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# National Contexts Matter: The Co-Evolution of Sustainability Standards in Global Value Chains

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## Abstract

In this paper, we investigate the role of key industry and other stakeholders and their embeddedness in particular national contexts in driving the proliferation and co-evolution of sustainability standards, based on the case of the global coffee industry. We find that institutional conditions and market opportunity structures in consuming countries have been important sources of standards variation, for example in the cases of Fairtrade, UTZ Certified and the Common Code for the Coffee Community (4C). In turn, supplier structures in producing countries as well as their linkages with traders and buyers targeting particular consuming countries have been key mechanisms of standards transmission and selection. Unlike prior research, which has emphasized the role of global actors and structures in promoting – and hindering – sustainability initiatives, we argue that national economic and institutional conditions in consuming and producing countries have not only served as important drivers of standards multiplicity and co-evolution, but also as catalysts for the entire global sustainability movement.

# National Contexts Matter: The Co-Evolution of Sustainability Standards in Global Value Chains

## INTRODUCTION

In absence of inter-governmental regulation, private actors, including corporations and NGOs, have in recent years been increasingly concerned with regulating transnational affairs, including the promotion of social equity and ecological sustainability in global production and trade practices (Bartley, 2007; Djelic & Sahlin-Andersson, 2006; Djelic & Quack, 2008; Gulbrandsen, 2008). The United Nations 2005 World Summit defined sustainability in terms of the 'triple bottom line' – economic prosperity, social equity, and environmental quality. While there is consensus about this generic definition (see also WCED, 1987), in concrete production and consumption systems 'sustainability' is constructed and contested both as a concept and objective by actors involved (Boons & Mendoza, 2010; Reinecke, 2010). Over time, this ambiguity along with diverging interests of sustainability promoters has contributed to the development of numerous self-regulatory sustainability standards. Thereby, firms and other private actors co-define norms and certificates that actors in the value chain must adhere to in order to produce a sustainable product (Wijen & Ansari, 2007; Fransen & Kolk, 2007).

Much of this has been studied from a global value chain perspective (Bernstein & Cashore, 2007; Muradian & Pelupessy, 2005; Bitzer et al., 2008). The global value chain literature (Gereffi, 1994; Gereffi et al., 2005) has helped draw attention to the role of firms and strategic lead actors in transnational governance processes (Bair, 2005). Meanwhile, social movement theorists have started to question the dominance of global firms in the rise of new institutional arrangements for industry regulation and described it

"as an outcome of broader conflicts about the power of states, markets, and civil society in a context of neo-liberal globalization" (Bartley 2007, p. 299). Yet, to date in particular the role of national economic and institutional structures in driving processes of transnational governance, including sustainability standards, has been largely neglected. In other words, the ways in which national contexts shape opportunity structures for the emergence of transnational regulators has not been sufficiently examined. In this paper we contribute to a better understanding of how the emergence and adoption of multiple, co-evolving sustainability standards has been affected by the embeddedness of key initiators and stakeholders, e.g. MNCs, producers, NGOs and development agencies, within particular national contexts.

The global coffee industry provides an interesting empirical case to study this dynamic: Over the past twenty years, more than thirty corporate and multi-stakeholder standards have been developed, including Fairtrade, Rainforest Alliance, Utz Kapeh, and the Common Code for the Coffee Community which continue to co-exist (Kolk, 2005). In recent years, the co-existence of partially similar coffee sustainability standards has been subject of numerous studies (Muradian & Pelupessy, 2005; Kolk, 2005; Bitzer et al., 2008; Reinecke et al. 2010). Yet, we still lack an understanding of what drives the multiplicity of sustainability standards. The phenomenon of standards multiplicity defies conventional wisdom that over time dominant standards solutions will develop – driven by the need of industry players for efficient institutional regulation (Liebowitz & Margolis, 1995) and the pressure of isomorphism (DiMaggio & Powell, 1983). Recent studies suggest that the ambiguity and greater openness of 'sustainability standards' vs. technical standards (see for an overview, Nadvi & Wältring, 2002), and the ongoing

competition of standard organizations for ‘sustainable solutions’ has prevented standards consolidation (see e.g. Reinecke et al., 2010). In addition to that, however, we would like to explore, based on the case of the coffee value chain, how national contexts within which key value chain participants and other stakeholders operate have contributed to the proliferation and continued co-existence of sustainability standards.

To study this phenomenon, we utilize concepts from co-evolutionary theory which has been proposed as a central concept in ecological economics (Kallis & Norgaard, 2010) and applied to understand reciprocal processes of adaptation – here: of stakeholders involved in setting and adopting standards – within multiple, changing environmental contexts (Lewin & Volberda, 1999, Gerrits, 2010). We combine co-evolutionary concepts, such as standards variation, transmission and selection, with an organizational field perspective (DiMaggio & Powell, 1983) on standards development and adoption, which allows us to examine interactions between key stakeholders, such as standards organizations, multinational and local firms, governmental actors and NGOs, in the process of standards co-evolution within different institutional settings.

Findings from our study contribute, on the one hand, to a better understanding of the institutional conditions influencing the co-evolution of sustainability standards (see also Boons, 2009). We make the point that many standards, which compete at a global level today, were initially developed within particular national contexts by stakeholders located and operating in these contexts. These contexts, therefore, became an important source of standards variation, and they continue to influence the co-evolution of standards. On the other hand, we contribute to a more nuanced view of how the positioning of standard setters and adopters, such as multinational firms and producers,

within global value chains *and* national business and institutional contexts drives both the differentiation and partial convergence of sustainability standards. Our findings therefore add not only to the literature investigating the continued multiplicity of sustainability standards (e.g. Reinecke et al., 2010), but also address the institutional embeddedness of global value chains, and the complex – both local and global – involvement of private actors in processes of transnational governance (e.g. Bair, 2005; Sturgeon et al., 2008).

Next, we briefly review the literature on sustainability standards in global value chains, with particular reference to the coffee industry, and introduce a co-evolutionary perspective on standards development. We argue that national context conditions have been systematically neglected and that a co-evolutionary field perspective may help bring national contexts back into the picture. We then discuss, based on multiple sources of empirical evidence, how national contexts have become important sources of standards variation in coffee and how they continue to influence standards transmission and selection in global value chains. We focus in particular on the standards Fairtrade, Utz Kapeh/Certified and the Common Code for the Coffee Community. With regard to standards initiation, we focus on the national contexts of the Netherlands and Germany within which these standards were developed. As for standards adoption, we look at both producing and consuming countries and their particular – facilitating and constraining – conditions for standard adoption. We finally discuss implications of our findings for ongoing debates as well as policy-making.

## PROMOTING SUSTAINABILITY IN GLOBAL VALUE CHAINS: A CO-EVOLUTIONARY FIELD PERSPECTIVE

The concept of global value chain (GVC) emphasizes the global scale and structure of many commodity chains as a result of the internationalization of production (Gereffi, 1994; Gereffi et al., 2005). It also points to the fact that consumption of commodities is often distanced from various stages of growing and production (Princen et al., 2002). Coffee is a good example of a commodity product whose production and consumption is organized and distributed at a global scale (FAO, 2009). Coffee is produced in more than 60 countries and generates income for more than 100 Million people worldwide. The largest coffee exporting regions in terms of volume are Brazil (33%), Vietnam (15%) and Colombia (8%) (see Figure 1); however, the largest greater region growing and exporting coffee is Latin America (FAO, 2009; ICO, 2009). At the other end of the product chain, the top coffee consuming (and importing) countries are USA, Germany, Japan, Italy and France, making up almost three quarters of world consumption. Similar patterns of global distribution can be found for commodities, such as tea, cocoa, and sugar.

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INSERT FIGURE 1 HERE

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With respect to its organizational structure, global value chains are constituted by a number of actors who add market value to a product at different stages of production. Taking the case of coffee, at the upstream end of the value chain, small producers, cooperatives, and farmers owning large plantations are responsible for growing and harvesting coffee plants. Across producing countries we find different distributions of single subsistence farmers who own a few coffee plants, small scale farmers who have organized themselves into collectives, and privately owned coffee plantations. Coffee

must be shelled and classified prior to export which is usually done by farmers. The resulting green beans then enter a trade chain which can consist of several steps, beginning with ‘coyotes’ that travel from farmer to farmer to buy their products, and sell it to coffee traders. The beans are then traded by exporting companies to intermediaries or directly to importers and roasters, mostly in developed countries. The largest roasters/distributors include Kraft Foods, Nestlé, Sara Lee and Procter & Gamble. Coffee is then sold to consumers through retailers, coffee shops and other outlets. Some distributors, such as Starbucks, have their own coffee brands. In addition to direct sales, roasters sell coffee (often in combination with coffee machines and related products and services) to institutional customers as well as restaurants and hotels.

Gereffi (1994) further distinguishes ‘buyer-driven’ and ‘supplier-driven’ chains depending on the ability and power of buyers or suppliers respectively to coordinate and impose control on other actors in the chain. The coffee value chain can be characterized as a buyer-driven chain, as a small number of large roasters generates by far the highest margin in the value chain, compared to numerous, often smallholder coffee farmers with no direct connection to, and little knowledge of, the world market for which they grow their products. As global value chains, by definition, span geographic boundaries, they also bridge national and regional systems of regulation. Whereas coffee roasters, for example, may be subject to sophisticated institutional regulation within their home countries, they maintain relationships with traders and suppliers who are mostly located in economies with more lax institutional regulation, e.g. when it comes to protection of environments and labor conditions. Powerful buyers have exploited this disparity by using cheap labor and natural resources in little regulated environments to reap margins

from highly dependent suppliers. This has contributed to continued cost pressure and conditions under which many farmers have great difficulties securing sustainable livelihoods, while also protecting the natural environment.

To address this situation, various attempts have been made to regulate coffee production and trade, thereby promoting fairness and environmental sustainability. One historically important regulatory institution was the International Coffee Agreement (ICA). In 1962, 58 producing and consuming countries set up the ICA to protect growing regions from significant price fluctuations, and to stabilize coffee supply along the value chain (Pichop & Kemegue, 2005/6). The ICA involved a quota system which regulated the annual export volume as well as prices for each participating country. Over time, however, but in particularly in the 1980s, the ICA gradually lost its legitimate role as a regulating body. In particular, coalition prices increasingly deviated from free market prices as exporters from producing countries began to trade with non-member importing countries for lower prices (Daviron & Ponte, 2006). The Worldbank's policy towards market liberalization also put pressure on many developing economies to oppose the ICA (Akiyama et al., 2001). In 1989, members of the ICO failed to negotiate a new agreement, so that the quota system was abandoned. Other commodity industries, such as cocoa, have faced similar difficulties in reaching and maintaining binding intergovernmental agreements to protect the interests of producers vis-à-vis powerful buyers.

As a consequence of institutional failure at the intergovernmental level, price competition increased significantly among producers resulting in a further shift of economic power from producers to roasters (Petkova, 2006; Muradian & Pelupessy, 2005). In addition, the market entry of new players, e.g. Vietnam and Indonesia, has

resulted in an oversupply situation making coffee growing and export even more competitive (e.g. MacDonald, 2007). Cost pressure has also led to quality problems, as farmers stopped investing in quality control and sustainable growing practices, and labor conditions deteriorated. In a number of consumer countries, as we discuss in more detail below, this situation has raised concerns among consumers and NGOs who started holding large multinational corporations, such as coffee roasters, accountable for their impact on labor and environmental conditions along the value chain.

As a result, a number of 'private' and multi-stakeholder initiatives have been launched to promote more socially responsible and environmentally friendly practices of coffee production (see e.g. Petkova, 2006; Kolk, 2005). These initiatives have resulted in the development of sustainability standards which are now increasingly being adopted by coffee roasters and farmers' cooperatives (see Figure 2). Examples include Fairtrade, Utz Kapeh, and 4C. Table 1 lists a number of important standards and summarizes some dimensions based on which they can be – and have been previously – compared, e.g. objectives, target groups and initiators (see also Muradian & Pelupessy, 2005; Kolk, 2005; Reinecke et al., 2010). Similarities include: goals (e.g. establishing sustainability criteria), and practices of certification. Also, almost all major standards address economic, social, and environmental sustainability. However, standards also have a number of differences, e.g. historical roots, regional origin, targeted users, level of stringency, rate of adoption in producing and consuming countries (see below).

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INSERT TABLE 1 AND FIGURE 2 HERE

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We seek to better understand in this study what is driving the proliferation of partially similar sustainability standards and their adoption by producers and buyers in global value chains. Most previous studies have primarily focused on categorizing different standards according to criteria listed above (see e.g. Muradian & Pelupessy, 2005; Kolk, 2005). Only very recently, scholars have begun to provide explanations for the continued proliferation of standards and the lack of consolidation into a single solution (see e.g. Reinecke et al., 2010). Reinecke et al. (2010) argue that different ideologies of standard organizations, as well as processes of reciprocal positioning, e.g. as base vs. gold, or niche vs. mainstream standards, have contributed to standards differentiation and co-existence. We add to this research, while we focus on a largely neglected dimension – the role of national economic and institutional contexts in initial development and adoption of sustainability standards over time.

To analyze this dimension, we apply concepts from co-evolutionary theory, which has been employed as an analytical framework in various contexts, in particular to study dynamic processes, e.g. the development of industries and supporting institutions (Murmann, 2003), the emergence of new organizational forms (Lewin & Volberda, 2003), as well as the way in which social and ecological systems are linked in reciprocal structural change (Gerrits, 2008, Moreno-Peñaranda & Kallis, 2010). Co-evolution means that entities which are part of a larger system influence each other's evolution (Kallis & Norgaard, 2010, Lewin & Volberda, 1999). Standards are entities whose development can be seen as part of an evolving 'organizational field', which in general includes "… those organizations that, in the aggregate, constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other

organizations that produce similar services or products […]" (DiMaggio & Powell, 1983: 148). In our case, the field is constituted by MNCs, standards organizations, consumers, NGOs and local producers. A field perspective, which looks at populations of different actor groups and their relationships, helps analyze standards co-evolution as a dynamic process of standards variation, transmission and selection. A co-evolutionary field perspective also helps combine multiple levels (e.g. firm-level decisions, industry evolution, institutional practices), accounting for multidirectional causalities, path dependencies and non-linear feedbacks between organizational and individual decisions and environmental conditions (Lewin & Volberda, 1999).

Importantly, to better understand standards co-evolution and adoption, we not only need to look at standards offerings and adopting practices, but at co-evolving *relations* and influences between standards and standards organizations, adopting firms and other stakeholders at multiple geographic levels, e.g. national business systems and global production systems (Dicken et al., 2001). For this purpose, a co-evolutionary field perspective can be helpful as it looks at collaborative and competitive relations between the "totality of relevant actors […] involved in a common enterprise" (p.148) – here: the development/adoption of sustainability standards – including firms and standard organizations, but also consumers, NGOs and governmental agencies. An organizational field emerges – both within and across geographic contexts, e.g. national business systems (Whitley, 1999) – through the increased interaction between organizations, resulting in shared practices, rules and norms. DiMaggio and Powell's distinct contribution is that they develop hypotheses about the way in which increased interaction leads to isomorphism, i.e. homogenization of organizational practices. Later contributions

to the field concept have stressed that they may exhibit competing sets of norms (Galvin et al., 2004).

In order to analyze co-evolutionary field dynamics of standards development and adoption, we look at drivers and mechanisms of standards variation, transmission and selection as shaping these fields (Boons, 2009), looking at standards not in isolation but as co-evolving in an emerging field of standard production. The following concepts are taken from evolutionary theory in biology, and have been applied to economics and social phenomena (Blute, 2010; Nelson & Winter, 1982).

The concept of *variation* – here: in the population of standards – originates in the idea taken from biology that mutations of genetic material may occur in the reproduction of genes and species. In social contexts, variation means that the reproduction of established social norms, practices and structures is paralleled by deviations from these norms, practices and structures in the way social actors interact and organize themselves. Variations may be responses to idiosyncratic and/or changing environmental conditions. For example certain external events or shocks, such as the dismantling of the ICA in the coffee industry, create new problems, such as price wars, to which actors respond. Also, from a co-evolutionary perspective, the entrance of new standards may alter economic and political conditions and opportunity structures. In face of such situations, actors may engage in search processes for strategic responses and practices addressing them. This may also lead them to rethink their current strategies. The spectrum of potential responses varies by the 'degree of freedom' of actors, e.g. political and economic opportunity structures that provide access to resources of power to engage in certain actions. We here suggest – as we show below – that the embeddedness of actors in particular national

contexts is an important factor influencing political and economic opportunity structures, and thus the variation they produce.

The concept of *transmission* captures how a particular practice, rule or principle is 'transmitted' between organizations. In our context, we are interested in particular in how standards are transmitted to producers as adopters of these standards. Once transmitted, these practices may get more or less integrated into an established system of activities, which then promotes retention of these practices. From an institutional perspective, transmission and retention are key aspects in the institutionalization of norms and practices. To analyze processes of transmission, the various ways in which participants in a particular field interact and interrelate need to be understood. For example, transmission can be promoted by imitation processes through mutual observation. Or, it can result from regulation of interactions and practices through a central institution, e.g. an industry association. Personal networks and rotation of individuals across organizations may also promote transmission processes. In the example of standards, as we show below, standards organizations, buyers and intermediaries may be important transmitters of standards practices and principles. Importantly, standards are not transmitted in isolation, but as they co-evolve with – and thereby position themselves towards or in opposition to – other standards (see also Reinecke et al., 2010).

The notion of *selection* captures processes and mechanisms leading to reduction of variety as a result of competitive and other selection pressures. Related to this concept is the idea that practices, norms and other social 'elements' need to 'fit' within existing – yet ever changing – systems in order to establish and 'survive'. Selection pressure further varies by the level of variety 'allowed' in a given system or market. In the context of

standards, for example, we need to understand how certain standards or criteria for adoption become more favorable than others and what impact national contexts have on selection processes. Selection in our context may mean that certain standards rather than others get adopted in particular regions, but also that standards become similar or converge on certain dimensions, to ease producer adoption.

From a co-evolutionary field perspective, processes of variation, transmission, and selection may happen at multiple geographic and institutional levels, involving multiple actors taking part in the dissemination and adoption of practices and norms, such as particular standards. For example, both private firms and standards organizations – and other stakeholders – influence the co-evolution of standards. While standards organizations constitute a space for standards offerings that co-evolve over time (Reinecke et al. 2010), adopting firms bring about and reproduce certain adoption practices which, in turn, may affect the co-evolution of standards. Thereby, both individual and collective agency plays a critical role. In social contexts, variation, transmission and selection are not 'automatic' or 'random' processes, but rather the result of more or less reflexive entrepreneurship, political struggle and strategic intervention. In the following, we discuss such processes in greater detail.

## THE CO-EVOLUTION OF COFFEE SUSTAINABILITY STANDARDS AND THE ROLE OF NATIONAL CONTEXT CONDITIONS

In the following, we analyze the co-evolution of sustainability standards in the coffee sector in more detail, focusing, on the one hand, on the role of key stakeholders of standards development and adoption in the global value chain, and, on the other hand, on the national contexts within which these stakeholders are embedded. The first part of the

analysis will focus on drivers of standards variation; the second part concentrates on mechanisms of standards transmission and selection.

## DATA AND METHODOLOGY

We employ an embedded case study approach (Yin, 2003) to examine the co-evolution of sustainability standards and the role of national context conditions. The actual case is the global coffee value chain which we selected as a widely studied field for sustainability standards (Kolk, 2005; Muradian & Pelupessy, 2005). Within this field we focus on three particular sustainability standards as embedded cases – Fairtrade (Max Havelaar), Utz Kapeh and the Common Code for the Coffee Community (4C). All three have been recognized as major sustainability standards (e.g. Kolk, 2005). They have different historical roots and target different segments of standards adopters. Over time they have co-evolved in an interdependent way, getting adopted to a different degree in different regions, which makes them interesting to study as embedded cases.

Fairtrade represents a major social movement driven standard with stringent sustainability criteria and a fixed price premium for farmers. It targets small farmers organized in cooperatives and has remained a 'gold standard' relying on socially conscious consumers. Fairtrade was established in 1988 and originates in the Netherlands (see also Table 1). Utz Kapeh/Certified is a more recent, private standards initiative launched in 1997. Unlike Fairtrade, it targets mainly big and medium enterprises and already enjoys rather wide coverage, in terms of volume certified (see Table 1). Like Fairtrade, Utz Kapeh was also initiated in the Netherlands through the Ahold Coffee Company (ACC) in cooperation with Guatemalan coffee suppliers. The Common Code

for the Coffee Community (4C) is a multi-stakeholder standard launched in 2004. It targets coffee producers and roasters of all sizes, and like Utz Kapeh/Certified it applies rather moderate criteria for adoption. In particular, it aims to abolish the worst business practices, e.g. child and forced labor; builds on the principle of continuous improvement, and focuses on raising coffee quality standards rather than guaranteeing price premiums. Historically, 4C originates in a collaborative initiative of major coffee roasters, including Kraft Foods (Jacobs) and Nestle, and the German Agency for Technical Development Cooperation (GTZ; now: GIZ) (see Table 1).

To examine processes of standards variation, transmission and selection, focusing on the three standards introduced above, we utilize multiple sources of evidence, including industry statistics and reports, semi-structured interviews, personal observations, and participation in industry meetings. One major empirical source are three, partly independent interview series. The first series was conducted in 2001/2 and 2006/7 by two authors focusing largely on the development of 4C (Total: 14 interviews), including interviews with corporate representatives, GTZ managers, and 4C representatives. The second series was conducted in 2008/9 by one author. It focused on the development and adoption of Fairtrade and Utz Kapeh/Certified, with particular emphasis on the Dutch context (Total: 10 interviews). It includes interviews with managers from coffee roasters and employees from the standards organizations Max Havelaar and Utz Certified. The third series was conducted between 2009 and 2011 by three authors. It focused on the more recent co-evolution and adoption of sustainability standards (Total: 20 interviews) and includes interviews with representatives of standards organizations, NGOs, and producing cooperatives. In addition, we collected archival data

and other materials. For example, we utilized online information; internal reports and documents produced by standards bodies and industry observers. Following the advice of Yin (2003), we make use of multiple sources of evidence, based on both qualitative and quantitative data.

The analysis of data is mainly inductive, yet guided by co-evolution theory as a 'sensitizing device'. This means that we specifically apply concepts from co-evolution theory as a lens through which we analyze drivers of the co-existence of sustainability standards and the influence of different actor groups and national contexts on standards co-evolution. We focus on the standards Fairtrade, Utz Kapeh/Certified and 4C. Using these examples, we look at *standards variation* – the increasing range of as well as changes in features of standards offerings; *standards transmission* – the transfer of standards elements among standards organizations as well as to standards adopters; and *standards selection* – the process by which certain standards or standards features 'succeed' or become (more) legitimate.

First, we seek to understand what role national context conditions – and actor groups operating and interacting within particular national business systems (Whitley, 1999) – played as drivers of standards variation. Next, we look at mechanisms of standards transmission and selection, thereby again focusing on the role of key actor groups in different geographic contexts. Finally, we discuss how our findings help address the questions raised at the beginning of the paper. Also, we discuss implications not only for ongoing research on sustainability standards, but also for policy-makers.

## STANDARDS VARIATION: NATIONAL CONTEXT CONDITIONS AND GLOBAL ECONOMIC STRUCTURES

To understand the co-existence of multiple standards with partly similar, partly divergent objectives, target groups and other properties, we first identify sources and drivers of *standards variation*. Interview data suggests that more or less idiosyncratic regional economic and institutional conditions, situational conditions and market opportunities of initiating actors as well as their positions and interests in global value chains have jointly driven standards variation. We examine in particular the cases of Fairtrade, Utz Kapeh and 4C. In all cases, particular national contexts – the Netherlands in the case of Fairtrade and Utz Kapeh, and Germany in the case of 4C – provided favorable founding conditions for the creation of these sustainability standards.

**The emergence of Fairtrade coffee**

Ideas behind *Fairtrade* and the principle of empowering small farmers, including price premiums and collective representation vis-à-vis powerful buyers, date back to world shops set up in the late 1950s and solidarity trade initiatives in the 1960s and 1970s. The *Fairtrade* label was then established in 1988 based on a long-term collaboration of a Dutch development agency and Mexican farmers. At that time, the solidarity discourse, which promoted the establishment of the Fairtrade label, was particularly strong in the Netherlands. As a consequence, a significant portion of Dutch coffee drinkers became well-informed and concerned about the imbalance of power between multinational roasters and small farmers in several producing countries.

Rising consumer awareness and pressure from social movements in the Netherlands induced search processes that smaller Dutch roasters engaged in in the 1970s and 1980s, including experiments with ‘fairly traded’ coffee which eventually helped establish the label Fairtrade. The Dutch coffee market was dominated by Douwe Egberts,

which still takes a market share of over 50 % (see also Table 4). The remaining market share was divided among many smaller roasters, some of whom had direct contacts with farmers in producing countries. As a consequence, distance between consumption and production was much smaller than is the case with many large mainstream buyers (see also Princen et al., 2002). Their more integrated supply chains and desire to differentiate themselves from mainstream roasters promoted early experiments with fairly traded coffee. In particular, three of the smaller roasters, e.g. Peeze, started to collaborate to develop a system that would give a fairer price to farmers. The development of the Max Havelaar standard has been described extensively elsewhere (Roozen & Van der Hoff, 2001). We focus on complementary developments involving Peeze, a small firm whose story provides a compelling illustration of the context factors that eventually culminated in the creation of the Fairtrade standard as well as for organic coffee.

In the 1980s, Peeze along with other small Dutch roasters sought to implement a strategic vision of integrating improvements on quality, environment, and labor aspects through innovations in the firm's activities. From the owner's view, this required collaboration and control of all steps in the supply chain, as well as with other actors.

> *"Sustainable entrepreneurship has everything to do with what you do yourself. Quality, labor conditions, and the environment. That is why we prefer to keep the whole product life cycle under control. [The product life cycle] consists of many stages, that eventually lead to sustainability, and for this reason we don't want to miss out on any one of them." (Owner of Peeze)*

While for some firms a fair price was the central issue, for Peeze the combination of social and ecological aspects was crucial: Peeze was concerned that soil would be destroyed if ecological aspects were neglected which would in the long run destroy the farmers' means of subsistence. Over a number of years, Peeze worked in projects with

farmers in Mexico to teach them organic growing methods based on knowledge provided by an agricultural university that was also involved. This promoted a joint learning process which resulted in sustainable local practices.

In order to develop a reliable supply of sustainable coffee, Peeze needed to achieve two things. First, it had to expand the number of farmers that could fulfill this demand. For this, projects in other countries were launched, promoting a resource network and process of learning among participants, as in each country conditions and cultural traditions are different. Secondly, a monitoring system needed to be developed that would ensure that farmers continue to follow guidelines, and that would enable communication of these practices in European markets. As a result, Peeze engaged in the development of standards such as Max Havelaar and EKO. The practices developed in the resource networks of Peeze provided a basis for these standards. Peeze therefore actively shaped the definition of sustainability as laid down in these standards.

The example of Fairtrade shows how regionally embedded movements – here: the solidarity movement in the Netherlands; regional economic conditions and structures – here: the importance of small roasters in the Netherlands; and global supplier relations – here: direct supply relations between Dutch roasters and farmers in Latin America – provided the ground for experimental search processes promoting the establishment of one of the most important sustainability standards today.

**The emergence of Utz Certified**

Unlike Fairtrade, which was driven by social movement activists and small alternative trade organizations (sometimes backed by Catholic or Protestant development agencies),

the Utz Kapeh (later: Utz Certified) standard originated from initiatives taken by Dutch firms. Like in the case of Fairtrade, a small roaster firm played a significant role in promoting standards development. At a time when Fairtrade was already established, targeting a growing segment of informed Dutch consumers, the development of Utz Certified was driven by firm-level search processes targeting mainstream coffee supply and consumption. More concretely, Utz Certified resulted from a collaboration between the Ahold Coffee Company (ACC) with a Guatemalan coffee supplier.

ACC established itself as an independent company from its former owner, the large Dutch retailer Ahold. ACC originally was part of a string of firms that supplied retail stores, but two managers bought the firm in 2000. A first requirement was to develop a customer base independent from Ahold, and it was decided that the market for sustainable coffee would be the major focus. Similar to other small Dutch roasters, ACC worked already for a longer time with a sourcing strategy that eliminated intermediate traders, buying directly from plantations and cooperatives. The direct relationship was helpful in several ways: it allowed the possibility to influence producers directly to improve quality, and as traders were eliminated, a higher price could be paid.

The Max Havelaar standard already provided a template for sustainable practices, However, in the mid 1990s, Max Havelaar took a market share of only 3 % in the Netherlands. Given this situation, ACC managers felt the need to better access the mainstream market for their company to be viable. They analyzed the Max Havelaar model to see what needed to be changed to make this possible.

> *"[We] looked carefully at the Max Havelaar model. We agreed with their vision, but the resulting market share was too low. We needed to capture the mainstream market. […] Our company needed to define sustainable coffee in a competitive way." (Owner ACC)*

Essentially, the Utz Certified standard that eventually was developed can be characterized as increasing the transparency of the mainstream market, rather than developing an alternative niche market. For example Utz does not guarantee a price premium, but rather encourages farmers and buyers to negotiate a price in which increased quality is rewarded with a higher price. Farmers also commit to continuous improvement. Criteria were based on existing ones from GAP and ILO, and refined with a pro-active farmer in Guatemala. Striving for traceability, ACC helped increase market transparency, allowing farmers to see what is paid for coffee to other farmers by other roasters.

In sum, the development of Utz Certified underscores the importance of regional economic dynamics and global structures in standards development. Unlike in the case of Fairtrade, search processes leading to the Utz standard took off in a situation where a growing segment of niche consumers was already being targeted by a sustainability label. However, rather than establishing a monopoly for sustainable coffee production, Fairtrade opened a space, in the Dutch roasters' market initially, for new sustainability initiatives targeting *different* consumer segments, hence providing an opportunity for Utz Certified to develop. The emergence of Utz Certified vis-à-vis the established standard Fairtrade is, therefore, an example of standards variation in the *same* economic and institutional context. In the case of Utz, the main source of variation was not the regional context, but an emerging opportunity structure *within* this context as a result of the existence – and positioning – of Fairtrade. In other words, Utz as a standard co-evolved with Fairtrade in a context providing the space for multiple standard emergence.

**The emergence of 4C**

The Common Code for the Coffee Community (4C) is a relatively new standard (formally established in 2007). It targets mainstream coffee production, e.g. by abolishing worst social and environmental practices and by encouraging more sustainable practices among 4C certified firms over time. Unlike Fairtrade and Utz Certified, 4C originated from initiatives rooted in the German institutional context of development cooperation. 4C was mainly driven by MNCs, such as Jacobs (now part of Kraft Foods) and Nestle, most of whom are based in Germany or German-speaking countries, and the German Development Agency GTZ who took the role as a project entrepreneur, network agent and process facilitator and moderator (Manning & von Hagen, 2010).

Since the 1970s, Germany has been an important donor and partner for development projects in Third-World countries. The development budget is administered by the German Ministry for Economic Cooperation and Development (BMZ) which carries out development projects with partner countries through state-owned development agencies, such as the German Agency for Technical Development Cooperation (GTZ). In order to mobilize resources for economic development projects, the BMZ launched the Public Private Partnership (PPP) program in 2001 through which private firms could become development partners for projects of shared interest. Many PPP projects target sustainable working and production practices in developing countries. Since the PPP program was launched, the GTZ has initiated more than 1,000 development projects in collaboration with private firms from Germany and abroad (GIZ, 2011).

The PPP program provided an opportunity for firms interested in experimenting with sustainable production practices, partially in response to rising consumer awareness and NGO pressure. Through PPP, private firms could utilize the financial and operational

support as well as the contact network of development agencies, such as the GTZ, to implement projects in collaboration with local authorities. One example is the project 'coffee organico' where the GTZ collaborated with Jacobs (later owned by Kraft Foods) in Peru. In line with development policies at that time, the GTZ and the Peruvian government targeted sustainable coffee practices in Peru, to raise coffee quality, provide better opportunities for farmers and establish a supplier market for large roasters. Kraft, in turn, was interested in capturing market share, stabilizing supply from Peru and raising mainstream coffee quality. To implement new quality standards in Peru, Kraft utilized the GTZ as a legitimate public partner:

> *"This is only possible with a local partner, with an organization present on the ground […] with the necessary contacts to the administration, to officials, to the coffee chamber and to the coffee Junta. An organization like the GTZ brings along all the things which I would have a hard time figuring out for myself. [...] Finally, I learned that in the coffee sector – like in other fields – the GTZ has more know-how and competence than other organizations." (Kraft manager)*

> *"It is important for Kraft to involve the GTZ. You [as a private corporation] cannot do it on your own. You have to work with the GTZ as an institution, because otherwise you lack credibility and legitimacy in the eyes of the Peruvian Government. You need credibility to actually build up willingness on the government side to engage in changing legislature." (GTZ manager)*

Over time, the GTZ has implemented a number of local development projects in different regions of the world addressing sustainable coffee production in collaboration with private partners, including Kraft Foods, Nestle and Sarah Lee (see for an overview Manning & von Hagen, 2010). These local projects formed the basis for a more global initiative – the 4C initiative in 2001/2. In order not to 'reinvent the wheel', participants of the global 4C initiative built on elements of both Fairtrade, Utz Kapeh (later: Utz Certified) and other initiatives. At the same time, 4C initiators targeted potential adopters neglected by existing standards initiatives:

> *"Through the experiences with different players, and in discussions with Kraft, Neumann, and Sara Lee, we had this idea: Why not try something big, something on a higher level with a structural impact, which is pre-competitive and includes all actors of the value chain, not just the private sector, producers or civil society. This is how a common vision, a common innovation evolved." (GTZ 4C Project Coordinator)*

> *"[First we made] an assessment and inventory of what already was out there, so rather than reinvent the wheel, we took a lot of what already existed: from the private company initiatives, from Rainforest Alliance, from Utz Kapeh, from Fairtrade…." (Coffee industry representative).*

> *"The lion's share, that was when 4C appeared on the stage, 95% percent of the market was not even certifiable […] From our perspective it is not about that all producers should be verified according to 4C, but we want to focus on our target group – unorganized small producers and other actors in the chain." (4C representative)*

4C can therefore be seen as a result of particular institutional opportunities and relationships in the German context, on the one hand, and opportunity structures within an already existing space for sustainability standards, on the other hand. The example of 4C underlines the importance of these sources of variation: institutional conditions in a regional context, and market opportunities influencing decision-making of participating agents, in particular MNCs. For 4C, in particular, already existing standards – including Fairtrade and Utz Kapeh/Certified – influenced the initial positioning of 4C, further illustrating the co-evolving dynamics of standards variation.

Resulting opportunities, however, were embedded in a particular institutional context at a time when coffee roasters, like Kraft Foods, were searching for affordable ways of addressing sustainability demands as well as the need for improved mainstream coffee quality. Institutional relations between the GTZ and local authorities in developing countries as well as supplier relations between European roasters and local firms further provided the basis for local experiments with sustainable production practices paving the way for this global standard (Manning & von Hagen, 2010). Importantly, development

agencies such as GTZ are thereby increasingly influenced also by European and UN development policies and agendas. For example, involving firms within public private partnerships has become a legitimate approach to international development (Von Moltke, 2002). Also, the concept of 'sustainability' adopted by the GTZ in PPP projects with German and European partner firms has been influenced by the international development discourse. The triple bottom line of sustainability as 'social equity', 'environmental quality' and 'economic prosperity' has thereby established a dominant benchmark position for development projects focusing on sustainability.

Table 2 summarizes and compares key features of the development of the three standards, focusing in particular on initiating parties and sources of variation. Next, we discuss how these and other standards have co-evolved and been adopted over time, and how co-evolution and adoption have been influenced by transmission mechanisms and selection regimes, thereby focusing on key stakeholders involved.

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INSERT TABLE 2

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## STANDARDS TRANSMISSION AND SELECTION: BUYER PREFERENCES, PRODUCER STRUCTURES, AND NATIONAL INTERMEDIARIES

The adoption rate of private sustainability standards, including Fairtrade, Utz Certified, and 4C, has increased continuously year by year (see Figure 2). At a closer look, however, standards initiatives have not penetrated the global coffee value chain to the same extent. Looking at producer countries, Fairtrade certification has been adopted

particularly by producers in Colombia, followed by Brazil and Indonesia; Vietnamese coffee, by contrast, has not been certified at all (see Figure 3). UTZ Certified has been adopted primarily by Brazilian farmers and cooperatives, followed by Vietnamese and Colombian (see Figure 3). As of 2009, this distribution of adoption largely reflects the global distribution of coffee production (see Figure 1). 4C finally has been adopted primarily by producers in Colombia, followed by Vietnam and Brazil (see Figure 3). However, statistics from the Coffee Barometer 2009 further suggest that standards differ by the percentage of certified coffee actually purchased on the market: In 2008, 48% of Fairtrade certified coffee was actually purchased; 25% of UTZ certified coffee was purchased, and 10% of 4C certified coffee was purchased (TCC, 2009).

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INSERT FIGURE 3

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From a co-evolutionary point of view, the different rate of adoption of particular standards by producers can be explained by certain transmission and selection mechanisms along the global value chain which we analyze in more detail next. As we will show, national context conditions, again, play a key role here.

*Buyer preferences*

Previous research has indicated that powerful buyers in global value chains have a strong influence on the adoption of sustainability standards, and that buyers favor standards that are marketable and secure margins (e.g. Levy, 2008). Less understood are reasons why buyers are quite heterogeneous in terms of their willingness to purchase certified coffee

and their preference for particular standards. Starbucks, for example, has been at the forefront of purchasing certified coffee from its suppliers, thereby favoring their own standard C.A.F.E., but also increasingly Fairtrade and Organic (see Table 3). In 2008, 77% of their purchased coffee was certified; and by 2015, 100% certification is planned. Other major roasters have purchased much less certified coffee. Notably, SaraLee purchased 4.5% certified coffee in 2008, primarily UTZ certified. Tchibo purchased 6.2% certified coffee in 2008, partially Rainforest Alliance, Fairtrade and Organic, partially 4C. Kraft purchased 4.1% certified, mostly Rainforest Alliance (see Table 3). How can these differences be explained? And to what extent do different buyer preferences impact rate of adoption in different producing regions?

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INSERT TABLES 3, 4

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On the one hand, roasters typically target particular consumer markets which differ in terms of the acceptance and penetration of standards. In other words, consumer preferences (and education) in combination with the marketing strategies and positioning of buyers constitute an important *selection* mechanism. Table 4 shows how much certified coffee was consumed in major consuming countries in Europe in 2007. Germany, Italy, and Netherlands are among the most important consumer markets. The Netherlands, the highest per capita coffee country in Europe, have had the greatest penetration of certification: 25% of consumed coffee in 2007 was certified. As noted earlier, the biggest roaster in the Netherlands – SaraLee – mainly purchases and sells Utz certified coffee. By comparison, Utz is less prominent in Germany and UK. In Germany,

the biggest European coffee market (22% market share), organic has been a popular standard for many years. Not by chance, therefore, Tchibo, one of the largest German roasters, has purchased a considerable percentage of organic certified coffee. Similar patterns can be seen across Europe, as a former consultant for Nespresso, explains:

> *"It is about market dynamics, what the company believes in, what they feel more comfortable who they want to talk to – what is their market... Starbucks they have a huge market in the UK. In the UK Fairtrade is what is important, in Germany it is organic. In Holland it is both organic and Utz Certified. Each country has its specific dynamics. So in the UK, if you are not Fairtrade then you are unfair. So Starbucks had a lot of pressure to get Fairtrade certification. So obviously after they did it for the UK, it was then the next step to take it into other countries."*

On the other hand, roasters and consuming countries have typically established preferred supplier relationships in particular producing regions. For example, a large share of coffee consumed in the UK is purchased from Colombia (see Table 4). UK coffee consumers, e.g. Starbucks and Nestle coffee buyers, value Colombian coffee as well as the Fairtrade label, more than for example consumers in Germany. Not by chance, therefore, Colombia has the highest penetration of Fairtrade certification among all producing countries (see Figure 3). As another example, Douwe Egbert's commitment to purchasing Utz Certified coffee from suppliers in Brazil has to do with high demand for Brazilian coffee in Holland and, again, the acceptance of standards in general, and the Utz standard in particular among Dutch coffee drinkers (see Table 4). Brazil has the highest share in terms of Utz certified coffee volume worldwide (Figure 3). In sum, roasters, who target particular consumer markets, serve as important *transmitters* of standards in particular producing countries. They do so by setting certification requirements for farmers and by getting involved in farmer's training programs, partly in collaboration with standard organizations and development agencies. At the same time,

buyer preferences in consuming countries become an important *selection* mechanism in terms of the adoption of standards in producing countries.

*Producer structures*

Another important factor in the adoption of standards practices are organizational forms and structures of producers. In particular, the size of farms and producer organizations matter in terms of the extent to which particular standards get adopted. As Table 1 shows, standards organizations have typically targeted different types of producers: Fairtrade, for example, has mainly targeted small farms organized in cooperatives, whereas Utz Certified has specialized in medium-sized and large estates. This may explain in part why Fairtrade has been adopted in countries such as Mexico, where a large number of smallholders and cooperatives exist, whereas the standard has been less dominant in Brazil, where many farms are midsize or large. The role of size of producers is also perceived by standards expert as a major reason for the difference in rate of adoption across different producer regions. A standards representative explains:

> *"For Fairtrade, the most important thing is that they (producers) are small farmers, and they need to be organized in cooperatives. Countries with a lot of smallholders and cooperatives are for example Columbia, Peru. Farmers don't have to do an awful lot to get certified – practices can be bad, but farmers need to be organized in a group."*

Producer structures have therefore served as an important *selection* mechanism for standards in particular regions. Related to this, many smallholder cooperatives and larger farms have started to adopt multiple standards in order to meet requirements of different product lines of the same roaster or of multiple potential roasters, who they sell to directly or, more likely, through a trader or exporting agent. As a result, many producers

have faced increasing certification costs, which has sparked discussions on the 'inefficiencies' of having a multiplicity of only partially similar standards (see also Reinecke et al., 2010). This, in turn, has led to an increasing trend towards mutual standards endorsement, e.g. between Rainforest Alliance and the baseline standard 4C, as well as increasing compatibility between different modules of standards certification and training. From a co-evolutionary perspective, therefore, the embeddedness of many suppliers in multiple coffee value chains has generated selection pressure promoting common standards criteria, training and certification practices.

*National Intermediaries*

Recent studies have increasingly paid attention to certain institutional intermediaries who have impacted not only the ways in which standards practices are transmitted, but also which criteria standards need to meet in order to be legitimate. In the context of coffee, the example of ISEAL is perhaps most prominent. This meta-organization was set up to harmonize standards offerings and to 'regulate the standards market' (see in more detail Reinecke et al., 2010). However, a number of other intermediaries have played an important role in standards development and adoption, in particular at the national level, which have not been well understood.

One important intermediary at the national level are national coffee associations, such as the National Federation of Coffee Growers of Colombia, or the Vietnam Coffee and Cocoa Association (Vicofa). The latter became founding member of the 4C Association after having participated in a number of public private partnership projects in Vietnam involving the GTZ, Neumann Group, Sara Lee, Kraft and other partners (see in

more detail, Manning & von Hagen, 2010). Local representative organizations, such as Vicofa, are important partners for development projects involving government agencies, such as GTZ. Today, Vicofa plays an important role in implementing the 4C standard in Vietnam and also in helping standard organizations, such as 4C, coordinate local projects and programs. 4C recently opened a Vietnam office to further support these joint activities. Not least because of these institutional structures, Vietnam has become one of the major countries for 4C standard adoption. Importantly, unlike intergovernmental agreements, such as ICA, which used to regulate coffee production and exports nation-wide, voluntary standards remain subject to adoption decisions of particular producers, despite institutional support from national coffee association. However, the latter, like in the case of Vietnam, may serve as 'quasi-representatives' of states in multi-stakeholder processes of standards development and implementation.

Another increasingly important intermediary and 'transmitter' of standards are traders or exporters within particular producing countries. Interviews with industry observers suggest that the training of farmers that is needed in order for them to get certified is often delegated to traders. Traders bundle expertise and also further promote standards compatibility, e.g. in terms of trainings modules. On behalf of buyers, and in coordination with locally represented standards organizations, traders in different countries have started hiring specialized agronomists who have been put in charge of training and other implementation programs. A standards representative explains:

> *"And we observe, and that is very encouraging, that many of the trading houses actually build up agronomy capacity at the field level, and we have been training […] some of the largest coffee traders in the world who also trade cocoa and lots of other things, and they start employing agronomists because they have demand for […] certified coffee, and we train their agronomist. So we team up, it's kind of train the trainers. And we agree this is a fundamental change in the industry, and*

*that is extremely exciting, and I would like to say, it is probably the only way that such a massive change could happen."*

As a consequence, traders have not only become important transmitters of sustainability standards on behalf of global clients, thereby further driving the co-evolution and mutual adjustment of standards implementation practices in particular countries (e.g. 4C and Rainforest Alliance, or Fairtrade and Organic), but they have also strengthened their position in global value chains vis-à-vis regionally dispersed producers, and sometimes multiple clients. Paradoxically, therefore, the initial objective of empowering farmers, as shared by some standards organizations (e.g. Fairtrade), has been partially undermined by perceived 'efficiencies' of implementing standards regimes through traders, who may further dictate the terms by which farmers can sell their products to the global market. It will be important in future research to further investigate how the trader's positioning as a result of these practices has changed vis-à-vis global buyers, and how this is impacting the distribution of power and control within global value chains.

## CONCLUSIONS AND IMPLICATIONS FOR FUTURE RESEARCH AND POLICY-MAKING

Global coffee chains display a remarkable evolution in terms of the move towards more sustainable modes of production and sourcing. This trend has been promoted by a number of sustainability standards initiatives which today compete for adoption and legitimacy (Kolk, 2005; Muradian & Pelupessy, 2005; Reinecke et al., 2010). As pointed out in previous studies (e.g. Reinecke et al., 2010), sustainability initiatives have not led to any single standards solution; rather, multiple standards have co-created a space for their

mutual co-existence. Taking a co-evolutionary perspective, we have sought to shed more light on drivers of standards emergence and co-existence, with particular emphasis on the role of national contexts in this process. Using the coffee industry as an example, and focusing on the standards Fairtrade, Utz Certified and the Common Code for the Coffee Community (4C), we addressed the following question: How has the co-evolution of sustainability standards been promoted and affected by the embeddedness of key stakeholders within particular national contexts?

Unlike many scholars who have argued that the development and effective implementation of voluntary sustainability standards is primarily affected by global economic structures, in particular global value chains, we show that the anchoring of key stakeholders, such as MNC roasters, producers, and development agencies, within certain national economic and institutional contexts has played an equally important role. In other words: national contexts matter!

In particular, we have examined sources of *standards variation*, and mechanisms of *standards transmission and selection*, focusing on the interplay of national context conditions and global economic structures, and the embeddedness of key stakeholders in these contexts and structures. Table 5 summarizes how key value chain stakeholders – buyers, producers, and intermediaries – are embedded in national contexts, and how they affect processes of standards variation, transmission and selection.

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INSERT TABLE 5

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We have shown that sustainability standards have been typically initiated in certain consuming countries by certain stakeholder constellations, e.g. development agencies, NGOs and roasters. Therefore, some key *sources of standards variation* can be found in the national contexts within which these stakeholders operate and interact. Standards have typically resulted from search processes of key stakeholders facing certain market opportunity structures (e.g. Kraft anticipating demand for organic coffee in Germany) and institutional conditions in this country (e.g. funding for public private partnership projects addressing sustainability objectives; availability of competent project partners, such as development agencies; see Table 1). Also, as multiple standards enter the market over time, e.g. Fairtrade and Utz Certified in the Dutch market, they co-evolve from the very beginning, as they position themselves towards each other, occupy different market segments, and co-create a legitimate space for multiple standards to co-exist (see also Reinecke et al., 2010). Importantly, standards variation within this emerging space is thereby mainly driven by founding conditions in consuming countries, whereas producers typically have little interest in standards variation/multiplicity.

With regard to *standards transmission and selection*, producing countries with their economic and institutional structures become more critical. Differences in these structures as well as in economic relations with buyers and consuming countries explain to a large extent why, to this day, producing countries vary greatly in their rate of standards adoption. First, transmission and selection within producer countries are strongly influenced by preferred certifications and supplier relations of leading buyers, who, in turn, anticipate and respond to demand of certified coffee in their target consumer market (see also Tables 4, 5). Second, producer structures, e.g. many smallholders vs.

larger farms, serve as selection mechanisms in terms of types of standards adopted in a particular country, e.g. standards addressing smallholders (Fairtrade) vs. larger estates (Utz Certified). Producers further apply considerable selection pressure as they face difficulties adopting multiple certifications for different buyers, which has led recently to an increasing compatibility of standards offerings (see also Reinecke et al., 2010). Third, certain institutional and business intermediaries in producer countries may play a critical role in particular as standards transmitters. We particularly looked at national producer associations who help coordinate implementation efforts, and also participate in standards development. In addition, national exporters/traders have become important transmitters of standards practices on behalf of clients by employing agronomists to train farmers and to oversee the implementation/certification process.

Our findings have important implications for future research on sustainability standards. First of all, we suggest that a co-evolutionary field perspective, focusing on sources of variation, and mechanisms of transmission and selection of standards, provides a useful lens to better understand the dynamics of standards development (see also Boons, 2009). Rather than treating standards and standards setters as atomistic entities competing for acceptance and adoption, we looked at how standards have co-evolved as a result of ongoing interactions between key stakeholders in the field: standards setters, MNCs, producers, NGOs, government agencies, and intermediaries (see also Wijen & Ansari, 2007; Fransen & Kolk, 2007; Manning & von Hagen, 2010).

Second, we demonstrated that national conditions matter in this process. While global economic structures and exchanges, e.g. between powerful commodity buyers and less powerful suppliers along global value chains (see e.g. MacDonald, 2007; Levy,

2008), are certainly important, such a view often ignores the heterogeneity of firms – be it buyers, producers, or intermediaries – in their decisions to adopt or push for particular standards at particular points in time. One important explanatory factor are the national economic and institutional contexts within which these players are embedded, and the ways these contexts interlink with global economic structures. In particular, founding conditions of particular standards can be very context-specific, and they explain in part the proliferation of multiple, partially similar standards. Equally, adoption conditions typically differ by country, depending on economic structures, trade relationships with global buyers, and institutional conditions. Further research is needed to better understand how the anchorage of global value chain actors within particular national contexts affects their involvement in sustainability initiatives and the likelihood of particular standards to be adopted regionally or globally.

For policy-makers, this study brings the insight that a situation in which multiple standards co-exist is not necessarily problematic, as long as the diversity of standards allows different countries to participate in this process. One reason for this is that some degree of 'competition for adoption' as well as the development of different standards types, e.g. addressing particular producer needs, helps create feedback loops which can be central for effective development efforts (see also Manning & Von Hagen, 2010; for a general discussion Easterly, 2006). At the same time, our study shows that governments and governmental agencies remain very important players in promoting private standards regimes. The case of 4C, in particular, demonstrated that government agencies can play a key role as facilitators and moderators of multi-stakeholder processes, involving MNCs, local institutions and farmers (see also Manning & von Hagen, 2010). In so far, nation-

states are not ‘dead’ when it comes to influencing transnational governance efforts. Rather, governments play an important role in influencing and giving legitimacy to national institutions, e.g. development agencies, but also to industry associations, who may become important players in standard development and adoption. We invite future research to more systematically address the inter-linkage between ‘private governance’ and governmental as well as intergovernmental regulation, in promoting sustainability and in regulating other transnational affairs.

Furthermore, we invite future research to go beyond the scope of this study. First, whereas most studies on sustainability along the global value chain, including ours, have focused on sustainable growing and harvesting practices, more research is needed on sustainability initiatives addressing roasting and consumption (see also Princen et al., 2002) – and also explaining the difference in penetration of ‘sustainable practices’ at different stages of the value chain. Second, we would welcome studies looking at particular marketing strategies of standards organizations and their effect on adoption. Third, we need more systematic studies on the actual impact of standards certification on local communities, growing practices and environmental sustainability (see also Giovannucci & Villalobos, 2007; Bolwig et al., 2008; Kilian et al., 2006). Most evidence on impact is rather anecdotal. Notably, a number of studies have listed a number of challenges associated with standards adoption, including the disadvantaged position of small farmers and the lack of needed education (Bacon, 2005). In this regard, is standards multiplicity vis-à-vis a unified solution a facilitator – or a constraint – of adoption and ‘positive spillover effects’ on the environment and different actor groups?

Future research needs to also address some of the limitations of this study. First of all, our findings are entirely based on the coffee industry. Future research should compare coffee to other sectors, such as cocoa, tea and palm oil, in terms of the development and adoption of multiple standards (see e.g. TCC, 2010). This could also include a thorough analysis of the role of standards organizations, e.g. Fairtrade, and Utz Certified, as well as of multi-brand food producers, e.g. Nestle and Kraft, in bridging global value chains. Second, our study says little about internal decision-making processes within producer organizations or buyers. It will be crucial for a better understanding of co-evolutionary processes in the context of sustainability standards adoption to capture how firms differ in their ability and willingness to adopt standards or to promote standards adoption in their supplier network. Third, our study is empirical biased towards the viewpoint of institutions from developed countries, not least because we lacked interview access to players in producing countries. Future research needs to balance perspectives better by including key stakeholders to a similar extent.

## REFERENCES


4C 2007. Global partnership brings first results to the coffee sector. Press release. Bonn.

4C 2009. Considerable rise in purchases of 4C Compliant Coffee – further increase in demand expected in 2010. Press release. Bonn.

Akiyama, T. 2001. Coffee market liberalization since 1990. In Akiyama, T., Baffes, J., Larson, D. & Varangis, P. (Eds.), Commodity Market Reforms: Lessons of Two Decades: 83-120. World Bank Publications: Washington, D.C.

Bacon, C. 2005. Confronting the coffee crisis: Can Fairtrade, organic and specialty coffees reduce small-scale farmer vulnerability in northern Nicaragua? World Development, 33(3): 497-511.

Bair, J. 2005. Global Capitalism and Commodity Chains: Looking Back, Going Forward. *Competition & Change* 9(2) 153-180.

Bartley, T. 2007. Institutional emergence in an era of globalization: the rise of transnational private regulation of labor and environmental conditions. American Journal of Sociology, 13(2): 297-351.

Bernstein, S., B. Cashore. 2007. Can non-state global governance be legitimate? An analytical framework. *Regulation & Governance* 1(4) 347-371.

Bitzer, V., Francken, M. & Glasbergen, P. 2008. Intersectoral partnerships for a sustainable coffee chain: Really addressing sustainability or just picking (coffee) cherries? Global Environmental Change, 18(2): 271-284.

Blute, M. 2010. Darwinian sociocultural evolution. Cambridge: Cambridge University Press.

Bolwig, S. et al (2008): Economic Effects of Organic Contract Farming in Tropical Africa. World Development Vol. 37, Issue 6.

Boons, F.A.A. (2009). Creating ecological value. An evolutionary approach to business strategies and the natural environment. Cheltenham: Edward Elgar.

Boons, F.A. & Mendoza, A. 2010. Constructing sustainable palm oil: how actors define sustainability. Journal of Cleaner Production, 18(18), 1686-1695.

CBI (2010a): The coffee, tea and cocoa market in the United Kingdom, Rotterdam.

CBI (2010b): The coffee, tea and cocoa market in Germany, Rotterdam.

CBI (2010c): The coffee, tea and cocoa market in Italy, Rotterdam.

CBI (2010d): The coffee, tea and cocoa market in The Netherlands, Rotterdam.

Daviron, B. & Ponte, S. 2006. The Coffee Paradox: Global Market, Commodity Trade and the Elusive Promise of Development. Zed Book: London & New York.

Dicken, P., Kelly, P., Olds, K. And Wai-Chung Yeung, H. 2001. Chains and networks, territories and scales: towards a relational framework for analysing the global economy, Global Networks 1(2): 89-112.

DiMaggio, Paul J., and Walter W. Powell. 1983. “The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields.” American Sociological Review 48:147-160.

Djelic, Marie-Laure, and Sigrid Quack. 2008. “Institutions and Transnationalization.” Pp. 299-242 in The Sage Handbook of Organizational Institutionalism, edited by Royston Greenwood, Christine Oliver, Kerstin Sahlin, and Roy Suddaby. London: Sage.

Djelic, M.-L. & Sahlin-Andersson, K. (Eds.). 2006. Transnational Governance: Institutional Dynamics of Regulation. Cambridge University Press: Cambridge et al.

Easterly, W. 2006. The White Man's Burden. New York: The Penguin Press.

FAO. 2009. FAOSTAT. Food and Agricultural Organization of the United Nations: Economic and Social Department: The Statistical Division

Fransen, L.W. & Kolk, A. 2007. Global rule-setting for business: a critical analysis of multi-stakeholder standards. Organization, 14(5): 667-684.

Galvin, T., Ventresca, M., and Hudson, B. 2004. Contested Industry Dynamics. New Directions in the Study of Legitimacy, International Studies in Management and Organization 34(4): 56-82.

Gereffi, G. 1994. The Organization of Buyer-Driven Global Commodity Chains: How U.S. Retailers Shape Overseas Production Networks. In *Commodity Chains and Global Capitalism*. Westport, CT: Praeger, 95–122.

Gereffi, G., J. Humphrey, S. Timothy. 2005. The Governance of Global Value Chains. *Review of International Political Economy* 12(1) 78-104.

Gerrits 2008 The gentle art of coevolution. PhD. Thesis, Erasmus University Rotterdam.

Gerrits, L. 2010. A Coevolutionary Revison Of Decision Making Processes: An Analysis of Port Extensions in Germany, Belgium and The Netherlands. Public Administration Quarterly, (in press).

Giovannucci, D. 2001. Sustainable Coffee Survey of the North American Specialty Coffee Industry. Conducted for The Summit Foundation, The Nature Conservancy North American Commission for Environmental Cooperation Specialty Coffee Association of America, The World Bank. Available at: http://www.dgiovannucci.net/publications.htm (Accessed: February 23, 2010)

Giovannucci, D. & Liu, P. & Byers, A., 2008. Adding Value: Certified Coffee Trade in North America. In: Pascal Liu (Ed.): Value-adding Standards in the North American Food Market - Trade Opportunities in Certified Products for Developing Countries. FAO: Rome.

Giovannucci, D. & Potts, J., 2008. Seeking Sustainability COSA Preliminary Analysis of Sustainability Initiatives in the Coffee Sector. IISD: Winnipeg.

Giovannucci, D.; Villalobos, A. 2007: The state of organic coffee: 2006 US update, The Sustainable Markets Intelligence Center (CIMS), INCAE, San Jose, Costa Rica.

GIZ 2011. Public-Private Partnerships. http://www.gtz.de/en/weltweit/asien-pazifik/24286.htm (access: May 14 2011).

Gulbrandsen, Lars H. 2008. "Accountability Arrangements in Non-State Standards Organizations: Instrumental Design and Imitation." Organization 15:563-583.

ICO. 2009. Total Production of Exporting Countries. http://www.ico.org/prices/po.htm: International Coffee Organization (ICO).

Kallis, G. and Norgaard, R. 2010. Coevolutionary ecological economics. Ecological Economics 69: 690-699.

Kilian, B., Jones, C., Pratt, L. and Villalobos, A. 2006. Is sustainable agriculture a viable strategy to improve farm income in Central America? A case study on coffee. Journal of Business Research, vol. 59, no. 3, pp. 322-330.

Kolk, A. 2005. Corporate social responsibility in the coffee sector: The dynamics of MNC responses and code development. European Management Journal, 23(2): 228-236.

Lazaro, E. et al 2008. 'Sustainable coffee' exports from Tanzania. In: DIIS Safe Policy Brief No.3.

Levy, D. 2008. Political contestation in global production networks. Academy of Management Review, 33(4): 943-963.

Lewin, A. Y. & Volberda, H. W. 1999. Prolegomena on coevolution: A framework for research on strategy and new organizational forms. Organization Science, 10(5): 519-534.

Liebowitz, S. J, and Stephen E Margolis. 1995. “Path Dependence, Lock-In, and History.” Journal of Law, Economics and Organization 11:205-226.

MacDonald, K. 2007. Globalising justice within coffee supply chains? Fair Trade, Starbucks and the transformation of supply chain governance. Third World Quarterly, 28(4): 793-812.

Manning, S., von Hagen, O. 2010. “Linking Local Experiments to Global Standards: How Project Networks Promote Global Institution-Building“; Scandinavian Journal of Management, 26 (4), 398-416.

Moreno-Peñaranda, R. & Kallis, G. 2010. A coevolutionary understanding of agroenvironmental change. A case-study of a rural community in Brazil. Ecological Economics 69, 770–778.

Muradian, R. & Pelupessy, W. 2005. Governing the coffee chain: the role of voluntary regulatory systems. World Development, 33(12): 2029-2044.

Murmann, J. P. 2003. Knowledge and Competitive Advantage: Cambridge University Press.

Nadvi, K. & Wältring, F. 2002. Making Sense of Global Standards. Institut fuer Entwicklung und Frieden (INEF) of Gerhard-Mercator-University Duisburg.

Nelson, R. R. & Winter, S. G. 1982. *An evolutionary theory of economic change*. Cambridge, Mass.: Harvard University Press.

Petkova, I. 2006. Shifting regimes of governance in the coffee market: From secular crisis to a new equilibrium? Review of International Political Economy, 13(2): 313-339.

Pichop, G.N. & Kemegue, F.M. 2005/6. International Coffee Agreement: Incomplete membership and instability of the cooperative game. Southwest Business and Economics Journal, 14: 25-38.

Potts, J. 2007: Alternative trade initiatives and income predictability: Theory and evidence from the coffee sector. Winnipeg. Available at: http://www.iisd.org/PUBLICATIONS/pub.aspx?id=885

Princen, T.; Maniates, M.F. & Conca, K. 2002. Confronting Consumption. Cambridge, Mass: MIT Press.

Rainforest Alliance 2008. Coffee Program 5-year Strategy, FY 2008-2012.

Raynolds, L. et al. 2004. Fairtrade coffee: building producer capacity through global networks. In: Journal of International Development J. Int. Dev. 16, 1109–112.

Reinecke, J. 2010. Beyond a subjective theory of value and towards a 'fair price': an organizational perspective on Fairtrade minimum price setting. Organization 17(5): 1-19.

Reinecke, J., Manning, S., von Hagen, O. 2010. "Emerging Standards Markets: Multiplicity and Reciprocal Positioning of Sustainability Standards in the Global Coffee Industry"; Presented at the 2010 Academy of Management Annual Meeting, Montreal.

Roozen, N. & Van der Hoff, F. 2001. Fair Trade. Amsterdam: Van Gennep.

Starbucks 2007. Corporate Social Responsibility Annual Reports 2002-07. Available at: http://www.starbucks.com/responsibility (Accessed February 25, 2010)

Sturgeon, T. J. 2008. From Commodity Chains to Value Chains: Interdisciplinary Theory Building in an Age of Globalization. Available at: http://isapapers.pitt.edu/84/ [Accessed March 19, 2011].

TCARC 2009. Agritrade Executive Brief: ACP-EU Trade Issues in the Coffee Sector. Available at: http://agritrade.cta.int/en/Resources/Agritrade-documents/Agriculture-Executive-briefs/The-Coffee-Sector-in-ACP-EU-Trade

TCC 2009. Coffee Barometer. http://www.teacoffeecocoa.org/tcc/Publications/Our-publications (Dec 5 2010).

TCC 2010. Cocoa Barometer. http://www.teacoffeecocoa.org/tcc/Publications/Our-publications (Dec 5 2010).

USAID&Rainforest Alliance 2007. Certified Sustainable Products Alliance. Timber – Bananas – Coffee, Final Report 2007. San Salvador.

UTZ Certified 2008. Good Inside. Annual Reports 2004-08. Available at: http://www.utzcertified.org/index.php?pageID=111&showdoc=111_0_5 (accessed February 24, 2010)

Von Moltke, K. 2002. Governments and international civil society in sustainable development: A framework. International Environmental Agreements: Politics, Law and Economics 2, 341-359.

WCED 1987: Report of the World Commission on Environment and Development: Our Common Future.Available under: http://www.un-documents.net/ocf-02.htm

Whitley, R. 1999. Divergent capitalisms: the social structuring and change of business systems. Oxford University Press.

Wijen, F. & Ansari, S. 2007. Overcoming inaction through collective institutional entrepreneurship: insights from regime theory. Organization Studies, 28(7): 1079-1100.

Yin, R.K. 2003. Case Study Research: Design and Methods (3rd ed.). Sage: Thousand Oaks.

## TABLES AND FIGURES

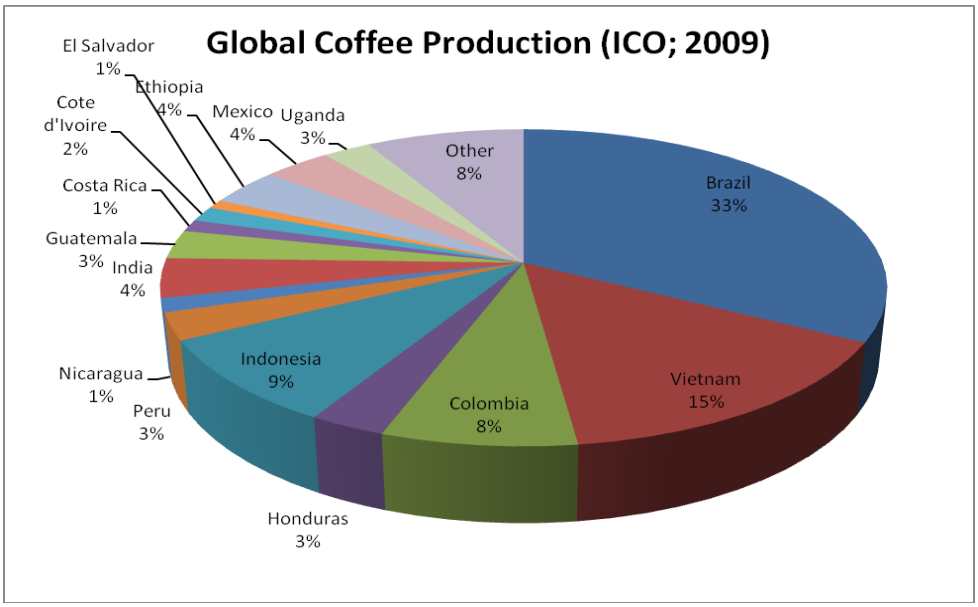


Figure 1: Distribution of world coffee production (source: ICO 2009)

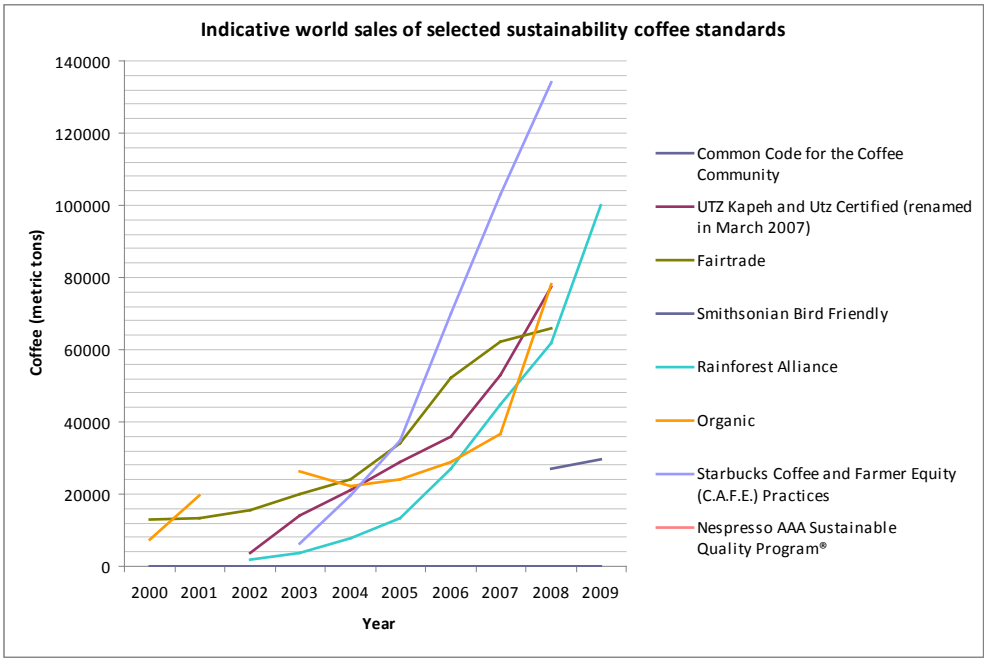


Figure 2: Adoption of sustainability standards over time (Multiple sources)[1]

[1] Data compiled from: AC (2007), 4C (2009), Daviron & Ponte (2005), Giovannucci (2001), Giovannucci & Potts (2008), Giovannucci et al., (2008), Lazaro (2008), Potts (2007), Rainforest Alliance (2008), Raynolds et al. (2004), Starbucks (2007), TCARC (2009), USAID & Rainforest Alliance (2007), UTZ Certified (2008)

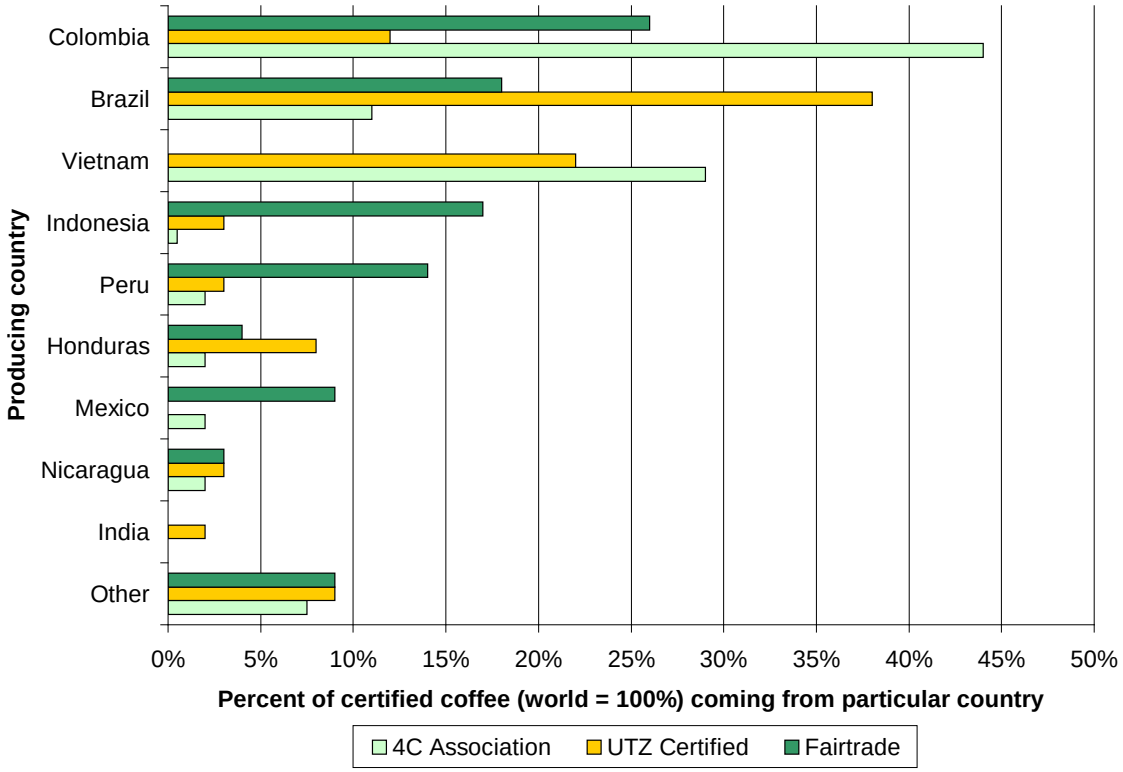


Figure 3: Adoption of certifications by country (% of total certified volume, sources: 2009 Annual Reports of Fairtrade, Utz Certified, and 4C*)

* Percentage numbers for 4C coffee from Indonesia, Peru, Honduras, Mexico, Nicaragua and India are estimates (total: 12% from Latin America excl. Colombia and Brazil; 1% from Southeast Asia excl. Vietnam)

| | Fairtrade | Rainforest Alliance | Utz Certified (formerly: Utz Kapeh) | Starbucks C.A.F.E. Practices | 4C Association | Organic |
|---|---|---|---|---|---|---|
| **Main Objective** | Improve position of farmers in trade with a guaranteed minimum price as main attribute. Focus on development/poverty alleviation. | Improve environmental and social conditions in tropical agriculture. Focus on biodiversity | Achieve sustainable supply chains, meeting needs of farmers, industry and consumers. | Good social and environmental performance minimizing environmental impact, improving local communities. | Baseline standard to improve situation for producers, workers, rural communities, trade & industry, consumers and the environment. | Develop standards for organic agriculture and facilitate its adoption. Unite the organic movement worldwide. |
| **Sales of compliant coffee (2009)** | About 91 573 MT | About 87 583 MT | About 82 058 MT | About 135 624 MT | About 29 547 MT | About 101 583 MT |
| **Target Group** | Small farmers organized in cooperatives | Big and medium sized estates | Big and medium sized estates | High-quality coffee growers | Coffee producers of all sizes | Coffee producers of all sizes |
| **Standard Launch** | 1988 | 1995 | 1997 | 1995 | 2004/2007 | 1972 |
| **Initiator** | Social Movement/ NGO | Social Movement/ NGO | Firm (Ahold Coffee company) in cooperation with Guatemalan coffee supplier | Firm (Starbucks) | Government/ Industry | Social Movement/ NGO |
| **Initiated in** | Netherlands /Mexico | USA | Netherlands | USA | Germany | Germany |

Table 1: Comparison of Coffee Sustainability Standards (Sources: websites of standards organizations; annual reports)

| | **Max Havelaar/ Fairtrade** | **Utz Kapeh / Certified** | **Common Code for the Coffee Community (4C)** |
|---|---|---|---|
| **Initiating organizations** | Peeze, Simon Levelt, Nico Roozen | ACC | GTZ – German development agency, Kraft and other MNCs |
| **Key search processes of key stakeholders (e.g. roaster MNCs)** | Search for ways to promote fairness in global economy / values-based coffee supply | Distinguishing from Max Havelaar / Collaboration with farmers | Search for organic labeling methods / qualification of farmers in different contexts |
| **Facilitating economic and institutional conditions in consumer countries** | Critical consumers in Dutch market / many smaller roasters with direct supplier relations | Fairtrade as niche market established; perceived opportunity for more mainstream certified coffee | Anticipated demand for organic coffee; Public Private Partnership program; aid partnerships with producer countries |
| **Facilitating conditions in producer countries** | Existing contacts with farmers in Mexico | Existing contacts / direct supply relations with local farmers | Local development projects with key private partners in Latin America |

Table 2: Sources of Standards Variation Comparing Fairtrade, UTZ, and 4C

| Coffee roaster | Total volume purchased in 2008 | Certified coffee | % certified coffee in 2008 |
|---|---|---|---|
| Nestle | 780,000 t | 13,000 t AAA Nespresso, 2,000 t Fairtrade, 4,000 t 4C | 2.7% |
| Kraft | 740,000 t | 29,500 Rainforest Alliance, 1,000 t 4C | 4.1 % |
| SaraLee | 450,000 t | 20,000 t Utz Certified, 400 t 4C | 4.5 % |
| Smucker's | 280,000 t | 1,500 t Rainforest Alliance / Fairtrade / Organic | 0.5 % |
| Starbucks | 175,000 t | 120,500 t C.A.F.E., 9,000 t Fairtrade 4,500 t Organic | 76.5 % (100% planned by 2015) |
| Tchibo | 170,000 t | 5,500 t Rainforest Alliance / Fairtrade / Organic, 5,000 t 4C | 6.2 % (25% planned by 2015) |

Table 3: Certified Coffee Purchased by Largest Coffee Roasters (Source: TCC, 2009)

| Country (vol consumption, 2007) | Leading suppliers (from developing countries) | Major roasters (market share) | % Certified coffee in 2008 |
|---|---|---|---|
| Germany (512,000 t / 22% market share in Europe) | Brazil (28%) Vietnam (13%), Colombia (8.6%), Peru (7.4%), Indonesia (7.4%), Honduras (6.5%) | 80 % market share for five roasters: Kraft&Tchibo (~ 48%), Melitta (~12%), Dalmayr (~10%), Aldi (~10%). Growing importance of coffee shops | 5% certified (2% organic); 4C certified coffee also available, but marginal |
| Italy (340,000 t / 14% market share) | Brazil (37%), Vietnam (15%), India (10%), Colombia (6.3%) | Lavazza (50% market share), followed by Illy and local roasters | <1% (Lavazza buys Rainforest Alliance certified coffee, but only sells it in UK) |
| Netherlands (113,580 t / highest per capita consumption) | Brazil (27%), Vietnam (11%), Colombia (8.8%), Guatemala (7.5%) | Sara Lee Douwe Egberts (50% market share); Ahold, Drie Mollen Holding | 25% (long tradition of certified, e.g. Fairtrade, coffee); 40% of Douwe Egberts, certified coffee sold in NL |
| UK (184,000 t / 7.7% market share in Europe) | Colombia (24%), Brazil (16%), Vietnam (16%), Indonesia (10%) | Nestlé (about 50% market share); Kraft Foods (about 20%). Coffee shops, such as Starbucks, Costa Coffee, Caffè Nero (15% annual growth since 2000). | About 20 % of total coffee sales is certified Fairtrade (34,383 t); Coffee often double certified Fairtrade/organic. Utz plays a minor role. |

Table 4: Consumption of Certified Coffee in Different Countries (Source: TCC, 2009; Mintel UK coffee report, 2010; FAO, 2009; CBI, 2010a, 2010b, 2010c, 2010d)

| | **Commodity Buyers** | **Commodity Producers** | **Intermediaries (e.g. development agencies, producer associations, traders)** |
|---|---|---|---|
| **Embeddedness in global value chains and *national contexts*** | Lead actors in GVCs; embedded in / serving Western consumer markets / exposed to cultures and institutions in consuming countries | Globally dispersed with little individual power; more or less organized, and embedded in economic structures of producer countries | Traders link producing countries to world markets; Associations represent producers and maintain links with development agencies |
| **Role in standards emergence / *variation*** | Co-develop standards / search for new labels targeting more or less specific consumer markets | Little 'active' role; typically no interest in promoting standards variation; | Associations and development agencies take part in multi-stakeholder projects/processes addressing demands in particular consumer/producer countries |
| **Role in standards *transmission*** | Setting requirements for suppliers / farmers; participate in training of farmers | Co-develop adoption practices (e.g. multiple certification) | Critical as certifiers, and trainers / educators within national contexts |
| **Role in standards *selection*** | Apply pressure on farmers to adopt particular standards rather than others (anticipating and/or responding to consumer demand) | Producer structure affects adoptability of particular standards; producers apply pressure on standards setters for more compatible, less costly solutions | No direct selection pressure once standards are created (yet they influence selection processes during standards development) |

Table 5: Role of different stakeholders in standards variation, transmission, and selection