(Trans)National Rules and Local Performances: Sustainability Standards in the Cocoa Sector of Ghana, Ecuador, and Brazil

by

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Submitted to the MIT Sloan School of Management
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Abstract

Sustainability standards have been construed as potent solutions for agricultural producers in the Global South to solve major issues around poverty, inequality, bad labor and environmental conditions, and they have been spreading rapidly. Standards promise better livelihoods for producers through higher prices, farmer organization, and compliance with improved labor, environmental, and managerial practices. Yet actual improvements occur inconsistently. This dissertation examines this inconsistency by asking under what conditions and through what mechanisms sustainability standards improve livelihoods for producers in their labor and economic conditions.

I find that producers, themselves, must make standards work and discover how to translate transnational rules into locally suitable practices. This process of discovery comprises two challenges: to upgrade by adding value to the adopting rural enterprise and to turn rules into practices. Overcoming these challenges is contingent on two conditions. First, adopters must integrate this process of discovery with a high-performance work system that mobilizes the skills and motivation of employees for productivity and quality gains. Second, adopters’ learning depends on external reinforcement, positive through support for learning or negative through a threat of sanctions.

The empirical material for this argument stems from a multi-method study of sustainability standards in the cocoa sector of Ghana, Ecuador, and Brazil. A five-year panel study from Ghana shows that, on average, livelihood improvements with standards are underwhelming. In Ecuador, my findings from comparing two certified farmer groups show that the path to better outcomes leads through upgrading, and not through standards by themselves. In Brazil, evidence from a participant-observation and interview-based study with cocoa plantations demonstrates that adopters must be able to proactively turn rules into on-the-ground behaviors.

Theoretically, this dissertation contributes a practice and labor lens to transnational private governance research and, in doing so, theorizes relationships between adopters’ practices, private standard implementation, and market and regulatory contexts. Empirically, I propose that mitigating the weaknesses of private governance cannot be solved by adding more public regulation or more governance from buyers. Instead, I recommend to support agricultural producers by complementing transnational rules with local communities of practice in order to speed up processes of upgrading and discovery.

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Chapter 1: Introduction

The Challenge of Improving Livelihoods

In Ecuador, at the headquarters of Fairtrade-certified farmer group Fortaleza del Valle, cocoa producers regularly walk into an air-conditioned office to inquire what they need to do to join or when the next tranche of micro-credits, financed through Fairtrade premiums, will be available. Members of this rural enterprise get a better price for their cocoa, about a third higher than the local spot market price. Besides better economic conditions, they also can count on training and some labor support, paid by Fortaleza del Valle, to help with physically strenuous activities. Reaping Fairtrade premiums of almost half a million US dollars in the first seven years since adopting this certification¹ has allowed Fortaleza del Valle to provide better conditions to its members and to underpin the organizational stability of the enterprise.

Another Ecuadorian cocoa farmer group, Aroma Amazónico, also certified for a total of seven years, has not fared nearly as well. Its last certification endeavor with Fairtrade turned out short-lived because the manager had trouble convincing producers that they would get a better deal for delivering certified cocoa. Farmers had become skeptical after a prior attempt with Rainforest Alliance certification was aborted when their foreign buyer gave up on buying certified cocoa from Ecuador. Today this group’s headquarters stands empty. Its former members are back to selling to local middlemen, without additional economic or labor benefits. Yet both groups had been in compliance with their respective standards, as attested in annual certification audits. Both were motivated and capable to make certification work. Both counted with access to foreign buyers, at least initially. Yet only Fortaleza del Valle was able to sustain benefits for the organization and its member farmers from a private standard.

Similarly variable has been the lived experience of workers on UTZ-certified cocoa plantations (called fazendas) in Bahia, Brazil. At one of these fazendas, workers routinely follow health and safety rules, as prescribed by the transnational UTZ standard and by national law. In addition, they are able to earn more than the federally-set minimum wage

¹ I use the terms sustainability standards, private standards, and certifications as equivalents. They are a case of transnational private governance (or short, private governance), as described below.
by taking on extra tasks. Worker housing is simple but decent, with a functioning bathroom and running water at each accommodation. At two other fazendas, however, conditions are mixed or downright dire. Still, on the positive side, workers are pleased with getting paid the minimum wage on time, which is not taken for granted in this region. At the same time, some of them and their families use rivers and forests for basic hygiene since bathrooms do not exist or are in a decayed state. Children can be seen carrying buckets of water from fountains or cisterns. Health and safety equipment to protect workers from agrochemicals is available, but used haphazardly or not at all.

Conditions at these three fazendas do not diverge because of fundamentally different economic resources or costs of compliance across the sites. For example, at two of these three fazendas that I studied in depth, the owners do not rely on the enterprise for their income and routinely invest into its agricultural infrastructure. Nor are different conditions due to differences in private enforcement, public regulation, or the type of buyer. All fazendas are inspected yearly by the same audit company. All are under the jurisdiction of the state of Bahia and the federal state of Brazil, with demanding labor and environmental laws for agriculture. The owners, who are professionals in agriculture or other fields, collaborate with the same multinational buyer that supports the introduction of UTZ through regular, monthly or bi-monthly visits with its own staff and that offers a fixed premium for certified cocoa.

Why do sustainability standards improve livelihoods in some places, for some farmer groups or plantations, and not in others? Why do very similar private standards initiatives, with similar designs, yield such different outcomes? Four kinds of explanations have been commonly put forth, looking at features of private governance, public regulation, buyers, and the adopters of private standards themselves. According to these explanations, we should have seen improved livelihoods in all of the cases described above. Private standards were enforced, as foreseen. Public regulation—although in the background in Ecuador and more in the foreground in Brazil—did not hinder or legitimized private governance. All groups and plantations were connected to foreign buyers from whom they could have learned how to "upgrade" and add value, according to globalization scholars. All adopters were motivated enough to join private standards, without being obligated, and were sufficiently prepared in their training and backgrounds to implement them. Therefore, while these are important factors (presented in more detail in Chapter Two), they cannot explain the observed variation.
To answer this puzzle of varying outcomes with similar private governance interventions, I turn to the underlying processes and practices that characterize the implementation of private standards. I argue that the ways in which adopters of private standards are able to leverage their own learning process, shaped by their own agency and by external reinforcement from buyers and from public and private governance, influences how likely livelihood improvements occur. Where farmer groups or plantation owners improve their practices as well as their wider managerial systems, they can upgrade and thus become more competitive. This added value, if distributed to farmer group members or workers, is the basis for noticeable livelihood improvements. Two major difficulties arise. First, this learning mechanism depends only peripherally on private standards. Instead, it is a recursive process where adopters of standards proactively advance their learning on agricultural production and management by inquiring widely and integrating pluralistic advice with locally specific experiences and conditions. Second, this learning process must go above and beyond compliance with standard requirements, because rules do not provide sufficient guidance on how to create effective practices and much less on upgrading. Under the condition of this recursive and externally reinforced learning mechanism, sustainability standards can result in livelihood improvements. However, few adopters discover this comprehensive learning process by themselves; many get stuck in a gap between adopting and implementing standards, without significantly improving livelihoods.

Drawing on this insight then allows us to understand variation in livelihood outcomes by unpacking the learning mechanism and its relation to the wider managerial system of the adopting organization. For this endeavor, scholars of organizations and of industrial relations have much to offer to a private governance literature that has foregrounded design features of private governance and interactions with public regulation and global value chains but paid less attention to the agency of adopters. In the following sections, I first trace the rise of sustainability standards as an increasingly popular policy instrument. Then I briefly review existing explanations for outcomes of private standards (which I further expand on in Chapter Two), and I illustrate why dominant approaches fall short of explaining different outcomes observed in Ghana, Ecuador, and Brazil. I provide an outline of an alternative theoretical approach (elaborated in Chapter Two) before laying out the roadmap for this dissertation. Next I give more background on the nature and increasing popularity of sustainability standards.
Sustainability Standards: Moving to the Foreground

Transnational demands for socially and environmentally responsible practices increasingly permeate global production networks that connect consumers, many in industrialized countries, with producers, a majority of them in developing and emerging economies. Such demands are often inscribed into transnational rules, for instance into voluntary “sustainability standards.” These standards, such as Fairtrade, Rainforest Alliance or UTZ certification, use third-party verification to check compliance with social, environmental and administrative requirements. But how are such transnational demands mediated in local sites of action? Do they translate to changes in local practice and to better livelihoods? In this dissertation, I take these questions on transnational rules and local practices into the field, into tropical cocoa fields in Ghana, Ecuador, and Brazil, to better understand when sustainability standards translate to improved practices and contribute to better livelihoods for producers with regards to their economic and labor conditions.

Sustainability standards seek to redress deep-rooted economic, social and environmental problems in the places where they are implemented. Let me provide examples from the countries studied here. In Ghana, the income of a cocoa producer has been estimated at USD 0.84 per day (Fountain and Hütz-Adams 2015), well below the international poverty line of USD 1.90 per day. The country, the world’s second largest producer of cocoa next to Côte d’Ivoire, has also become notorious for allegations of child labor, which surfaced first in the early 2000s. Daily hardships abound because basic rural infrastructure—clean water, electricity, decent road access, health care, and functioning schools— is often lacking. In Ecuador, although infrastructure is better, relative to Ghana, rural poverty is entrenched, too. Out-migration is widespread, and those who stay behind tend to cultivate trees beyond maturity, often on small plots, that yield subsistence incomes. In Brazil, where cocoa is grown on plantations rather than on smallholder farms, worker conditions can be deplorable. Workers may be shorted in terms of payment, housing, and health and safety provisions, despite a federally set minimum wage and stringent rural labor regulation. Other concerns across countries revolve around deforestation and inappropriate use of

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2 Quotation marks for sustainability standards, although not used throughout the dissertation for ease of reading, are a deliberate reminder to examine the claim inherent in this term.

3 Sustainability is commonly understood to have a strong environmental component, and the standards studied here include environmental requirements. However, within the scope of this dissertation, I focus mostly on economic and labor aspects of sustainability.
pesticides, affecting soil, water, and the health of workers. In short, cocoa producers often "toil for a pittance" (Rosenblum 2007) in undignified or unsafe conditions, making better economic and labor outcomes an important goal, alongside environmental conservation.

Private standards have been construed as potent solutions for sustainable agriculture, defined here as a system of practices that can sustain producers, the environment, and co-inhabitants of the territory over the long term. The main mechanisms through which sustainability standards purport to address the problems described above is by increasing the incomes of farmers and workers through a premium in return for requiring adherence to labor rights and regulations as well as to environmentally sensitive procedures. Farmer organization is an additional mechanism that, although not required by all certifications, is *de facto* necessary for small producers; they have to unite in order to distribute the costs of certification. These mechanisms—premium, compliance, and farmer organization—thus mirror the three pillars of economic, social and environmental sustainability⁴ put forth first in a report of the World Commission on Environment and Development (1987) where sustainable development is understood as development that is shared equitably within and across generations.

Transnational rules manifest, besides sustainability standards, in other forms, too, including food safety standards, labor codes of conduct, multi-stakeholder roundtables for sustainability, and triple bottom line reporting initiatives. All share the goal of better labor and environmental conditions. All are examples of what scholars have called *transnational private governance*—regulatory interventions through codes, standards and rules that are enforced largely by non-state actors and that operate across nation boundaries (Schneiberg and Bartley 2008; Vogel 2008). Yet they do not exist in a void, but alongside national rules, creating layered regulatory landscapes that can shape how private standards unfold (Bartley 2011b).

Scholars have taken note that transnational and national rules are expanding, possibly turning capitalism into "regulatory capitalism" (Levi-Faur 2005, 2012) and the world into a "world of standards" (Brunsson and Jacobsson 2000). Sustainability standards, reflecting

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⁴ I use the terms sustainable development and sustainability interchangeably.
this trend, have become ubiquitous since the first certifications started in the late 1980s, covering ever more products on a growing list of certified items, including coffee, tea, cocoa, palm oil, sugar, cotton, flowers, seafood, and timber. Products that carry labels of these standards have moved from market niches and the fringes of mission-oriented stores, accounting for miniscule shares in the global market, to being prominently placed on the shelves of major retail chains across the globe. The share of certified global sales reached 12% for coffee and 7% for cocoa in 2012 (Potts et al. 2014)—and continue to climb, although certified sales have not kept up with fast growing certified production.

Sustainability standards have grown explosively, particularly since some of the largest companies in the world, such as Nestlé, Mars, Unilever, and Coca-Cola, have pledged their participation, starting in the late 2000s. A central premise for this remarkable growth—often prominently marketed to consumers—is that it benefits the agricultural producers responsible for cultivating the certified products. Seemingly a success, everything points to a rising share of products labeled with a sustainability standard.

Yet for producers, at the receiving end of this “sustainability wave,” the benefits are less clear. Impact evaluations of various kinds of standards, across multiple products and geographies, attest to a mixed and mostly modest picture. Some users of standards have been able to derive economic benefits while adopting better labor and environmental practices (Jaffee 2007; Ruben and Fort 2012; Rueda and Lambin 2013b); for others, benefits have been negligible (Subervie and Vagneron 2013), ambivalent (van Rijsbergen et al. 2016), or negative compared to non-certified peers (Beuchelt and Zeller 2011). Some certified farmer groups have thrived and developed into sophisticated rural enterprises (Mutersbaugh 2005); others have been forced to give up on standards (Melo and Hollander 2013; Smith 2007). Such uneven results are worrisome—certainly for adopting producers whose commitment of time and effort to implement standards may not be rewarded, but also from a policy perspective where social welfare benefits are uncertain while standards continue to diffuse rapidly. Certifications for agricultural goods, such as coffee, fruit, or cocoa, are no exception for having uneven results in the field of private governance. Similar

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5 For a timeline of 16 major sustainability standards see (Potts et al. 2014:32). Organic certification started earlier, in 1972, with the founding of IFOAM (International Federation of Organic Agriculture Movements).

6 I use adopter and user as synonyms.
findings appear for private standards adopted in fishery and forestry (Carlson and Palmer 2016) and for labor standards in manufacturing (Locke 2013).

To explore this puzzling variation, my guiding research question for this dissertation therefore is: Under what conditions and through what mechanisms do sustainability standards contribute to improving producers' livelihoods? To answer this question, I apply qualitative and quantitative methods to the cocoa sector in Ghana, Ecuador, and Brazil. These are three major cocoa-producing countries that differ in socioeconomic status, predominant production regimes, and regulatory environment, which allows me to examine my overarching research question in diverse settings. I draw on extensive empirical data and 15 months of fieldwork in these three countries to examine "the potential and limits of private power" (Locke 2013) for cocoa, a commodity that is essential to the livelihoods of about 6 million cocoa producers around the globe and that feeds an indulgence through a global chocolate confectionary industry worth almost USD 90 billion in 2014 (MarketLine 2015). As a consumer, I might add: what could be more important than chocolate? Next I turn to the factors that have been proposed so far as shaping standard outcomes.

Established Causes for Effective Standard Implementation

What explains livelihood improvements of agricultural producers? The question is so encompassing that a wide range of factors is relevant—including rural development policies and general economic development of a country, the likelihood of public regulation reaching rural sites, the world market dynamics and industry structure for a given crop, and material factors, such as climate and land. Yet within any given country or industry, there is variation in producers' livelihoods, and certifications are considered one way to improve living standards through the mechanisms of premium, farmer organization, and compliance.

At the highest level, the question is: does certification work? On the one hand, standards are expected to improve livelihoods through offering better economic terms (Dragusanu, Giovannucci, and Nunn 2014), helping farmers to develop organizational capabilities (Raynolds, Murray, and Taylor 2004), and instilling compliance with better practices (Rueda and Lambin 2013b). But scholars have pointed out that all three mechanisms can be subject to breakdown or drift. Certification premiums can be dissipated because buyers refrain from buying when the premium is relatively high as a percentage of current market prices (de Janvry, McIntosh, and Sadoulet 2015). Farmer groups are prone to failure,
especially when they lack the managerial skills to steer complex, decentralized organizations through market swings (Melo and Hollander 2013). Finally, compliance may be skirted by selling off non-certified goods as certified (Getz and Shreck 2006) or by strategically selecting when to comply and when to appear as if (Christmann and Taylor 2006). Given this unevenness, the debate has shifted to what explains variation.

Broadly, two different types of explanations have been put forth to account for livelihood improvements with standards—top-down structural and bottom-up actor-centered ones. The structural type of explanations comprises a diverse lot of factors, focusing on the design and enforcement of private governance rules (Potoski and Prakash 2009; Simpson, Power, and Klassen 2012; Wijen 2014), the role of public law enforcement and interactions with private governance (Amengual and Chirot 2016; Locke, Rissing, and Pal 2013; Piore and Schrank 2008; Trubek and Trubek 2007), and the influence of industry structure and of lead buyers (Bush et al. 2015; Locke, Amengual, and Mangla 2009; Mayer and Gereffi 2010; Riisgaard and Hammer 2011). Although these explanations concern very different factors, they share a common assumption, namely that the adopters of private standards respond to external pressures and reinforcement, in the form of threats of sanctions or supportive measures, and that these factors play a dominant role for explaining different outcomes.7

The second type turns the lens on adopters themselves and highlights their motivation and capabilities (Coslovsky 2013; Perez-Aleman 2011). This approach has paid attention to processes of implementation, but struggles to explain failure since most studies have focused on success cases (for an exception see Coslovsky 2014a).

Together, these theoretical explanations do not render the observed outcomes in my cases comprehensible. Table 1 summarizes the existing explanations and outcomes in a stylized form. Improved livelihoods were achieved at one farmer group in Ecuador (Fortaleza del Valle) and one fazenda (number C) in Brazil. When examining only Ecuador, it looks as if direct buyer support could explain the different outcomes. Yet this (overly simplified) explanation does not hold for Brazil where all fazendas interacted with the same buyer, and Fazenda C opted for less intense buyer accompaniment to support the implementation of

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7 Not all these approaches formulate predictions on livelihood as an outcome but instead focus on intermediate outcomes, such as organizational upgrading. I will return to the question of the outcome of interest in more detail in Chapter Two.
certification. Why would this Fazenda C get better outcomes with standards when other factors are similar?

Table 1: Existing explanations and case outcomes

<table>
<thead>
<tr>
<th></th>
<th>Private Governance Enforcement</th>
<th>Public Regulation Enforcement</th>
<th>Buyer Direct Support</th>
<th>Adopters' Capability</th>
<th>Outcome: Livelihood Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ghana: 3,000 small producers</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Limited</td>
<td>No</td>
</tr>
<tr>
<td>Ecuador: Fortaleza del Valle</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Ecuador: Aroma Amazónico</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Brazil: Fazenda A</td>
<td>Yes</td>
<td>Potentially</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Brazil: Fazenda B</td>
<td>Yes</td>
<td>Potentially</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Brazil: Fazenda C</td>
<td>Yes</td>
<td>Potentially</td>
<td>Limited</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Admittedly, one limitation of this table is that it simplifies complex social realities into crude categories. Yet the larger theoretical issue with existing explanations is that they tend to black box underlying processes of standard implementation, with little attention to adopters' practices and organizational systems that might explain divergences better.

A Practice and Labor Lens: A Different Approach to Understanding Standard Implementation

This dissertation proposes an alternative approach to understanding standard implementation. In contrast to existing theories, the success of standard outcomes does not primarily hinge on the presence or absence of reinforcing external factors. Instead, building on insights from organization and labor studies, a central claim of this research is that, to understand variation, it is necessary to analyze to what extent adopters are able to engage
in a process of recursive learning and knowledge appropriation, which is contingent on the wider organizational system and on external reinforcement. The extent to which adopters are able to engage in this learning process influences the extent to which they build additional resources, beyond standard premiums, that can improve livelihoods.

The starting point for this argument is that sustainability standards demand changes in on the ground practices. Therefore, to assess whether standards live up to their promise of guaranteeing good practices, we need to turn to the sites of action where standards are implemented. There, local performance of standards can mean one of two things. On the one hand, there might be 'performance' increases where sustainability standards perform their aspired goal of contributing to better livelihoods and sustainable development. On the other hand, there might be 'performances' where actual practices stay behind the promise of such standards. But what explains whether we see effective change or an attempt to appear as if? Or whether attempts at change are made but without succeeding?

This dissertation explores why transnational rules, in the form of sustainability standards, can lead to varied and incongruous local performances—why local practices may change significantly and lastingely, change initially but revert back to the status quo, and sometimes not at all. In putting the center of attention on a process of recursive knowledge appropriation as the key mechanism, I open the black box of standard implementation and examine what happens when adopters attempt to implement sustainability standards. To theoretically understand these processes, I draw on two traditions—organization studies and industrial relations research. A practice lens from organizational studies (Feldman and Orlikowski 2011; Orlikowski 2000) helps to focus on specific practices that need to change due to standards. Research on high-performance work systems and modern management systems from industrial relations research helps to make sense of these practice changes in relation to the wider organizational system and to better grasp how transnational private governance unfolds on the ground (Distelhorst, Hainmueller, and Locke 2016; Ichniowski, Shaw, and Prennushi 1997; Jiang et al. 2012; Locke 2013; Macduffie 1995). Specifically, I propose a framework that puts local implementation challenges front and center while integrating a micro and meso level of analysis (Figure 1).

At the micro level, the central finding is that practice change tends to be more challenging to accomplish than has been acknowledged so far because providing the "what" through rules is insufficient for users to know "how" to make them happen. Instead, users of sustainability
standards need to be able to make standards work through translating transnational rules into and discovering locally suitable practices. Put differently, the promise of better livelihoods through sustainability standards can be a false one because such outcomes cannot be regulated into existence through rules alone. Instead, whether this discovery process is fruitful depends on the extent to which adopters can integrate better practices with a modern management system that incorporates good human resource practices with strategic and financial management.

Figure 1: Local practice adaptations

With standard implementation, adopters come up against two gaps that have been rarely acknowledged so far, namely a rule-to-upgrading gap and a rule-to-practice gap, as Figure 1 illustrates. A rule-to-upgrading gap describes a gap between implementing standards and livelihood improvements that the regulated have to fill in by enacting their locally appropriate upgrading strategy. Here sustainability standards cloak an important driver of livelihood improvements, which remain traditional upgrading strategies. A rule-to-practice gap refers to a gap between rule requirements and organizational practices that adopters have to bridge by discovering how to perform these rules in practice. Some discover win-win practices between standard compliance and livelihood improvements; others do not and consequently experience compliance as a burden. For both of these gaps, an underlying mechanism of learning and discovery is crucial. Hence, contrary to what we might expect based on existing literature, producers who are quite motivated and capable may still
struggle to make standards work because they have little experience in engaging such learning mechanisms. As a result, we observe variation in the outcomes of standards—in livelihoods, measured through incomes and labor conditions—although the corresponding rules may seem straightforward, not too costly or technically difficult.

At the meso level, certain factors can encourage this process of discovery directly or indirectly, for example through supportive buyers or through a threat of effective law enforcement or private auditing, as posited by existing literature. Outsiders, whether buyers, regulators, or auditors, can provide important direction and guidance, through joint problem-solving and capability-building or through punitive actions. They can spur action. But it seems unlikely that they alone could ensure local processes of innovation since the actual work of transforming rules into practices falls to adopters. Consequently, effective practice change is contingent on adopters’ wider work and management system and encouraged by a reinforcing context. In light of these dynamics, it is not surprising that significant livelihood improvements with sustainability standards are rare, albeit not impossible.

In other words, the challenge is not to design better rules, to build adopters’ capacity through more training, or to send more private or public inspectors. The issue is rather that adopters lack experience in what to do when they come up against obstacles in trying to implement a rule. They may also not recognize what value—besides being in compliance—they might derive from following a rule and therefore be inclined to put it aside in between audits. Therefore, when faced with obstacles, many give up or muddle through. But some producers resolve such problems and come up with local practices that are in compliance and support their economic progress at the same time.

To illustrate, let me take the example of a rule on worker health and safety, common across sustainability standards, that prescribes that people handling agrochemicals must put on protective work clothing. This rule seems relatively simple, technically and organizationally, and inexpensive to implement. In Brazil, the cost for such equipment is less than USD 100, equivalent to roughly a third of the monthly minimum wage. Yet in observing operations on certified plantations in Brazil, it becomes clear that such equipment is typically available (because transnational and national rules require it) but not used. Workers, who might be unaware of the dangers, may dislike the inconveniences of protective clothing. Owners and administrators may not insist, seemingly unaware of a connection between workers’ health
problems and productivity. However, on some Brazilian plantations, they have discovered that using lighter spraying equipment reduces the issue of heat that workers complain about for protective clothing. Additionally, they have reorganized the teams responsible for applying agrochemicals and assigned some to protecting young cocoa seedlings—easily damaged or killed if accidentally sprayed on—with a plastic bag. At these sites, a simple rule, designed to protect worker health, is turned into a practice that deals effectively with resistance against the rule and additionally creates economic value for the plantation. Such routines are part of a “bundle” of practices (Macduffie 1995) that are all geared toward increasing the productivity and quality of production. However, in an environment where agricultural and labor practices have remained stagnant for decades, few, by themselves, stumble upon innovative ways of putting rules into practice.

To conclude, transnational rules are inherently insensitive to local context; they represent what scholars have termed “institutional monocropping” (Evans 2004). These rules are given to users who differ in their conviction, perseverance and skills in implementing them. As a result, standard implementation becomes very uneven, with variance between standard requirements within and across farms. Some producers are able to discover “win-win” solutions, but many are not, which widens the gap between aspirations and actual outcomes of sustainability standards.

A Roadmap for the Dissertation

In Chapter Two—the conceptual umbrella for the dissertation—I situate my argument started above in the literature on transnational private governance in two parts. In the first part, I define key concepts and briefly review the evidence on uneven standard effectiveness and key explanations identified in the literature so far. This first part is brief because I dive further into a standard effectiveness literature in Chapter Four and into debates on the role of buyers and the government in Chapters Five and Six, to frame my findings from fieldwork in Ghana, Ecuador and Brazil. In the second part, I examine why we might see a gap between the rules provided through standard requirements, local practices and the desired outcomes of standard implementation, and I put forth that a mechanism of recursive knowledge appropriation is at the heart of effective standard implementation, drawing on a practice and labor lens.
The goal of Chapter Three is to examine to what extent sustainability standards may or may not address key drivers of unsustainability. To that end, I provide further background on the mechanisms through which sustainability standards operate. After a short description of global cocoa production, I delve into the drivers of unsustainability, based on a review of the literature. Four major drivers that threaten sustainability are, first, agricultural monocropping, second, mixed and often passive or extractive government policies toward the sector, third, an increasingly concentrated industry structure, and, fourth, unfavorable market conditions for producers. In the chocolate industry, the sources of value creation depend heavily on symbolic qualities, especially branding, and economies of scale as well as access to risk management. With cocoa producers being disadvantaged on these sources of value creation, many—for lack of better or easy alternatives—try to produce more, accelerating trends toward intensive monocropping. From this comparison of standard mechanisms and drivers of unsustainability in the bigger picture, it becomes clear that "sustainability standards" are not well situated to contribute to sustainable agriculture. That notwithstanding, their importance as policy instruments warrants a close look into their potential on the ground—a task pursued in the following three country chapters.

Starting my empirical investigation in Ghana, Chapter Four summarizes the result of a quantitative approach to examining standard effectiveness. Ghana is the second largest cocoa producer in the world and is typical for relying almost exclusively on smallholder production. Here, I present the results from a difference-in-difference evaluation. A large-N panel survey, undertaken jointly with Michael Hiscox (PI, Harvard University) and Jens Hainmueller (Stanford University) allows for a precise impact evaluation. The data includes about 3,000 smallholders, surveyed in 2009 and 2014, where some villages were the target of a major Fairtrade certification initiative sponsored by Cadbury (now Mondelez), while control villages, matched on production volume and basic infrastructure indicators, did not participate in certification. The design of this project significantly reduces selection bias in assessing impact through measuring effects over time. The results show that the impacts of Fairtrade certification on almost all measures of interest are very limited, such as income, premium, productivity, or farmer organization. The unique market environment of Ghana, with an active government Cocoa Board, is not likely to account for limited impacts because the standard mechanisms of providing a premium, requiring compliance, and encouraging farmer organization are part of how the standard initiative was designed. A more likely cause for the disappointing results are gaps in how the initiative has been implemented.
The next two chapters, in turn, are focused on studying underlying mechanisms and conditions with qualitative methods. Chapter Five presents my work in Ecuador. There I conducted a comparative case study, using process tracing on ten-year long organizational histories based on interviews and document analyses, to explain why two similarly positioned certified farmer groups diverged vastly in their outcomes. Ecuador, being renowned for fine-quality cocoa that attracts foreign buyers, provides an excellent context to examine how global value chain configurations interact with the agency of local actors in standard implementation. This chapter illustrates that better labor and economic outcomes are possible with sustainability standards. However, standards do not, by themselves, directly contribute to better conditions. Instead the principal mechanism leads through upgrading, which allows farmer groups to reap organizational benefits that can be passed on to member farmers and thus improve their livelihoods. For farmer groups to embark on this upgrading trajectory, they have to be able to learn from close and redundant relations to buyers, so that farmer groups can protect themselves against the inherent instability of such ties. In sum, standards contribute to better livelihoods indirectly only if farmer groups manage to become competitive in an elite market, augmenting rather than dampening unequal trade conditions. For this, farmer groups depend on their own discovery of upgrading as a strategy.

Chapter Six offers a perspective on how sustainability standards work in Brazil, a setting of stringent public regulation but uneven law enforcement. In the Northeast of Brazil, in Bahia, I conducted a six-month long ethnographic and interview-based study with local plantation owners who have taken up an offer from Cargill to implement a sustainability standard (UTZ). Despite the potentially important role of public regulation, I find that, in the cocoa sector, the state is almost absent. Despite the absence of active law enforcement, producers still take up certification in order to professionalize their agricultural operations, although monetary benefits are very modest. But a key mechanism through which that aspiration can materialize is that the adopters know how to create and perform locally suitable performances of private governance rules, in order to overcome a rule-to-practice gap. I identify two conditions for this mechanism of discovering better practices, namely integration with a high-performance work system and perceptions of external reinforcement, where the shadow of the state still acts on a minority of highly visible agricultural producers who then consider UTZ to support compliance.
Finally, in Chapter Seven, I first summarize my findings by returning to the starting question of whether and how sustainability standards improve producers' livelihoods. The quantitative results from Ghana raise concerns about sustainability standards' impact, particularly worrying because, in the cocoa sector, sustainability standards are expanding most quickly in West Africa. However, that impact study does not shed light on underlying mechanisms. The qualitative studies from Ecuador and Brazil, based on analyzing processes over time and on interpreting transnational rules through the eyes of users, question some of the conventional wisdom on sustainability standards, namely that, for positive standard outcomes, it might be sufficient to bolster standard implementation with other favorable factors, such as ties to foreign buyers, the shadow of a strong state, or capable adopters. Instead, I find that standards do not provide the primary mechanism but that adopters have to create a suitable upgrading strategy as well as figure out how to put standard requirements into practice and integrate them with a high-performance work system.

In addition, I summarize the lessons for private governance theory. The key lesson from this dissertation is that standards, to produce better livelihoods, require much more discovery from adopters than previously recognized. By adopting a practice and labor lens for studying standard implementation, the main contribution is to take seriously the agency of users and to closely track processes of private standard implementation within the larger organizational context. However, these underlying organizational dynamics have not been recognized for their importance before. One reason is that few scholars have paid attention (for exceptions see Coslovsky, Pires, and Silbey 2011; Kellogg 2011; Silbey 2013). Another reason might be that such dynamics are difficult to capture in quantitative impact evaluations and therefore might have contributed to contradictory results as “omitted variables.” The theoretical implication is that, to understand standard effectiveness, more attention needs to be directed to whether users are able to effectively upgrade their practices and organizational system. I also reflect on limitations of this research and potential avenues for future research.

I end with a reflection on the prospects for sustainability standards. In sum, the practical implication is that more thought needs to be given on how to tailor support and guidance to standard adopters. It has become clear that sustainability standards, in their current form, cannot be a solution for average agricultural producers, let alone for all. On the contrary, sustainability standards have created an illusion of providing a solution for all when they, in reality, favor the “movers and shakers” among producers because they require a high level
of learning, whether through producers’ own entrepreneurial energy, fortuitous circumstances, or a haphazard “taking the right step at the right time”-approach. That is not to say that the opportunities provided by sustainability standards should be foreclosed. However, recognizing the built-in bias of such standards might open a path toward guiding those who are less agile at responding to these opportunities.
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Chapter 2: Standards, Rules, and Practices: Bringing a Practice and Labor Lens to Private Governance

Introduction

This chapter pursues three objectives: First, I lay the conceptual groundwork to establish sustainability standards as a case of transnational private governance and to situate the nature of these standards theoretically. Second, I summarize the evidence suggesting that standard effectiveness has been mixed, I unpack standard outcomes into the outcomes of interest—compliance, organizational improvements and better livelihoods—and I review dominant explanations for these outcomes: private governance, public regulation, value chain configurations, and adopters' characteristics. This review of existing research will be further deepened in the empirical chapters on Ghana, Ecuador and Brazil. Third, this chapter presents an alternative theoretical approach to explaining variation. Specifically, I argue that variation in outcomes depends on whether adopters of private standards embark on a process of recursive knowledge appropriation, whether they are able to learn new practices and to integrate them with a wider managerial system, encouraged by external support and pressures.

In putting the spotlight on this kind of learning, I seek to reframe a literature on transnational private governance that has mostly overlooked a gap between transnational rules and changes in local practice. Instead, I find that achieving better livelihoods with such standards requires significant discovery from users. Drawing on a practice and labor lens, informed by organization studies and industrial relations literature, I seek to examine variation in the effectiveness of private governance from two major sources: (1) in how adopters perform private governance, i.e., in how they put private governance into practice, and (2) in the conditions under which local users operate. As a result of these constellations, I develop a typology of likely outcomes of implementing transnational rules. The goal is to understand the underlying dynamics of standard implementation that can help explain uneven outcomes observed on the ground. Next I turn to reviewing key concepts and definitions for transnational private governance and sustainability standards, as a case of it.
Transnational Private Governance

Scholarship on transnational private governance (hereafter private governance) has quickly expanded from "a few scholarly voices in the wilderness" in the early 2000s to a "cumulative body of work, stretching across disciplines and continents" (Bartley 2015:203). Private governance has been labeled and defined in manifold ways where "private" emphasizes the role of non-state actors, in contrast to the state, and where "governance" encompasses regulation as a controlling and steering activity (Büthe 2010; Koop and Lodge 2015). However, private governance is said to be more hybrid, diversified, and complex than traditional state regulation (Djelic and Sahlin-Andersson 2006; Levi-Faur 2012). It also tends to be voluntary (Gilbert, Rasche, and Waddock 2011). Drawing on Büthe (2010), Eberlein et al (2014), and Vogel (2008), I define private governance as systematic efforts to govern—that is to enable and constrain—a broad range of activities in the world economy through codes and standards that are primarily enforced by third parties and not the state. This definition excludes industry self-regulation and forms of corporate social responsibility that do not involve third parties, and it includes forms of governance, such as Organic, where the state has played a role in defining and monitoring standards (Arcuri 2015). I omit a reference to transnational activities because domestic initiatives have emerged that pursue the same goals as transnational ones (Starobin 2016).

In most conceptualizations of private governance, three elements are a common denominator. First, private governance has a regulatory element through rule-setting; second, it does not rely on the state for enforcement; and, third, it is transnational, i.e., occurs across national boundaries (Auld, Renckens, and Cashore 2015; Bartley 2007; Büthe 2010; Eberlein et al. 2014; Schneiberg and Bartley 2008; Vogel 2008). Divergent views exist on two other elements—information signals and goals pursued. Some emphasize the information signal of private governance as an important aspect (Auld et al. 2015; Elliott and Freeman 2003; Gilbert et al. 2011), while others have underlined the often flawed nature of such signals because of weaknesses in the auditing process (Locke, Qin, and

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8 Private governance has been termed global private business regulation or civil regulation (Vogel 2008), private regulation (Schneiberg and Bartley 2008), transnational private regulation (Bartley 2007), non-state market-driven systems (Cashore 2002), international accountability standards (Gilbert, Rasche, and Waddock 2011), transnational governance (Djelic and Sahlin-Andersson 2006), and transnational business governance (Eberlein et al. 2014).

9 For a distinction between regulation and governance see (Levi-Faur 2011, 2012). In this dissertation, I use governance as an umbrella term and regulation as a case of governance.
Brause 2007; O’Rourke 2003) or consumers’ limited awareness and interest (West 2010). A second divergence is on the types of goals to be achieved by private governance. Some scholars specify social and environmental, and more responsible business practices as the explicit purpose of such initiatives (Auld et al. 2015; Gilbert et al. 2011; Vogel 2008); others are agnostic and speak of accountability, which includes reporting standards for example (Bartley 2007; Büthe 2010; Eberlein et al. 2014).

When comparing sustainability standards against all definitional elements of private governance, these standards constitute a clear case of private governance: They require and check compliance with rules, are not enforced by the state, operate across nations, can contain an information signal through labels, and specifically demand better social and environmental practices. Beyond sustainability standards, these definitional elements also apply to other governance initiatives, including multi-stakeholder roundtables, the UN Compact that requires companies’ pledges to ethical business behavior, as well as reporting principles, management systems, such as ISO standards, and labor codes of conduct.

However, despite widespread agreement on these elements, consensus is lacking on the nature of private rules. One approach has been legalistic, arguing that such rules are a form of “soft law” (Abbott and Snidal 2000; Gilbert et al. 2011) or a private sector “hard law” (Auld, Bernstein, and Cashore 2008). These two propositions seem inadequate because their specific characteristics do not fit private standards. The idea of soft law is problematic because soft laws are meant to be less rigid than hard laws and to provide a space for deliberation and experimentation (Abbott and Snidal 2000). Yet sustainability standards, if anything, have become less open to experimentation (Mutersbaugh 2005). The notion of hard law is not convincing either since private standards lack the bite of hard law in several ways. They do not impose financial penalties for non-compliances other than potentially withholding a premium. Furthermore, the regulated can drop voluntary standards and escape the need for remedies that way.

A second approach has been institutional or organizational. Scholars in that vein have attempted to characterize the bundle of rules inherent in private governance as an institution (Bartley 2011a; Kalfagianni 2013), as conventions, rules, and norms (Biggart and Beamish 2003; Perez-Aleman 2011), or as an organizational practice (Ortiz-de-Mandojana and Bansal 2015). These notions, in contrast to the legalistic ones, suffer from the problem that they are too generic. Standard rules can develop into institutions, norms and
organizational practices but those outcomes are far from guaranteed (Schouten, Vellema, and Wijk 2016).

I will therefore propose another characterization of private standards, bringing a practice lens from organization studies, to accentuate the essence of transnational rules used in sustainability standards. I conceptualize sustainability standards as an "audit-based apparatus." By that, I refer to a governance system that aims to produce the practices that it later checks through audits as the central tool for monitoring and enforcement. Yet a key issue is that many practices that standards require are not directly observable in audits so that users are asked to provide documentation to assure adherence to requirements when no auditor is watching. The concept of apparatuses is borrowed from Barad who defines them not as "passive observing instruments" but as "productive and (part) of phenomena" (1998:98) or, as Orlikowski and Scott put it, "simultaneously producing and organizing the phenomena they observe" (2014:873). An apparatus, in other words, is a particular form to see, observe and evaluate the practices that it seeks to create, or as the anthropologist Strathern asserted: “Like a ritual, audit tries to persuade participants of the way the world is without acknowledging its own particular perspective” (2000:287).

My definition is similar to one by Bartley who describes certification as “a chain of demands and assurances” (2010:1). But my definition puts audits front and center, mirroring their prominence for adopters’ experience with sustainability standards, and, by using the term apparatus. In addition, it reminds us that there is a whole machinery of standard-setters, auditors, and checklists behind standards to create the intended practices. It also alludes to the connectedness between evaluation and practice, without presuming that these practices are realized in everyday activities, which is an empirical question taken up further in Chapter Six on Brazil. In addition, the idea of an apparatus corrects a tendency in the private governance literature to focus on the origins of standard-setters and rules but to pay little attention to how these rules are interpreted and used in local settings (for exceptions see Bartley 2011; Mutersbaugh 2002). Lastly, it acknowledges that the apparatus itself is constituted of a set of practices that may shape how transnational rules are adapted locally, as has been shown for the case of marine standards (Vandergeest, Ponte, and Bush 2015). The issue of variation is pursued in more detail next, in reviewing the varying effectiveness of private governance.
Explaining Uneven Effectiveness of Private Governance

A multidisciplinary literature has evaluated the impact of sustainability standards on livelihoods of farmers (by which I refer to those owning the land) and workers. For farmers, recent comprehensive literature reviews show that results have not converged (Becchetti, Castriota, and Conzo 2015; Dragusanu et al. 2014; Nelson and Martin 2015). For workers, generally less studied, so far no benefits have been found from certification (Cramer et al. 2014; Dragusanu and Nunn 2014). The methods used to assess sustainability standards have become increasingly quantitative, leveraging statistical procedures and sometimes longitudinal data to deal with the methodological issues that have hampered this kind of research (Bartley 2011a).

Results are mixed, however, independent of methodologies. An early ethnographic study on coffee farmers in Mexico illustrates that farmers benefit from being organized for social cohesiveness and but is more cautious on economic effects. It concludes that certification can stop a worsening of farmers' situation but does not reverse it (Jaffee 2007)—a caveat that has been echoed in other qualitative studies (Bacon et al. 2008; Lyon 2007). Early quantitative studies rely on cross-sectional comparisons of certified and nearby non-certified farmers, showing positive income effects (Arnould, Plastina, and Ball 2009; Bacon 2005; Becchetti and Costantino 2008). Such research designs were followed by studies using matching for comparisons. In reducing selection bias, a dimmer, although still inconsistent picture emerges: A study on coffee farmers in Peru finds only modest income and revenue effects, although it confirms positive and significant changes in wealth and assets (Ruben and Fort 2012). A recent study on Colombian coffee growers comes to a more positive conclusion on economic benefits of certification, albeit driven less by a premium and more by upgrading production practices (Rueda and Lambin 2013a, 2013b). By contrast, certified coffee farmers in Nicaragua are found to be more often below the poverty line than conventional producers due to higher production costs (Beuchelt and Zeller 2011). Newer studies using longitudinal data (for example Dragusanu and Nunn 2014; Parvathi and Waibel 2016; van Rijsbergen et al. 2016) are summarized in Chapter Four on Ghana.

What explains this variation? In the next two sections I will pursue this question further by unpacking what livelihood improvement means and by reviewing theoretical expectations for livelihood outcomes as a result of standard implementation.
Outcomes of Interest: Compliance, Upgrading, and Livelihood Improvements

Why do private standards lead to better outcomes in some cases but not in others? By outcomes I refer to compliance and livelihood improvements, which raises the question of how do we measure it? Researchers typically choose one of two approaches: One angle is to use compliance scores from audits (Locke, Qin, et al. 2007; Toffel, Short, and Ouellet 2015). The advantage is that compliance scores are a measurable outcome but two major disadvantages are, first, that compliance scores from audits do not necessarily reflect everyday levels of compliance outside of audits, and second, that compliance with standards does not necessarily translate to better livelihoods. Another approach, commonly used in impact evaluations, is to operationalize livelihoods through indicators on economic and social outcomes, for instance on income, assets, labor conditions, as well as on standard mechanisms, for example by asking about price received, level of organization, and production practices (see for example van Rijsbergen et al. 2016; Ruben and Fort 2012). Analyzing outcomes mitigates the issue of desirability bias on compliance-related questions where adopters are likely to answer what they know they should do as opposed to what they actually do. Yet it leaves out a key aspect of standard implementation.

For analytic purposes, it is helpful to distinguish three different levels of outcomes that can but do not necessarily ensue from the prior level (Figure 2). To assess compliance—the main outcome of interest for Chapter Six on Brazil—I rely on direct observation of select practices that are relevant to labor and production conditions. This approach adds rich detail to compliance at the level of site-specific practices, in contrast to audit reports that take a checkbox approach. The drawback, however, is that this approach is limited to a small sample of adopting organizations. At the next level of outcome, organizational and economic upgrading—the main outcome of interest for Chapter Five on Ecuador—I evaluate organizational performance by using indicators of organizational survival, price obtained, and volume sold as certified. These are prerequisites for organizational "upgrading" or value added that can be distributed to individual farmers in the case of certified farmer groups and to workers in the case of plantations. At the level of livelihood improvement—studied most extensively in Chapter Four on Ghana—I pay particular attention to income from the certified product and to the determinants of this income, namely price obtained and volume produced. In short, I assume that compliance does not detract per se from upgrading and livelihood outcomes while I recognize that compliance alone does not imply better organizational or individual outcomes.
What explains compliance and livelihood outcomes? Existing explanations accrue to a jigsaw piece approach for why standards may yield effective outcomes in some cases, but not in others. The four pieces that might ideally fit together are private standards, public regulation, close buyer ties, and capable standard adopters. To be sure, scholars have not suggested that these are all necessary pieces. But the underlying logic is one of contingencies where these four pieces can shape compliance and livelihood outcomes in a “the more, the better”-logic, as depicted in Figure 3. The next four sections examine the debates that surround each of these factors.

Figure 2: Outcomes of interest

Figure 3: Established causes for effective standard implementation
**Private Governance**

One debate that examines standards themselves emphasizes three factors for how likely standards contribute to compliance and livelihood improvements: enforcement, incentives, and fit. First, scholars expect compliance to be higher when private governance rules are sufficiently enforced (Potoski and Prakash 2009), mirroring the rationale of deterrence according to which the more likely non-compliances are detected and penalized, the more likely adopters are to follow the rules (Becker 1968). However, scholars have pointed out design and implementation issues that plague the enforcement of private governance.

Focusing on design, scholars predict that the voluntary nature of private standards and their limited coverage reduce the bite of enforcement (Bartley 2011a; Mayer and Gereffi 2010; Vogel 2008). Thus, private standards depend on the collaboration and support from adopters, as illustrated in two empirical studies. One study on private standards for shrimp aquaculture in Indonesia shows that enforcement depends on the extent to which stakeholders are enrolled in complying with standard requirements (Konefal and Hatanaka 2011). Another study on private labor and forestry standards in Indonesia demonstrates that private regulation cannot enforce politically contentious requirements, in particular union recognition (Bartley 2011b). Examining implementation issues, scholars expect difficulties with enforcement and compliance even with coverage through private standards (Mayer and Gereffi 2010) because conflicts of interests can hamper increasingly commercially oriented certifiers and auditors (Knowles 2011) and because audits can be superficial and ceremonial (Boiral and Gendron 2011) as well as uneven in quality and expertise (Locke, Qin, et al. 2007; O’Rourke 2003).

To deal with these constraints for enforcement, two possible solutions have been proposed. One way out could be to increase the stringency of standards (Rodríguez-Garavito 2005). But this might put the bar too high for lesser prepared adopters to join private standards in the first place (Potoski and Prakash 2009), and it might be counter-productive if it encourages audit fraud (Bartley 2011a). Another remedy could be to pursue a more developmental and problem-solving oriented approach rather than a policing- and compliance-based approach (Locke et al. 2009). But in practice, the expansion of private standards and the need to make progress auditable has maintained a compliance-orientation of private standards (Mutersbaugh 2005; Reinecke and Ansari 2015b).
A second factor—incentives—is the flipside of the coin for enforcement. It considers to what extent adopters are pulled rather than pushed to comply with standards. Theoretically then, enforcement relies largely on market incentives and sanctions (O’Rourke 2006), although compliance cannot be taken for granted, as discussed above. Empirical findings have been mixed for this prediction. On the one hand, analysts conclude that adopters of certification achieve higher prices, have better access to credit, and perceive more economic stability (Dragusanu et al. 2014). Besides price differentiation, enhanced incentives can also come from reduced uncertainty. For example, a panel study of Malian cotton cooperatives finds that farmers improved the quality of cotton because the certifier—Fairtrade in this case—acted as a credible third party to check price and quality (Balineau 2013). On the other hand, incentives can be limited because adopting a private standard has become a de facto requirement for market access (Klooster 2006; Ponte and Ewert 2009) or because, in the long run, incentives get dissipated by increased quality demands from buyers (de Janvry et al. 2015). The findings on enforcement and incentives resemble each other also with regards to the risk of shirking. Just as very demanding standards might backfire, noticeably higher economic incentives might also encourage fraudulent behavior, for instance by passing off non-certified goods as certified to gain illegitimate access to standard rents (Getz and Shreck 2006).

Finally, scholars expect compliance and livelihood improvements to be higher when private governance rules are suitable for the local context (Wijen 2014) and for adopters (Simpson et al. 2012). This argument of fit has three aspects. A first one is fit between rules and context where fit can be undermined by a trade-off between compliance and overly specific rules. Transnational private standards, which set the same standard for all contexts in which they operate, seek to boost compliance by mandating specific rules. However, highly specific rules are not always adequate for the local context. Therefore, even compliant enactments of standard rules may not have the desired effect of improving the livelihoods of adopters—an effect labeled “means-ends decoupling” (Wijen 2014). Relatedly, production prescriptions from standards may conflict with local production technologies and knowledge systems (Eernstman and Wals 2009). A second aspect is fit between rules and adopters’ capabilities that may be lacking because high institutional pressures to adopt private standards, for example from buyers, can imply that not all adopters have the required capabilities to implement such standards (Simpson et al. 2012). Particularly small producers may not be able to live up to the managerial requirements of standards (Klooster
A third aspect refers to the fit between benefits provided and benefits needed. For instance, on tea plantations in East Africa, workers suffered from a temporal mismatch of the time when certification premiums were paid and when they were needed (Kim, Bansal, and Haugh 2015). On tea plantations in India, Fairtrade premiums were transferred as wage increases, which barely kept up with inflation, whereas plantation workers valued in-kind services from plantations more than wage increases (Besky 2014).

In sum, the private governance literature has generated a number of expectations when private standards are more likely to result in compliance and livelihood improvements, namely when (1) private standards are properly enforced and in particular when adopters’ interests align with standard requirements, (2) when they provide sufficient but not too high incentives, and when (3) the rules and the benefits provided by standards are appropriate for the local context. But private governance is not the only source for the enforcement of rules: it can also interact with public regulation. The next section turns to the state as another potential factor to improve compliance and livelihood outcomes.

Public Regulation

Public regulation and wider institutional context has repeatedly emerged as an important contributor to better compliance with private standards in large-N studies that compare compliance measures across countries (Distelhorst et al. 2015; Locke, Qin, et al. 2007; Toffel et al. 2015). At issue is whether the state intervenes in the enforcement of laws and how it interacts with private governance.

Traditionally, explanations for public law enforcement have highlighted state capacity and political will. State capacity is seen as embodied in Weberian autonomous bureaucracies with meritocratic recruiting, long-term career prospects, exclusive civil service employment, and governance through rational rules with strong organizational structures and cultures (Amengual 2016; Piore and Schrank 2008). That this kind of professional bureaucracy can emerge in developing countries has been shown for the case of labor inspectors in the Dominican Republic (Schrank 2009) and in Brazil (Coslovsky et al. 2011; Pires 2013). In fact, civil servants in emerging economies can go beyond traditional regulatory tasks of imposing penalties or educating the subjects of regulation and take on more ambitious, orchestrating roles in order to facilitate compliance (Coslovsky 2014b; 10 For an extensive review of these explanations see (Amengual 2016).
Silbey 2011). State capacity, in turn, is moot without political support (Berliner et al. 2015), for example from left-leaning parties (Mosley 2010) or fueled by labor and union power (Murillo and Schrank 2005). Yet a key limitation of these explanatory factors is that, especially in developing countries where private governance is often implemented, neither of these two conditions can be taken for granted. There the level of enforcement depends instead on the strength of state-society linkages, for example between regulatory bureaucracies and NGOs or unions, and the level of administrative resources available to regulators, which can explain why enforcement can happen even in the absence of autonomous bureaucracies or unambiguous political support (Amengual 2014, 2016).

Besides law enforcement by itself, scholars have also studied public-private governance interactions (Eberlein et al. 2014; Overdevest and Zeitlin 2014; Trubek and Trubek 2007). For the case of sustainability standards and public regulation, these interactions have typically been “complementary,” using the language of legal scholars Trubek and Trubek (2007) who use this term when the two forms of governance govern a common objective but co-exist without having fused. Within complementary interactions, different constellations are possible, of uncoordinated complementarity or of strengthening each other. For example, both public and private governance can be active in working toward enforcing better labor and environmental conditions. This kind of scenario has been observed for textile industry in the Dominican Republic (Amengual 2010), for sugar production in Brazil (Coslovsky and Locke 2013), and for suppliers of HP, the electronics corporation, in Mexico and the Czech Republic (Locke et al. 2013). In none of these cases, however, public and private regulators actively coordinated their activities. They worked in parallel, using their comparative advantages in exercising regulatory duties. Another variant of complementarity is when the two forms of governance reinforce each other, for example, if state regulation provides legitimacy to private governance (Locke et al. 2013) or vice-versa, if private governance strengthens national institutions, as observed under certain conditions for the Better Work Indonesia initiative in the textile industry of Indonesia (Amengual and Chirot 2016).

In contrast, substitution occurs when one form of governance takes precedence. For instance, for HP suppliers in Mexico, private governance substitutes for state regulation since national laws are outdated or not enforced, and regulatory capacity is weak (Locke et al. 2013). Some scholars have gone further and voiced concerns about private governance displacing or hollowing out the state, for example in Lesotho (Seidman 2007). Rivalry can
also take the opposite direction where a reluctance from the state to recognize unions and freedom of association can weaken such provisions in private governance initiatives (Bartley 2014; Locke et al. 2013).

To summarize, existing research on public regulation provides the basis for two hypotheses regarding compliance and livelihood outcomes with private standards. (1) It suggests that better outcomes can be expected if the state actively enforces laws and thus complements private governance. Such public law enforcement can be in unison with civil society organizations in countries with uneven state capacity. (2) Even if the state does not enforce laws, a reinforcing effect of public regulation can be expected if it provides legitimacy to private governance initiatives. Often such initiatives involve foreign buyers. Their role and of industry structures is the topic of the next section.

**Value Chain Configuration**

With much of global production organized into global supply chains where foreign buyers may demand the introduction of private standards, scholars have studied how governance in production systems and private governance might overlap (Bair and Palpacuer 2015; Bush et al. 2015; Gereffi and Lee 2014; Nadvi 2008). This literature on global value chains (GVCs) and global production networks (GPNs) has formulated three expectations on compliance and livelihood outcomes with private standards, although, admittedly, this literature has simply extended its general predictions to private standards, without according them an independent causal effect.

First, the GVC/GPN literature expects beneficial outcomes—particularly economic upgrading outcomes—from learning-oriented ties to buyers whose advice and guidance can improve suppliers' conditions (Bush et al. 2015; Muradian and Pelupessy 2005). When such ties are closely coordinated between buyers and suppliers, then suppliers are expected to have better prospects to upgrade and to thus add value to their enterprise, with and without private standards (Bamber et al. 2014; Bush et al. 2015; Gereffi, Humphrey, and Sturgeon 2005; Gereffi and Lee 2014; Yeung and Coe 2015). This coordination can take the form of problem-solving around production technologies and systems (Locke et al. 2009), and over time it can evolve from being a one-way transfer from buyers to suppliers to a mutual learning process (Herrigel, Wittke, and Voskamp 2013). In contrast, purely transactional and arms-length ties are not expected to foster similar learning and upgrading opportunities (Humphrey and Schmitz 2002).
Second, industry structure is another factor that is expected to shape the potential of private governance to improve livelihoods indirectly through providing more or less space for upgrading opportunities (Lee, Gereffi, and Beauvais 2012). The argument, developed in particular for the agricultural sector, is that, the more concentrated structures are in processing and in retail, the less opportunities smallholders have to add value and to upgrade. Based on all possible four constellations, with high or low concentration in processing and retail, four different types of chains are distinguished: buyer-driven chains (such as horticulture), producer-driven chains (where producers are the processors, not the farmers, such as coffee, cocoa, and tea), bilateral oligopolies (such as banana and pineapple, and traditional and fragmented markets (such as subsistence crops). Upgrading opportunities are predicted for buyer- and producer-driven chains, but less so for bilateral oligopolies and traditional markets. Overall, this line of scholarship seeks to explain why upgrading prospects differ across industries, and it thus complements the buyer-centered explanations presented above that are better able to explain within-industry variation.

Third, a different mechanism—through power and control rather than learning and upgrading—is supposed to be at work when economically powerful and branded buyers oversee the adoption of private standards by suppliers. The reason why branded firms are expected to be particularly responsive to private governance is that they are subject to pressure from social movements and activists. Mayer and Gereffi in particular hypothesized that the “more economic leverage large lead firms have over smaller suppliers in their value chains, the greater is the potential impact and scope of private governance” (2010:8) and that “[p]rivate governance is most likely for highly branded products and firms” (2010:9). An empirical study that seems to confirm these prediction was conducted on banana and flower industries in East Africa where powerful lead buyers can impose criteria, including the adherence to labor standards, on suppliers, while such leverage is not possible in loosely coordinated trading relationships (Riisgaard and Hammer 2011).

Overall, literature on value chains generates three hypotheses on the likely outcomes of private standards. The first two expect better economic upgrading outcomes11 (1) if private standards are matched with closely coordinated buyer ties, and (2) if they are introduced in

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11 A more recent stream in the GVC literature theorizes how economic upgrading relates to social upgrading, or what I call livelihood improvements (Barrientos, Gereffi, and Rossi 2011; Milberg and Winkler 2011; Rossi 2013).
industries that provide some maneuvering room for farmers to upgrade (for example in horticulture, coffee, cocoa, and tea). The third hypothesis predicts better compliance if (3) a powerful lead buyer is able to exercise control over its suppliers’ production.

**Local Actors’ Capability**

A fourth factor attributes outcomes of private standards to local actors themselves and to the steps they take following standard adoption, with institutional change and collective learning as the underlying mechanisms (Coslovsky 2014a; Perez-Aleman 2011, 2012). This approach is different from the other explanations since it takes the agency of users, rather than top-down structures, as the starting point and thus corrects the impression of users as mostly passive recipients. Rich case studies point to the possibilities of institutional change where producers “change and create new institutions and networks that support capability building” (Perez-Aleman 2012:12348). Yet case studies also include depictions of how standard implementation can go awry, either because of local gaming of standards (Getz and Shreck 2006) or because of unsustainable business models (Melo and Hollander 2013; Smith 2007). Possible explanations for success and failure include social antecedents, such as local community structures and histories of organizing (Barton Bray, Contreras Murphy, and Plaza Sánchez 2002; Setrini 2015), prior organizational culture (Sandholtz 2012) or institutional fit (Schouten et al. 2016). Overall, however, the only prediction that seems to emerge from this school of thought is that adopters need to be sufficiently capable to implement standards, which can be a major constraint since users, “such as smallholders, may not have the technical and organizational capabilities to produce and trade in socially and environmentally responsible ways” (Wijen 2014:309). My own theoretical contribution builds on this approach by further developing the underlying mechanism and departs from it by incorporating how contextual factors interact with adopters’ agency.

**Some Difficulties with Existing Explanations**

Existing explanations in the traditions of private governance, public regulation, value chain configuration, and adopters’ capability provide important insights but also leave unexplained important variation. First, while increasing enforcement from private standards and public regulation may help compliance, compliance varies significantly among adopters who are exposed to similar levels of private governance enforcement and of (often absent) public law enforcement. Second, studies in the value chain tradition struggle to explain variation among the vast number of agricultural producers within a
given industry who do not benefit from the kind of developmental buyer ties that were initially observed in manufacturing between Northern buyers and Asian producers (Gereffi 1999). Granted that Fairtrade and Organic certification allow producers to differentiate themselves and can catalyze direct buyer ties, but the large majority of farmers cultivate bulk product for commoditized agricultural markets, with high hurdles for overcoming the transaction costs associated with direct exchanges between global buyers and small farmers. As a result, explanations that depend on enforcement, incentives, and buyer constellations attribute tremendous variation to standards’ fit with local context and local adopters without systematically understanding differences between adopters and their trajectories after implementing private standards. While actor-centered explanations have the potential to fill the gap, so far this research stream is under-theorized.

In sum, we lack a coherent understanding of why similar standard initiatives yield different outcomes. Existing research has treated the question of whether standards lead to higher compliance and better livelihoods by either focusing on external structures or on characteristics of adopters. Despite calls for theorizing causal mechanisms of private governance (Auld, Bernstein, et al. 2008; Bartley 2011a; Schneiberg and Bartley 2008), few have questioned whether the underlying assumption—that sustainability standards have the intended regulatory effect on standard adopters—is accurate, whether, in other words, sustainability standards work through the posited mechanisms or what other mechanisms might be responsible for the observed variation. To better understand why private standards diverge in their outcomes, I propose that a mechanism of recursive knowledge appropriation is well suited to explain variation. In the last part of this chapter, I develop an alternative explanation for compliance and livelihood improvements that draws upon and modifies actor-centered theories.

**A Practice and Labor Lens on Private Governance**

This section offers an alternative view for what explains compliance and livelihood improvements with private standards. It challenges the existing private governance literature by giving more importance to the agency of users while integrating users’ internal learning processes with external structures that foster such learning. This framework therefore responds to a call for theorizing such interactions, as institutional theorists Djelic and Sahlin-Andersson write: “We need to find ways to combine and integrate studies of
individual behaviors, interactions and processes, with studies of institutional and cultural forces; that is those forces shaping and structuring both patterns of behaviors and patterns of interactions" (2006:19). The explanation developed here draws on organization studies and industrial relations, and it has three parts, illustrated in Figure 4. First, I specify a core mechanism\(^{12}\) of recursive knowledge appropriation as the process that is at the heart of making progress from adopting standards toward improved livelihoods. Second, I identify two key conditions that shape recursive knowledge appropriation—perceptions of external reinforcement that both pressure and encourage users to change their practices, and the integration with a high-performance work system that allows a certified organization to not only be compliant but also to become competitive and to create additional value that can be passed on to farmers and workers who are the ultimate beneficiaries of sustainability standards. Third, the interaction of these two conditions generates bounded expectations for patterns of compliance and livelihood outcomes and thus clarifies the dynamics of standard implementation between users, certifiers, public regulators, and buyers.

**Figure 4: Mechanism of and conditions for recursive knowledge appropriation**

\(^{12}\) For a definition of mechanism, I follow Tilly: "Mechanisms form a delimited class of events that change relations among specified sets of elements in identical or closely similar ways over a variety of situations" (2001:25).
Recursive Knowledge Appropriation

In further developing this argument, I start with the mechanism of recursive knowledge appropriation that I define as a learning process where adopters of private standards iteratively learn and develop more sophisticated practices, drawing on internal experimentation and pluralistic external networks. In this section, I discuss the direction of learning, the role of experience, the process over time that characterizes this mechanism, and how it specifically applies to the process of translation from private rules to practices.

In existing literatures, two extreme positions have been taken on the direction of learning, neither of which seem adequate. Value chain literature has focused on the unidirectional transfer of knowledge from buyers to suppliers, and only recently has been challenged to consider managerial leeway of suppliers and local history as determinants of upgrading trajectories (Pipkin 2011). By contrast, agency-centered literature has backgrounded the role of buyers, donors, standards, and public regulation, relegating them to being the source of external shocks, yet uninvolved in self-guided local collective learning and adaptation processes (Coslovsky 2013, 2014a; Perez-Aleman 2011). The notion of recursive knowledge appropriation that I propose instead acknowledges that learning can draw on multiple sources, especially if accompanied by a process of deliberate and unrestrained inquiry that helps to gather varied information and proposals for solution (Huising and Silbey 2011). This learning is typically mutual between the learning organization and external partners, such as buyers (Herrigel et al. 2013) and a wider network. One initial requirement for starting this kind of learning process, however, is that local managers have an interest and “incentives to innovate” (Cole 1985:566) that encourage the openness to new practices by the need to improve economic performance, which, as industrial relations scholars have pointed out, is often grounded in dynamics of the environment, including competitive markets and demanding technologies (Kochan, Katz, and McKersie 1986; Osterman 1994).

Developing new practices hinges on experience and experimentation. Organizational learning theorists have posited that experiences form the starting point for developing a knowledge stock (Argote et al. 2007). Similarly, Levitt and March agree that experience is encoded into routines that then guide future behavior, although maladaptive learning from direct experience can also lead to “competency traps” (1988:322). An empirical study of how ideas are translated into practice in four healthcare facilities confirms the importance of experience by “encouraging ‘trying it’” as the center piece of a tripartite change process
beginning with micro-level theorizing and ending with collective meaning-making (Reay et al. 2013). Experimentation can also mean to craft "pragmatic accommodations" that balance regulatory requirements with organizational performance and that take into account "the ongoing production of organizational and material life through a network of interdependent human transactions" (Huising and Silbey 2011:16). In fact, experience and experimentation are not purely cognitive but have a sense-making and interpretive component (Argote et al. 2007; Levitt and March 1988; Weick 1993). Variation in learning can therefore stem from differences in experiences and experimentation as well as in related meaning-making.

The very nature of learning is recursive, taking place over time, although organizational theorists disagree on whether it accumulates to a "knowledge stock" (Argote et al. 2007:195) or remains a "knowing in practice" (Orlikowski 2002:249). Independent of the outcome, this process depends on repetition, described as routinization (Levitt and March 1988), habitualization (Reay et al. 2013), or deepening scripts as standard plots and repetitive encounters (Barley 1986). Obviously, the learning is open to drift and adaptations over time, both as ideas and practices diffuse across organizations (Ansari, Fiss, and Zajac 2010; Czarniawska and Joerges 1996; Mica 2013; Rogers 2003) and as they are adapted within a given institutional and organizational context (Huising and Silbey 2011; Streeck and Thelen 2005; Westney 1987), reflecting "the plurality of interests and opinions among participants" (Coslovsky, Pires, and Silbey 2012:14) as well as the surrounding context (Djelic and Sahlin-Andersson 2006; Lamont, Beljean, and Clair 2014; Westney 1987).

Learning how to instantiate rules into practices forms a case of organizational learning insofar as rules might contain within them a script for what to do but require to be put into practice. Three positions have been commonly taken with regards to rule specificity, of rules being overly specific, sufficient, or insufficient. Rules could be too specific for a given context, given that they have been developed centrally for application in diverse settings (Wijen 2014) and that auditing takes a snapshot approach to ongoing development processes (Reinecke and Ansari 2015b). Other scholars assume that well-designed rules might contain sufficient guidance (Potoski and Prakash 2009). Often this is a tacit assumption, which implies that rule implementation is a relatively straightforward process and that rules provide the key impulse for change. However, rules only prescribe the "what" to do; they do not contain "how" to do the specific practices needed to realize them nor the "why" of the larger principles meant to be pursued. Accordingly, studies of regulatory enforcement have pointed out a considerable gap between rules and fully compliant
solutions (Huising and Silbey 2011; Silbey 2013). Rules can be difficult to put into action, require many steps to manifest them, and elicit resistance to these steps. As a result, standard implementation requires active discovery from the regulated in changing practices. This process of discovery and rule-related learning can be supported by internal and external conditions, as described next.

A possible objection to the importance of learning for standard implementation could be to say that certified producers simply lack interest in taking standard implementation seriously or that they are fraudulent, and that this poses a more important constraint than not knowing how to implement them (Christmann and Taylor 2006). That may be true for some individuals. Yet this should not detract from the fact that the monetary upside of joining sustainability standards is limited and that, for many agricultural commodities, certification is still far from being needed for market access. Absent major economic incentives for joining standards, it seems reasonable to assume that those who do join bring a certain willingness to make changes, although a threat of enforcement is considered a requirement for effective instantiations (Silbey 2013). The same holds for those whose primary motivation for joining is to get reputational benefits. The fact that their reputation would be at risk if major non-compliances were detected should mean that they, too, are in principle willing to undertake changes.

In sum, I propose that the path from standard adoption to better compliance and livelihoods leads through a process of learning that I name recursive knowledge appropriation because it involves a multi-step iterative process beginning with an openness to change, an active and broad search for potential changes, experimentation with potential solutions, and accompanied by internal sense-making processes that help to initially justify and later solidify the made changes. Given the ongoing nature of this process, learning can stall or be aborted. In addition, changes in any single or several practices are unlikely to transform the overall organizational performance of the standard-adopting entity. For that, additional conditions are required.

**Internal and External Conditions for Recursive Knowledge Appropriation**

A first key condition for whether or not standard implementation results in improved livelihoods is whether adopters can integrate new organizational practices with a high-performance work system. Such work systems have been defined as organizational arrangements that offer “win-win” solutions to employees as well as the organization
(Appelbaum et al. 2000) through enhancing the skills, incentives, and opportunities of employees (Jiang et al. 2012), thus improving internal social relations (Evans and Davis 2005; Gittell, Seidner, and Wimbush 2010), increasing productivity, and ultimately organizational performance (Huselid 1995; Ichniowski et al. 1997; Macduffie 1995). What distinguishes these high-performance work systems is that they constitute a bundle of complementary human resource practices and firm strategies that need to be integrated with each other (Macduffie 1995; Pil and Macduffie 1996). The expectation is therefore that such organizational systems have to be adopted wholesale and, if successful, transform the organization along the way (Fuentes 2014). However, studies in the manufacturing and retail sector have found less than complete adoptions with uncertain benefits for employees (Bailey and Bernhardt 1997; Knauss 1998) and, in the short-term, performance might not benefit from “high-road” employment practices (Batt and S. Colvin 2011).

This need for internal fit of practices and strategy has two implications. First, introducing such work systems is challenging, and indeed the diffusion of high-performance work systems has stayed behind expectations (Kochan 2013). Second, tight internal fit may make it harder for an organization to adapt to a changing environment (Siggelkow 2001), especially if low-cost competition becomes prevalent and undermines high-road strategies. Studies of why high-involvement employee practices, such as small-group activities, have diffused more in some countries than in others highlight the importance of supportive macro-political processes, such as business leadership as well as unions that embrace or at least do not obstruct such changes (Cole 1985), or the availability of worker-friendly ideologies (Fuentes 2014)—pointing to the importance of context that I will explore in the second condition of external reinforcement. In short, absent exogenous factors that support the introduction of high-performance work systems, their diffusion is likely limited to a small set of exemplary organizations.

A second key condition is a perception of external reinforcement among standard adopters. This external reinforcement can go both ways and support or hinder learning. There are multiple potential sources for this reinforcement, with the government being the most important one through the threat of law enforcement, even if directed only at a minority of transgressors (Silbey 2013:12), but also private standard auditors, buyers, and peers. Governments can reinforce certain practices in multiple ways, including through the threat of punitive law enforcement, supportive training and extension services (Tendler 1993, 1997), or an effective combination of both (Pires 2008). Buyers, especially those who
engage in direct interactions with producers beyond simple market transactions, may provide another source of reinforcement, for example by promoting, supervising and controlling standard implementation (Riisgaard and Hammer 2011) or by demanding higher quality (Muradian and Pelupessy 2005; Ruben and Zuniga 2011), which can require compliance with certification rules. Other business and civil society actors, such as business associations and unions or chambers can also speed up and bolster the introduction of new practices (Cole 1985; Locke and Jacoby 1997). Auditors, by drilling down more on some requirements than others, may shape producers’ perceptions of what rules are practically given more importance. Scholars have found, for instance, that health and safety requirements tend to receive closer follow-up in audits than enabling rights, such as freedom of association (Barrientos and Smith 2007; Rodríguez-Garavito 2005). Peers are relevant because they provide an informal benchmark for what is considered the norm in doing certain practices (Lamont et al. 2014; Marsh and Coleman 1956). The larger the distance between practices as required by a certification rule and a related local norm, the harder it might be to change that practice.

All four sources of external reinforcement—government, buyers, auditors, and peers—add up to an ecosystem for recursive knowledge appropriation, which can differ significantly between rules of the same standard. Consequently, it is important to unpack compliance and effective organizational and livelihood improvements on the basis of certain key rules and practices rather than examining standard adoption as a whole.

**Conceptualizing the Process toward Livelihood Improvements**

Having described the mechanism and conditions for recursive knowledge appropriation as a key but so far mostly overlooked caveat to standard implementation, in this section, I develop a stylized funnel-like process for the steps and conditions needed for adopters to move from compliance to organizational upgrading to improved livelihoods, pictured in Figure 5. In this figure, increasingly sophisticated sub-processes of knowledge appropriation are facilitated by the external condition of reinforcement through threats and support for capability-building and the internal condition of integration with a high-performance work system.

Step 1 is that adopters have basic incentives to change practices, in accordance with standard requirements. This step is likely to hold for most if not all users since sustainability standards promise some economic benefit in return for compliance. In
addition, if adopters face a threat of external enforcement—in line with predictions from a private governance and public regulation literature—they are more likely to adopt technically compliant practices. Importantly, however, compliance is not necessarily correlated with organizational effectiveness. For example, required documentation systems could be maintained in a cumbersome format that detracts from good management. Therefore, to develop effective practices, a Step 2 is required, drawing on insights from organization studies, namely that adopters inquire widely and try new practices (Huising and Silbey 2011; Reay et al. 2013). Having access to external connections that support this capability-building favors the discovery of organizationally effective practices, whether from closely coordinated buyers ties, as predicted by the GVC and GPN literature, or other outside parties. Existing literature indicates that such external networks are most likely to help with knowledge gains related to production procedures (Distelhorst et al. 2016; Locke et al. 2009) and less likely to help adopters find sophisticated solutions to internal labor arrangements (Pipkin 2011).

<table>
<thead>
<tr>
<th>Standard Adoption</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Set of Standard Requirements</strong></td>
<td><strong>External</strong></td>
</tr>
<tr>
<td>1. Having basic incentive to change practices</td>
<td>Threat of external enforcement</td>
</tr>
<tr>
<td><strong>Technically Compliant Practice</strong></td>
<td><strong>Technically Non-compliant</strong></td>
</tr>
<tr>
<td>2. Inquiring widely and trying new practices</td>
<td><strong>External networks for capability-building</strong></td>
</tr>
<tr>
<td><strong>Organizationally Effective Practice</strong></td>
<td><strong>Organizationally Ineffective</strong></td>
</tr>
<tr>
<td>3. Crafting bundles of practices</td>
<td><strong>Internal</strong></td>
</tr>
<tr>
<td><strong>Competitive Organization</strong></td>
<td><strong>Uncompetitive</strong></td>
</tr>
<tr>
<td>4. Passing on benefits</td>
<td>Integration with high-performance work-system</td>
</tr>
<tr>
<td><strong>Improved Livelihood</strong></td>
<td><strong>Stagnant</strong></td>
</tr>
</tbody>
</table>

Figure 5: From standard requirements to improved livelihoods
Therefore, in Step 3, adopters need to craft bundles of work and production practices, which is most likely under the condition of integrating such practices with a high-performance work system and the wider organizational strategy. At this stage, adopters achieve the outcome of organizational and economic upgrading. As scholars have pointed out, generating surpluses is not a guarantee that these are passed on (Bailey and Bernhardt 1997; Barrientos, Gereffi, and Rossi 2011; Locke 2013). But exactly that is required in order to translate organizational upgrading into livelihood improvements in Step 4. In sum, to bridge a gap from rules adoption to livelihood improvement is a lengthy process that is contingent on favorable internal and external conditions and an increasingly sophisticated learning process for the adopting entity to move toward livelihood improvements. When opening the black box of underlying organizational and work arrangements for standard implementation, using a practice and labor lens, it becomes evident that livelihood improvements with standards are difficult to obtain and that, on the path there, significant agency is required from agricultural producers who adopt such sustainability standards.

**Scope Conditions**

Three factors are not considered in this framework and constitute scope conditions that can be incorporated into future research: macro structures, market of standard dynamics, and role of external parties. With macro structures I refer to characteristics of the global commodity market, such as world market price, volatility and industry concentration. These global structures are very likely to shape local production processes but a comparison across various commodities would be needed to better understand how such structures manifest on the ground.

With market of standard dynamics I refer to effects on local practices that could result from dynamics among standards, including convergence or divergence between standards, and adjustments to implementation and auditing processes as well as from dynamics between adopters of standards, such as how many adopters there are, potential spillover effects between adopters, and the stage of adoption or the adoption of multiple standards. This study, instead, focuses on what standards, with their respective diffusion, design and implementation pattern, do to bring about new rules-in-practice.

With external parties, I refer to media, NGOs, and to a lesser extent consumers who might be able to spur local practice change by monitoring and publicizing on grievances in the supply chain. A prominent example is the issue of child and forced labor in West Africa that
has been at the center of documentaries and NGO campaigns (STOP THE TRAFFIK, Baptist World Aid Australia, and World Vision 2016). While such efforts can raise consumer consciousness and likely spur action on the ground—including the industry-sponsored International Cocoa Initiative that has as its core mission to eliminate child labor in Côte d’Ivoire and Ghana—I do not take external parties into account because they tend to become active only for unusually salient issues in select locations.

**Conclusion**

This chapter started by situating sustainability standards as a case of transnational private governance. It then showed that their effectiveness has varied significantly. So far, diverging results have been explained with standard design, public regulation, the role of buyers and industry, and of standard adopters’ willingness and capability to comply. However, a key and so far underappreciated issue is that standard implementation requires learning and changes in practice and managerial systems that are more demanding for users than recognized so far. Therefore the explanation proposed in this chapter complements existing theories by centering on processes of recursive knowledge appropriation at the local level where perfectly capable and willing users can fail despite good intentions and favorable contextual conditions. The main reason is that implementing standards require active discovery from the regulated because transnational rules cannot provide sufficient guidance to find good local solutions. Crucially, private standards do not contain scripts for adopters to transform their organizations into high-performing ones.

The larger contribution pursued with this research is to augment the regulation and governance literature with a practice and labor lens. This view proposes to see standard outcomes—compliance, livelihood improvements and sustainability—not as predominantly contingent on the standard, context or characteristics of adopters, but as realized in the everyday practices and actions that adopters take. This allows researchers to better account for variations within and across sites of standard implementation, and it deepens our understanding of potential obstacles to standard implementation. It also allows governance scholarship to move toward a nuanced understanding of standards and rules in practice.
Chapter 3: Can Sustainability Standards Address Unsustainability in the Cocoa Sector?

Sustainable Development: A Definition

What is sustainable development? The term has been defined in myriad ways, with its "creative ambiguity" (Kates, Parris, and Leiserowitz 2005:20) being both a strength and weakness. The most widely used definition stems from the 1987 Brundtland report:

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. (World Commission on Environment and Development 1987:41).

A similar definition from a literature on business sustainability repeats the idea of intergenerational justice and adds a need for balance between business, societal, and environmental goals:

[T]he ability of firms to respond to their short-term financial needs without compromising their (or others') ability to meet future needs. In other words, firms must balance their short-term performance with both their long-term needs and the long-term needs of society, including operating within the limits of the biosphere. (Slawinski and Bansal 2015:532, emphasis in original)

Taking this definition as the starting point and applying this to cocoa producers—who run their agricultural enterprises, small and large—means that they can meet their and their workers' financial needs without endangering the ability of future generations to do so, for example by deteriorating the natural environment suitable for cocoa production. Sustainability standards promise to help with this endeavor, through raising prices obtained for cocoa and requiring more environmentally friendly as well better labor practices. The rapid diffusion of sustainability standards could therefore help to ameliorate entrenched poverty among this agricultural labor force and to address deforestation, among other environmental concerns. In fact, virtually all sustainability efforts in the cocoa sector intervene at the level of producers. The number of initiatives from chocolate manufacturers is mushrooming, whether from multinational cocoa and chocolate companies that finance the implementation of sustainability standards or other community-level interventions or boutique craft chocolate makers who build (and often market) direct relations to cocoa farmers.
Directing investments and efforts at the level of production makes sense because the needs are so obvious and pronounced. The cocoa sector’s sustainability challenges are most visible in the field and in cocoa-dependent communities. Yet the issues arising there might have more complex origins. The purpose of this chapter is to show how a larger production system for cocoa, involving producers, governments, industry and market structures, favors commodity production that is inherently in tension with sustainability goals. Therefore I examine the larger patterns of practices, policies and structures that contribute to issues manifest at sites of production.

This chapter proceeds in five steps. First, I provide a brief history of how sustainability standards have gained their prominent position as policy instruments. Second, I describe the design and mechanisms of the four standards common in cocoa (Fairtrade, Rainforest Alliance, UTZ, and Organic). Third, I introduce the history and basics of cocoa production as well as key characteristics of the sector. Fourth, I examine four key drivers of unsustainability: (1) agricultural monocropping, (2) government policies in producer countries, (3) oligopolistic industry structures, and (4) long-term world market trends. Together, these unsustainability trends also imply that the sources of value creation have moved away from production to branding, economies of scale, and risk management—all of which are hard for producers to participate in. Finally, I reflect on the extent to which standards are designed to mitigate these drivers of unsustainability.

**Sustainability Standards as Policy Instruments: A Brief History**

Sustainability standards, as is true for the wider field of private governance, came into existence because alternative paths to address major issues, such as inequality, undignified labor conditions, and environmental destruction, were foreclosed or resisted (Bartley 2007; Bhagwati 1995; Brown 2001). The paths originally envisaged by activists interested in improving on these issues were traditional regulation through national laws and international World Trade Organization (WTO) social clauses. Consequently, the first forerunner certifications—Organic (under IFOAM, International Federation of Organic Agriculture Movements), Forest Stewardship Council (FSC), and Fairtrade—had their

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13 A similar observation has been made for manufacturing where upstream business practices cause volatility that contributes to labor standard violations apparent at factories (Locke 2013:126).
foundations in civil society. In the case of Fairtrade and Organic, the respective standards came out of wider social movements leading to partnerships between grassroots initiatives and NGOs (Fridell 2004; Raynolds 2000). In the case of FSC, the standard resulted from institution-building efforts between coalitions of NGOs and foundations (Auld 2014; Bartley 2007). More recent newcomers among sustainability standards enter an increasingly market of standards (Reinecke, Manning, and Hagen 2012), sometimes over disagreements within existing certifications. For example, UTZ—a standard that started with coffee in 2002—was founded to pursue scale faster than seemed possible within Fairtrade: a move criticized by one of the founders of Fairtrade (VanderHoff Boersma 2008).

Especially earlier certifications, such as Fairtrade, started as “challenger projects” (Levy, Reinecke, and Manning 2015:33). By now, however, they have become widely accepted and used as policy instruments, reflected in quickly growing shares in sales and production (Potts et al. 2014). Several factors converged to facilitate this transformation from “challengers” to mainstream policy tool. First, NGOs and companies have converged around “sustainability” as a common ground, a process traced out in detail by Levy et al. (2015). Second, in most industries—with the notable exception of labor standards—competing standards have converged rather than fragmented or engaged in a “race to the bottom,” as some feared (Fransen and Conzelmann 2015; Turcotte, Reinecke, and den Hond 2014). Third, activists have actively diffused sustainability standards, often by pressuring companies into adopting them (Bartley et al. 2015; Seidman 2007). Fourth, donors have latched on to implementing sustainability standards as part of embracing a Global Value Chain (GVC) approach to development (Gereffi 2014). Standards also are seen as a way to fill a gap when producer country governments significantly reduced their investments into rural extension services (Dand 2011) because implementing sustainability standards could then be combined with training in, for example agricultural practices (which does not form part of such standards). Lastly, consumers’ willingness to pay has been proven for at least some marketing channels and products (Hainmueller, Hiscox, and Sequeira 2014). This process of certifications moving from alternative visions of “fair” market organization to more business-friendly sustainability standards has not been without its critics (Bacon 2010; Jaffee and Howard 2009; Lemeilleur, N’Dao, and Ruf 2015). However, these criticisms seem to have done little to slow down or reverse these trends.

Sustainability standards in the cocoa industry got an additional boost about 10 years after the first accusations of child and forced labor on cocoa farms emerged in the early 2000s. A
flurry of activities ensued to pressure industry into taking action, such as a Harkin-Engel Protocol, named after US Senators Harkin and Engel, and also called Cocoa Protocol. It is a public-private partnership that has committed to joint measures in order to reduce and report on child labor, although only for Ghana and Côte d’Ivoire. Industry sponsors the International Cocoa Initiative (ICI) that was founded to oversee these measures. The “Big Six” chocolate branders, including Mars, Hershey, Nestlé, and Ferrero, have since made public pledges to buy up to 100% certified cocoa by 2020. In the meantime, NGOs have argued that certifications represent the best way to ensure child labor-free chocolate. They call on industry to convert their chocolate production to certified and urge consumers to buy only certified chocolate (STOP THE TRAFFIK et al. 2016). Such campaigns are not entirely free of conflicts of interest since some NGOs also participate with industry in projects to implement certifications.

To summarize, sustainability standards arose in lieu of government regulation or other mechanisms to deal with negative externalities of markets. Over, time they transformed from niche initiatives to becoming a widespread policy instrument. The tools and mechanisms through which these standards are supposed to have positive impacts is the topic of the next section.

The Design and Mechanisms of Sustainability Standards

The key mechanisms through which sustainability standards intend to promote livelihood improvement can be summarized as price, organization, and compliance. However, standards differ in their exact design. Table 2 (at the end of this chapter) gives a detailed overview of requirements for Fairtrade, Rainforest Alliance, UTZ, and Organic. Here I briefly describe the key mechanisms contained in standard designs: Fairtrade has the most elaborate requirements compared to Rainforest Alliance and UTZ. After reviewing standard mechanism design, I mention aspects that are sometimes considered to be part of sustainability standards but that are not regulated through their design. Standard
mechanism design covers the following aspects where I cover the written requirements above all, and, where warranted, comment on notable standard practices: 14

1) Premium: Certifications offer a premium, which, for cocoa, is reported to range from 5% for UTZ and up to 18% for Organic (Potts et al. 2014) paid as a gross premium to farmer groups. I mention gross premium and farmer groups because premiums are not paid directly to individual farmers and instead to farmer groups (potentially causing issues with a fair distribution of the premium). The gross premium is highlighted because sustainability standards require a yearly fee for auditing, which—unless assumed by an outside party—has to be covered by the certified farmer group. A longer-term trend has been toward declining premiums (Donovan 2006). Premiums are negotiated between the certified producers and a buyer for Rainforest Alliance, UTZ and Organic, while Fairtrade regulates a premium of USD 200 per metric ton (about 5% of a world market price of about USD 3,000 in early 2016). The Fairtrade premium is a floor, not a ceiling, and farmers can negotiate a premium above that, if they offer a product that is valued, for example for its quality.

2) Labor conditions and environmental protection. All standards have requirements on both labor conditions and environmental protection. Although Fairtrade was initially more focused on social and community issues and Rainforest Alliance and Organic on environmental conservation, this is an area where standards have most converged over time. Organic is an outlier in this regard because it is the only standard that prohibits the use of all synthetic inputs. Organic, on paper, has very similar labor standards as the other certifications, although farmer groups that are certified Organic tend to report that the focus is heavier on ensuring use of organic inputs.

3) Farmer organization: Only Fairtrade requires explicitly that individual farmers join a farmer group that is democratically run with annual voting procedures and documented governance and reporting structures. However, since it is impractical and often unaffordable for smallholders to participate in sustainability standards individually, the organization of smallholders into farmer groups is common practice for all standards.

4) Fairtrade minimum price: Fairtrade has a floor price to provide some stability to certified farmers, should world market prices fall to very low levels. The Fairtrade minimum price

14 These design aspects hold across agricultural goods covered by standards; where needed I include aspects relevant to cocoa. Fairtrade is exceptional for cocoa in that it only accepts smallholders into the certification whereas all other standards also accept large farms and plantations.
for cocoa is USD 1,750 per metric ton and USD 2,050 per metric ton of Organic-Fairtrade cocoa (FLO 2011). This threshold has not been crossed since mid-2007, which is due to Fairtrade price-setting process that seeks to combine a "fair" price with remaining competitive in a market for standards (Reinecke and Ansari 2015a).

5) Fairtrade trade conditions (access to credit, length of contract): Fairtrade is the only standard that stipulates that buyers must offer at least a one-year contract and up to 60% pre-financing to farmer groups to cover working capital costs between buying from individual farmers and receipt of money from selling to the buyer. In practice, however, some buyers may avoid farmer groups who insist on this requirement (Raynolds 2009).

6) Traceability: For all standards, farmers must be able to document the handling of certified product across all stages of cultivation and production. This paper trail then continues into a "chain of custody" to ensure that buyers and manufacturers keep certified apart from conventional products. One difference between standards are the requirements that they pose to chocolate manufacturers, for the case of cocoa. Some standards (UTZ) allow processors and chocolate manufacturers to use a "mass balance" system where they can certify the amount of final product that is equivalent to the amount acquired for producing that product, without keeping cocoa beans separate in the process. In contrast, Organic requires production lines that are used for processing Organic product to be cleaned by running a small amount of Organic beans through them. The cost implications for cocoa processors may be one factor why UTZ is growing very fast (as I will review in Chapter Four). These different requirements can also lead to ethical dilemmas for standard-setters on whether to make their requirements more business-friendly, at the risk of having irresponsibly produced cocoa enter into certified supply chains (personal communication with certifier, March 16, 2016).

Several aspects—commonly associated with sustainability standards—are not regulated, specifically training and the cutting out of intermediaries. If training is provided, whether on good agricultural practices, good business practices, or the management of a farmer group, it is provided as part of larger donor, NGO, or corporate initiatives. Similarly, sustainability standards are sometimes confused with "direct trade," which is a simple claim or a third-party certified label found on some chocolate bars. However, none of the sustainability standards above regulate the value chain, and certifiers and auditors do not
intervene in matching certified farmer groups with potential buyers (although some informally facilitate contact information).

Also none of the standards regulates volume or quality—the two other key variables, besides price, in the equation of price-setting. Using longitudinal data on coffee in Central America, De Janvry et al. (2015) have shown that therefore effective certification premiums can be dissipated, also for Fairtrade, because buyers either buy less or demand higher quality. To provide some context: the current level of oversupply in cocoa is significant since production of certified cocoa (22%) has outpaced sales of certified cocoa (7%) by 15 percentage points in 2012 (Potts et al. 2014). According to news reports, this imbalance continues (Nieburg 2014). Some scholars have, however, offered a more optimistic take on this dynamic: They suggest that good labor and environmental practices are still spreading and improving conditions for all, although with a diminished economic return (Dragusanu et al. 2014).

To recap, sustainability standards, in essence, offer a modest price premium to organized farmer groups in exchange for providing credible documentation of and proof for better practices in audits. The premium, in practice, is further limited by the costs of standards and the fact that many certified producers cannot sell their product as certified. Ironically, there is positive side to limited economic benefits because it likely limits the attractiveness of gaming and shirking done to gain access to standard benefits (Getz and Shreck 2006).

**Global Cocoa Production: A Brief Overview**

Cocoa has always been a coveted crop, making the trade and control of it contested from early on. First used by the Olmecs, with evidence of processed cocoa reaching as far as 1800 BC, cocoa crossed the threshold from its origins in Mesoamerica to the Old World in 1502. Becoming sought after as a beverage for the Spanish royalty in the mid-16th century, cocoa conquered first Europe and then North America, with the take-off coming in the late 19th century when manufacturing innovations transformed the former luxury good into an affordable snack for mass consumption. To keep up with demand, imported slave labor from Africa cultivated newly opened cocoa plantations in Venezuela and Ecuador, later expanding to Brazil, and from there to Portuguese colonies São Tomé and then to Gold Coast (today's Ghana) where “rural capitalists” rather than slaves provided the raw ingredient for Cadbury and other chocolate makers (Coe and Coe 2013; Hill 1963; Walker 2009).
Cocoa is known by its scientific name of Theobroma cacao ("food of the gods"), given to it in 1753 by Swedish botanist Von Linnén. As a tropical tree crop, cocoa requires a hot and humid climate, found in a 20° belt north and south of the equator. Therefore cocoa, by nature, is bound to certain climate zones and within these climate zones, production has shifted from Latin America to Africa, with Asia gaining ground since the 1970s. Rapidly, West Africa in particular became the dominant supplier, overtaking South America by the 1920s already and accounting for two thirds of today's world's cocoa production (Dand 2011:15). Only seven countries (Côte d'Ivoire, Ghana, Indonesia, Cameroon, Nigeria, Brazil, and Ecuador) supply about 90% of the world crop (ICCO 2016). Cocoa has often been described as an "orphan crop" (Nieburg 2016a) with little attention from research to varieties, partly because, as a perennial crop, it required a long time to see results of new varieties. This dynamic has changed significantly since the cocoa genome has been mapped (Argout et al. 2011), which speeds up research and the search for high-yielding, pest-resistant varieties.

5 to 6 million cocoa producers worldwide were estimated, for 2012, to grow about 4 million metric tons (MT) of cocoa, generating revenues of USD 8.4 billion, and supplying a chocolate and candy industry with revenues of more than USD 83 billion (Potts et al. 2014), projected to cross the USD 100 billion mark in 2019 (MarketLine 2015). Cocoa is often described as the prototypical smallholder crop. Indeed, the overwhelming majority of the world crop, an estimated 80 to 90% (World Cocoa Foundation 2014), is being cultivated by smallholders. For producers, cocoa is deceptively easy, but risky to cultivate. Needing manual labor but relatively little capital investment, it is mostly grown by smallholders, with farm sizes of under 3 hectares. Different from other commodities, such as sugar or coffee, the use of machines has not taken hold in the sector. Trees tend to produce year-round, either under thinned forest cover or under full sun, trading off ecological and economic benefits (Franzen and Mulder 2007). Cocoa trees, especially at a young age, need protection from sun and strong winds. When older, they can be grown under shade or in full sun. The most important agricultural practices are weeding, fertilizing, and pruning. Once pods—a football-sized fruit containing about 40 cocoa beans each—are ripe, they are plucked from trees and opened to remove the beans, which—to develop desired flavors—need to be fermented and dried over 4 to 6 days. Trees can produce cocoa pods for decades after an initial maturation period of about 3 to 5 years.
Yet the relative ease of such basic agricultural tasks masks two major risks. First, a lengthy investment period until a seedling starts to produce hides production issues with a given cocoa tree for years, locking producers in and making rejuvenation of farms costly. Partly as a result, the average productivity of cocoa—about 400 to 500 kilograms per hectare—has remained flat for decades (Dand 2011; Haque 2004; UNCTAD 2008). Second, trees are prone to damage above all from diseases, said to account for losses of a third of global production (Dand 2011). Differences in yields are driven by the age of cocoa trees and the prevalence of pests and diseases (Haque 2004:4). Up until today, cocoa production has not seen increases because of higher yields from existing areas but mostly from expanding into new territories. Industry experts recognize this as one of the limitations for increasing future supply of cocoa (Nieburg 2016b), which might be needed for consumers of chocolate in new and growing markets, such as China (Allen 2010).

In sum, cocoa is a prototypical “global value chain” good, produced in countries with subtropical climates and shipped across the globe to consumers, mostly in industrialized countries, ever since the Spanish courts took a liking to a sweetened version of Aztec chocolate (Coe and Coe 2013). The pattern of production in the Global South and consumption in the Global North has largely held, although the chain is separated by a “double disconnect” (Cidell and Alberts 2006:1003) where producers often do not know, let alone consume, the final product of chocolate, and consumers rarely can determine where cocoa has been sourced from. As I will investigate below, the commodity nature of much of today’s cocoa production could be one of the causes of unsustainability.

**Drivers of Unsustainability**

For the manufacturing industry, scholars have noted that important labor issues have as one of their root causes the drive towards differentiated products and short product cycles (Samel 2013). For cocoa, many issues at the producer level seem to stem from the mirror image—from a drive to create undifferentiated chocolate for mass consumption, chocolate that acquires its distinctive features through branding but not the product itself. A logic of commoditized beans, together with long-term declines in world market prices, encourages the production of larger volumes through agricultural monocropping, which enables some producer countries, especially in West Africa, to earn revenues through direct taxation and exchange rate taxation while offering little in terms of extension services. In the meantime,
the search for business efficiency through merger and acquisitions has led to highly concentrated industry structures where incumbents have significant advantages in financing branding campaigns, reaping economies of scale, and managing the risk of volatile markets. None of these sources of value creation—branding, scale, or risk management—are available to the vast majority of cocoa producers whose livelihoods heavily depend on producing the beans that feed this cycle. The problems manifest at the producer level—such as poverty, child labor, inadequate use of pesticides or encroaching on forest land—might have their origin in these larger structures. Whether sustainability standards can interrupt this larger dynamic seems doubtful.

The fact that agricultural monocropping is prone to "cycles of boom and bust" (Ross 2014:49) should not surprise anyone. What is perhaps more surprising is that producers keep moving toward a monocrop culture, despite knowing the risks. Alternatives exist since cocoa can be grown productively in agroforestry systems alongside other crops, such as plantain, rubber or coconut (Utomo et al. 2015). One sign for a trend toward monocropping is the growing importance of full-sun cultivation of cocoa. Instead of growing cocoa trees under forest trees that protect cocoa from drought and strong winds, the crop is cultivated without such shade trees. In Ghana, the second-largest producer of cocoa worldwide, this is increasingly popular (Ruf 2011). Full-sun cultivation leads to higher yields but tends to require more intensive agricultural practices, including more inputs for fertilization and pest control and irrigation to protect against droughts, besides reducing biodiversity (Bentley, Boa, and Stonehouse 2004; Vaast and Somarriba 2014). However, relying on irrigation might be a risky proposition in a changing climate (Läderach et al. 2013). In favor of this kind of production, it has been argued that intensive cultivation systems spare enough land that their negative effect on ecosystem services is compensated through reduced land use (Gockowski et al. 2013). However, newly created intensive cocoa farms can be on virgin forest land, as Global Forest Watch, an environmental watchdog NGO, has reported for Peru (Payne and Mann 2015), and trends point toward an increase in plantation-grown cocoa (Gayi and Tsowou 2016). It seems that monocropping cocoa will become more common, which poses economic risks for producers and increases negative externalities from production due to chemical pest management.

Governments have few incentives to encourage farmers toward diversified agricultural systems. On the contrary, they tend to be better known for encouraging monocropping (Johns 1999). To start with, rural development policies have not been a priority among the
top cocoa producing countries, many of them in West Africa (Birner and Resnick 2010). Rural infrastructure, such as transport, electricity, and access to health and education, is often precarious and patchy. Furthermore, it tends to be costly to construct and maintain in subtropical climates. Nevertheless, governments do have an incentive that farmers cultivate cocoa because this export cash crop can be taxed and add to state revenues (Soumahoro 2016). Granted that countries cannot exceed certain limits for extracting value from producers. Ghana, for example, has found “a marketing arrangement that does not kill the goose that lays the golden eggs” (Kolavalli and Vigneri 2011:201). Ghana—as I will show in Chapter Four—is also an exceptional case because it has increased public spending on cocoa. Overall, however, sector-wide trends have been toward declining public extension services (Dand 2011), although good practices for extension services have been studied and could be diffused (Tendler 1997). The only exception are emergency responses to pests and diseases, as done for example in Indonesia in 2008 (Utomo et al. 2015). To conclude, governments have played at best a mixed role for cocoa producers, despite some sporadic initiatives to revitalize production and Ghana as an outlier.\textsuperscript{15}

Current industry and global market structures encourage a further commoditization of cocoa. The basic supply chain in the cocoa sector starts with individual producers, sometimes organized into farmer groups, but mostly facing intermediaries as fragmented individuals. These intermediaries then organize the buying and selling to wholesale exporters and traders who, in turn, sell to cocoa processors that process cocoa beans to produce cocoa liquor as a raw ingredient that can be separated into cocoa butter (needed for chocolate) and cocoa powder (needed in many food items, such as ice cream and bakery products). Processors sell to chocolate manufacturers; they are responsible for the final recipe as well as marketing, branding, and distribution to retailers. This chain has undergone major changes, particularly in the middle between traders, processors, and manufacturers.

Industry structures have become highly concentrated, which is likely a mixed blessing for producers. On the one hand, the number of sustainability standard initiatives has increased, often sponsored by large companies. Multinational traders and processors may also pay higher farm gate prices than domestic buyers (Ronchi 2006). On the other hand, levels of

\textsuperscript{15} Governments have attempted to stabilize cocoa prices a few times but never with much duration or success (Dand 2011; Haque 2004; Traoré 2009).
industry concentration are unprecedented in the sector, and, farmers, faced with limited choices to whom to sell cocoa, have “limited organizational leverage,” as the industry-sponsored World Cocoa Foundation (2014:1) puts it. This evolution started in the 1980s and has resulted in a structure with three companies playing a major role for trading and processing (Barry Callebaut, Cargill, and OLAM) and four chocolate branders (Mondelez, Mars, Nestlé, and Hershey) accounting for over 57% of the global chocolate confectionary market in 2014 (MarketLine 2015:12). The resulting industry structure with two highly concentrated levels among traders/processors and manufacturers/branders has been labeled “bi-polar” (Fold 2002) and “successive oligopolies” (UNCTAD 2008). In addition, retail is also highly concentrated. There supermarkets/hypermarkets account for a third of the market’s share (MarketLine 2015:13). Together, these changes in the industry itself might be related to some of the long-term cocoa market trends that are directly relevant to producers, namely world market price, price volatility, and share of value in a final chocolate bar accruing to producers.

Long-term trends in the world cocoa market are a declining commodity price, a declining share of retail value to producers, and increased volatility. Cocoa, as an agricultural commodity, is no exception to the general trend of declining real value to producers (Haque 2004). Although we have seen generally rising cocoa prices since 2000, the average price for 2009—with USD 2,889 per metric ton—was still significantly lower than the average price for the 50-years period from 1960 to 2009—with USD 3,761 (Dand 2011:21). This translates to a price decline in real value of about 2% per year. Since the late 2000s, cocoa prices have been oscillating around USD 3,000 per metric ton, which has stopped but not turned around long-term price decline. However, the decline in cocoa prices—although a relatively small part of the price of a chocolate bar (around 6-8%)—has not translated to retail prices that, instead, manifest a gradual increase since the 1990s, as Figure 6 below shows (UNCTAD 2008). The share of value accruing to manufacturing and distribution in one tablet bar of chocolate is 71% (Dorin 2008).

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16 As an aside: anecdotes suggest that large chocolate companies are trying to make themselves appear smaller than they are (Brenner 1999).
There are several pieces of evidence that the share of value accruing to cocoa producers is small and diminishing. Several case studies that seek to trace these hard-to-estimate effects with micro data for specific value chains point in that direction. Exemplary studies are for supply chains between Nicaragua and Finland (Valkila, Haaparanta, and Niemi 2010), between Côte d’Ivoire and France (Dorin 2008), and between Cameroon and France and the UK (UNCTAD 2008).

Volatility is another distinguishing characteristic of agricultural commodities. The global cocoa market might have become more volatile in its short-term behavior. This, in turn, seems due to growing financialization. Since the early 2000s, the financial trade of cocoa is increasingly decoupled from physical trade. In 2008, the financial trade reached 19 times the world crop—a massive increase in liquidity from prior levels (Dand 2011:170). By 2012, less than 1% of financial trade resulted in actual delivery of beans (Dand 2011:154). Hedge funds—some of them founded by the largest companies in the cocoa sector—and
other investors have discovered agricultural commodities as a new place to invest. Two position can be distinguished in assessing this trend. An optimistic one considers that, with increased liquidity, buyers of cocoa can hedge their risks because they are able to find counterparts that take the opposing position in the market (Dand 2011:189). A pessimistic one judges that the influx of finances has made the market a "noisier place... [where] [p]rices can move suddenly and for no apparent reason" (Ryan 2011:129). An UNCTAD analysis confirms that short-term volatility has increased, although it does not seem like financialization has changed long-term market fundamentals (UNCTAD 2012).

Combined, these “drivers of unsustainability”—monocropping, mixed government support, oligopolistic market structures, and a market environment of price decline and volatility—are a sobering mix. Putting these trends together also suggests that the sources of value creation lie mostly in branding, economies of scale, and risk management. Branding has always been a part of “chocolate wars” (Cadbury 2010). But with new and potentially huge markets opening, for example in China, the battle for market shares seems to be consuming even more energy and resources (Allen 2010). Chocolate marketers explain the importance of branding with consumers’ strong loyalty to the taste of their chocolate (Allen 2010:21). Economies of scale are a normal part of manufacturing operations. In cocoa, they have been extended to transport, with new installations for shipping cocoa in bulk instead of bags, which likely favors multinational agribusinesses over domestic exporters (UNCTAD 2008). Risk management, again, is part of normal business procedures. The key issue, however, is that cocoa producers—who are immediately affected by price swings—are least able to safeguard against such risks. For now, it seems that producers are at the receiving end of pressures toward unsustainability.

Summary: The Potential and Limits of Sustainability Standards

What other paths to value creation are open for cocoa producers and cocoa-producing countries? For producers, one possible way out of being price-takers could be to differentiate themselves through symbolic attributes, marketing geographic origins for example (Daviron and Ponte 2005). Yet this necessitates not only skills and resources but also access to market niches. These niches, such as the craft chocolate or fine flavor market, have been extremely limited, estimated to around 1% of the global market. For the foreseeable future, they are too small to sustain growers of large volumes of cocoa.
(Williams and Eber 2012). Another solution could be to add value to cocoa production through processing beans in cocoa-producing countries, which has been on the rise. However, this value addition in origin countries has been the result of tax breaks, which equalize a higher cost of in-country processing. Due to agglomeration economies, processing is cheaper next to a chocolate manufacturing plant (UNCTAD 2008:25). With few options for producers to improve their livelihoods beyond growing cocoa (or other, possibly more profitable crops), it is not immediately clear how one could overcome the aforementioned pressures that contribute to unsustainability in the cocoa sector.

What are the opportunities and limits for sustainability standards under such circumstances? The opportunity is that they seek to improve livelihoods through providing a monetary incentive, organizing farmers, and requiring better production practices. In some cases, these standards can be enhanced by complementary training, a shorter value chain and direct ties to buyers, or access to additional support as part of the "honeypot effect" (Nelson and Pound 2009:16) that standards can draw. Furthermore, certified farmers may be able to negotiate higher premiums, based on physical or symbolic quality. The limits, as shown in this chapter, lie in larger patterns that work against improving producers' livelihoods. Yet how sustainability standards fare in practice remains an empirical question that I investigate for Ghana, Ecuador, and Brazil in the following three chapters.
APPENDIX

<table>
<thead>
<tr>
<th>Type of certification (standard-developing agency in brackets)</th>
<th>Social requirements</th>
<th>Ecological requirements</th>
<th>Trade requirements</th>
<th>Other requirements</th>
<th>Producer price premium</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fairtrade (Fairtrade Labeling Organizations FLO)</strong>&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Democratic structure with yearly General Assembly, equal voting rights for all members and elected Board, Upholding of ILO labor conventions for workers (freedom from discrimination, freedom of labor, child protection, freedom of association and collective bargaining, conditions of employment, occupational health and safety)</td>
<td>Standards for integrated pest management (with certain pesticides allowed); protection of soil and water; reduction and recycling of waste; no GMOs; protection of biodiversity; reduction of greenhouse gas emissions</td>
<td>Contracting for at least one harvest season; on request buyer needs to make 60% pre-harvest credit</td>
<td>Traceability: Chain of custody certification</td>
<td>Guaranteed minimum price (USD 1750/MT for conventional cocoa and USD 2050/MT for organic cocoa) if world market price below threshold Fairtrade premium of USD 200/MT if market price above world market price Recommends to use at least 25% of the premium for productivity and quality initiatives</td>
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<tr>
<td><strong>Rainforest Alliance (Sustainable Agriculture Network SAN)</strong>&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Upholding ILO conventions on fair treatment and good working conditions for workers (e.g., freedom from discrimination, child protection, freedom of association)</td>
<td>Ecosystem conservation, wildlife protection, water conservation, integrated crop management (with certain pesticides allowed) and no GMOs, soil management and</td>
<td>Traceability: Chain of custody certification</td>
<td>Social and environmental management system, requiring assigned responsibilities, planning, record-keeping training and education programs, and internal procedures to</td>
<td>Varies with the market</td>
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<tr>
<td>and collective bargaining, occupational health and safety, community relations</td>
<td>conservation, integrated waste management and reduction of greenhouse gas emissions</td>
<td>ensure compliance with the standard</td>
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**UTZ Certified (UTZ Certified in accordance with ISEAL Code of Good Practice)**

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<thead>
<tr>
<th>Upholding ILO labor conventions on work regarding workers' rights and employment conditions (see Fairtrade)</th>
<th>Standards for integrated pest management; planting material and nurseries; soil management and cocoa farm maintenance; fertilizer use; irrigation; biodiversity; energy use</th>
<th>Traceability: product identification, documentation and separation</th>
<th>Management system, farm identification, record keeping and self-inspection</th>
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</thead>
<tbody>
<tr>
<td>Requires documentation on distribution of UTZ premium within organization</td>
<td>Varies with the market</td>
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</table>

**Organic (International Federation of Organic Agriculture Movements IFOAM)**

<table>
<thead>
<tr>
<th>No social standards required for organic certification but IFOAM standards include requirement of upholding minimum national requirements and ILO conventions on labor and child protection</th>
<th>Standards barring use of synthetic pesticides, herbicides, fungicides, fertilizers, and GMOs</th>
<th>Processing and handling requirements to keep organic products separate and labeled</th>
<th>Internal control system with policies and procedures to verify compliance of members requiring designated personnel, documentation, internal inspection protocols, sanction mechanisms, procedures to accept new members, and risk assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varies with the market</td>
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Note: FLO distinguishes core and development requirements. Core requirements must be complied with. Development requirements refer to measures for continuous improvement that are scored on a 1 to 5 scale.
Compliance is reached when all core requirements are fulfilled and a minimum score for development requirements is attained. Cocoa producers and buyers must agree on the cocoa reference market price used (Liffe Administration and Management Cocoa Futures Contract ‘Liffe’ or Intercontinental Exchange Futures US Cocoa Futures Contract ‘ICE’).

Note: Rainforest Alliance distinguishes 15 critical criteria and other applicable criteria. Compliance is met when a certified group is in compliance with at least 80% of all applicable criteria, with at least 50% of the criteria within each of ten principles, and with 100% of the 15 critical criteria.

Compliance requirements: The Code of Conduct consists of 182 control points, divided into 10 chapters. Compliance is reached when all mandatory control points and a defined number of additional control points is attained for each chapter. Compliance also contains a continuous improvement component by increasing the number of mandatory control points from year 1 to year 4.

Note: IFOAM is an umbrella organization. Organic certification of the farmer groups studied here mostly follows USDA organic standards or a European standard (BioSuisse). However, the barring of synthetic inputs is common across all versions in the family of organic standards.
Chapter 4: Limits to Impact: A Panel Study of Fairtrade in Ghana

Introduction

West Africa has become the new epicenter for producing certified cocoa. It increased its production of certified cocoa from just over 3,000 metric tons in 2009 to over 647,000 metric tons in 2012 (ICCO 2012a; Potts et al. 2014). Thus, within three years, West Africa moved to being the largest supplier of certified beans worldwide, accounting for 72% of them in 2012 compared to 3% in 2009. While the rapid rise is astounding, it could be good news: Since West African cocoa producers struggle most with poverty, compared to their peers in Latin America and Asia, sustainability standards have diffused most in the region of biggest needs. The fast spread of certification initiatives in West Africa also means that major investments have been made in the cocoa sector since these initiatives are mostly sponsored by industry, either by a company, such as Cadbury/Mondelez, Mars, Nestlé, Barry Callebaut, and Cargill, or by industry consortia, such as the World Cocoa Foundation (WCF) and the International Cocoa Initiative (ICI). A key question is: are these investments paying off for cocoa producers?

Certifications, and research on it, started with coffee in Latin America (Le Maré 2008; Nelson and Pound 2009). Early research adopted qualitative methods, using case studies (Raynolds et al. 2004; Ronchi 2002) and ethnographies (Jaffee 2007; Lyon 2011). The authors tend to report that certifications contribute to the well-being of farmers, with improved economic and organizational outcomes, due to higher prices and capacity-building in farmer organizations. Cross-sectional quantitative studies have been conducted since, albeit with varying degrees of credibility in their matching of certified and non-certified producers (Blackman and Rivera 2010). Studies deemed more reliable include, for instance, a comparison of Fairtrade certified and nearby non-certified producers for coffee in Peru, Nicaragua, and Guatemala (Arnould et al. 2009), as well as similar comparisons for fruit in Kenya (Becchetti and Costantino 2008) and for coffee in Peru (Ruben and Fort 2012). Compared to earlier work, their findings point to more modest improvements in

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17 Author's calculations based on (ICCO 2012a; Potts et al. 2014). The total volume of certified cocoa beans in 2011/12 was 899,000 metric tons (22% of total cocoa production). The figures reported adjust for multiple certifications, by assuming an overlap of 50%, following (Potts et al. 2014:131).

18 Cadbury started a large Fairtrade program studied in this chapter. The company was acquired by Kraft in 2010. Kraft then renamed its international division to Mondelez.
income or assets. To remedy a lack of baseline data, a study on coffee farmers in Nicaragua uses retrospective data gathering (Beuchelt and Zeller 2011). In contrast to other studies, the authors conclude that certified farmers are economically worse off than their non-certified peers. Then, improving on cross-sectional designs, several studies incorporate longitudinal, although not baseline data. They echo prior findings of limited income benefits, although some report increases in assets instead (Dragusanu and Nunn 2014; de Janvry et al. 2015; Nelson et al. 2013; Parvathi and Waibel 2016; van Rijsbergen et al. 2016). However, with few exceptions, most existing research continues to grapple with bias from producers self-selecting into certification and with a lack of baseline data due to already existing initiatives. In these situations, “the search for the proper control group... often becomes a search for the Holy Grail” (Becchetti et al. 2015:535).

Scholars, in reviewing existing literature, tend to ascribe the trend toward modest results to methods that are better at reducing selection bias (van Rijsbergen et al. 2016). Partly this is accurate because some of the earlier research studied groups who built on decades of prior organizing, especially in coffee in Mexico and Central America (Audebrand and Pauchant 2008; Barton Bray et al. 2002; Raynolds et al. 2004). Hence introducing Fairtrade or similar certifications in contexts with less auspicious organizational conditions might lead to more limited results, considering that, already in Central America, early “thick” ethnographies pointed to the limits of certification. One of them quotes Mexican coffee producers as commenting on Fairtrade with, “Mejor, pero no muy bien que digamos” (“better but not very good we would say”) (Jaffee 2007:232). However, results may also have become more modest not because methods changed or contexts vary, but because the conditions under which farmers participate in certifications worsened. For instance, researchers have discussed factors such as Fairtrade premiums declining in real value (Bacon 2010), and its minimum price remaining below the market price (Nelson et al. 2013), decreasing rents for certified farmer groups because of increasing competition from other groups and resistance from buyers to higher prices (Mutersbaugh 2005), a dissipation of effective premiums due to oversupply (de Janvry et al. 2015), and the entry of “market-driven” buyers, following earlier “mission-driven” ones (Raynolds 2009).

Existing studies on Fairtrade in Africa are ambiguous. Nelson and Martin, after conducting a meta-review, conclude that “a review of the evidence, including recent studies and new data, indicates mixed findings and impacts that are highly context specific” (2015:525). For the context of cocoa in West Africa, then studying Fairtrade certification in Ghana provides a
litmus test for evaluating the likely impacts of exponentially growing certified cocoa production in West Africa. Several factors could tip the balance toward success or failure—understood here as a presence or absence of measurable improvements in incomes and livelihoods. On the one hand, we might expect failure because of time and place. With certifications picking up there in the late 2000s, West African farmers do not benefit from a first-mover advantage or earlier more generous Fairtrade conditions. The minimum price of Fairtrade has remained below Ghanaian government-set prices (and the world market price) for years and therefore is irrelevant (Nelson et al. 2013). The massive increase in supply of certified cocoa from West Africa raises concerns whether farmers can sell their beans as certified. Additionally, the context in which certifications are implemented is one of profound rural poverty, with few or failed organizational precedents for agricultural cooperatives (Young, Sherman, and Rose 1981).

On the other hand, we might expect success, particularly for the program studied here—Fairtrade certification under the aegis of a Cadbury Cocoa Partnership. This program presents a possible best-case scenario because Fairtrade is particularly focused on smallholders’ wellbeing and organizing compared to other certifications (Raynolds, Murray, and Heller 2007). The Fairtrade premium is fixed, not market-determined, as for UTZ, Rainforest Alliance and Organic, providing a certain assurance to farmers. Also, the growth rate of Fairtrade certification in West Africa has been moderate, reducing issues of oversupply, in contrast to huge growth rates for UTZ and Rainforest Alliance (Potts et al. 2014). On top of that, the tie between Fairtrade and Cadbury Cocoa Partnership assures an outlet for farmers to sell their beans as certified, building on a long legacy of commercial relations between Cadbury and Ghana (Higgs 2012; Satre 2005). Buyers are also monitored: Activists and media have kept the public’s attention on Ghana and Côte d’Ivoire due to child labor issues (Nieburg 2015c), increasing incentives for buyers to have a positive impact. Importantly, Cadbury and Fairtrade have agreed to participate in the impact evaluation presented here. Finally, the political context in Ghana has remained stable, in a region that has gone through considerable strife (Ryan 2011). However, quantitative impact evaluations on cocoa in West Africa are still rare.

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19 In this chapter, I use Cadbury Cocoa Partnership (CCP), instead of a new name (Cocoa Life) under Cadbury’s owner Mondelez, because program terms and local team remained the same.

20 Two reports on Ghana are an exception: a commissioned study to evaluate UTZ (COSA and ISSER 2013) and an analysis of a Fairtrade-certified farmer group, Kuapa Kokoo (Nelson et al. 2013).
This chapter presents results from an impact evaluation for one case of a large Fairtrade certification program, in over 200 cocoa villages in Ghana, namely through the Cadbury Cocoa Partnership. The unique research opportunity was to gather baseline data from cocoa producers before the program was implemented. The study evaluates whether livelihoods of participating producers improved as a result of the intervention. It estimates the impact through a difference-in-difference approach by comparing a panel of farmers in “treated” (certified) villages and “control” (non-certified) Cohort 1 villages before and after the implementation of Fairtrade. These villages were matched on production volume, location and infrastructure characteristics. Cohort 1 villages started in the program in 2009. The study also includes a randomization component for a subset of Cohort 2 villages that joined the program in 2011. The design reduces selection bias through using panel data for Cohort 1 villages and through using cross-sectional data for a randomized subset of Cohort 2 villages. Being able to compare Cohort 1 and Cohort 2 results, from a non-randomized panel and a randomized cross-sectional study, lends additional leverage to this study.

The data comes from two surveys, a baseline survey conducted in 2009 and a follow-up survey in 2014, joint with Michael Hiscox (PI, Harvard University) and Jens Hainmueller (Stanford University). The study, conducted together with the University of Ghana, encompasses about 3,000 cocoa households in over 350 villages in all cocoa-producing regions of Ghana. The findings suggest that this Fairtrade program overall had limited impacts and often null results for farmer incomes from cocoa, prices received, yield, farmer organization and training. Mostly, when the results show an improvement, they are not absolute but proportional ones: farmers in treated villages did not surpass farmers in control villages; they only progressed at a higher rate. There is little evidence that the program improved yields, agricultural practices, or the ability to invest, suggesting that the limited findings are not likely due to delayed effects. With the exception of a few indicators, similar results hold for non-randomized and randomized villages. The only clear and good news is that child labor seems to have decreased across all villages between 2009 and 2014.

In what follows I first review what we know from quantitative impact analyses, focusing on those that include longitudinal data. Then I provide background on cocoa production and market structures in Ghana and compare them to those of other West African cocoa-producing countries. I also review the role that West Africa plays for growing cocoa certification. After describing the methods and data, I present the empirical results, before ending with a discussion of possible explanations and implications.
Impact Analyses of Sustainability Standards

What is the yardstick by which to assess the success of sustainability standards? Nelson and Martin put it succinctly: “Fairtrade and other sustainability standards cannot be expected to tackle rural poverty on their own – the structural challenges that exist and the scale of development challenges in many regions are simply too great” (2015:529, emphasis in original). Implicitly, impact studies take this into account by evaluating the change that sustainability standards achieve relative to a credible counterfactual, rather than absolute measures of economic, social and environmental outcomes.

Impact studies of sustainability standards, published in peer-reviewed articles and commissioned reports, are proliferating as quickly as standard initiatives themselves and cannot be all included here. Therefore, I first present four meta-studies, followed by a selection of single studies, giving priority to those that use longitudinal data to examine the standards studied in this dissertation (Fairtrade, Rainforest Alliance, and UTZ) and that focus on cocoa or crops with similar characteristics (in particular coffee). The most causally rigorous methods that have been used in evaluating standard effectiveness include matching (often propensity score matching, on observable characteristics related to the probability of participating in certification and to indicators on income, production, wealth, investments and economic perception, see for example Ruben and Fort 2012) and panel studies. Randomized control trials, which are often considered the “gold standard” for evaluating impact, are under way for studying standard implementation in coffee in Sumatra and cotton in India, but results are not yet available (ISEAL Alliance 2016).

Two meta-reviews explicitly distinguish between studies that are more or less effective in making causal claims. A first one is focused on Fairtrade and coffee (Dragusanu et al. 2014). After examining Fairtrade for its effects on economic outcomes, the environment and local governance as well as its distributional effects for workers and non-certified farmers, the authors conclude that, albeit the evidence is incomplete, it appears that Fairtrade “does

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21 I exclude two early meta-reviews on Fairtrade because they find little in terms of quantitative research. However, they usefully reflect the starting point of assessing sustainability standards. Nelson and Pound (2009) review 33 case studies contained in 23 reports, of which 25 cases were on coffee and 26 from Latin America. The picture provided by these mostly qualitative studies was a generally positive one, with notable improvements most likely when smallholders are able to export and organize effectively. Le Mare (2008) similarly finds mostly positive economic and social benefits.

22 For a critical and comparative review of randomized control trials see (Cartwright 2007).
achieve many of its intended goals, although on a comparatively modest scale relative to the size of national economies" (2014:234). Specifically, they report that, on average, farmers receive higher prices, have and perceive greater stability, and are more likely to use environmentally friendly practices. However, economic benefits do not seem to reach workers of Fairtrade-certified producers.

Another meta-review that separates causal and correlational studies reaches a less optimistic conclusion (Blackman and Rivera 2010). The authors review 37 studies for the sectors of banana, coffee, seafood, timber, tourism and other agriculture, of which they consider 14 to have construed good counterfactuals. Of these 14 studies, six show evidence for positive socioeconomic or environmental impact. Among the 14 credible studies, they included six studies for coffee, of which three found significant standard benefits by providing a price premium through Fairtrade or Organic certification (Arnould et al. 2009; Bolwig, Gibbon, and Jones 2009) or leading to better environmental practices (Blackman and Naranjo 2012). For future research designs, the authors recommend to include a control group, to gather baseline data, and to randomize selection and program design.

Two subsequent meta-reviews on Fairtrade (Becchetti et al. 2015; Nelson and Martin 2015) include studies that have partially heeded these recommendations, for example in a longitudinal project on tea in Kenya and cocoa in Ghana (Nelson and Martin 2013) and a longitudinal multi-country study on coffee in East Africa (Hoebink et al. 2014). Despite an improved data base, the authors repeat earlier findings on variable standard impacts. On any single dimension, such as prices, productivity, income, health, education, stability, or farmer organization, the authors cite cases with diverging results and find overall modest poverty reduction.\textsuperscript{23}

Next, I review a selection of studies that analyze longitudinal data. One of the largest datasets is used for a panel study of the universe of 262 coffee mills in Costa Rica between 1999 and 2010, including over 110,000 producers annually from 2003 onward (Dragusanu and Nunn 2014). It shows that Fairtrade certified mills receive 5 US cents more per pound for exports than conventional mills but finds no difference in terms of total quantity sold or exported. The monetary upside is a small one, compared against the mandated Fairtrade minimum price of USD 1.40 per pound and the mandated premium of USD 0.20 per pound,

\textsuperscript{23} A meta-review on the Marine Stewardship Council and Forest Stewardship Council also finds modest monetary benefits (Carlson and Palmer 2016).
since not all certified product is sold as certified. This effect of over-supply is further investigated by de Janvry et al. (2015) who examine similarly comprehensive longitudinal data, covering 1997 to 2009, from a Central American coffee cooperative, which allows them to control for quality and other variables. Importantly, they conclude that an effective (rather than nominal) premium gets dissipated because a higher premium, relative to the market price, depresses the volume sold as certified in over-supplied markets. As a result, the additional income generated from certification is limited, estimated at USD 20 to 50 per year for median growers and constituting about 4 to 10% of their coffee-related income.

This finding of a limited economic upside is mirrored in studies with smaller sample sizes. A study that analyzed coffee in Kenya, based on panel data from 2009 and 2013 for 218 households from three cooperatives (one Fairtrade-certified, one Fairtrade- and UTZ-certified, and one non-certified) reports that overall household and welfare benefits are less than 10% of producers’ net income (van Rijsbergen et al. 2016). This finding holds true for both Fairtrade-certified and Fairtrade- and UTZ-certified producers. Similarly, the authors attribute this economic outcome to cooperatives selling about one third of their certified production as certified. A study on Organic coffee certification in Colombia, drawing on a sample of 224 growers of whom 56 were certified, reports no significant results on income and net returns, but confirms that Organic certification leads to better environmental practices (Ibanez and Blackman 2016). Finally, Parvathi and Waibel (2016) analyze survey data from two adjacent years, 2011 and 2012, for 300 pepper farmers in India who are either conventional farmers or certified to Organic or to Organic and Fairtrade. They demonstrate that, while Fairtrade-and Organic-certification does not lead to higher incomes, it supports increases in the asset level for Organic farmers.

Certification impacts in the Ghanaian cocoa sector have been analyzed in two commissioned reports. COSA examines the performance of 280 cocoa farmers in Ghana, of which 137 are UTZ certified and 143 are not-certified, based on 2010 and 2012 data (COSA and ISSER 2013). Using difference-in-difference estimates and propensity score matching on observable characteristics such as sharecropper status, area, age, gender, schooling and experience as well as location, the study reports a significant positive relationship between prices and UTZ certification, but income and yield do not show statistically significantly different results for certified versus non-certified farmers. Nelson et al. (2013) surveyed about 700 farmers, in 2010 and 2012, split between non-certified and Fairtrade-certified farmers (through the farmer group Kuapa Kokoo). Again, difference-in-difference estimates
show no statistically significant difference in income or production between certified and non-certified producers. To put this in context, in 2012, Kuapa Kokoo paid a Fairtrade bonus of GHC 2 per bag\textsuperscript{24} in comparison to the government-set price of GHC 205 per bag in the same season (Nelson et al. 2013:111).

This review of impact studies yields two insights. First, a methodological trend is toward adopting difference-in-difference estimates, but the use of baseline data is still rare (one exception is the COSA and ISSER 2013 study on UTZ in Ghana for a sample of 280 farmers). Second, substantively, existing research seems to converge on minor economic benefits for the adopters of certification, despite some variance and nuance in the findings.

**Cocoa Production and Certification in West Africa**

*The Ghana Cocoa Board in Perspective*

West Africa has been contributing about two thirds of global cocoa production for decades. Côte d'Ivoire is the largest producer: In 2011/12, this country alone supplied 36\% of a global production of about 4 million metric tons, followed by Ghana (22\%), and Cameroon, Nigeria and other countries for a combined 13\% (ICCO 2016). Ghana is the only country worldwide that maintains a Cocoa Board, a government agency that tightly regulates and oversees cocoa production. Although this structure has advantages and disadvantages, the share of the world market price passed on to Ghana cocoa producers is average in a regional comparison; producers seem to get a decent share—not the best, not the worst.

In Ghana, cocoa was introduced in the 19\textsuperscript{th} century and quickly took off to become a major export commodity.\textsuperscript{25} Rural “capitalists” rather than “peasants” were the main protagonists for enabling the crop’s explosive growth (Hill 1961:209). They acquired land, grew cocoa on small farms and produced more efficiently than a few plantations under mostly European management (Ross 2014). Despite periods of stagnation and crisis, cocoa has been a steady pillar of the Ghanaian economy and particularly for smallholders. Between 700,000 to 800,000 farming households are estimated to work in cocoa (Ghana Cocoa Board 2016;

\textsuperscript{24} A bag of cocoa in Ghana is required to weigh 64 kg at the point of purchase from farmers. One metric ton (1000 kg) contains 16 bags of 62.5 kg at the point of shipping. The difference of 1.5 kg is supposed to cover quality samples and weight losses due to a further drying of beans.

\textsuperscript{25} For a concise history of cocoa in Ghana from 1888 up until 2008 see (Kolavalli and Vigneri 2011).
Kolavalli and Vigneri 2011); every fourth farmer in Ghana grows cocoa (Benin 2016); and about a third of the population depends on cocoa production for its livelihood (Gockowski et al. 2013). Cocoa is the second most important export good of Ghana, after gold, providing about USD 2 billion in foreign exchange revenues annually (Ghana Cocoa Board 2016). Lately, Ghana has been producing around 800,000 metric tons per year (ICCO 2016). In a long-term perspective, this is high, as Figure 7 shows (Kolavalli and Vigneri 2011).

![Graph of cocoa production in Ghana, 1900-2008](image)

Source: Kolavalli and Vigneri (2011)

**Figure 7: Cocoa production in Ghana, 1900-2008**

The Ghana Cocoa Board, (also short COCOBOD), has been credited for the recent spike in production due to a pest management and subsidized fertilizer program, among other factors (Kolavalli and Vigneri 2011). With a direct predecessor founded in 1947, this government agency has taken an active role in organizing the cocoa sector. The Ghana Cocoa Board determines a yearly producer price, sets and monitors quality parameters, and oversees all policies relevant to the cocoa sector. By law, Ghanaian cocoa farmers can sell cocoa only to so-called Licensed Buying Companies (LBCs)—accredited traders with a license to buy cocoa and to sell forward to the Ghana Cocoa Board. These LBCs compete with each other not on price but on their ability to acquire volume, for example by informally providing advance money to farmers. To be able to sell their cocoa, farmers have to deliver fermented and dried cocoa that meets quality assurance parameters, as inspected
twice by COCOBOD — once at LBCs’ district depots and then again at ports before shipping. Other services that the Ghana Cocoa Board organizes concern the marketing of cocoa beans to buyers, research and extension services, as well as pest control, including the spraying of cocoa farms with pesticides by COCOBOD contractors. Overall, as shown by Benin (2016:9), expenditures for the cocoa sector account for the majority of agricultural expenditures in Ghana and have been on the rise since the mid-1990s (see Figure 8).

![Figure 8: Cocoa expenditure as share of public agricultural expenditure, 1958-2013](image)

Source: Benin (2016), Units: in constant 2006 GHS millions

**Figure 8: Cocoa expenditure as share of public agricultural expenditure, 1958-2013**

In maintaining a (well-financed) Board, Ghana is an outlier compared to other cocoa-producing countries. Other West African countries abolished their cocoa boards in the 1990s. The upsides of Ghana Cocoa Board — quality management and a guaranteed price — come at the price of average producer prices in a West African comparison. Keeping the Board has been credited for upholding quality standards in Ghana whereas quality has plummeted in other West African countries following market liberalization (Fold and Ponte 2008). But, for producers, the most important function exercised by the Board is the setting of a yearly price, announced on the first of October every year. Thus, it falls into the Board’s responsibility to smooth out fluctuations in the world market price. In recent years, a weakening exchange rate of the Ghana Cedi (GHS) to the USD and EUR — the currencies in which cocoa is traded internationally — has facilitated this task but may have added to an indirect taxation of producers through the exchange rate.
The effects for farmers in the highly regulated regime of Ghana compared to liberalized regimes have been studied extensively (Haque 2004; Quarmine et al. 2014; Walker 2000). A recent study concludes that macroeconomic factors like taxation, exchange rate and inflation are more decisive than having a liberalized or regulated market regime (Gayi and Tsowou 2016), confirming an earlier study (Haque 2004). Indicative of farmer friendliness is the producer price as a share of the world market price, for which Ghanaian producers get an average price, higher than in Côte d’Ivoire, but lower than in Cameroon (Figure 9). Trends show that Ghana’s producer prices have stayed ahead of those of its neighbor, Côte d’Ivoire, where producer prices have been decreasing to below 50% of the world price in the 2000s (Gayi and Tsowou 2016:23), likely due to agricultural export taxes (Soumahoro 2016). In contrast, Cameroon’s producer prices have been climbing to a 70% share in the late 2000s.26 In sum, Ghana’s producer price has been rising over time, with a small dip in the recent past, and it has been average in comparison to other West African countries.

Source: Gayi and Tsowou (2016)

Figure 9: Cocoa producer prices as share of world price in select countries, 1986-2012

26 This trend weakens a concern that an increasing presence of multinational buyers, reaching up to 90% for Cameroon, might harm farmers (UNCTAD 2008). A similar finding from Costa Rica showed that transnational buyers paid higher coffee prices than domestic ones (Ronchi 2006).
**Cocoa Certification**

Despite Ghana Cocoa Board's active role and a decent producer price, conditions among cocoa-growers in Ghana tend to be precarious, with widespread poverty among farmers and a prevalence of problematic practices, from an economic, social, and environmental viewpoint. The crop is mostly grown on small farms, with a median size of 2.5 acres\(^27\) (Hainmueller, Hiscox, and Tampe 2011). In 2009, the average income was cents 65 (US) per person per day (Hainmueller et al. 2011). Issues of child labor linger (Tulane University 2015), and production increases have been driven by expansion into additional areas (Gockowski et al. 2013), besides an increased use of fertilizer. Farmers tend to remove most shade trees, in a bid to increase yields (Ruf 2011), threatening the remnants of tropical rainforests. They also, if given a choice, prefer to plant in forest or fallow areas rather than to rejuvenate existing areas (Asare, Afari-Sefa, and Muilerman 2016). Still, yields have been low on average, under 400 kg per hectares in 2009 (Hainmueller et al. 2011). Certification appears as a possibly remedy, and it has grown enormously in West Africa (Figure 10).

**Certified Cocoa Production by Region**

<table>
<thead>
<tr>
<th>Region</th>
<th>Volume in Metric Tons</th>
<th>Annual Growth Rate 2009-2012 in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin America</td>
<td>100,000</td>
<td>8%</td>
</tr>
<tr>
<td>West Africa</td>
<td>1,000,000</td>
<td>409%</td>
</tr>
<tr>
<td>Rest of World</td>
<td>400,000</td>
<td>113%</td>
</tr>
<tr>
<td>Total</td>
<td>1,500,000</td>
<td>76%</td>
</tr>
</tbody>
</table>

Source: Author's calculations based on (Potts et al. 2014)

Note: Calculations correct for overlap of multiple certifications for a realistic account of total volume

**Figure 10: Certified cocoa production by region, 2009 to 2012**

\(^{27}\) This is almost exactly one hectare (equivalent to 2.47 acres).
Figure 10 highlights that West Africa is almost solely responsible for the growth in global certified cocoa production, with an annual growth rate of 409% from 2009 to 2012, compared to 8% in Latin America. In absolute volume, too, West Africa has displaced the former leader Latin America to a distant second. In 2012, Latin America produced 192,000 metric tons of certified beans, equivalent to 30% of Latin American cocoa production. In the same year, West Africa produced 647,000 metrics tons, equivalent to 22% of West African cocoa production.

Rainforest Alliance and UTZ are the two standards that most drove the expansion of worldwide cocoa certification (Figure 11). UTZ grew the fastest, from very little (5,000 metric tons) in 2009 to 535,000 metric tons in 2012, making it the largest cocoa certifier. Likewise, Rainforest Alliance expanded quickly from 12,000 metric tons in 2009 to 406,000 metric tons in 2012. In contrast, Fairtrade certified a total volume of just under 100,000 metric tons of cocoa in 2009 and reached a volume of about 140,000 metric tons in 2012, for an annual growth rate of 12%.

<table>
<thead>
<tr>
<th>Certified Cocoa Production by Certifier</th>
<th>Volume in Metric Tons and Annual Growth Rate 2009-2012 in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic</td>
<td>3%</td>
</tr>
<tr>
<td>Fairtrade</td>
<td>12%</td>
</tr>
<tr>
<td>Rainforest Alliance</td>
<td>223%</td>
</tr>
<tr>
<td>UTZ</td>
<td>363%</td>
</tr>
</tbody>
</table>

Source: Author's calculations based on (Potts et al. 2014)

Note: Calculations do not account for multiple certifications to show certifiers' growth

**Figure 11: Certified cocoa production by certifier, 2009 to 2012**

In Ghana, certification of cocoa has arrived in two distinct periods. A first initiative started in 1995, with a Fairtrade-certified farmer group Kuapa Kokoo that co-owns a British niche
chocolate company called Divine Chocolate (formerly The Day Chocolate) (Doherty and Tranchell 2005). To function as a certified farmer group that buys directly from members, Kuapa Kokoo has to be registered as an LBC. Its membership is upwards of 40,000 farmers. This model is an anomaly, compared to other Fairtrade farmer groups, in that Kuapa Kokoo has a dual role as a farmer group and buyer. A recent longitudinal evaluation of its performance concludes that benefits to members are not noticeably different from those of non-certified farmers, which the study attributes to the group’s weak organizational capacity and the fact that it only sells 7% of its cocoa as certified (Nelson et al. 2013).

A second round of certification programs28 started in 2009, financed by multinational companies and partly in response to activism against child labor. Côte d’Ivoire in particular but also Ghana moved into the spotlight after the airing of a documentary on child labor in 2000, drawing public attention to labor conditions there and starting activist pressure on large chocolate manufacturers. Since then, several multinational confectioners pledged to certify part or 100% of their chocolate production. Cadbury, which has traditionally been sourcing from Ghana, came out first among multinational buyers, with an announcement in February 2009 to certify its flagship product Dairy Milk with Fairtrade. This certification program forms part of the Cadbury Cocoa Partnership (CCP). Other certification programs in Ghana include a Mars “iMPACT” program that introduced Rainforest Alliance and a Cargill program that implemented UTZ in about 20 to 30 villages respectively, all starting in the late 2000s. Despite the particular cocoa market regime in Ghana, these programs maintain all basic design features of certification with a premium, farmer organization, and compliance requirements. They collaborate with select LBCs to handle a chain of custody for certified cocoa.

The way that Fairtrade operates under the CCP program reflects certification standard procedures, with farmers who organize into farmer groups and who sell to a certified buyer. The farmer group is supposed to get all or a share of the valid Fairtrade premium of USD 200 per metric ton.29 Farmers, in return, are expected to comply with standard requirements. In contrast to Kuapa Kokoo, certified farmer groups in the CCP program do not operate as LBCs but instead sell to select LBCs as buyers. The main bottleneck for

28 I refer to these as “programs” because they tend to be sponsored by companies that may have their cocoa corporate social responsibility programs and incorporate certification into them.
29 In these certification programs, a share of the premium may be used to finance the organizing and training of farmer groups, with the idea of substituting for limited government extension services.
certification in Ghana has been a lack of farmer groups, with less than 10% of farmers reporting to belong to a farmer organization or cooperative in 2009 (Hainmueller et al. 2011). Therefore one of the key tasks of CCP, together with three NGO collaborators (Care, VSO, and World Vision), has been to help form these farmer groups. CCP introduced a first cohort of about 100 villages to the program in 2009 and included a second cohort of about the same size in 2011. In 2008, Michael Hiscox and Jens Hainmueller initiated a partnership between Cadbury, Fairtrade, and Harvard University, which offered an unprecedented opportunity to conduct a baseline survey before start of Fairtrade certification.

Data and Methods

The data for this panel study stems from two surveys, a baseline survey conducted in 2009 and a follow-up survey in 2014. It includes information on over 350 villages in all cocoa-growing regions of Ghana. The survey includes close to 3,000 respondents who represent over 13,000 household members.

A two-stage sampling for the survey included, first, a selection of villages and, second, a selection of households within villages. First, the sample of villages contains 90 treatment communities where Fairtrade was introduced, financed by the Cadbury Cocoa Partnership (CCP) as well as 32 treatment communities where Rainforest Alliance and UTZ was introduced, financed by Mars and Cargill respectively. These treatment villages were matched to about 200 comparison villages based on comparable levels of cocoa production volume and village characteristics. The underlying sampling frame of cocoa-growing villages and their production volume was provided by COCOBOD; information on village characteristics was available through Ghana census data. Second, the sample of households was drawn from a complete listing of households that survey enumerators undertook. This listing identified cocoa-growing households in the community. From this listing, supervisors of enumerator teams randomly picked 5 to 15 households, based on the size of the village, following a detailed protocol that included a randomization table and instructions for choosing and, if needed, replacing households (for more detail see Hainmueller et al. 2011).

30 With the exception of Volta region in the East of Ghana that harvests minimal amounts of cocoa.
The panel study contains four groups of surveyed villages, namely Cohort 1 treated and Cohort 1 control villages, and Cohort 2 treated and Cohort 2 control villages. The Cohort 1 villages were surveyed in 2009 and 2014. Cohort 1 contains those villages that were treated with a Fairtrade certification program starting in 2009, matched to similar control villages without such a program. Cohort 2 villages were surveyed only in 2014. Here the Cohort 2 treated villages are those that joined certification in a second wave in 2011, matched to similar control villages that did not participate in the Fairtrade program. Importantly, for Cohort 2, a randomized encouragement was implemented, encouraging some villages through the visit of CCP staff but not others. This randomization then allows to use an Instrumental Variable (IV) approach for the analysis of the data. In contrast, Cohort 1 villages were not randomized; their selection followed a mix of pragmatic reasons (clustering of villages) and more substantive ones (pre-existing relations of CCP NGOs with villages). However, these villages did not go through a thorough screening in terms of their disposure to embrace CCP, and CCP staff reported on different levels of openness among villages manifest later on. For Cohort 1, the impact is measured through difference-in-difference estimates, where changes in outcomes in Cohort 1 treated villages are compared against changes in outcomes in Cohort 1 comparison villages. For Cohort 2, the impact is measured through a comparison of averages between 24 pairs of treated and control villages.

Two survey instruments were used—a farmer-level survey and a village-level survey. The purpose of these instruments is to broadly assess livelihood outcomes as well as mediating factors, such as farmer organization, through which certifications are supposed to unfold their effects. First, the farmer-level questionnaire contains indicators that fall into three groups: A first set delves into business performance and farming practices, by comprehensively measuring income, yield, assets, production technologies, access to credit, and investments. A second set assesses farmers' living conditions and wellbeing through indicators on health, education, infrastructure, and savings. A third set revolves around farmers' organizational capabilities through gathering data on organizational affiliations and capacities, level of information and political engagement, and interactions between farmers and the government. Second, the village-level questionnaire, asked to a local chief or another village authority figure, contains questions on village infrastructure, migration patterns, major sources of income, ethnic heterogeneity, and development needs and activities in the village. Both survey instruments include spot observational measures, for
example on house construction materials or quality of roads. For the baseline survey, samples of the main water source in a community were tested for quality. Additionally, spot surveys were done on over 900 farms. For these, enumerators visited the largest farm of the respondent to record the exact farm size by GPS and to assess other farm characteristics through spot checks. GPS measures show that farmers systematically overestimate the size of their farms so that yield estimates have to take this bias into account (results below report yield figures that are corrected for land size).

The survey was implemented with college-educated and experienced enumerators from the University of Ghana. For the baseline survey, 14 teams of five persons each were formed with one supervisor and four enumerators each, for a total of 70 field staff. All field staff underwent a weeklong training, including role-plays, instructions, background and specific vocabulary on the cocoa sector, and sensitization around community entry and consent forms. Surveys were translated into three local languages: Twi, Ewe, and Ga-Adangme. Supervisors followed community entry protocols, introducing themselves to community leaders and first asking for permission before proceeding with any work in the village. For the follow-up survey, 8 teams were formed, with the same team structure. This time, a smaller number of teams was sufficient because the task of listing all village households had to be conducted only in Cohort 2 villages. The median interview duration was about 90 minutes for farmer-level and about 50 minutes for village-level surveys.

In presenting the analyses, I proceed along the following logic model (Renger and Titcomb 2002): The target measure of highest interest is poverty or, rather, reduction in poverty. First, I therefore ask how incomes have changed, separated by cocoa income and other incomes. Second, I inquire into the drivers of cocoa income in particular—constituting about two thirds of total household incomes, on average, for producers—and, thus, I examine price and cocoa volume. Third, I dive into the drivers of volume by checking for underlying changes in farming areas or yields. Fourth, I look at immediate determinants of yield, including inputs, labor and farming practices, pest management, and planting of cocoa trees. Yield is so prominent because the upside of certifications through a higher price is inherently limited, including with Fairtrade. Premiums can be as low as one percent, as Nelson et al. (2013) show for Fairtrade through Kuapa Kokoo in Ghana and, at a cocoa

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31 These results lean on analyses conducted for a report to Cadbury Cocoa Partnership (Hiscox and Macdonald 2015).
market price of USD 3,000, could be up to about 3% for individual producers.\textsuperscript{32} Fifth, I investigate what might enable or constrain yield increases. One possibility is knowledge on how to invest. Possible sources for such knowledge are trainings and membership in organizations. Another possible driver of yields is the ability to (monetarily) invest. Hence, I examine indicators for investment, such as access to credit, access to bank account, savings, and, as a proxy, changes in expenditures. Together, the different levels in this logic model should provide pointers to what drives or hinders livelihood improvements. To start, I present results on incomes.

Results

\textit{Income: Do Farmers with Fairtrade Earn More?}

Table 3 and Table 4 contain results on incomes, with difference-in-difference coefficients. For example, in Cohort 1, the difference-in-difference estimator for cocoa income was Ghana Cedi (GHC) 45.193, meaning that the change in cocoa income was just over GHC 45 higher in treated than the change in control villages between 2009 and 2014. Data on cocoa incomes reveals that Cohort 1 treated villages had positive impacts on cocoa prices and volumes while no impact was found for Cohort 2 villages. Although the p-values on the regression are not statistically significant because of skewed data, a test from the log transformed values shows that there was a positive effect on income and volume. Under this circumstance, we can interpret the coefficients of the normal (not log transformed) values as a mean difference in difference. Accordingly, producers in Cohort 1 villages had a slightly higher change in cocoa income (GHC 45.193) and increased their volume of cocoa sold over their peers in control villages (93 kg). A surprising result, however, comes from Cohort 2 where Fairtrade certification has impacted the proportional increase in incomes other than from cocoa in Cohort 2 treated villages. This is counterintuitive because income diversification is not directly targeted by Fairtrade.

\textsuperscript{32} With a Fairtrade premium of USD 200 per metric ton and a May 2016 world market price of around USD 3,000, a farmer could get a premium of up to 6.6%. However, individual farmers do not usually get the full premium because a part stays with the farmer group to cover certification and management costs. Assuming a 50/50 split, a farmer could expect to get a 3% premium.
Table 3: Impacts on cocoa and other incomes (Cohort 1, non-randomized villages)

<table>
<thead>
<tr>
<th></th>
<th>Effect</th>
<th>SE</th>
<th>p-value</th>
<th># obs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocoa income (GHC)</td>
<td>45.193</td>
<td>359.086</td>
<td>0.900</td>
<td>1320</td>
</tr>
<tr>
<td>Cocoa sold (kg)</td>
<td>93.000</td>
<td>128.281</td>
<td>0.468</td>
<td>1361</td>
</tr>
<tr>
<td>Log Cocoa income</td>
<td>0.397</td>
<td>0.175</td>
<td>0.023</td>
<td>1320</td>
</tr>
<tr>
<td>Log Cocoa sold</td>
<td>0.322</td>
<td>0.168</td>
<td>0.055</td>
<td>1361</td>
</tr>
<tr>
<td>Avg price per KG (GHC)</td>
<td>0.132</td>
<td>0.047</td>
<td>0.005</td>
<td>1362</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Effect</th>
<th>SE</th>
<th>p-value</th>
<th># obs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Income, other crops</td>
<td>-0.272</td>
<td>0.501</td>
<td>0.588</td>
<td>1411</td>
</tr>
<tr>
<td>Log Income, other ag.</td>
<td>-0.275</td>
<td>0.197</td>
<td>0.162</td>
<td>1415</td>
</tr>
<tr>
<td>Log Income, non-ag.</td>
<td>-0.102</td>
<td>0.344</td>
<td>0.767</td>
<td>1403</td>
</tr>
<tr>
<td>Log Income, remittances</td>
<td>-0.030</td>
<td>0.296</td>
<td>0.920</td>
<td>1365</td>
</tr>
<tr>
<td>Log Total Non-Crop Income</td>
<td>-0.241</td>
<td>0.441</td>
<td>0.584</td>
<td>1402</td>
</tr>
<tr>
<td>Income, other crops (GHC)</td>
<td>-275.871</td>
<td>197.047</td>
<td>0.162</td>
<td>1411</td>
</tr>
<tr>
<td>Income, other ag. (GHC)</td>
<td>-11.601</td>
<td>9.240</td>
<td>0.209</td>
<td>1415</td>
</tr>
<tr>
<td>Income, non-ag. (GHC)</td>
<td>-21.082</td>
<td>54.743</td>
<td>0.700</td>
<td>1403</td>
</tr>
<tr>
<td>Income, remittances (GHC)</td>
<td>-5.688</td>
<td>25.016</td>
<td>0.820</td>
<td>1365</td>
</tr>
<tr>
<td>Total Non-Crop Income (GHC)</td>
<td>-66.855</td>
<td>81.223</td>
<td>0.410</td>
<td>1402</td>
</tr>
</tbody>
</table>

Table 4: Impacts on cocoa and other incomes (Cohort 2, randomized villages)

<table>
<thead>
<tr>
<th></th>
<th>Control mean</th>
<th>Treated mean</th>
<th>Effect</th>
<th>SE</th>
<th>p-value</th>
<th># obs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocoa income (GHC)</td>
<td>2761.847</td>
<td>3144.271</td>
<td>454.178</td>
<td>291.879</td>
<td>0.120</td>
<td>206</td>
</tr>
<tr>
<td>Cocoa sold (kg)</td>
<td>809.982</td>
<td>1037.951</td>
<td>122.911</td>
<td>109.679</td>
<td>0.262</td>
<td>213</td>
</tr>
<tr>
<td>Log Cocoa income</td>
<td>7.480</td>
<td>7.450</td>
<td>0.004</td>
<td>0.139</td>
<td>0.922</td>
<td>206</td>
</tr>
<tr>
<td>Log Cocoa sold</td>
<td>6.331</td>
<td>6.349</td>
<td>0.004</td>
<td>0.104</td>
<td>0.894</td>
<td>213</td>
</tr>
<tr>
<td>Avg price per KG (GHC)</td>
<td>3.330</td>
<td>3.300</td>
<td>-0.032</td>
<td>0.036</td>
<td>0.367</td>
<td>215</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Control mean</th>
<th>Treated mean</th>
<th>Effect</th>
<th>SE</th>
<th>p-value</th>
<th># obs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log Income, other crops</td>
<td>3.092</td>
<td>2.955</td>
<td>-0.173</td>
<td>0.337</td>
<td>0.607</td>
<td>215</td>
</tr>
<tr>
<td>Log Income, other ag.</td>
<td>0.174</td>
<td>0.539</td>
<td>0.386</td>
<td>0.166</td>
<td>0.020</td>
<td>216</td>
</tr>
<tr>
<td>Log Income, non-ag.</td>
<td>1.892</td>
<td>2.752</td>
<td>0.877</td>
<td>0.302</td>
<td>0.011</td>
<td>211</td>
</tr>
<tr>
<td>Log Income, remittances</td>
<td>0.833</td>
<td>0.943</td>
<td>0.102</td>
<td>0.202</td>
<td>0.952</td>
<td>217</td>
</tr>
<tr>
<td>Log Total Non-Crop Income</td>
<td>2.611</td>
<td>3.507</td>
<td>0.773</td>
<td>0.326</td>
<td>0.018</td>
<td>212</td>
</tr>
<tr>
<td>Income, other crops (GHC)</td>
<td>416.327</td>
<td>727.529</td>
<td>279.393</td>
<td>109.573</td>
<td>0.099</td>
<td>215</td>
</tr>
<tr>
<td>Income, other ag. (GHC)</td>
<td>4.973</td>
<td>26.243</td>
<td>22.184</td>
<td>10.211</td>
<td>0.030</td>
<td>216</td>
</tr>
<tr>
<td>Income, non-ag. (GHC)</td>
<td>212.798</td>
<td>372.245</td>
<td>142.102</td>
<td>48.007</td>
<td>0.003</td>
<td>211</td>
</tr>
<tr>
<td>Income, remittances (GHC)</td>
<td>60.973</td>
<td>58.365</td>
<td>-11.932</td>
<td>19.380</td>
<td>0.538</td>
<td>217</td>
</tr>
<tr>
<td>Total Non-Crop Income (GHC)</td>
<td>319.064</td>
<td>492.049</td>
<td>137.564</td>
<td>63.939</td>
<td>0.031</td>
<td>212</td>
</tr>
</tbody>
</table>
Cocoa income. In Cohort 1, the certification program resulted in a proportional increase in cocoa income in treated villages of 49% in comparison to control villages (Figure 12). This proportional increase was equivalent to an additional annual income of over GHC 400 for farmers in Cohort 1 treated villages. In Cohort 2, the program had no statistically significant impacts on absolute or proportional increases in cocoa income, although cocoa income in Cohort 2 villages is absolutely higher, by GHC 454.178.

Figure 12: Impacts on cocoa income (Cohort 1), 2009-2014
Other incomes. For Cohort 1 villages, the program had no discernible impact on incomes from other sources, such as income from other crops or non-agricultural income. By contrast, for Cohort 2 villages, the program seems to have had significant positive impacts on three other sources of income. Treated villages were characterized by the following: Income from other agricultural activities was 47% higher on average in Cohort 2 treated than in control villages. Likewise, income from other non-agricultural activities was on average 116% higher than in Cohort 2 control villages. Nevertheless, cocoa continues to represent an important source of income for Cohort 2 treated villages: producers derive two thirds of their income from it—similar to the share of cocoa income in the three other types of villages in the survey (Cohort 2 control, Cohort 1 treated and control villages).

In sum, the evidence is mixed. It suggests that the Fairtrade program led to modest increases for cocoa income in Cohort 1 whereas it impacted non-cocoa incomes in Cohort 2.

Cocoa Income: What Are Underlying Cocoa Prices and Volumes?

Strikingly, however, there is no evidence for farmers receiving a certification premium (see Table 3 and Table 4 for average price per kilogram of cocoa). In 2014, the cocoa prices reported by farmers across all villages were very close to the price set by the government, including in treated villages. In the meantime, volumes on average reached comparable levels across all villages. In short, neither prices nor volumes show statistically significant absolute increases in treated villages (Table 3 and Table 4 for price, Table 5 and Table 6 for volume).

Table 5: Impacts on volume (Cohort 1, non-randomized villages)

<table>
<thead>
<tr>
<th>Effect</th>
<th>Effect</th>
<th>SE</th>
<th>p-value</th>
<th># obs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocoa harvest (kg)</td>
<td>133.502</td>
<td>119.698</td>
<td>0.265</td>
<td>1408</td>
</tr>
<tr>
<td>Cocoa yield (kg/ha.)</td>
<td>36.889</td>
<td>49.555</td>
<td>0.457</td>
<td>1377</td>
</tr>
<tr>
<td>Log Cocoa harvest</td>
<td>0.413</td>
<td>0.211</td>
<td>0.051</td>
<td>1408</td>
</tr>
<tr>
<td>Log Cocoa yield</td>
<td>0.311</td>
<td>0.178</td>
<td>0.080</td>
<td>1377</td>
</tr>
<tr>
<td># farms cultivated</td>
<td>0.154</td>
<td>0.151</td>
<td>0.308</td>
<td>1361</td>
</tr>
<tr>
<td>Farm size (acres)</td>
<td>0.022</td>
<td>0.101</td>
<td>0.824</td>
<td>1412</td>
</tr>
<tr>
<td>Log Farm size</td>
<td>0.839</td>
<td>1.016</td>
<td>0.409</td>
<td>1412</td>
</tr>
<tr>
<td>% trees too young to produce</td>
<td>-0.044</td>
<td>0.046</td>
<td>0.339</td>
<td>1160</td>
</tr>
<tr>
<td>age of typical cocoa tree (years)</td>
<td>1.118</td>
<td>1.807</td>
<td>0.536</td>
<td>1410</td>
</tr>
</tbody>
</table>
Table 6: Impacts on volume (Cohort 2, randomized villages)

<table>
<thead>
<tr>
<th></th>
<th>Control mean</th>
<th>Treated mean</th>
<th>Effect</th>
<th>SE</th>
<th>p-value</th>
<th># obs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocoa harvest (kg)</td>
<td>857.991</td>
<td>1012.913</td>
<td>116.926</td>
<td>76.571</td>
<td>0.127</td>
<td>213</td>
</tr>
<tr>
<td>Cocoa yield (kg/ha.)</td>
<td>419.823</td>
<td>473.710</td>
<td>32.450</td>
<td>37.142</td>
<td>0.382</td>
<td>217</td>
</tr>
<tr>
<td>Log Cocoa harvest</td>
<td>6.301</td>
<td>6.257</td>
<td>-0.065</td>
<td>0.096</td>
<td>0.499</td>
<td>213</td>
</tr>
<tr>
<td>Log Cocoa yield</td>
<td>5.699</td>
<td>5.695</td>
<td>-0.061</td>
<td>0.086</td>
<td>0.481</td>
<td>217</td>
</tr>
<tr>
<td># farms cultivated</td>
<td>1.902</td>
<td>1.810</td>
<td>-0.047</td>
<td>0.099</td>
<td>0.633</td>
<td>217</td>
</tr>
<tr>
<td>Farm size (acres)</td>
<td>8.517</td>
<td>8.634</td>
<td>0.286</td>
<td>0.086</td>
<td>0.600</td>
<td>218</td>
</tr>
<tr>
<td>Log Farm size</td>
<td>2.064</td>
<td>2.042</td>
<td>0.003</td>
<td>0.070</td>
<td>0.969</td>
<td>218</td>
</tr>
<tr>
<td>% trees too young to produce</td>
<td>0.440</td>
<td>0.369</td>
<td>-0.045</td>
<td>0.030</td>
<td>0.129</td>
<td>171</td>
</tr>
<tr>
<td>age of typical cocoa tree (years)</td>
<td>17.537</td>
<td>18.025</td>
<td>-0.074</td>
<td>1.777</td>
<td>0.967</td>
<td>215</td>
</tr>
</tbody>
</table>

*Cocoa price received.* Starting with price, for Cohort 1, we observe that the cocoa price rose by an average of GHC 0.132 more in treated than in control villages. While this might sound like an indication of a Fairtrade premium being paid to farmers, Figure 13 shows that Cohort 1 treated villages catch up to the average price received in Cohort 1 control villages. Likewise, for Cohort 2, the cocoa price in treated and control villages reported by farmers equals almost exactly the government price of GHC 3.31 per kg of cocoa, with a mean of GHC 3.33 for control villages, and a mean of GHC 3.30 for treated villages. Therefore, in 2014, all villages converge on the government price of GHC 3.31 per kg of cocoa valid for that season. An additional analysis of the average price paid by buyer illustrates that differences between buyers are minimal (Figure 14), where LBCs that work with certifications (for example Armajaro, Diaby, OLAM, Produce Buying Company (PBC), and Yayra Glover (Offei Ansah 2015)) are not clearly distinguishable from LBCs that do not (for example Sika or Transroyal).

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33 These prices translate to GHC 213 and GHC 211 per bag. People in Ghana commonly refer to the price per bag because this is the unit in which Ghana Cocoa Board announces the price. For the time of the 2014 survey, the valid government price for the 2013/14 season was GHC 212 per bag (GHC 3,392 per metric ton; GHC 3.31 per kg of cocoa).
Figure 13: Impacts on prices received (Cohort 1), 2009-2014

Cocoa sold and harvest. For volume, two indicators for volume show that treated Cohort 1 villages increased their cocoa harvest by 51% and their cocoa sold by 38% on average (data not shown). Although the proportional increase was higher in treated villages, farmers there still harvested and sold less cocoa in absolute numbers than those in Cohort 1 control villages in 2014. For instance, in treated villages farmers sold 886.32kg of cocoa in 2014.
compared to 1048.76 in control villages (data not shown). In Cohort 2 villages, no impact was discernible. However, in absolute numbers, farmers in Cohort 2 treated villages harvested and sold more cocoa than their peers in Cohort 2 control villages (data not shown).

**What Are Underlying Yields and Farm Areas?**

Given moderate to no impacts on cocoa volumes, it does not come as a surprise that, for underlying yields and farm areas, impacts are limited, too (reported in Table 5 and Table 6).

**Yields.** Average cocoa yields in all village categories are typical for Ghana, ranging between 334 kg/ha in Cohort 1 treated villages and 473 kg/ha in Cohort 2 treated villages in 2014. A positive impact was achieved in Cohort 1 treated villages where cocoa yield rose by 37% more in treated than in control villages, although the absolute level (334 kg/ha) stayed below the one measured for Cohort 1 control villages (368 kg/ha) (Figure 15). No impact on cocoa yields was found for Cohort 2 villages.

**Farm areas.** For the number of farms cultivated or farm size, no impact was measured in Cohort 1 and 2. On average, farmers cultivate about 2 farms, with a total farm size around 10 acres (2.5 ha). To summarize, Cohort 1 treated villages—similar to price received, cocoa sold and harvest presented above—had a higher rate of increase, catching up to, although not reaching the levels of Cohort 1 controls. But there is no evidence that farmers in Cohort 1 treated villages are getting ahead of those in control villages.

![Figure 15: Impacts on farm productivity (Cohort 1), 2009-2014](image)
Yields: How Actively Do Farmers Cultivate Cocoa?

Yields are the product of a wide range of factors, not all of which are under control of farmers (such as weather or genetic quality of cocoa trees). Yet farmers can influence yields through how they cultivate cocoa with regards to the use of labor, fertilization, maintenance practices (such as weeding), pest management with agrochemicals, and agricultural investments (such as tree planting). On most of the indicators for these yield-influencing practices, no impact could be demonstrated for the Cohort 1 villages, except for the percentage of seedlings used that reduced significantly—not considered a favorable trend given the agronomic advantages of seedlings. In contrast, the treated Cohort 2 villages improved significantly on several indicators (Table 7 and Table 8). This discrepancy in results could be due to unmeasured confounding in the Cohort 1 study. Possibly, farmers in Cohort 1 treated villages were poorer and their farms not as developed.

A few general trends stand out. Overall labor hours seem to be declining: child labor has decreased across all villages (tables not included here); the hours worked on farms by females also reduced slightly. Farmers do not seem to substitute household labor with hired labor because short-term laborer days are also reduced, possibly to control cost since total labor cost has remained stable in Cohort 1 treated villages. Another trend is that the use of fertilizer is on the rise, spreading to almost half of farmers overall. Furthermore, losses due to pests and diseases (reported in Table 7 and Table 8 as % harvest lost due to problems) have reduced significantly, from over a third of the harvest in 2009 to about a fifth in 2014 (data not shown), likely due to increased use of pesticides. Finally, farmers seem to have reduced cocoa tree planting (data not shown).

Table 7: Impacts on cocoa cultivation practices (Cohort 1, non-randomized villages)

<table>
<thead>
<tr>
<th></th>
<th>Effect</th>
<th>SE</th>
<th>p-value</th>
<th># obs</th>
</tr>
</thead>
<tbody>
<tr>
<td># months farm weeded in past year</td>
<td>-0.159</td>
<td>0.271</td>
<td>0.558</td>
<td>1439</td>
</tr>
<tr>
<td># months farm fertilized in past year</td>
<td>0.106</td>
<td>0.185</td>
<td>0.569</td>
<td>1439</td>
</tr>
<tr>
<td>% using fertilizer in past year</td>
<td>0.108</td>
<td>0.081</td>
<td>0.179</td>
<td>1439</td>
</tr>
<tr>
<td>% using insecticide in past year</td>
<td>0.075</td>
<td>0.074</td>
<td>0.310</td>
<td>1439</td>
</tr>
<tr>
<td>% using herbicide in past year</td>
<td>0.007</td>
<td>0.077</td>
<td>0.929</td>
<td>1439</td>
</tr>
<tr>
<td>% using fungicide in past year</td>
<td>0.065</td>
<td>0.060</td>
<td>0.416</td>
<td>1439</td>
</tr>
<tr>
<td>% using organic pest. or bio-pest. in past year</td>
<td>-0.018</td>
<td>0.019</td>
<td>0.334</td>
<td>1439</td>
</tr>
<tr>
<td>% using seed pods in past year</td>
<td>-0.028</td>
<td>0.044</td>
<td>0.531</td>
<td>1439</td>
</tr>
<tr>
<td>% using seedlings in past year</td>
<td>-0.114</td>
<td>0.047</td>
<td>0.015</td>
<td>1439</td>
</tr>
<tr>
<td>% using knapsack sprayer in past year</td>
<td>0.033</td>
<td>0.086</td>
<td>0.702</td>
<td>1439</td>
</tr>
<tr>
<td>% using motorized mist blower in past year</td>
<td>0.040</td>
<td>0.084</td>
<td>0.631</td>
<td>1439</td>
</tr>
<tr>
<td>Effect</td>
<td>SE</td>
<td>p-value</td>
<td># obs</td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>------</td>
<td>---------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>% farmers using short-term laborers</td>
<td>0.015</td>
<td>0.062</td>
<td>0.808</td>
<td>1394</td>
</tr>
<tr>
<td># short-term laborers used</td>
<td>0.196</td>
<td>0.938</td>
<td>0.835</td>
<td>1394</td>
</tr>
<tr>
<td># short-term laborer-days used</td>
<td>-0.468</td>
<td>8.879</td>
<td>0.958</td>
<td>1400</td>
</tr>
<tr>
<td>short-term labor cost (GHC)</td>
<td>-102.881</td>
<td>104.807</td>
<td>0.327</td>
<td>1403</td>
</tr>
<tr>
<td>% farmers using long-term laborers</td>
<td>0.050</td>
<td>0.052</td>
<td>0.334</td>
<td>1419</td>
</tr>
<tr>
<td># long-term laborers used</td>
<td>0.072</td>
<td>0.086</td>
<td>0.402</td>
<td>1419</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Effect</th>
<th>SE</th>
<th>p-value</th>
<th># obs</th>
</tr>
</thead>
<tbody>
<tr>
<td>% harvest lost due to problems</td>
<td>0.007</td>
<td>0.029</td>
<td>0.819</td>
</tr>
<tr>
<td>% farmers plantings trees in rows</td>
<td>-0.019</td>
<td>0.070</td>
<td>0.783</td>
</tr>
<tr>
<td>% farmers planting shade trees</td>
<td>-0.095</td>
<td>0.061</td>
<td>0.119</td>
</tr>
<tr>
<td>% made invest. in bldg/veh/drain in past year</td>
<td>-0.005</td>
<td>0.040</td>
<td>0.910</td>
</tr>
<tr>
<td>% knows about fairtrade</td>
<td>-0.019</td>
<td>0.044</td>
<td>0.658</td>
</tr>
</tbody>
</table>

Table 8: Impacts on cocoa cultivation practices (Cohort 2, randomized villages)

### Household labor

Except for an increase in the effort to apply fertilizer, overall household labor on farms seems to be stable or reducing, with declines in hours worked by females and children. Indicators on farmers' own labor—the number of months during which the respondent weeded or fertilized—demonstrate no impact for Cohort 1 villages and negative ones for Cohort 2 villages. In both Cohort 1 and 2, farmers weed about 3 months per year,
which has remained stable, and now fertilize just under or up to 1 month per year, up from a low base of 0.3 to 0.4 months in Cohort 1 control and treated villages respectively. The share of farm work done by females is high—accounting for about 40% across all villages, ranging from a high of 16.5 hours per week (Cohort 2 treated villages in 2014) to 13.7 hours per week (Cohort 2 control villages in 2014). There were no impacts on female labor in Cohort 1 whereas there was a statistically significant impact in Cohort 2. There women work about 3.1 hours more per week in treated than in control villages (data not shown). Impact was absent for child labor in treated and control villages for Cohort 1 and 2. The same holds true for the proportion of children enrolled in school or the average years of schooling among household members. On the positive side, the overall trend is one of decline for child labor from 13.5% in 2009 to 9.3% in 2014. This percentage includes child labor in any form, using International Labour Organization (ILO) thresholds.34

**Hired labor.** Cohort 1 displayed no impact for several measures on hired labor—for which short-term labor is more common than long-term labor—and with little change on most measures between 2009 and 2014. The only exception is that, in treated Cohort 1 villages, the number of short-term laborer-days was reduced from about 50 in 2009 to just over 25 in 2014. But total short-term labor cost did not change in Cohort 1 treated villages. It remained just below GHC 400 per year. In comparison, in Cohort 2 treated villages, differences were statistically significant: The number of short-term laborer-days was about 33 days in treated versus about 19 days in control villages (p-value of 0.04), and in treated villages, they hire 4.9 short-term laborers versus 3.5 in control, after statistical controls (p-value of 0.06).

**Fertilizer.** No significant impacts were recognizable regarding the use of fertilizer for Cohort 1 or Cohort 2 villages. Up to half the farmers report using fertilizer in the past year (37% of farmers in Cohort 1 control and 44% in Cohort 1 treated; 50% in Cohort 2 control and 40% in Cohort 2 treated villages), and the use of fertilizer has clearly increased from prior levels of 23% in Cohort 1 control and 20% in Cohort 1 treated villages.

34 ILO defines the age thresholds as following: (1) A child under 12 who is economically active for at least 1 hour per week; (2) a child 14 years and younger who is economically active for at least 14 hours per week; and (3) a child 17 years and younger who is economically active for at least 43 hours per week.
Losses due to pests and diseases. No impacts could be found for Cohort 1 or 2 on this measure, with all villages reporting about a fourth of harvests lost to pests and diseases in 2014. Yet there was a significant decrease in losses from much higher shares in 2009 (35 to 37% for Cohort 1 control and treated villages respectively). A possible reason for reduced losses is that farmers applied more insecticides: In Cohort 1, about 80% of farmers used it in 2014, compared to 47 (treated) and 61% (controls) in 2009 (data not shown). But also herbicides and fungicides are increasingly applied, albeit at lower levels (between 20 and 40% of farmers use these inputs in Cohort 1). Application of these agrochemicals is roughly comparable, although slightly lower in Cohort 2 villages.

Cocoa tree planting and age of trees. There has been a sharp decline and statistically significant impact for Cohort 1 in the reports of cocoa tree planting, down from 2009 levels. The share of farmers indicating that they have planted trees in the past year declined from 51% to 43% and 53% to 29% for Cohort 1 control and treated villages respectively. Thus the impact was a negative 15 percentage points (p-value of 0.04). The number of trees planted declined, too, in Cohort 1. But on this measure there was no statistically significant difference between treated and controls. However, no impact was found in Cohort 2 where 33% of farmers planted trees in the past year in control villages versus 43% in treated ones. Farmers in Cohort 2 treated villages planted about 560 trees in the past year, which is a higher number compared to about 310 to 485 trees planted in all other villages. One possible reason for the reduction in tree planting observed in Cohort 1 could be that the existing stock of trees is relatively young so there is no need for further rejuvenation. However, the average age of trees is very comparable across all villages (16.3 years for Cohort 1 control, and 17 years for treated villages; 17.5 years for Cohort 2 control and 18 years for treated villages). The share of trees too young to produce is also similar in all four groups: 44% and 45% in Cohort 1 control and treated villages; 44% and 37% in Cohort 2 control and treated villages. The good news in all this, from an environmental standpoint, is that the combination of stable farm areas together with reduced or stable tree planting seems to suggest that the small volume increases observed in Cohort 1 treated villages was unlikely to be driven by an expansion into new farming areas.

Other practices and results. The survey tested for good environmental and agricultural practices in a number of additional ways (such as whether trees are planted in rows for easier cultivation, planting shade trees, or using seedlings). There was no evidence for impacts, except for a positive impact on the use of seedlings in the past year in Cohort 2.
where 18% of farmers used them in treated villages compared to 6% in control villages (p-value of 0.001). The share of farmers who indicate that they plant shade trees is between 70 and 80% in all villages and is quite stable over time (the survey did, however, not include questions on removal of shade trees, which is a common practice according to my own qualitative farmer interviews in 2011).

To conclude this section on cultivation practices, no clear trends appear toward treated villages having an advantage over control villages in adopting better practices. Rather there are some general and positive trends on reduced child labor and declining losses from pests and diseases. Yet the use of pesticides has also increased and the farm work done by females was higher in Control 2 treated than in control villages. The question I address next is whether there might be any differences between farmers' knowledge—measured through the proxies of farmer training and membership in a farmer group.

**Do Farmers Know How to Invest?**

Again, mixed results emerge on indicators for farmer training, organization, and knowledge about Fairtrade. The overall picture is bleak for Cohort 1 and somewhat better for Cohort 2 (Table 9 and Table 10).

**Table 9: Impacts on training and organization (Cohort 1, non-randomized villages)**

<table>
<thead>
<tr>
<th></th>
<th>Effect</th>
<th>SE</th>
<th>p-value</th>
<th># obs</th>
</tr>
</thead>
<tbody>
<tr>
<td>% received any training in past year</td>
<td>-0.010</td>
<td>0.071</td>
<td>0.889</td>
<td>1439</td>
</tr>
<tr>
<td># trainings received in past year</td>
<td>-0.184</td>
<td>0.288</td>
<td>0.523</td>
<td>1418</td>
</tr>
<tr>
<td>% received envir. and deforest. training</td>
<td>-0.005</td>
<td>0.006</td>
<td>0.470</td>
<td>1439</td>
</tr>
<tr>
<td>% received planting/farm expansion training</td>
<td>-0.036</td>
<td>0.044</td>
<td>0.407</td>
<td>1439</td>
</tr>
<tr>
<td>% received farm maintenance training</td>
<td>0.059</td>
<td>0.054</td>
<td>0.273</td>
<td>1439</td>
</tr>
<tr>
<td>% received training in applying fert./pest.</td>
<td>-0.022</td>
<td>0.023</td>
<td>0.348</td>
<td>1439</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Effect</th>
<th>SE</th>
<th>p-value</th>
<th># obs</th>
</tr>
</thead>
<tbody>
<tr>
<td>% member of organized group</td>
<td>-0.032</td>
<td>0.076</td>
<td>0.675</td>
<td>1439</td>
</tr>
<tr>
<td># organizational memberships</td>
<td>-0.004</td>
<td>0.069</td>
<td>0.965</td>
<td>1415</td>
</tr>
<tr>
<td>% member of farmer group/coop.</td>
<td>0.019</td>
<td>0.041</td>
<td>0.647</td>
<td>1439</td>
</tr>
<tr>
<td>% member of certified org.</td>
<td>0.033</td>
<td>0.018</td>
<td>0.067</td>
<td>1439</td>
</tr>
<tr>
<td>% hold leadership position in org.</td>
<td>-0.018</td>
<td>0.024</td>
<td>0.462</td>
<td>1439</td>
</tr>
</tbody>
</table>
**Table 10: Impacts on training and organization (Cohort 2, randomized villages)**

<table>
<thead>
<tr>
<th>Control mean</th>
<th>Treated mean</th>
<th>Effect</th>
<th>SE</th>
<th>p-value</th>
<th># obs</th>
</tr>
</thead>
<tbody>
<tr>
<td>% received any training in past year</td>
<td>0.342</td>
<td>0.467</td>
<td>0.105</td>
<td>0.069</td>
<td>0.129</td>
</tr>
<tr>
<td># trainings received in past year</td>
<td>1.044</td>
<td>1.941</td>
<td>0.783</td>
<td>0.308</td>
<td>0.011</td>
</tr>
<tr>
<td>% received envir. and deforest. training</td>
<td>0.009</td>
<td>0.000</td>
<td>-0.012</td>
<td>0.008</td>
<td>0.171</td>
</tr>
<tr>
<td>% received planting/farm expansion training</td>
<td>0.096</td>
<td>0.067</td>
<td>-0.031</td>
<td>0.038</td>
<td>0.412</td>
</tr>
<tr>
<td>% received farm maintenance training</td>
<td>0.184</td>
<td>0.286</td>
<td>0.100</td>
<td>0.048</td>
<td>0.035</td>
</tr>
<tr>
<td>% received training in applying fert./pest.</td>
<td>0.035</td>
<td>0.124</td>
<td>0.080</td>
<td>0.035</td>
<td>0.022</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Control mean</th>
<th>Treated mean</th>
<th>Effect</th>
<th>SE</th>
<th>p-value</th>
<th># obs</th>
</tr>
</thead>
<tbody>
<tr>
<td>% member of organized group</td>
<td>0.263</td>
<td>0.429</td>
<td>0.159</td>
<td>0.057</td>
<td>0.006</td>
</tr>
<tr>
<td># organizational memberships</td>
<td>0.298</td>
<td>0.485</td>
<td>0.186</td>
<td>0.068</td>
<td>0.007</td>
</tr>
<tr>
<td>% member of farmer group/coop.</td>
<td>0.088</td>
<td>0.295</td>
<td>0.221</td>
<td>0.040</td>
<td>0.000</td>
</tr>
<tr>
<td>% member of certified org.</td>
<td>0.018</td>
<td>0.152</td>
<td>0.146</td>
<td>0.038</td>
<td>0.000</td>
</tr>
<tr>
<td>% hold leadership position in org.</td>
<td>0.035</td>
<td>0.065</td>
<td>0.067</td>
<td>0.024</td>
<td>0.006</td>
</tr>
</tbody>
</table>

**Farmer training.** A zero result becomes evident for Cohort 1 villages where farmers receive, on average, 1.4 trainings per year and where about 40% of farmers report having participated in any training in 2009 and 2014. These figures have remained virtually the same for both years. An additional dampener on training effectiveness is that farmers who had participated in trainings in the past year were not more or less likely to report adopting good environmental and agricultural practices—a result that applies across both Cohorts (tables not shown here).

The dominant provider of trainings is not COCOBOD, as one might expect in cocoa-growing villages, or NGOs, as one might expect in villages where certification programs are taking place. Instead, the by far most active provider is the Ministry of Food and Agriculture (MFA) in both Cohorts in 2014 (Figure 16). NGOs’ presence is reduced in 2014 against 2009, as is true for COCOBOD. There is no substitution toward LBCs. They could become potential training providers since they play a crucial part in certification by buying from farmers. Yet their share in trainings stays flat. Lastly, cooperatives appear as a training provider. Yet their importance for training is minimal: about 30 farmers in total mentioned cooperatives as a source of training in the 2014 survey, compared to about 10 in 2009.

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35 Back in 2009, this was still being discussed that MFA would assume extension services for all, including cocoa farmers (fieldnotes author).
Figure 16: Frequency of training by provider

One bright spot is that there is more evidence for activity in Cohort 2. More trainings were reported in treated villages (1.9 versus 1.0 in control villages, p-value of 0.01). Furthermore, 47% of farmers report to have participated in trainings in treated villages compared to 34% in control villages. But this is not a statistically significant difference (p-value of 0.13).

The largest differences in training types were for farm maintenance (18% in control villages, 29% in treated villages) and the handling of pesticides and fertilizers (4% in control villages, 12% in treated villages). The improved training did not seem to translate, however, to clearly better farming practices in Cohort 2, except for the use of seedlings and a lower use of insecticides, as described above. Moreover, the percentage of household members injured was significantly higher in Cohort 2 treated than in control villages (36% versus 27%, p-value of 0.08).

Despite these mixed results on farmer training impacts through the Fairtrade program, trainings might still hold the key for future improvements. A subset analysis of those farmers who participated in trainings and who increased their use of fertilizer shows that they significantly increased their yields.
Member of a farmer group. A similar pattern holds for this indicator between Cohort 1 and Cohort 2 where the former manifests no impact and overall low levels of organization, while Cohort 2 seems to be better organized. In Cohort 1, impact is absent, apparent in the percentage of farmers who represented themselves as member of a farmer group, which increased slightly from 10% in treated villages in 2009 (8% for control villages) to 14% in 2014 (10% for control villages). Astoundingly, the number of farmers who report membership in a certified organization is a low 4.2% in treated villages in 2014, compared to 1.9% in control villages. While this constitutes a marginally significant impact of 3.3% (p-value of 0.07), the substantive significance is lacking. A look at a more encompassing indicator for farmer organization is the share of farmers who report being member of any group. But again, no impact is seen. In Cohort 1, the number of organizational membership decreased by about 11 percentage points in both control and treated villages to 34% of farmers in control and 28% of farmers in treated villages in 2014.

In contrast, Cohort 2 treated villages score better than Cohort 2 control villages on all organizational indicators, with a statistically significant impact. Let me present the same indicators as for Cohort 1: The percentage of farmers who reported to be member in a farmer group was 30% in Cohort 2 treated villages (compared to 9% in Cohort 2 control villages, and to 14% in Cohort 1 treated villages). Likewise, the percentage of farmers who reported to be the member of a certified farmer group reaches 15% in Cohort 2 treated villages (compared to 2% in Cohort 2 control villages, and to 4% in Cohort 1 treated villages). Finally, the percentage of farmers who reported to be a member of any organization was 49% in Cohort 2 treated villages (compared to 30% in Cohort 2 control villages, and to 28% in Cohort 1 treated villages).

Knows Fairtrade. Deepening the pattern slightly are results on whether farmers said that they know about Fairtrade. Cohort 2 farmers appear again a bit better informed: 14% of farmers in treated villages reported this kind of knowledge versus 7% in Cohort 2 control villages. In Cohort 1, the same percentage of farmers (10%) reported knowledge of Fairtrade in treated and in control villages in 2014.

Let me summarize these results on training, farmer organization, and self-reported knowledge on Fairtrade. Together, these three categories paint a consistent picture. Nothing indicates that Cohort 1 treated villages are more active or better informed than Cohort 1 control villages. More encouragingly, Cohort 2 treated villages outpace Cohort 2 control
villages as well as Cohort 1 treated villages on all measures. However, so far these more positive activities do not seem to have translated into noticeably different livelihoods (for example in income or health outcomes or via agricultural practices and yields), although the prospects seem better for Cohort 2 than for Cohort 1 villages. That said, even in Cohort 2 treated villages, farmer organization remains low in absolute levels: one out of 3 respondents reported to belong to a farmer group and one in 6 reported to be a member of a certified farmer group—in villages covered by a Fairtrade certification program. The fact that only 14% and 10% of farmers know about Fairtrade in Cohort 1 and 2 respectively indicates that certification remains removed from the social reality of farmers. Overall, these figures indicate a shallow organizing process underneath the certification.

Are Farmers Able to Invest?

Having established so far that it is only with regards to training and organization that some of the treated villages (those in Cohort 2) have a clear edge over control villages, I address farmers’ ability to invest in this section. The purpose is to investigate whether future livelihood improvements might possibly build on improvements in access to credit, to a bank or susu\textsuperscript{36} account, or in savings. Additionally, I present results on expenditures, not because they capture an ability to invest but to see whether farmer households might spend more, as a check against incomes as well as a test for another form of livelihood improvements. To preview the results, there were no impacts on these indicators in Cohort 1 and 2, with the exception of a higher proportional increase in the largest loan in Cohort 1 treated villages (Table 11 and Table 12).

\textsuperscript{36} Susu can refer to rotating savings and credit associations as well as to financial service providers who securely keep typically small savings for a client for a fee. Susu means “small small” in Ghana.
Table 11: Impacts on ability to invest (Cohort 1, non-randomized villages)

<table>
<thead>
<tr>
<th>Effect</th>
<th>SE</th>
<th>p-value</th>
<th># obs</th>
</tr>
</thead>
<tbody>
<tr>
<td>% received business training</td>
<td>0.006</td>
<td>0.016</td>
<td>0.724</td>
</tr>
<tr>
<td>% own bank account</td>
<td>-0.010</td>
<td>0.063</td>
<td>0.878</td>
</tr>
<tr>
<td>% own susu account</td>
<td>-0.022</td>
<td>0.035</td>
<td>0.533</td>
</tr>
<tr>
<td>% spouse owns bank/susu account</td>
<td>-0.013</td>
<td>0.043</td>
<td>0.767</td>
</tr>
<tr>
<td>total savings (GHC)</td>
<td>8.965</td>
<td>81.029</td>
<td>0.912</td>
</tr>
<tr>
<td>log total savings</td>
<td>0.208</td>
<td>0.458</td>
<td>0.649</td>
</tr>
<tr>
<td>% received loan in past year</td>
<td>0.054</td>
<td>0.043</td>
<td>0.215</td>
</tr>
<tr>
<td>largest loan received in past year (GHC)</td>
<td>30.067</td>
<td>18.379</td>
<td>0.102</td>
</tr>
<tr>
<td>log largest loan received in past year</td>
<td>0.390</td>
<td>0.236</td>
<td>0.098</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Effect</th>
<th>SE</th>
<th>p-value</th>
<th># obs</th>
</tr>
</thead>
<tbody>
<tr>
<td># market visits per month</td>
<td>0.573</td>
<td>2.513</td>
<td>0.820</td>
</tr>
<tr>
<td>monthly market expenditure (GHC)</td>
<td>-34.872</td>
<td>43.443</td>
<td>0.422</td>
</tr>
<tr>
<td>yearly funeral expenditures (GHC)</td>
<td>-32.173</td>
<td>34.806</td>
<td>0.355</td>
</tr>
<tr>
<td>yearly wedding expenditures (GHC)</td>
<td>5.557</td>
<td>4.388</td>
<td>0.205</td>
</tr>
<tr>
<td>yearly rent expenditures (GHC)</td>
<td>-0.864</td>
<td>1.517</td>
<td>0.569</td>
</tr>
<tr>
<td>yearly construction expenditures (GHC)</td>
<td>-27.786</td>
<td>31.113</td>
<td>0.372</td>
</tr>
<tr>
<td>yearly medical expenditures (GHC)</td>
<td>-14.490</td>
<td>18.881</td>
<td>0.443</td>
</tr>
<tr>
<td>yearly expenditures (GHC)</td>
<td>-107.294</td>
<td>112.303</td>
<td>0.339</td>
</tr>
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</table>

Table 12: Impacts on ability to invest (Cohort 2, randomized villages)

<table>
<thead>
<tr>
<th>Effect</th>
<th>SE</th>
<th>p-value</th>
<th># obs</th>
</tr>
</thead>
<tbody>
<tr>
<td>% received business training</td>
<td>0.018</td>
<td>0.000</td>
<td>-0.021</td>
</tr>
<tr>
<td>% own bank account</td>
<td>0.377</td>
<td>0.295</td>
<td>-0.066</td>
</tr>
<tr>
<td>% own susu account</td>
<td>0.123</td>
<td>0.076</td>
<td>-0.053</td>
</tr>
<tr>
<td>% spouse owns bank/susu account</td>
<td>0.114</td>
<td>0.124</td>
<td>0.027</td>
</tr>
<tr>
<td>total savings (GHC)</td>
<td>315.179</td>
<td>275.196</td>
<td>-13.354</td>
</tr>
<tr>
<td>log total savings</td>
<td>3.423</td>
<td>2.705</td>
<td>-0.644</td>
</tr>
<tr>
<td>% received loan in past year</td>
<td>0.088</td>
<td>0.105</td>
<td>0.029</td>
</tr>
<tr>
<td>largest loan received in past year (GHC)</td>
<td>35.135</td>
<td>31.000</td>
<td>11.064</td>
</tr>
<tr>
<td>log largest loan received in past year</td>
<td>0.392</td>
<td>0.370</td>
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<tr>
<td># market visits per month</td>
<td>8.588</td>
<td>8.957</td>
<td>-0.466</td>
</tr>
<tr>
<td>monthly market expenditure (GHC)</td>
<td>201.653</td>
<td>149.097</td>
<td>-54.797</td>
</tr>
<tr>
<td>yearly funeral expenditures (GHC)</td>
<td>204.345</td>
<td>217.667</td>
<td>11.064</td>
</tr>
<tr>
<td>yearly wedding expenditures (GHC)</td>
<td>16.757</td>
<td>23.725</td>
<td>5.989</td>
</tr>
<tr>
<td>yearly rent expenditures (GHC)</td>
<td>4.779</td>
<td>3.900</td>
<td>-1.770</td>
</tr>
<tr>
<td>yearly construction expenditures (GHC)</td>
<td>74.386</td>
<td>69.712</td>
<td>3.988</td>
</tr>
<tr>
<td>yearly medical expenditures (GHC)</td>
<td>123.098</td>
<td>110.466</td>
<td>-3.776</td>
</tr>
<tr>
<td>yearly expenditures (GHC)</td>
<td>505.327</td>
<td>523.683</td>
<td>-69.426</td>
</tr>
</tbody>
</table>

**Access to credit.** The percentage of farmers who in 2014 reported to have received a loan in the past year is between 9 to 12%, on average, in all villages, with no impact measured for Cohort 1 or 2 villages. No impact is found on the largest loan reported for the past year, which, in 2014, was GHC 43 in Cohort 1 control villages and GHC 51 in Cohort 1 treated villages (compared to GHC 35 and GHC 31 for Cohort 2 control and treated villages.)
respectively). It also is clear that these are small loans, amounting to less than 2% of cocoa income alone. However, in Cohort 1 treated villages, there is evidence that the program had a positive effect on the proportional increase in the largest loan, with a change in the largest loan that was 48% higher in the treated group.

**Access to bank or susu account.** Again, there is no evidence for Cohort 1 and 2 that the certification program improved access to bank or susu accounts, whether through the respondent or a spouse. General trends in Cohort 1 treated and control villages indicate that by 2014, about 40% of farmers had an own bank account whereas the importance of susu accounts remained limited to less than 20% of farmers.

**Savings.** Neither did the program affect savings in Cohort 1 and 2, with statistically non-significant results in both.

**Expenditures.** There are no impacts in Cohort 1 and 2 on total market expenditures or on the number of market visits per month.

With the exception of the size of the largest loan (which are de facto relatively small loans) in Cohort 1, none of these measures point to diverging trends between treated and control villages, which might reduce the likelihood that the limited impacts observed so far are a matter of delays until program effects become measurable in incomes or other livelihood improvements. Having reviewed these results, I will summarize and assess them and discuss possible explanations next.

**Discussion**

The search for livelihood improvements in this large data set on cocoa smallholders in Ghana does not yield results that anyone interested in the wellbeing of these producers would hope for. Crucially, the findings do not show an absolute increase in cocoa incomes, which are supposed to be most directly influenced through cocoa certification. When examining the drivers of cocoa incomes, it becomes clear that a key mechanism of certification—a premium paid to farmers—may not have functioned as it should have: a puzzle that I explore further below. Neither have there been absolute increases in cocoa volumes in the villages that participated in Fairtrade certification, implemented through the Cadbury Cocoa Partnership. Not finding a program impact on absolute volumes, in turn, is directly related to absent impact on average yields since farm areas seem to have remained
stable: welcome evidence that new land was not encroached upon. Further drilling down into farming practices that influence yields, has made it clear that there were few differences between villages with and without certifications, and for the few indicators, where significant impacts were found, they did not always go in the desired direction (such as females working longer hours on farms in Cohort 2 treated villages).

Why did farming practices not change? The answer here was simple for Cohort 1 villages—because farmers in villages with certification, overall, received the same limited training and remained similarly disorganized as farmers in villages without certification. Farmers in Cohort 2 villages seem to have received more services. But their higher level of training and organization was not (yet) reflected in better practices or livelihood outcomes, on average. However, training may provide the key for future improvements since a subset of farmers who participated in training and changed their agricultural fertilization practices did obtain significantly improved yields—providing evidence that standards may function through mechanisms that are not part of the basic standard design.

Lastly, a look into farmers' ability to invest, through access to credit, for example, did not lift hopes for the future because no significant impacts were found on relevant indicators. Overall, the results stay below even modest expectations, not least because this particular certification program was endowed with significant resources to be implemented. The limited impacts of this specific Fairtrade program are consistent with two other reports on cocoa certifications in Ghana (COSA and ISSER 2013; Nelson et al. 2013). Different from these reports, this study here used a larger sample and included a randomized subset of 24 village-pairs. Granted that gathering data from smallholder farmers is prone to limitations, such as missing data. Still, the number of observations used for the results presented is higher than in otherwise similar studies. Therefore, it seems unlikely that data limitations would be the main reason for these results.

Three intriguing questions remain: First, why did farmers in villages with certification not report to have received a premium? Second, and relatedly, how is it possible that Cohort 1 villages with certification started out with a cocoa price received below matched Cohort 1 villages without certification, despite a fixed government price for cocoa? Lastly, why do

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37 The Cadbury Cocoa Partnership program started in 2008 for a 10-year period. It was announced with plans to invest 70% of its budget of GBP 30 million in local Ghanaian villages. This amounts to roughly USD 30 to 40 million (depending on exchange rate that year) to be spent on these villages.
Cohort 1 and Cohort 2 villages seem to diverge significantly in their trajectories, especially regarding training and organization? These questions cannot be answered conclusively here but I will offer some possible explanations, providing directions for future research alongside.

First, several explanations could be plausible regarding the absence of an absolute premium over an annually set COCOBOD price. A first one is that most of the interviewed farmers did not participate in certification. However, due to a random sampling of respondents in villages at least some certified farmers are likely to have participated in the survey. With about 200 villages participating in certification, some impact on prices—however small—should then be discernible. Notably, price received is the one number that farmers are well familiar with. A second explanation could be that a premium was so small that it did not appear in the data. Again, that does not seem plausible because the price reported by farmers approximates the government-fixed price close to the digits for the price per kilogram, although the price unit colloquially used is per bag (64 kilograms). Ultimately, a possible reason that seems most worthy of further investigation is that a transmission mechanism between Fairtrade certification and individual farmers, with certified LBCs in the middle, might be broken. Three fourths of farmers interact with only one buyer, and this reliance on a single buyer may lead to distorted information on premiums along the way, especially if there is no additional monitoring. This explanation is plausible also since in 2013 the International Cocoa Organization (ICCO) organized an “International Workshop on Certification” in Cameroon. ICCO convened this workshop to address reports that farmers were not benefitting as much as propagated in an ICCO-commissioned report on certification in West Africa (ICCO 2012b).

Second, if COCOBOD fixes and publicly announces an annual cocoa price through radio and newspapers, how can farmers get a price below that? This question arises because Cohort 1 villages with certification started out with an average price below those in matched control villages without certification. The data showed that Cohort 1 villages with certification only “caught up” to the government-regulated price, reflected in a proportional increase. This is a curious finding in the highly regulated cocoa market regime of Ghana. One possible

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38 One cynical explanation is that the program is “fraud.” However, this study would not have occurred if there was an intention of outright fraud.
39 Author’s fieldnotes on conversation with a cocoa trader from Côte d’Ivoire, August 10, 2013.
explanation is that Cohort 1 treated villages may have been in a disadvantaged situation, for example because very few LBCs may have operated in these villages before arrival of Fairtrade certification. Such local monopolies may have encouraged opportunistic or abusive behavior from LBCs, for example by paying outdated and lower prices—possibly in exchange for moneylending services—or by withholding COCOBOD bonuses paid at the end of a season. It is also possible, although less plausible, that farmers corrected for rigged scales—another well-known issue—in reporting prices. This explanation is less plausible because farmers do not usually have scales of their own so estimates would likely vary a lot.\textsuperscript{40} Another possible explanation could be quality differences. However, that argument does not apply in Ghana since farmers are required to reach a baseline level of quality in order to sell their cocoa and do not get rewarded for better quality. In short, Fairtrade may not have improved livelihoods in absolute terms but may have functioned as an equalizer and a correcting device for distorted local markets.

Third, the results provided evidence for a major difference in training and level of farmer organization between Cohort 1 and 2 villages, which seem to indicate different levels of underlying program activity. Two reasons seem particularly probable. A first justification could be related to timing. Perhaps Cohort 1 villages had received more attention from CCP NGOs in the years after starting in the Fairtrade program and at the time of the survey in 2014, Fairtrade/CCP activity had waned in Cohort 1 villages and instead focused on Cohort 2 villages. However, if that was an accurate depiction, it would suggest that these training and organization activities do not have lasting effects on practices, as evident in the results above. A second possible cause could lie in the characteristics of the villages and their inhabitants. Perhaps some villagers were less interested in certification and less capable of organizing. Additional analyses into village characteristics, for example on determinants of collective action such as ethnic heterogeneity and migration patterns, could shed light on the extent to which this hypothesis is valid. It is possible that the disappointing results for Cohort 1 communities are due to confounding variables. For example, Cohort 1 treated

\textsuperscript{40} Opportunistic behavior from LBCs is not uncommon, although likely limited to villages where only one or two LBCs are active, with few alternatives for farmers to turn to. Farmers recounted such instances in some of my farmer interviews in 2011, telling me they had not get paid a bonus and citing LBC excuses, such as “the money has not arrived” or “not sufficient money was sent.” Note, however, that opportunistic behavior can be mutual. So-called Purchasing Clerks (PCs)—the people who work as buyers for an LBC at a local depository—commonly serve as the go-to person for cocoa farmers to get advance money, and some farmers seek to evade later in-kind repayment with cocoa.
villages could have been poorer with worse cocoa farmers, at the program start, or be in more remote locations. If this were the case, then the program still reached its goal of improving incomes and other outcomes by improving the situation of poorer farmers.

Conclusion

This chapter has presented the results of a particular Fairtrade certification program in Ghana, led and implemented by the Cadbury Cocoa Partnership, and it has framed this program in the wider context of explosively growing cocoa certifications in West Africa. There are several reasons—such as buyer reputation of the lead sponsor Cadbury and later Mondelez, this buyer's guaranteed purchase of certified cocoa and openness to research, as well as Fairtrade's design with a regulated premium—to believe that this particular certification program is likely to be one of the more ambitious and better ones among the mushrooming initiatives in West Africa. Still, this Fairtrade program does not seem to have improved cocoa producers' incomes or other aspects of their livelihoods beyond a leveling of the playing field through proportional increases. Based on the discouraging results, the chapter is titled "Limits to Impact," echoing the famous book "The Limits to Growth" (Meadows et al. 1972) that discussed severe environmental risks of exponential economic growth. Likewise, there are risks inherent in the massive growth of cocoa certification, in the form of squandered opportunities and continuing poverty.

The limited results and their possible explanations seem to point toward major obstacles in properly implementing certification in Ghana, in particular in transmitting a premium and in effectively training and organizing farmers. Since Ghana has a tightly organized cocoa market regime, such difficulties do not bode well for neighboring Côte d'Ivoire with a less organized market regime where certification has grown even more (Potts et al. 2014:133) but the state does not provide the kind of oversight that the Ghana Cocoa Board does. Could one make the opposite case and argue that it is the very nature of Ghana's market regime that hampers the effectiveness of certification? There is no clear answer. Côte d'Ivoire has multinational buyers that directly interact with farmer groups. On the one hand, they might offer better conditions in a bid to maintain farmer loyalty. On the other hand, buyers in Ghana should jump at the opportunity to increase farmer loyalty because they have few other opportunities to differentiate themselves. Either way, this study from West Africa
suggests that the promises of certifications for improving producers’ lives should be taken with a grain of salt until further proof of effectiveness.

 Seeing this study through the theoretical lens of organization and labor studies leads me to three observations. First, for the outcome of interest—livelihood improvements, evident in higher incomes or better labor conditions—the chain from standard implementation to organizational upgrading and to improved livelihood, seems to have broken at the first step of implementation. Several indicators suggest so: the absence of a premium; the limited level of farmer organization; the low exposure to training; and the low level of knowledge on Fairtrade. It is therefore only consequent that, on average, farmers have not changed their agricultural practices, which translates to a lack of impact on livelihoods. Second, farmers could not count with the factors that theoretically predict a higher level of compliance, such as additional law enforcement from the state, or that predict support for upgrading processes, such as a close and learning-oriented relation to a buyer. The state, in Ghana, does actively intervene in the cocoa sector through its policies but not through law enforcement. The buyers that Ghanaian producers interact with are traders who have limited incentives to support farmers’ learning because it requires investments from them with very insecure payoffs in the form of increased volume in the future. The risk of freeriding from other traders is likely too high for them. In short, the environment in Ghana is not propitious to farmers’ learning. Third, that unfavorable environment converged with weaknesses in Fairtrade program implementation. Furthermore, farmers’ capability to learn—with low levels of schooling and traditional agricultural practices—may have been limited to begin with. In sum, to overcome obstacles in the adopters and their environment would probably have required a flawlessly executed Fairtrade program and perhaps a more multi-pronged approach to lift farmers out of poverty (Banerjee et al. 2015).

 Should this lead to a more dramatic conclusion, that this program was destined to fail? On the one hand, the particular market structure of the Ghana Cocoa Board limited the upside: Certified farmers cannot directly access high-quality niche markets. They cannot cut out the middlemen and are unlikely to establish direct contacts with buyers. Therefore, the potential for livelihood improvements has been modest. But, on the other hand, a Fairtrade

41 The example of Kuapa Kokoo, a Fairtrade-certified farmer group that supplies British niche chocolate brander, Divine Chocolate, proves the point. That farmer group has become a middleman and in growing its trading business, the share of Fairtrade cocoa has been diluted to a low percentage so that farmers’ benefits are minuscule (Nelson et al. 2013).
premium was foreseen to be paid to farmers. In addition, farmer groups do not necessarily have to develop into rural enterprises. Their purpose could be more limited to more efficiently organizing knowledge transfers to them. However, absent such a premium and additional training, the lack of improvement is logical. However, context matters: In the following two chapters, I change continents to study certifications in Latin America where Fairtrade and Rainforest Alliance originally started and thus look back on a longer history. Next I examine these two standards through the organizational histories of two farmer groups in Ecuador—a country well-known for fine-flavor cocoa sought after by discerning buyers. Ecuador could therefore be a more auspicious context for certified farmers seeking to access global niche markets with a sustainability standard.
Chapter 5: From Rules to Upgrading: Contested Dynamics of Sustainability Standards and Labor in Ecuador

Introduction

August is a slow month for cocoa producers in Ecuador. Yet not all farmers are idle. At headquarters of Fortaleza del Valle, a certified farmer group that organizes small farmers, farmers buzz in and out of the AC-chilled office to engage in friendly chit-chat with accounting and technical staff and to inspect the progress of construction work outside on canopies for new drying stations. In a prior season, farmers had brought in so much cocoa that buying had to be briefly suspended twice due to limited capacity of fermentation and drying installations. A different picture—not of activity, but of decay and struggle—presents itself at depositories (centros de acopio) of Aroma Amazónico, similarly a certified farmer group that unites small farmers. One is deserted. Offices are empty, with only a few brochures scattered on the wooden floor, advising on “The abc of commercializing specialty and certified cocoa” —ironically the very approach that Aroma Amazónico tried for several years but failed to sustain. At a second one, the administrator opens a locked gate and motions toward a drying canopy, its torn plastic covers exposing the wooden structure beneath to an unforgiving tropical climate. They plan to get metal structures but the current mayor, he reports, is not very supportive.

In this chapter I focus on the experience of cocoa smallholders organized in two Ecuadorian rural enterprises that, equipped with sustainability standards, sought access to global markets under similar conditions but with widely diverging results. Smallholders such as these are in need of support. Agriculture is what the International Labor Organization calls “one of the most hazardous of all economic sectors” (2010:5). Worldwide over one third of the workforce, approximately one billion people, are estimated to work in agriculture, the majority of them in developing countries. Subject to high injury risks, the vagaries of weather and markets, largely unprotected by developing country governments and rarely organized, this workforce often lives precariously, exposed to persistent poverty and vulnerability despite relying heavily on household labor. To improve their labor conditions has been a major challenge. In response, activists and global buyers have promoted private sustainability standards, for example Fairtrade and Rainforest Alliance certification, Yet organizational and labor outcomes have been highly variable when producers, certified to
such standards, enter global production networks (Becchetti et al. 2015; Blackman and Rivera 2010).

Sustainability standards are designed to improve farmers’ livelihoods by paying a premium to organized farmer groups in return for compliance, but can fail to do so (Melo and Hollander 2013; Smith 2007). Uneven outcomes with such standards have been explained with actors’ choices or with market structures. For actor-centered explanations, scholars have unpacked suppliers’ choices, positing local learning among them through engaging with standards as the main mechanism of change (Coslovsky 2014a; Perez-Aleman 2013). Yet this approach struggles to explain divergent outcomes, besides heterogeneous actors. For structural perspectives, grounded in a literature on global production networks (GPNs) and global value chains (GVCs) (hereafter GPNs), scholars have theorized industry structure (Lee et al. 2012) and governance relations between buyers and suppliers (Gereffi et al. 2005) as determinants. In placing such a central focus on either local agency or market structures, there are few predictions for the conditions under which similar certification initiatives might succeed or fail. Recent “configurational approaches” bridge existing literatures on supplier agency, GPNs, and labor, analyzing employment outcomes as the result of configurations between buyers and suppliers (Lakhani, Kuruvilla, and Avgar 2013; Tapia, Ibsen, and Kochan 2015). In explaining standard outcomes, the configurational approach adopts the GPN perspective that labor standards are more likely to be followed when “lead firms have more control and leverage over suppliers” (Lakhani et al. 2013:23). However, that perspective assumes coordinated buyer ties to be developmental per se and pays little attention to supplier or labor agency.

Under what conditions might we then expect to see the success or failure of sustainability standard initiatives within the same industry? How, through which mechanisms, does success or failure come about? I explore these questions based on a matched case comparison of two certified farmer groups, operationalizing outcomes at two levels. At the organizational level of the farmer enterprise, I look at organizational survival and economic benefits of sustainability standards (certified volume, exports, and premium). These are a
prerequisite for better individual-level outcomes. For the latter, I analyze labor outcomes in the form of price obtained and services, such as training.42

This chapter makes two key contributions. First, it shows that improved labor outcomes are doubly contingent on, first, favorable organizational outcomes that depend on diversified, learning-oriented buyer ties, and, second, on an organization’s willingness to pass on these benefits to member farmers. A condition for organizational outcomes is that suppliers leverage learning from redundant ties to buyers. Diversified ties are useful because, even when buyer relations are close and learning-oriented, they are also contested and unstable. Thus, this research adds to the project of correcting an overly optimistic view of “the lead firm’s guiding hand” (Pipkin 2011:2120) in GPN and configurational frameworks. Second, in tracing out mechanisms, this research demonstrates that sustainability standards lead to uneven labor outcomes because they do not provide the primary mechanism for generating more satisfactory labor conditions. Instead, farmer groups (the suppliers in this case) recursively appropriate knowledge, as the key mechanism, from multiple sources, particularly on quality production, logistics and marketing processes. Put differently, the path to better labor outcomes leads primarily through upgrading, which goes above and beyond compliance with standards.

A central finding of this study is that suppliers’ competitiveness drive the success of sustainability standard initiatives and not vice versa. The dynamic that ensues is well known as the “Matthew effect” (Merton 1968) where success begets success. This belies the purpose of standards—to contribute to better livelihoods because of the adoption of standards. In practice, standards can provide these benefits if farmer groups effectively differentiate themselves in elite niche markets. Certified farmer groups that learn the right practices, partly by connecting to the right buyers, are in a good position to reap benefits from sustainability standards. Those with a more lackluster performance are likely to be left out of lucrative niche markets and to experience sustainability standards as a burden (Klooster 2006; Mutersbaugh 2005). This inclusion-exclusion pattern is intensified in persistently oversupplied certified markets where producers struggle to sell their products.

42 The producers studied here are smallholders who rely almost exclusively on household labor so that I do not examine conditions for agricultural workers in this study. Price obtained resembles “wage” since cocoa constitutes an important source of income for many producers.
production as certified and where buyers can demand higher quality (de Janvry et al. 2015; Potts et al. 2014). As a result, existing inequalities are heightened rather than leveled.

I start by reviewing the literature on private standards and labor in global production networks, focusing on underlying mechanisms and configurational approaches. I then provide background on sustainability standards and their posited mechanisms. Next, I introduce the methods adopted and the research context for the two cases studied here, *Fortaleza del Valle* (FDV) and *Aroma Amazónico* (AA). Building on data from their 10-year long organizational history, I develop a dynamic process model for sustainability standards to explain economic and labor conditions following standard implementation. Further described in the discussion, this process model incorporates the role of buyers as well as supplier and labor agency. I conclude by reflecting on private standards for improved labor conditions in global agriculture. Overall I argue that better grasping the mechanisms of sustainability standards elucidates pathways toward improving labor outcomes. But it also clearly demonstrates the limits of standards as a solution for all producers.

**Private Standards and Labor: Toward Configurational Approaches**

Despite a burgeoning literature on private standards, the question of mechanisms is still under-theorized: “Scholars have often glossed over or conflated the variety of processes through which certification might shape the conditions of production” (Bartley 2012:448, emphasis in original). The breadth of the phenomenon compounds the theoretical challenge. Private governance pursues a wide array of desired policy outcomes, including food safety (Coslovsky 2013), labor standards (Locke 2013), environmental protection (Rueda and Lambin 2013b), quality management (Boiral 2003), and poverty reduction (van Rijsbergen et al. 2016) across nations and across industries as varied as agriculture, mining, construction, tourism, fisheries, forestry, and apparel (Bartley 2007). Sustainability standards are a form of private governance,\(^\text{43}\) defined as regulatory forms that rely on third parties to certify compliance and do not rely on the state for enforcement (Bartley 2007). They pursue better economic, labor and environmental results for producers.

\(^{43}\) Sustainability standards have also been categorized as a case of corporate social responsibility (Auld, Bernstein, and Cashore 2008; Tapia, Ibsen, and Kochan 2015).
Yet one of the quandaries of such standards is the potential for a gap between their goals and impact, widened by a compliance orientation of standard-setters (Wijen 2014). Numerous impact evaluations of standards have yielded inconclusive results for various sectors, including forestry (Auld, Gulbrandsen, and McDermott 2008; Klooster 2006), labor standards (Locke 2013), agriculture and tourism (Blackman and Rivera 2010). Some studies show positive effects for certified farmers, such as income, wealth and quality improvements (Balineau 2013; Ruben and Fort 2012). Others demonstrate that effects are negligible (Subervie and Vagneron 2013) or that certified farmers do worse than non-certified peers (Beuchelt and Zeller 2011). Two underlying mechanisms, examined in separate literatures, could potentially explain this variance.

A first strand focuses on agency from suppliers to self-organize their learning. New knowledge is created through collective learning based on engaging with standards (Perez-Aleman 2011). This mechanism of pragmatic learning and relationship-based discovery features prominently in regulatory regimes that scholars have labeled “relational regulation” (Silbey 2011) and “experimentalist governance” (Zeitlin 2011). Case studies have described how rural entrepreneurs exercise their agency, through engaging with knowledge embedded in food safety standards in a cluster of dairy farmers in Nicaragua (Perez-Aleman 2011), creating new horizontal and vertical connections among Colombian coffee farmers (Rueda and Lambin 2013b), innovating incentive systems in a Brazilian sugar cooperative (Coslovsky 2013), collectively enforcing quality controls among Bolivian Brazil-Nut producers (Coslovsky 2014a), or through instilling improved accountability procedures in Fairtrade-certified sugar cooperatives in Paraguay (Setrini 2011). While these studies acknowledge that such positive outcomes are not inevitable, it is less clear what hinders such adaptations. One important factor that has received scant attention in this vein is the role of buyer governance relationships.

A second approach emphasizes GPN structures, and in particular the structure of buyer-supplier governance ties. The key mechanism is learning from buyers where suppliers upgrade and add value, for example by exporting, supplying increasingly sophisticated buyers, and taking on more varied tasks (Humphrey and Schmitz 2002). Thus, governance relations are an important conduit for supplier upgrading. Close relationships with buyers

\[44\text{ For an overview of similarities and differences between the GPN and GVC literature see Lakhani et al. 2013.}\]
exercising a higher degree of guidance are considered more fruitful for upgrading than arms-length market transactions (Gereffi et al. 2005; Gereffi and Lee 2014). Governance relations, in turn, are said to result from task requirements, including the complexity and codifiability of the task as well as supplier capability (Gereffi et al. 2005). Other factors that favor upgrading are quality-driven chains and a need for process changes, especially for incipient suppliers (Schmitz and Knorringa 2000).

The prospects of standard implementation, viewed through the GPN lens, are ambivalent. On the one hand, sustainability standards are considered an upgrading opportunity, albeit a limited one in highly concentrated industries (Lee et al. 2012). Consistent with such expectations, close coordination with buyers can bolster labor standards, as evidence from cut flower and banana industries shows (Riisgaard and Hammer 2011). Other enabling factors are lead firms being from the US or Europe versus East Asia (Mingwei and Li 2015), suppliers being in a first versus a lower tier (Nadvi and Raj-Reichert 2015), and focusing events, such as major disasters, which stir corrective actions from buyers (Frenkel, Schuessler, and Wright 2015). On the other hand, studies examining the role of buyers have found limited benefits for agricultural producers. Buyers have imposed standards as a requirement for market access, for instance in forestry in Mexico (Klooster 2006) and wine in South Africa (Ponte and Ewert 2009), or retained a large share of rents from certified coffee farmers (Valkila et al. 2010). Furthermore, requirements for standard-compliant production can exclude small producers from lucrative markets (Dolan and Humphrey 2000; Reardon et al. 2009). These contradictory findings may arise because GPN theory tends to overlook the potential for conflict in governance relations (for exceptions see Bair and Palpacuer 2015; Herrigel 2010).

Recent configurational frameworks use two insights to advance our understanding of labor relations by joining actor-centric and structural perspectives. First, labor relations have to be understood as shaped by globally interlinked firms operating in and shaped by national contexts (Jackson, Kuruvilla, and Frege 2013; Lakhani et al. 2013), with governance relations as a key determinant (Gereffi et al. 2005; Henderson et al. 2002). Second, governance is also exercised through private standards (Bair and Palpacuer 2015; Gereffi 4s GPN scholars have begun to unpack the link between economic outcomes of supplier organizations and social outcomes of labor (Barrientos et al. 2011), building on insights that firm-level outcomes do not necessarily translate to better labor conditions and have to be evaluated in a broader regional economic and institutional context (Harvey 2006; Selwyn 2012).
and Lee 2014; Levy 2008). Still, when assessing the role of private standards, configurational frameworks propose that standards are more likely to lead to better labor conditions when buyers have relational or captive ties with suppliers (Lakhani et al. 2013; Tapia et al. 2015), reflecting a “commitment-oriented” rather than a “compliance-oriented” approach with their suppliers (Locke et al. 2009).

However, in following key propositions of GPN theory, configurational approaches inherit three of its shortcomings. First, they take an overly static perspective, leaving interactions and processes undertheorized, although scholars increasingly recognize that relations in GPNs are dynamic and emergent (Herrigel et al. 2013; Yeung and Coe 2015). Second, they ignore the contested nature of governance (Bair and Palpacuer 2015). Third, they do little to incorporate supplier agency (Pipkin 2011) and labor itself (Carswell and De Neve 2013; Coe and Jordhus-Lier 2011; Donaghey and Reinecke 2015). To improve configurational frameworks, I inductively develop a dynamic process model for sustainability standards that centers on suppliers’ recursive learning from close, yet diversified buyer ties. Next I review how sustainability standards are postulated to function.

**Sustainability Standards in the Cocoa Sector**

Sustainability standards—with Fairtrade, Rainforest Alliance, UTZ and Organic relevant for the cocoa sector—posit to improve labor conditions and livelihoods of those participating through three major mechanisms: price, organization, and guidance from the standard itself. Price-setting differs across standards. Price premiums are negotiated and vary with market demand for Rainforest Alliance, UTZ and Organic whereas they are regulated in Fairtrade, which stipulates a premium of USD 200 per metric ton. At world market prices of USD 2,850 in January 2016, this premium of about 7% is within the range of reported premiums from 5% for UTZ and up to 18% for Organic (Potts et al. 2014). Fairtrade design also contains a minimum price of USD 1,750 per metric ton of Fairtrade cocoa and USD 2,050 per metric ton of Organic-Fairtrade cocoa. Should the world market price fall below that threshold, Fairtrade buyers are obliged to pay the minimum price instead (FLO 2011).

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46 Although some scholars treat standards as an institution (for example Bartley 2012), I distinguish institutions as norms from standards as a regulatory instrument because standards use highly codified procedures and rely less on tacit norms to steer behavior than institutions.
The minimum price should therefore reduce losses in market downturns. However, it has not been invoked since 2007. All price-setting takes the world market price as a floor, derived from futures prices at the London NYSE Liffe and the New York ICE Futures. On the basis of that, farmer groups can negotiate higher prices, above certification premiums, if their cocoa is differentiated, for example through better quality and apt marketing.

Organization can overcome fragmentation among commodity producers, as evident by comparing conventional (non-certified) cocoa supply chains with certified ones (Figure 17).

**Conventional Value Chain**

- Non-certified farmer
- Middleman
- Exporter
- Foreign buyer

**Certified Value Chain**

- Certified farmer
- Certified farmer
- Certified farmer
- Organized certified farmer group
- Exporter
- Foreign buyer

**Mandated premium or minimum price**

**Market-based premium**

**Labor, environmental and administrative requirements**

Figure 17: Structure of conventional (non-certified) and certified value chain
In conventional chains, individual farmers sell dried cocoa beans to local middlemen, and from there the product moves through exporters to foreign buyers. In certified ones, farmers deliver freshly harvested wet beans to a certified farmer group that organizes the fermentation and drying of beans—a key step to improve quality—and, if possible, sells directly to foreign buyers. Besides cutting out middlemen, the benefits of organization are threefold. It increases volumes and lowers transaction costs with buyers (Dolan and Humphrey 2000); it politically empowers producers (VanderHoff Boersma 2008); and it allows them to share costs for certification and auditing fees (Mutersbaugh 2005).

The standard itself is supposed to induce improved conditions through requiring compliance with labor, environmental and administrative requirements, checked in yearly audits (for an overview of requirements and procedures see Raynolds et al. 2007; Ruben and Zuniga 2011). That said, private governance scholars do not theorize adopters’ learning as a key mechanism (Schneiberg and Bartley 2008; Vogel 2008), different from literatures on supplier agency and GPNs.

A rapid rise in the diffusion of standards seems beneficial to producers, given that premiums, farmer organization, and compliance are built into standards’ design. In the cocoa sector, such standards have moved from the margins to playing a central role. After two decades of slowly growing certified cocoa production to 3% in 2009, private standards covered 22% of production in 2012, making cocoa the agricultural commodity with the most coverage after coffee. The steep take-off came after activist pressure, following reports of child and forced labor in West Africa, stimulated several confectioners—Mars, Ferrero, and Hershey’s who account for 38% of the global chocolate market—to pledge that 100% of their cocoa supply will be certified by 2020. Yet there has been oversupply of certified production. Less than half of it is sold as certified (Nieburg 2014), with similar issues in coffee and other agricultural commodities (de Janvry et al. 2015; Potts et al. 2014).

In Ecuador, sustainability standards started spreading in the early 2000s. The availability of multilateral and bilateral donor funding facilitated rural development projects, and certification appeared to be a promising way to gain a higher value in premium markets (for a critique see Melo and Hollander 2013). Yet only a subset of certified groups was able to create lasting benefits from this opportunity. Before turning to their experiences, the next section presents how I chose the two cases studied here and the methods adopted.
Research Setting and Methods

Ecuador presents a fairly typical scenario for certified enterprises. For agriculture, it is typical in facing persistent rural poverty, limited government activity, and poorly organized farmers. For decades, the Ecuadorian government paid little attention to cocoa, which, with 2% of total export, pales against petroleum accounting for 58% of exports in 2012 (Banco Central del Ecuador 2013). Most farmers sell individually to middlemen. In 2011, 20% of cocoa producers belonged to any farmer group and 7% to a certified one (MAGAP 2011). Nor do certified producers in Ecuador enjoy a first-mover advantage, as certification pioneers in Mexico and Central America did. One feature of Ecuador, however, tilts the balance in favor of cocoa producers, namely that the country’s fine-flavor cocoa is sought after by global buyers, facilitating market access for farmer groups.

Given the early stage of theory on standard implementation, an inductive approach to theory building is well suited (Edmondson and McManus 2007). I undertook a matched case comparison of two certified farmer groups, using across-case comparisons and within-case process tracing based on interviews and document analysis (George and Bennett 2005). In choosing cases from about 20 certified farmer groups in Ecuador (Ramirez Torres 2013), I excluded groups that were certified but exclusively sold to domestic buyers or that were contractually bound to a single foreign buyer and thus had limited room to maneuver. Among the remaining groups, I selected two cases—Fortaleza del Valle (FDV) and Aroma Amazónico (AA)—that had started around the same time, facing identical market conditions, and were both advised by a German bilateral agency GIZ (formerly GTZ) as main donor. These two cases had between 900 and up to 1600 members, which is above a median of 725 members for six Central American certified cocoa farmer groups, although much smaller than a very large group in the Dominican Republic with over 10,000 members (Donovan 2006).

The material for this comparative case study originates from two months of fieldwork in July and August 2012 and January 2014. The 87-in person interviews were divided as follows: on the production side, I interviewed 50 farmers, farmer group managers and staff, with 26 interviews from FDV and 15 from AA.47 To complement these data, I interviewed 37

47 This figure includes 9 interviews with Kallari, a third group that is certified and highly successful, located in the Southern Amazon. I excluded this group from further analysis because its path toward developing a farmer-owned chocolate brand is partly owed to having a US-American co-founder. For
representatives from NGOs, certifiers, international development projects, manufacturers, exporters and a trade association, government, a credit provider, and academia. With farmers, I inquired about their background, perceived costs and benefits of certification, experiences with the farmer group, training and changes in agricultural practices, as well as community cohesion. With farmer group managers and staff, I reconstructed organizational achievements and challenges over time, to get a detailed assessment of certification. In a second round of interviews with them, I honed in on relationships and capabilities with comparative questions to assess the quality and structure of relations in the beginning and later, including actions taken and motives to cultivate and mobilize these particular relations. Another set of questions queried to contrast what buyer ties they had currently and previously, how they were structured and what they learned from them. I also asked about specific capabilities developed at the level of farmers, the organization and the respondent.

Documentation played an important role to corroborate key junctures and to resolve conflicting information from interview data. I sighted about 85 documents, from farmer groups, certifiers, government and donor agencies, an exporter industry association as well as from secondary sources such as local newspaper reports and theses, extracting key information into a spreadsheet to reconstruct case histories (Brady and Collier 2004; George and Bennett 2005). Through follow-up email conversations with informants, I clarified remaining questions, to triangulate data (Yin 2009) on the cases and to draw on rich details from multiple perspectives.

The two cases studied here, FDV and AA, were both founded between 2004 and 2005, fostered by partnerships between international donors and Ecuadorian government organizations. FDV is located in Manabi, a coastal province of Ecuador and traditional agricultural region, accounting for about a third of the country's cocoa production. Economically precarious, the poverty level in the province, with 77%, is significantly above the national average (INEC 2010). Outmigration of young people is common in the face of scarce employment opportunities and miserly economic prospects on small-sized agricultural plots. The ones staying behind are mostly elderly, tending to their land with techniques they learned from their parents. Prior to FDV, no local cocoa farmer groups

all farmer groups studied, I asked to interview farmers who represented a range in terms of their socio-economic situation and their experiences with being a member of the farmer group.
existed. Local divisions commonly take precedence over joint action, including when natural disasters strike, such as month-long inundations in 2011 that caused severe damage. One of the key constraints for agricultural production in this region is a lack of water in the dry season. Mitigating this constraint provided the stimulus for creating FDV with initially 160 members through a government-sponsored irrigation project that included main donor GIZ.

AA is situated in the provinces Sucumbios and Orellana, in the Northern Amazon region. Petroleum explorations paved the way for agricultural settlements in the 1960s and 70s through the opening of roads in virgin forests. These settler farmers, typically from traditional agricultural families in the coastal provinces, moved there in search of land that was hard to get in their former homes. Similar to Manabi, no prior farmer groups existed. In the 2000s, the region became a hotspot for large-scale development aid projects, coordinated by GIZ, after a worldwide downfall in coffee prices destroyed an important income source for a local population that has the highest poverty indices in the nation, with 85% in Orellana and 87% in Sucumbios (INEC 2010). Another source of funding for this region is that, by law, municipalities in the region receive petroleum royalties that they can invest into projects of their choosing.

By design, this case comparison holds constant the industry, country, tasks of the supplier, and the introduction of private standards. Consequently, the differences observed—measured in organizational outcomes (survival, certified volume, export and premium) and producer-level outcomes (price obtained and other services)—cannot be explained by a stream of the GVC literature that draws on industry structure to shape standard effectiveness for producers (Lee et al. 2012). In addition, both groups started with comparable capabilities, which might explain local actions. The managers of these groups were both in their 50s, trained as agronomists, with prior experience in consulting, research, and teaching, but not in management. Similarly, farmers lacked prior organizational experience. Following external demands, the groups adopted slightly varying combinations of Fairtrade, Rainforest Alliance and Organic certification, with which they have been compliant. Hence the groups were similar in their initial positioning for entering certified markets. A key difference between them was the availability of petroleum royalties for funding AA, which contributed to, but did not determine this group’s diverging trajectory with regards to buyer relations. I will return to this political economy difference and other variations in farmer group characteristics below, after I describe the histories of these two groups.
The Contested Dynamics of Standards: A Comparison of Two Farmer Groups

From their inception, both FDV and AA were meant to integrate themselves as certified rural enterprises into the global cocoa market—an undertaking for which they counted with ample support through connections with donors, NGOs, peers, and local governments. Yet the two groups evolved differently, with FDV relating closely with buyers whereas AA chose to embed itself into local networks. Their different exposure to buyer requests then triggered different enactments of how they recursively appropriated knowledge, the key mechanism of change, including how they responded to turbulences in buyer relations. In turn, this shaped FDV’s and AA’s upgrading and competitiveness in a certified niche market, which enabled FDV, but not AA, to maintain loyalty from member producers and to derive benefits from standard implementation. I depict this process model in Figure 18. In the sections that follow, I describe three key steps in that model, first for FDV, then for AA: the emergence of ties; the mechanism of recursive knowledge appropriation; and the resulting upgrading of the group, with implications for its members and standards in practice.

![Figure 18: Process model for private standards and labor](image)

**Leveraging Buyer Ties: The Case of Fortaleza del Valle**

**Emergence of vertical buyer ties.** Despite an unpromising context, *Fortaleza del Valle* (FDV) has been able to improve conditions for its member farmers, since its inception in
2004, by becoming a technically savvy, commercially well-connected, and financially stable enterprise. FDV has turned into an advanced exporter of high-quality cocoa, based on proactively engaging in a close relationship with a foreign buyer. In choosing what buyer to work with, the FDV manager was interested in establishing an ongoing but not a strictly hierarchical relationship. To him, of the three most interested buyers, two appeared too “possessive” in that “they wanted to give orders.” In contrast, Swiss buyer Pronatec seemed less overbearing but open to a long-term exchange—a good match, FDV’s manager stated:

We wanted a long-term trading relationship. We always said that it should not be simply about us, but that it should allow our children to come, then the grandchildren.

Subsequently, FDV entered into a non-exclusive 5-year contract with Pronatec, and sold nearly all of its cocoa from 2005 to 2007 to them. At the same time, the manager was busy building a network as broad as possible, as he recounts:

The first thing I did was to make friends with everybody.

One of the key requirements from Pronatec was that FDV get certified to Fairtrade and Organic standards, in the words of the manager, “they needed an Organic Fairtrade cocoa, and we had to start the certification.” Given that they had a secure outlet through Pronatec, significant certification premiums were attained from the beginning, financing the auditing fees and the salary of a technical manager who became responsible to offer ongoing training to farmers, to build the organizational processes required to meet documentation requirements, and to develop internal monitoring systems for certified farms. Importantly, these premiums also allowed FDV to offer a price above the local spot market to farmers—key to keeping them committed in turbulent times.

**Recursive knowledge appropriation.** An essential upside of working closely with Pronatec was that it pushed FDV on a steep learning curve for quality, having to improve rapidly on the percentage of well-fermented beans toward the ideal range of 75 to 85%. Fermentation is key to achieving quality and specific flavor profiles, as FDV’s manager explains:

We had to improve a lot in quality. (...) At first we had slight to good fermentation. We had no more than 50, and we had to reach 80, 81, 82. (...) There are many chocolatiers—I now work with one of them who wants [the cocoa] to taste a little nutty. (...) And how do we achieve it? Based on the fermentation. We had to change the drying process; we had to install a number of new dryers.
Pronatec was an important catalyst, conveying its requirements and specific recommendations in about four visits a year, engaging directly with FDV staff as well as producers. FDV complemented this with learning from others—including a 12-day stay with a peer farmer group, workshops, and learning journeys sponsored by the Ecuadorian government to Germany and Ghana. It also learned by observing how processes observed elsewhere fared in their local microclimate, making adjustments along the way.

The need for quality started to ripple through all the cultivation and production processes that FDV touched. Starting on the farm, FDV staff encouraged producers to use better agricultural practices—to fertilize, prune, irrigate and rejuvenate cocoa trees—in order to improve the quality of beans. Nowadays, FDV considers it an achievement that about half of its members have upgraded their practices. At the point of purchase from farmers, FDV staff had to learn how to be selective, to inspect the delivered beans carefully, and, if needed, to tactfully educate farmers to not mix healthy with diseased cocoa and to keep a high-quality Nacional variety separate from other, less-valuable varieties. During post-harvest procedures, costly mistakes occurred. For example, mold formed when drying was not carefully managed. On two occasions, their buyer was dissatisfied with the condition in which lots of cocoa arrived—a problem that was remedied through lowering the price.

Having a direct contact to Pronatec leveraged new skills and networks around exporting, trading, and financial management. Exporting required FDV staff to familiarize themselves with all procedures of packaging, shipping, and documentation at their headquarters and the port. It also created a platform for FDV to build co-dependent friendships with traders, with FDV providing updates to them on local prices and production, and traders sharing insights on market trends and trustworthiness of potential buyers. These connections turned out to be of utmost importance once the tie with Pronatec was temporarily disrupted. Internally, handling exporting required adjustments in FDV’s finance system, with accounting keeping track of freight bills and developing yearly budgets to forecast working capital needs. Direct exports implied not only a higher price through shortening the chain. It also allowed FDV “to be known,” as a certifier said, increasing the group’s visibility to potential buyers.

FDV’s technical skills in producing quality beans and managing logistics enabled new relational capabilities. The close and frequent interaction with Pronatec and other foreign visitors translated into skillful negotiation tactics where the manager could showcase his
knowledge to convince buyers that the product was worth a premium, as a donor observed on an interaction between FDV and Pronatec:

It is a conversation where the cocoa is tested, where the samples are analyzed, where [the manager] can defend much more, he can argue what flavors they have, what scents they have, what origin they have, what area they are from.

Becoming commercially connected beyond Pronatec became a necessity, when FDV's sole client in the middle of a worldwide recession “suspended its purchases for 2008 (...) because it has sufficient stocks for this year with cocoa from other countries such as Peru” (CORPEI 2008:43). FDV realized "that having just one client was a bit risky.” Remarkably, all formal safeguards provided by Fairtrade mechanisms failed: having a written 5-year contract did not prevent Pronatec from walking away mid-season. Furthermore, the Fairtrade minimum price did not get activated since the drop in world market prices stopped above the threshold. Having invested into a close buyer relation was not enough.

With cocoa stacking up in FDV's depository, the threat was to have to sell it at a steep discount. FDV averted this financially disastrous outcome because of two prior investments: First, it could differentiate itself from competitors by virtue of the quality of its beans, aided by the rarity of Fairtrade certification, as the technical manager of FDV remembers:

There was Organic, but hardly any Fairtrade. It was more sought after by the market; and that helped us get [access to] other countries, other markets.

Second, FDV could draw on its contacts to traders, appealing to them for help. They established contacts and successfully arranged for a sale to a Mexican cocoa import company, Agroindustrias, which bought 275 metric tons of cocoa, after a stalemate of several months during which FDV's efforts to activate alternative buyers did not bear fruit.

After this experience of near bankruptcy, FDV decided to continue its quality upgrading path and to diversify its client portfolio from two in the crisis year of 2008 to five outlets since then, rejecting offers (including from Pronatec) to buy the group's entire production. A new contact to TCHO, a Californian buyer of fine-flavor cocoa, helped to acquire a quality laboratory, called “flavor lab.” By 2014, the group had an air-conditioned laboratory equipped with small machinery to process raw cocoa and to record its flavor profiles, which are entered into proprietary TCHO software to instantly share tasting results with this client.
Nonetheless, relations with buyers require constant bargaining. With TCHO, for example, FDV disagrees on how to handle pricing. TCHO—interested in the highest possible quality—wants to tie the final price to quality delivered. But, for FDV, the cost for more sophisticated quality procedures is incurred before delivery, making this a risky proposition, as the manager puts it:

To get to these [quality parameters], you need more personnel, more infrastructure, more time, and if they don’t pay: how will we do that?

In addition, in an ever-changing market, former clients can turn into competitors. In an ironic twist, Agroindustrias—the buyer that came to the rescue of FDV in 2008—opened a buying station in the same region, thus disrupting FDV sales to North American niche buyers that had been handled by this trader. Multinational traders integrating backwards into the countryside, on the one hand, improve the terms of trade for all farmers by cutting out local middlemen, and, on the other hand, decrease the space for farmer groups like FDV.

**FDV upgrading.** FDV has withstood the 2008 crisis and stayed afloat in an increasingly tight market. Its stability is underpinned by strategic choices on its organizational infrastructure. For instance, none of FDV’s five local associations, until 2010, had its own depository for buying cocoa, despite project money being earmarked in 2006 for the construction of two such branches. The reason was not only cost considerations but also the manager’s concern that, “if they have their own depository and once you have new leaders then they want to go on their own and sell to someone else.” In other words, he sees lean assets as integral to the group’s cohesion. Not investing into additional infrastructure also helped to keep FDV’s depository functioning at full capacity, contributing to relatively low costs for the revenue generated.

Thanks to these lessons, FDV is an exceptionally well performing rural enterprise that has generated economic value for the organization and its members. FDV has consistently sold most of its volume as certified (Figure 19), directly exported between 85 and 100% of its production, and attained prices above the world market price (Figure 20), consisting of a fixed Fairtrade premium and a negotiated premium that reflects other factors, such as quality of cocoa, the quality of buyer relationships, reputation, and negotiation capacity.
In four out of eight years of its operation, the total premiums ranged between 30 and 40% above the world market price—amounting to about USD 850 to 1000 per metric ton. Only in the two years immediately following the 2008 crisis, total premiums fell to 5% (USD 131) and 19% (USD 602) respectively. In short, FDV's premiums are a multiple of typical certification premiums of 5-10%.
**Better labor outcomes and loyalty.** The group has improved labor outcomes and loyalty for farmers through a higher price and other services. Member loyalty is key for FDV’s existence since producers can sell to any local trader. FDV has maintained a differential of USD 8 and 12 per 100 pounds of raw cocoa between the price paid to member farmers and local spot market prices. Assuming an average difference of USD 10, that translates to a price about a third higher than that paid by middlemen. Farmers also trust that everybody gets the correct price and that weights have not been tampered with, as is common with local traders. In addition, the Fairtrade premium, which tallied to almost USD 500,000 between 2007 and 2013, has financed other tangible farmer benefits, including a popular micro-credit scheme, subsidies to farmers’ labor expenditures, a mortuary fund, and a small Christmas gift. Furthermore, the premium finances FDV internal inspectors—trained agronomists and a technical manager—who offer agricultural advice and training to members, which half of the farmers interviewed mentioned as one of the benefits. At the
organizational level, these premiums have funded the installation of post-harvest processing infrastructure, saving members the time to dry cocoa themselves, and have added toward working capital when funds for buying cocoa run low. In farmer interviews, producers routinely mentioned these benefits.

There are several caveats to FDV's success. First, notwithstanding economic improvements to producers, a concern for them is whether the premium compensates for potentially lower productivity of their fine-flavor cocoa variety and additional labor expenditures related to Organic certification. Other studies suggest that these concerns might be justified (Beuchelt and Zeller 2011; Melo and Hollander 2013; Valkila 2009). Second, there is limited room for producers to get their voices heard despite formal meetings being held. The longevity of FDV's management team has added to a perception of “hermetic functioning” where older and less educated members hesitate to express dissatisfaction openly. Third, FDV is aware of the fact that members side-sell some of their production and that their commitment has to be constantly renewed through attractive conditions, making the future uncertain. Still, FDV has grown to over 900 members, suggesting that it provides a good option for some producers. Crucially, FDV's success built on recursively and actively learning from first one, then multiple buyers. AA's experience, described next, offers a counterpoint where promising beginnings might have translated into a viable alternative for its farmers, if AA had deepened its relations to buyers more intentionally.

**Leveraging Political Ties: The Case of Aroma Amazónico**

**Emergence of political ties.** Initially, *Aroma Amazónico* (AA) thrived and built an ambitious buying platform based on close ties to local government and to donors. Yet success did not last. When visiting AA buying stations 10 years after its start in 2004, the up to 1,600 cocoa growers that this association previously served were back to selling to domestic intermediaries. Having spent less energy on vertical relations to buyers, AA deprived itself of ongoing quality upgrades and started an untenable price-based competition. Absent lasting quality premiums, the group fragmented because it failed to generate enough value added to be transferred to producers.

The organizing for AA began in 2004 when a Canadian-sponsored development project constituted two farmer groups, organizing 700 producers, in two cantons in the Northern Amazon of Ecuador. The manager of this project later took on the reins of AA, which
received funding from three other major actors, AMAZNOR—a large multilateral
development project implemented by GIZ, a development agency; GIZ with its own
resources; and Kraft Germany, a chocolate manufacturer. AA coalesced around a big bet of
commercializing a volume of 1,000 or more metric tons of cocoa. All pieces seemed to line
up: GIZ and AMAZNOR were financing infrastructure investments, training, Organic
certification, as well as staff salaries. Kraft was sponsoring Rainforest Alliance certification
(implemented by a national NGO, Conservación y Desarrollo), and then going to buy certified
cocoa from AA and other farmer groups in Ecuador. Farmers had the option of joining
certification but could also deliver conventional cocoa, in a bid to enroll as many members
as possible. AA itself proved savvy at fundraising with local governments.

In the first four years, local organizing progressed rapidly, with a total of USD 1.35 million of
local investments, as estimated by the AA manager. He and producers actively enrolled
municipalities in co-sponsoring depositories, equipment and infrastructure, such as roads
and utility services. The AA manager tells the story:

So I ventured to talk with mayors; the first one, the one from Cascales,
who I was most friends with. (...) I first explained to them the benefits of
the project, and the whole question, and I said, (...) “I invest this money
here, but you have to give a percentage,” which the [development] project
did not require me to do at all. And they accepted it, okay?

The snowball of mobilizing local officials accelerated through cultivating friendships with
mayors from three cantons, Cascales, Lago Agrio and Shushufindi. The manager applied
skillful negotiation tactics to invoke officials’ interest in engaging with potential voters.
Investing into these local networks spilled over into supplementary donor funding, for
example from USAID, as the AA manager elaborates: “They were taking an interest little by
little, like they moved closer to a project that was going well.” Meanwhile the number of
local associations grew quickly from the two founding ones in 2004 to a total of 15
associations in 2008—each with one or two depositories.

However, local organizing came at a cost since little attention was paid to building
commercial connections since the manager's time was tied up with mayors and donors.
Buyers were a low priority because AA had its hopes set on Kraft, as a second manager of
AA describes:

    Developing this entire process of Rainforest certification—which was
    financed by Kraft—we went with this on the horizon, so therefore we did
    not [build other alliances].
Similarly, the GIZ donor remarked that, "Aroma Amazónico was more hopeful in a supporting institution. But not in making a direct contact with buyers." It was not for a lack of opportunities or skills that AA did not engage with buyers. For instance, the charismatic AA manager visited the largest Organic trade fair, Biofach in Germany, in 2006 and 2008 where he met various buyers, including FDV's main buyer Pronatec and other medium-sized niche buyers active in Ecuador. Still, the plan was to sell to Kraft and to export via COFINA, an Ecuadorian trader. Kraft, in turn, was interacting with several farmer groups in Ecuador and therefore less likely to engage deeply with any single group. AA's inward focus was thus matched with its buyer's more limited engagement with suppliers.

**Stagnant knowledge appropriation.** Nevertheless, better quality was achieved initially with new post-harvest processing facilities and training, as the second AA manager says:

> We learned that with all the training, how to differentiate and to recognize one variety from another, how I know when the drying has reached 7% if I don't have a measuring device, how many hours I should ferment, how I put and move the cocoa for fermenting.

Similar to FDV, AA realized how to adjust processes to local conditions and, for instance, to ferment fewer days: "How did we know that? Simply doing it, right, because if we left it for six days, then the cocoa came out black." Moreover, AA's advantage was that it counted with a desirable cocoa flavor profile. An NGO partner recalls:

> Some analyses were done and they could find a cocoa [with a flavor] of nuts, and that was what interested many. A cocoa with a taste of fruit, dried fruit, agreeable, smooth, with little astringency.

Bearing witness to AA's progress is the fact that it started catering small volumes of 2 to 4 metric tons to Ecuadorian niche buyers that paid premiums of up to 70% above the world market price. But quality issues arose for three reasons. First, being insulated from clients, AA's knowledge stagnated while FDV's evolved, as a NGO member compares:

> FDV has this information [on flavors and origins]. AA knew the basics, fermentation, drying, but they didn't do samples, they did not yet have cupping, there were no organoleptic checks.

Second, AA's structure of having multiple depositories made quality control more complex, especially for bigger volumes, as AA staff recognized:

> For us, it is difficult to maintain quality conditions with more volume, because it requires much more control, to be stricter with the
postharvest processes, the issue of mixing and [keeping separate] diverse varieties of cocoa. That was an aspect that was complicated for us.

Third, ironically, certification may have slowed learning by inflating AA’s confidence in their cocoa. During a visit, a disgruntled US buyer reportedly said the following, according to an NGO observer:

That it is Organic does not mean that you can send me certified Organic shit; you have to send me cacao.

The very NGO staff responsible for introducing certification concluded that, “certification played a key role, a negative one. (...) In the sense that it made everyone believe.” Lacking direct intermediation from buyers, AA was unable to catch up with its peer FDV. AA soon faced a predicament. To save costs, it did not use the extensive installations at its disposal, as a certifier noticed:

They had a great infrastructure, because they even had electric dryers, big ones. But, to be honest, I never saw them work during inspections. (...) They said they were very expensive, well the cost, right? Of electricity and all that. (...) So it was left there like a white elephant.

Worse, farmers, without a financial incentive, were less inclined to invest into better procedures, as the second manager remembers:

For not finding the premiums necessary to make ourselves attractive, the producers did not want to put in the additional work that it takes to produce Organic because our premiums, at some point, were maybe USD 2 or 3 per [100 pounds]. (...) So we were facing the question of “and how much are you going to pay me for [more work]?“ That was unknown, and since there was no answer, we then simply kept doing the same.

Accordingly, AA’s quality troubles persisted and became known to its exporter, certifier, NGO and donor partners. As relations with buyers remained arms-length, AA was heavily focused on short-term price negotiations, as a donor assesses:

[They] thought from the beginning to set prices too high, with very big premiums, very high. So that was a factor that they could not establish good markets from the outset, because markets they had. But, to them, the price offered to them by international buyers never seemed right.

In negotiating with buyers, AA tried to unsuccessfully leverage other arguments besides quality. Yet this tactic did not yield higher prices and likely did not improve relations with buyers. Their NGO partner comments on how AA approached the matter:
When Kraft offered them USD 130, [the manager] said: "No, I want 145." Then Kraft said to him: "but your cocoa is bad, it isn't fermented, it has mold, it has this, that..." Then he closed himself and said: "no, but my cocoa is Amazonian, it is Aroma Amazónico, (...) and it has to be worth USD 10 more.

De facto, however, AA became a price-taker that could negotiate on the margins but stopped commanding significant premiums. Relying on an intermediary for export further disadvantaged its position, because as a certifier shrewdly remarks: "If you sold to an exporter here, it is him who will take all the benefits of being Organic."

**AA's interrupted upgrading.** The turning point for the worse came in 2008 when Kraft gave up on its project in Ecuador and sourced in Ivory Coast instead. The timing coincided with a transition between AA's two managers. Exactly as FDV did, the group tried to activate alternative certified buyers. But it was turned down. The group ended up selling stock to their exporter at a loss. Later that year, AA was unable to repay a 2008 Rabobank working capital credit—a matter that remained unresolved six years later, in 2014.

Internal and external relations quickly frayed. Internally, two local associations separated from the umbrella group in order to manage their depositories independently, creating a major dispute on whether or not they owe working capital of USD 45,000 to AA. Farmers lost trust in AA and the volumes delivered to AA dwindled quickly as economic benefits vanished (Figure 21). Externally, AA lost political alliances after its supporting mayors lost elections in 2009. Neither could the new manager materialize relationships with new potential certified buyers, knowing that "all the producers were disheartened" about the prospects of certification. He sold all cocoa to a conventional buyer instead, with the result that AA's price differential to the world market price disappeared and became negative (Figure 20 above).
The only source of stability was continued support from donors who decided to renew an attempt to reach certified markets through Fairtrade. However, at this stage of organizational vulnerability, Fairtrade became more of a burden than a lifesaver. External resources were spent on bringing more than a dozen of local associations into compliance. As soon as donor funding ran out in 2011, all certification efforts stopped because of the associated cost. In hindsight, the loss of Kraft as a certified buyer in 2008, despite being a distant relation, proved to be a key juncture.

How does AA make sense of their certification experience? The first AA manager reflects on the need for market access:

> When an organization is financially supported to establish certification:
> That is good in the beginning. But when the financing runs out and the
organization has to assume it on its own, if it doesn't have a good market, firmly planted, it doesn't sustain it because the cost of the certifier is quite high.

His successor concludes that gaining entry to premium markets hinges on having a committed buyer:

These are very sporadic niches, very exclusive opportunities that provide an advantage but, obviously, this requires a very serious compromise between the producer and the final buyer.

Having interacted with certified buyers also taught him about the tight link between certification and quality:

Not necessarily by being Organic, the buyer has the obligation to pay a premium. (...) They have more interest in higher quality, meaning, they link the matter of quality to the matter of certification.

Lacking this kind of upscale quality and, importantly, committed buyers, AA failed.

**Labor outcomes.** As an umbrella group, AA has ceased to operate in 2011/2. The group's local depositories remain as tangible legacy of international and local subsidies invested into AA, estimated at a total of over USD 2.8 million. Some of the depositories are abandoned due to a lack of working capital or damaged infrastructure. Some of the better-functioning ones now operate independently and either sell to local wholesalers or, if they have more enterprising members, directly sell to national exporters. While continuing AA in some form, these local associations are a more modest enterprise than envisioned. They provide a slightly higher price to farmers by removing local middlemen. However, it is beyond the reach of these groups to directly export, to attain a major premium and to thus noticeably improve producer-level outcomes, as FDV does.

Notwithstanding this bleak report on AA's outcomes, the group created some economic benefits directly for its members and indirectly for the region. In 2006—the first year of operation with larger volumes—AA's prices were quickly matched by local intermediaries, raising prices for everyone through a spillover effect, at least temporarily (Figure 22). Price increases to farmers could be financed from premiums of 19% (USD 259 per metric ton) and 40% (USD 782) respectively over the world market price in 2006 (USD 1,591) and 2007 (USD 1958), thanks to selling to domestic premium buyers (Figure 20 above). Furthermore, AA provided cheaper inputs and planting material as well as training on agricultural practices to its producers. Due to its expansive infrastructure, AA also provided...
ample professional and leadership opportunities for locals. Understandably though, among AA’s producers and former staff, the perception lingers that certification was not the best investment and that its benefits remained well behind what had seemed possible initially.

<table>
<thead>
<tr>
<th>Local Spot Market Prices for Aroma Amazónico 2006</th>
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<tbody>
<tr>
<td><img src="image" alt="Graph showing local spot market prices for Aroma Amazónico in 2006" /></td>
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<tr>
<td>Source: Archives GIZ</td>
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</tbody>
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**Figure 22: Spillover Effects of Aroma Amazónico Pricing**

**Alternative Explanations Considered**

To recap, FDV and AA adopted and complied with similar sets of certifications but developed very different governance relations with buyers from an almost identical set of initial networking opportunities, thus embarking on diverging paths of quality upgrading and setting off vastly different organizational and labor outcomes. Yet the two groups are not perfectly matched, with differences in the surrounding political economy and in farmer group characteristics. Next I analyze to what extent these differences (summarized in Table 13) might have shaped their paths.

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Table 13: Comparison of farmer group differences

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<thead>
<tr>
<th></th>
<th>Fortaleza del Valle</th>
<th>Aroma Amazónico</th>
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<tbody>
<tr>
<td><strong>Local Political Economy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surrounding environment</td>
<td>Agriculture</td>
<td>Petroleum, agriculture</td>
</tr>
<tr>
<td>Local resources</td>
<td>Municipalities less well endowed</td>
<td>Municipalities endowed with petroleum royalties</td>
</tr>
<tr>
<td><strong>Farmer Group Characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certifications</td>
<td>Organic, Fairtrade</td>
<td>Organic, Rainforest Alliance, Fairtrade</td>
</tr>
<tr>
<td>Member experience</td>
<td>Agriculture, cocoa</td>
<td>Agriculture, coffee, cocoa</td>
</tr>
<tr>
<td>Member origin</td>
<td>Local farmers</td>
<td>85% settler farmers 15% indigenous population</td>
</tr>
<tr>
<td>Size: Members (maximum)</td>
<td>900 members</td>
<td>Up to 1,600 members</td>
</tr>
<tr>
<td>Size: Volume sold by farmer group (maximum)</td>
<td>490 metric tons</td>
<td>120 metric tons</td>
</tr>
<tr>
<td>Size: Number of depositories</td>
<td>1 (until 2010); then 2</td>
<td>Up to 15; then 8 in 2012</td>
</tr>
</tbody>
</table>

First, the local political economy might explain variation where AA, but not FDV, had access to petroleum royalties. Two literatures, on collective action and on resource curse, predict that external rents are likely to hinder effective group mobilization and economic development because of “opportunistic behavior” (Ostrom 2000:153) and because of state and policy failures inherent in “the politics of the resource curse” (Ross 1999:321). Where I differ from these explanations is in the mechanism. Process tracing reveals that AA failed not because it could not keep its members or a dysfunctional state in check, but because petroleum rents contributed to a failure to upgrade. AA found it difficult to continuously improve its quality because of its strategic choice to not actively pursue close buyer relationships while growing the organization rapidly. Access to ample external financing is not detrimental *per se*. Evidence from contrasting AA with other documented cases illustrates that external resources can, when skillfully managed, support groups, such as large Mexican coffee cooperatives CEPCO, UCIRI and ISMAM (Mutersbaugh 2005). In the South of the Ecuadorian Amazon, the cocoa farmer group *Kallari* has orchestrated multiple
sources of assistance, including the government, in favor of its 900 members (Guidi 2011). Overall, petroleum royalties likely contributed to AA’s failure but did not determine it. Instead, it worked through AA’s inability to activate a mechanism of recursively appropriating knowledge, which was central to the observed differences in organizational and labor outcomes.

Second, FDV and AA differed in farmer group characteristics, specifically regarding producers’ prior experience and background as well as exact type of certification. FDV producers in Manabí are in a traditional cocoa-growing region, whereas the North Amazon was better known for coffee cultivation. Yet two factors—similar agricultural techniques and similar prior exposure to cocoa—explain why this is an insufficient explanation. Both FDV and AA farmers use relatively simple production techniques for planting, pruning, fertilization, and the treatment of pests. In both cases, it has been challenging to change these traditional practices. In addition, AA farmers often migrated from traditional cocoa cultivating areas in Ecuador, such as Manabí or other coastal provinces, so they came with experience, as the AA manager recounts, “many [more than 50% of the producers] have more than 20 years of experience in maintaining cocoa because (…) they did it in their hometown.” Even available volumes were comparable: AA producers harvested up to a 250 to 300 metric tons in the late 2000s, as estimated congruently by AA staff, its exporter and donor (although selling only a share of that to AA), compared to FDV’s 230 to 360 metric tons sold in those years.

Relatedly, farmers differed in their demographic background. FDV’s producers are local whereas AA organized mostly settlers and a minority of indigenous farmers. A collective action literature predicts that ethnic differences hinders collaboration (Ostrom 2000), which AA’s experience seems to confirm. However, in the beginning, AA effectively mobilized its members and fragmented only after it could not sustain benefits for them, suggesting that members’ backgrounds did not hasten AA’s downfall.

The two groups adopted slightly differing combinations of sustainability standards where AA was certified to three standards, but never more than two at a time—Organic (from 2007 to 2013), Rainforest Alliance (2007 to 2008) and Fairtrade (2010 to 2011)—and FDV has been certified to Organic and Fairtrade since 2006 and 2007 respectively. However, for AA, the outcomes are opposite to literature predictions that suggest that Rainforest Alliance results in higher quality (Ruben and Zuniga 2011). For FDV, the prediction that Fairtrade
facilitates market access bore out but remarkably that did not hold when AA joined Fairtrade in 2010. It is therefore implausible that the types of certification explain opposing outcomes.

Two more differences—in quality and size—emerged from the groups’ different strategies. Quality differences, as outlined above, stemmed from how the groups engaged with buyers. FDV received frequent and direct feedback from its first buyer and improved its quality; AA was removed from such input. In addition, AA’s strategy was to build various depositories to serve more farmers, which, however, added to quality issues. AA’s larger size could have worked to its advantage since transaction costs dictate that buyers prefer to work with larger suppliers to minimize transaction costs (Reardon et al. 2009). Yet there was a temporal mismatch: by the time that an Italian buyer approached AA in 2010 to deliver a large certified volume of up to 700 metric tons, AA had lost loyalty from its producers who, by then, sold their cocoa elsewhere.

In sum, AA’s local political economy allowed it to embark on a more rapid infrastructure expansion than FDV, although, conceivably, if AA had matched this with a similar effort to build ongoing learning-oriented ties with buyers, as FDV did, it could have established itself in a premium market. In doing so, it could have leveraged its certifications, resources, and size. Yet, clearly, being certified alone did not tip the balance toward success or failure for these two groups.

**Discussion**

Why do similar sustainability standard initiatives yield dissimilar organizational and labor outcomes? Extant research has yielded different answers. A local agency-centered literature asserts that proactive actors self-organize their advancement, through learning from standards and from new connections to a wide range of counterparts, including peers, NGOs and industry associations (Coslovsky 2014a; Perez-Aleman 2011). A GPN literature claims that coordinated buyer ties are a key determinant for supplier upgrading (Gereffi et al. 2005; Gereffi and Lee 2014). Newer configurational frameworks add together local and global explanations (Jackson et al. 2013; Lakhani et al. 2013), but follow GPN predictions that standard effectiveness depends on the type of buyer-supplier relationship (Tapia et al. 2015). These frameworks largely neglect supplier or labor agency.
Based on tracing the divergent histories of two certified farmer groups—FDV and AA—in the same industry, country and market conditions, I enrich the configurational approach through specifying under what condition and through what mechanism standards are successfully implemented. My findings confirm GPN literature in so far that developing a close and learning-oriented buyer-supplier relation is an important condition, although not a sufficient one. The condition for successful standard implementation is more accurately described as redundant buyer ties. FDV demonstrates this: it crucially benefited from interacting intensely with its first sole buyer Pronatec, by advancing rapidly on the quality of its product. This relationship also generated enough value to keep an edge in the local market and to maintain farmers' interest in being certified. Yet such relations are not stable or frictionless. In volatile markets, even committed buyers may rescind contracts. When losing this Fairtrade-buyer, FDV had to activate latent ties. Furthermore, within existing relations, contract terms over quality and price are continuously contested. Having redundant ties helps FDV in such contestations.

My research also modifies existing notions of learning as a core mechanism. This mechanism is neither a one-way transfer from buyers to suppliers, as understood by GPN theory, nor autodidactic, as implied by accounts of local agency. Instead I propose that suppliers recursively appropriate knowledge. I define this an ongoing learning process that feeds from external knowledge transfers as well as internal experimentation and that iteratively enables suppliers to acquire more demanding capabilities, with potential spillovers across functions. For example, FDV has learned techniques on post-harvest processing from buyer visits, complemented by workshops and peer learning. Concomitantly, it has engaged in locally experimenting with externally taught practices to adapt them to its unique production situation. This base knowledge then enabled highly interactive learning, where FDV started to make sense of and respond to more exacting client demands, such as specific flavor profiles achievable by minute adjustments in fermentation processes. Spillovers occur when evolutions in one function affect new needs in other functions. For example, when FDV started to export directly to its buyer, it had to match logistical procedures with corresponding accounting processes, which pushed it to develop a tighter financial management system.

A dynamic process model (Figure 18 above) incorporates local supplier strategies and labor agency, thus correcting the narrow focus on GPN structures in the configurational approach. This model integrates a dynamic dimension into configurational frameworks. Prior studies
have theorized standard implementation with little regard for a temporal dimension (Lakhani et al. 2013; Tapia et al. 2015), or they have followed standard initiatives over time without developing a process model (Jaffee 2007; Perez-Aleman 2011).

The process model unfolds in five steps. First, buyer-supplier relationships emerge that, diverging from technologically deterministic GPN predictions, do not stem from different task configurations but as a result of mutually informed buyer and supplier strategies (left two boxes in Figure 18). For instance, FDV and AA managers knew an overlapping circle of potential buyers but their vigor in establishing relations with them differed considerably. Second, the practice of cultivating buyer relations shapes the trajectory of suppliers in recursively appropriating knowledge where FDV, but not AA, was able to advance on technical and relational skills and to cultivate networks. Third, the differentiation attained through such knowledge facilitates the establishment of additional buyer ties, in a virtuous cycle, and it contributes to a supplier's upgrading (middle two boxes). Here, FDV excelled whereas AA plateaued quickly and then declined. Fourth, a farmer group's upgrading and hence market positioning shapes labor agency, through their labor outcomes and loyalty (right box). The extent to which organizational value can be transferred to producers informs their everyday decisions on whether to further interact with a certified farmer group, crucial for the survival of an enterprise. Both FDV and AA shared benefits with farmers as much as possible (not to be taken for granted, given numerous cases of failed farmer groups due to corrupt leadership), but AA was unable to maintain enough value added. Finally and importantly, the upgrading achieved moderates the benefits derived from standard implementation, which is often started because of buyers' wishes (lower box). FDV, as a highly competitive group, has been able to generate high premiums to finance improved conditions for producers. AA, with declining bargaining power, found itself burdened by the cost of standards and unable to keep producers engaged.

This last step is crucial for understanding standard implementation. It shows that suppliers that become competitive—a stretch for many rural enterprises in developing countries—can directly improve labor outcomes. However, sustainability standards, on their own, do not. For labor conditions in GPNs, this is problematic for two reasons: First, sustainability standards set out to fill in governance gaps, seeking to improve labor conditions where neither the state nor international trade regulations provide a floor for a vulnerable workforce. If the underlying mechanism of change betrays that cause, then the project of sustainability standards may stand on clay feet. Second, such standards are costly: external
parties often subsidize standard implementation, and farmers, too, have to invest time and effort to participate. Yet these resources can easily go to waste, causing harm to an already vulnerable population.

Conceptually, it is noteworthy that, for FDV members to reap the benefits of Fairtrade certification, the group's internal search and learning capabilities had to align with external support from first a single, then various buyers. AA was similarly proactive in its internal search capabilities, scouting for local sources of funding, but this did not align with external incentives from buyers to deepen AA's learning. The recursive nature of knowledge appropriation also reflects in how internal capability-building and external reinforcement continuously interact. It resembles a process of scaffolding where acquiring a certain skill demanded by a buyer (for example proper fermentation) becomes the foundation for a related, yet more sophisticated skill (for example manipulating the process of fermentation for particular flavor profiles). FDV made better use of this recursive process not only because of its closer relations with buyers also because it had diversified its sources of external input to a wider range of actors than AA, thus accelerating the pace of learning by more rapidly deciding what advice to integrate and how.

How did FDV, but not AA, come to recognize that constantly refining production and other functions was in their interest? Was there an endogenous or an exogenous reason for them to engage in this process of recursive knowledge appropriation? It seems that their trajectories became largely endogenous to initial choices. With a small number of professionals working at FDV and AA respectively, their bandwidth became occupied with the immediate tasks at hand, which for FDV became to respond to buyer demands and for AA revolved around the operational challenge of expanding its infrastructure. This process then deepened certain skills at the expense of others and shaped each organization's characteristics and structures in the early years after its founding, as organizational theorist Stinchcombe (1965) described it. The implication of this is to support rural enterprises especially in their early phase in orienting them toward the market environment.

**Limitation**

This chapter presents a theory-building field study, using the experiences of FDV and AA for answering questions about conditions and mechanisms through which sustainability standards become effective in global production networks. Interviews conducted with
certifiers and industry experts in Ecuador suggest that AA’s failure experience, for lack of close contacts to buyers, is common. Still, the model developed here must be tested in a broader context for validity and generalizability. Specifically, I compare two cases that, while similar in their strategy of pursuing better livelihoods for cocoa producer through accessing certified premium markets, took two directions in pursuing their goal. The two dimensions are the closeness of a buyer relationship, which was high for FDV and low for AA, and the level of embeddedness in a local political economy, which was high for AA and low for FDV. For ideal analytic leverage, the sample of cases would cover the two missing cells with high/high and low/low on both dimensions. Cases that are high on political embeddedness and on committed buyer relationships might be rare, and my research did not generate empirically backed predictions.

Cases that epitomize a low political embeddedness and distant relationships with buyers are farmer groups where the certificate-holder is an exporter, in contrast to the two cases studied here where the farmer groups themselves held the certificate. When an exporter holds a certificate it implies that the farmer group cannot sell certified cocoa to third parties. In these cases—increasingly widespread in Ecuador and other countries—the premium paid to a certified farmer group is typically lower. Industry experts suggest that, in such situations, side-selling by farmers and compliance issues are common since farmers’ upside is limited and it is doubtful whether labor outcomes could be significantly improved. However, further research is required to examine the effects of such arrangements on economic and labor outcomes.

Conclusion

Existing research has suggested that configurations of governance relations and supplier firm strategies affect labor and has hypothesized that governance relations in particular might shape whether sustainability standards lead to substantive improvements for labor (Jackson et al. 2013; Lakhani et al. 2013; Locke et al. 2009; Tapia et al. 2015). However, in foregrounding the role of buyers, these configurational approaches shed little light on how suppliers engage with buyers or standards. Sustainability standards are often implemented

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48 There is no systematic data, to my knowledge, on the organizational survival of certified farmer groups.
in response to buyer demands and need to become part of suppliers’ repertoire of practices to reap benefits, at the level of farmer groups and individual producers. Yet we lack a deeper understanding of how these standards are incorporated into global production networks and why resulting organizational and producer-level outcomes differ enormously across suppliers.

The central contribution of this chapter is an inductively developed process model, identifying conditions and mechanisms for successful standard implementation, based on a contextualized case comparison of two certified cocoa farmer groups in Ecuador. A key condition is that farmer groups are able to develop learning-oriented and redundant buyer ties. Learning-oriented ties enable suppliers to learn from joint problem-solving and fine-grained information flows (Locke et al. 2009). Yet contrary to optimistic assumptions of a GPN literature, such buyer relations can be fickle and contested. Therefore suppliers should not rely exclusively on a single buyer but invest into additional relations, in order to maintain a foothold in coveted certified markets. Cultivating redundant ties is supported when suppliers upgrade through a mechanism of recursively generating knowledge on quality, logistics and production processes. Better labor conditions do not result from standards on their own but are contingent on suppliers’ ability to succeed in premium markets and their willingness to share organizational benefits with producers. The theoretical implication is that we should expect better labor conditions to be more likely when suppliers actively foster close and redundant buyer relations, also in the market segment of sustainability standards. However, the empirical implication is that this limits the effectiveness of such standards to a small segment.

This chapter strikes a cautionary note for improving the labor conditions of agricultural producers in developing countries through sustainability standards. In these agricultural commodity chains, standards are rapidly gaining ground as a potential solution to governance deficits. However, this research suggests that standard implementation brings about better living and labor conditions only in the best of circumstances where standards help to match learning-oriented farmer groups with quality-conscious buyers, setting in motion iterative adaptations to client needs and market conditions. This dynamic favors those producers who respond to the opportunity of sustainability standards in entrepreneurial ways and betrays the aspiration of standards to improve livelihoods of all those who participate.
Knowing underlying conditions and mechanisms of successful standard initiatives gives clear indications on how to support certified farmer groups and producers. One could, for instance, facilitate direct ties to buyers, provide training and equipment to improve production processes, and strengthen enterprise as well as distributional procedures to ensure that standards benefits reach individual members. However, absent an expanding niche market, such measures could backfire by pushing more qualified entrants to vie for market access, likely ratcheting up buyers’ criteria for choosing between potential suppliers. Therefore, until now, sustainability standards are too weak an instrument for making major progress on labor conditions in global agriculture.

What are the alternatives? One solution might be new business models that give farmers a bigger share in the value created from their products and that discourage “exit” from buyers (Hirschman 1970) through communities of shared fate. The caveat is that this, again, is likely limited to market niches. Tackling sustainability in global agriculture will therefore require more encompassing approaches, for example through creatively joining forces between industry, governments, and producers, and importantly, through adding public regulation back into the mix. Next I turn to Brazil, where the government—based on powerful laws—might play this role of strengthening the effectiveness of private standards through public regulation.
Chapter 6: From Rules to Practices: Local Performances of a Sustainability Standard in Bahia, Brazil

Introduction

"PROHIBITED," announces a sign, in big red capital letters on yellow ground. "Hunting – fishing – catching birds," it continues, followed by "Environmental Federal Law." Rumbling along the dirt road to visit Fazenda Santa Margarita, this sign, propped up on two wooden poles, alerted me that I had arrived. And what an alert. None of the UTZ certified fazendas I had visited before in the South of Bahia, Brazil had similarly conspicuous announcements that, here, stringent environmental laws were to be taken seriously. Public inspectors may or may not arrive at this rural site in the Northeast of Brazil. But a private auditor of UTZ is going to show up annually and cross-interview workers, check records, and inspect fazenda installations. Lending support to the attention-grabbing sign, Gina, the administrator’s wife, recounts later that they had fired several old-time workers who had refused to release the birds from their cages, losing their job rather than their valued pets.

Two days later, I stand in the back corridor of one of the barracks along that same dirt road. Rosa, an elderly Afro-Brazilian woman with a white and red cloth wrapped around her head, had led me to the back, along soot-blackened and peeling walls, faintly reflecting the glaring sunlight that enters through the front door and some broken roof tiles. We had cast a long look over the back porch—what used to be an open-fire cooking area under a roof overhang, now strewn with scrap metal, plastic boxes, bowls and bags, wooden chairs, bunches of plantains, a handmade broom, and a non-functioning stove, topped with an iron bowl full of cheap pots and plastic containers. The barracks have no running water or bathrooms, in contrast to the newly constructed elementary school next door featuring modern sanitary installations. When I ask her how she transports water from a barely enclosed water hole from across the dirt road, she motions to two whitish herbicide plastic containers, with faded writing, propped up along the side wall. To take a bath, in that same water hole, she waits until after dark to have some privacy, she says, with a chuckle.

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49 Fazenda is the Brazilian word used in Bahia for cocoa plantations (ranging from typically 20 to 200 hectares). I use this term instead of plantation to keep it situated in the history of Bahia.

50 Names of specific sites and individuals have been altered to protect them.

51 UTZ (formerly UTZ Certified) is a sustainability standard common in the cocoa sector.
Since in that back area Rosa cannot prepare food, I insist, intrigued: where does she cook? Reluctantly she takes me back into the blackened corridor, waving casually through a doorframe into a narrow, equally darkened room where I can make out a gas cylinder, a stove, a fridge—and a bird cage in the back corner, with three little green parrots huddling. When Rosa realizes that I spotted the birds, she starts pleading with me, exasperated, “please, don’t tell anyone!” The neighbors let her know that the owner dislikes the keeping of birds so she hides them inside. The little parrots are tame, she continues, they’d be killed if she released them into the wild.

In keeping her feathered companions, she violates the environmental federal law referenced on the entrance sign and UTZ rules. Yet Rosa and her husband are also in need of other laws’ provisions. Earlier she had wondered aloud at what age she, in her mid-50s, might be legally entitled to retire. In the meantime, Edinilson, her husband, almost 60 years old and a newcomer to this fazenda, is currently on a “probationary period” of three months, without a contract and therefore illegal. This time will not count for his pension and social welfare benefits. Nonetheless, he and other workers praise the owner of this fazenda as a “10” (the Brazilian equivalent of an A+) because he always pays on time and the correct amount. And the housing? They shrug.

At sites, such as this one, aspirations of private and public regulation for the wellbeing of workers and the environment come crashing in with tangled local realities. With public law enforcement looming, a functioning apparatus of private audits, and adopters who may be well-intentioned and trying to comply, why do non-compliances persist? A literature on governance, increasingly cognizant of the complexities and tensions inherent in private governance, public regulation, and their interactions, mostly expects variation in how private standards are implemented (Bartley 2011b; Eberlein et al. 2014; Levi-Faur and Jordana 2005). However, scholars disagree on the causes. One major cause could be differences in public regulation and law enforcement, for which Brazil—a heavily regulated country (Pires 2008)—is a well-suited case. In cross-country data sets, indicators for strong rule of law and national institutions have been shown to correlate with higher compliance rates for private standards (Distelhorst et al. 2015; Locke, Qin, et al. 2007; Toffel 52)

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52 Another important cause is the structure of value chains and of buyer relations where benefits are expected from close ties to (foreign) buyers. This has been examined in depth in Chapter Five and is less relevant to this chapter because all certified fazendas interact with the same buyer, Cargill. Besides, directly selling to buyers abroad is uncommon among Bahian producers.
et al. 2015). In case studies, scholars have traced how public inspectors can complement the working of private standards (Amengual 2010; Coslovsky and Locke 2013; Locke et al. 2013). This line of work, however, tends to treat the state as relatively homogenous and subjects as passive recipients of governance. In contrast, another strand in the literature turns the lens on adopters as a second major cause of variation, looking to individual and organizational motivations and capabilities to comply (Hofmann, Theyel, and Wood 2012; Silbey 2013; Yan, van der Heijden, and van Rooij 2015). While these are important factors, they may not capture instances where people do not abide by the rules, although they are, in principle, prepared to comply.

The data for exploring how private standards play out on the ground, against a backdrop of possible law enforcement, come from six months of fieldwork in Bahia, Brazil. During this time I conducted participant-observation with UTZ certified fazendas and with Cargill and Mars—both actively involved with UTZ—as well as over 80 interviews with producers and other stakeholders. In my findings, I argue that existing literature has underestimated the difficulty of turning rules into practices. To make this argument, I proceed in three steps.

First, I demonstrate that, in Bahia, UTZ and passive public inspectors do not interact, although public regulators might act in the future, likely targeting large enterprises first.

Second, I illustrate that, despite an overall low threat from public law enforcement, producers still adopt UTZ because they hope to leverage it into better practices. Yet seemingly simple rules get implemented unevenly in local sites, ranging from incomplete attempts to compliant adaptations that find ingenious ways to make rules more effective. Behind such different enactments lies a mechanism of learning—similar to what I found in Ecuador—that is required to bridge a ‘rule-to-practice-gap’ since most rules require multiple steps to articulate them in action. When faced with obstacles in this process, many adopters find themselves stumped, and either muddle through or delay and cover up. Yet others adapt and continuously update their practices.

Third, I isolate the conditions that seem to explain the difference—(1) the integration with a high-performance management system, and (2) perceptions of external reinforcement. A high-performance work system refers to a set of human resource and management practices that seek to increase productivity and quality through employee involvement, skill development, and incentives and integrates such practices with the wider organizational strategy (Appelbaum et al. 2000). Perceptions of external reinforcement vary across sites...
because the subjects of regulation differ in how much they perceive themselves to be targets of latent law enforcement. Together these two conditions favor a process of discovery and learning at better prepared and managed sites. Thus, a private standard tends to reinforce prior paths, since by itself, it does not provide a "toolkit" (Swidler 1986) for adopters on how to change.

The chapter is structured in five parts: I first review how the literature understands the role of governance interactions and of adopters for standard implementation. Next, I provide background on private and public governance in the cocoa sector of Bahia. After describing the setting and methods, I present findings, first, on governance interactions, then on a mechanism of recursive knowledge appropriation—how adopters handle a gap between rules and practices—and lastly on the conditions for this mechanism. I end with a discussion and conclusion on the implications of this research where I argue that private standards should facilitate local learning and discovery processes and seek to build ecosystems of reinforcement that encourage adopters to upgrade their wider organizational and managerial system.

Current Understandings of Private Standard Implementation

Governance Interactions

Increasingly, states share their regulatory power with rapidly expanding private governance initiatives run by non-state actors across nations, which has provoked interest in how such intermingled regulatory systems work in practice (Amengual and Chirot 2016; Bartley 2014; Eberlein et al. 2014; Locke et al. 2013; Schneiberg and Bartley 2008; Vogel 2008). Scholars now examine how the state interacts with private governance and whether they, for instance, complement, rival or substitute each other (Locke et al. 2013; Trubek and Trubek 2007).

Private governance was initially understood as a response to a "governance deficit" (Mayer and Gereffi 2010:2) or a "regulatory void" (Locke 2013:15) from states unwilling or unable to function as a regulator in an increasingly global economy. This birth story of private governance as remedying state failure seemed to set it apart from and make it appear better than state regulation (Abbott and Snidal 2000). However, scholars have become more critical of "technocratic" or "transcendent" views of private governance and instead
propose to study the “layering” (Bartley 2011b) or “co-expansion” (Levi-Faur 2012) of public regulation with private standards. In short, the state has made a comeback in a (Piore and Schrank 2008:1) “regulatory renaissance,” and so has the question of interactions.

What has provoked this remarkable revival of the state? Evidence from both quantitative cross-country studies and qualitative case studies likely contributed. First, large-N studies, examining datasets from private audits across countries and over time, have consistently revealed that national institutions very significantly shape the outcomes of private governance (Toffel et al. 2015), to the point that “local institutional context remains the key predictor of compliance even after adjusting for factory-level features” (Distelhorst et al. 2015:1). Confirmation of this “country effect” has fruitfully redirected scholars’ attention to the state. However, two weaknesses remain. One issue is that, to operationalize such an effect, large-N studies have to rely on national indicators, such as freedom of press, rule of law, or the number of International Labour Organization (ILO) conventions a state has signed. Such studies are therefore unlikely to reveal variation within countries. Another limitation of this comparative work is that the precise mechanisms through which institutional factors influence or interact with private governance are unknown. Case studies partly fill this gap.

Second, in-depth research on specific cases has examined mechanisms, indicating that public and private regulators may reinforce, complement, substitute for or contradict each other. Private regulatory institutions can reinforce state regulation. A study of private standards in the textile sector of Indonesia has demonstrated that two conditions have to coincide—worker mobilization and state support for interpretations that require firms to engage with national institutions (Amengual and Chirot 2016). Complementarity can occur directly when public inspections and private standards target the same organization, for example in textile in the Dominican Republic (Amengual 2010) and sugar in Brazil (Coslovsky and Locke 2013), although it does not require coordination. For the Brazilian sugar industry, public prosecutors closed off the option of subcontracting, associated with worse labor conditions, and punished sugar plantations that failed to comply. In parallel, private auditors formed alliances with middle managers who wanted to promote investments in production and labor processes. In addition, complementarity can be more indirect through information-sharing, public benchmarking, legitimacy, or influence on rule-setting, illustrated for forestry (Gulbrandsen 2014). Substitution takes place when private governance initiatives intervene to improve on social and environmental outcomes.
where sanctions from public regulatory authorities would be unlikely, as was the case for manufacturing in Mexico (Locke et al. 2013). In this scenario, private governance makes up for weak law enforcement while drawing on national laws for legitimacy. Finally, contradiction is the result of national laws conflicting with the requirements of private governance, for instance for land rights in Indonesia or China (Bartley 2011b, 2014).

Less well understood is whether state regulation reaches all equally or, when seen through the eyes of the subjects, whether the state appears similar to them. Taking a literature on global buyers as an example, it has been found that first-level suppliers are much more likely to respond to demands from buyers than suppliers in lower tiers (Nadvi and Raj-Reichert 2015). Whether something similar happens with demands from states has, to my knowledge, not been examined in the governance interaction literature.

**Rules, Practices, and Work Systems**

Considering the central role of adopters for compliance and governance effectiveness, it is not surprising that private governance studies have turned their attention to the individuals and organizations that adopt private standards. Two streams of research are of note. One centers on the motivations and capabilities of adopters, with a tendency to demonstrate fraudulence or incompetence behind standard failures. Scholars have pointed out that standards may not have the desired effects because of opportunistic and symbolic implementation (Christmann and Taylor 2006; Getz and Shreck 2006; King and Lenox 2000) or because adopters are not well prepared technically (Haugh and Talwar 2010; Hofmann et al. 2012) or organizationally (Sandholtz 2012). Another stream expands the focus beyond the adopters to consider the interplay between adopters, standard rules, and standard enforcement. Researchers have argued that rules might be too specific to suit local contexts such that implementing them does not achieve the intended goals (Wijen 2014), or that failures may due to a lack of fit between standards and adopters (Simpson et al. 2012). Shortcomings in standard implementation can also arise due to lax, ceremonial or biased auditing (Boiral 2012; Dogui, Boiral, and Heras-Saizarbitoria 2014; O’Rourke 2003).

Less attention has been paid by governance scholars to adopters’ practices, which is surprising because governance scholars have called for and undertaken some research on how standards take place in practice (Bartley 2010; Schneiberg and Bartley 2008; Vogel 2008). Missing is also a labor lens, provided by industrial relations research, that can assess how attempts to improve labor and environmental conditions through private standards
fits with the work and managerial system in place (Locke, Kochan, et al. 2007; Tapia et al. 2015). Yet in the realm of private governance, this body of work and organization research has been largely ignored. A practice lens could be applied fruitfully to governance studies because it focuses on “how” practices develop (Parmigiani and Howard-Grenville 2011), through what organizational mechanisms they vary as they diffuse (Ansari et al. 2010), and how new ideas might take hold in practices through a process of habitualization where, to translate ideas into practices, adopters go through a process of micro-theorizing, encouraging “trying it”, and collective meaning-making (Reay et al. 2013). A labor lens helps to understand how improved practices fit with the wider work system and what the likely implications on organizational performance are.

In regulation studies more broadly, Silbey, Kellogg and others have forged a path to bring organization theory to bear on regulatory questions (Gray and Silbey 2014; Kellogg 2011; Silbey 2013). But a related question in private governance of how—in developing country agriculture, in a context of limited innovation—rules get translated to practices, what tools adopters have at their disposal to change the way things get done, and how private standard implementation relates to the organization’s labor regime has rarely been studied. Some exceptional studies have either highlighted processes of collective learning among small farmers (Perez-Aleman 2011) or the managerial innovations that ensued after standard adoption in a Brazilian cooperative of dozens of sugar mills (Coslovsky 2013). In contrast, this study focuses on how rules turn into practices in the context of autonomous and disconnected agricultural enterprises. Next I chronicle the economic rise and fall of such enterprises in the cocoa sector in Bahia.

**Governance and Cocoa in Bahia**

**History of Cocoa in Bahia**

Cocoa in Bahia has a long and turbulent history where the crop turned from an engine of wealth for a few to being at the center of a profound and ongoing crisis. The “cocoa region” is concentrated in the South of Bahia, in a “micro-region” around the provincial cities of Ilhéus and Itabuna. By current estimates, there are about 200,000 people directly involved with cultivating cocoa in Bahia, consisting of about 32,000 cocoa producers (Instituto
Arapyáu 2013) and a labor force of about 170,000 rural workers. In 2014, the region produced 160,000 MT—less than half of what it used to harvest in the 1980s, before the outbreak of a pest in 1989. This accounts for two thirds of Brazil's entire production of 218,000 MT (Hartmann 2015)—about 5% of global production (ICCO 2016).

The South of Bahia, home to the Atlantic Rainforest (Mata Atlântica), one of the most biodiverse habitats in the world, became widely known to offer ideal growing conditions for cocoa in the late 19th century. Production concentrated at large estates, partly built with coerced and slave labor prior to the 1880s (Walker 2009). From then on until the 1980s, cocoa used to define the region environmentally—by drastically reducing native forests yet preserving trees as shade in an agroforestry system called Cabruca (Alger and Caldas 1994; Cassano et al. 2009), and socio-economically—by creating a highly stratified society consisting of an upper class of wealthy fazenda owners, a middle class of smaller cocoa property owners, and a destitute class of laborers (Chiapetti 2009). Cocoa became the "fruit of gold" (Carvalho and Sousa 2014:11) that contributed up to 50% of Bahia's exports and more than 60% of Bahia's revenues (Willumsen and Dutt 1991). Wealth among large land owners was abundant because labor was cheap and exploited and because cocoa prices were high, especially at the height of production in the 1970s. While worker families labored under paternalistic regimes, land owners often sent their children away to be educated in large cities, widening a socio-economic gulf (Caldas and Perz 2013).

The turning point came in 1989 when Brazil joined the ranks of cocoa producing countries ravaged by a crop disease. A fungus, popularly known as 'witch's broom'—vassoura de bruxa—(Moniliophtera perniciosa), vigorously attacked cocoa fields with production plunging from 360,000 metric tons in 1987 to a low of 101,000 metric tons 12 years later (Hartmann 2015). Recovery measures for the cocoa crop, which were proposed and financed through loans by CEPLAC, a government agency for cocoa, were scientifically ill-founded and back-fired, adding to a debt problem. As of 2008, 15,000 credits were in

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53 Reliable figures on number of producers and workers, area cultivated, and distribution by farm size are not available since a federal agency responsible for cocoa (CEPLAC) has stopped gathering this data years ago for lack of resources and staff. The estimate for workers takes the cocoa area planted for the South of Bahia (487,000 ha) from 2007 IBGE data (Chiapetti 2009:94) and calculates the number of workers by assuming 3.5 workers per 10 hectares from an estimate used by CEPLAC (see http://uruaraemacao.blogspot.com/2015/10/cacau-fruto-de-ouro.html). This creates a plausible estimate, compared against 122,000 rural workers recorded in 1996, at the height of the crisis, for the "micro-region" of Ilhéus and Itabuna (Chiapetti 2009:91).

54 Witch's broom might have been deliberately introduced (Caldas and Perz 2013).
default with a total value of just under 1 billion Reais (USD 580 million)\(^55\) (CEPLAC/SUEBA 2009). About half of Bahia’s fazendas were considered (semi-)abandoned in 2002, where cocoa may get harvested but not actively cultivated (Andreoni and Duriavig 2013).

Witch’s broom precipitated major shifts in the economics of cocoa production and labor regimes. The economics altered because co-existing with witch’s broom requires more intensive pest management practices, increasing operational costs by a third (CEPLAC/SUEBA 2009). Labor regimes changed in quantity and quality. Employment of cocoa workers fell dramatically, with 60 to 80% of the salaried workforce dismissed between 1988 and 1992 (Alger and Caldas 1994), forcing their exodus, often to nearby cities, and adding to major and persistent issues with poverty and violence in urban zones.\(^56\) Census data shows that the rural population in the cocoa region declined by a third between 1990 and 2000; about 145,000 people left (Chiapetti 2009:93). Salaried employment was often transformed into sharecropping contracts, to reduce owners’ welfare contributions. Sharecropping (parceria) is risky for workers because of the lack of social protection, but can be—depending on the yield—economically favorable (Gomes et al. 2013) against the benchmark of a federally set minimum wage commonly paid to salaried workers.

In contrast to the larger turmoil, the structures of a typical fazenda as a hierarchical organization have remained largely in place. The owner, not usually present on site, takes major commercial and production decisions, whereas an on-site administrator oversees day-to-day operations and between 10 and up to 60 workers for a medium- to large-sized area of 60 or more hectares who also live and work on (but sometimes commute to) a fazenda. Worker housing was usually constructed many decades ago. Illiteracy is common among workers. Among administrators, too, there are several, coming from humble worker families themselves, who are unable to read or write. Typically located inland, fazendas tend to be reachable via stretches of dirt roads, while transport within a farm is mostly done with mules. Other farming infrastructure, if intact, comprises installations for fermentation and drying (with cochos, wooden boxes for fermenting cocoa, and barcaças, cemented drying

\(^{55}\) With currency exchange rate of March 31, 2008
\(^{56}\) A minority of workers were able to get a plot of land, mostly through joining social movements, such as the movement of landless workers (Movimento dos Trabalhadores Rurais Sem Terra MST) (DeVore 2015). Between 1995 and 2002, close to 1,000 families were settled on 26 fazendas in the sub-region of Ilhéus and Itabuna (Chiapetti 2009:95). In the larger South of Bahia, the total number of resettled families between the mid-1980s to the 2000s was 3,074 (Caldas and Perz 2013:154).
platforms that have sliding metal roofs to cover and uncover cocoa). In short, at most fazendas, processes have barely evolved in decades, with minimally remunerated labor performing similar production activities and with managerial patterns firmly established.

**Governance in Bahia**

Against the background of a sector in crisis, Cargill has been introducing UTZ\(^57\) certification, starting with 18 local cocoa producers since 2012.\(^58\) Thus, private governance has arrived late in Brazil’s cocoa sector, compared to other parts of Latin America where it started in the 1990s and 2000s. Producers can choose between two modalities. In the first one, Cargill pays for certification and audit fees and Cargill agronomists make monthly to bimonthly visits to support the implementation. In this scenario, a producer can sell cocoa as *certified* only to Cargill. In the second one, the owner pays for certification and audit fees, and Cargill does not provide accompaniment. In this case, the owner is free to sell cocoa as certified to buyers other than Cargill (for instance to Nestlé, which started its own UTZ program in the fall of 2015). In both cases, producers are free to sell their cocoa as non-certified to any buyer they wish. Cargill offers a premium of USD 150 per metric ton, amounting to about 5% over the market price, although it also requires slightly improved quality parameters from UTZ producers, offsetting the real cost of certified cocoa to Cargill. Audits are done yearly by a third-party consulting company, accompanied by staff from Cargill. Mars Brazil, a client of Cargill, also plays a role: Mars certified its local research farm and collaborates with Cargill, by co-organizing events and encouraging local producers to join UTZ. Mars also directly manages a project that provides extension services to producers.\(^59\)

UTZ, like private standards generally, cannot undercut public regulation, for which the two key pieces concern labor and the environment.\(^60\) Brazil stands out from other cocoa-

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\(^{57}\) UTZ was founded in 2002 and started to certify cocoa in 2009. The code of conduct contains 182 requirements (consolidated to 140 in a 2015 version) on administration and on agricultural, labor and environmental practices. In Bahia, besides UTZ, there is one fazenda certified to Rainforest Alliance and about a dozen that are certified to the Organic standard. Fairtrade is not present.

\(^{58}\) By April 2016, this initiative has expanded to 50 producers.

\(^{59}\) In this project, Mars manages experimental plots on the properties of 11 fazenda owners from Barro Preto, the municipality that surrounds the Mars research facility. On these 11 properties, Mars agricultural workers undertake all the practices, with the goal of demonstrating that significant productivity increases can be achieved. This project has as one of its key components the adjustment of shade in the forest canopy to increase sun exposure for a higher productivity of cocoa trees.

\(^{60}\) There are two more regulatory agencies that, however, play a less salient role for cocoa producers. One is the *Agência de Defesa Agropecuária da Bahia* (ADAB), which is responsible for agricultural hygiene and sanitation, meant to ensure plant and animal health on farms and to take precautions...
producing countries for its comprehensive and demanding legislation. To comply with labor laws, agricultural producers have to formally hire agricultural workers, pay the minimum wage of 724 Reais per month (about USD 250 in 2015), and pay their social welfare contributions accordingly or alternatively offer them a sharecropping contract (parceria) where proceeds from cocoa are split. Any other work arrangements, including temporary ones, are illegal. Furthermore, legal norm NR 31 details additional requirements for rural workers’ labor and safety conditions, specifying for example infrastructure provisions, such as access to bathrooms, as well as an obligation to use protective equipment when handling agrochemicals. These norms apply to the entire rural labor force, irrespective of the work regime. Institutionally, the Ministry of Labor and Employment (Ministério do Trabalho e Emprego, MTE), through its regional offices, is responsible for monitoring the adherence to labor norms. A key constraint is, however, that sharecroppers (parceiro or meeiro) do not appear on the employment records of MTE, rendering a large share of the current rural workforce in cocoa relatively invisible. Furthermore, the level of informality in agricultural work is 70% on average and up to 85% in the Northeast of Brazil (Pires 2008:208).

Environmental laws are stringent, too, requiring producers to set aside a certain percentage of forest area (up to 20% for large fazendas), to reserve protective zones around water fountains and streams and on steep hills, and to leave native trees untouched. Forestry regulation is particularly relevant because cocoa is often grown under forest trees. The relevant regulatory agency for state environmental affairs is INEMA, which has taken over the responsibility for state-level law enforcement from the federal environmental agency IBAMA following a decentralization reform in the late 2000s.

Additionally, under the umbrella of the Ministry of Agriculture (Ministério da Agricultura, Pecuária e Abastecimento), the cocoa sector has a dedicated agency for research, extension and training services—CEPLAC (Comissão Executiva do Plano da Lavoura Cacaueira). Founded in 1957 to address a financing crisis, CEPLAC’s role reflected the cyclicality of the sector since its financing initially came from a tax on cocoa production (now it is federally against pests and diseases but the agency does not intervene at the farm level. Another one is the Ministério Público, through which prosecutors act as public interest lawyers. They can take judicial actions against transgressors, both on labor and environmental matters, for example on slave-like conditions and child labor (Coslovsky 2014b). However, for the cocoa sector of Bahia, no such investigations have been published on a so-called “dirty list” that publicly shames offenders, see http://reporterbrasil.org.br/lista-suja/.
funded). With significantly reduced funding, the organization has not hired new staff in three decades (Zugaib 2013). While CEPLAC still has a voice in cocoa policy matters, its practical importance for providing extension services to producers is limited. In a way then, UTZ provides an alternative form of guidance, through its code of conduct, which could be much needed for cocoa producers who struggle economically but should comply with stringent public regulation.

**Methods and Setting**

The site for studying private standard implementation is Bahia, which is the size of continental France with a population of 14 million people. Located in the Northeast of Brazil, it ranks low on the Human Development Index within Brazil (22nd of 27 states). Two reasons make Brazil a fruitful setting—its regulatory regime and the certification of plantations. First, Brazil is exceptional among emerging economies for its strong labor and environmental regulation that has been, at least on occasion, aptly enforced across industries, including agriculture (Coslovsky 2014b; Coslovsky and Locke 2013; Pires 2008). At the same time, the country's regulatory strength differs between an industrialized South and a poor Northeast (McAllister 2008) and is known for bureaucratic weaknesses (Cunha and Rodrigo 2012). Therefore Brazil offers an opportunity to examine interactions between public regulation and private governance when the bar for compliance is high but law enforcement is uncertain. Second, Brazil differs from other cocoa-producing countries in that cocoa is commonly produced on plantations (fazendas), and less so by smallholders. Since standards originated with small producers, studies on plantations are still rare (for exceptions see Besky 2008; Brown 2013; Kim, Bansal, and Haugh 2015; Makita 2012; Raynolds 2014). Brazil thus allows us to expand our understanding of private standards on plantations, in the shadow of a potentially strong state.

The methods adopted for this research are, first, in-depth and repeat interviews with fazenda owners and other key actors, and second, participant-observation of interactions between Cargill, Mars, and participating UTZ-certified fazendas, as well as on three select fazendas.61 Overall, I spent six months on participant-observation, from October 2014

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61 Initial access was facilitated by the Chief Scientist of Mars who introduced me to the Director of the Bahian Mars research center (MCCS). Following a first field visit in June 2014, Cargill and Mars
through March 2015, and conducted 82 interviews in the cocoa sector in Bahia, Brazil, studying the case of UTZ certification introduced by Cargill in loose collaboration with Mars.

I chose qualitative methods because my main goal was to better understand "how" questions on mechanisms (Eisenhardt 1989; George and Bennett 2005; Gerring 2004; Piore 2006; Yin 2009), which are not yet well understood in the literature on private governance. Furthermore, I knew from an exploratory field visit that the owners of participating certified fazendas had been carefully chosen based on their reputation and eagerness to actively collaborate. Selection bias would have seriously hampered a quantitative approach.

The interviews with producers explored various potential mechanisms, such as through the government, buyers, peers, and UTZ certification. To start interviews, I encouraged producers to tell me how they approached a major challenge on their fazenda to get a sense of what the salient challenges are and how they were handled. I then asked producers about the history of the fazenda, their perception of government regulation and the role of the government more broadly, their relationship to buyers and any changes, their network with peers, the rationales for joining certification and their satisfaction or difficulties with that as well as their family background and professional training. To build trust and to probe deeply, I opted to interview all producers who directly work with Cargill and Mars twice—a group of almost 30 owners of mostly medium-and large-sized fazendas. In my second round of interviews with producers, I routinely asked whether they would allow access to their fazendas for several days and, with one exception, they all agreed to this. In addition to this group, I interviewed several non-certified producers, including producers of fine-flavor cocoa, agricultural entrepreneurs, and settler-farmers (assentados) who had received a small plot of land as part of an agrarian reform. Most producers, except two, allowed me to record interviews, which I conducted face-to-face and in Portuguese, without an interpreter. Furthermore I conducted interviews with managers of several local NGOs and government agencies, executives responsible for sustainability initiatives at Cargill, Nestlé, and Barry Callebaut, and with industry experts, and academics.

agreed to participate in the research project. Fieldwork started in October 2014 after the signing of non-disclosure agreements of MIT with Cargill and Mars respectively. I had full access to people, meetings, and materials, with the exception of UTZ audit reports. However, I learned about audit procedures and typical non-compliances through my participant-observation and interviews. Funding for the research was provided by a grant from the Brazilian development bank Banco do Nordeste do Brasil (BNB) through Professor Richard Locke.

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In my participant-observation with Cargill, I accompanied the two agronomists who are responsible for directly interacting with producers on matters related to certification. This included visits to fazendas scattered in the South of Bahia where we typically met with the local administrator or another staff member. Owners are not usually present at fazendas. The most active ones visit once or twice per week while others may come as little as once a year or less. Activities on site included going over paperwork for UTZ and remedying non-compliances. These included the hanging of signs, providing a box for complaints and suggestions, cleaning up or documenting the clean-up of trash or chemicals, gathering proof that labor issues had been corrected, including the payment of owed wages and the signing of contracts, and following up on water quality tests, as well as discussing matters of adolescents working on the farm. I also joined Cargill staff on visits to cooperatives as well as large agri-businesses, intended to interest them in adopting UTZ. With Mars, I assisted in several reunions with their staff, government agencies and producers participating in the Barro Preto project. Finally, I participated in a three-day long workshop, named the “Second Sustainability Workshop”, that gathered producers collaborating with Mars and Cargill, corporate staff from commercial operations and corporate affairs, UTZ staff, and other guests, for example from local universities and from the government agency CEPLAC specialized on cocoa. This workshop included talks, technology demonstrations, and a three-hour long tour of the Cargill cocoa processing facility in Ilhéus.

For my immersion on fazendas, I selected three sites where I spent 3.5 to 4 days each to observe certification in practice. I deliberately chose participant-observation over interviews with workers because I wanted to minimize any potential risks to them. The sites were chosen for their relative representativeness of different types of fazendas. A first one struggled to maintain certification at the time of research. A second one was chosen for having an active but indebted and therefore resource-constrained owner. A third one represented a better resource-endowed endeavor. While on site, I explained that I wanted to understand how different activities were conducted, careful to not prime concerns with certification beyond what people already knew to be the topic of my research. Upon arrival, I walked or drove around the fazenda with a local administrator to get to know the site. During mornings, I accompanied workers as an additional helper, during which I pruned new shoots of branches off trees with a machete, sprayed herbicide from a hand-powered pump that was supplied with a water-agrochemical mix from a 20-liter canister on my back, and threw fertilizer at trees, roughly measured with a margarine plastic box—a full box for
adult trees and half a box for seedlings and young trees. In addition, I observed the breaking of cocoa pods, the cutting of stems for new seedlings, specialized pruning for the formation of tree covers, and weeding.

When with workers, I sought to learn how they had gotten to the farm, about common practices on the farm, and about their reasons for being satisfied or dissatisfied with working conditions. In the afternoons, I visited with spouses and children to learn more about housing conditions, education, and health. I asked if I could see the houses, especially bathrooms, and I inquired what they resorted to if their house was not equipped with running water or a functioning bathroom. I also took note of any other visual clues relevant to standard implementation, especially with regards to protective clothing, installations for washing protective clothing, storage of agrochemicals, bird cages, or the use of herbicide containers for water transport. I stayed overnight, either sharing a family bedroom at the administrator's house, or sleeping in a vacant building, or a guest room in the fazenda's main building. In two cases, the owners advised me to bring my own food, some of it pre-cooked, because they didn't trust that, otherwise, the local supply would be sufficient or of good enough quality.

The dataset resulting from my fieldwork includes over 640 pages of descriptive fieldnotes, besides analytical memos and blog posts, 109 hours of recorded interviews, over 1,000 pictures and some videos taken during fieldwork. In addition, I gathered documents from press, academics, NGOs, corporations, government officials, and analysts. The analysis of the data began with a repeated reading of fieldnotes and interview transcripts, where I coded documents in Atlas.ti with a focus on producers' rationales for joining UTZ, public-private governance interactions, and the role of buyers, while tracking other potentially supporting factors for standard implementation (such as peer networks) and staying open to emergent themes. In a second round of analysis, I honed in on the participant-observation period on the three fazendas, examining the variance in how key requirements of the standards were implemented and what rationales were given to me for why certain practices were done a certain way. This suggested to me that practices should be the unit of analysis. Reviewing the data through a practice lens and iterating with existing literature on standard implementation helped me to make sense of interview data where owners had described their perceptions of implementing UTZ and how this differed from their expectations. This illustrated that, contrary to the literature, motivation or capability alone could not explain why producers varied in their implementation paths but that the adopters often seemed to
struggle in translating rules into practices. Thus, a practice lens emerged from the data inductively. In presenting my findings below, I first show how public and private governance interact, then provide evidence of a rule-to-practice gap and a mechanism of local practice adaptation, and lastly present the conditions for this mechanism.

(Trans)National Rules: Governance Interactions in Bahia

As the vignette at the beginning of this chapter illuminates, compliance with UTZ rules on Bahian cocoa fazendas can be uneven and incomplete, despite active accompaniment of producers by Cargill, an influential and reputation-conscious lead buyer, potentially strong public regulation, and owners who attempt to comply. One possible explanation that one could venture forth is that shortcomings are due to a recent start of implementation. There is some truth to that argument: Standard implementation is under way and evolving. Yet this does not explain why we see variation in how far along different fazendas are in the process. In presenting my findings, I first turn to what role governance interactions between the state and private governance might play for these divergences, before examining standard implementation processes in more detail.

Rural Law Enforcement is Limited

Public regulators are not active in enforcing laws in the cocoa sector of Bahia. When speaking with staff from the regional office of the Ministry of Labor (MTE) and two environmental agencies, a federal one (IBAMA) and a state agency (INEMA), all interviewees spoke candidly about their inability to enforce laws in rural areas and specifically in the cocoa sector. As a result, it seems as if enforcement, although potentially threatening, does not instill higher compliance. Below I will show, however, that this prediction has to be modified to take into account producers’ perceptions of enforcement. So far, labor inspection does not reach the cocoa sector, partly because of a lack of regulatory resources. The regional MTE office in Ilhéus counts with six inspectors who are responsible for covering all urban and rural economic activities in 41 municipalities. The head of the regional office informed me that he considers law enforcement in the cocoa sector to be out of their reach, partly as a matter of cost: going to rural areas requires them to send two inspectors, for safety reasons; and contrary to the city where inspectors use their own cars, they have to request an agency-owned car, including a driver, to be sent
from the state capital Salvador, which is a 6-hour drive away. Another reason not to enforce laws, he explains, is the difficulty of accessing workers:

They are remote, with bad access, with no addresses, often with closed gates, so you can’t really access the sites of work. – (Fieldnotes, March 23, 2015)

When probing that inspectors could still check on workers’ equipment and housing at the main site of fazendas, he conceded that but reiterated that it was too costly to go there. The main rationale he put forth for deciding on where to enforce laws is the number of workers they can reach and the ease with which they can find them. These two factors, he says, explain why inspections have been done in the coffee sector, also grown within their jurisdiction in the South of Bahia, but not in the cocoa sector:

Cocoa is not organized, not like coffee. So you look for industry and places where they have a lot of workers. And if you go into agriculture, you do so only if there is a lot of activity with a lot of workers and even in the few places in cocoa where we went in the past, it is to the large enterprises first. Because they have an address and you can find them. – (Fieldnotes, March 23, 2015)

For labor, the regulator’s self-assessment coincides with producers’ views that MTE inspectors prioritize inspections at large organizations—a point I will return to below—but that, in the cocoa sector, law enforcement is not yet active. At this office in Ilhéus, labor regulators were also unaware of the existence of UTZ.

On the environmental side, the state-level agency INEMA does not proactively enforce laws either because staff are overwhelmed with administrative work. One of INEMA’s major tasks and source of revenues is to provide licenses. However, for licensing alone, their backlog was such that they had more than a year’s worth of work, piling up in folders on desks and shelves (interview No. 31). Another agency—IBAMA, the federal environmental agency—used to be active and has built a reputation of policing fazendas to reduce illegal timber trade, particularly in the 1990s, confirmed by several interviewees (interview No. 38, 43, 44, 55). However, since a decentralization reform in 2011, IBAMA has no longer a mandate to enforce state-level laws and now only deals with the environmental impacts of large-scale projects that cross state borders, such as mining and port extensions. An IBAMA interviewee critically remarked upon a worsening track record since then:

[We] had a lot of actuations [to stop illegal timber], and it was reflected in “optimistic indices.” But now it has become loose again. - (Fieldnotes, March 16, 2015)
The only exception to this rule could be if there is a denunciation. However, as a local insider put it:

> Denunciations are very unlikely. If you take out trucks with wood, then likely yes, someone will denounce you. But for a tree here and there, no. - (Fieldnotes, February 3, 2015)

In conclusion, then, in Bahia's cocoa sector, strong laws on the books do not usually translate into enforcement activities and thus do not complement private governance activities. According to literature, we should therefore expect that adopters perceive no pressure to come into compliance. Next I turn to how private governance actors respond to this scenario of limited public activity.

**Private Governance Actors Reluctant to Engage Public Regulators**

With state regulators being absent, one might reason that private governance actors might encourage them to come into the picture. This could have two benefits for certifiers. First, an actual threat of law enforcement would make a stronger case for certification. Private governance actors could emphasize more credibly to producers that getting certified helps them to get up to speed on complex and demanding national rules. Second, a threat of enforcement could improve compliance with transnational rules between yearly audits. However, private governance actors are careful to maintain their distance to state regulators. They do not want to be seen by producers as attracting undesired attention from regulators, also because producers commonly accuse regulators to be corrupt or overly zealous and unreasonable in their demands. Worse, involving the state is seen as counterproductive by promotors of UTZ:

> I am not a government inspector and I’m not there for that. [The producers] have a certain fear of [us] passing along information for the [government] guy to knock there at the fazenda’s door. So, I don't see [government inspectors] as a partner. And if I went there to forge a partnership with the Ministry of Labor I'd be shooting myself in the foot. - (Interview No. 78)

Similarly, UTZ staff expressed that they do not seek out regulators, attributing this, again, to corruption and an overly punitive approach of public actors. To illustrate that they are able to engage with the state, UTZ staff pointed out more collaborative partnerships, for example to develop a governmental code of conduct for coffee producers with the state government in Minas Gerais. Yet, overall, a gulf persists between private and public governance, without attempts to bridge it from either side. Mostly then, UTZ substitutes for absent law
enforcement. The question that arises is: If there is no threat of active law enforcement, why would producers adopt this standard? The answer, as presented in the next section, is that producers hope to improve their practices by implementing a private standard. Furthermore, a small minority of highly visible fazendas for whom law enforcement is more imminent also consider it as helping them to prepare for future enforcement activities.

Local Performances and Transnational Rules

Producers Adopt UTZ to Improve Practices

Besides preventing future fines from regulators, one might speculate that producers are attracted to UTZ because of the premium. However, the gross premium is about 5% of the regular market price. After deducting compliance and transportation costs (producers have to deliver certified cocoa to one of two Cargill buying points in Bahia), the monetary incentive is still positive but limited. A premium might have attracted producers' attention initially, as some acknowledged (interviews No. 8, 28, 64), but it plays a minor role for keeping them committed to the program, also because, in this region, another buyer (Nestlé) often matches the price paid for UTZ cocoa:

I'm not here for the premium with UTZ. Because if it was for the premium I would work with Nestlé. I want that in the end my fazenda changes. – (Interview No. 3)

Instead, as expressed above, a major motive for producers to adopt certification is a desire to professionalize and to improve farm procedures. This is particularly important since many owners do not dedicate full attention to running their cocoa fazenda. They pursue other professional activities, live at a distance, or come to the fazenda for short visits only to go over pending issues together with the administrator. UTZ then becomes a consulting service, providing guidance on what changes to make, as this owner describes it:

The certification is a consulting for us so that we can make these changes more effectively... We, as owners, would not be able to make these changes. Because the people who work with certification know more about legislation, and they know better how to work with the workers.

62 The desire to improve operations was voiced more frequently than other motivations, including the desire to have a direct relationship with Cargill and the reputational benefit of UTZ.
That is our perspective. That the certifier can achieve this better than we could. – (Interview No. 2)

Not all producers need UTZ as a consulting service or educational tool. Sometimes UTZ serves as a commitment device to realize goals that had been gestating from before, as this producer cheekily admits:

We work in a family business. It is not only mine. I had a dream to control the trash in this fazenda. It was a thing that made me very uncomfortable. I wanted to control it in all the fazenda. So, to be very honest, certification was the big argument that I used (all start laughing) to convince everyone, including my brother, my father, to enter in this work. It was a thing that although we thought it was important, it just never became a priority because there are so many priorities. – (Interview No. 3)

In this example, UTZ forces adopters to give more attention to issues that might not rise to the top of to-do lists otherwise, and producers appreciate that. They refer to UTZ as a "script" (interview No. 1), "guideline" (No. 8) and a "checklist for you to see if you are within the good practices in the sector" (No. 20). They see UTZ as a way to raise awareness, to provide expertise on infrastructure, legislation or health and safety practices, and to provide a benchmark for them to know how well they are doing. The extent to which UTZ teaches through its code of conduct varies with the level of knowledge of producers. For some it is news that, for example, workers are supposed to use protective equipment, as apparent in this interview:

Even to teach a lot of things that we don't know. The guy has to go with a mask. He has to put on the security equipment. - (Interview No. 38)

For others, the educational effect of UTZ rules is more limited. They might know from before what should be done. Yet actual practices were lagging behind:

And the equipment of the workers: we gave it to them. But they used it sometimes. – (Interview No. 28)

This latter statement implies that with UTZ, good practices—in this case for workers’ protective equipment—should turn into routines. In other words, producers seem sufficiently motivated to comply with a private standard despite a weak threat of public law enforcement. But is that true across producers? Does UTZ succeed in helping producers to achieve their aspiration of improving their practices? Next I turn to variation observed in rule implementation.
Worker Protective Clothing: Local Performances of a Health and Safety Rule

The scenes observed during stays on fazendas suggest that sometimes practices improve, but often not. In examining practices, I take the use of protective clothing as a primary example, which I chose because it is crucial for workers' health and wellbeing. In this section, I present how three different fazendas tried to address the respective UTZ rule on this issue, with varying degrees of success. The relevant UTZ rule on protective clothing, called Equipamento de Proteção Individual (hereafter EPI) states:

All members of a group/workers who apply dangerous agrochemicals must put on appropriate protective clothing and equipment. - (UTZ Code Rule 9.D.1 Version 12/2009)

In observing instantiations of this rule on three fazendas, differences are apparent in whether the use is established as a routine, what kind of equipment and infrastructure exists, and what kind of processes are in place. The observations ranged from an aesthetic and exceptional performance at Fazenda A for the purpose of showing to an outside observer that things are done properly, to incomplete attempts at Fazenda B with evidence for actual use of EPIs but also for slippage and gaps in awareness and compliance, to an effective and routine performance at Fazenda C with a system of procedures that serves the goal of protecting workers as well as improving economic outcomes (see Table 14).

Table 14: Local performances of UTZ rule on protective equipment

<table>
<thead>
<tr>
<th></th>
<th>Fazenda A</th>
<th>Fazenda B</th>
<th>Fazenda C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocoa area (ha)</td>
<td>240</td>
<td>180</td>
<td>350</td>
</tr>
<tr>
<td>Owner background</td>
<td>Professional in non-agriculture activity</td>
<td>Agronomist</td>
<td>Professional in non-agriculture activity</td>
</tr>
<tr>
<td>Frequency owner visits</td>
<td>Sporadic</td>
<td>Weekly</td>
<td>Biweekly</td>
</tr>
<tr>
<td><strong>EPI use</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protective equipment</td>
<td>Existing</td>
<td>Existing</td>
<td>Existing</td>
</tr>
<tr>
<td>EPI in use</td>
<td>No (not used before)</td>
<td>Uneven</td>
<td>Yes</td>
</tr>
<tr>
<td>Official training in use of EPIs</td>
<td>Not from this fazenda</td>
<td>Yes, about 4 workers</td>
<td>Yes, workers and supervisor</td>
</tr>
<tr>
<td>Spraying equipment</td>
<td>20-liter canisters; manual pump</td>
<td>20-liter canisters; manual pump</td>
<td>5-liter canisters; battery-powered pump</td>
</tr>
<tr>
<td>Spraying processes</td>
<td>Spraying Fetching water</td>
<td>Spraying Fetching water</td>
<td>Spraying Protecting seedlings</td>
</tr>
<tr>
<td>Shower and washing infrastructure</td>
<td>Incomplete (no shower)</td>
<td>Existing but in need of repair</td>
<td>Existing</td>
</tr>
<tr>
<td>Responsibility for washing EPI</td>
<td>Workers</td>
<td>Workers</td>
<td>Dedicated person</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------</td>
<td>---------</td>
<td>------------------</td>
</tr>
<tr>
<td>Dogs accompany spraying workers</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Type of performance</td>
<td>Aesthetic, exceptional</td>
<td>Incomplete attempts</td>
<td>Effective, routine</td>
</tr>
<tr>
<td>Reasons given for (non)-compliance</td>
<td>1) Technician who was assigned to implement UTZ left</td>
<td>1) Only applying ant poison</td>
<td>1) UTZ helped to build awareness</td>
</tr>
<tr>
<td></td>
<td>2) Paperwork (incl. on EPIs) and investment as a burden</td>
<td>2) Difficulty to keep up with UTZ and legal requirements due to worker turnover</td>
<td>2) Legally required medical exams of workers as incentive to enforce UTZ rule</td>
</tr>
</tbody>
</table>

_Fazenda A’s_ aesthetic performance of using EPIs was easily recognizable as such. The protective clothes, acquired nine months earlier according to the administrator, were sparkling white, with folding creases intact. Two hours later, in the cocoa fields, these same clothes were splashed with mud and chemicals. Workers commented on how “_ah, today will be different_” and exclaimed “_oh, it’s so hot, what heat!_” when going to work with EPIs. In the afternoon, when asking a worker why he thought they didn’t use the equipment more routinely, he shrugged. He didn’t know, he said, but he didn’t think it was because of cost because the equipment is not very expensive (fieldnotes, March 5, 2015). The administrator himself, in his assessment of UTZ later that day, expressed his dissatisfaction particularly with the demands for additional work (including paperwork on the use of EPIs) and cost (for the renovation of bathrooms). One constraint is the administrator’s functional illiteracy, meaning that he barely knows how to write.

In the field, the goal for each worker was to empty 10 canisters of a 20 liter tank—a common target—with a manual pump to spray the agrochemical mix on weeds. For a four-person spraying gang, the _tropeiro_, the person responsible for driving the mules, therefore had to bring in 800 liters—eight hikes from the cocoa forest to a river with 100 liter tanks tied to a mule each time. Habitually, as is common on farms in the region, dogs accompanied the workers and ran through herbicide-sprayed areas. Later they would return with the workers to their houses and families.

Spraying herbicides on weeds is common across _fazendas_ because it is faster than weeding manually and thus saves on labor costs. Yet this practice can undermine these savings by killing cocoa seedlings—young small plants that get easily sprayed on. I learned this by error: in spraying alongside the workers, I moved along as best as I could. When stumbling through the weeds and maneuvering the manual pump to distribute the agrochemical
spray, I overlooked an equally high cocoa seedling tree and accidentally sprayed herbicide on it. Embarrassed, I stopped another worker to ask him what I should do to remedy that situation. He came over, ripped all leaves off the seedling tree, and tried to reassure me that the seedling would survive. Would an experienced worker commit such a mishap? Producers’ experiences suggest so: the failure rate of seedling trees can be high for a number of reasons, including herbicides.

Fazenda B’s performance seemed, at first sight, more dependable. Clearly used EPIs, with ripped pants, hung on a drying line in a wooden barn. A newly constructed shed includes a shower for workers to wash off agrochemicals and houses an air-vented space to store agrochemicals and spraying equipment safely. But these first impressions were pierced quickly. On the first afternoon of my visit, a long-time worker (not reported by others to have participated in trainings on agrochemicals) wandered off into the farming area in his T-Shirt and shorts with a spraying pump on his back. When I later asked the administrator, he, unfazed, stated, “he applied ant poison”—which, agronomists confirmed, is as dangerous as other agrochemicals (fieldnotes, March 17, 2015). Also, the shower head in the bathroom dedicated to washing off agrochemicals was broken, unbeknownst to the administrator. On the positive side, several workers had participated in a government-run training on application of herbicides and on use of EPIs 11 months before my visit, and a dedicated team of two regular sprayers had participated in it. Fazenda B staff were also aware of a legal requirement that workers have to undergo a medical exam at the entrance and exit. As requirements go up, fazenda staff has become aware of the issue of turnover:

One of the big bottlenecks is that people change and that there is constant turnover on the farm. So [we] train someone and two months later they leave. - (Fieldnotes, March 19, 2015)

In their assessment then, uneven adherence to the rule of using protective equipment at Fazenda B could be due to workers’ turnover. However, meeting notes from monthly reunions with workers at this fazenda tell a different story on gaps in local oversight: they contain three separate entries on the need to purchase EPIs and to discuss their use.

Fazenda C stood apart in using EPIs in several ways, of which I highlight the most important ones. Workers who I observed were wearing most of the equipment (although some pieces were still missing). Furthermore, there, the herbicide worker gang had distributed roles and used different spraying equipment: One person in a three-person group covered seedlings with plastic bags to protect them from spraying while the other two operated more
sophisticated pumps on their bags that function with 5 instead of 20 liters and that do not require manual pumping. These produce a very fine spray that is more evenly applied on the ground.63 Thus the application of agrochemicals is less harmful to the environment, is easier for the worker, and requires significantly less water that needs to be transported from sources, like rivers, again reducing labor effort. Local supervisors have taken on the responsibility of reminding workers, should they slip on handling agrochemicals adequately, aware of legally required yearly medical exams for workers.

These three local performances of one UTZ rule indicate that fazendas differ in how they apply rules, with significant implications for workers’ health and ease, productivity, and the environment. They are representative of variation in this practice at other sites. Some interviewees related different ways to encourage safe labor practices, for example by sharing the UTZ premium with workers and tying that to EPI use (interview No. 66). However, more producers spoke of difficulties with this rule, often blaming workers for not understanding or resisting this requirement.

The three performances also illustrate that rules do not contain a “program” or “script” for how to put them into practice. For all but the simplest rules, several steps are required to make it happen on the ground. For the case of EPI use, these steps include sending workers and/or supervisors to official trainings (offered by SENAR, a government training agency), forming awareness on the dangers of agrochemicals, creating new routines, tasks and responsibilities for applying agrochemicals and washing EPIs, acquiring and maintaining materials, developing and repairing infrastructure, devising internal supervision mechanisms, and documenting the provision of EPIs to workers and their use.

The example of EPIs is typical for exhibiting variation in how rules are performed across sites. Other rules, likewise, manifest in uneven practices. Table 15 summarizes observations on effective and ineffective examples from different fazendas. It is important to note that a fazenda can be compliant with a given rule (C for compliance and NC for non-compliance are marked below) but put it into practice in a way that it does not have the desired effect of

63 The cost of these spraying pumps (called microplex or geno) is 550 Reais compared to 250 Reais for traditional 20-liter manual pumps (called costa). While this is considerably more expensive, it is a relatively limited expense (about two thirds of one month of minimum wage), especially when compared to the cost of agrochemical inputs, estimated at 1,000 Reais per hectare per year, which—applied to the fazendas mentioned here—amounts to 180,000 to 350,000 Reais.
improving economic, social or environmental performance. They can also go beyond compliance (BC) in practices that comply with rules and have additional benefits.

Table 15: Select examples of UTZ rules in practice

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Labor requirements</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worker involvement</td>
<td>2.C.2: Determine a person to whom workers can direct questions, ideas, and reclamations</td>
<td>Make available a box for written questions, ideas and reclamations, while illiteracy is common among workers (C)</td>
<td>Have regular meetings with workers (BC)</td>
</tr>
<tr>
<td>Containers of agrochemicals</td>
<td>7.F.1: Not re-use empty containers of agrochemicals</td>
<td>Containers are not pierced and can still be repurposed to transport water (NC)</td>
<td>Agrochemicals are acquired as powder, not as liquid in containers, eliminating possibility to re-use containers and the need to return them (BC)</td>
</tr>
<tr>
<td>Training</td>
<td>9.B.1: Workers receive training in health and safety practices, especially in handling dangerous substances</td>
<td>Supervisor sends workers based on who is not required for farm work that day (C)</td>
<td>Supervisor attends training alongside workers; additional meeting for larger group of workers is held (BC)</td>
</tr>
<tr>
<td>Housing</td>
<td>9.G.1: Provide clean and safe rooms for workers who live on site. Special attention to sanitary hygiene and safe drinking water</td>
<td>Worker digs a cesspool for sewage, within 150 meters from a water fountain supplying six families (other workers use the forest instead) (NC)</td>
<td>Equip houses with septic tanks and check on their functioning regularly (BC)</td>
</tr>
<tr>
<td><strong>Agricultural requirements</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genetic material cocoa variety (key for yields)</td>
<td>3.A.1: The responsible person chooses the variety of cocoa that is most appropriate to the local conditions</td>
<td>Plant and observe a tree of one variety next to main building as basis for further decisions (C)</td>
<td>Plant and identify trees of different varieties with a number in different lots and closely monitor them for their yield (BC)</td>
</tr>
<tr>
<td>Fertilization</td>
<td>4.A.4: Utilize techniques that maintain and improve the structure and fertility of the soil</td>
<td>Throw fertilizer at and around tree trunks (C)</td>
<td>Throw fertilizer into the space between tree trunks where roots can absorb fertilizer (BC)</td>
</tr>
<tr>
<td>Pruning</td>
<td>4.B.1 An optimal tree structure is obtained by regular pruning</td>
<td>Prune young shoots, more or less, with a machete (C)</td>
<td>Workers know how to prune (with scissor) to prevent tree from forming new shoots around the pruned one (BC)</td>
</tr>
<tr>
<td>Herbicides</td>
<td>7.A.10 Herbicides are applied selectively; manual weeding is recommended</td>
<td>Apply herbicides (C)</td>
<td>Reduce herbicide use, after noticing that herbicides damage flowers on cocoa trees and lower yields (BC)</td>
</tr>
</tbody>
</table>
This section has established that having motivated and capable adopters is insufficient. Although these owners of Bahian cocoa agribusinesses adopt UTZ with the intention of professionalizing their operations and belong to a highly educated elite, many of them still struggle to implement the standard as foreseen. Next I turn to what lies underneath this variation and what conditions seem to shape the translation of rules to practices.

**The Process of Turning Rules into Practices**

Why do these fazendas manifest UTZ rules differently? The answer, in short, seems to be because learning and implementation processes are enacted differently across these sites. Some simply replicate existing practices; others invent new variations. A metaphor is given by a fazenda owner who likened UTZ to a ready-made piece of clothing that is adjusted. Although UTZ "forces people to do certain practices," he says:

> You adjust—the piece [of clothing] is the same but you adjust it to your body. - (Interview No. 1)

But how people learn and adjust—that is the crux of the matter. Owners may start out with similar aspirations of improving practices, expecting win-wins between better labor practices and economic payoffs, through higher productivity or savings. Returning to fazendas A and C, a comparison of what the owners say about their goals (in Table 16) shows that both are fundamentally interested in improved economic outcomes, through certification and other investments—mirroring an expectation among UTZ-certified producers that adopting this standard will upgrade their agribusiness, as outlined above.

**Table 16: Owners’ search for better economic outcomes**

<table>
<thead>
<tr>
<th>Owner Fazenda A</th>
<th>Owner Fazenda C</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Cargill] entered in contact with me if [UTZ] interests me. I told him I only need a little push. I have all the interest... I was hoping that I can improve the physical conditions of the fazenda, improve the situation of the worker. Not because I am good but because if he is more educated, he will produce more, he will understand more. Logically that for him it will be good. For me it will also be good. - (Interview No. 21)</td>
<td>Anything that shows us that we can economize on our labor cost, we will look for it... [gives example of five-fold increase in efficiency with electric pruning scissors] If I give you the budget from here, it is simple... I have 1.5 million in revenues, and I have 1.2 million in expenditures. Of these 1.2 million, 800,000 are for labor... [The cost for] labor force is heavy. - (Interview No. 67)</td>
</tr>
</tbody>
</table>
Yet they pursue these goals with different strategies. Specifically, they differ in how widely they enroll others in trying out new practices, as required by the UTZ standard, in how vigorously they reinforce this experimentation process, and how closely they integrate their experimentation, observation, and sense-making processes. In short, the practices constituting their learning process differ.

**Enrolling for behavioral change across hierarchies**

*Fazendas* are hierarchical organizations where, at many sites, top-down management reigns, without involving employees. Yet few private rules can be implemented by owners alone and instead require ongoing collaboration from administrators and workers. To implement rules therefore requires that owners enroll employees in behavioral changes, as this owner recognizes:

> For certification to really have an effect, the big improvement from certification would be in a change of behaviors, which means that you don’t prepare the fazenda for the auditor’s visit. And yes, that you do all these processes as part of the day to day operations. But for that you have to change all the behaviors, of the entrepreneur and even of the workers... It is continuous work because behavior is the most difficult thing to change. Because you are talking of a culture, of ways that are deep-rooted, that have been done for a long time. - (Interview No. 81)

Attempting to engage all in changing day-to-day operations also provides an opportunity to inquire with workers on how to accomplish certain practices efficiently. For example, at *Fazenda C*—one of the more advanced ones in implementing UTZ—supervisors explained how they wanted to convince workers to use measuring cups when applying fertilizers (the use of fertilizer is regulated in the UTZ code, although not the way of applying it). But supervisors gave up on the idea when workers replied that this step would slow them down and that handfuls of the grainy fertilizer would approximate the same amount.

However, many owners barely interact with employees beyond their administrator and outsource the responsibility for implementing private rules to a single person, typically the administrator or another aide. For instance, owner of *Fazenda A*—with the least satisfying compliance record among the three *fazendas* described above—hired a young technician to whom he delegated the implementation of UTZ. When this person left after a few months, the process of implementing UTZ stopped abruptly.

> [I am] still [motivated], but today a little less. I stay with one foot behind because I don’t have the management model. Without a technician I
cannot do it. My administrator is very bad in this respect. – (Interview No. 21)

Tellingly, employees at several fazendas referred to UTZ as the "Cargill initiative" and greeted the Cargill agronomist as the person who would take care of relevant tasks to be done during his monthly or bi-monthly 1-2 hour visit. A predictable result of lacking enrollment across hierarchies is that employees re-enact existing practices.

**Reinforcing new practices**

Given the crucial role of experience and experimentation for learning (as reviewed in Chapter Two), new practices need to be continuously reinforced, reminding all to try them out. Owner of *Fazenda C* describes such an ongoing and concerted effort:

[Implementing certification norms depends] on me. On my leaders... [gives example of EPI washing and agrochemical storage]... For that to be followed, it depends on us, the administration, are we supervising? There is no other way. You have to be on top, right? Be on top in the field: are they applying the herbicide? Are they using the equipment? Are they operating the electric scissor? Are they using the [protective] glove, to not have an accident? So I do a “field day,” once a month. I gather all the machine operators, including to ask them that they look after the equipment, to check the equipment, right? Are they using it properly? We improved a lot in this, we improved a lot. – (Interview No. 67)

A part of this ongoing reinforcement is to educate employees, with the goal of developing a more intrinsic motivation to follow rules, as the same owner explains:

For you to maintain your storage place orderly, in the form how the certification asks you to, in the form in which it is correct – that the people learn, it has to be this way... It is as if you had to take people to the classroom, again, to make them understand. That this should not only be this way because I am asking you for it to be this way. - (Interview No. 67)

Yet at many sites this kind of reinforcement suffers from two shortcomings. First, based on examples given in interviews, owners at many sites seem to dedicate most energy to a relatively simple and easily observable requirement—to pick up the trash. Second, breakdowns in this process of encouragement and experience-based learning occur when not all prerequisites for following a given rule are in place. The example of *Fazenda B*, where meeting minutes suggested that protective clothing was missing, likely signaled to employees that safe handling of agrochemicals was not a high priority.
Integrating experimentation, observation, and sense-making practices

Ensuring experimentation does not guarantee that correct inferences are made. To draw the right conclusions from what new practices are effective for the organization, a link needs to be established between conducting particular variants of practices, observing the outcomes, and making sense of the link between practice and outcome. *Fazenda C* had established this kind of loop for taking away lessons on what works by documenting practices, tracking yields and costs for plots within the *Fazenda*, and by regularly convening employees to exchange observations. This carefully monitored learning process constitutes, however, an exception for management practices in the south of Bahia where, as a staff member of a large agribusiness quipped, most enterprise calculations are done on the back of a paper napkin.

What factors shape why, on certain *fazendas*, owners, administrators and workers embark on a successful learning path or why they keep enacting ineffective or outright harmful practices? Two conditions emerge as contributing to these different paths: the integration with a high-performance work system and perceptions of external reinforcement.

Conditions for Effective Standard Implementation

Integration with High-Performance Work System

For identifying this condition, I draw on a comparison of *Fazenda C*, introduced above, and *Fazenda D*. Both are large agribusinesses that are owned by new investors—non-traditional owners who pursue the project of turning their agricultural enterprises into profitable companies. Both count with professional support from agronomists and external consultants but they differ in their human resource practices and their managerial system.

At *Fazenda C*, workers are incentivized to be more productive through the opportunity of earning a bonus for accomplishing more than the targeted goal. Workers have internal job opportunities for more demanding positions. Such opportunities arise in the form of supervisor and machine operator positions. At this *fazenda*, workers can be and have been promoted to supervisors from within. In addition, the owner’s quest to reduce labor costs has led them to experiment with mechanized tools. Yet only workers who have proven themselves as conscientious are promoted to handling such tools. Besides monetary incentives and job opportunities, the owner considers decent housing conditions and a
friendly and consensus-oriented working environment as a way to increase employees’
motivation. In sum, at Fazenda C, they have created a bundle of skill-, opportunity-, and
motivation-enhancing human resource practices that fit well into the larger strategy of
increasing productivity significantly for attractive returns on investment.

At Fazenda D, the ambition of increasing productivity is the same. However, there,
managers struggle to elicit engagement and effort from workers despite a payment above
the required minimum wage, as one of the professionals explains:

    Today we suffer a disadvantage because we are working in this way; that
    we pay a differential [above the minimum wage that is unrelated to
    performance] but our productivity is low because the worker doesn't
    take that as an incentive to work more. - (Interview No. 8)

Given unusually high benefits, for the regional context, worker turnover at this Fazenda D is
low, at less than 10% of workers per year for a physically demanding activity. But in trying
to understand what motivates workers, the management chose not to directly engage with
workers but instead opted for a top-down approach of hiring a consultant to interview them
and investigate their motivations that way:

    Now we have a consultant coming to research the motivations of our
    workers. He may find out that a worker who is working in some area
    might like to work in another area... maybe some workers would like to
    go to school at night. Beginning with this consultant, we will know. -
    (Interview No. 8)

The result of this employee survey revealed that almost two thirds of the workers were
asking for the opportunity to either exercise another professional activity on the side or to
return to school, suggesting that workers perceived limited opportunities to progress
within the Fazenda.

A lack of advanced human resource practices is not the only issue that afflicts the
managerial system at this place. Lacking complementary managerial systems to accompany
the implementation of UTZ, preparing for the second audit necessitated ad-hoc
improvisations to fill in gaps, as a staff member remembers:

    In the first audit, [we] didn't work with fertilizer or with agrochemicals...
    So, we didn't have the register of forms. We didn't have a number of
    things. We didn't have the procedures. So we started running – do this, do
    that. We did what was possible in the time we had. At the time of the
    audit, I already knew that we were not done. - (Interview No. 8)
To summarize, the two fazendas, although comparable in size and strategic orientation, possess different labor and management regimes where Fazenda C’s efforts to implement a private standard can draw on complementary human resource practices while Fazenda D’s endeavor to introduce UTZ has been conducted in a more top-down and ad-hoc fashion so far, with little evidence for ongoing learning and experimentation processes around how to embed standard requirements into the organization’s ongoing operations and routines. Besides this internal condition, a second one concerns external pressures and incentives to change practices.

**Perceptions of External Reinforcement**

External reinforcement for adapting fazenda-level practices comes from three sources in Bahia: (1) importantly from the state, (2) from private governance, and (3) from prevalent local norms and conventions.

Reinforcement from the state may sound paradoxical due to the self-confessed passivity of labor and environmental regulators. Nevertheless, the state still looms in the background by threatening future actions. But this threat is not perceived equally among producers. Three groups emerge—a first one of large and visible producers, a second one of large and medium but less exposed producers, and a third one of small producers. Only the first group perceives a “shadow of the state” and expects law enforcement to arrive within a few years. Producers in this first category stand out by their size, reputation, and economic strength. This applies in particular to fazendas that are owned and run by companies rather than individual producers. They see themselves to be targeted first, as this manager explains:

> For a while the sense was that everyone was broke and so why would the Ministério Público even bother? The Ministério Público agenda is to make you comply with the law. There is no way, if you are totally broke. There is no point in suing you or fining you. I think that is changing. It might be changing because there is some examples, like us. So we are visible. And we are targets. Let’s see first if these guys who can afford it are actually complying with the law. - (Interview No. 7)

This sentiment of expecting law enforcement in the future, in the next three to ten years, is echoed by others with a similar profile of heading large-scale and well-known cocoa fazendas. With cocoa areas of 300 hectares or above, they are in the upper echelons of cocoa producers. Although producers in this group do not expect inspectors to show up immediately because of the ongoing economic crisis in the sector, they still want to be prepared, as this owner explains:
Owner: You have to be able to survive an audit from the Ministry of Labor the day that they arrive.

MT: And they have not arrived yet?

Owner: No, the Ministry of Labor does not act much in this region. And it is quite rigorous as well... This will arrive... Why have they not arrived yet? Because they know that the region is still in crisis... Therefore they prefer to act in regions where the producer is better able to make the necessary investments. - (Interview No. 3)

For these top producers, UTZ is an efficient way to come into compliance by creating awareness on legal norms. Consider a law on the health and safety of rural workers, *Norma NR 31*, which the Brazilian government has put in place as of 2005, providing precise instructions on over 50 small-print pages, for example on worker medical exams, protective clothing, housing, sanitation, and farm infrastructure. Even top producers may learn about the specifics only through UTZ. Below the owner of *Fazenda C* mentions an example where he learned about legally required medical exams (section 31.5.1.3 of NR 31) through UTZ:

Owner: For example, with herbicides - the person applied it there, with the minimum protection. I’m not even sure that’s required by legislation?

Cargill staff: By law, every worker that applies herbicides has to do a yearly exam to make sure he’s not exposed to contamination...

Owner: But it was through certification that we became conscious of this. - (Interview No. 28)

However, once the state has been rendered visible, it can become a resource for changing specific practices. Then *fazenda* staff can make the enforcement of certain practices more legitimate, as evidenced from the following exchange with an administrator from *Fazenda C*:

I ask who is enforcing that they use the equipment, the EPI. And Rodrigo says it's him or them, the supervisors. Don’t you feel like letting it go, I ask? Yes, sometimes it does, but then on the other hand you have this risk that, if there is some issue with the worker in the yearly exam, then it's very bad for the *fazenda*. So you have to. - (Fieldnotes, March 10, 2015)

As evident from this comment, the state can spur some action for specific practices, despite a lack of active enforcement, especially when intertwined with private governance.

A second group of owners, of medium- and large size *fazendas* (with cocoa areas up to about 250 hectares), also perceives this link between the likelihood of inspections and the sector’s performance, as this owner laid it out with a more cynical tone:

In Brazil, they create difficulties to sell facilities. If they cannot get anything from it, then let’s leave it alone. If they come they will have to
close fazendas and it will be a social chaos. But be sure that the day that things are going well an inspector will knock on your door and check if things are done right. That is the cruel reality. – (Interview No. 20)

But producers in this second group do not consider themselves on the frontlines of enforcement, although similar to the first group in being, by and large, economically stable. Just how limited the circle of producers is who anticipate law enforcement becomes clear when looking at those among the medium- and large-sized producers who stand out because they received awards and thus have been in the limelight. One of them, his fazenda within one hour of driving from the regional office of the Ministry of Labor, replied the following to my question of whether he ever had any inspections from them:

No, I never have. For them to go there, it’s very difficult. (Wife: They don’t have a car). Look, even the road. Go there now, to see how it is. It won’t be easy to pass... And look that this fazenda is relatively close to the city. Just imagine the fazendas that are further inside. – (Interview No. 51)

In other words, the mere fact of owning a medium- or large-sized fazenda—the case of Fazenda A and B above—does not imply that a producer deems it likely to be inspected. Yet the argument of future law enforcement is often brought forward to convince owners of the value of UTZ—a notion that few truly believe and that this owner rejects assertively:

And however much they say that one day the law will arrive. I will tell you one thing, here in Bahia, and I as a Bahian – they will never go there to inspect anything. I have been here for 12, 13 years. I was never inspected for labor. – (Interview No. 23)

Hence, only a subset among large producers identify themselves to be likely targets of future inspections. In contrast, a third group—those with small properties—see themselves to be flying under the radar. Tellingly, when a Cargill agronomist visited a cooperative of small producers to explore the option of UTZ with them, he advocated that it would prepare producers for law enforcement. The reply from the cooperative leader was swift and clear:

But the small producer does not worry [about law enforcement]. – (Fieldnotes, October 16, 2014)

Other interviews with small producers confirmed their view that law enforcement would not reach them any time soon.

In sum, external reinforcement from the state is not an objective factor out there but is mediated through producers’ perceptions. At a time when actual enforcement is inactive, producers gauge how soon public inspectors might arrive, based on their fazenda’s
characteristics and location as well as on a producer’s reading of the political and economic context. Those who perceive themselves as more exposed have an incentive to put more zeal into preparing themselves for future enforcement.

Reinforcement can also come from private governance, UTZ in this case, more independently. In some cases, it is invoked to create a chain of accountability, from UTZ and Cargill to the owner and then to administrators and workers. One owner describes how he makes the point to staff:

Many times we have brought [the workers] to the meeting room to show them what we have to abide by: this and that, I don’t want to happen because I have a contract here that does not allow me to act that way. So I have to respect this, and I agreed that with Cargill, through the certification, you understand? And I run the risk of losing [this contract]. We do that a lot. And [my supervisor] does it a lot, with my consent. – (Interview No. 67)

In this case, the owner and his staff draw on UTZ to legitimize changes. However, UTZ does not automatically reinforce new behaviors through its audit procedure or the complementary visits from Cargill. Again, reinforcement is filtered through fazenda-level processes that determine what is actively asked for. In many instances, trash is an issue that is most front and center, evident in meeting minutes, in owners’ accounts, and in trash cans as visible artifacts. Therefore, when workers and families in particular hear UTZ, they tend to associate it with better trash management, as the wife of an administrator put it:

UTZ? I don’t even know what it is. But that matter of trash improved a lot. Now the kids have been told that they cannot throw the trash around. – (Fieldnotes, March 18, 2015)

Finally, local norms are another source of reinforcement, for better or worse, shaping behavior on fazendas. Given the low bar for what is deemed acceptable behavior in the agricultural sector of Bahia, these norms may lend support for bad practices—and not limited to the cocoa sector. For example, in the vicinity of a large multinational-owned rubber plantation, local agricultural professionals referred to health problems of workers there, commonly associated with the handling of agrochemicals (fieldnotes, January 30, 2015). Revealingly, the workers on Fazenda A and B—which do not stand out for consistent compliance with UTZ or for decent sanitary conditions—consistently expressed their satisfaction because they were paid the minimum wage, on time, because there was “no abuse” and because the workload was lighter than what they had experienced at other
fazendas. Still, in one of these places, I witnessed the contentious firing of one worker over allegedly failing to fulfil his duty, with the worker yelling, upset, "the times of slavery are over, long over!" (fieldnotes, March 5, 2015). Also, at the three sites of observation, it was clear, from speaking with workers and some owners, that informal (thus illegal) hiring without contracts is part of the acceptable repertoire—so pervasive in the region that violations of the law are openly talked about or are tacitly accepted as what needs to be done, mostly to reduce cost and paperwork for owners and sometimes to accommodate workers who want to claim unemployment insurance while working.

To conclude, how UTZ rules are translated to and lived in daily behaviors is influenced by how the people involved in running fazendas perceive to what extent their environment reinforces such behaviors. Pressures from the state and from UTZ tend to encourage better practices, although owners’ perceptions of urgency mediate these sources of external reinforcement. Local conventions tend to work in the opposite direction and make unlawful or objectionable practices seem normal. The lessons from these observations are twofold. On the one hand, adopters’ compliance is closely related to, shaped by, and filtered through the context in which they move. On the other hand, this context is not deterministic because internal dynamics of fazendas are at least as, if not more important.

**Alternative Explanations**

Two alternative explanations could be disparities in resource endowments and in external advice. First, resource endowments likely play some role for the quality of housing where, at better endowed fazendas, progress in fixing infrastructure can be made more quickly. But again, this does not suffice as the major factor since well-endowed fazendas deviate from each other. For example, as Table 14 in the prior section showed, both fazendas A and C are run by professionals. They rely on non-agricultural sources of income and invest in their fazenda. Yet their agricultural enterprises differ significantly in how advanced they are in the level of UTZ implementation as well as in the state of housing.

Second, external advice could come, for example, from Cargill and UTZ or from public extension agents and hired specialists. However, fieldwork observations speak against them being a major source of variation. Cargill staff mostly provide oversight to prepare for and follow up on audits. They rarely recommend specific actions and, if so, on infrastructure adjustments and not on labor and agronomic practices. Likewise, UTZ audits are an unlikely source of learning since they are focused on compliance but not on the kinds of inventive
adaptations of rules—with examples provided in the right column of Table 15 above—that are both compliant and particularly effective in bringing about desired changes. Public extension services, through CEPLAC, are limited due to the agency’s reduced staff. In the few cases, where CEPLAC extensionists are active in the field, their work is research oriented (for example on genetic varieties) and does not extend to implementing certification. Evidence comes from a fazenda owner with an experimental plot of CEPLAC who struggles to put UTZ into action. Finally, hired specialists, such as agronomists, may be better able to provide guidance on UTZ. However, most of them seem to focus on high-level agronomic advice, for example on fertilization quantities or on what lots to prioritize for a given task, rather than to comment on the nuances of how to conduct certain activities. In addition, one of the unspoken tasks of external contractors is to monitor production and to thus control side-selling by administrators, in lieu of absent owners.

Discussion

A private governance literature has established that how private standards play out in practice is highly context-specific, building on empirical evidence (Locke 2013; Toffel et al. 2015; Vandergeest et al. 2015) and on theoretical ground (Djelic and Sahlin-Andersson 2006; Eberlein et al. 2014). Less well understood is what shapes these paths, although different explanations have been advanced. Work on governance interactions has suggested that there is variance across issue areas in how public and private standards intersect (Bartley 2011b). But this approach underestimates the variation observed within the same jurisdictions. Research that foregrounds adopters’ characteristics has honed in on the role of capabilities and motivation, treating variation as a mostly technical challenge that can be fixed with building competencies (Hofmann et al. 2012) and better oversight (Potoski and Prakash 2009). This perspective struggles, however, to explain why motivated and capable adopters fail to translate private standards into actual practices. To gain a more complete understanding of standard implementation, therefore, in my research, I inquire into the conditions and the mechanisms that enable standards to have the desired effects.

In this chapter I have focused on the experiences of UTZ certified cocoa plantations (fazendas) in Bahia, Brazil. Observations and interviews from six months of fieldwork demonstrated that there is considerable variation among these certified fazendas, although they are located in the same region, collaborate with the same buyer (Cargill) who supports
the implementation of UTZ through regular visits, and although the owners of these fazendas are sufficiently motivated to participate despite limited monetary gains and are capable professionals, some as agronomists, some in other professional fields. The variation arises in particular for those rules that need to be instantiated through recurring behaviors and that are not done with a simple, one-time activity, such as hanging a sign for UTZ at a door or preparing a proper shed for storing agrochemicals. Yet it is those rules that tend to be most important for workers (for example training and recurrent health and safety measures) or for economic outcomes (for example agricultural practices).

My findings indicate that the path toward better outcomes leads through a mechanism of recursive knowledge appropriation—a learning process that comprises three practices: enrolling for new behaviors across hierarchies; encouraging and reinforcing experimentation with organizational practices; and integrating experimentation with evaluation practices. Two conditions support this mechanism: a perception that external pressures, from the state in particular but also the private standard, require and provide legitimacy for new behaviors. Local norms, too, form part of the external reference points but they, in contrast, might have more ambiguous effects. However, external pressures do not have an independent effect due to the punctual nature of yearly private audits and inactive law enforcement in the cocoa sector of Bahia. Instead, external reinforcement is dependent on adopters' perceptions and inclinations to mobilize these context conditions in day-to-day operations for implementing UTZ rules. A second condition is whether an agricultural enterprise can integrate the learning of specific practices into a wider organizational system of high-performance human resource and production practices.

What should we expect to happen after a private standard is adopted at any single site of adoption? Table 17 provides bounded generalizations on how likely rules turn into practice based on the two conditions described above. When there is no integration with a high-performance work system, the most likely outcomes are to see inertia with no or very limited attempts at change or muddling through where adopters recognize that, for private (or public) auditors certain efforts have to be made but where implementation tends to be incomplete and more cosmetic than substantial. When there is integration with a high-performance work system, one would anticipate a more solid track record in practice adaptation, either autonomous or encouraged. An example of autonomous adaptation, described above as part of the rule on protective worker clothing, is to use battery-powered pulverizers—spraying equipment for herbicide application that is easier to operate for
workers and more efficient in spreading the agrochemical. It is not required by law or private standard rules but can provide efficiency gains. An example of *encouraged adaptation* is to insist that workers consistently put on protective clothing by referencing the law or the UTZ requirement. The implication from this matrix is that the presence of a high-performance work system tends to prevail over perceptions of external reinforcement, at least in contexts where forceful and unannounced external reinforcement is not immediately impending. That said, adopters of UTZ in cocoa are aware that law enforcement might occur in the future, based on common knowledge of public actions in other nearby agricultural sectors, such as coffee.

**Table 17: Likely outcomes of standard implementation**

<table>
<thead>
<tr>
<th>Integration with a high-performance work system</th>
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</thead>
<tbody>
<tr>
<td>Weak</td>
<td>Strong</td>
</tr>
<tr>
<td><strong>Perceptions of external reinforcement</strong></td>
<td><strong>Muddling through</strong></td>
</tr>
<tr>
<td>Strong</td>
<td>Make attempts at change but try to get by with incomplete implementation</td>
</tr>
<tr>
<td>Weak</td>
<td><strong>Inertia</strong></td>
</tr>
<tr>
<td>Leave practice largely as is or give up after some attempts in fits and starts</td>
<td>Adapt practice, according to site-specific priorities</td>
</tr>
</tbody>
</table>

This research makes two contributions to theory. First, to the literature on public-private governance interactions, I contribute the concept of “dotted interactions.” Existing notions of governance interactions as “layered” (Bartley 2011b), “co-expanding” (Levi-Faur 2012), and intertwining through “experimentalist regimes” (Overdevest and Zeitlin 2014) have taken a top-down approach to examining these interactions, assuming that, while public and private regulation interact, they do so in relatively uniform ways for a given sector or territory (for an exception see Amengual and Chirot 2016). In contrast, when looking at governance interactions through the eyes of the subjects, it becomes obvious that they, the regulated, have anything but uniform expectations on how they might be affected by governance activities. Consequently, the regulatory map transforms from being two-dimensional, with private and public governance on the axes, to three-dimensional, with
private and public governance and subjects on the axes. The picture changes from intersecting planes to undulated landscapes with exposed peaks and hidden valleys. Albeit, in theory, all are equal before the law, in practice they may not be. It is important for scholars to take account of these bottom-up perspectives on governance interactions because perceptions have the power to shape behaviors that matter, especially for labor.

Second, to the literature on private governance, I add a practice and labor lens, which I argue, results in a more accurate and complete understanding of standard implementation. Importantly, it reframes standard implementation from a mostly technical or motivational challenge to one that is also organizational and cultural. That is not to dismiss technical or motivational challenges. They are important. However, they do not capture so-far overlooked obstacles that lie in the organizational culture of adopters. Put differently, private governance does not contain the toolkit (Swidler 1986) for adopters to develop new tactics and strategies to transform rules into practices. As a result, applying the same set of rules to adopters who do not possess the same prior organizational practices can inadvertently widen the difference between those who can make the rules productive and effective for furthering their goals and those who encounter mounting frustrations and either choose to hide behind ritualistic appearances or to drop out and abandon the private governance project altogether (Lamont et al. 2014). Recognizing this dynamic as an important aspect of standard implementation is useful theoretically to explain variation and empirically to overcome these hurdles. An important scope condition for this mechanism, however, concerns wage practices in the cocoa sector. Here stricter external reinforcement seems a more viable path to ensure workers’ rights.

Further research could usefully pursue the following avenues. First, longitudinal ethnographic research could deepen insights into how practices change after standard adoption, ideally with a multi-site approach to compare trends over time. Second, the research design of this study does not allow me to disentangle the conditions of high-performance work systems and external reinforcement. To do so, one could expand in-depth case studies to include top producer fazendas that might experience a strong threat of law enforcement but vary in their work system. Third, to test the effects of the two conditions on the learning mechanism, one could design an experimental intervention to strengthen work systems at some sites but not at others, for example through a structured coaching program over time. Similarly, one could try to influence perceptions of external reinforcement through randomized surprise visits of private inspectors. Finally, to test the
framework proposed here with a larger sample, one could design a survey that gathers data on specific practices, organizational precedents and routines, perceptions of external reinforcement, and—to measure outcomes—on compliance and livelihood improvements. However, desirability bias is a serious limitation for the use of surveys, which needs to be ameliorated through additional spot checks, randomized response techniques and complementary in-depth case studies.

**Conclusion**

Are sustainability standards worth the effort, time, and the apparatus of long check lists, piling papers, and yearly audits? Can we trust the labels on chocolate, claiming “respect for people and planet”? The opinions of those involved most closely—producers and sector experts—do not converge. For the detractors, standards, such as UTZ, are little more than marketing (interviews No. 30, 70). For the supporters, adopting a private standard is an important enticement to professionalize and to improve and monitor practices (interviews No. 20, 25, 27, 28, 36), although some say the benefits are too low (interviews No. 23, 37, 44). Whose side should we be on? What should we make of observations that the advances with private standards are often messy and incomplete, although possibly better than what would have been, absent the standard? Who is right when the realities of standard implementation seem to be contingent on institutional environments and organizational systems that can be changed, but not overnight? "Is something better than nothing?," some ask (Besky 2008:171). I conclude the answer is yes, despite gaps between aspiration and reality. Something is better than nothing because in contexts like Bahia there are no easy alternatives, in the form of active public inspectors, functioning extension services, or organizing from unions or civil society.

But how to make sustainability standards better? For this, it is of utmost importance to speed up the processes of discovery and learning that are needed to turn rules into reality. This study shows a path toward a “better future”, as the UTZ slogan goes, by complementing the knowledge embedded in transnational rules with local learning processes. This could take the form of creating local forums or communities of practice to harness and share local knowledge, to do site visits to peer and more advanced fazendas, and to learn by observing the nuances of different practices, with a particular emphasis on developing workers’ skills. In addition, to spread high-performance work systems in the cocoa sector, it would be good to enroll the leadership of local and regional cocoa associations into understanding and
actively promoting such arrangements. The goal must be to speed up the implementation process for all and particularly for those less experienced in organizational change.

Still a question remains: What might be promising alternatives or complements to sustainability standards? Before responding, let me point out that, although, in this study, sustainability standards appear as if they were front and center for producers, in lived reality they are not. Producers are grappling with pests and diseases, agonizing over how to contain them and what genetic variety might be most resistant, often after costly blunders. They are apprehensive about how to increase yields to stay ahead of rising costs for labor and inputs. Bad roads add to these costs and augment a sense of isolation for rural inhabitants who are anxious about access to health and education. Understandably, younger generations have little interest in manually working and sweating in cocoa fields. These issues are not limited to Bahia but are common to cocoa producers around the world. In essence, the cocoa sector lacks public goods—for research, technology, and rural infrastructure. That is not to say that good practices, as propagated by sustainability standards, are not important. But they can barely make a dent on these larger concerns. Could industry, besides embracing sustainability standards, urge governments to deliver on public goods? And could it avail its considerable knowledge, particularly on research and technology, to make progress on these larger goals? Perhaps the path to a better future leads through private power aiding public goods. While it is an imagined future, it is one that might well be worth exploring.
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Chapter 7: Conclusion

This dissertation has analyzed how sustainability standards fare on their goal of contributing to improved livelihoods and sustainable agriculture, taking the example of cocoa, and it has studied how these standards work in practice in West Africa and Latin America. It has argued that many of the assumptions on how these standards work are misguided because standards do not work through the posited mechanisms of standard design (premium, farmer organization, and compliance). Instead, they, unfold their effects predominantly through processes of learning and knowledge appropriation that help adopters to add value and to turn rules into beneficial practices. Some scholars have attributed successes and failures of standard implementation to adopters' capabilities. Others have looked to the configurations that adopters are part of, in global value chains or in the context of national regulation. These are relevant factors. However, they describe the "ingredients" rather than the process of how they come into play.

The full story comes into focus when studying the broader organizational processes of standard adopters, which illustrates that, from them, significant and proactive agency is required to achieve the desired goals of sustainability standards. The key theoretical contribution of this dissertation is to pay more attention to adopters' agency and their practices and to see them in light of adopters' wider managerial system. The key empirical contribution is that seeing standard implementation as an organizational and cultural challenge could open a path toward helping adopters to overcome tacit barriers to change, for example by peer learning. In this chapter, I first summarize the findings from my dissertation and then reflect on the theoretical and empirical implications.

Do Sustainability Standards Contribute to Better Livelihoods?

Under what conditions and through what mechanisms do sustainability standards contribute to better livelihoods for producers? This question started this dissertation. To answer it, I undertook a multi-method study of sustainability standards, specifically Fairtrade, UTZ, Rainforest Alliance and Organic, in three countries: Ghana, Ecuador, and Brazil. Below I review the results from these three studies.
In Chapter Four, I presented the findings of a quantitative difference-in-difference impact evaluation in Ghana, which was conducted with about 3,000 smallholders. The results show that, on average, the effects of certification on the livelihoods of standard adopters are very limited and barely distinguishable from the trajectory of non-adopters, which is in line with other impact evaluations, using similar methodologies (Ibanez and Blackman 2016; Parvathi and Waibel 2016; van Rijsbergen et al. 2016). The results seem to stem from implementation issues, since producers in certified villages, on average, do not report a higher price, are not better organized, continue with similar agricultural and environmental practices, do not achieve higher yields compared to non-certified farmers, and receive little training. However, a clue for possible solutions is also contained in the results because some farmers—those who participated in trainings and applied more fertilizer—improved their yields significantly. Possible improvements therefore do not work directly through the mechanisms that standards put front and center—namely a price premium, farmer organization and compliance with standard requirements—but more indirectly through other, complementary mechanisms. Below I will discuss how we might understand these mediocre certification outcomes, seen through the lens of insights from Latin America.

In qualitative studies that I conducted in Ecuador and Brazil, I found evidence for learning-related mechanisms that rely heavily on adopters’ agency. In Chapter Five, I illustrate through process tracing the organizational histories of two similarly positioned certified farmer groups in Ecuador that the path to better livelihoods, after standard adoption, leads primarily through quality upgrading, which is achieved through a process of recursive knowledge appropriation, and is dependent on having redundant close and learning-oriented relations to quality-conscious and developmental buyers. For a successful farmer group, Fortaleza del Valle, a good market position through quality premiums has supported the continued implementation of standards and has financed the cost of certification fees and internal monitoring systems, without depending on external subsidies. In turn, the benefits reaped from upgrading and from a Fairtrade certification helped Fortaleza del Valle to offer better prices and conditions to its member farmers. A second group, Aroma Amazónico, started with similar opportunities to build relations with foreign buyers but instead prioritized to create domestic ties. Consequently, the group missed out on continuously advancing its quality and lost its initial foothold in certified premium markets. In other words, standards, on their own, do not directly contribute to producers getting an economic benefit from them. Instead, the cases studied here suggest that certified farmer
groups might need to forge a path through upgrading to establish themselves in an elite market niche and to reap livelihood improvements for their members. I conclude that sustainability standards can contribute to inequality because they bring benefits only to those who are able to respond in more agile ways to exclusive market opportunities.

In Chapter Six I examined how standards are implemented across different cocoa plantations (fazendas) in Bahia, Brazil. The cocoa sector of Bahia is a context where supporting factors, such as a threat of public law enforcement, a direct relation between producers and a multinational buyer (Cargill), and adopters who are professionals in agriculture or other fields should aid effective standard implementation. Still, I find that implementation varies a lot across plantations. I show that a major reason for this is how well standard users engage in a process of translating rules to actual on-the-ground practices and behaviors. Two conditions emerged for why some users are able to do so while others muddle through or give up. A first condition is whether plantations can integrate the practices required by certification with a broader managerial and work system, called high-performance work system in an industrial relations literature. Such work systems mobilize the skills and motivation of employees for productivity gains, and they also foster the discovery of suitable translations of rules into practice. However, in Bahia, absenteeism among owners is common, relations with workers tend to be distant, adversarial and often blameful, and many plantations have re-enacted the same production and organizational practices for decades. Therefore owners are often underprepared to turn the rules prescribed by standards into reality, let alone to integrate them with a high-performance work system. Contrary to much of the governance literature, shortcomings in compliance occur not because adopters are not willing or unable to comply but because they lack experience in orchestrating change and therefore re-enact local norms that hinder rather than help change.

A second condition that emerges for whether practice change following standard adoption is likely on Brazilian plantations is external reinforcement, particularly from the state. The crux of the matter is how likely producers perceive themselves to be the target of public regulators. But only a small minority of producers—those at highly visible and economically potent company-run plantations—perceives to be on the frontlines of public inspection. The findings on the relative absence of the state in the cocoa sector of Bahia are in contrast to studies that show more proactive public law enforcement, for example on sugar plantations that adopted private standards (Coslovsky and Locke 2013). Yet the state still acts on some
adopters through foreshadowing future actions. Since not all adopters perceive this as a risk relevant to them, the interactions between public and private governance are what I call “dotted” rather than “layered” (Bartley 2011b) where some adopters feel exposed to likely law enforcement whereas others trust to be sufficiently out of view to not take future law enforcement into account.

What unites the findings from Ecuador and Brazil is that in both cases a mechanism of learning to improve organizational activities and practices is in the foreground, whether to upgrade quality or to find effective ways to comply with standard rules. These learning processes are supported by either close ties to buyers, as evident in the Ecuador study, or by a perception of an external push from the state in particular, to move toward better practices, as shown for some producers in Brazil.

Furthermore, these findings aid in making sense of the results from Ghana that show no improvement in livelihoods. Several reasons might explain lack of progress there, despite adopting standards under the aegis of a well-funded corporate initiative. First, the only upgrading path that is available to Ghanaian farmers is through productivity increases but not through quality upgrading because the state-regulated marketing regime in Ghana does not reward quality differentials above a required baseline level. Thus, the path that Ecuadorian farmer group Fortaleza del Valle took to improve the economic and labor conditions of its members is foreclosed in Ghana. Relatedly, the Ghanaian cocoa market regime also prevents the kind of learning-oriented ties with foreign buyers that were an important condition for farmer groups in Ecuador. Instead, the buyers that Ghanaian producers interact with are traders that have little incentive to support farmers’ learning. An indicator for this is the minor importance of trainings that farmers report to have received from traders or Licensed Buying Companies, as they are called in Ghana. In contrast, the multinational buyers that fund certification initiatives, such as Mondelez, do not directly interact with farmers. Second, it is very unlikely that the Ghanaian government exerts an effective threat of law enforcement for cocoa producers because of the difficulty to enforce laws with remote small farmers and perhaps because of the state’s unwillingness. Combined, cocoa producers and households constitute a sizeable share of the Ghanaian population, and they might be able to exercise political pressure on the government to not enforce laws. An example is that, in the Ghanaian cocoa industry, it is known that cocoa producers encroach on protected forest reserves in the Western region (personal communication with certifier, March 16, 2016). However, to my knowledge, no action has
been taken to stop this deforestation, perhaps also because it might be seen to conflict with a government agenda of augmenting the volume of cocoa produced.

Absent such external reinforcement from buyers or the state, how likely are Ghanaian farmers to engage in learning? Their starting point is less than auspicious: Many of them have little schooling, if any. Prior experience with farmer group organizing is the exception, and the farmer groups that were newly founded as part of the Cadbury Cocoa Partnership are likely to suffer from organizational weaknesses. During fieldwork that I conducted with Ghanaian cocoa producers in 2011, several mentioned that farmer groups that had been organized as part of the certification program had already faltered within their first two years of existence. The only way then to kick start a process of learning might be through the activities that go along with certification initiatives, such as visits from NGOs to villages. In reality, this might barely register with villagers. For NGO staff, getting to villages is time-consuming, given the state of dirt roads to cocoa communities. As a result, it is unlikely that external trainers can spend much time in any single village. In addition, cocoa producers might not be easily convinced by the advice of an outsider. Finally, the death nail to changing farmers’ practices might be that the promise of a certification premium, which was promised to farmers, did not materialize, as reported by farmers in the survey. In short, neither the environment seems conducive for learning nor are farmers very likely to be capable or motivated to engage in an ongoing learning process by themselves.

To summarize, sustainability standards do not function through the mechanisms they promote as levers for change, and therefore adopters should not rely on standards to improve their livelihoods. Given how inadequately prepared many adopters are to locally adapt transnational rules, it is best to maintain a dose of skepticism toward the effectiveness of sustainability standards. A skeptical attitude is advisable because standards are built on shaky assumptions. But the point of highlighting this dynamic is not to fall into a “rhetoric of futility” (Hirschman 1991) and to give up on the project of sustainability standards altogether. To the contrary, understanding how they can work through upgrading and practice change also allows us to create more suitable support systems for and with standard adopters, which is important since standards provide opportunities in often opportunity-scarce environments. Next, I review the theoretical contributions of this dissertation, before closing with an outlook on the prospects for sustainability standards.
Lessons for Theories of Private Governance

This research adds to the literature on private governance by taking seriously the agency of users—those farmers in the Global South, small and large, who embark on producing certified goods according to the requirements of sustainability standards—as we, as consumers, hope and expect. It puts the spotlight on how these users interpret, make sense of, adapt, challenge, navigate and sometimes circumvent these standards. By contrast, existing research has spent much effort on examining external contingencies, including the role of industry structure and governance (Lee et al. 2012), the interactions between private governance and public regulation (Eberlein et al. 2014), and the characteristics of private standards themselves (Wijen 2014). A perhaps unintended consequence of this focus on external contingencies, far away from sites of implementation, has been to treat adopters as passive recipients of standards.

Granted there have been "thick" case studies of how users make standards work (Coslovsky 2014a; Mutersbaugh 2005). However, while they have theorized important mechanisms, such as collective learning for quality standards (Perez-Aleman 2011), they have not developed bounded generalizations from these analyses on what to expect after users accept to implement a private standard. In this section, I examine my theoretical contributions on (1) what a practice and labor lens can contribute to private governance studies, (2) how my findings relate to and could be of interest to particular strands within private governance research, and (3) how my research connects private governance with Global Production Networks and Global Value Chains (hereafter GPN) research. Then I turn to avenues for future research to advance on the direction proposed here.

Contributions of a Practice and Labor Lens to Private Governance

This dissertation adds to a burgeoning literature that examines governance and regulation with the conceptual tools of work and organization studies (Baron, Dobbin, and Jennings 1986; Gray and Silbey 2014; Huising and Silbey 2011; Perez-Aleman 2011; Silbey 2013), drawing on a practice lens that centers our attention on everyday practices in organizations (Feldman and Orlikowski 2011; Kellogg 2011; Orlikowski 2000), as well as on industrial relations research on high-performance work systems and modern management systems (Distelhorst et al. 2016; Ichniowski et al. 1997; Jiang et al. 2012; Macduffie 1995). Breakdowns in standard implementation have been sufficiently documented, as have
successes, to be familiar to private governance scholars. However, using an organizational lens to private governance studies helps to better understand the sources of this variation. This dissertation develops a framework with bounded expectations on what we might expect in terms of compliance and livelihood outcomes after standard adoption. Specifically, I propose that an underlying mechanism of recursive knowledge appropriation—a key part of the process between standard adoption and standard outcomes—is facilitated by two conditions: adopters' integration of standard requirements with a modern management system and perceptions of external reinforcement. The resulting framework—inductively developed from my empirical work in Ecuador and Brazil—provides likely outcomes of recursive knowledge appropriation based on these two conditions. Adopters who integrate regulatory requirements with a modern work system are likely to engage in recursive knowledge appropriation. Adopters who do not are likely to attempt to implement standards, since they agreed to it, but with a high risk of muddling through and giving up. A key proposition of this framework is that the wider organizational and managerial system of adopters plays a more important role for effective standard outcomes than external pressures or incentives, although these can and do support standard implementation.

This mechanism of recursive knowledge appropriation encompasses two routes—one through upgrading and one through efficient (production) practices. The path through quality upgrading is accessible to producers who can directly connect to buyers, while the path through more efficient production is often the only one available to producers who supply commoditized bulk markets (which constitute up to 80 or 90% in the cocoa sector). The key mechanism, in both scenarios, is that certified producers complement the sustainability standard with their locally suitable version of upgrading and competitiveness strategies. However, in both cases, sustainability standards do not provide the tools for producers to embark on these paths. Quite the opposite, certified producers might assume that being certified will independently trigger the promised improvements, lulling them into a misguided sense of security as well as, ultimately, a waste of resources. But for the "secret sauce" to success it is not sufficient to dutifully follow standard requirements (which producers must and should). Instead, it lies in organizational change capabilities. Therefore barriers to change after standard adoption may well lie below the surface in adopters' set of organizational practices, possibly shaped by local norms and institutions, rather than in motivational or capability constraints. Quick "fixes" through technical or business trainings
are therefore unlikely to work. In sum, adopting a practice and labor lens steers our attention to organizational factors to explain variation in standard implementation.

A reasonable objection to this argument is to reject the function of sustainability standards as “discovery devices” for organizational changes that are in service of adopters’ upgrading and competitiveness. This could be seen as alien to the original purpose of private governance. Critics might remind us that standards are a form of regulation, as I, in line with other scholars (Schneiberg and Bartley 2008; Vogel 2008), have argued in Chapter Two. Why should sustainability standards help with practice and organizational change when their task is to improve labor and environmental conditions through providing oversight and control via audits (Strathern 2000)? After all, standards, in monitoring compliance, haven taken on a function that used to be exclusively in the realm of public regulators.

In response, I both agree and disagree. I agree that sustainability standards are a form of regulation and governance; they do (and must, in order to function) provide oversight to producers. I disagree, however, that this makes private standards a regulatory intervention that functions “as if” they were public regulators in practice. To explain, let me briefly recap the basic differences between these two regulatory forms: Public regulation works through increasing the cost of compliance for all (at least in theory) and, vitally, achieving compliance through a threat of penalties, although sometimes supplemented with problem-solving activities (Pires 2008). In short, it creates a level-playing field. Private standards, in contrast, increase the cost as well as benefits of compliance only for adopters, and they seek to achieve compliance through monetary (typically limited) and non-monetary incentives, not through penalties. Adopters can decide to drop standards at any time, without incurring severe penalties (unless standards have de facto become required for market access, which they have not for the cocoa sector). In the absence of penalties, for adopters to be interested in and actively collaborate in making standards work, some benefit has to come of them. As I have shown in this dissertation, these benefits do not come from adopting standards alone. Therefore it is crucial for sustainability standards to be both regulatory instruments and discovery devices. Sustained standard implementation depends on whether adopters perceive that they get “innovation offsets” (Gallagher 2009:300) from participating in private governance. Yet sustainability standards have not been very effective at facilitating these offsets. As a result, the very design of standards favors those who are better positioned to upgrade their practices and managerial system by themselves, deepening inequality between adopters as an unintended consequence (Lamont et al. 2014).
To conclude, I propose to incorporate a practice and labor lens into private governance research in order to more completely apprehend opportunities and obstacles to effectively implement private standards. The insight that emerges from this is that implementing sustainability standards is riddled with more difficulties than recognized in existing research because these difficulties lie in organizational practices engrained in adopters’ standard way of operating. These practices can be changed, albeit unlikely through quick or single interventions, since they are interrelated with adopters’ wider management system. How this insight relates to existing strands in the literature is the topic I discuss next.

**Positioning a Practice and Labor Lens in the Private Governance Literature**

The private governance literature tends to oscillate between two extremes. Some criticize it with “limits to private governance arguments” (Bush et al. 2015:15), for example by not achieving larger social welfare goals (Guthman 2007), making false assumptions about what workers want (Besky 2014), undermining public regulators (Seidman 2007), and sustaining neo-liberal visions of social responsibility (Shamir 2008). Others have taken very optimistic views of private governance, particularly when it forms part of “experimentalist regimes” (Overdevest and Zeitlin 2014; Zeitlin 2011) that emphasize mechanisms of learning and benchmarking (Sabel 1994; Sabel and Reddy 2007). Obviously, there are examples of scholarly work that take a more balanced approach to private governance (Bartley et al. 2015; Locke 2013) and that explore the challenge of governance interactions (Amengual and Chirot 2016; Bartley 2011b). The point of this brief overview is not to create false dichotomies but to stretch a simplified canvas of the literature in order to position a practice and labor lens on it.

My research casts a doubt on highly optimistic accounts, such as those given by scholars of experimentalist governance (Overdevest and Zeitlin 2014; Zeitlin 2011). While I also emphasize the importance of learning, I conclude that this learning mechanism is not as easily and widely accessible as implied by experimentalist governance research. In fact, using a practice and labor lens to attend to how governance processes unfold on the ground has highlighted some of the difficulties associated with learning from transnational rules, resulting in highly uneven local performances. Yet my research also counters highly critical accounts by showing that standards can improve livelihoods when embedded into high-performing organizational systems.
In relation to a governance interaction literature, my main contribution is to highlight the importance of taking into account the perceptions of the regulated of how likely they might be reached by state regulators—an insight that is discussed in more detail in Chapter Six on Brazil. In sum, the findings of this dissertation could be of interest to governance scholars who have been either optimistic or pessimistic on the role of private governance, aiming to provide a critical yet nuanced assessment of the potential of private standards.

**A Practice and Labor Lens on Private Governance in Global Production Networks**

This dissertation contains contributions at the intersection of private governance and GPN literature, by refining the concept of contested governance (Bair and Palpacuer 2015) with a dynamic dimension over time. The material for doing so stems from Chapter Five where I traced the paths of two farmer groups that tried to connect to global markets through foreign buyers—a key tenet of GPN literature—in order to reap benefits from sustainability standards starting in the mid-2000s. Ten years later, one has turned into a well-functioning rural enterprise; the other one is in disarray and bankruptcy. From these histories, I inductively develop a process model for private standards and labor in GPNs. The more detailed implications of this process model are contained in Chapter Five and do not need to be repeated here.

The essence of these implications is that two oversights need to be corrected in the GPN strand. First, the literature needs to incorporate supplier agency into its theoretical frameworks, which some have attempted to do (Pipkin 2011; Yeung and Coe 2015). However, recent publications, particularly those in the GVC strand, continue to focus narrowly on trade, industry, and global policy structures (Gereffi 2014; Lee et al. 2012). Second, by overlooking what happens in actual interactions between buyers and suppliers, the literature has ignored that limitations to upgrading do not only lie in increasingly concentrated industry monoliths. Upgrading may also be limited because buyers and suppliers actively contest the terms of their relation. In short, a practice and labor lens that examines these interactions on the ground helps to better understand what suppliers may gain from connecting directly to foreign buyers, for which private standards can be an important enabler—and what suppliers may need to do additionally in order to protect themselves against the repercussions of unstable and contested buyer ties.
**Future Research**

This dissertation has inductively explored the conditions under which and the mechanisms through which sustainability standards can translate to better livelihoods for producers. As an inductive, theory-building exercise, a limitation of this research is its lack of generalizability but other avenues for future research are potentially fruitful, too.

Three main avenues for future research are, first, to test the generalizability of this framework through gathering fine-grained data on practices, on the hypothesized conditions and on standard outcomes. This could be done for the types of standards studied here—Fairtrade, UTZ, Rainforest Alliance, or Organic certification—but also for other private governance initiatives, such as the Forest Stewardship Council, the Marine Stewardship Council, or standards developed by roundtables, such as on soy and palm oil.

A second promising avenue is to complement this with longitudinal ethnographic research to follow processes of practice and organizational change in real time. Such studies, using an organizational lens, have been done, for example in the health sector (Kellogg 2009) or in industry settings (Howard-Grenville 2007) but often in the context of industrialized countries. Ethnographic studies have been done on standard implementation in the Global South (Besky 2014; Jaffee 2007; Lyon 2011) but not usually through an organizational lens (for an exception see for example Perez-Aleman 2011).

A third intriguing possibility is to further investigate the mechanisms of sustainability standards in the context of cocoa in West Africa, where Chapter Four with quantitative results on Ghana offers a launching point. To better understand what happens on the ground and what gets in the way between standards as designed and as implemented could be useful theoretically and empirically.

**Prospects for Sustainability Standards**

Growth rates for agricultural products with sustainability standard have been a multiple of those commonly found in the agrifood sector (Potts et al. 2014). Is this trend going to continue? Are we moving toward a production-consumption system where third-party certification becomes the new normal, setting a bar for entire industries? This is at least what some scholars recommend (Levi and Linton 2003:428), suggesting that the ideal outcome is to attain a 100% coverage of sustainability standards. Independent of whether
that is desirable, is that a realistic prospect? There are first signs that the expansion of sustainability standards may not continue unabated. In this concluding section, I proceed in two steps. First, I review what signs might indicate a slowing down in the diffusion of sustainability standards specifically in the cocoa sector. Second, I discuss how standards might be reinvigorated by redesigning them and their implementation.

**Trends for Sustainability Standards in the Cocoa Sector**

The growth numbers for sustainability standards in the cocoa sector do not indicate a reversal in trends (Lernoud et al. 2015). So why do I hypothesize that coverage of sustainability standards might not continue to grow or even decline in the cocoa sector? There are two reasons to believe so. First, there has been a strong link between the growth in cocoa certifications and branded multinationals through their public announcements on certification targets for 2020, which may have unintended consequences. It may have inadvertently created a roof for further expanding certifications because other, less visible industry players may want to free-ride on these efforts (Nieburg 2016b). Furthermore, due to these public pledges, certified production has increased steeply but certified sales have not kept up (Nieburg 2014). Hence producers who do not get benefits from certification because they cannot sell certified beans on oversupplied markets may get discouraged and drop out of certification before industry ramps up its purchases of certified production shortly before the claims become verifiable in 2020. Second, there are some cases that indicate early reversals among chocolate manufacturers. One case in point is Mondelez in Ghana that has quietly dropped one third-party standard on some of its chocolate products and has replaced the label of that particular third-party standard with a similar looking label for the company’s own corporate social responsibility program “Cocoa Life” (personal communication with a certifier, March 16, 2016).

Potential reasons for why we may observe stagnant or declining coverage of cocoa certifications are easy to identify. They lie particularly in cost and the risk of ineffectiveness, for producers and for chocolate brands. Let me unpack these briefly. Cost comes from working with a third-party certifier, rather than a company-internal program, but also from the complexity of managing multiple initiatives, in different countries, with different NGO partners or farmer groups. The problem is compounded for retailers. It is not surprising therefore that some industry executives have called for more reliable government oversight to reduce the complexity of hundreds of codes across thousands of products. It would make
their life easier if they could say instead that products are responsibly sourced because they are produced in, say, Brazil (Barry 2015). Risk of ineffectiveness cuts both ways, for producers and for brands, with the risk of wasting resources and persisting problems. But another important issue from an industry perspective might be reputational. As lackluster results from impact evaluations become more widely known, not only do multinationals forego the possible branding benefits. Worse, they might be accused of hypocrisy, adding to problems that chocolate multinationals already have, for instance by fighting child labor issues in courts (Nieburg 2015b). Put differently, sustainability standards have a clear upside for industry and the cocoa sector in terms of the opportunity to raise standards and introduce better practices. But the costs and the risks of adopting sustainability standards are considerable, too, including for industry.

Possible Avenues for Renewing the Vigor of Sustainability Standards

Yet I do not suggest to fall into the other extreme and to paint private standard implementation as a useless or even counterproductive endeavor (Hirschman 1991). Such a stance denigrates the real progress made, however limited to a few “lucky ones.” More importantly, it discounts the potential for private governance to further evolve, to increase their potential for effectiveness, and to renew their vigor. The overall direction that seems particularly auspicious is to reframe and redesign sustainability standards from compliance-oriented poverty alleviation initiatives to problem-solving oriented learning systems. In this way private standards would be viewed, as Piore and Schrank (2008) argue public regulations should be viewed, namely as one component or complement in the system of interrelated factors that contribute to workplace outcomes.

Specifically and based on the empirical findings from this dissertation, I propose to complement transnational rules with local communities of practice to foster peer learning and to speed up practice and organizational change. Commonly, producers do informally turn to each other for advice but they tend to limit themselves to agronomic matters than are easily codified. However, peer learning should go beyond that and involve on-site visits, jointly with workers, to detect, discover, and discuss the nuances of effective work practices. In my fieldwork in Brazil, producers jokingly referred to this kind of stimulus, of wanting to imitate better plantations as “learning by envy.” If, as I put forth, standard implementation depends on adopters’ toolkit for practice and organizational change then, by practical implication, we should strengthen this very toolkit. Such a toolkit should
contain skill-enhancing, motivation- and opportunity-enhancing human resource practices where workers get trained, have incentives to increase their performance, have opportunities to develop their skills and to advance to other positions, are involved in the design of work processes, and have access to informal and formal conflict resolution procedures. Concomitantly, this requires to recognize and address a long history of mistrust between workers and owners, especially on plantations, given that mistrust is one of the primary obstacles to shifting to high-performance work systems (Ichniowski et al. 1997).

Related to that, I recommend to strengthen a so far undervalued function of sustainability standards as learning and upgrading programs (Bush et al. 2015). Besides human resource practices, cocoa producers need a good understanding of their strategic options, their costs and exposure to financial risks, given their dependence on fluctuating world market prices. Producers also need access to production technologies to ease the often heavy manual work load. As I mentioned in my concluding remarks for Chapter Six on Brazil, cocoa producers are grappling with many issues that are directly related to research and technology hurdles. To use the newly created connections between producers, certifiers, and industry to get up-to-date technology to all producers, and not only to agribusinesses that can afford to hire their own specialized professionals, would make good use of prior investments into sustainability standards in the sector. All of these measures are aimed at connecting the adoption of sustainability standards with activating learning mechanisms and to overcome the separation that exists between the two so far. In other words, it would move standards from being an appendix to business as usual, as it has turned out for many producers, to a being a transformative learning program.

A question that immediately arises from this is: who should pay and why would they care? The answer is that industry is already paying and pooling resources, with the industry-sponsored CocoaAction plan as one example (Harrison-Dunn 2014; Nieburg 2015a). Additionally, to secure supply, industry is interested in keeping cocoa farmers in business—many of whom, at least those who can afford the switching costs, prefer to invest in alternative and more profitable crops (Dand 2011). This seems paradoxical given that industrial plantations are moving back into cocoa (Gaiyi and Tsowou 2016). Why do some cocoa producers head to greener (cattle, palm oil or rubber) pastures while others invest in the crop? The reason is that these newly founded plantations have access to the latest advances in cocoa science and technology (and unfortunately also to new virgin land) whereas small producers rarely do.
Despite important obstacles to making good on the potential of sustainability standards—the gap between rule requirements and learning being the major one—there is a significant benefit to such standards that I have not yet emphasized. These standards build awareness around what happens at remote rural farms. Standards encourage producers to be more cognizant of their daily practices by checking compliance regularly. Standards also create oversight and interest from value chain actors and outside observers by making promises on better livelihoods. Additionally, standards stimulate ongoing and increasingly public debates on how to move toward aspirations of improving labor, economic and environmental conditions among producers. It seems that much more attention is paid now than in the past, when it was in the sole purview of states to provide regulatory control and extension services to rural producers. However, beyond awareness creation, a next step could be for sustainability standards to encourage a conversation around what we mean by sustainable agriculture. The currently dominant paradigm in agrifood (and most industries) is one of lowering costs, putting inescapable pressures on most actors in agrifood, including those who are clear-sighted about the “cost of saving costs” and who are eager to do better. How to shift that paradigm to one that takes serious the idea of sustainable agriculture—that is the true challenge that we face together.
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