is possible and feasible is a matter of academic discussion. Answers differ, as do the approaches of explaining why Africa has not yet diversified to a level inducing strong economic growth.

Within mainstream economics, Wood and Mayer (2001) for instance extend the Heckscher-Ohlin Theory, by stating that Africa had advantages in primary commodities as it was better endowed with natural resources than other regions,

which are better endowed with human capital. According to Collier, however, this theory does not explain reality as: “In essence, this theory explains Africa’s lack of manufacturing by Dutch disease – abundant land raises real incomes and so makes Africa uncompetitive relative to land-scarce regions. [...] But currently Africa has the lowest income in the world.” (Collier/World Bank 2002: 10) He continues by comparing Nigeria and Indonesia, which both have large oil deposits, but the latter has nevertheless managed to establish a large manufacturing sector.

Another mainstream model by Redding and Venables (2004) explains Africa’s failure to industrialize through the introduction of transport costs, whereby comparative advantages are based on proximity to markets. This approach however, cannot explain why West Africa, the closest low-income area to Europe, is not exporting manufactured products (Collier/World Bank 2002: 11).

Collier proposes a different theory in which “comparative advantage is determined neither by factor endowments nor by distance-related transport costs, but by political economy” (ibid: 11), and by factors that determine the investment climate and the costs and risks of doing business. According to Collier, part of the problem is that African economies appear to be trapped in a vicious circle, where the consequences of primary commodity dependence such as slow growth, poor governance and violent conflict negatively affect the investment climate in return.

If African economies will succeed in moving into manufactures is still unclear. So is the question whether this is even desirable, as low-tech manufactures are increasingly affected by adverse terms of trade as well (Erten 2011). In any case, examples of flourishing textile industries under the Multi-Fiber Agreement (MFA) or the subsequent African Growth and Opportunity Act (AGOA) show the importance of the (international) political framework. The fact that much of these industries were destroyed again after the ending of the agreements, and the liberalization of African markets opening them up to cheaper competition from Asia, further underlines the importance of policy space. Collier (2002: 15) proposes to set up Export Processing Zones (EPZs) to coordinate policy reforms and to focus spatially, thereby improving the investment climate.

According to Collier, however, it is unlikely that Africa will manage the shift from agriculture to agri-processing, as often suggested and seen as the solution to poverty



and hunger by proponents of the Green Revolution. The reason is that processing of primary commodities requires high levels of capital inputs, and is intensive in skilled labor as well (ibid). This is shown in Table 5, which compares cost structures or requirements of different production factors for different economic sectors.

Based on these structures, Collier (2002: 15f) argues that certain African economies might however break into the service sector, as it has a similar cost structure to the natural resource sector, i.e. a very low dependence on non-factor inputs. This potential has, however, not been realized so far, partly due to high transport costs and barriers of the international trade regulations, but also because of the necessity of good communications infrastructure and skilled labor, both factors in which many African economies still lack.

Table 5: Global Cost Structure of Production Factors by Sector in Percentages

	Inputs	Land	Skilled Labor	Unsk. Labor	Capital
Agriculture	45	15	1	25	15
Ag. Processing	72	0	3	9	16
Nat. Resources	37	20	3	11	29
Manufacturing	65	0	5	16	15
Services	40	0	14	20	26

Source: Collier/World Bank 2002: 13.

From a human rights perspective, it is important to remember that any scenario based on structural change of the economy is a mid- to long-term endeavor. The UN Special Rapporteur on the Human Right to Food, Olivier de Schutter argues:

„The supply-side constraints in developing countries include low productivity due to reliance on low agricultural technology, lack of access to credit and agricultural inputs, lack of training and technical assistance, and lack of rural infrastructural services. While these constraints could be removed partly by increased investments in agriculture and public policies supporting farmers, this represents a medium- to long-term perspective that does not constitute an adequate response in the short term“ (de Schutter 2011: 9)

In this sense, proponents of the concept of food sovereignty propose an urgent shift to self-sufficiency, the protection of smallholder farmers from world markets, and increased price volatility as a way to not only ensure food-security in the long and medium term, but also in the short term.

### 6.3.5. LAND AND SEED RIGHTS

As the industrialization of agriculture leads to a concentration process, smallholders can no longer compete and are pushed out of markets. In SSA the displacement of smallholders goes hand in hand with a relatively new phenomenon: land grabbing. It is the acquisition of land by foreign private or government-controlled corporations in order to produce agrofuels or food staples on fertile African land with the intent to export it back to the respective country (Zoomers 2010: 429, 434f; Southall 2009: 18). This development promotes the integration of African farmers into global supply chains via agribusiness, legitimated by the idea that African economies are 'backward' and lack technology and industrialization. It is therefore closely connected with the call for a Green Revolution. (Hoering 2007: 6)

Free trade agreements that include provisions on investment facilitate the global land grabbing. In recent times, especially after the 2007 financial crisis, hedge funds and international investment funds also invest increasingly in land due to a lack of lucrative alternatives, with the consequence of raising food prices and food price volatility (GRAIN 2010: 140ff). These trends are aggravated by the increasing demand for agrofuels in the Global North (Rossi, Lambrou/FAO 2009; Choplin, Strickner, Trouvé 2011: 94).

Political economists and critical development theorists show that this process does not only deprive farmers of their land (often forcefully or without the local populations' knowledge of consequences or without compensation) but also diverts important resources (especially land and water) away from food production for the local population and causes farmers to lose the usage rights of newly privatized land that has formerly been treated as common land (Sulle, Nelson/IIED 2009: 64; Alden Wily 2011; Cotula/IIED/FAO 2007). Concrete results of this land grabbing are decreasing water- and soil quality, loss of biodiversity, and marginalization and exclusion of small-farmers and especially women (Rossi, Lambrou/FAO 2009: 5-10). Solutions to some of these problems are being suggested and implemented from within the network of proponents of the privatization of land in Africa (the 'code of conduct' in land grabbing and the promotion of the 'outgrower-system' by which large corporations enter into contract with small-farmers), but these concepts remain inherently neoliberal and anti-poor and do not address the underlying issues

of landlessness and power asymmetries (Borras, Francott 2010; Palmer 2010; Grain 2011).

Farmers do not only lose long standing access to land via these processes of globalization, but also the rights to seeds. The patenting of life as increasingly legalized by the international trade regime (Meienberg 2004; Shiva 2004: 199ff), and so-called biopiracy are discussed very critically in political economy and they need to be seen in the context of free trade agreements, WTO rules and the industrialization of agriculture.

Biopiracy refers to the process by which large corporations patent traditional knowledge as well as biodiversity (in the form of genetic cell lines or plant substances) and thereby illegalize the use of these plants by indigenous peoples who have potentially used them for centuries, for instance as herbal medicines (Navdanya 2009; Shiva 2004: 119f; Bové, Dufour 2011: 139). Additionally, GMOs and hybrid seeds make farmers dependent on the grain industries with the so-called *Terminator* technology, which breaks the lifelong cycle between seed and plant as these seeds only result in one harvest – the seeds of which cannot be reused (Shiva 2004: 112; Bové, Dufour 2001: 136f). This forces farmers to re-buy the seeds every year, thereby further curtailing the thousands of years old right to seed and seed exchange, which is the basis of agro-biodiversity and food security (Shiva 2004: 18). This clearly creates an artificial scarcity of seeds, intended to raise prices and corporate profits (Pérez-Vitoria 2005: 187). These processes furthermore destroy the cultural component of seed by spreading a handful of monocultures across the planet, as well as local knowledge accumulated for hundreds of years, which is the basis of the plurality of seeds and cultivation systems that have adapted to the different climatic and soil-related differences across the globe (Shiva 2004: 18f; Hoering 2007: 38f, 56f).

The seed question reveals one of the fundamental differences between farmers and agricultural industrialists: the former hope for their seeds to be inexhaustible and bring them harvest year after year, while the latter wish for seeds to have an 'expiry date' so that their monopoly position will be strengthened and profits will rise with every year (Shiva 2004: 112).

### 6.3.6. POVERTY

Regarding the effect of free trade on poverty alleviation it makes sense to look at the historic evidence from a political economy perspective. The history of capitalism shows that contrary to the neoclassical doctrine, the free trade paradigm failed to deliver the promised results of poverty eradication and growth. On the contrary, political economists argue that free trade between unequal partners does not eradicate, but is well able to increase poverty, de-industrialization and unemployment (Groth, Kneifel 2007: 42). This is not to say that trade is detrimental to development efforts and poverty eradication per se; the East Asian Tigers are great examples of the fact that export-orientation and openness to trade can work as an important engine for growth and also for poverty eradication (Oxfam 2002: 51). The fallacy in neoclassical theory is the propagation of free trade even among unequal partners. This conviction is based on two assumptions: first, that free trade induces growth; and second, that growth entails poverty eradication. However, neither of these links are automatic; instead they depend on macroeconomic and institutional setting and the policy space available (which is significantly reduced by free trade agreements). While raising exports automatically leads to growth, free trade does not necessarily do so, as the paradox of the fallacy of composition shows (FAO 2003: 47ff). Additionally, even where liberalization induces growth, this is no guarantee for poverty reduction yet, as the poor face complex socio-political barriers and power relations leading to a concentration of the benefits of economic growth in the hands of the richer elites (FIAN, Via Campesina 2011: 4f). Blind to these structures, neoclassical thinking tells us that liberalization is the answer to Africa's poverty and hunger problem, implying that African economies are not open enough. But critical authors argue that, historically, Africa has not been 'under-' but 'over-globalized': with regard to the primary sector, African economies have been less protected than the rest of the world (Groth; Kneifel 2007: 30ff).

Free trade agreements will allow proponents of the Green Revolution and the connected industries to leap forward due to the competitive pressures on agricultural productivity, induced by dumping imports. As stated above, this will entail massive rural-urban migration and slum-building as smallholder farmers are

pushed out of their livelihoods, while agribusiness cannot create enough jobs to absorb them. The food security of such displaced farmers automatically drops, as they have no income in an economy relying on food imports. In total, the propagation of a free trade agreement between the EU and any African region is likely to lead to a deepening of class inequalities (agribusiness vs. smallholder vs. wage-worker) as well as regional ones (urban centre vs. rural periphery). Gender relations are bound to suffer as well, as the marginalization of women increases both with the industrialization of agriculture and with increasing poverty (Akanji 2013; Vivas 2012; Hochuli 2004: 33ff; FIAN 2013). Furthermore, the inequalities between the Global North and the Global South, in this case the EU and African economies, will rise, if Africa is to stay dependent on the export of agricultural commodities without export diversification as discussed in relation to the development of terms of trade. Summarizing, from a political economy point of view, free trade agreements between highly unequally developed economies are likely to increase both inter- and intra-national inequalities.

Throughout this thesis, the subsidization of agricultural systems in the Global North is identified as one of the major culprits behind the displacement of African smallholders. But it has to be kept in mind, that a simple tearing down of any kind of European income support mechanisms not only harms European farmers, but is not going to help the poorest people in Africa achieve food security without the localization of staple food production. Simply getting rid of CAP measures will raise world market prices. This obviously has good implications for agricultural exporters in Africa, but higher world prices would severely hurt the NFICs, which are first and foremost LDCs, i.e. the poorest countries (FAO 2003: 40). In the name of food security and the fight against poverty, a simple reduction or elimination of CAP measures can therefore not be sufficient. It would take care of the displacement problem in food-exporting African economies and guarantee fair (yet not necessarily stable!) prices, but importers need more than that.

Poor population groups have a higher propensity to consume and spend a relatively higher share of their income on foodstuffs; rising prices are therefore not necessarily good for the poor, even though they would generate a fair income for farmers and

exporters of agricultural products. A large share of African economies are however NFICs, meaning their food bills would increase. The concept of food sovereignty can surpass this dilemma: if African economies can make themselves independent of food staple imports by producing for local markets, volatility of world market prices and whichever changes in the EU CAP would be a lot less harmful.

## 7. FOOD SOVEREIGNTY AND INDUSTRIALIZATION

### 7.1. THE GREEN REVOLUTION

#### 7.1.1. OBJECTIVES

The objective of any Green Revolution, including the one currently proposed for Africa, is economic growth based on productivity growth via the industrialization of agricultural production processes. This includes mechanization (based on fossil fuels) and a reliance on chemical fertilizers, pesticides and herbicides. The idea is to exploit natural resources to the fullest, which is not deemed a problem, as innovation and technology, such as hybrid seeds and increasingly also the use of GMOs are believed to more than counter any negative effects. Underlying is the belief, that hunger is merely a problem of insufficient production and poverty results from being disconnected from world markets, while issues of inequality and power are not addressed. UNIDO, the United Nations Industrial Development Organization states in a report titled 'Agribusiness for Africa's Prosperity': "There are pressing issues that call for reorientation to support agribusiness and agri-industrial development: namely, poverty reduction and the achievement of the Millennium Development Goals (MDGs) [...]. An agribusiness development path involving greater productivity growth throughout the entire agribusiness value chain – covering farms, firms and distributors – represents a solid foundation for rapid, inclusive economic growth and poverty reduction." (Yumkella et al./UNIDO 2011: 47). The organization further contends that agribusiness would contribute "directly" (ibid) to three MDGs: reducing poverty and hunger, developing global partnerships for development and empowering women. Especially the latter appears to merely satisfy the expectations a development organization faces in a gender mainstreaming era and could be identified as a discursive strategy without real commitment, given the fact that gender relations – just like power relations or issues of environmental sustainability – are not addressed in the organization's seven 'development' pillars: 1) enhancing agricultural productivity, 2) upgrading value chains, 3) exploiting local, regional and international demand, 4) strengthening technological efforts and innovation capabilities, 5) promoting effective and innovative sources of financing, 6)

stimulating private sector participation and 7) improving infrastructure and energy access (Yumkella et al./UNIDO 2011: 53ff). Looking at these 7 pillars the question arises, why the authors decided to call them 'development' pillars, when 'growth' pillars might appear a lot more accurate.

The Green Revolution follows the mainstream theory of comparative advantages as outlined in chapter 5: based on their endowments certain regions are picked to be producers of agricultural products, which then enter into – preferably free – trade with other regions that do not produce agricultural commodities (Choplin, Strickner, Trouvé 2011: 95). The theory predicts that this would lead to a maximization of income in both regions, as long as the agricultural region can continue to add value like the other regions do. While this theory is consistent within itself (i.e. the conclusions are valid given the assumptions), there are several problems with the assumptions, which render the model invalid when confronted with reality: it does not recognize the Prebisch-Singer theorem as described in section 6.3.3, according to which a region that only specializes in agricultural production will inevitably fall behind. But even if this were not the case and there was a way a region could only specialize in agricultural commodities and prosper at the same rate non-agricultural regions do, the only way would be to industrialize the process to ensure continuous increases in added value.

This is the idea behind any Green Revolution: make agriculture more profitable by industrializing the production process and obtaining more output with less input. The main objective here is, however, not to ensure the right to food for every human being on the planet, or a sustainable way of working *with* the environment that does not endanger the survival of humankind or other species on this planet. Instead, proponents of the Green Revolution follow the idea that the most important goal of development is economic growth, via which it is believed that poverty will be eradicated automatically.

However, as the field of development studies has pointed out for decades that growth and development do not necessarily go hand in hand, there is ample reason to doubt the assumptions underlying reports like the one by UNIDO mentioned



above. But even if one accepts the premise that growth is needed for development, empirics point to the fact that agribusiness or the industrialization is not the only way to increase agricultural productivity. Instead the yield of agri-ecological practices will certainly be higher in the long term as the basis of all agricultural productivity – the health of ecosystems – is not destroyed in the process (Norberg-Hodge, Merrifield, Gorelick 2007: 74ff). Pretty and Hine (2001) for instance found in a study of 286 projects in 57 countries, that on average farmers were able to increase their productivity by 73 percent by adopting ecological and resource-conserving agriculture. Those farmers cultivating roots (potatoes, sweet potatoes and cassava) even raised their output by 150 percent. On top of that, the short and mid term consequences of widespread industrialization of agriculture in Africa would be devastating as well: If all agriculture were industrialized globally, only three per cent of the world's population would be needed to produce the entire food supply for the rest – this would however leave around 70 million families in Africa deprived of their livelihood, or between two and three billion people globally (Hoering 2007: 11).

Development agencies around the globe are starting to see this problem and the 'new' Green Revolution as currently proposed for Africa is supposed to give special consideration to small holders, as for instance promoted in the World Bank's World Development Report of 2008. This, however, is not a shift away from external inputs and the implied reliance and possibly dependency on them. Instead, policy papers of the FAO, the World Bank and the Organization for Economic Co-operation and Development (OECD) speak about the integration of smallholders into global supply chains. These schemes increasingly rely on a close cooperation between the most powerful countries and organizations with the for-profit private sector, i.e. corporations (often in the form of Public-Private Partnerships). In the annual report on the right to food and nutrition, FIAN warns, however, that there "is an urgent need to question this trend as it should be clear to everyone that the interests of corporations do not always align with public interests." (FIAN 2013: 10). In this sense, African smallholders are the new target for the agri-industry, with the blessing of major development organizations. (Hoering 2010: 74) Havnevik et al

(2007) for instance see a “logical inconsistency between the [World Bank’s] acclaimed goal of poverty alleviation for African smallholder farmers and its conviction that large-scale commercial farming is the inevitable future of farming. African small-scale family farmers must meet the productivity levels, rigorous product standards and delivery schedules of international value chains to compete effectively, yet without necessary support.” (Havnevik et al. 2007: 57)

The FAO for instance gives policy recommendations for “governments, the private sector and civil society to play [a role] in facilitating the transformation for small holder farmers” (McCullough, Pingali, Stamoulis/FAO 2008: 35), which continue to be focused on integrating smallholders into global supply chains and production for export instead of domestic markets. These include attracting “Foreign Direct Investment (FDI) for retail and agribusiness”, expanding “value added through processing”, investing in transport infrastructure, and “increasing market orientation” (ibid).

This new ‘commitment’ remains technocratic and does not give a voice to farmers, as exemplified by the FAO organized world summit on food security in 2009, when demands of farmers' movements regarding land reform, land grabbing and trade liberalization were quickly discarded (Hoering 2010: 83).

The ‘new’ Green Revolution therefore does not imply ownership or self-determination, instead this agricultural policy is on the verge of turning into what Hoering calls agricultural colonialism: while it of course looks different than the old colonialism, it is based on heteronomy as opposed to autonomy, i.e. external rules and dependence on world markets. The ‘new’ Green Revolution, while discursively putting smallholders in focus, subjects the food security of millions of families to agribusiness and multinational corporations and global trade, and in some aspects even to stock markets and speculation. The credo behind it says there is no alternative to liberalization, privatization and globalization. In this context, also measures to insure good governance, the rule of law or land reform primarily serve the purpose of ensuring a good investment climate. (Hoering 2007: 140).

### 7.1.2. ACTORS

The proponents of the Green Revolution are not homogenous and potentially follow different goals, ranging from the eradication of hunger based on the beliefs outlined above to the simple profit maximizing aim of related industries in search of new markets.

Recalling the framework provided by Holt-Giménez and Shattuck (2011) from Chapter 3.3, actors behind the Green Revolution are proponents of the corporate food regime, who follow a discourse of food enterprise and food security. These include international finance and development organizations such as the World Bank, the International Monetary Fund (IMF), the WTO, the FAO, national development organizations such as the United States Agency for International Development (USAID), the food processing industries and large supermarket chains such as Carrefour, Tesco and Wal-Mart, agribusiness including corporations such as Monsanto and private development foundations.

Especially the FAO has a long and contested history of promoting agribusiness in the 'developing world'. The organization was founded in 1945 to promote the industrialization of agriculture via costly infrastructure, high-yield crops and irrigation systems. Rural development was a synonym for productivism and intensification and the core of this development was and is not agricultural experience of farmers but research- and science-based technological advancement, revealing an image of the traditional farmer as not knowledgeable, ill-equipped and – without external help – incapable. (Pérez-Vitoria 2005: 191). In 1966 the FAO promoted the creation of the Industry Cooperative Program (ICP), which was comprised of 100 agribusiness corporations and 90 percent of all producers of industrial pesticides as well as agricultural machinery. Widespread critique of this conflict of interest led to the ICP's dissolution in 1978, as it was replaced by the Industry Council for Development (ICD). The ICD represents multiple industries at the United Nations, reproducing firm relations between the FAO and Transnational Corporations (TNCs) until today (ibid: 192).

One of the private players is the Bill and Melinda Gates foundation, which – in cooperation with the Rockefeller Foundation and the FAO – helped set up AGRA in 2006 and spent 1.3 billion US-dollars within the following three years on agricultural

development grants (Via Campesina 2010b: 13; Hoering 2007: 29). Critical voices however expose this engagement as less humanitarian than it might seem at first glance. Patel, Holt-Giménez and Shattuck, academics and activists with years of experience in the field, write:

“when it comes to African hunger, prejudices about the incompetence of African farmers and the marvels of biotechnology do a lot of the thinking for us. But the Gates Foundation isn’t a victim of poor reasoning. It actively promotes an agenda that supports some of the most powerful corporations on earth. [...] Gates strategy reflects [a] report, funded by the foundation itself: “Renewing American Leadership in the Fight Against Global Hunger and Poverty” [...]. The report, while rightly calling for renewed investment and education, again ignores the structural and political causes of Africa’s hunger, ascribing it to a technical deficit [and] concludes that the United States needs to ‘reassert its leadership’ in “spreading new technologies” because it will increase trade and “strengthen American institutions.” (Via Campesina 2010b: 18f)

The largest lobby for the Green Revolution is certainly not coming from African smallholders but directly from agribusiness: both upstream and downstream industries of agricultural production have strong incentives to include African smallholders into global supply chains (Hoering 2007:139). This includes the agri-chemical industries or suppliers of fertilizers, pesticides, and herbicides, the pharmaceutical industry which supplies antibiotics for livestock, the biotechnology lobby or producers of hybrid seeds and GMOs, suppliers of agricultural machinery and fuels, insurance and transport companies, as well as the food processing industries and global supermarket chains.

### **7.2. EU COMMON AGRARIAN POLICY (CAP)**

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The EU CAP has a long history – judged by its own goals, it is one of initial success followed by multiple failures that have been addressed, according to critical voices rather unsuccessfully, in several reforms over the past three decades. This section outlines the dynamics of the past, present and future CAP with a special focus on implications for the Global South.

### **7.2.1. EARLY ROOTS OF THE EU CAP AND IMPORTANCE OF GATT**

Many European states introduced protectionist measures to ensure the survival of their agricultural sectors in the late 19th century, when agricultural prices dropped due to technological advances in the transport sector. Due to the establishment of long distance railroads and innovation in the shipping industry, Europe's markets were threatened by cheaper grain imports. Prices kept falling steadily, due to an increasing supply based on innovative fertilizers and sinking demand, again due to technological advancement for instance in the textile industry, and because of increasing electrification and mechanization, resulting in less demand for feed (Choplin, Strickner, Trouvé 2011: 33). Europe's was threatened, as most of its population was still employed in the agricultural sector. This resulted in the introduction of tariffs in most European states. During this time, protectionist countries such as Germany thrived (Chang 2002), while those clinging to the free trade doctrine such as Great Britain faced stagnation until, after repeated price drops in the 1920s and 30s, the last countries turned to protectionism (Choplin et al 2011: 34). To proponents of food sovereignty, this part of European history exemplifies best the necessity of agricultural protectionism to guarantee stable incomes and prices as well as food provision for the population.

At the same time, as prices dropped during the economic crisis of the 1930s, many European states (as well as the USA) reacted to increasing export surpluses and resulting price drops with measures to control production levels. This trend culminated in the provisions of the General Agreement on Tariffs and Trade (GATT) relating to agriculture. The GATT was signed in 1947, when agricultural exporters understood that a multilateral effort needed to be made to manage global supply. While the purpose of GATT was to tear down tariffs so as to facilitate trade among its members, the key to GATT with respect to agriculture was that it was not directed towards liberalization, but on the contrary, gave countries the opportunity to apply protectionist measures under one crucial condition: if a country wanted to apply import tariffs to protect its agricultural sector, it had to control its production levels and exports. (Choplin, Strickner, Trouvé 2011: 35) This link was later abandoned with the GATT Uruguay round and various reforms of the EU CAP, which resulted in a

number of crises and particularly the dumping of EU overproduction on foreign markets.

### **7.2.2. CAP OBJECTIVES AND THE NEGLECT OF GATT**

The principles of the EU CAP are stipulated in Article 33 of the Treaty of Rome, 1957: a common market (free trade within the European Economic Community (EEC)), community preference (European products enjoy a benefit over third-country imports), parity and productivity (increasing productivity to lower production costs while at the same time ensuring the catching up of agricultural incomes with those of other sectors by price stabilizing measures), and financial solidarity (the CAP is to be financed from a common budget). (Choplin, Strickner, Trouvé 2011: 36f; Bové, Dufour 2001: 96)

They were formulated in the context and time of food shortages in Western Europe, a remnant of World War II (especially Germany was dependent on food imports) and when agriculture still was an important economic sector: it constituted 11.5 percent of the EEC's GDP, and 21.2 percent of employment (Fritz 2011: 15). Therefore the main objectives of the CAP were securing food supplies and stabilizing farmers' incomes. Other objectives included the increase in agricultural productivity via technical progress and optimal utilization of the factors of production, ensuring a fair standard of living for farmers, the stabilization of markets and availability of supplies, as well as reasonable prices for consumers (ibid).

The GATT treaty set the frame of coupling protectionist measures to supply and export controls in order to prevent overproduction. However, even though the EEC members were signatories to the GATT, this link was quickly abandoned when the CAP was introduced. The set of measures that was introduced in 1962 included no instruments for the control of supply levels. However, it included several measures to protect European agriculture: import tariffs, intervention price (if the market price were to fall below this, the EEC would buy the surplus from farmers), export subsidies (allowed the sale of EEC agricultural commodities on world markets at the much lower world market prices) and structural measures to eliminate 'non-

competitive' farmers while concentrating support on the larger farms to 'modernize', and thereby decrease production costs. (Choplin, Strickner, Trouvé 2011: 37) The intervention price led to the storage of smaller surpluses but as they grew bigger, the interplay of this measure with export subsidies inevitably led to increasing dumping exports and harmed exporting countries (at that time for instance Argentina and Australia) (ibid: 38f).

Another problem, besides the de-linking of production control and protectionist measures, was that the exception to the community preference principle with regard to livestock feed: feed imports were not subject to tariffs. Bové and Dufour (2001: 98) see in this an attempt at compensation for the United States of America (USA): a 'thank you' for the Marshall-Plan and the atomic protection against the Soviet block. This led to the establishment and rise of the large animal production industry in the EEC's and, hand in hand with it, the 'ludicrous grain policy' (ibid). Free feed imports led to European farmers abandoning the cultivation of feed proteins, which freed up agricultural lands for the increasing cultivation of grains (Choplin, Strickner, Trouvé 2011: 39f; Fritz 2011: 83). This in turn caused the EU's soy import dependency, as grains lack nitrous substances, which are vital for animal feed. (Bové, Dufour 2001: 98).

This shift in focus towards meat production furthermore resulted in the dumping of low quality meat on developing markets, which continues today (for recent numbers see Berthelot 2012), but also the dumping of the growing oversupplies of grains, which paradoxically coincided with a growing import dependency on soy (Bové, Dufour 2001: 99).

### **7.2.3. FIRST REFORMS FOLLOWING THE OVERPRODUCTION CRISIS**

During the 70s the so-called butter mountains and milk lakes, which literally exemplified Europe's overproduction crisis, kept increasing until they eventually caused a consensus in the 80s, that the 1962 CAP needed to be reformed if a budgetary crisis due to increasing export subsidy expenditures was to be avoided. As a result, milk quotas were introduced in the first CAP reform in 1984. These quotas were however set 10 percent above the European level, effectively continuing

exporting and dumping practices. (Choplin, Strickner, Trouvé 2011: 42f) While the reform therefore did not eradicate the dumping of EEC overproduction, it was however able to stabilize farmers' incomes within the EEC by creating more price stability (at a cost-covering level).

The reason behind the introduction of quotas merely regarding milk has to do with power relations and different ideologies. Choplin, Strickner and Trouvé (2011: 41f) group the actors and interests behind the first CAP reform into three categories that are still relevant today: firstly, the 'outright neo-liberals', who follow the neoclassical paradigm of comparative advantage, promoting free trade and production where it is most cost-effective, and to be guided by the invisible hand, which are the import-export industries and most Anglo-Saxon governments; secondly, the 'concealed neo-liberals', who pledge for modernization, industrialization and the need for international competitiveness, while at the same time promoting a strong influence by the state in the form of extensive subsidization - this position was historically held by France but also by most large agricultural organizations -; and thirdly, the 'market regulators', who put competitiveness into the context of socio-ecological concerns; this network of farmers and developmental and environmental Non Governmental Organizations (NGOs) pledges for a reformed CAP that eliminates the dumping problem and establishes a network of small and middle-sized farms in Europe.

While in the case of the milk quotas the 'market regulators' won, large supermarket chains and the minority of large-scale farmers prevented a regulation of the grain market. Instead, the EEC opted in 1988 for the less successful concept of maximum guaranteed quantities: if a certain total production volume of grains was exceeded, the intervention price would be lowered. This, however, did not curb overproduction ex-ante as farmers easily blamed each other for the overproduction. Therefore, the main beneficiary of this regulation was the food processing industry, which profited from lower prices, while smallholder farmers and those in less productive regions lost their livelihoods in agricultural production (Choplin, Strickner, Trouvé 2011: 44). During the same year the EEC decided upon another, potentially more effective, measure: farmers had to let 10 percent of their lands lie fallow. As argued in section 6.1.1., this was however not effective, as farmers left the least productive areas



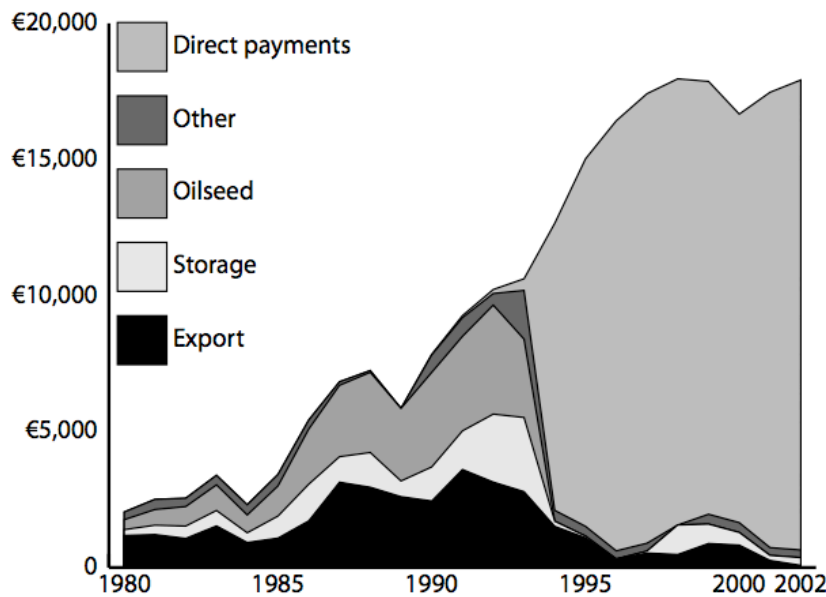
unexploited while increasing the exploitation of the remaining 90 percent of their lands (ibid).

### **7.2.4. 'MACSHARRY' REFORM OF 1992 AND THE GATT URUGAY ROUND**

Due to the problem of increasing overproduction, the EEC's agricultural policy came under attack by several countries, especially the USA. While other countries – especially the CAIRNS group of agricultural exporting countries (including Australia, Argentina, Brazil, Canada and New Zealand) criticized not only the EEC's growing exports, but also the fact that neither the EEC, nor the USA held up their GATT commitments; the US were especially aggravated by the EECs market power in grains. To counter this, the US began to reduce the prices of their most important export products, while granting additional subsidies to farmers to compensate for the income loss. As explained in section 6.1.2., these payments had the effect of adjusting the US internal price closer to the world market price, allowing for a decrease in export subsidies. (Choplin, Strickner, Trouvé 2011: 44f).

The Uruguay round of GATT was initiated in this context: the main objective with regard to agriculture was a reduction of agricultural price-support. The US urged the EEC to discontinue the subsidization of grain exports, while the EEC would only agree to do so if the US on the other hand agreed to the introduction of tariffs on feed imports in the EEC. This led to a standstill of the negotiations for four years, until in 1992 the EEC dropped its demand and reduced the internal grain price by 40 percent. Thus, the EEC followed the United States (US's) footsteps and instead of giving price support, compensated farmers for the income loss via direct payments, based on the area on which they planted certain crops or the number of livestock they reared. Simultaneously, the EEC could reduce its export subsidies. However, as shown in Figure 3, the proclaimed goal of decreasing the cost of the CAP was clearly not achieved. (Choplin, Strickner, Trouvé 2011: 46; Delayen/IATP 2007: 2)

Figure 3: Change in EEC Subsidization Structure After 1992, in Million Euros



Source: Delayen/IATP 2007: 2.

On an international scale, these developments led to the conclusion of the Uruguay round of GATT, which resulted in the GATT members signing the Agreement on Agriculture (AoA, see section 8.1.2) in 1994. It entered into force with the establishment of the WTO, the follower organization of the GATT agreement, in 1995.

For the EEC, respectively European Union (EU) from 1995 onwards, this policy shift led to two major outcomes as outlined in section 6.1.2: the de facto dumping of EU overproduction had WTO blessing, and the European agri-industry and supermarket chains or food processors could from this point on benefit from lower agricultural input prices (Choplin, Strickner, Trouvé 2011: 49).

The EU CAP has been reformed several times since then, but the implications for the Global South remained. While instruments have been modified or newly introduced, the logic of the WTO and its definition of dumping related to price instead of production cost remains the key factor shaping – and legitimizing – the CAP.

### **7.2.5. 'AGENDA 2000' – THE REFORM OF 1999**

The Agenda 2000 was signed in 1999. The most significant change of this CAP reform was the introduction of the 'second pillar' for rural development within the EU. The 'first pillar' includes all measures regarding market regulation, while the idea behind the 'second pillar' was to take the multifunctionality of agricultural activities into account. It includes measures to support disadvantaged areas, measures to protect the environment and subsidies for investments to enhance productivity and competitiveness (Delayen/IATP 2007: 2). In this way the basis for direct subsidies to address developmental goals concerning the EU agricultural sector was expanded. Another key difference between the first and the second pillar is that the latter is co-financed by the member states (Choplin, Strickner, Trouvé 2011: 54). In 2013 approximately a quarter of the EU budget allocated to the CAP (about 40 percent of the total EU budget) funds the second pillar (EC 27.2.2013). Choplin, Strickner and Trouvé (2011: 54). While acknowledging the positive effects of the introduction of the second pillar, see in it a way in which EU policy makers pacify the public and blind them about the continuing detrimental effects of the first pillar, which achieves the opposite of rural development as it pushes small farmers out of their profession.

### **7.2.6. THE 2003 'MID-TERM REVIEW' REFORM**

The 2003 reform of the CAP, which coincided with the EU accession of 10 new members from Eastern and Southern Europe, had the purpose of further complying with WTO legislation by decoupling the direct payments (that were introduced with the 1992 reform) from production. This shifted a large part of EU subsidies from the 'blue box' to the 'green box' (see section 8.1.2), supposedly ridding the subsidization mechanism of their market-distorting properties (Delayen/IATP 2007: 2; Choplin, Strickner, Trouvé 2011: 54f). However, as outlined in section 6.1.1, contrary to neoclassical assumptions, in reality this is not the case (Berthelot 2006), and decoupled subsidization is no guarantee for an unaltered market mechanism, as farmers' behavior is influenced nonetheless.

Furthermore, a re-nationalization of the CAP took place to some extent, as each member state could freely decide on the implementation mechanism (Choplin,

Strickner, Trouvé 2011: 55). Additionally, member states could choose to continue to subsidize farmers based on production to some extent:

These subsidies are called “partial decoupling payments.” For instance, in Great Britain all payments are decoupled, although in France some payments are still linked with limited production (e.g. payments for sheep are decoupled at 50 percent. This means that the farmer receives the total of the payment only if he still farms sheep. If he stops his breeding, he receives just 50 percent of the payments). (Delayen/IATP 2007: 2).

The decoupled payments, called single farm payments, or single payment scheme, were based on the subsidies farmers received during the period of 2000 to 2002; effectively this means that subsidies continued to be based on cultivated area. This continues to benefit large farmers and disadvantage small-scale farms, and thereby further reproduces agricultural concentration processes (Hirte 2013: 11ff).

Another supposed innovation of the 2003 reform was the introduction of cross-compliance: in order to receive the subsidy, a farmer has to adhere to certain standards regarding environmental protection, food and feed safety, and conditions of rearing livestock (Delayen/IATP 2007: 2). However, this legislation was toothless, as these provisions already existed in specific legislations regarding, among other things, fertilizers, sewage sludge, or the conservation of natural habitats (p.e. the flora and fauna directive of 1992). As these provisions were already more extensive than what was later introduced in the CAP reform in 2003, the main effect of the introduction of cross-compliance was an additional administrative burden for farmers, again disadvantaging small-scale farms. (Hirte 2013: 28)

The 2003 reform also increased the milk quota, which kept milk overproduction in check since their introduction in 1984, and ensured some stability of farmers' incomes. It was furthermore announced that the quota would be discontinued by 2015, until when it was going to be continuously increased so as to allow for a 'soft landing' (Choplin, Strickner, Trouvé 2011: 56). The main beneficiaries of this policy shift were the milk processing and export industry, which wanted to increase exports to Asian transition countries. These industries benefit from cheaper milk inputs, which causes an increase in profits.

The reduction of the milk quota naturally had an outcome similar to the conditions prior to its introduction, when the EEC had to deal with butter mountains and milk lakes: Already in 2009, the resulting oversupply caused a re-introduction of export subsidies on milk (ibid), ridiculing the mainstream conviction that the EU CAP does not lead to dumping on third country markets.

Another 2003 policy that had detrimental effects (see Section 8.3.5 Focus) on the Global South was an EC directive “on the promotion of the use of biofuels or other renewable fuels for transport, [under which the] EU established the goal of reaching a 5.75% share of renewable energy in the transport sector by 2010.” (EC n.Y.) This share was increased in 2009, to a minimum of ten percent in every member state in 2020.

### **7.2.7. THE ‘HEALTH-CHECK’ REFORM OF 2008**

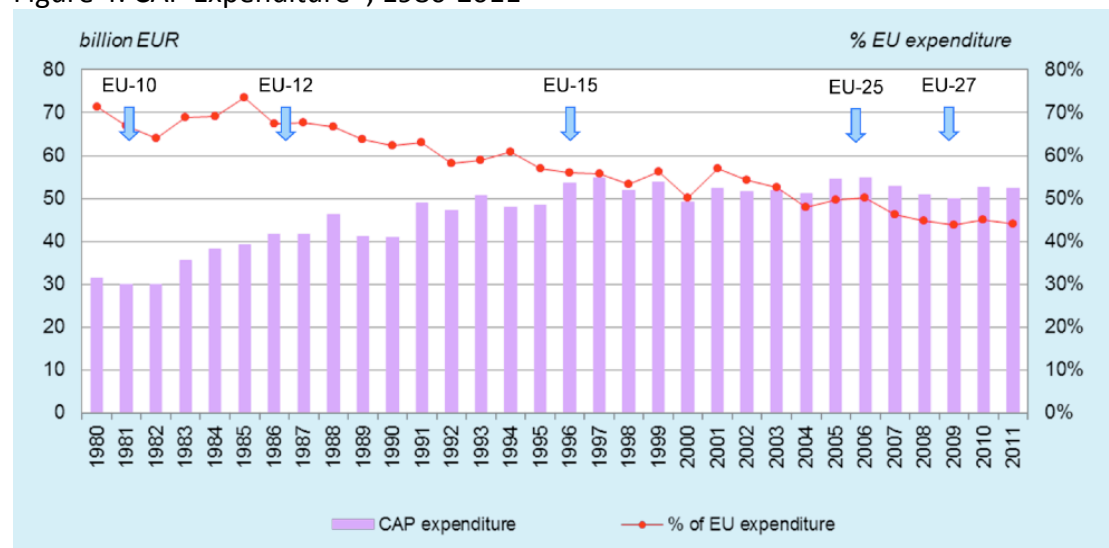
By 2008, the food-feed-fuel crisis was ravaging the Global South, while Europe was deeply stuck in the financial and economic crisis, which later turned into the so-called Euro-crisis. At the same time, the WTO Doha round was at a standstill (and continues to be so today). Nonetheless, in the 2008 reform no shifts in direction were undertaken. Instead, the deregulation characteristic of previous reforms was intensified. Regulatory instruments like the milk quota were further dismantled, and direct payments made up an increasing share of farmers incomes (Choplin, Strickner, Trouvé 2011: 56).

The reform reproduced a concentration process of land and power and disadvantaged small-scale farmers. While the Commission proposed a capping of the payments, the agricultural ministers, backed by the industry lobby and the small group of large farm owners, who receive the majority of the CAP funds, declined this. This was particularly problematic, as Bulgaria and Romania had just joined the EU, countries with a disproportionately high share of labor in agriculture and small-scale farms. Between 2002 and 2004, the 12 new member states share of farms under five hectares in size was 74 percent, compared to 47 percent in the old 15 member states. This discrepancy increases when looking at the economic power of

these farms: in the new member states 74 percent of all farms are smaller than two ESUs (European Size Unit, an indicator of a farms economic size) compared to 34 percent within the EU-15. (Gorton, Hubbard, Hubbard 2009: 1311). Regarding Romania, where 48 percent of the rural population live in poverty, more than 50 percent of farms operate on less than one hectare. This means they are not eligible for direct payments (ibid: 1312f), even though their non-industrial land use methods benefit their country as they contribute to a high regional biodiversity and decrease environmental harm. Again, this increases power and income discrepancies in the EU agricultural sector: in Romania, large-scale, corporate farms over 1,000 hectares only make up 0.5 percent of all Romanian farms but receive more than a fifth of the total direct payments (ibid: 1313).

Additionally, as Figure 4 shows, the share of CAP expenditure of the total EU budget has continued to sink after the accession of the new member states, despite the importance of the agricultural sector in these countries. Within 25 years the share decreased from 75 percent to 44 percent in 2011 (EC 2013a)

Figure 4: CAP Expenditure\*, 1980-2011



Source: EC 2013a

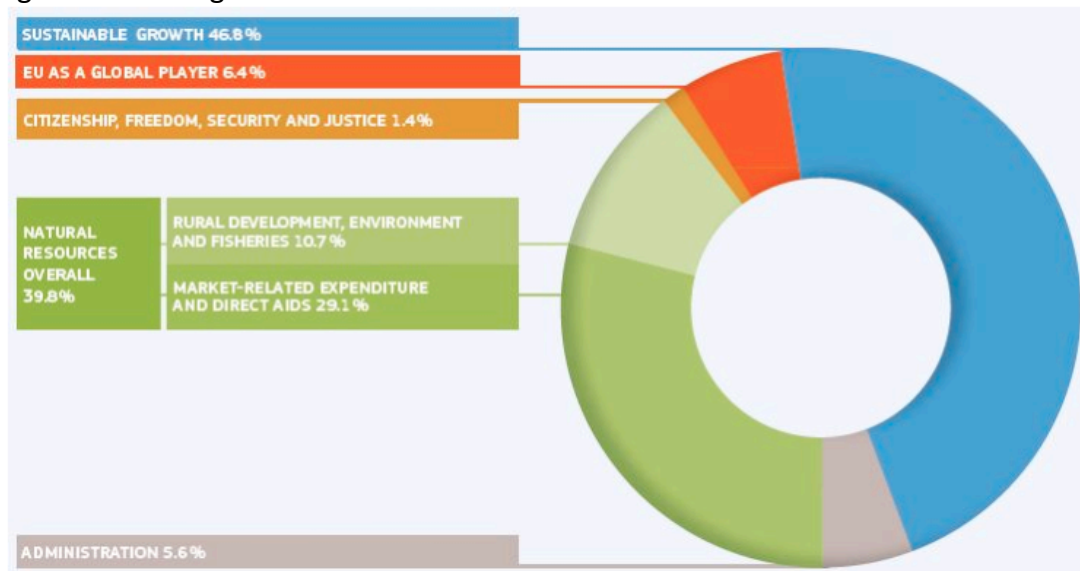
\* 2007 Constant Prices

### 7.2.8. THE 2013 REFORM

The negotiations of the CAP 2014-2020 were concluded on September 24 in 2013. Again, the Commission and Parliament subjected themselves to the Agriculture

Council. The reform is regarded as toothless by critical voices, especially with regard to fairness in the distribution of the direct payments, i.e. the so-called modulation, which is the transfer of 'first pillar' resources to the 'second pillar' of rural development. Experts expect that the new modulation mechanism will have even less distributional effects than the system in place prior to 2014 (Salzer 2013: 16). The old system required farmers who receive more than 5.000 Euros out of 'pillar one' to transfer ten percent back for 'second pillar' use, and those who receive more than 300.000 Euros 14 percent (ibid). An increase of these charges was truly needed, as 20 percent of farmers receive 80 percent of the funding and the 'second pillar' remains small compared to the first one, as Figure 5 depicts:

Figure 5: EU Budget and Share of CAP\* in 2013



Source: EC 27.2.2013: [http://ec.europa.eu/budget/figures/2013/2013\\_en.cfm](http://ec.europa.eu/budget/figures/2013/2013_en.cfm)

\* the green area represents the share of the EU budget allocated to the CAP, split into the 'first pillar' (dark green) and the 'second pillar' (light green)

From 2014 onwards however, only farms with direct payments exceeding 150.000 are charged five percent and there are additional several loopholes including, that the threshold excludes the newly introduced Greening Payments, which are linked to the provision of environmental public goods, and also that wages – including the salary of the farm owner – can be deducted from the payment sum (EC 2013b: 1; Salzer 2013: 16).

Another significant step back with regard to the modulation system is that as of 2014 funds can not only be transferred from the ‘first pillar’ to the ‘second pillar’ but also the other way round (Salzer 2013: 16).

Furthermore, as in 2008, no capping of the direct subsidization was introduced, although member states have the option to do so themselves (Salzer 2013: 16).

Measures to increase internal convergence must be taken by those states, which base payments on historical references to “move towards more similar levels of payment per hectare” (EC 2013b: 2). This means the single payment scheme of 2003 (where payments are based on past payments and therefore uneven) should in the future be replaced by a unified basic payment scheme (Fritz 2011: 32; EC 2013b: 1). However, there are severe limitations to this rule: member states can *either* achieve a uniform regional or national rate by 2019 (meaning all farms in the region or state receive a uniform payment per hectare), *or* they merely ensure that by 2019 all farms receive payments of a highly insufficient 60 percent of the national average, while the losses of those above the average can be limited to 30 percent (EC 2013b: 2). Additional critique by organizations like Via Campesina goes further than that, as they propose to base payments not on hectares but on employment, which would favor small-scale, labor-intensive farms (Fritz 2011: 32).

Another win of powerful lobbies lies in the new Greening concept, according to which 5 percent of any farm larger than 15 hectares are classified as an ‘ecological focus area’ (EC 2013b: 3). This concept was significantly watered down, as these are not areas that lie fallow, but can be used to intensively cultivate soy, broad beans and peas. The cultivation of these protein crops can be an important element of an agri-ecological crop rotation, but this is not ensured in the current CAP. Instead, it is permitted to use industrial fertilizers and pesticides on these ‘ecological’ areas, which perverts the concept of agri-ecology (Salzer 2013: 16). Besides the setting aside of these focus areas, Greening involves two other measures: the maintaining of permanent grassland and crop diversification. Again these concepts sound good, but at a closer look reveal a severe weakness: crop diversification means “a farmer must cultivate at least 2 crops when his arable land exceeds 10 hectares and at least



3 crops when his arable land exceeds 30 hectares. [However, the] main crop may cover at most 75% of arable land, and the two main crops at most 95% of the arable area” (EC 2013b: 3). Environmental groups such as Friends of the Earth consider this to be too weak to prevent farmers from continuing with planting monocultures on their farms” (FoEE 2011: 2). Furthermore, only 30 percent of the CAP direct payments (i.e. ‘pillar one’ are linked to these Greening measures. Whereas “this is a step in the right direction [...], only linking 100% of direct payments to environmental conditions will ensure effective protection of natural resources.” (ibid).

In total, “the dominant orientation towards enhancement of productivity and international competitiveness remains untouched” (Fritz 2011: 31) and oversupply or dumping were not addressed, as they are not regarded to even exist in the eyes of policy makers informed by mainstream theory. The dumping of EU agricultural products on third country markets will therefore continue during this CAP period and increase with the surge of bi- and multilateral Free Trade Agreements/Areas (FTAs).

### 7.3. CONSEQUENCES

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The industrialization of agriculture, i.e. the Green Revolution, led to impressive yield increases between 1960 and 2000: while world population doubled during that time, global food production grew times two and a half. On a global average, about 2.360 calories were produced per person in 1960, which was raised to 2.803 calories in 2000. At the same time, however, yield per hectare decreased, indicating the biological boundaries of our planet. (Herren 2010: 62). Additionally, this shows that, contrary to mainstream thinking, hunger is not a problem of too little production but inequality in access to food and resources to produce it.

Expansion cannot be an option forever. And there are alarming signs that this ‘Western’ agricultural model of modernization, characterized by shifts from variety and plurality to specialization, from natural inputs to chemicals, from thousands of years old seeds to GMOs, from human labor to machines and from farms to industry (Pérez-Vitoria 2005: 84-102) cannot and should not be exported to Africa (Bové, Dufour 2001: 69; Choplin, Strickner, Trouvé 2011: 92).

While agribusiness wins big with the industrialization of agriculture and the integration of new markets via the export of the Green Revolution, the losers of these processes are the world's billion hungry people<sup>2</sup>, small-scale farmers, the landless poor, agricultural laborers, consumers with preferences for culturally-appropriate, healthy and nutritious food, and in a broad sense and the long run – due to the large impact of industrial agriculture on environmental change – every human being.<sup>3</sup>

### 7.3.1. RISING PROFITS FOR AGRICULTURAL AND FOOD INDUSTRIES

The food production system has a legitimacy crisis on a global scale, largely due to strong lobbying pressures and the lack of democratization in agricultural processes. The agribusiness lobby is strong enough to actively shape laws (for examples in the EU see Bové, Dufour 2001: 165f) and trade regulation (Shiva 2004: 21). This creates strong asymmetries between winners and losers of the industrialization process (Pérez-Vitoria 2005: 142f). In this context Shiva (2004: 33) speaks of a paradoxical interpretation of the term 'right': the right of all peoples to produce and consume according to culturally and environmentally appropriate standards is replaced by the rights of large corporations to, as she calls it, force-feed the global population, protected by international trade agreements.

The numbers support the argument of a concentration of power in the hands of a small number of steadily growing corporations (Wilkinson 2010). In the United States, the concentration ratios for the top five firms both for upstream inputs (materials, resources, energy, fertilizers...) and downstream outputs (farm products, processing and sales markets) prove a process of concentration of

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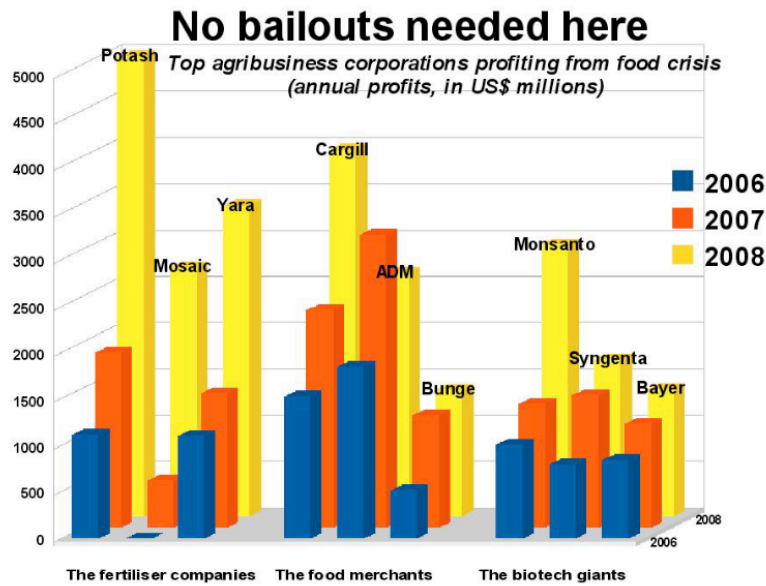
<sup>2</sup> The discussed outcomes, and especially the creation of hunger are not monocausal but are to be seen in the context of the global food regime. The hungry are mentioned here due to the negative consequences of dumping exports (as discussed in Chapter 8), which are based on the EU agricultural oversupply. This overproduction has roots in the mechanisms of the CAP and industrialization processes in Europe.

<sup>3</sup> Where not mentioned explicitly, the implications discussed on the following pages apply to agricultural systems in general, i.e. both in the EU and in Sub-Saharan Africa.

power over food and agriculture: “The main segments have ratios averaging well over the 40 percent level – considered the threshold for a market oligopoly – and often in the 70-80 percent range. [...] In smaller market segments, there are even higher levels of concentration involving duopolies and even monopolies.” (Wilkinson 2010: 158).

In 2004 a mere 10 companies controlled 32 percent of the 23 billion dollar world seed market and the entire market for GMOs: DuPont/Pioneer (USA), Monsanto (USA), Novartis (Switzerland), Groupe Limagrain (France), Advanta (Great Britain/Netherlands), Guipo Pulsar/Semins/ELM (Mexico), Sakata (Japan), KWS HG (Germany) and Taki (Japan). (Shiva 2004: 20) The picture was even gloomier with regard to world trade in grains, which was controlled by only five corporations, with Cargill at the top (ibid). This is due to major firms growing both horizontally (in sectors) and vertically, i.e. incorporating downstream suppliers and upstream markets (Wilkinson 2010: 158); and the pace of power consolidation is constantly picking up: in 2007 mergers and acquisitions in the food industries were valued at 4.5 trillion US-dollars after almost doubling every two years since 2000 (Magdoff, Tokar 2010: 20). In 2008 only three companies, Monsanto, DuPont and Syngenta (Switzerland) already controlled 40 percent of the total commercial seed market (and 47 percent of the GMO market). These same three companies plus Bayer, and Dow were furthermore dominating the global agrichemicals market. 75 percent of the pesticide market were dominated by only six firms, the top ten controlled 89 percent. The food processing sector follows the same trend, although at a less alarming rate so far: the top ten companies (at the top of which are Nestlé, Kraft, Coca-Cola, and Pepsi) controlled 26 percent and the top hundred companies control three quarters of this market. Power concentration in the retail sector is less severe but problematic nonetheless, with the top one hundred companies controlling more than a third of this market; 40 percent of which are controlled by the top ten, including Wal-Mart, Kroger, Carrefour and Tesco (ibid: 21).

Figure 6: Agribusiness Profits During Food Crisis 2007/08



Source: Grain 2009: <http://www.grain.org/es/article/entries/716-corporations-are-still-making-a-killing-from-hunger>

An even clearer picture of winners and losers of globalization pressures in combination with agricultural industrialization emerges in the context of the 2007/08 food crisis (Figure 6): according to Grain (2008; 2009), a non-profit organization that supports smallholder farmers' movements in their struggles for community-controlled and biodiversity-based food systems, the largest companies in biotechnology and agrichemistry, suppliers of agricultural machinery, and food processors and traders were able to increase their profits substantially during the food crisis. Cargill (USA), for instance, could triple its profits between 2006 and 2008, at the same time during which the number of hungry people worldwide jumped up to 1.2 billion. Monsanto (USA), one of the pioneers of GMOs, similarly could increase its profits by 260 percent within these two years. The profits of fertilizer companies are even more impressive, with Potash (Canada) profits being five times as high in 2008 as in 2006.

Table 6: Profits\* of Agricultural and Food Industry During Food Crisis 2008/08

Company	Profits 2008	2008/2007 (%)
<b>Grain Traders</b>		
Cargill	3.951	69
ADM	2.624	-17
Bunge	1.363	13
Noble Group	436	117
<b>Fertiliser Companies</b>		
Potash Corp.	4.963	164
Mosaic	2.682	430
Yara	3.350	131
<b>Seed/Pesticide Companies</b>		
Monsanto	2.926	120
Syngenta	1.692	19
Bayer	1.374	40
Dow	761	63
BASF	894	37
<b>Agricultural Machinery Companies</b>		
AGCO	526	61
John Deere	3.124	17
Case/New Holland	1.156	39

\*Profits = Earnings before taxes except for Noble Group where Profits = Gross Profits; in Million US-Dollars

Source: Grain 2009: <http://www.grain.org/es/article/entries/716-corporations-are-still-making-a-killing-from-hunger>

Wilkinson (2010) shows that these processes of power consolidation are also picking up in the emerging markets of China and Brazil, but contends that these countries nonetheless “play a subordinate role in global restructuring under the leadership of the rich-country transnationals” (Wilkinson 2010: 168f). Given the already subordinate position of these large economies, the growth of domestic agribusiness “is clearly not a viable path for the many smaller countries across the world that are too small and too poor to compete on this basis.” (ibid: 169).

### 7.3.2. THE ‘DEATH OF RURAL COMMUNITIES’

The agricultural modernization process went hand in hand with a shift of perceived competency from farmers to agricultural research centers with strong

ties to the profiting industries, which produce supposedly value-free knowledge, resulting in a devalorization of agricultural knowledge accumulated over thousands of years (Pérez-Vitoria 2005: 84-89; Via Campesina 2010b: 15f; Choplin, Strickner, Trouvé 2011: 78; Bové, Dufour 2001: 103). The traditional farming profession loses its attractiveness due to a loss of self-determination in connection with this devaluation of knowledge and – regarding the EU – also the dependency on subsidization (Choplin, Strickner, Trouvé 2011: 70f).

This results in the ‘death’ of rural communities, as the multifunctionality of agriculture is no longer appreciated. In the UK for instance, around “1,000 independent food shops – grocers, bakers, butchers, and fishmongers – closed each year” (Norberg-Hodge, Merrifield, Gorelick 2007: 70) during the 1990s. The USA made a similar experience “when 235,000 US farms failed during the mid-1980s, roughly 60,000 other rural businesses also went under” (ibid) as farmers and agricultural laborers were driven off the land.

### **7.3.3. DEEPENING INEQUALITIES AND RURAL POVERTY**

Industrial agriculture entails a deepening of class, gender and regional inequalities (Holt-Giménez, Shattuck 2010: 110).

It leads to a dualization of agriculture, split into a limited production of high quality goods in a handful of areas, and mass production of low quality products in other regions, which also splits the food consumption patterns between poor and rich population groups (see Table 2 or Langthaler 2010: 162; Choplin, Strickner, Trouvé 2011: 83). In the Global South and rural European areas, it furthermore leads to a ‘Westernization’ of food consumption and loss of cultural diversity. “In the South, food diversity is being eroded not only by distorted market forces but by the psychological pressures that lead to a lust for the trappings of urban life – including such modern foods as packaged instant noodles, bottled soft drinks, and processed bread, flour and rice. These foods are often considered “high class,” and many people are eagerly trading in their wholesome, traditional foods for them.” (Norberg-Hodge, Merrifield, Gorelick 2007: 96). These processes stand in stark contrast to studies showing that if

global consumption levels per person were as high as they are in the USA, global agricultural systems would need to be capable of supporting 72 billion people (Kirschenmann 2010: 229).

In the European case, as explained in detail above, the CAP furthermore increases income disparities between large and small-scale farmers, as the subsidization mechanism is based on the size of the farm in terms of hectares, which also results in an unequal distribution of production factors. Only 0.2 percent of EU farms receive almost a third of direct payments, each of them receiving at least 50,000 Euros per year; at the other end of the spectrum, the direct payments to the 36 percent of EU farmers who receive less than 500 Euros per farm per year, only make up 1 percent of the total direct payments (Choplin, Strickner, Trouvé 2011: 74).

The concentration process is furthermore intensified as the generated added value decreases in spite of rising subsidization, this can only have two outcomes: either wages, or the number of farmers decreases. Choplin, Strickner, Trouvé (2011: 65f) use the metaphor of a cake: as the cake decreases in size, the piece each person gets (i.e. the farmer's income) can only remain constant, let alone increase if fewer people get a piece of the cake. Clearly then, smallholders lose out not only in the Global South but also within the EU: "the number of agricultural holdings is gradually shrinking, whilst their economic and physical size is increasing" (Fritz 2011: 30). Between 2003 and 2007 EU-27 farm numbers decreased from 15 million to 13.7 million. "Portugal, Belgium, the Netherlands, Denmark, Spain and Italy, for instance, witnessed declines of 20 to 30 percent" (ibid). This has to do with the 'vicious circle' mentioned in section 6.2.5: industrialization creates a never ending race to the bottom, as productivity increases cause prices to drop, causing the need for further productivity increases to compensate for lost income. This has disastrous consequences for farmers who cannot keep up with this productivity race. In France, the income of almost half of the total population employed in agriculture is below the national minimum wage and more than a fifth of farmers live below the poverty line (Choplin, Strickner, Trouvé 2011: 68).

Farmers' incomes are furthermore affected by increased price-volatility both in Europe (since the deregulation of price-support measures) and in Africa via the increasing integration of smallholders into global markets. Policy makers, informed by mainstream economic theory, "rather than regulating the supply of agricultural products to prevent surpluses and stabilize farm gate prices [want] farmers to protect themselves individually against the risk of price volatility. [But apart] from the difficulty for many farmers to afford an income insurance, this instrument does not target the root causes of depressed farm gate prices such as deregulation, market concentration and structural surpluses" (Fritz 2011: 36). Instead, this strategy can be seen as a subsidization of the financial industry: "To treat price volatility only downstream through insurance schemes amounts to the privatization of the management of the markets and the public funding of insurance companies, while making producers and taxpayers pay for the damages of deregulation." (Via Campesina 2011a: 2f)

The effects of industrialized and deregulated agriculture on farmers' incomes are most devastating in the 'developing world'. The most popular example is the suicide-wave that struck rural India in the early 2000s (Anderegg 2004: 201). Whereas the victims of earlier suicide-waves in 1987/88 and again in 1997/98 were largely farmers in disadvantaged, drought-stricken regions, who cultivated traditional monocultures such as tobacco, cotton, chili and peanuts, the most recent wave was characterized by farmers in fertile areas, cultivating a range of diversified crops, who poisoned themselves with chemical pesticides. The most affected areas, Karnataka (where between 2000 and 2003 three thousand farmers took their lives, four every week in 2003) and Andhra Pradesh were those which stopped supporting small-scale agriculture in the context of the spread of the Green Revolution in India. In a setting of economic structural adjustments, deregulation and trade liberalization, the government stopped subsidizing seeds, fertilizers and pesticides and decreased its role in regulation and quality control. This led to an increase in production cost for farmers and devastating crop failures. The export-oriented agriculture of the 1990s led the



majority of farmers to discontinue the cultivation of food staples, which in turn led to a price surge of these products, while at the same time farmers indebted themselves due to higher production costs connected with the mechanisms of the Green Revolution. (Anderegg 2004) Next to the price increases for food staples, these crippling debts were the main reason for the suicide wave in India. Nevertheless, the concept of the Green Revolution continues to be promoted and is being spread to African regions that share characteristics with rural India prior to the Green Revolution.

### 7.3.4. 'MODERN SLAVERY' AND RURAL UNEMPLOYMENT

But not only farmers are affected by poverty and low incomes, agricultural workers in industrialized systems face severe hardship both in the EU and in Africa. Spain's 30,000 hectares of industrial vegetable production between El Ejido and Almeria exemplify what critical voices perceive to be modern slavery (Sekinger 2004: 204): where human beings are no longer perceived as such, but are reduced to the production factor labor, whose costs in the production process are to be diminished to the maximum extent in order to maximize profits. The laborers here are immigrants largely from Morocco and Sub-Saharan Africa, but increasingly also from Latin America and Eastern Europe, who face social exclusion and racism as a part of the system. In 2000 for instance, 60 Moroccans were injured and their dwellings destroyed, when inhabitants of El Ejido literally hunted them down. These laborers, however, stripped of their rights and ostracized, work under hazardous conditions, exposed to chemicals on a daily basis, and for a wage so low, that the Spanish inhabitants would not take on these jobs (ibid: 205). But these conditions are not unique to Spain, they are found in Austria's Marchfeld, in Germany and the Netherlands, where agencies facilitate the immigration of cheap Eastern European labor, and in France and Switzerland, where this exploitation is 'legalized' by special migration laws (ibid).

Additionally, there is another relevant argument against the industrialization of agriculture in the context of labor in the agricultural industry. Mainstream organizations propose that the displacement of smallholders does not pose a problem, because large-scale industrial agricultural producers will create jobs to accommodate them (Hoering 2007: 150). In the case of Africa, where the majority of the population relies on semi-subsistence agriculture organized in 500 million small farms (ibid), it is quite the paradox to assume that the agricultural industry can create a number of jobs this large – especially given that industrialization by definition relies on mechanization. Studies on the employment impact of agrofuel production show what common sense already suggests: 100 hectares of tropical land employ on average 35 people if the land is devoted to family farming. This number drops to around 10 poorly-paid people if the same area is used to produce sugarcane or oil-palm. Even worse, eucalyptus production in the same area decreases the number to two, and only half a job is created when 100 hectares are dedicated to the cultivation of soybeans (Holt-Giménez 2007).

The traditional argument for the industrialization of agriculture in the context of Europe and the USA was, to free up the human resources to employ them in other industries in need of labor. But most African cities are already surrounded by slums, harboring a huge 'reserve army' of labor. A further influx of labor force into African cities, due to the above discussed 'death' of rural communities and displacement by large industrial farms, will therefore only have the negative result of further depressing wages (Hoering 2007: 150; Havnevik et al. 2007: 35ff, 53ff, 60f).

### **7.3.5. HUMAN AND ANIMAL HEALTH**

As described above, farmers' knowledge is downgraded by lobbying pressures of the agricultural industry, and so is their produce. What has fed generations is seen as unsanitary and risky for human health today. Quality is no longer based on consumer preferences, but determined by the processing industry according to homogeneity, stability and suitability for conservation and processing. (Pérez-

Vitoria 2005: 110; Choplin, Strickner, Trouvé 2007: 78). The paradox is, however, that especially industrial food production has caused a number of pandemics and dangerous bacteria to arise, such as listeriosis and salmonella. (Pérez-Vitoria 2005: 110). Industrialization processes in animal production benefit the pharmaceutical and chemical industries, but animal and human health suffer as the concentration of animals in small spaces increase, and the use of growth-promoting substances, hormones and antibiotics surges. (Choplin, Strickner, Trouvé 2007: 78)

The concentration of animals gives rise to animal pandemics such as BSE (Bovine Spongiform Encephalopathy), known as mad cow disease, TSE (Transmissible Spongiform Encephalopathy) in sheep, avian flu, blue tongue disease in cows and sheep, or swine flu and fowl pest (Choplin, Strickner, Trouvé 2007: 78). Some of these diseases have existed for a long time, but only the intensification of meat production and the global interconnectedness that arises from food production being organized in global production chains and global trade in animal products have caused the seriousness people generally associate with them (Pérez-Vitoria 2005: 110). These diseases furthermore cost farmers tremendous sums of money, if the majority of livestock suddenly has to be slaughtered out of necessity. Due to the BSE (Bovine Spongiform Encephalopathy) crisis for instance, millions of cows were slaughtered, causing bankruptcy among livestock owners (ibid). But the intensification and landless rearing of livestock does not only cause this handful of scandalous diseases that have become known all over the world. Landless livestock rearing is detrimental to animal health in many more ways. For instance, a study in France found that industrially keeping goats reduces their life-expectancy from 10 to 4 years (ibid) – due to bacteria and diseases the average consumer never even hears about.

Hormones such as Monsanto's BST (Bovine Somatotropin), although officially not allowed within the EU, are legally used elsewhere and authorities frequently uncover cases of illegal usage. Such hormones – especially those that the animal in question does not produce naturally – are often carcinogenic in humans. (Bové, Dufour 2001: 124ff) More alarming, given its legality, is the heavy use of antibiotics in industrial animal production. While resistance in humans was

unknown until four decades ago, the increase in meat consumption in combination with an increased usage of antibiotics in meat production increasingly causes the cases of human resistance to antibiotics to occur. In Denmark doctors could even pin a woman's death due to antibiotics resistance on her meat consumption. (ibid: 128f)

The effects of chemical pesticides on human health are increasingly documented as well, and the list includes allergies, infertility, cancer, malformations, and diseases of the nervous system... (Pérez-Vitoria 2005: 111)

Another cause for concern is the increasing existence of transgenic foods, i.e. foods that are enriched with genes from other plants or animals in order to increase some features (such as increased protein levels etc) (ibid). While it was assumed for a long time that genetically modified DNA of plants would quickly be dissolved by the human stomach, newer studies indicate that such DNA actually enters blood circulation and is deposited in the cells of the spleen, the liver and in the leucocytes (Shiva 2004: 138). When the genetically modified food supplement L-Tryptophan was first introduced, 37 people died because of the genetic transfer. Other examples are for instance the incorporation of a gene of the Brazil nut in a soy seed, which caused people with Brazil nut allergies to have the same allergic reactions to the GM-soy. Soy that is furthermore treated with GM-herbizides has been found to have higher estrogen levels and causes higher fat rates in milk. (ibid: 138f)

All in all, with regard to health issues, there is not much of a case for industrialized food production. The absurdity of replacing something natural that has nourished humankind for a long time prior to the spread of the Green Revolution with industrially produced foods is probably best exemplified by the well known Nestlé milk powder affair of the 1970s: Nestlé encouraged mothers in the 'developing world' to discontinue breast feeding even though a mother's milk protects babies from various diseases, and instead feed their babies with milk powder. But as the powder was expensive mothers often didn't use

enough, and where they did, poor water quality did the rest: the news of large numbers of babies dying spread across the globe (Pérez-Vitoria 2005: 112).

### **7.3.6. ENVIRONMENTAL CHANGE**

As briefly explained in section 6.2.5, the industrialization of agriculture has severely negative effects on the environment, that manifest in complex pictures of deforestation, desertification, resource depletion, pollution of soil, water and air, salination, resource depletion, soil and water erosion, climate change, ecosystem destruction, and biodiversity loss and the associated loss of natural synergies (Herren 2010: 62f; GRAIN 2011; Choplin, Strickner, Trouvé 2011: 78ff, 90; Via Campesina 2009b; Vandermeer et al. 2009).

The culprit practices behind this environmental change that is taking place all over the globe, are integral parts of the Green Revolution and include reliance on heavy machinery and oil for energy, mono-cropping and the rise of GMOs, heavy use of chemicals as fertilizers and pesticides/herbicides, increasing plot sizes and destroying natural hedges and trenches, and the reliance on irrigation systems as a handful of crops replaces a large variety of plants that have been adapted to local conditions with the experience of generations of farmers around the world.

### **Focus: Environmental Effects of Industrialized Meat Production**

The detriment of industrialized agriculture will be shown here with the example of meat production, given that environmental effects of large-scale industrialized food production are especially apparent in this sector. As farming was traditionally practiced in a closed circular system, where humans extracted energy from otherwise non-digestible energy stored in plants through their livestock, which in turn fertilized the land, leading to „an effective ‚symbiosis‘ between plant life, animal life and human needs“ (UNEP 2012: 6). Today this symbiosis largely only characterizes African agricultural systems, where livestock is not merely produced for meat consumption, but for fertilization and as an energy source for plowing the fields (Heinrich-Böll-Stiftung 2013). Modernized agricultural systems do no longer rely on this symbiosis between humans, animals and plants, as meat production

today is characterized by Concentrated Animal Feeding Operations (CAFOs), industrial production of meat on small space and without the need for pasture (UNEP 2012: 6). Since the 1950s employment in this sector has declined while output increased considerably. This is largely due to high living standards in the Global North and economic development in transition countries as meat consumption is associated with high incomes (ibid: 3).

This rise in meat consumption has significant environmental impacts (Davis et al. 2010; FAO 2006a; Goodland, Anhang, 2009; UNEP 2012). According to a FAO report on the environmental effects of meat production, these effects can be grouped into four different areas which are, however, interdependent and reinforce each other: water use and pollution, land use and degradation, greenhouse gas emissions and biodiversity loss.

Eight percent of global human water use is accounted for by the livestock sector, mostly for the irrigation of feed crops (FAO 2006a: xxii). Animal agriculture is, beside the usage of water, potentially also one of the largest sources of water pollution „contributing to eutrophication, ‘dead’ zones in coastal areas, degradation of coral reefs, human health problems, emergence of antibiotic resistance and many others“ (ibid: xxii). The pollution arises from the conversion of used land, altering water flows, livestock waste and from feed production (ibid: 167).

Regarding land-use change, feed crops expand into natural ecosystems, rangelands degrade as vegetation changes due to mono-cropping, and large parts of un-arable land are being transformed in the process of deforestation (ibid: 74).

The land-use changes associated with feed crop production, particularly deforestation, are furthermore among the major sources of greenhouse gas emissions (FAO, 2006a: xxi). Besides these, emissions are also a result of the rearing and processing of livestock, (refrigerated) transportation, and in the case of nitrogen emissions from chemical fertilizers or manure (ibid: 112).

According to the FAO report (2006:xxi) livestock agriculture amounts to 18 percent of total greenhouse gas emissions – more than emitted by the transportation sector and therefore a large contributor to climate change. Other studies, however, dispute this figure as too modest. Goodland and Anhang (2009: 11), for example, argue that

total greenhouse gas emissions caused by meat production account for more than half (51 percent) of the annual global emissions, or 32,564 million tons of CO<sub>2</sub> equivalents per year. Compared to the FAO study, this sharp rise is due to uncounted, overlooked and misallocated livestock-related greenhouse gas emissions such as overlooked respiration by livestock, overlooked land use or undercounted methane (ibid).

Land-use change, again especially deforestation, and the reliance on monocultures also results in severe biodiversity loss as natural habitats are changed. Overexploitation of arable land and soil and the invasion of alien species due to the globalization of transport of livestock and feed crops further increase the loss of species, as does air, water, land, and noise pollution by farmers. Considering the changing climate, animal agriculture furthermore has an indirect impact on diversity loss in other parts of the world different from production sites (FAO 2006a: 214), thereby further contributing to climate and food injustice on a global scale.

Industrial agriculture, in summary, has severe and negative impacts not only where production sites are located but all over the planet. As the example of meat production shows, industrial agriculture clearly is a major culprit behind climate change and a driver of extensive water use, biodiversity loss, land-use changes and consequent soil erosion, deforestation and last but not least desertification.

## **8. FOOD SOVEREIGNTY AND TRADE**

### **8.1. THE INTERNATIONAL AGRICULTURAL TRADE REGIME**

#### **8.1.1. THE GATT URUGAY ROUND**

The EPAs are to be seen in the context of a general trend of the liberalization of trade in the second half of the 20<sup>th</sup> century.

As described in section 7.2.1, the 1947 GATT was an agreement to reduce tariffs in many sectors, but not in agriculture: the GATT provisions regarding agricultural trade were a reaction of the signatory members, agricultural exporters such as the USA, Australia, Brazil and many European countries, to dropping prices, and the realization that a multilateral effort needed to be made in order to protect the signatories' agricultural sectors. Initially the idea was therefore not to liberalize agricultural trade, but, on the contrary, to implement a framework that would allow countries to take protectionist measures such as import tariffs. However, protectionist policies were tied to the condition that production levels and exports were controlled. (Choplin, Strickner, Trouvé 2011: 35). As described in section 6.1.1, such production controls are the only guaranteed way of eliminating overproduction. This, however, all changed with the beginning of the Uruguay round in 1986, when agriculture was put on the trade liberalizing agenda of GATT. It marked the discursive shift from food being perceived as a human necessity in need of protection, to a commodity like any other, which still feeds neoliberal discourse and the idea of trade as an 'end' in itself today. (Pérez-Vitoria 2005: 126; Bové, Dufour 2001: 210, 213; Murphy 2010: 104)

#### **8.1.2. THE WTO'S AGREEMENT ON AGRICULTURE AND TRIPS**

In 1995 the GATT was succeeded by the creation of the WTO. Its principles are nondiscrimination and reciprocity. The former consists of the most-favored nation rule, which establishes that no WTO-member can receive less trade advantages than another trade partner by a respective member country; and the national treatment principle, which postulates that foreign products must not be disadvantaged in relation to domestic products. The principle of reciprocity means that a country must



grant the same advantages to a partner as it receives by that partner. (Hoekman/World Bank 2002: 42f)

With the creation of the WTO, the Agreement on Agriculture (AoA; often also denoted as URAA – Uruguay Round AoA), signed in 1994, came into effect and put the liberalization of agriculture on top of the agenda.

The provisions of the AoA forced the signatories to convert all non-tariff barriers into a tariff equivalent and reduce all tariffs by 36 percent within 6 years or by 24 percent within 10 years for developed and developing countries respectively; the LDCs were not required to make any reduction commitments (Stockbridge/Oxfam 2006: 18).

The agreement also required WTO members to allow a minimum of 5 percent of a countries' internal demand of any agricultural product to be met by imports at reduced tariffs (Bové, Dufour 2001: 216f). Through this minimum import rule WTO-members are effectively denied a strategy of food self-sufficiency in line with food sovereignty (McMichael 2010: 59). Countries furthermore agreed to reduce their subsidized exports by 21 percent in terms of quantity and by 36 percent in terms of value. This resulted in considerable reductions of price support measures. Since the AoA, a country can furthermore only restrict the import of a product if it can prove to WTO-picked experts that the product in question poses a threat to human or animal health. (Bové, Dufour 2001: 214, 216)

According to mainstream discourse, the purpose of the AoA was to discontinue the dumping practices of the US and the EU, while improving developing countries' access to their markets via the reduction in tariffs (Strickner 2009: 227). In reality, however, the way these provisions were designed they effectively led to the opening of markets in the so-called developing countries, while the EU could legally continue to keep high tariffs especially in those products that were domestically produced, known as 'sensitive products'. These sensitive products, however, largely affect the exports of ACP countries, so that today some of the ACP states face on average higher EU tariffs than the rest of the world (Fontagné, Labord and Mitaritonna 2010: 185).

This way the EU (and other so-called industrialized countries) protected their own markets, while increasing possibilities to exploit those of countries with weaker negotiating powers, which were forced to give up protectionist instruments (Strickner 2009: 227).

“In practice, the AoA legitimized the use of subsidies in developed countries that distort world markets and damage the local markets of developing countries – reducing the options available to developing countries that are interested in protecting rural livelihoods and domestic food security (let alone food sovereignty). The potential of agriculture to eradicate poverty and contribute to a biodiverse, ecologically healthy, and socially just food system is dramatically curtailed” (Murphy 2010: 112f)

The AoA furthermore played directly into the hands of the agricultural trade and processing industries, as the first version of the AoA was drafted by former executives of Cargill and ADM (Murphy 2010: 109; Strickner 2009: 227). Therefore, the AoA’s provisions reinforce the industrialization of agricultural systems: “The AoA presupposes a particular model for agriculture and reinforces that model through the rules it establishes. It is a model for wealthy countries pursuing industrial agriculture, and for developing country governments that wish to follow suit. It ignores the needs and interests of billions of farmers who do not live in that world.” (Murphy 2010: 112).

The WTO’s definition of dumping is contested by farmers’ organizations such as Via Campesina, which define dumping as the practice of selling goods on foreign markets below their production costs. This definition exposes the EU exporting processes as dumping and best suits reality (see Section 8.3.2). But according to the WTO, dumping is the selling of products on foreign markets below the domestic market price (Choplin, Strickner, Trouvé 2011: 52). Therefore current EU policies and practices are largely perceived as legal, as the 1992 CAP reform substituted product support with direct payments and the 2003 reform decoupled these payments from production, causing the EU price to move towards the world market price (see section 6.1.1).

In more detail, the AoA introduced three so-called boxes. The amber box includes market distorting instruments, as were used in the EU prior to 1992. The blue box is

comprised of subsidizing mechanisms that are not completely decoupled from production or prices, such as the CAP payments after 1992. Members have to discontinue using the distorting instruments of these two boxes and all subsidization instruments used should be part of the third, green box: it includes those subsidies that are perceived to be non-distorting in WTO-discourse, such as the decoupled EU direct payments since 2003. (Morgan, Marsden, Murdoch 2006: 31; Choplin, Strickner, Trouvé 2011: 50f)

As mentioned above in the context of biopiracy and the impact of GMOs, another crucial WTO agreement relevant to agricultural trade is TRIPS, the Agreement on Trade Related Aspects of Intellectual Property Rights. Also signed in 1995, it requires WTO members to introduce certain standards of patent protection by 2005, although LDCs were granted an extension to implement the agreement by 2016. TRIPS is the culmination of a trend of the commodification of the content of human intellectual activity and its dissemination (Eimer, Schüren 2013: 4). It can be regarded “as the codification of powerful interests’ preferences in industrialised countries that succeeded in imposing their perspective on the relationship between ideas and property on a global scale” (ibid) and – although there are certain legal flexibilities and the national implementation process depends on the strength of civil society actors and the ability of TNCs to forge partnerships with domestic pressure groups – it curtails the signing members’ policy space, as does any trade agreement. TRIPS is relevant in an agricultural context as it enables large corporations in seed development (p.e. Monsanto) to protect ‘their’ intellectual property rights, which is especially problematic in the case of hybrid seeds and GMOs. In this way, it enforces biopiracy, the process by which corporations can make naturally occurring biodiversity and traditional knowledge ‘their own’, and in turn it potentially illegalizes the use of these substances by indigenous peoples who might have been using them for centuries p.e. as natural remedies (Bové, Dufour 2011: 139; Shiva 2004: 119f; Navdanya 2009).

### 8.1.3. THE DOHA STALEMATE

The WTO Doha Round starting in 2001 is also known as the 'development round'. This development rhetoric is explained by the background of the MDGs and the widely held belief that trade was more important than aid in meeting these goals related to poverty eradication. But this developmental focus of the Doha Round is also explained by the fact that developing countries wanted to push the EU and the USA to deliver on their Uruguay Round commitments, especially regarding the removal of trade barriers in agriculture (and also textiles) (Morgan, Marsden, Murdoch 2006: 28f). To this end, developing countries brought in around 100 suggestions to fix the problems that arose during the implementation of GATT; these, however, were never picked up by their more powerful negotiating partners. Another concern brought in by developing countries was the need for a stronger commitment to the WTO principle of 'special and differential treatment' (SDT), which would benefit the LDCs (Groth, Kneifel 2007: 15). The SDT provision was designed under GATT "to acknowledge a major shortcoming of universal trade rules: the fact that they treat unequals equally" (Morgan, Marsden, Murdoch 2006: 35). The history of the idea of special and differential treatment of the developing countries goes back to 1961, when a GATT ministerial meeting called for a 'sympathetic attitude' regarding the reciprocity rule; four years later a substantial exception to reciprocity was adopted in GATT Part IV until, finally, in 1971, a waiver was adopted which was necessary to ensure compliance for non-reciprocal unilateral preference programs. This waiver was eventually institutionalized in the 1979 Enabling Clause, which still shapes WTO negotiations today and generally serves as the basis of the developing countries' demands. (Dicaprio, Trommer 2010: 1615)

Under this SDT umbrella, developing countries suggested the introduction of a fourth WTO box called the Development Box, which would place the developmental needs of developing countries' societies, and especially those of poor farmers, in the center of WTO agricultural trade negotiations. These demands were resisted successfully by the US and the EU: "A Development Box is clearly a challenge to the system of 'agribusiness imperialism', in which the US is seeking to become a 'breadbasket of the world' through the global reach of its agri-food multinationals" (ibid). Due to this resistance to a Development Box, developing countries have

restricted their proposals to greater flexibility on the so-called 'special products', crucial to rural development and food security (the developing countries' equivalent of the developed countries 'sensitive products'). But even these restricted demands have been denied so far by the more powerful countries, again indicating that the Doha Round's developmental discourse is not reflected in actions and real commitments. (ibid)

The 'Doha Development Agenda', formulated in the Doha Ministerial Declaration of 2001 is quite ambiguous and leaves a lot of room for interpretation (Morgan, Marsden, Murdoch 2006: 29). Critics contend that the development discourse of the Doha Round is hardly credible, as the demands of EU and USA play into the hands of (Western) agribusiness, while destroying small-scale farmers' livelihoods in the Global South. Instead of taking the demands made by developing countries into account, the EU and USA effectively managed to turn the so-called development round into a marketization round (Groth, Kneifel 2007: 15).

Eventually the Doha Round negotiations failed in 2006 and have been at a standstill ever since – because the US and EU refused to further lower their agricultural subsidies and instead insisted on further liberalization of agricultural markets not just in other 'developed', but also in the emerging and developing countries (ibid: 14).

It can be expected that the Doha Round negotiations can only be concluded if agreement is reached over the utilization of tariffs on 'special' and 'sensitive products' and the number of commodities defined as such. As the AoA severely restricted the use of non-tariff barriers, this is the only viable policy option left for developing countries. (Stockbridge/Oxfam 2006: 18f) As demonstrated in section 6.3.1 however, even the use of such exclusion lists of 'sensitive' and 'special products' for developing and developed countries, respectively, is problematic, especially if these lists are too restrictive and there is room for substitution of these protected products by other commodities imported at dumping prices. In this case exclusion lists are an inadequate instrument to protect local farmers from displacement, and certainly remains inferior to the concept of a Development Box.

## 8.2. THE ECONOMIC PARTNERSHIP AGREEMENTS

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### 8.2.1. EU GEOPOLITICS: LISBON STRATEGY & GLOBAL EUROPE

The structure of the EPAs is of course not only shaped by the international agricultural trade regime (especially AoA and TRIPS), but also by the EU's geopolitics and growth strategies, notably Lisbon/Europe 2020 and Global Europe.

The Lisbon Strategy was formulated in 2000 with the goal of turning the EU into the most competitive, dynamic and knowledge-based economic area by 2010 (Groth, Kneifel 2007: 38), clearly following the growth and productivity paradigm. It was in its essence reformulated in the Europe 2020 strategy, which superseded the Lisbon Agenda in 2010, although with an additional focus on environmental sustainability, i.e. promoting the concept of 'Green Growth' (EC 2010).

The growth objectives postulated in the Lisbon Agenda/Europe 2020 Strategy are complemented by the EU's foreign trade strategy Global Europe, which was formulated in 2006 and aims at improving the EU's competitiveness on a global scale (EC 2006). This is to be achieved via the conclusion of a large number of bilateral FTAs, promoting free trade, or in particular the securing of access to raw materials, a stronger presence of European corporations in emerging markets, the liberalization of lucrative markets for public procurement, and the tearing down of non-tariff barriers such as environmental and labor law standards (Groth, Kneifel 2007: 39; Choplin, Strickner, Trouvé 2011: 58ff). This shift to bilateralism is a clear result of the Doha standstill, which allows the EU to pursue a 'WTO-Plus' agenda, reflecting both the material and ideational interests of the EU (Hurt 2012): the EPAs especially can be seen as a result of the EU's loss of market shares (Fritz 2011: 11, 51) while at the same time neoliberalism is effectively locked-in in developing areas (Hurt 2012). WTO-Plus refers to the so-called Singapore issues, whereby liberalization in services and investment, as well as intellectual property rights are promoted by the so-called developed countries. These issues were an integral part of the Doha Round, but were abandoned due to concerted efforts of the developing countries and the collapse of the Cancún Conference in 2003 (Heron, Siles-Brügge 2012: 250). Heron

and Siles-Brügge conclude (2012) that this shift towards provisions of bilateral agreements that go beyond WTO requirements is due to domestic-societal and systemic drivers, notably the power of the services industry lobby. Regional and bilateral FTAs, including the EPAs can then be seen as “a reflection of the trade preferences of multinational firms seeking to secure ‘first-mover’ advantages in highly regulated service markets” (Heron, Siles-Brügge 2012: 251). The fact that these provisions are an integral part not only of the EU’s more commercial FTAs (for instance the EU-Korea FTA, or the envisioned EU-India FTA) but also of the EPAs is problematic and stands in contrast to the original Global Europe discourse, whereby the EPAs were formulated to meet development rather than trade objectives (ibid: 257f; Sharma 2009). Heron and Siles-Brügge identify a convergence of ‘commercial and ‘development’ trade policy here, and contend that the inclusion of the Singapore issues in the EPAs reflects “a fundamental shift in EU trade policy built on a more aggressive approach towards penetrating overseas markets” (Heron, Siles-Brügge 2012: 255).

The halt of the Doha Round, however, not only caused the EU to pressure developing countries into signing bilateral trade agreements; FTAs are surging on a global scale and increasingly involve policies that led to the breakdown of the Doha negotiations in the first place. According to a 2008 report on FTAs there were 229 FTAs in force in 2004, “this is a conservative and obviously old figure, though it is the latest published” (bilaterals.org, BIOTHA and GRAIN 2008: 20), almost ten years later this figure is probably entirely obsolete, especially as the Doha negotiations were still in place in 2004, and bilateral efforts have increased dramatically ever since the standstill. Additionally, by early 2007 there were already 5.500 investment-related agreements globally, “a figure growing by three per week” (ibid). These FTAs are modeled after North American Free Trade Agreement (NAFTA), the FTA between the US and Mexico that was signed in 1992 which “established a new paradigm in terms of what FTAs could achieve for TNCs” (ibid: 10; Oxfam 2002: 234).

In conclusion, the EPAs, and FTAs in general can be understood as EU instruments for the implementation of neoliberal strategies, to be seen in a wider context of

geopolitics, security, and economic as well as ideational concerns, while the international trade regime and the WTO liberalization logic serve the EU to legitimize them.

### 8.2.2. EU-ACP RELATIONS: FROM LOMÉ TO COTONOU

EU-ACP relations are regulated by the Cotonou Agreement, signed in 2000.

It superseded the Lomé Convention, which granted preferential access to the EU market to ACP countries unilaterally, i.e. one-sidedly. While Lomé I was signed in and by 46 ACP states and nine EC members, it underwent three revisions until Lomé IV had an increased membership of 77 ACP states and the EU-15 (Kneifel, Groth 2007: 16f). The main characteristic of Lomé was that it went beyond aid as it coupled it with *unilateral* trade preferences. Lomé therefore addressed the structural problems that arise from trade partnerships between unequal partners.

This preferential treatment of ACP countries was eroded after the creation of the WTO and in the context of globalization, with the EU turning towards more lucrative markets of South East Asia, Eastern Europe and the Mediterranean (ibid: 19f). The preferences ACP countries enjoyed under Lomé were abandoned with the Cotonou Agreement; a shift that was legitimized with the argument of lacking WTO-compatibility under Lomé provisions. One of Cotonou's explicit main goals, on the other hand, is the gradual transition of ACP states into the global economy in a WTO-compatible way, to be achieved by the tearing down of preferences formerly granted, and by the conclusion of WTO-compatible, i.e. reciprocal FTAs between the EU and ACP regions. In this context the EPA negotiations were started in 2002 with the goal of concluding comprehensive EPAs with all ACP regions by 2007. Given the ACP countries' concern that these EPAs would reduce benefits they previously enjoyed, this envisioned deadline had to be pushed back several times and so far, only one comprehensive EPA has been concluded. (FAO 2006b: 1)

The relations between EU and ACP states are furthermore governed by the EBA initiative, decided by the EU council in 2001, which provides full duty-free access for LDCs for all goods except arms and ammunitions (EC 2013d). Bananas, rice and sugar



– some of the most important export commodities for developing countries – were exempted from this initiative in the beginning, but phased out by 2009. However, certain constraints remain, considering the EU’s non-tariff barriers Rules of Origin (RoO) and SPS measures. The former pose a threat to developing countries’ exports as for EBA to apply, all phases of production would have to be situated in LDCs, which is often not the case in a globalized production chain. These RoO are so complex and restrictive, that many LDCs, especially those in SSA, opt to export under the less generous Cotonou scheme instead of the EBA preferences, as the RoO of Cotonou are sufficiently less restrictive to compensate for the loss in preferential access. SPS on the other hand arise from quickly changing food safety standards of the EU that effectively discriminate against small-scale production and incur high administrative costs. (Hinkle, Schiff/World Bank 2004: 1324; FAO 2006b: 60ff; Echessah 2007: 530ff). Additionally, as this is a voluntary concession by the EU, problems associated with the EBA initiative are the same as with the Generalized Scheme of Preferences (GSP), which grants preferential access to developing countries on a less comprehensive level (only limited range of products, not duty-free but at reduced tariffs, to be phased out whereas EBA applies as long as a country is classified as LDC): neither the GSP nor the EBA is contractual and can therefore be changed by the EU at will. (FAO 2006b: 52)

### 8.2.3. STATE OF EPA NEGOTIATIONS

The EPAs apply primarily to merchandise trade, but, as discussed above, the EU is pushing for the inclusion of the ‘Singapore Issues’, or trade-related aspects such as services and investment. Contrary to the EU’s development rhetoric concerning free trade, however, the benefits for the ACP are questionable at best: the EPAs provide for only limited improvements to ACP access to the EU market, as the LDCs already enjoy duty-free access under EBA but also because the Cotonou agreement provides free access with only a limited number of exceptions. “The most that the ACP could negotiate would be the removal of these exceptions. By definition, therefore, the agreements [EPAs] will be asymmetrical in the sense that many ACP countries will change their trade policy relatively more than the EU” (FAO 2006b: 47f). At the same

time, however, ACP signatories of an EPA are required to open their markets to EU goods by removing 'substantially all' quantitative restrictions, tariffs on goods imports, and charges having equivalent effects over a transition period. (FAO 2006b: 47)

The difference of the EPAs to previous arrangements under Lomé is threefold: first of all the configuration of state groups on the ACP side, whereby the ACP no longer negotiates as the totality of the ACP bloc, but as individual countries or country groupings. Secondly, as explained above, the content of the EPAs stands in stark contrast to previous agreements as they are based on WTO-compatible, reciprocal trade liberalization as opposed to unilateral preferences granted by the EU. And thirdly, the EPAs differ in their duration, as they are permanent FTAs while previous unilateral concessions were time limited. (FAO 2006b: 10)

Table 7 provides an overview of the state of negotiations in the seven ACP regions that were defined specifically for the EPA process. So far, only one comprehensive regional EPA has been concluded, the EPA with CARIFORUM. No comprehensive regional agreements have been reached in the Pacific or African regions, but interim agreements have been signed by a number of individual countries and also country groups within the regions. The pace of liberalization commitments differs between these bilateral interim agreements (Küblböck, Forster 2008: 4).

Table 7: State of EPA Negotiations with the 7 ACP Regions

Region	Countries	Current Status
West Africa	Benin*, Burkina Faso*, Cape Verde, Gambia*, Ghana, Guinea*, Guinea-Bissau*, Ivory Coast, Liberia*, Mali*, Mauritania*, Niger*, Nigeria, Senegal*, Sierra Leone*, Togo*	Bilateral interim EPAs: Côte d'Ivoire (signed in 2008; not ratified) and Ghana (not signed); both initialed in 2007 Regional EPA: progress made in 2012
Central Africa	Cameroon, Central African Republic*, Chad*, Congo (Brazzaville), Democratic Republic of Congo*, Equatorial Guinea*, Gabon, São Tomé & Príncipe*	Bilateral Interim EPA: Cameroon, signed in 2009, not ratified
Eastern and Southern Africa (ESA)	Comoros*, Djibouti*, Eritrea*, Ethiopia*, Malawi*, Madagascar*, Mauritius, Seychelles, Somalia*, Sudan*, Zambia*, Zimbabwe	Multilateral Interim EPA: Mauritius, Seychelles, Zimbabwe, Madagascar signed in 2009; provisionally applied since 2012
Eastern African Community (EAC)	Burundi*, Kenya, Rwanda*, Tanzania, Uganda*	Multilateral Interim EPA initialled in 2007 by Burundi, Rwanda, Tanzania, Kenya; Uganda; not signed or ratified Regional EPA: progress in 2013
South African Development Community (SADC)	Angola*, Botswana, Lesotho*, Mozambique*, Namibia, South Africa, Swaziland	Interim EPA signed by Botswana, Lesotho, Swaziland, Mozambique in 2009, not ratified; Initialled by Namibia, not signed
Caribbean	Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Dominican Republic, Grenada, Guyana, Haiti*, Jamaica, St Lucia, St. Vincent and the Grenadines, St Kitts and Nevis, Suriname, Trinidad and Tobago	Comprehensive Regional EPA signed by CARIFORUM in 2008, approved by EP in 2009: opens trade in services and goods and seeks to spur investment, sets up several joint institutions that meet regularly since 2010; CARIFORUM has to cut tariffs every two years on certain goods; both regions need to agree on monitoring system and undertake first five-year review of EPA
Pacific	Cook Islands, East Timor, Fiji, Kiribati*, Marshall Islands, Micronesia, Nauru, Niue, Palau, Papua New Guinea, Samoa*, Solomon Islands*, Tonga, Tuvalu*, Vanuatu*	Interim EPA signed by Papua New Guinea, ratified in 2011; signed by Fiji, not applied

Source: EC (2013c): Overview of EPA Negotiations. Updated November 10, 2013.

\* Least Developed Countries. Source: UN-OHRLS (2013).

#### **8.2.4. WTO-CONFORMITY OF EPAS AND POWER ASYMMETRIES**

Previous EU concessions to the ACP were WTO-compatible insofar as they were granted under a waiver, one of the three potential exceptions to the WTO Most Favored Nation (MFN) principle (GATT 1994 Article 1). This waiver was granted up until 2007, which was the main EU argument behind the 2007 deadline for the EPA negotiations. The possibility of a waiver is regulated in GATT Article XXV.5, but it required a three-quarter majority at the WTO. (Groth, Kneifel 2007: 25). The other two possibilities of MFN exemption are the WTO rule on regional trade agreements (RTAs), regulated by GATT Article XXIV, which recognizes voluntary agreements such as customs unions or FTAs and requires MFN only within these areas – this Article is the basis for the WTO legality of the EPAs; and the Enabling Clause of the Tokyo Round in 1979. The Enabling Clause is also known as SDT, the rule on special trading arrangements involving developing countries. SDT constitutes an exception from MFN rules in three ways: a) developed country tariff preferences for goods of developing country origin on GSP terms; b) special treatment for LDCs; and c) South-South preferences as an exception from both Articles I (on MFN treatment) and XXIV (on RTAs). (FAO 2006b: 12) The Enabling Clause therefore does not apply as it only authorizes MFN exemptions for South-South RTAs, which is not the case in EPAs where the EU forms one of the parties. In other words, SDT cannot justify discriminatory preferences accorded to developing countries in the EPAs. (ibid: 21). Developing countries and even the LDCs within the seven ACP regions are therefore bound by GATT Article XXIV: 8b), which defines a free trade area as “a group of two or more customs territories in which the duties and other restrictive regulations of commerce [...] are eliminated on substantially all the trade” (FAO 2006b: 17). But exactly this treatment of unequal partners as equals – the relation between the ACP and the EU GNP is 1:31 (Groth, Kneifel 2007: 27) – is the core of the ongoing negotiations, as the EU promotes her own interests by insisting on Article XXIV, while the developing countries insist on turning the Cotonou development rhetoric into practice with the help of the Enabling Clause.

The limited success developing countries had so far in promoting their developmental interests during the EPA negotiations is due to the vast power

asymmetries between the EU and the ACP. The EU has, for instance, skillfully managed to include both LDCs and non-LDCs in all seven EPA regions, thereby eroding the LDC's previously enjoyed preferences under the EBA initiative (Groth, Kneifel 2007: 26). A study of the EU's relations to the ACP countries, including various policy instruments such as the Cotonou Agreement and the EPAs found that the EU's governance is not 'good', as generally there are large contradictions between rhetoric and practice leading to negative actual and potential impacts upon development in ACP states (Slocum-Bradley, Bradley 2010).

Critical voices contend that it is "only the asymmetry in power and negotiating abilities that enabled interim EPA's to be agreed" (Hurt 2012: 504). This is exemplified by the fact that the burden of adjustment will fall most heavily on the ACP and especially the LDCs, as the EPAs will not increase their market access to the EU, given the EBA initiative, but forces them to liberalize their EU imports. These asymmetries are furthermore illustrated by the EU's ability to include the 'Singapore Issues', or so-called WTO-Plus policies in spite of the strong opposition to them during the WTO Doha Round by developing countries. (ibid) The negotiation process furthermore reveals democratic deficiencies of the EPAs, as negotiations take place behind closed doors and do not include consultation, let alone participation of civil society organizations, and are furthermore not embedded in national democratic processes. These problems of in-transparency are furthermore exacerbated by the narrow timeframe envisioned by the EU. (Küblböck, Forster 2008: 9)

Hurt (2012) furthermore illustrates that the EPA negotiations reflect not only the material but also the ideational interests of the EU: Brussels is trying to 'lock in' neoliberalism across the seven ACP regions, meaning regulatory regimes are created in order to consolidate neoliberal reforms which reduce the policy space for alternative development strategies: "To understand the pushing for the inclusion relationship with ACP states we must acknowledge that it operates within a context where the ideas of neoliberalism have become hegemonic." (Hurt 2012: 499). The EU has aligned its policies with the Post-Washington Consensus, claiming its main goal is poverty reduction by following the "international consensus on the benefits of free trade for development" (ibid).

### 8.3. CONSEQUENCES

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#### 8.3.1. THE DOUBLE STANDARDS OF THE AGRICULTURAL TRADE REGIME

Compared to the promises made during the negotiations, the AoA should be regarded as a failure: it was designed in a way that “did little to contain developed countries’ spending on agricultural programs” (Murphy 2010: 106), and generally also failed to effectively reduce tariffs on agricultural products. Optimistic predictions of AoA induced gains of 250 billion USD prior to the Uruguay round were drastically reduced to only about 50 billion USD in 1995, when it became clear how limited the commitments by the EU and the USA really were. “The gap between rhetoric and reality was enormous” (ibid), as for instance the US only committed to reduce its spending on domestic agriculture over five years to the level already reached in 1995, therefore not having to reduce spending for the first five years after signing the agreement. Additionally, few developing countries had fully understood what they were agreeing to, and provisions that would safeguard developing countries which were agreed upon were not always implemented: the Marrakesh Decision on LDCs and developing NFICs would have provided funding if food import bills rose to high; however, when food prices spiked in 1995, this decision was not implemented, and LDCs were faced with a 40 percent rise in food import bills (ibid). Developing countries furthermore hardly benefitted, as many developing country agricultural exports were already traded openly prior to the AoA, while those products most important to developing countries, such as sugar and cotton remained protected in the EU and US even after the AoA (ibid: 107f; Matthews 2002: 79ff). The EU and US therefore successfully forced developing countries to open their markets, while protecting their own agricultural sectors, thereby actively creating what is misleadingly understood as ‘comparative advantage’ (McMichael 2010: 59). Oxfam’s double standard index measures these kinds of discrepancies in the free trade rhetoric versus the protectionist policies against exports from developing countries: the EU clearly takes home first place, before the US, Canada and Japan (Oxfam 2002). A study on tariff peaks (tariffs over 15 percent) in the EU found that the products mostly affected by tariff peaks in the EU are beef, dairy, vegetables and fruit, cereals, sugar, wine and spirits, which tend to be relatively

more important for developing country exporters. And these barriers are not systematically offset by the preferences available to developing countries: of over 6.600 tariff lines analysed, 16 percent faced tariff peaks, involved products important to developing country exporters and were not subject to the GSP schemes (FAO 2006b: 58)

Forcing developing countries to liberalize agricultural trade is a double standard in yet another way: comparative studies show that African countries today will not be able to follow smallholder development strategies and agricultural policies that were successfully pursued by East Asian countries, as the policy instruments are no longer available within the current WTO frame (Stockbridge/Oxfam 2006). However, recalling the history of the CAP, the EU (as well as the US) relied on the same protectionist policies that developing countries today are denied (Chang 2002; Choplin, Strickner, Trouvé 2011: 33ff; Groth, Kneifel 2007: 30ff). In these double standards lie the reasons for the inequalities and divides between the Global North and the Global South, which, according to UNCTAD, the UN Conference for Trade and Development, have steadily increased since the creation of the WTO (Bové, Dufour 2001: 214).

### **8.3.2. OVERPRODUCTION, DUMPING AND DISPLACEMENT**

As stated above, by employing policies denied to her competitors, the EU has actively created a situation that is misinterpreted as ‘comparative advantage’, the concept that forms the basis of the free trade doctrine (McMichael 2010: 59). The EU agricultural policy has therefore ‘unfairly’ generated the lowest prices in history, especially for grains, meat and dairy. These world prices have fallen 30 percent and more within the past 20 years (ibid), pressuring poor farmers that cannot compete, and poor states that lack the resources to subsidize their agricultural sectors around the world.

Sections 6.1. and 7.2. showed that the various EU CAP reforms have failed to eliminate overproduction; this is especially true in the poultry and pork industries (Bové, Dufour 2011: 168ff). The AoA and FTAs such as the EPAs allow the EU to easily

dump this overproduction on foreign markets, whereby especially unwanted byproducts or products of inferior quality are exported. This is especially visible in the EU's poultry and meat exports that largely consist of products that fail to meet European consumers expectations. In 2011, French poultry exports to third countries rose by more than 13 percent, the dumping rate (ratio of total subsidies to export value) of which was a staggering 70 percent on average between 2007 and 2011 (Berthelot 2012: 1f). This is possible due to the EU subsidies: on average between 2007 and 2011 the EU subsidized exports valued at 260 billion Euros with almost 90 billion, effectively creating a dumping rate of about a third (ibid). Consistent with the market and power concentration theorem, only two companies, Doux and Tilly-Sabco, received these subsidies in France in the poultry sector. Doux alone received 72 percent of French and 65 percent of EU poultry subsidies (ibid); on average that was 114 million Euros for an average export value of 173 million between 2008 and 2011, indicating a dumping rate of 66 percent (ibid: 2)

The EU's largest agricultural export market is West Africa, with almost 50 percent of total EU agri-exports. About a third of these EU poultry exports arrive in Ghana alone, which has led to severe issues of displacement, followed by rising unemployment as agriculture is the most important employer and generates around 40 percent of the GNP, and decreased wages due to higher competition and industrialization in the affected sectors. Ghana also faced these issues connected to displacement due to EU dumping imports in the tomato-paste industry, which was effectively destroyed when imports increased by 650 percent between 1998 and 2003 (DeSchutter 2011: 9). During this time domestic farmers lost 35 percent of the domestic market (ibid), and today 90 percent of the country's tomato-paste consumption is met by EU imports (Küblböck, Forster 2008: 9f).

Import surges are nothing new though, as they have plagued developing countries since the first liberalization efforts and the implementation of the SAPs, which caused developing countries to "cut support for domestic agriculture, dismantle state owned agricultural marketing boards, open markets for food imports and [...] switch from staple food production for local markets to cash crop cultivation for export markets" (Fritz 2011:38), effectively leading to the erosion of developing countries' traditional surplus in agricultural trade (ibid). A survey covering 102



developing countries between 1980 and 2003 found 12.000 cases of import surges, i.e. on average approximately one surge every 5 years for every basic food commodity average, threatening the livelihoods of both farmers and agricultural laborers. (DeSchutter 2011: 9) In Ghana, for instance, 66 percent of rice producers recorded negative returns after imports increased from 250.000 tons in 1998 to 415.000 tons in 2003, decreasing the share of consumption met by domestic supply from 43 percent in 2000 to 29 percent three years later.

Returning to poultry, Cameroon's imports increased by 300 percent between 1999 and 2004, causing 92 percent of poultry farmers to drop out of the sector, and 110,000 rural jobs to be lost per year between 1994 and 2003 (ibid). Poultry imports in Côte d'Ivoire rose 650 percent in only two years (2001 to 2003), causing 1500 producers to lose their livelihoods, the loss of 15,000 jobs, and domestic production to fall by 23 percent (ibid).

Besides the meat sector, the EU has also achieved to make a large number of developing countries dependent on EU grain imports. The EU dumping rate of cereals was 54.7 percent in 2006: 3.58 billion Euros worth of exports were subsidized with 1.96 billion, of which only 206 million were export subsidies and 1.64 billion Euros were given as direct income support (Fritz 2011: 53). This form of subsidy supposedly prevents overproduction, but between 1990 and 2007 West African wheat and wheat flour imports more than tripled from 1.3 million 24.9 million tons (ibid: 48f).

The third largest EU agricultural export sector besides meat and grains is milk, which gives a similar picture as shown in the table below: milk dumping rates are at a third about as high as in the pork industry. Of course, in this sector too, dumping leads to displacement of production in weaker economies: in the Dominican Republic in the early 2000s the EU milk price was around a quarter lower than the price of fresh milk, causing about 20.000 farmers to quit milk production (IFAD 2004: 11).

Table 8: EU-15 Dumping Rates of Animal Products, 2006-2008

	<b>Production<sup>1</sup></b>	<b>Exports<sup>1</sup></b>	<b>Export share<sup>2</sup></b>	<b>Subsidies<sup>1</sup></b>	<b>Dumping rate<sup>2</sup></b>
Dairy Products	40,61	6,249	15.39	2,004	32.07
Bovine Meat	25,699	591	2.30	346	58.55
Pig Meat	25,735	4,709	18.30	1,43	30.37
Poultry Meat	12,279	1,291	10.51	571	44.23
Total/Average	104,323	12,84	12.31	4,351	33.89

Source: Berthelot (2011): 5f.

1) million Euros 2) percent

In summary, the EU CAP leads to overproduction that can more and more easily be dumped on foreign markets thanks to the EPAs and the liberalization processes before their negotiation started as promoted by the AoA and SAPs in developing countries. That such dumping practices have severe negative effects is not a new insight as these developments have followed after Mexico signed NAFTA, the cornerstone of all free trade agreements. It was predicted that Mexico would have 15 years to adjust to its maize prices dropping to the world price level, but in the end, it took only 30 months; this caused Mexico's maize imports to increase 18-fold between 1993 and 2000, resulting in the loss of approximately 800,000 rural livelihoods and 2.2 million jobs (IFAD 2004: 11; Shiva 2004: 21).

Another issue that should be mentioned in the context of dumping is food aid, which has often been instrumentalized as an "escape route at times when prices are low and production is abundant" (Oxfam 2005:17) in the hopes of dumping surplus production, and promotion of donor country exports. These less humanitarian motivations are illustrated by the fact that when food aid is no longer necessary, it is generally not replaced by local production but by commercial imports, thereby creating long-term dependence on food imports. This was the case in the Philippines in the early 1990s (soy) and in Malawi in the early 2000s (maize). In the case of Malawi, food aid donors over-reacted to a projected food deficit causing a maize

surge on Malawi's markets, when the prices dropped from 250 to 100 US-Dollars within one year, the losses to the Malawian economy were approximately 15 million USD as local production of maize, cassava, and rice fell considerably (Oxfam 2005: 17f). These practices are, however, more associated with US agricultural policy and are therefore not discussed in detail here. It is important to remember, however, that food aid can be instrumentalized for the benefits of agribusiness too, and has in the past resulted in long-term import dependency and displacement via dumping as well.

### **8.3.3. POVERTY**

As discussed in Section 5.3, mainstream economic theory predicts poverty eradication through free trade via economic growth; this idea is the basis of the EPAs, as well as any liberalization attempts before, such as the SAPs and of course the AoA and other WTO agreements. In reality, however, the assumptions underlying this theoretic outcome are far from realistic, especially in the case of developing countries, such as the assumption of perfectly competitive markets, or the assumption of only bilateral trade activities, or the idea that the poor constitute the unskilled labor pool. Especially the last one is problematic, as in developing countries the informal sector is generally large, meaning the poor are often excluded from formal labor markets, causing export markets to have limited effects or links to the poor. (Mbatha, Charalambides 2008: 414-418). Additionally, limited evidence exists on the assumed connection between trade liberalization and economic growth, and even less so on the connection between growth and poverty eradication. Generally, there is an empirical lack of the trickle-down effect: India, one of the fastest growing economies worldwide, for instance still is home to more poor than any other country in the world, with around half of all toddlers undernourished, and a large share of the around 500 million workers employed in the informal sector. In 2005, 77 percent of the total population, more than 830 million people, lived on about 30 Euro Cents per day, even though income per capita rose by 77 percent between 1992 and 2005. Only a third of the population actually

benefitted from economic growth, while social and economic disparities rose rapidly within the country. (Sharma 2009: 12).

Globalization critics contest the mainstream paradigm and state that, quite on the contrary, globalization and the integration of the poor into world markets actually appears to weaken the capacity of poor countries to take measures conducive to long-term development (Oxfam 2002: 64ff). There is therefore no simple relationship between trade liberalization and poverty reduction, whereas “vulnerability is an inevitable consequence of globalization” (ibid: 66). The 2004 study of the UN Conference on Trade and Development (UNCTAD) even went so far as to proclaim free trade created poverty (Groth, Kneifel 2007: 42); in other words. the reasons for Africa’s poverty lie exactly in this kind of liberalizing globalization processes themselves (ibid: 32ff). This is a result of unequal partnerships and a large share of rural poor in the African economies, who generally don’t benefit from FTAs (Oxfam 2002: 80ff), since they don’t meet the necessary conditions required for successful trade integration: they lack access to infrastructure and marketing services, to the market information needed to enter successfully, to technologies, and to credit and other resources. They are further disadvantaged as government programs foster the industrial agricultural production system and bias the provision of services from irrigation to education towards richer population groups (ibid: 89). As mentioned above, these links are not new and have been stressed by free-trade critics long before the EPA negotiations started, and especially since the conclusion of the NAFTA agreement, when 2.2 Million Mexicans lost their jobs, 40 million were pushed into extreme poverty and, absurdly, every second farmer suffered food shortages (Shiva 2004: 21, Pérez-Vitoria 2005: 137; bilaterals.org, BIOTHAI, GRAIN 2008: 66-72; Binswanger 2009: 51). Given these outcomes prior to the EPA negotiations, it seems even more absurd that they are conducted under the development rhetoric of the Cotonou Agreement.

That the EPAs are unlikely to deviate from this pattern and will not have a significant impact on poverty reduction is demonstrated in a case study on Zimbabwe by Mbatha and Charalambides (2008). They found that the EPA is unlikely to eradicate poverty in Botswana, because the necessary link between the major export

industries and the economic activities of Botswana's poor sections of society does not exist.

### **8.3.4. EXPORT AND IMPORT DEPENDENCE AND FOOD CRISES**

Developing countries have been pressured to export primary commodities since colonial times (Pérez-Vitoria 2005: 129). Renewed pressure from the 'West' on developing countries to rely on the export of primary commodities was applied under the SAPs legitimated with the neoclassical doctrine of poverty eradication by growth induced via export promotion (Choplin, Strickner, Trouvé 2011: 88). Today, the advice international development institutions such as the World Bank give developing countries is still to rely on agricultural exports, although with a new face of diversification and inclusion of smallholders in global supply chains (Weingärtner, Trentmann 2011: 101; Hoering 2010: 74; See 7.1.1). This primary commodity dependence (see Section 6.3.4 – Excursus) always went hand in hand with a loss of food sovereignty (Pérez-Vitoria 2005: 129) and the call for increased trade liberalization, even after the 2007/08 food crises showed the detriments of these policies (Via Campesina 2010b: 36). However, globalization critics have warned increasingly since the creation of the WTO that liberalization has negative consequences for small-scale farmers if prices drop, and for developing NFICs if prices rise (Watkins/Oxfam 1996: 53), a fear confirmed by the 2007/08 food crisis. They furthermore argue that African states are not under- but over-globalized in agricultural commodities compared to non-developing countries, and that the fact that the barriers for agricultural commodities are 4-7 times higher than for manufactured products constitutes a clear double standard in 'Western' liberalization discourse (Groth, Kneifel 2007: 30-37; Morrison, Sarris/FAO 2007: 21; IFAD 2004: 10). Studies furthermore show that liberalization has limited positive effects (Morrison, Sarris/FAO 2007: 16), while the negative ones outweigh them: countries dependent on the export of primary commodities face adverse terms of trade and increased price volatility; prices are furthermore determined in markets beyond the influence of individual developing countries, and there are supply side

risks such as the sensitivity of output to climatic variability, especially droughts and excess rain (FAO 2003: 43).

The terms of trade of developing countries exporting agricultural commodities including foods and beverages as well as low-tech manufactures have deteriorated relatively steadily in the second half of the 20th century; only oil-exporting developing countries face less detrimental terms of trade. Between 1997 and 1998, the terms of trade faced by SSA countries deteriorated by 9 percent; this constituted a loss of real income of 2.6 percent of GDP. In 1998 food and tropical beverage prices fell by 13.6 percent, those of agricultural raw materials by 10.8. The 2002 coffee prices for example were less than a third of their 1997 level. (FAO 2003: 43) Figure 7 shows the terms of trade of LDCs between 1960 and 2006.

Figure 7: Terms of Trade of Least Developed Countries, 1960-2006



Source: Erten 2011: 178.

These policies promoting the export of agricultural commodities by developing countries clearly led to losses of food security and sovereignty as countries that were formerly self-sufficient became net food importers, while at the same time dependence on one or two commodities for a large share of their export earnings increased. However, due to slow market growth, adverse price trends, low value-added and high market competition, “dependence on primary commodities offers an almost automatic route to a diminishing share of world exports and world income” (Oxfam 2002: 73). This dependence is most acute in SSA, and especially in the LDCs and most African economies that still rely on traditional exports, notably coffee,

cocoa, tea and palm oil (ibid: 74; 150ff). The most extreme example is Guinea Bissau: the country's GDP is to 97 percent dependent on the exports of cashew nuts (FAO 2006: 4f).

The other side of the coin is increased import dependency regarding staple foods: According to the World Bank almost three quarters of all low income countries are net food importers (42 out of 58 globally, 35 out of 47 in SSA). Out of these 47 SSA economies, 32 are net agricultural exporters and 15 are net importers regarding total agricultural trade. Concerning raw food trade however, only 12 SSA countries are net exporters, while a total of 35 SSA states rely on food imports. (Ng, Aksoy/ World Bank 2008: 6-13) Grain imports for instance have risen dramatically in African countries: wheat imports have increased six-fold between 1970 and 2005 (Bryceson 2010: 78). The cereal import bill for developing NFICs was 38 billion US-Dollars in 2010 and FAO predicted further increases to 50 billion by 2013 (Holt-Giménez 2010: 210). The role of liberalization must not be underestimated here. After the conclusion of the AoA, Senegal, for instance, faced increased import bills raised by 30 percent in the second half of the 1990s, compared to the years prior the AoA; in India this was even an increase by 168 percent (Hoering 2007: 132).

This shift from self-sufficiency to import dependency, accomplished by the colonization of developing countries' national food systems and the destruction of peasant agriculture (ibid) shows a major flaw in mainstream economic thinking: as the gap between Western and African industry and service sectors is even larger than the agricultural one, according to mainstream theory, African countries should have enjoyed increasing economic prosperity and wealth since the opening of their agricultural markets, given their comparative economic advantage in agriculture (Binswanger 2009: 41ff). But the opposite happened: "50 years ago developing countries had yearly agricultural trade surpluses of \$1 billion. After decades of capitalist development and the global expansion of the industrial agrifood complex, the southern food deficit has ballooned to \$11 billion a year." (Holt-Giménez 2010: 210). With continued liberalization, and especially the increasing involvement of

financial players such as hedge funds, these bills can only rise, and also will become more volatile.

Regarding the EPAs, Sukati (2012) has estimated the effects on the import bill of the Southern African Development Community (SADC), one of the 7 negotiation regions: while the EU is expected to have a positive trade balance with the region of above 100 million US-Dollars, the SADC is clearly the losing party of such an agreement, with a negative trade balance of 1.6 billion US-Dollars with the EU, clearly showing the hypocrisy behind the development discourse underlying the EPAs, and casting doubt on the potential of economic growth benefits arising from the EPA.

This reliance on food imports in combination with an increased price volatility since the changes of the WTO Uruguay round (FAO 2003: 32f) leads to hunger crises and the socio-economic and political turmoil associated with it. This was the case in Mexico after NAFTA: “Over twenty-five years after the beginning of structural adjustment in the early eighties, Mexico is in a state of acute food insecurity, permanent economic crisis, political instability, and uncontrolled criminal activity” (Bello, Baviera 2010: 40; Watkins/Oxfam 1996: 38ff). Similarly, the Philippines, also a former net food exporter, saw a rice crisis in 2008 “and the essential reason was the same as in Mexico – that is, the subjugation of the country to a structural adjustment program” (ibid: 41). India’s eruption of terrorism and extremism in Punjab in 1984, and the number of suicide waves among heavily indebted farmers in the 1990s and early 2000s. also go back to the integration of small-farmers into global production chains, and the opening of markets in connection with agricultural industrialization processes (Shiva 2009: 38ff; Sharma 2009: 15; Anderegg 2004). Liberalization of financial markets can additionally have negative impacts on food security, not only due to increased speculation in food commodities, but also due to the excess exchange rate volatility it creates, which can lead to sudden export competition: When in 1997 during the East Asian financial crisis the Indonesian Rupiah collapsed, Indonesian tea became a lot cheaper than Indian tea. This forced Indian tea exports down and led to a drop in Indian production of 40 percent within only three years (Oxfam 2002: 155).



The neoliberal policies promoted by the World Bank and the IMF during structural adjustment also eroded the productive capacities of African agricultural systems (Bello, Baviera: 41f; Watkins/Oxfam 1996: 39f). Nigeria for instance was self-sufficient in wheat supply for a long time before the import surges caused by heavy subsidization in the US and EU of the 1970/80s. These wheat surges, however, were “evidence not of a growing gap between domestic productive capacity and need, but of local markets being restructured in a manner which favoured imports” (Watkins/Oxfam 1996: 40f). The country continued to suffer domestic food insecurities when it adopted the IMF induced structural adjustment in 1986, in spite of the promises proponents of liberalization made, and food insecurities continue to persist under the AoA and the [accessed: 10.1.2012]

Seeing as the EPAs promote the same development logic, they too will have negative effects on food self-sufficiency in Africa. The example of the EPA with CARIFORUM, the group of Caribbean states that negotiated the only comprehensive regional EPA concluded yet, gives severe cause for concern in this respect. Gruni (2013), for instance, shows, that the provisions of this EPA regarding export restrictions are too narrow. In a neoliberal understanding of the instrument as a market distorter, the EPA prohibits the use of export restrictions as they can lead to price increases, which in turn have a negative impact on developing NFICs (Mitra, Josling 2009: 12). This understanding, however, omits the fact that during a food crisis export restrictions can, on the other hand, safeguard domestic food security (ibid: 3). This dilemma once again is a good argument for increased food sovereignty and self-sufficiency. In the case of the CARIFORUM EPA, it is, according to Gruni (2013), not justified to ban export restrictions entirely as the Caribbean has “negligible impact on the broader development of international trade law” (Gruni 2013: 876), so, in effect, the Caribbean countries lose their policy space, while other, more influential, exporters preserve theirs. This constitutes a clear attack on development, as the Caribbean states are so small that their production levels are irrelevant for global food prices, and therefore do not cause the negative price volatility associated with the food crises the EU supposedly tries to prevent by a ban on export restrictions imposed on the CARIFORUM (ibid). Gruni, therefore, finds that the CARIFORUM EPA “does not

contribute to the solution of the problems that export restrictions created during the 2007-2008 global food crisis”, but instead contributes to new challenges for food security, especially by diminishing the Caribbean states’ capacities to react to food shortages via export restrictions. In general he concludes that as WTO law does not ensure the special and differential treatment of developing countries in FTAs (see Section 8.2.4), exactly the opposite happens: “In fact, the Economic Partnership Agreements between the EU and ACP countries are more restrictive than the free trade agreements between the EU and Mexico, Chile and South Korea” (ibid: 882).

### **8.3.5. LAND GRABBING & BIOPIRACY**

The EU advocates the inclusion of the Singapore-Issues, i.e. WTO-plus provisions that have far reaching effects on access to land and seeds in developing countries. The CARIFORUM EPA already includes these WTO-plus rules on services, investment, intellectual property rights and government procurement (Dicaprio, Trommer 2010: 1618). It is therefore likely that, if and when comprehensive agreements with the African ACP groups are concluded, they will contain these regulations as well, promoting global land grabbing, as well as further facilitating the patenting of life as discussed in Section 6.3.5.

Biopiracy, or the patenting of life and traditional knowledge, constitutes an immense danger to agro-biodiversity – besides access to land and water the most important resource in securing livelihoods in the Global South. Globally, around 2 billion people depend on their rights to seed and seed exchange (Wichterich 2004: 86; Goethe 2004: 126). Global biodiversity is protected by the UN Convention on Biological Diversity, with the aim of ensuring the sustainable use of its components, and fair and equitable sharing of the benefits arising out of the utilization of genetic resources (Birnie, Boyle, Redgwell 2009). While it has been signed by 193 countries, the fact that the USA have not signed is probably the biggest setback of the convention, especially since the US is one of the largest players in terms of biopiracy and GMO technology. More than 90 percent of all GMO plants, largely soy and corn, grow in only four countries: the USA, Canada, Argentina and China (Goethe 2004:

125). The conviction that WTO-rules on intellectual property rights (the TRIPS agreement) must prevail over bio-safety agreements has resulted in the US refusing to partake, as the convention regulates the application and commercialization of biotechnologies. Overall, the convention puts forth few specific obligations and has no provisions for enforcement or observation, and the question of biopiracy is insufficiently addressed (Birnie, Boyle, Redgwell 2009). GMO exporters are, however, required to provide detailed information by the Cartagena Protocol, a supplement to the Convention on Biological Diversity; and the Nagoya Protocol could become an instrument against bio-piracy, but it is unclear when and if this protocol will come into force, as an insufficient number of countries have ratified it so far.

Although biopiracy is most commonly associated with the pharmaceutical dimensions of the TRIPS agreement (Eimer, Schüren 2013), given the state of hybrid seeds and GMOs, it is increasingly a pressing agricultural issue: Navdanya, a civil society organization founded by Vandana Shiva, has issued a report on biopiracy and uncovered 5,000 'biopiracy patents' – the tip of the iceberg of the biopiracy surge triggered by TRIPS. Among these are 530 patents taken on climate resilient crops, by which MNCs made draught, flood and salt resistant traits of seeds which were developed by farmers' traditional knowledge over many generations their own. (Navdanya 2009). The TRIPS agreement facilitates the patenting not only of biological, microbiological and non-biological processes for the production of life forms, but also of all life forms themselves, including animals and plants and their parts, gene sequences, and micro-organisms. This constitutes a severe threat to the livelihoods of farmers in the Global South, and curtails farmers' longstanding right to save and exchange seeds (Wichterich 2004; Navdanya n.Y.; Meienberg 2004: 134; Perfecto, Vandermeer 2009: 172ff) (see Chapters 6.3.1 and 6.3.5).

Additionally, as discussed in Chapters 6.2.3 and 7.3.6, GMOs have complex negative effects on human and animal health, on the environment and biodiversity, and on the sovereignty of states opposed to GMO technology via the natural contamination of non-GM fields even across borders. The social impact of dependency on GMO crops must also not be underestimated: since GMO crops are patented, the patent

holder can set monopoly prices, in addition to the fact that GMO crops cannot be reproduced but have to be re-bought after every harvest. This leads to a severe dependency of farmers once they start cultivating GM crops. The Indian suicide waves mentioned above were a result of this dependency: the one of 1998 in Andhra Pradesh was caused by a failed harvest of hybrid cotton. The farmers were heavily indebted, as the hybrid seed required them to invest 12.000 rupees per hectare in pesticides per harvest. (Shiva 2004: 136). Berry (2011) sees in biotechnology as agribusiness the attempt to eliminate the ecological and cultural “givens”: natural fertility, solar energy, local genetics, agronomic weed and pest control, animal husbandry – and now the entire genetic commonwealth. The aim, in short, is to require every farmer to come to a corporate supplier for every need” (Berry 2011: 45). The most commercial GMO crops are Bt and RoundUp Ready varieties, which are neither drought resistant nor nutritionally fortified, in spite of the industry’s insistence that they are necessary to cure Africa’s hunger problem (Maina, Anderson; Pschorn-Strauss 2011: 136; Shiva 2009: 45). In Africa GMO technology was first approved by South Africa in 1997. The country has grown Bt maize, Bt cotton and Roundup-Ready soy since then. Since then also Burkina Faso (Bt cotton) and Egypt (Bt cotton and Bt maize) have approved and commercially grown GMO crops. Additionally, with the help of heavy industry lobbying pressures, trials have been started all over Africa (for an overview see Maina, Anderson; Pschorn-Strauss 2011). This has had negative impacts on the well-being of African farmers, their health, surrounding environment and business outlook: the cultivation of GM crops, for instance, caused 3,000 organic cotton farmers in Burkina Faso to lose their certification status due to contamination with GM genes. The crops have suffered serious pest attacks and yielded less output than expected, because farmers were incorrectly told the crops would not need fertilizers. The lesson from India regarding dependency of farmers on corporations has also not been learned: while South African GMO farmers enjoyed income levels above average for the first couple of years due to high levels of support regarding infrastructure, market access, irrigation and extension services, they are now heavily indebted (Maina, Anderson; Pschorn-Strauss 2011: 138ff).

The WTO-plus provisions of the EPAs regarding investment will facilitate and further strengthen the process of land grabbing in Africa. Of course, this relatively new, but fairly complex phenomenon cannot be attributed to the EPAs, or the global trade regime alone; instead, it has to be seen in the context of neoliberal land-reform around the globe, especially with the World Bank pushing forward the commodification of land by promoting and even financing the titling of land, ownership mapping, land registries and land market facilitation (Rosset 2010: 193). This privatization process erodes public usage rights associated with the commons, and thus favors the wealthy over the poor (Alden Wily 2011; Rosset 2010). Inherent in this market-based approach is a depoliticization of landlessness, “which by its nature can only be resolved by structural changes that can only be addressed in the sphere of politics, rather than the market” (Rosset 2010: 193).

Land grabbing is based on this privatization of land in combination with the increased accessibility by corporations and investors – a result of the liberalized international trade regime, including the WTO-plus provisions of the EPAs. The extent of the global land grabbing is difficult to estimate, as most deals are rather in-transparent, and land grabbing databanks that have popped up over the past years such as [www.landmatrix.org](http://www.landmatrix.org) offer a scary insight into the extent of the global land grabbing, but are not a 100 percent accurate. According to estimations, however, by 2010 40 million hectares have been sold or leased globally, half of which are African lands (GRAIN 2011: 140). Figure 8 depicts the African countries most affected by the land grab, but again, this map does not paint a complete picture as it only indicates large-scale land grabs for agriculture (not for forestry, mining, tourism or energy) and only those that were concluded between 2006 and 2011 (GRAIN 23.02.2012).

Figure 8: Agricultural Landgrabbing in Africa, 2006-2011



Source: Mangla/Circle of Blue (2012)

The actors behind are not only traditional agribusiness or plantation companies such as Unilever or Dole, the finance industry (hedge funds, pension funds, private equity funds and big banks) is increasingly investing in foreign land (in spite of the lack of agricultural experience), effectively moving land ‘from rich to richer’. But they don’t just invest in land, they follow the idea of the Green Revolution: inject a technology-mix, lay down large-scale infrastructure and with the right management skills and sufficient capital, ‘below-potential’ farms are turned into profitable, large-scale agribusiness operations (ibid: 141f) But they don’t do so in order to “solve world hunger or eliminate rural poverty. They want profit, pure and simple” (ibid: 142) Thereby the corporate investors rid local communities of access to food production resources, create food insecurities and further consolidate the process of power concentration over the global food supply in the headquarters of a handful of corporations worldwide.

### Focus: Land Grabbing for Agrofuel Production

Land grabbing in Africa is largely the result of increased demand for bioethanol, i.e. agrofuels. The dangers of intensive agrofuel production lie in the amplification of the pressure on natural resources, agriculture and food production already exerted by population growth, climate change and income growth.

Some of the problems arising from agrofuel production are water and soil erosion; loss of agri-biodiversity; exclusion of smallholders and especially women, arising from lack of access to capital, technology and markets and different gender roles; and increased food insecurity in terms of availability, accessibility and stability of food supply as the production resources are diverted towards agrofuel production (Rossi, Lambrou/FAO 2009: 5-10) Agrofuels, for instance, were accountable for 30 percent of the food crisis of 2007/08 (Borras, McMichael, Scoones 2010: 585); and according to some estimations, global agrofuel targets “could raise food prices an additional 76 percent [of the 2010 level] by 2020, increasing the number of hungry people in the world by an estimated 600 million” (Tokar 2010: 126).

Additionally, agrofuel producers are generally large companies due to significant economies of scale. However, poverty reduction and employment opportunities are rather associated with smaller firms and, additionally, the few jobs that are created through large-scale agrofuel production are precarious and even child and forced labor cannot be excluded (ibid: 12ff)

The investments in this sector are not transparent, and there is a lack of a coherent regulation strategy, which is likely to result in long-term negative consequences (Molony, Smith 2010: 493f). Regarding the case of Tanzania, a good example for agrofuel-based land grabbing in Africa, “the emerging picture is one of investment for export with seemingly no requirements on companies to maximize value-addition within country, supply national markets, form links with local companies, adopt production models likely to maximize opportunities for poor people, or work with local communities to increase access to energy.” (Molony, Smith 2010: 494).

Among the European companies investing in land in Tanzania are Sekab BT, Felisa, Sun Biofuels and Diligent, which either produce bioethanol on their own lands after acquiring them, or source it from farmers via the outgrower system. Especially the British Sun Biofuels made the headlines several times, as the company’s investment

in Kisaware district negatively impacted 10,000 people in 12 villages, forcing some of them to relocate. (Sulle, Nelson/IIED 2009: 12) Additionally, compensation payments, although regulated in the Village Land Act of 1999, are rarely high enough to allow the farmers to start alternative livelihoods, and existing rights are often, and unknown to the affected population groups, simply violated (Molony, Smith: 493). These issues arise partly from the practice of conceptualizing land as idle and uninhabited, while disregarding the fact that uninhabited does not equal unused, especially in regards of the commons and in the context of communal rights; and from the way value of land is calculated, usually simply based on the number of trees, effectively disregarding both market value and opportunity costs (Alden Wily 2011; Sulle, Nelson/IIED 2009: 46, 53).

Additional problems that arose from land deals for agrofuels in Tanzania involve confusion of institutional authority (p.e. in terms of who is actually entitled to sell or lease land), corruption, and broken promises on the part of the investors with regard to, for instance, job creation. Furthermore, compensation payments are generally only made after the transfer of the land title, and is often contingent upon the investor obtaining a credit based on this land title. (Sulle, Nelson/IIED 2009: 48, 50f, 54).

As a response to some of these issues, the Tanzanian government now promotes the outgrower system. It is practiced by many investors in Africa today, and originally was a response to growing criticism of forced evictions and other negative aspects of land grabbing that arose from within the network of land grabbing proponents. It is an alternative to the purchase or lease of land and production by investors themselves, which offers farmers the possibility to stay on their land, and at the same time allows them to pursue an occupation (as opposed to remaining semi-subsistence farmers). Critical voices warn of the approach though: while the firms sometimes offer seeds and fertilizers, they always have control over quantity, quality and point in time of the consignments. This expansion of market- and profit-oriented agriculture, of course, comes with all the negative consequences of the Green Revolution regarding loss of self-determination and increased vulnerability due to integration in global supply chains discussed in previous chapters. Contrary to the mainstream discourse of 'win-win' situations in land grabbing, corporate investors



reap the benefits, while the farmers are left with the risks: the corporations can pit a multitude of cheap suppliers against each other and thereby maximize on profits, without having to invest in long-term infrastructure. They furthermore don't carry the risk of insecure land use rights and don't face the danger of labor resistance, since there are no employees. The farmers on the other hand carry the risks of failed harvests, and due to the sudden integration into world markets, also the risks associated with price volatility. Additionally, food production of course has to be limited, as resources need to be freed for the production of bioethanol. Since the farmers keep their land, it is also they who suffer from the negative consequences of environmental degradation and soil erosion if the companies demand quantities the land cannot naturally provide. (Hoering 2007: 117ff). Overall, the outgrower system is certainly to be preferred over the traditional purchasing or leasing of land, but nonetheless it is merely the lesser evil of the two options, since it also constitutes an interim stage on the way to power and land concentration, and is by itself not going to prevent the displacement of Africa's peasantry by large-scale agribusiness (ibid). Another fundamental problem that the outgrower system cannot tackle is the legal necessity of turning so-called *village land* into *general land* prior to a land deal, which causes farmers to lose their customary rights to land use. This rededication of land is permanent, regardless of the time period during which the land is leased. These legal issues are not unique to Tanzania, but reflect land grabbing realities all over Africa, where the loss of the commons and customary rights negatively affect farmers' access to land and resources (Sulle, Nelson 2009: 64; Alden Wily 2011).

Besides the fact that these negative consequences should already delegitimize the African land grabbing for agrofuels, some calculations additionally doubt the presumably positive effects: the potential of agrofuels in mitigating the climate and energy crisis. They are suggested to be the green alternative to oil that will save the world's consumption societies from having to change their lifestyle in the face of environmental and climate change. But they are based on the industrial production of maize, soy, palm oil, sugar cane etc., so if the entire production, transformation and distribution process is considered, they generally produce even more greenhouse gas emissions than fossil fuels, delegitimizing their production

altogether (Borras, McMichael, Scoones 2010: 585). The agrofuel boom becomes even more absurd in the light of a study on fuels based on corn, soybeans, sunflowers, switchgrass and wood cellulose, which concluded that “every one of these products actually requires more fossil fuel energy to produce than it is able to displace” (Tokar 2010: 124).

### **8.3.6. EROSION OF PREFERENCES, LOSS OF TARIFF REVENUES AND OBSTACLES TO REGIONAL TRADE INTEGRATION**

The preferential access to the EU agricultural market, promised by the EPAs, is overestimated, considering not only the EU keeping tariffs on the so-called sensitive products, but also in the light of the heavy burden of non-tariff barriers (especially RoO and SPS regulation) put on developing countries (Echessah 2007; Hinkle, Schiff/World Bank 2004; Matthews 2002: 85f). These regulations generally favor large producers who have the necessary resources to comply with EU standards, which in effect discriminate against smallholders “due to paper- and process-based compliance systems” (FAO 2006b: 60ff). According to FAO, the EU, for instance, applies inappropriate standards considering pesticide residues that don’t take account of the available agro-chemicals in the ACP. SPS regulation furthermore creates institutional challenges regarding structural deficiencies such as the communication of new rules by the public to the private sector, and from Brussels to ACP ministries. Also, the cost of meeting RoO and SPS inspections is disproportionately high, the less developed the economy and the smaller the farm size is, as there generally is a base charge for consignments up to a certain volume, reflecting the fixed costs of inspection. In 2002, Kenya’s chrysanthemum exports for instance faced a relative tax burden of meeting the inspections of at least 16 percent, due to small consignments. This clearly puts small-scale farmers at a disadvantage, and results in macro-economic challenges as well: the diversification to new national markets and the emergence of new ACP suppliers are discouraged by the costs of meeting the SPS and RoO inspections (FAO 2006b: 64f). Anania (2010) furthermore warns that the conclusion of the Doha Round could also substantially erode preferences granted to the ACP by the EU in EPAs, based on a quantitative assessment of the banana market. Under the EPAs, ACP states would benefit from

increased access to the EU banana market, at the expense of MFN exporters. But an agreement between the EU and MFN countries to end the WTO dispute on bananas could cancel out these benefits. Heron agrees with the likely erosion of EU preferences to ACP countries as: “with respect to key agricultural commodities like bananas and sugar, [...] the EU has signalled its intention to gradually but inexorably extend the process of internal and external liberalisation to the point where sectoral preferences to the [EPA signatories] will be practically worthless” (Heron 2011: 344).

In addition to the erosion of preferences gained through, or prior to the EPA conclusion by EU regulations on SPS and RoO, as well as potentially detrimental (for the ACP) outcomes of the WTO Doha negotiations, the ACP lose much needed tariff revenues when entering an EPA. According to Küblböck and Forster, the African ACP states will annually lose 359 million US-Dollars in trade revenues in the first years after the conclusion of the EPAs (Küblböck, Forster 2008: 8). Given the high share of the informal sector in African economies, this poses a particularly difficult problem regarding the reform of tax revenue systems, which will be necessary even if only the status-quo is to be maintained, let alone if the necessary investments in infrastructure and education are to be met. From this point of view the EPAs therefore pose a threat to the MDGs (ibid). Fontagné, Labord and Mitaritonna (2010) forecast the ACP to lose on average 71 percent of tariff revenues on EU imports in the long run. They base this number on the assumption of 90 percent of the EU-ACP trade to be fully liberalized; a reasonable assumption considering the commitments of interim EPAs and the CARIFORUM EPA, in which the EU interpreted the WTO formulation ‘substantially all the trade’ as meaning 91 percent. Togo for instance relies on tariff revenues for a fifth of the government’s income, due to the EPA, the collected duties are however forecast to decline by more than 40 percent; Côte d’Ivoire’s revenues from import tariffs will decrease even by 44 percent, while they currently make up 28 percent of government income (ibid: 206). While the EPAs will increase ACP’s exports to the EU by 10 percent on average and therefore impact the ACP’s trade balance positively at least in the short-term, their long-term effect on development will therefore largely depend on the capacity of each ACP EPA-signatory to reorganize their fiscal base (ibid).

Since the WTO MFN rule applies to the EPAs as they involve a developed party to the agreement, the LDCs are required to extend any preferences given to other trading partners to the EU (Dicaprio, Trommer 2010: 1616). This results in a loss of policy space among states within the same region, which could otherwise introduce preferential arrangements among themselves and substitute portions of the EU imports via regional trade. This could even result in EU-ACP trade being less restricted than ACP internal trade, in other words, ACP countries may have more obligations to open their markets for European goods than those coming from across their immediate neighbors. (FAO 2006b: 21b; Morrison, Sarris/FAO 2007: 30f) Studies of the likely impacts of the SADC EPA, for instance, conclude that the EU is promoting policies which pose a threat to the coherence of regional integration in southern Africa (Hurt 2012). This hindering of the infant regional integration efforts in southern Africa is also among the reasons why South Africa declined to sign an interim EPA. Currently, southern African states have signed member specific EPAs with the exception of South Africa; this will create institutional challenges and interfere with the SACU (Southern African Customs Union) external common tariff and revenue pool. Eventually this could require a renegotiation of the SACU agreement, with “hard to quantify but most definitely high” (Mbatha, Charalambides 2008: 410) costs due to the weakening of regional trade institutions. South Africa additionally refused to sign, as the EPA would undermine the country’s trade-based industrial policy. (ibid) Similar results were found for West Africa: the ECOWAS (Economic Community of West African States) contested that the EPA agenda is inconsistent with regional integration processes, because countries within the same region liberalize different product groups in their individual commitments to the EU – a situation which creates new barriers for intra-regional trade (Küblböck, Forster 2008: 6). This creates trade diversion, i.e. regional trade will potentially be substituted by trade with the EU. It is, for instance, estimated that 17 percent of Ghana’s ECOWAS imports will be substituted due to the EPA (ibid: 7).

### 8.3.7. THE INEQUITY OF TREATING UNEQUAL PARTNERS EQUALLY

WTO SDT rules include 145 separate considerations for developing countries and an additional 22 for LDCs (Dicaprio, Trommer 2010: 1614). As discussed in chapter 8.2.4, however, WTO legislation does not ensure that SDT provisions are applied in all FTAs, but only within South-South cooperation (FAO 2006b: 12, 21). But this “reciprocity requirement of the WTO for any trade agreement involving at least one developed country partner” (Dicaprio, Trommer 2010: 1615) puts the developmental needs of developing countries, and especially those of LDCs in danger as they are now bound to eliminate “duties and other restrictive regulations of commerce [on] substantially all the trade” according to Article XXIV of the GATT, the rule on RTAs (FAO 2006b: 17). Judging from the CARIFORUM EPA, the only comprehensive one concluded yet, the EU interprets this as the ACP states having to liberalize 91 percent of the tariff lines within 25 years (Dicaprio, Trommer 2010: 1616). Dicaprio and Trommer find that the CARIFORUM EPA “broadly preserves the SDT provisions that apply to all developing countries. However [...], there is significant negative modification to those provisions that apply only to LDCs” (ibid: 1614). The EPA, therefore, has a clearly detrimental effect on the LDCs, as all trading partners are treated as equally strong in economic terms, effectively removing the idea of SDT according to level of economic development. Herein lies the novelty of the EPAs compared to FTAs before: in the expansion of liberalization requirements to LDCs (ibid: 1616-1624). As a result, the LDCs will carry the heaviest burden of the EPAs, because they stand little to gain from them, due to the preferential access enjoyed under the EBA initiative discussed above, but have to make the highest concessions relative to their economic strength.

The geographic divide between losers and winners of the EPAs is clear: in 2005, UNECA, the UN Economic Commission for Africa, estimated the economic effects of the ECOWAS EPA, and the numbers cast doubt on developmental discourse underlying the agreements, as the winners of the EPA are clearly situated in the EU, while the losers are in Africa: the report estimated that France, Great Britain and Germany would gain 495, 318 and 291 Million USD respectively, while Ghana will lose 23 million USD, Nigeria 4.5 million, and Burkina Faso, Benin and Côte d’Ivoire 2.9, 2.7 and 1.8 million USD respectively (Küblböck, Forster 2008: 8).

Why then do ACP countries, and especially the LDCs among them, sign EPAs in the first place? Based on assumptions of rational choice, perfect information and relations void of power asymmetries, mainstream economic theory would conclude that these countries must benefit; otherwise they wouldn't sign. Laroche Dupraz and Postolle (2013) argue this might be true as African governments show an 'urban bias', and promote the well-being of the urban population rather than dealing with the marginalization of the rural poor. Certainly African states and their populations are not homogenous and there are of course power asymmetries within the countries in question. But political economists warn that positive short-term effects from increased market access are unlikely to outweigh the negative long-term effects on development, and that the reasons why developing countries sign FTAs such as the EPAs are not clear cut; instead, they paint a complex picture of economic constraints and power asymmetries on an international level.

Heron (2011), for instance, analyzes the motives of Caribbean states in signing the first comprehensive EPA, which even went beyond WTO-conformity in including the much contested Singapore-Issues, i.e. WTO-plus rules on services, investment, intellectual property and government procurement (Dicaprio, Trommer 2010: 1618), when all the other ACP countries so far have at most concluded goods-only interim agreements. One of the main reasons for the states in question to have signed the EPA is not, as one might think, better access to EU markets, but actually the defense of existing preferences, i.e. the "objective of binding the current level of EU preferences available through the Cotonou Agreement, and safeguarding these preferences from further WTO litigation" (Heron 2011: 344). Manger and Schadlen (2013) refer to this with the new concept of political trade dependence: as unilateral GSP preferences are frequently taken away, developing countries are pressured to sign North-South FTAs to ensure their future preferential access. Heron, however, casts doubts on the success of this endeavor as the preferences granted under the EPAs are likely to be eroded by the EU's future liberalization commitments with other countries, which especially affects the CARIFORUMs main export products (see Section 8.3.5). The main justification for signing more than a goods-only EPA is the intention of improving market access for non-traditional Caribbean exports as a

motor for economic diversification, and reducing the dependence on agricultural commodities exports. Again, Heron doubts this aim was achieved, and instead finds that “the EPA is more likely to achieve the precise opposite [because the] agreement mainly consists of improving market access, even if only marginally, for traditional commodities like rum, beef, and dairy products, while exposing the region to a greater level of import competition for higher-value added industrial and other processed goods” (ibid: 345). Additionally, the EPA rids the region of the policy tools needed to implement a successful diversification strategy. The EPA is therefore actually more likely to reinforce the Caribbean’s detrimental terms of trade, than to increase Caribbean non-traditional exports to the EU. Additionally, the CARIFORUM might have signed the EPA first in the belief that showing willingness to sign a comprehensive agreement and to be the first ACP group to do so would be key in ensuring important concessions from the EU regarding product exemptions, delayed implementation schedules and especially preferential access to development finance. (ibid: 345-349) In sum, the CARIFORUM EPA constitutes a trade off between immediate economic benefits that are small and short-term at best, and the long-term costs of losing the policy space necessary to employ the trade and industrial policies pursued by today’s developed countries (ibid: 28). The EPA therefore “constituted a political bargain forged in a highly asymmetrical context, wherein the EU’s market and financial power was amplified by the vulnerabilities, competitive dynamics and interregional rivalries inside the ACP” (Heron 2011: 350).

Mahadevan and Asafu-Ajaye (2010) found similar results for the case of Fiji, which had an incentive to sign the EPA in order not to lose EU sugar preferences. Like in the CARIFORUM case, the EPA was therefore signed first and foremost due to ‘political trade dependence’, and also similar to the CARIFORUM case, while the EPA leads to some growth in real output, it depresses rural employment and non-sugar agricultural exports, thereby further increasing commodity dependence on only one commodity with adverse terms of trade (Mahadevan, Asafu-Ajaye 2010).

This pattern appears to be the reason behind African states signing EPAs as well: Côte d’Ivoire and Ghana both signed bilateral interim EPAs in order to not lose their preferential access to the EU market. Nigeria on the other hand didn’t sign an EPA and therefore had to fall back on less preferential GSP terms with much higher

tariffs, which soon negatively impacted Nigeria's cocoa exports. (Küblböck, Forster 2008: 4). Mbatha and Charalambides's (2008) findings on the case of Botswana, which signed an interim EPA in 2009, support this analysis. While it is again argued that the EPA is likely to have far-reaching, long-term negative impacts on regional economic development and institutional integration within SADC and SACU, the authors find that since Botswana would have fallen back on MFN tariffs, the country was sensible in signing the EPA. The case of Botswana is specifically interesting, since, had it not signed the EPA, it would not fall back on the Cotonou GSP scheme because – even though the country would be eligible as a middle income developing country – the GSP excludes beef and beef products, the second most important export commodity for Botswana (ibid: 421). The country would therefore have faced tariff increases from the preferential 5 percent under Cotonou to MFN tariffs ranging from 70 to 140 percent, under which conditions Botswana could not continue to export beef into the EU (ibid: 421f). In conclusion, therefore, based on “the predictable immediate gains from the new EPA to Botswana exporters, it makes sense that Botswana signed the SADC EPA with EU to avoid facing the MFN [...] tariffs” (Mbatha, Charalambides 2008: 424), however, “it is most likely that a high level of adjustment costs will be incurred in future. These are theoretically estimated as US\$ 359 million per year during the first years of liberalization” (ibid: 426).

Overall, there is sufficient evidence to say that the ACP sign EPAs in order not to lose the preferences they currently enjoy. While this results in some positive economic short-term effects, the EPAs are likely to incur high adjustment costs in the future and have negative impacts on the socio-economic and institutional development in the respective regions. In conclusion, therefore, ACP countries do not sign EPAs because of any beneficial development opportunities associated with them, but because they constitute the ‘lesser evil’ in the short-term.



## 9. CONCLUSION: CONTOURS OF AN ALTERNATIVE FOOD REGIME

This thesis has elaborated that the EPAs lead to the liberalization of agricultural trade and of the agricultural sectors of African economies, which – in combination with the processes connected to the Green Revolution in Africa and the continued subsidization of EU farmers – lead to increased dumping and a power concentration with agribusiness in Africa. Overall, these linkages result in a loss of food sovereignty and a wide range of social, economic, political, cultural and ecological concerns connected to it. In other words, this triad of neoliberal phenomena disadvantages the politically and economically weaker governments of the Global South and has detrimental effects on development, as they constitute severe obstacles to the realization of food sovereignty and the right to food. As these policies have been causes of recurring food crises, it appears absurd that neoliberal discourse proposes their continuation and intensification as the solution to hunger.

### Linking Food Sovereignty and Agroecology

However, “crisis lends credibility” (McMichael 2013: 21): as the neoliberal expansion of the industrial agricultural model reaches its boundaries, countermovements gain strength, and many proponents of the concept of food sovereignty as a socially and ecologically just and sustainable alternative regard the food and energy crises as an opportunity to transform agricultural systems along the lines of the concept of the multifunctionality of agriculture (see Section 4.1, Table 1). In order to seize this opportunity, clearly food movements around the globe must unite (Holt-Giménez 2011) and promote a paradigm shift towards an agricultural system that is centered not around the aim of profit maximization but around a concern for people, their livelihoods and well-being. Kirschenmann, furthermore, argues that an ethical paradigm shift away from the commodification of nature towards an ecological conscience is required, which recognizes the intrinsic value of life but can additionally be supported by a utilitarian ethic stemming from the “practical necessity of conserving our soil, water, climate, human and social resources in order to feed our human population (Kirschenmann 2010: 237). These values are

## Conclusion: Contours of an Alternative Food Regime

characteristic of smallholder agroecological farming (Via Campesina 2011b), and Holt-Giménez and Altieri (2013) argue that the building of a strong countermovement to the neoliberal food regime depends on the successful forging of strategic alliances between food sovereignty and agroecology. The latter is a method that “depends for its success on farmer innovations which adapt the techniques optimally to local conditions” (Mencher 2013: 19).

Recalling the food regime framework presented in Section 4.3 (Table 3), these linkages between food sovereignty and agroecology are, however, not a given: “Partly due to its academic and NGO based history, agroecology has largely resided within the progressive trend. As such, agroecology is exposed to financial and political cooptation from the food regime’s reformist projects. [...] Radical, movement based agroecology is shunned by the food regime in favor of depoliticized and project based agroecology that is easily subsumed under Green Revolution agendas.” (Holt-Giménez, Altieri 2013: 97) Thus, while agroecological farming methods carry great potential to be a true alternative to the corporate food regime, this potential must be safeguarded from the ability of the capitalist paradigm to silence critique by mainstreaming perverted versions of alternative concepts.

Nonetheless, the value of smallholder agroecological farming is increasingly recognized by the international academic community, spearheaded by the IAASTD report (IAASTD 2009). The IAASTD, the UN’s International Assessment of Agricultural Knowledge, Science, and Technology for Development, was authored by over 400 scientists and development experts from more than 80 countries, and was co-sponsored by five UN agencies (FAO, UNDP, UNEP, UNESCO, WHO), the World Bank, and the Global Environmental Facility. The report insists that there is an “urgent need to increase and strengthen further research and adoption of locally appropriate and democratically controlled agroecological methods of production, relying on local expertise, local germ plasm, and farmer-managed local seed systems (Holt-Giménez 2010: 214). This conclusion was i.a. strengthened by a more recent UNCTAD report, calling for a “paradigm shift in agricultural development: from a ‘green revolution’ to an ‘ecological intensification’ approach” (UNCTAD 2013: i).

### Benefits of Smallholder Agroecology

An agroecological understanding of agriculture conceptualizes the farm as a relatively enclosed system, where the use of external inputs is minimized, and modern technology is used only selectively, by employing mixed agriculture, i.e. by making use of the natural synergisms between plant diversity as well as of the integration of livestock and plant cultivation. (Hansi 2009: 62f). Its principles are: a) the recycling of biomass and optimization of nutrient availability, minimizing the use of non-renewable energies; b) the management of organic matter and enhancement of soil biotic activity, ensuring its long-term health and fertility; c) the minimization of resource pollution and loss by microclimate management, water harvesting and increased soil cover; d) genetic diversification of the agrosystem so as to safeguard agrobiodiversity; and e) the enhancement of natural synergies among agrobiodiversity components (Via Campesina 2010a: 2f; UNCTAD 2013; Hansi 2009: 63). In contrast to the Green Revolution approach, agroecology is therefore based on a change in the *management* of plants, soil, water and nutrients, while the former relies on changing the *genetic* characteristics of plants (Mencher 2013: 18f). Additionally, the Green Revolution is based on increasing use of manufactured external inputs, while agroecology relies on a number of resource-conserving technologies (i.a. integrated pest and nutrient management, conservation tillage, cover crops, crop rotation, agroforestry, water harvesting, and livestock re-integration) (Pretty 2010: 289f; Pimentel 2010).

There are multiple environmental benefits to this approach, as the “adoption of these practices would lead to an approximate 50 percent reduction of energy inputs in agricultural production” (Pimentel 2010: 252), and at the same time conserve and restore natural ecosystems by conserving natural resources, increasing agrobiodiversity, limiting erosion and pollution, and increasing water retention and organic matter in soils, leading to more carbon sequestration (ibid; Pretty 2010: 295; Via Campesina 2010a: 6f).

Agroecological smallholder farming is also superior to the Green Revolution approach regarding socio-economic implications. As the concept is oriented towards

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a holistic, i.e. socially just and ecologically responsible value chain, it supports local and regional production and distribution systems, species-appropriate animal husbandry, and the preservation of indigenous knowledge (Hansi 2009: 64). Reported improvements to communities and human capabilities include more and stronger social organization at the local level, higher independence of supply industries and resilience to price volatility and economic shocks, new norms for managing collective natural resources, higher resilience to climate change, better connectedness to external policy institutions, more local capacity to experiment and solve problems, increased self-esteem in formerly marginalized groups, increased status of women, more local employment, reversed migration and less pressure on urban areas, better child health and nutrition and beneficial health effects overall, both on humans and animals (Altieri 2010; Pretty 2010: 295f; Hansi 2009: 61; Via Campesina 2010a: 7f). In summary, smallholder agroecological farming builds up natural, human, social, financial, and physical capital in rural communities (Norberg-Hodge, Merrifield, Gorelick 2007; Altieri 2010: 263).

A global shift towards smallholder agroecology appears even more necessary, considering the human right to food in the context of demographers forecasting 9 billion people inhabiting the planet by 2050: “As the world’s population continues to grow, redistributing farmland may become central to feeding the planet, especially when large-scale agriculture devotes itself to feeding cars through growing agrofuel feedstocks.” (Altieri 2010: 259). But there are other aspects indicating the need for land reform to safeguard the right to food, besides the fact that industrial agriculture tends to divert resources away from food production: agroecology is also more productive than industrial farming methods, which only appear to be efficient if the complex harmful side-effects, which were discussed in this thesis, are ignored (Pretty 2010: 284). Agroecological methods raise the productivity of land, labor, water and capital (Mencher 2013: 19). A compilation of evidence on the efficiency of sustainable farming practices by Pretty and Hine (2001) reported that 4.4 million farms were able to increase their agricultural output by 73 percent on average through switching to sustainable agriculture (even 150 percent in the case of potatoes, sweet potatoes and cassava). The report furthermore indicated that the

increase in productivity was negatively correlated with farm size, showing that small-scale agriculture bears the greatest potential to feed 9 billion people. Examples can be found all over the world. In Brazil, for instance, peasants hold less than a quarter of farm land, but not only do they make up 85 percent of all farms and employ three times as many people as does agribusiness (with reported cases of starvation wages and even slavery), they also generate 40 percent of total agricultural value produced in Brazil, even 87 percent of all cassava, 70 percent of beans and 46 percent of maize (Via Campesina 2010a: 4).

### **The Required Political Framework**

The transition towards agroecological smallholder farming requires not only a strong countermovement based on an ethical paradigm shift and strategic alliances between food movements, farmer organizations and agroecology, but is crucially dependent upon supportive multi-level policies.

An overarching framework conducive to establishing food sovereignty and implementing the human right to food would be based on the findings of the IAASTD report (2009), international environmental treaties, the UN Declaration on Human Rights (UN General Assembly 1948) and the principles of democracy and solidarity.

In this context, Via Campesina is promoting the international recognition of the rights of peasants, based on a declaration the movement drafted in 2009. It includes the rights to life and to an adequate standard of living, to land, to seeds and traditional agricultural knowledge and practice, to means of agricultural production, to information and agricultural technology, the freedom to determine price and market for agricultural production, the right to the protection of agriculture values, the right to biological diversity and to preserve the environment, and the freedoms of association, opinion and expression, as well as the right to have access to justice (Via Campesina 2009a). Based on this declaration Via Campesina called for an international convention on these rights (similarly to the UN Conventions on the rights of indigenous peoples, women and migrant workers), which bore fruit in 2013, when an open-ended working group on a UN Declaration of the Rights of Peasants and Other People Working in Rural Areas held a first session in July (OHCHR 2013).

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Additionally to the implementation of these positive rights, however, Schanbacher (2013) argues for the recognition of negative rights connected to the human right to food: “Rather than contextualizing access to food as a failure on the part of affluent countries to provide a framework for securing the right to food, affluent countries (and their citizens) should recognize how we are *actively exacerbating* global hunger and malnutrition [by] creating and perpetuating any institutional order that denies global farmers the *freedom from* poverty, hunger and malnutrition.” (Schanbacher 2013: 1). This understanding of a rights-based approach is in line with the call for increased self-sufficiency (as opposed to self-reliance) regarding food production and the analysis of the negative effects of the neoliberal trade regime and the agricultural policies in the Global North discussed in this thesis. It is about “our negative duty to not impose upon global farmers institutions and social structures that deny them the *freedom to chose* how they wish to organize their own local communities’ efforts to achieve food self-sufficiency” (ibid).

Therefore, in order to create the necessary policy space to safeguard the human right to food around the world, changes in global as well as national governance are required. The policy recommendations most often prevalent in the non-orthodox literature, are listed here:

On a global scale, policy makers need to:

- Ban financial speculation in food markets;
- Stabilize commodity prices, coordinate export quantities, and introduce minimum prices for tropical commodities;
- Regulate the production of agrofuels;
- Establish trade rules that give countries enough policy space to protect domestic markets from dumping and import surges and ban direct and indirect export subsidization;
- Ban biopiracy and the patenting of traditional knowledge;
- Reject private-sector-led investment that stands in contrast to the human rights framework and prevent agribusiness from exploiting low prices and unequal competition

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- Support a stronger role of relevant UN entities such as the UN Special Rapporteur on the Right to Food;
- Create a UN Commission to reverse excessive horizontal and vertical concentration in agribusiness;
- And increase financial assistance to developing countries and cancel their debts (Ruggie 2008; Weingärtner, Trentmann 2011; Via Campesina 2010b: 16; Anderson 2009 14; Choplin, Strickner, Trouvé 2011: 66-102; Strickner 2009: 232ff).

Regarding national governance, governments will be required to:

- Establish the right to food in national constitutions;
- Endorse smallholder agroecological practices and strengthen local markets, promote decentralized sustainable supply chains, and invest in adequate infrastructure, technology and related public services;
- Establish farmer-owned or publicly managed food reserves and seed exchange networks, safeguard the commons and strengthen collective rights;
- Regulate land grabbing and implement land reforms beneficial to peasants as opposed to agribusiness;
- Dismantle national monopolies and oligopolies and close loopholes in corporate tax law;
- Remove subsidies that primarily benefit agribusiness;
- Invest in interdisciplinary agricultural research;
- Establish democratic decision-making institutions governing food and agricultural policy, and include civil society organizations and food movements;
- And forge regional alliances, support common goals and coordinate strategies; (Ruggie 2008, Weingärtner, Trentmann 2011; Herren 2004: 64ff; Via Campesina 2010b: 16; Pérez-Vitoria 2005: 196ff; Alden Wily 2011; Murphy 2010: 115f; Strickner 2009: 232ff)

Concerning corporate governance, John Ruggie, the UN Secretary-General's Special Representative for Business and Human Rights, furthermore calls on MNCs to distribute profits equitably along the value chain, and to provide transparent information about the distribution of profits; to provide products to

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consumers at fair prices that reflect the full costs of production; to meet international standards on labor and environmental protection; and to respect the right to food (Ruggie 2008). And, of course, responsibility falls on individuals as well: to consume responsibly (directly from farmers, regional, seasonal, organic, fair trade...); to reduce meat and fish/seafood consumption; to support food movements and local initiatives (foodcoops, community supported agriculture (CSA), urban gardening...), and to engage politically and motivate others (Weingärtner, Trentmann 2011).

Regarding the EU CAP, the goal of self-sufficiency first envisioned with the creation of the CAP was legitimate, so were the instruments applied to reach this objective. However, the current structure of the CAP instruments doesn't serve this purpose of ensuring food security and self-sufficiency any longer, and the mechanisms have therefore lost legitimacy. Today CAP mechanisms should instead be based on the following goals: securing access to healthy food for all; fair prices for consumers and incomes for farmers; conservation of natural resources; raising employment in rural areas; supporting farmer agriculture (as opposed to industrial agriculture and agribusiness); regional or local embedding of the food processing and distribution sector; diversity of products and methods; and solidarity and cooperation with other regions of the world (Choplin, Strickner, Trouvé 2011: 109). Prices should reflect production costs to allow for the discontinuation of the current direct payments; and both prices and quantities need to be stabilized at a level that ensures fair farmers' incomes and affordable prices for consumers, as excessive price volatility endangers small-scale farmers' livelihoods. This requires a stabilization of supply that discourages overproduction (see Choplin, Strickner, Trouvé 2011: 108-116 on specific instruments; Fritz 2011: 37), a ban on all direct and indirect export subsidies, as well as a decrease of the EU's import dependency on feedstuffs, especially soyfeed, which is a precondition for the dumping of meat and dairy products (Fritz 2011: 78; Choplin, Strickner, Trouvé 2011: 15-18). This necessary shift is, however, currently threatened by the much-contested TTIP



(Transatlantic Trade and Investment Partnership) negotiations between the US and the EU (negotiations started in July 2013).

Clearly, alternatives to the EPAs as pursued by the EU must be found as well. The two WTO-compatible alternatives to the EPAs are extensions of the GSP or the EBA initiative. (Groth, Kneifel 2007: 68). According to Perez (2006), the solution most beneficial to the ACP states in terms of national welfare, as well as regional trade, would be the extension of a GSP-plus scheme to all ACPs instead of negotiating EPAs. Such a GSP-plus framework could extend the duty-free preferences available under GSP to the 250 tariff lines on the most sensitive ACP exports to the EU. Overall, extensive exclusion lists (i.e. lists of the so-called 'special' and 'sensitive' products) are necessary (Sharma 2009: 14; Echessah 2007: 534). Additionally, EU RoO and SPS need to be simplified (Hinkle, Schiff/World Bank 2004: 1323; Echessah 2007: 533). This thesis highlights the hypocrisy of the development discourse surrounding the EPAs, a GSP-plus scheme on the other hand would not automatically imply negative developmental effects as the GSP is non-reciprocal. Overall, trade agreements between unequal partners conducive to development are non-reciprocal, protect and promote national and regional markets and producers, provide the required policy space to follow own development trajectories, do not push for liberalization in either goods nor services, resist privatization pressures in the context of intellectual property, and do not include the WTO-plus or Singapore issues (Groth, Kneifel 2007: 78, 83f). The EPAs, and FTAs in general, do not follow these principles; instead, they can be seen as EU instruments for the hegemonic implementation of neoliberal strategies, while the international trade regime and the WTO liberalization logic serve the EU to legitimize them. A revision of the WTO AoA is therefore also required in order to establish policy space conducive to food sovereignty; an option would be to implement a 'development box' as has been suggested by a group of developing countries. Additionally the TRIPS agreement needs to be revised and efforts to condemn biopiracy strengthened. Overall, multilateral trade rules need to ensure the survival of domestic food production. (Strickner 2009: 233f)

In conclusion, this thesis has shown that the protection of domestic agricultural markets is a global necessity, but the right to food sovereignty has to go hand in hand with the duty to show solidarity and a ban on dumping (as initially envisioned by the GATT agreement). Food Sovereignty is, however, not about autarky; on the contrary, the uneven population densities and distribution of arable land around the globe make international trade a necessity (Choplin, Strickner, Trouvé 2011: 98f):

“For most countries, trade in agriculture is necessary to balance supply with demand. Few countries are entirely self-sufficient in all the foods their people want and almost every country imports and exports at least some food. Trade is not, however, an end in itself. It is a tool that needs to be regulated to meet the goals of individual countries. It is important not to let trade rules dictate agricultural policy – trade is not a proxy for development. (Murphy 2010: 113f)

While free trade can ensue positive results to all partners (depending on other policies accompanying the free trade arrangement), FTAs between unequal partners in terms of economic and political strength, have increased the income and wealth gap between the Global North and South and countered development efforts (ibid). Regarding agriculture, at least basic foodstuffs have to be excluded from FTAs, as food is not a commodity like any other. Trade in foodstuffs should therefore only be complementary, but never a substitution for national food production. (Pérez-Vitoria 2005: 148; Bové, Dufour 2011: 222; Hansen-Kuhn 2011; Binswanger 2009: 52-59). After all, the “human right to food is not just about putting food in people’s mouths [...]. It is about ensuring that people have meaningful choices on how to live their lives, both as individuals and in community with one other.” (Murphy 2010: 115)

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*[All URLs have been revisited and work as of January 18, 2014]*

### A. ENGLISH SUMMARY

Recalling the global food crisis in 2007/08, this thesis seeks to shed light on the complex linkage of three trends and their implications for the human right to food and other dimensions of food sovereignty from a food regime perspective: the consolidation of the neoliberal international trade regime, persisting large inequalities in government support for domestic agricultural producers between so-called developed and developing countries, and increasing industrialization pressures on agricultural systems in developing countries.

Based on a critical realist ontology and epistemology, these linkages are examined in two ways, following an introduction into the principles of food sovereignty:

In a first step, the thesis confronts the orthodox, neoclassical understanding of free trade, subsidization and industrialization of agriculture with perspectives of political economy, illuminating their social, political, economic, cultural and ecological effects in general terms. In a second step, these linkages and effects are discussed empirically on the basis of

- the subsidization scheme of the EU CAP (Common Agricultural Policy),
- the industrialization pressures arising from the AGRA network (Alliance for a Green Revolution in Africa),
- and the economic liberalization processes connected to the EPAs (Economic Partnership Agreements), free trade agreements between the EU and the ACP states currently under negotiation.

The findings show that political economic theory is better suited to explain and predict the effects on food security and sovereignty in developing countries than economic orthodoxy: agricultural subsidization in the Global North leads to dumping, and thereby the displacement of smallholders in the so-called developing countries. This displacement is facilitated by increased trade liberalization and intensified by the power and wealth concentration processes inherent in industrialized agriculture. Further effects discussed in this thesis include

- the increasing poverty, unemployment, urbanization and food import dependency connected to the displacement of smallholder farmers;

- environmental degradation and climate change, as well as detrimental effects on human and animal health associated with industrialized agriculture;
- and increased vulnerability to price volatility, a loss of self-determination and policy space, as well as the loss of land and seed rights of farmers, due to the integration of smallholders in global supply chains and various WTO rules and provisions of free trade agreements.

Overall, the orthodox paradigm, promoting agricultural industrialization and trade liberalization, leads to a loss of food sovereignty in the Global South. In order to ensure food sovereignty sustainably, a paradigm shift towards agroecological small-scale farming is proposed, in combination with a relaxation of liberalization pressures on developing countries, and especially LDCs.

## **B. GERMAN SUMMARY**

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Im Lichte der globalen Nahrungsmittelkrise 2007/08 erläutert die vorliegende Diplomarbeit die komplexen Zusammenhänge zwischen der Konsolidierung des neoliberalen internationalen Handelsregimes, dem fortbestehenden Ungleichgewicht zwischen staatlicher Stützung der Landwirtschaft in den sogenannten Entwicklungsländern und dem 'Globalen Norden', und dem steigenden Industrialisierungsdruck auf landwirtschaftliche Produktionssysteme im 'Globalen Süden'. Die Auswirkungen dieses Zusammenspiels auf das Menschenrecht auf Nahrung und andere Aspekte der Ernährungssouveränität werden damit aus einer Nahrungsmittelregime Perspektive beleuchtet.

Basierend auf einer kritisch realistischen Wissenschaftsphilosophie werden diese Verbindungen in zwei Schritten analysiert: Erstens werden dem orthodoxen, neoklassischen Verständnis von Freihandel, Subventionierung und Industrialisierung der Landwirtschaft Perspektiven der Politischen Ökonomie gegenübergestellt, wobei die sozialen, politischen, ökonomischen, kulturellen und ökologischen Auswirkungen allgemein beschrieben werden.

In einem zweiten Schritt werden diese Zusammenhänge und deren Auswirkungen empirisch beleuchtet:

- durch die Analyse der Subventionsmechanismen der Gemeinsamen Agrarpolitik der EU (GAP);
- im Hinblick auf den Industrialisierungsdruck der von AGRA, der Allianz für die Grüne Revolution für Afrika, auf afrikanische Staaten ausgeübt wird;
- und unter Berücksichtigung von Liberalisierungsprozessen, welche durch die EPAs (Economic Partnership Agreements) als Freihandelsabkommen zwischen der EU und den AKP Staaten (Afrika, Karibik, Pazifik), ausgelöst werden.

Die Ergebnisse zeigen, dass polit-ökonomische Ansätze besser als das orthodoxe Paradigma geeignet sind, die Auswirkungen auf Nahrungsmittelsicherheit und Ernährungssouveränität in sogenannten Entwicklungsländern zu erklären und zu prognostizieren: Die Subventionierung der Landwirtschaft im 'Globalen Norden' führt zu Dumping und damit der ökonomischen Verdrängung von Kleinbäuerinnen und –bauern im 'Globalen Süden'. Diese Verdrängung wird durch Freihandelsabkommen ermöglicht und durch die mit industrieller Landwirtschaft verbundenen Konzentrationsprozesse von Macht und Kapital verstärkt. Weitere in dieser Arbeit diskutierte Effekte inkludieren

- den mit der Verdrängung der kleinbäuerlichen Landwirtschaft verbundenen Anstieg der Armut, der Arbeitslosigkeit, der Urbanisierung und der Abhängigkeit von Nahrungsmittelimporten;
- die zunehmende Schädigung der Umwelt und den Klimawandel sowie negative Auswirkungen auf die Gesundheit von Menschen und Tieren, welche mit industrialisierter Landwirtschaft verbunden sind;
- sowie die verstärkte wirtschaftliche Anfälligkeit für Preisvolatilität, den Verlust von Selbstbestimmung und politischem Handlungsspielraum, und auch den Verlust bäuerlicher Rechte auf Land und Saatgut durch die Einbindung von Kleinbäuerinnen und –bauern in globale Wertschöpfungsketten durch das internationale Handelsregime und darüber hinausgehende Bestimmungen von Freihandelsverträgen.

Zusammenfassend hat das orthodoxe Industrialisierungs- und Freihandelsparadigma negative Auswirkungen auf die Ernährungssouveränität des 'Globalen Südens'. Um diese Souveränität zu ermöglichen und zu sichern, wird ein Paradigmenwechsel in Richtung agrarökologischen Landbaus und einer Entspannung des Liberalisierungsdrucks auf die sogenannten Entwicklungsländer empfohlen.

## C. CURRICULUM VITAE

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### Personal Data

Name	<b>Carla Weinzierl</b> , BSc
Date/Place of Birth	2.7.1987 in Deutschlandsberg (Styria), Austria
Address	Ungargasse 1/3/52, 1030 Vienna, Austria
Phone	+43 / 676 / 944 7582
E-Mail	carla.weinzierl@gmx.at
Citizenship	Austria, Germany

### Education

10/2012 – 01/2014	Vienna University of Business and Economics <b>Socio-Ecological Economics and Policy (MSc)</b> Expected graduation in September 2014 ECTS-weighted average so far: 1.25
10/2007 – 01/2014	University of Vienna <b>International Development (Mag.a)</b> Expected graduation in April 2014 ECTS-weighted average: 1,37
09/2011 – 01/2012	Uganda Martyrs University Exchange-semester (Joint Study) <b>Ethics and Development Studies</b>
10/2007 – 11/2011	Vienna University of Business and Economics Course: <b>Economics (BSc)</b> Graduation in November 2011 ECTS-weighted average: 1,68
09/2009 – 01/2010	Université Paris Dauphine Exchange-semester (Erasmus) Course: <b>Économie Appliquée</b>
09/1998 – 06/2006	<i>Akademisches Gymnasium Salzburg</i> <i>Matura</i> – graduation with honors (average: 1,00)
09/1994 – 07/1998	Primary School: Josefiuau, Salzburg

### Fields of Interest/Expertise

Thematic	<b>Development and Socio-Ecological Transformation:</b> (Relational) Poverty and Social Policy, International Trade Regulation, Social Innovation and Multi-Level Governance, Global Environmental Governance
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	Sectoral Policy in Developing Countries, Food Sovereignty, Human Rights, Global History
Geographic	(East) <b>Africa; Europe</b> ; Africa-EU; Africa-China
Master-Thesis	“Governance Challenges for Successful Social Innovation in Multicultural Education to Combat Poverty and Social Exclusion in Austria” (Working Title; in English, Prof. Dr. A. Novy)
Diploma-Thesis	“Free Trade and Industrialization of Agriculture as Obstacles to Food Sovereignty. The Implications of the EU-ACP EPAs, the EU CAP and the Green Revolution on African Smallholders” (In English; Prof. Dr. J. Jäger)
Bachelor-Thesis	“Sino-African Relations. African Perspectives on China’s Political and Economic Involvement” (In English; Dr. G. Tondl)

## Work and Volunteer Experience

01/2014-8/2014	<b>Vielfalter</b> Initiative, Vienna External 5-year evaluation; online questionnaire, qualitative interviews, focus group interviews Vielfalter is an NGO funding projects in cultural diversity in Austrian schools (Andrea Fiala)
12/2012 – 9/2014	<b>ImPRovE</b> Research Project / WU Wien Research-Intern working on case study: social innovation in multicultural education; ImPRovE is a network of 10 European Universities researching poverty/inequality and social exclusion (Prof. Dr. Andreas Novy, Mag. Florian Wukowitsch)
02/2013 – 7/2014	University of Vienna ( <b>Uni Wien</b> ) Tutoring a course in global history: ‘Approaches to Development Aid/Cooperation in Historic Perspectives’, including teaching and evaluation responsibilities (Univ.DoZ. Dr. Berthold Unfried)
07/2013 – 8/2013	<b>Grüne Bildungswerkstatt</b> , Vienna Translation/creation of website/blog content, editing organization of events, research for publications (Prof. Dr. Andreas Novy)
05/2013 – 8/2013	<b>Abif</b> / analysis consulting & interdisciplinary research Transcribing qualitative interviews
02/2013 – 7/2013	<b>ÖFSE</b> / Ö. Forschungsstiftung f. Int. Entwicklung Research Project: ‘Social and Ecological Sustainability of Austrian Mineral Resource Imports’ (Mag. <sup>a</sup> Karin Küblböck)

11/2012 – 6/2013	University of Nat. Res. & Life Sciences ( <b>BOKU</b> ), Vienna Organizing a course ( <i>Ringvorlesung</i> ) for summer semester 2013 on food sovereignty, including teaching and evaluation responsibilities in a group of 6 students. (Prof. Dipl.Ing. Dr.nat.techn. Christian Vogl) ( <a href="http://rvfoodsovereignty.wordpress.com">http://rvfoodsovereignty.wordpress.com</a> )
10/2012 – 06/2013	Vienna University of Business & Economics ( <b>WU</b> ) Student representative of SEEP-Master (Dr. Sigrid Stagl, Prof. Dr. Andreas Novy)
10/2012 – 06/2013	<b>Standpunkte</b> Student-Magazine (at WU), Vienna Writing articles and book reviews for a student economics magazine
10/2012 – 02/2013	Austrian National Student Union ( <b>ÖH</b> ), Vienna Coordination of a research group for report: <i>Forum Hochschule 2013</i> ; chapter on barrier free tertiary education, p142-160 ( <a href="http://www.oeh.ac.at/fileadmin/user_upload/pdf/Broschueren/2013/Forum_Hochschule_II_April_2013-2.pdf">http://www.oeh.ac.at/fileadmin/user_upload/pdf/Broschueren/2013/Forum_Hochschule_II_April_2013-2.pdf</a> )
08/2010 – 09/2010	<b>Edirisa</b> Org, Nkozi, Uganda Team management, awareness-raising, blogging on local and developmental issues
07/2007 – 09/2007	<b>IGL</b> Werbedienst, Salzburg Updating customer data, translation, website maintenance
09/2006 – 04/2007	<b>Edirisa</b> Org, Kabale, Uganda Website building and maintenance, blogging and translation work, awareness-raising, workshops in local primary schools (Bufuka & Kyabahinga)
07/2006 – 08/2006	<b>IGL</b> Werbedienst, Salzburg Office work, customer service
08/2005 – 09/2005	<b>IGL</b> Werbedienst, Salzburg Office work
08/2005 – 09/2005	<b>Ungethüm</b> , Telekommunikation, Salzburg Sales, customer service
08/2004 – 09/2004	<b>Colombier</b> Camping, Lisieux, France Reception, customer service
08/2003 – 09/2003	<b>Kinderfreunde</b> , Salzburg Child care, workshops

## Languages

German	mother tongue (C2)
English	fluent (C2) Cambridge, ESOL, Level C1, Grade B (2006) (also: 1.5 years in East Africa, English Master program)
French	good (C1) TCF, Niveau C1, 534/599 points (2010) DELFI, Niveau B1, 84,5/100 points (2006) (also: summer language classes in Montpellier and Nice, Paris for 6 months, stays in francophone African countries >3 months)
Spanish	basics (B1) (3 years at school, summer language class in Barcelona)

## Other Qualifications

Computer Skills	standard software (Microsoft Office, iWork, Open Office; basics in Adobe Photoshop); statistics/econometrics (eViews, PASW, Stata); content management (moodle, wordpress.com, typo3); experience with databases (UN Comtrade, Eurostat...)
Voluntary Student Research Projects	‘Impacts of Patents on Access to Essential Medication’ (with 3 other SEEP students, 10/2013-1/2014: <a href="http://essentialmeds4all.wordpress.com">http://essentialmeds4all.wordpress.com</a> ) ‘Environmental Consciousness & Meat Consumption’ (with 3 other SEEP students, 3/2013-7/2013) ‘Health and Human Rights – Challenges of HIV/AIDS’ (Class Project in Internat. Development 2/12-8/2012: <a href="http://iehivhr.wordpress.com/2012/06/">http://iehivhr.wordpress.com/2012/06/</a> )
Music	Classical guitar (1995-2006; <i>Musikum</i> Salzburg) Piano (1994-2002; <i>Musikum</i> Salzburg) Electric guitar (2002-2006; <i>Musikum</i> Salzburg) Drums (2003-2006; <i>Musikum</i> Salzburg) Singing with the FFS choir in Vienna since 2013
Model United Nations	OXIMUN 2010 Representing Kenya in Deliberations on piracy in the Horn of Africa
Experience Abroad	Sub-Saharan Africa: totaling >2 years in Uganda, Rwanda, Kenya, Tanzania, Ethiopia, Mozambique, Zimbabwe, South Africa, Mali, Senegal, Gambia; Shorter journeys to India, Thailand, Cambodia, Laos, Israel; many European countries