Who Defines Fine Chocolate? The Construction of Global Cocoa Quality Standards from Latin America

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Abstract

The cocoa industry lacks globally harmonized quality standards. This article looks at how cocoa quality has been understood in the absence of industry-wide standards, the current interest in designing harmonized standards, the major debates about their content, and the implications their adoption could have across the cocoa value chain. It highlights the questions and dilemmas that emerge when tastes and senses are subject to standardization efforts, an especially challenging endeavour for a processed product such as chocolate. We argue that the ongoing debates over the content of these standards and their future governance structure reflect broader disputes over who will profit from or pay the most for superior quality cocoa, which is the fastest growing segment of the global cocoa market. If adopted, harmonized cocoa quality standards could gradually modify quality evaluation practices, costs, and opportunities related to the specialty cocoa market. We also contend that globally harmonized standards could affect preferred marketing strategies and discourses of farmers, traders, countries and chocolate makers, opening up opportunities for more farmers and regions to make claims to quality on the basis of "intrinsic" attributes, as opposed to relying mainly on place-based branding strategies. This would gradually reorganize competition between farmers and countries in the fine flavour cocoa market. The article is largely informed by research and discussions taking place in Latin America.

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Introduction

Global cocoa[1] trade is roughly divided into two categories: (1) bulk or ordinary cocoa, and (2) fine and flavour cocoa (FFC). The specialty[2] cocoa market – which includes FFC – is the fastest growing segment of the market, with demand increasing annually at around 9% (Ríos et al., 2017: 29). Curiously, there is no universally accepted definition of fine flavour cocoa, even though chocolatiers claim to recognize it when they taste it. There are also no globally harmonized standards or procedures for distinguishing bulk cocoa from fine flavour cocoa. Still, a panel of experts at the International Cocoa Association (ICCO) regularly updates a list of countries – known as Annex C – considered to be exporters of FFC. Out of concern about the lack of clear definitions and quality standards in the cocoa industry at a time when demand for FFC is growing, a multi-stakeholder initiative emerged in 2015 to develop globally harmonized cocoa quality standards. These stakeholders refer to themselves as the "working group" leading the initiative for International Standards for the Assessment of Cocoa Quality and Flavour (ISCQF). In mid-2020, they shared the first completed drafts with the public for feedback, including standards for how to prepare samples and how to assess them.[3] Drawing on the standards literature, we argue that the shift towards harmonized global standards could signify a potentially substantial change in how the specialty cacao market operates. In this article we use the case of cocoa to explore the transition from a world without harmonized standards to a world with them. We explain how cocoa quality has been understood in the absence of industry-wide standards, why there is currently interest in designing and implementing harmonized cocoa quality standards, and what implications these could have across the cocoa value chain.

Global dynamics of fine flavour cocoa production and trade are closely tied to the construction of particular interpretations of cocoa quality and their associated standards (or lack thereof). Thus, we frame our argument in conversation with the literature on standards, especially as applied to agricultural value chains. Scholars (Timmermans and Epstein, 2010; Djelic and Den Hond, 2014; Loconto and Demortain, 2017) have recently highlighted the paradoxical role of diversity and plurality in the world of standards. Djelic and Den Hond (2014) suggest that exploring this plurality is "an important frontier for the contemporary dense scholarship on transnational standards and standard setting" (Djelic and Den Hond, 2014: 5-6). We build on their argument by analysing how the coexistence of diverse standards is being dealt with in the cocoa industry. We thus fill a gap in research regarding the questions and dilemmas that emerge when tastes and senses are subject to standardization efforts – an especially challenging endeavour for a processed product such as chocolate. We also apply Quark's (2013; 2014) insights about the role of geopolitics in motivating the elaboration of standards and how these can lead to shifts from place- to product-based understandings of quality, which can change power dynamics within a value chain (Quark, 2015). The contribution is primarily empirical, as one of the first scholarly analyses of the attempt to harmonize cocoa quality standards.

The crux of the argument is as follows: the ongoing debates over the content of the new global cocoa quality standards and their future governance structure reflect broader disputes over who will profit from or pay the most for superior quality cocoa at a time when demand is increasing. The stakes revolve around the possibility for different actors to access premium prices associated with selling higher quality cocoa. On the upside, harmonized standards could introduce a higher degree of transparency to an industry well known for its secrecy and subjectivity in its assessment of cocoa and chocolate quality. In this sense, universal standards represent an opportunity for growers – not just chocolate makers – to better understand what is required, in principle, to produce FFC. Standards could also help buyers have more clarity with regard to what they are purchasing, and may facilitate informed comparisons of different cacao lots, providers and origins. Quality standards are never neutral, however, and their content and logistical requirements will favour certain actors over others. Those with the knowledge, resources, and equipment necessary to implement the standards will be at an advantage, for example. As there is also no guarantee that farmers will be able to prove superior quality on-farm, intermediaries and traders may benefit from the premium prices associated with high-quality cocoa more than farmers themselves, as in the specialty coffee industry (see Daviron and Ponte, 2005). Lastly, global standards

[1] The terms cacao and cocoa are used inconsistently in both academic and non-academic literature. "Theobroma cacao L. is the botanical name for 'cacao' and refers to the tree, the pods and the unfermented beans from the pods. 'Cocoa' refers to the manufactured product – the powder sold for drinking or food manufacturing purposes, but recently it has also been frequently used to describe the fermented cocoa beans in bulk" (Sukha, 2016: 7). We use "cacao" to refer to the plants and "cocoa" to refer to the beans, processed products, and the sector in general.

[2] Specialty cocoa is an umbrella term usually used to describe cocoa "specialized in a series of consistent and verifiable attributes linked to the management, origin, and quality that different producing countries offer" (Ríos et al., 2017: 5). FFC is considered specialty cocoa, but not all specialty cocoa is FFC. Specialty cocoas also include organic, fair trade, sustainable, heirlooms, and other certified cocoas.

[3] The draft protocols can be downloaded at cocoaqualitystandards.org.

could affect preferred marketing strategies and discourses, opening up opportunities for new actors and origins to make claims to quality on the basis of "intrinsic" attributes, as opposed to relying solely on the currently pervasive place-based branding strategies.

Several of the authors of this paper recently completed an assessment of the cocoa market systems in six Latin American countries. This involved interviews and focus groups with 230 cocoa value chain participants, including farmers and buyers (see Wiegel et al. 2020). The interview and focus group questions were designed to explore, among other things, the challenges and opportunities for small cocoa farmers in these countries to obtain better prices for higher quality cocoa. One of the themes that emerged in all countries, particularly in interviews with farmers, buyers, and government officials, was the keen interest in superior quality cacao and the varied or unclear criteria against which to recognize it (and therefore to secure higher prices). The idea for this article emerged from that assessment. The data analysed include: the interviews and focus group field notes from the aforementioned assessment; two anonymous interviews with direct participants in the standard-setting process; industry publications; and meeting notes produced by the working group that has been drawing up the harmonized cocoa quality standards since 2015. Given the sensitive nature of the ongoing process of constructing and implementing standards, interviewees did not grant authorization to cite them directly, so their personal voices do not appear here. For this reason, we draw mainly on ideas shared in reports and documents, and use the focus groups and interview data without citing any individuals.

The article is organized as follows. We begin with a discussion of key theoretical insights related to quality standards in agricultural value chains. We then characterize the global cocoa market and explain how quality is understood in the absence of harmonized standards. Next, we elaborate on the role that place of origin and genetics have played in distinguishing bulk versus fine flavour cocoa. We thereafter analyse the proposed global cocoa quality standards and the key actors, motivations, and debates shaping them. Lastly, we hypothesize what the implications of these standards could be and how they might redistribute roles and opportunities across the cocoa value chain.

Quality standards in agriculture

Broadly, standards "are the means by which we judge persons, processes, and things to be superior, acceptable, or unacceptable" (Busch, 2011: 3247). Grades and standards are therefore "ways of defining a moral economy" (Busch 2000: 274). Busch (2000) argues that the establishment of agricultural standards represents one of the most important transformations currently shaping rural life. The influence of private agri-food standards, in particular, has grown significantly in the past few decades (Loconto and Busch, 2010). As the state took a step back from directly regulating numerous aspects of agricultural production and trade in the neoliberal era, private regulators – frequently via third-party certification institutions – became key players in the global agri-food system (Challies, 2012; Hatanaka, Bain and Busch, 2005). Analysing the evolving role and consequences of standards is therefore a key to understanding fundamental changes in the governance of the global cocoa value chain.

Like Loconto and Demortain, we think of standardization as "the dynamic interaction in three spaces (standards in the making, standards in action, and standards in circulation) where diversity re-emerges only to be tentatively reduced or limited through new rounds of standard setting" (Loconto and Demortain, 2017: 382). In this paper we focus on the "standards in the making" process in the cocoa industry because that is where the initiative is currently at. Standard making is essentially about designing and enforcing a classification system (Bowker and Star, 1999). When attempting to create new standards, there is usually an attempt to argue that the chosen standards reflect intrinsic and objective characteristics of a product. The selection of certain "intrinsic" qualities as relevant for defining goodness is however neither natural nor predetermined; it reflects a compromise between different views of what is most valuable and important. Thus, standards embody particular values and preconceptions of what has worth and what does not. They are therefore not simply neutral technical tools and their emergence "is almost invariably the result of conflict or disagreement," in part "because standards create winners and losers" (Busch, 2011a: 33).

Studies about quality standards in agriculture tend to highlight the relationship between the elaboration of standards, and various kinds of power and (dis)advantages. Nelson and Tallontire (2014), for example, argue that it is crucial to analyse the way private standards are used to exert and resist ideational power (the power of ideas in shaping norms) in value chain governance, as opposed to solely material power (for example, the power to enforce standards). Also concerned about the relationship between power and standards, Quark's (2013) study of the cotton industry highlights the crucial role of standard-setting for building hegemony in the world economy and exercising geopolitical power. This article similarly highlights how ideational power combined with quality standards and the measurement instruments

needed to implement them could have material consequences across the cocoa value chain.

Standards are powerful and consequential for at least two main reasons. First, they establish the rules and practices that others must follow. These rules become a form of "codified power reflecting the interests and values of those groups with greatest access to and influence within standards-setting and enforcement processes" (Loconto and Busch, 2010: 510). Second, standards are a source of anonymous power; "even if we know who established them, standards take on a life of their own that extends beyond the [original] authorities in both time and space" (Busch, 2011a: 29). Once part of daily life, standards tend to become naturalized, rendering the work behind their construction and institutionalization invisible. The social construction of standards is most evident when they are first emerging or when they break down or become objects of contention, but once established they are difficult to challenge, change, or eliminate altogether (Bowker and Star, 1999). Thus, once quality standards are widely adopted and accepted, they "tend to rigidify production regimes" (Busch, 2011: 3247).

Several scholars have analysed how transnational standards interact with and are affected by national institutional differences and local standards (Mattlie and Buthe 2003; Thiemann 2014). Thiemann argues that "to introduce contentious transnational rules at the national level, a strong coalition for change is needed which includes rooted cosmopolitans as well as state agencies" (Thiemann, 2014: 28). It is particularly important that the coalition "overcome the opposition of business groups that benefit from the status quo ante" (Thiemann 2014: 29). Djelic and Den Hond (2014) point out that the adoption of global standards – which they refer to as transnational soft law – "creates significant opportunities for localized adaptation or 'translation' but also for shirking and avoiding" (Djelic and Den Hond, 2014: 3). Arnold and Loconto (2021) investigate how producers, faced with a multiplicity of standards, decide to apply them. They propose the concept of "nesting" to explain how they go about the process of selecting which to use and how to use them. The fact that new cocoa quality standards are currently under construction offers a fine opportunity to analyse their social construction, the challenges to their adoption, and their potential implications, and (maybe) to influence their course as they evolve. Before analysing the "standards in the making" process for the new cocoa quality standards, we first discuss the status quo in the industry.

Bulk versus fine flavour cocoa in a world without harmonized quality standards

The bulk-FFC dichotomy fails to accurately capture the diversity of cocoa flavours and qualities that exist, but is nonetheless the language used by most industry participants. Bulk cocoa accounts for roughly 95% of global trade, while FFC amounts to a mere 5-7%. This means that the vast majority of the world's cocoa farmers are relegated to the bulk cocoa market and the related uncertainties of the futures market. Fine flavour status is usually obtained from a combination of particular genetics (Criollo, Trinitario), country of origin (usually Latin America and the Caribbean), and appropriate post-harvest practices (fermentation). Ecuador is the world's largest exporter of fine flavour cocoa (FFC), supplying over 50% of the global cocoa market (ICCO, 2015). FFC is valued for its distinct aromas and flavours, such as the presence of fruity, floral, herbal and nutty notes. There is ongoing debate about how much these attributes are a product of either the cocoa beans themselves or of the post-harvest practices, especially the fermentation process. The truth is, there is no "universally accepted definition, short or long, scientific or commercial, of fine flavour cacao", nor is there agreement on how best to assess a particular flavour attribute (Eber and Williams, 2012: 12). As it stands, fine flavour cocoa is determined by what buyers say it is.

The major global governance institution in the cocoa industry is the International Cocoa Organization (ICCO), originally created in 1972 to oversee the International Cocoa Agreement. The ICCO has been particularly influential in shaping perceptions about which countries are producers of FFC. Since the 1970s, it has published a list (Annex C), updated every few years, of the countries considered to be fine flavour cocoa exporters, along with the percentage of total cocoa exports from each of those countries. The decision is made by an expert panel composed of representatives of companies that buy FFC cocoa to trade or make chocolate. To be considered for inclusion, government representatives must present their case periodically to the ICCO and provide documentary evidence that their country's cocoa is purchased as FFC in the global market. They must include information about who the purchasers are and what they produce with the cocoa, as well as price differentials paid as compared to bulk market prices, and details of any awards won for the quality of their cocoa or for chocolate made from it. For example, Nicaragua used the fact that Ritter buys its cacao at premium prices and that the Ingemann Fine Cocoa company has won prizes for cocoa and chocolate made from Nicaraguan cocoa, in order to achieve fine flavour status (ICCO, 2015). The Annex C list grew from fourteen to twenty-three countries in 2016, nineteen of which are in Latin America (Ríos et al., 2017: 24).[4] Ultimately, however, the

[4] The most recent list of FFC exporting countries published in 2016 includes: Belize, Bolivia, Colombia, Costa Rica, Dominica,

ICCO's distinction between ordinary and fine flavour cocoa relies on market recognition and does not truly reflect either the intrinsic attributes of cocoa grown worldwide, or the potential of cacao farmers in countries not on the list to produce high-quality cocoa. The adoption of globally harmonized quality standards could provide a new avenue for classification as FFC, which could gradually erode the power and influence of the ICCO in shaping perceptions and discourses of what counts or does not count as FFC.

As bulk cocoa is considered inferior in terms of quality and flavour, traders generally receive a higher price per ton for FFC. The commercialization of FFC inevitably requires some method of both differentiation (from bulk cocoa) and standardization (of what counts as FFC). In the absence of globally harmonized cocoa quality standards, diverse practices, standards, and norms, varying both across and within countries, are used to distinguish bulk from FFC. Buyers interested in FFC tend to rely on direct relationships with growers and traders in particular locations. Some bulk cocoa traders and exporters use quality control standards developed by the International Organization for Standardization (ISO) that focus on three aspects: "(1) the average size of the beans; (2) the average percentage of beans showing [defects] and the degree of fermentation; and (3) the organoleptic characteristics of the cocoa" (ITC, 2001: 36). A common quality control method involves a "cut test" whereby beans are evaluated for the presence of mould, infestations, slate and degree of fermentation. Even though quality evaluation procedures vary somewhat by country, most of them focus more on physical traits than on sensory traits. Importantly, buyers are particularly powerful in determining what counts and does not count as FFC.

The price of cocoa futures has fluctuated between US $1,000 and $3,400 per ton since the year 2000. In 2020 prices averaged between US$ 2,300-2,400 per ton (Trading Economics, 2020). Both the New York and the London stock markets make price distinctions on the basis of "origin groups", suggesting that origin as a proxy for quality is institutionalized in the futures market.[5] Some companies have predetermined premiums that they will pay for FFC, above the bulk price, but smaller more specialized firms have their own supply and demand logics and rely on specialist agents to buy FFC directly from particular growers (ICCO, 2019). This is especially true for ultra-premium fine cacao and rare varieties. The ICCO consistently publishes statistics about average prices for bulk cacao, but reliable and verifiable data about price differences between bulk and FFC are scarce and difficult to obtain (Villacis et al., 2019). In 2015, the ICCO shared one of the few publicly available estimates for the average global price differentials for that year, as summarized below:

Table I: Cocoa Production and Prices During 2015

Cacao Type	Annual Production (tons)	Market Price (USD/ton)
Ultra-Premium Fine	12,000 [0.3%]	5,000 – 10,000+
Fine	230,000 [5.7%]	3,700 – 5,000
Bulk Certified	600,000 [14.8%]	3,100 – 3,700
Bulk	3,200,000 [79.2%]	3,000 – 3,500

(Source: Martin, 2017)

The average prices in the table above do not however say much about price variability of FFC within and across different countries.

Chocolate quality claims tend to mention the genetics of cacao beans, as well as the place of origin. Cacao flavour profiles are complex, and the same variety grown under variable environmental conditions and subject to different post-harvest practices can lead to dissimilar flavour attributes. In addition to genetics then, post-harvest practices that vary across place and culture, and "terroir" – the term used in the industry to refer to the overall environmental conditions under which cacao is grown – are crucial as well. The components affecting flavour can therefore be thought of roughly as a series of fourths, where the four major factors are: terroir (place), fermentation, roasting, and genetics (Eber and Williams, 2012: 11).

Dominican Republic, Ecuador, Grenada, Guatemala, Honduras, Indonesia, Jamaica, Madagascar, Mexico, Nicaragua, Panama, Papua New Guinea, Peru, Saint Lucia, Sao Tome and Principe, Trinidad and Tobago, Venezuela and Vietnam (ICCO, 2019).

[5] New York's InterContinental Exchange divides cocoa into three categories: Group A includes cacao from West Africa and is deliverable at a premium of $160 per ton; Group B includes Ecuador and most Latin American varieties and is deliverable at a premium of $80 per ton; Group C includes Malaysia and others delivered at par (Nardella, 2014). The London's Futures Exchange used to have five different origin groups, but reduced them to two in 2017: African and other (Brandon, 2017).

Most chocolatiers agree that "cacao genetics, origin, and proper processing are the essential first steps to creating any fine chocolate. Start with a mediocre bean and you might create something good, but fine? No" (Williams and Eber, 2012: 76). It is therefore necessary to start with a fine flavour cocoa bean, defined by genetics and terroir, since post-harvest practices enhance but do not create fine flavour cocoa.

For decades, it was thought that cacao could be divided into three distinct genetic clusters – Criollo, Forastero and Trinitario – from which all commercial cocoa varieties, hybrids and clones stemmed. This classification has recently been challenged by breeders and ecologists, and a ground-breaking study by Motamayor et al. (2008) demonstrated that there are at least ten genetic clusters.[6] Nonetheless, the three afore-mentioned categories are still the most commonly used terms employed by industry participants. The vast majority of bulk cocoa traded today is considered to be of the Forastero type, while the Trinitario and Criollo types are generally considered to be of fine flavour quality. There are however notable exceptions to this rule. Ecuador's famous Nacional trees are Forastero types, yet they produce FFC with unique fruity and floral attributes. Conversely, beans from Trinitario trees grown in Cameroon, "whose cocoa powder has a distinct and sought-after red colour, have, so far, been classified as bulk cocoa beans" (ICCO, 2019). In short, the cocoa industry is presently characterized by the coexistence of a diversity of conventions and standards. The current harmonization initiative is intended to create order, but as Timmermans and Epstein (2010: 84) note, "any order is a hard-won achievement that requires the submission of diverse actors".

The push for globally harmonized cocoa quality standards

Key actors and motivations

The belief that there is a need for establishing industry-wide cacao quality standards is not new in the cocoa business. Consumption patterns in the industry are changing, and there is rising interest in product differentiation, which is leading to a growing need for effective traceability, certification and quality control systems that distinguish specialty cocoas from bulk cocoa. There is also a generalized perception within the cocoa industry that quality systematically deteriorated throughout the past century, and there is concern about the possible loss of rare varieties that could revitalize breeding programmes. Several companies, scientists, and institutions are trying to incentivize FFC production and to protect cacao biodiversity; some for business reasons, others for breeding purposes, and others due to a passion for distinct chocolate flavours. In 2008, for example, Mars Inc. funded a project that "successfully mapped 92 percent of the 3,500 genes in cacao germplasm" (Eber and Williams, 2012: 7). They made their findings public and published a Cacao Genome Database. The hope is that this information can contribute to a better understanding of the relationship between genetics and flavour potential (Loor et al., 2012). The USDA and Fine Chocolate Industry Association (FCIA), for their part, launched an Heirloom Cacao Preservation Fund in 2012, hoping "to save the Heirlooms or 'diamonds' of cacao – the finest, richest, most complex forms in the chocolate universe – from extinction" (Eber and Williams, 2012: 18). It was in this context of angst about diminishing quality and loss of cacao biodiversity that the initiative for global quality standards emerged.

Buyers are finding that the quality control systems that they have relied on up to now are no longer guaranteeing a consistent supply of FFC in the context of growing demand for specialty cocoa. They are therefore interested in developing new traceability systems, including new quality standards. Several institutions and companies have invested substantial amounts of time and money in trying to better understand the variables influencing flavour and to design quality standards. For example, a $1.67M project sponsored by the ICCO in 2006 sought to "to establish physical, chemical and organoleptic parameters enabling the evaluation of cocoa quality in relation to genotype and environment, and to disseminate selected parameters, methodologies, standards and instruments to be used in the evaluation of cocoa quality. Unfortunately, the project didn't get very far" (Eber and Williams, 2012: 14). Initiatives at the country or company level – for example Tcho's Flavor Labs[7] or Peru's efforts to establish national sensory standards (Wiegel et al. 2019: 21) – have been more effective at designing and consistently using quality standards. These have been limited to standards recognized by a specific company or country and so have not had broad relevance across the industry. So far, no initiative has led to the elaboration and implementation of globally harmonized cocoa quality standards.

In 2015, a multi-stakeholder initiative emerged with the objective of developing globally harmonized cocoa quality standards. The proposed standards are concerned primarily with quality for the chocolate industry, not other cacao-

[6] See Motamayor et al. (2008) for a discussion of the ten genetic clusters proposed, namely: Amelonado, Contamana, Criollo, Curaray, Guiana, Iquitos, Marañon, Nacional, Nanay, Purús. Boza et al. argue that "this new classification more accurately reflects the genetic diversity that is available for breeders" (Boza et al., 2014: 221).

[7] For more on Tcho Flavor Labs, see: https://tcho.com/pages/tcho-sources. Equal Exchange had a similar initiative in Peru that scaled some at country level, but not beyond.

derived products. According to Brigitte Laliberté – one of the facilitators of the standards elaboration process – it all "began at a World Cocoa Conference in September 2015 in El Salvador with a group realization that cocoa did not have a common language and a common understanding of what quality is, what fine flavour is; is it fine or is it flavour?" (Laliberté in FCIA, 2020). In the interest of creating a shared language, conference participants decided to form a working group for the elaboration of international quality standards. The working group believes that "there is a critical and urgent need to: establish accepted, credible, quantifiable and verifiable protocols for assessing and communicating cocoa quality and flavor; facilitate comparison among samples; and provide feedback towards improving post-harvest processes for different cocoa genetics, 'terroirs', and production systems" (Bioversity International, 2019: 5). The hope is that the new standards will aid growers to better understand the characteristics of the cacao that they grow and will provide the means for them to evaluate it.

The eighteen working group members as of 2020 included representatives of international NGOs, industry associations, university-based research centres, global agricultural research institutions, and the private sector.[8] There are notably more voices from Latin America than other cacao producing regions and more influence of US-based actors than European actors. Importantly, there are no farmer-led organizations represented, though many of the institutions and individuals work closely with farmers. This indicates that it is not essentially farmers' interests or priorities driving the initiative, but rather Global North actors interested in the FFC market. The Alliance of Bioversity International and CIAT, with USDA funding, is directly facilitating the initiative. The Working Group decided that the Alliance will continue to coordinate the initiative at least until 2022, when the USDA-funded MOCCA[9] project is scheduled to end (Bioversity International, 2019: 17). The future governance structure is unclear and is a subject of heated disputes.

Attention to both the funding source and the actors with a seat at the table is meaningful for understanding the various interests and geopolitical struggles undergirding the standard elaboration process. Quark (2014) argues that at different moments in time, hegemonic coalitions between various states and firms are formed to establish the rules and standards whereby particular commodities are to be regulated and traded. Her analysis of changes in the global cotton industry reveals that it is not only firms that shape the commodity chain; it is also state institutions such as the USDA seeking to gain geopolitical and economic advantages in part through the design of particular quality standards that best serve their interests. In the case of cacao, it is precisely the USDA that is providing the financing for industry-wide quality standards. Their collaboration with the Alliance of Bioversity International and CIAT (part of the CGIAR system), NGOs, universities, and various private sector groups is likely to result in reputational gains as they seek to influence global cacao governance, speaking to Henson's question about "why firms might engage with government, other firms and/or NGOs in order to develop and implement governance mechanisms" (Henson, 2011: 449). As Boström and Tamm Hallström note, "differences in the access to power resources provide a basic explanation as to why multi-stakeholder organizations are developed in the first place" (Boström & Tamm Hallström, 2013: 102). The asymmetrical power relations and the prioritization of certain types of knowledge and expertise with regard to quality are likely to impact the distribution of benefits and the upgrading of opportunities, or the obstacles. The power of buyers and their profit maximizing logic, for instance, could transform the standards into mechanisms that enhance their power and profits in relation to the supply of FFC, rather than the standards being a tool for transferring value and profit to farmers, as many working group members hope.

From the point of view of the working group members, there has been an explicit attempt to keep the standard elaboration process inclusive and participatory. This is common in multi-stakeholder initiatives as they seek to mimic democratic processes and transparency, given their legitimacy challenges (Boström and Tamm Hallström, 2013; Jongen and Scholte, 2021; Ponte et al., 2011). The first broad consultations regarding the working drafts took place over three days in September of 2017 in Managua, Nicaragua, with around sixty people; and for a half day in October of 2017 in Paris, France, during the Salón du Chocolat gathering with around seventy people. A dedicated team continued to refine the draft protocols throughout 2018, and shared the drafts for additional feedback in Paris in October 2018.

[8] The eighteen working group members are: Alliance of Bioversity International and CIAT, AMACACAO/CUNAKakaw from Guatemala, Barry Callebaut, the Cocoa Research Center (CRC) at the University of the West Indies (UWI), ECOM, the Cooperative Development Program (CDP), the Fine Chocolate Industry Association (FCIA), the Fine Cacao and Chocolate Institute (FCCI), Guittard Chocolate, ICCO, the International Institute of Chocolate and Cacao Tasting (IICCT), Lutheran World Relief (LWR), Puratos/Belcolade, Ed Seguine, TCHO, Valrhona, the World Cocoa Foundation (WCF), and Universidad Nacional Agraria La Molina Perú (UNALM). Financial support comes from: The Alliance of Bioversity International and CIAT, CGIAR, USDA, PennState, Cocoa of Excellence, OCCA, Barry Callebaut, Puratos, Belcolade, ECA, CAOBISCO, and FCC (FCIA, 2020).

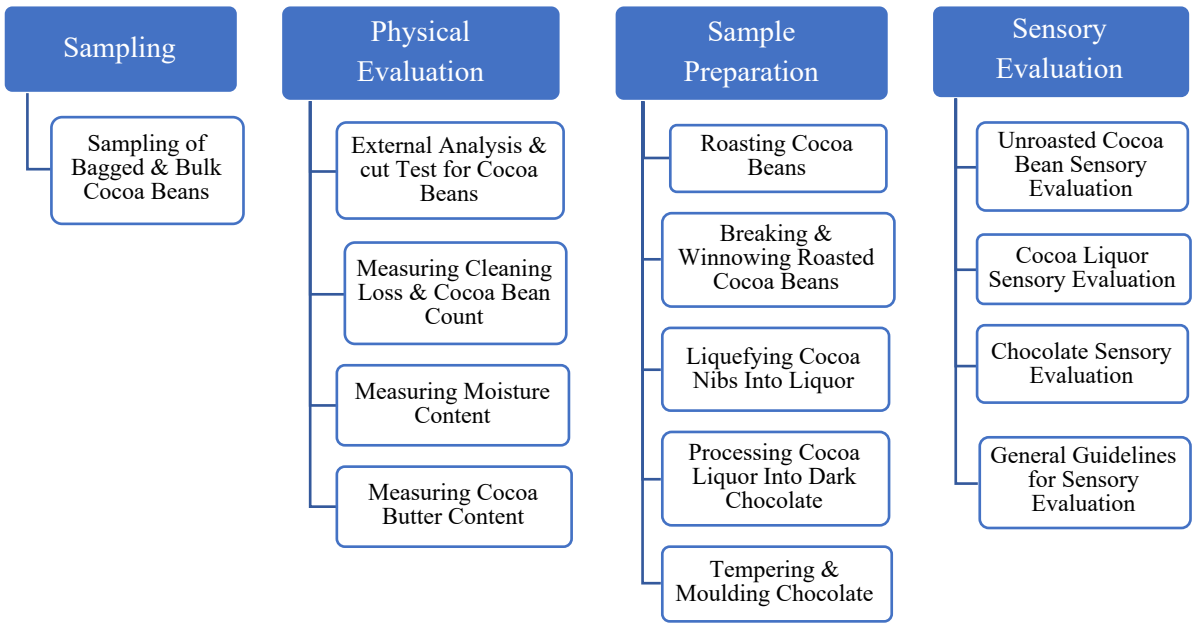
[9] The Maximizing Opportunities in Coffee and Cacao in the Americas (MOCCA) is an ongoing five-year USDA project implemented by the NGOs TechnoServe and Lutheran World Relief in Ecuador, Peru, Nicaragua, Honduras, El Salvador and Guatemala. It plans to begin using the new standards in those countries as part of the project.

Various scholars have drawn attention to the fact that poor producers are frequently left out of negotiations around new standards and certification programmes (Reardon et al., 1999). The cocoa standards elaboration process has been no exception. Importantly, as in other cases, the standards "embody values and norms of Northern consumers, NGOs and companies. Despite varying degrees of 'stakeholder engagement' and participation, the voices of developing country consumers and producers remain relatively marginalised" (Challies, 2012: 187). The ongoing standards construction and implementation process in the cocoa industry affords an opportunity to trace the evolution of who most benefits from new global standards and why, as well as the evolving perceptions of the legitimacy of a multistakeholder global governance initiative.

The construction of the proposed quality standards

As a first step, the working group compiled and studied the quality standards and protocols currently used in the industry, so as to work on the basis of what already exists. Dr Darin Sukha, part of the Cocoa Research Center at the University of the West Indies, was instrumental in this early research. With support from the NGO Lutheran World Relief, he carried out a series of interviews in 2015-2016 to gather as much information as people were willing to share about cocoa quality standards.[10] Given the secrecy that has long characterized chocolate production processes and recipes, some actors were not willing to share information (FCIA, 2020). Still, the working group compiled all publicly available quality standards for cocoa, as well as those for coffee, wine and olive oil so as to draw lessons from the experiences of other industries. The protocols and grading systems developed by the Cocoa of Excellence programme to select the world's best cocoas throughout the past decade were crucial inputs. On the basis of the information obtained, Dr Sukha developed an initial proposal for the new global standards (see Sukha, 2016).

Taking the feedback into account, Dr Sukha developed a collection of individual protocols for assessing cocoa quality and flavour. The fourteen total draft protocols are each organized into one of the four categories, as illustrated below (in ISCQF, 2020: 4):



The protocols describe step-by-step how to: (1) sample cocoa beans for evaluation; (2) assess the physical qualities of cocoa beans; (3) process cocoa beans into unroasted powder, liquor and chocolate; and (4) assess the sensory attributes of the sample in unroasted beans, liquor, and chocolate. The first and third categories define protocols for processing samples while the second and fourth define protocols for assessing the samples. Within each category, separate protocols were developed for different measurements, processes or products. By late-2020, the first completed drafts were shared with the public in Spanish, English, and French, and an ongoing consultation process to collect feedback was established.[11] If all goes as planned, final versions will be published by the end of 2022 or 2023. All value chain actors

[10] Fourteen Skype interviews were conducted with people from: "Lutheran World Relief, Seguine Cacao Cocoa & Chocolate Advisors, Equal Exchange, ITZEL Chocolate and AMACACAO, Fine Cacao and Chocolate Institute, Borlaug Institute for International Agriculture Texas A&M University, Atlantic Cocoa Company, TCHO Chocolate, Guittard Chocolate, 70% and International Chocolate Awards, Guittard Chocolate, Rogue Chocolatier, The Chocolate Life, Chloé Chocola" (Sukha, 2016: 12).

[11] As of 2020, nine protocols were published: (1) Sampling of Bagged and Bulk Cocoa Beans; (2) External Analysis and Cut Test for Cocoa Beans; (3) Measuring Cleaning Loss and Cocoa Bean Count; (4) Measuring Moisture Content of Cocoa Beans; (5) Roast-

and other interested individuals can provide feedback on the draft protocols.[12] The working group is also carrying out anonymous surveys for people to share their opinions, suggestions and comments.

Key debates over the content of the standards

While a detailed discussion of all fourteen protocols is beyond the scope of this article, in this section we highlight some of the major discussions regarding their content. Some significant debates revolved around the following: (1) how to prepare samples, and the form in which cocoa should be assessed; (2) how to best carry out sensory or flavour evaluations; (3) the challenges associated with acquiring the knowledge, training and equipment needed to effectively apply the standards; and (4) who would be responsible for implementing and certifying the appropriate use of the new standards. These debates reveal how standards setting is a process of negotiation. They illustrate the power and conflict-laden nature of the construction and implementation of standards. We elaborate hereafter on each of these four debates.

The draft protocols for sensory evaluation are the product of heated debates regarding the best types of samples to assess flavour potential. The protocols propose sensory evaluation standards for three types of samples: unroasted cocoa beans, cocoa liquor, and chocolate. Only the first two have been publicly shared. The chocolate formulation for the third protocol is currently paused because there is disagreement about how dark the standardized chocolate formulation should be and what impact that might have on flavour diversity. Before publishing that protocol, the working group is carrying out additional research and consultations. A related discussion concerns whether certain parts of the evaluation process should be standardized or not. For example, some argue that the length of time that beans are roasted before tasting should be standardized, not because that is the best roast for all beans, but because it allows one to compare across sets of beans in a standard way that both farmers and buyers could replicate to then, in theory, taste the same thing. The other side of the argument is that not all cacao varieties require the same roasting times and temperatures, and that their flavour can be ruined by certain roasting techniques. In short, there is tension between the value of diversity versus the value and implications of standardization. The ambitious goal of standardizing the evaluation of flavour means that the designers of standards are faced with the challenge of delimiting the techniques used for sample elaboration in ways that may ultimately reduce flavour diversity. The tension lies in the fact that some consider diversity of flavours more valuable than the benefits afforded by global standards.

Another discussion is about whether flavour is better assessed in the bean/raw material or as liquor or chocolate. Those who advocate for tasting the beans are arguing for the use of quality attributes that can most easily be assessed in the country of origin and by farmers. Those who on the other hand argue for tasting in chocolate form claim that any bean may be high quality, depending on how the chocolate maker wants to use it, and that creating bean-based standards will standardize flavour profiles and lead to a loss of flavour diversity. The protocols developed were designed to reach a compromise by detailing sensory evaluation procedures for raw beans, liquor, and chocolate, but the proposed global quality score is based on the evaluation of cocoa liquor. As mentioned above, the details of the chocolate sensory evaluation protocols are yet to be published, partly because of the difficult debate on the definition of an "ideal" standardized chocolate formulation. It is therefore too soon to know whether sensory evaluation in chocolate will affect the global quality score and, if so, how.

Arguably, the most consequential and innovative contribution of the draft protocols is that they offer a universal method for talking about, evaluating and scoring flavour attributes in both a qualitative and a quantitative way. Attributes such as acidity, bitterness, fruitiness, floral tones, and so on are ranked on a scale of one to ten and there is a detailed glossary explaining what the different intensity levels mean for each one. The flavour attributes are divided into three categories: "(1) core attributes: cocoa, acidity, bitterness, astringency and a roasted flavour are expected to be present in every sample and should always be scored; (2) complementary attributes: characteristics that can be perceived but not always found in every sample; and (3) off-flavours: defects that may be present in the cocoa liquor sample" (ISCQF, 2020: 13). One of the most important aspects of the evaluation is that it provides a method for calculating a "global

ing Cocoa Beans; (6) Breaking and Winnowing Roasted Cocoa Beans; (7) Liquefying Cocoa Nibs into Liquor; (8) Cocoa Liquor Sensory Evaluation; and (9) Unroasted Cocoa Beans Sensory Evaluation (FCIA 2020). The re-publication of these nine protocols is in progress in 2022 after having received an initial round of feedback. The five pending protocols are scheduled to be published in late 2022.

[12] In order to download the protocols, one has to register on their website (www.cocoaqualitystandards.org). As of June 2020, at least 280 people had registered, including people from around fifty countries, on every continent (FCIA, 2020). As of October 2020, the number of registered users rose to over 700. Registered users include small and large chocolate makers, chocolate maker organizations, cocoa producers, cocoa producer organizations, cocoa traders, development organizations, independent consultants, research organizations, sensory analysis laboratories, standardization organizations, and universities (FCIA, 2020).

quality score" to communicate the overall impression of the sample with regard to flavour potential, uniqueness, and balance of flavour and cleanliness (ISCQF, 2020: 24). As stated in the protocol itself, "The result of the sensory evaluation is a flavour profile for each cocoa liquor sample, showing the intensity of the evaluated attributes and off-flavours, associated with a global quality score and comments" (ISCQF, 2020: 18). This global quality score is on a scale of one to ten. The hope is that this score will eventually become a simple way of communicating cocoa quality in the global market, similarly to how a score of 80 points or more in coffee is interpreted as specialty coffee.

During one of the meetings, "concerns were raised about the repeatability of assessments, getting the right equipment, and having trained panellists" (Laliberté, 2017: 24). The working group acknowledged that being entirely objective in flavour evaluation "is a difficult task that can be supported by using common physical references for specific flavour attributes, with agreed-on descriptors/glossary of terms to reduce variations" (Laliberté, 2017: 20). The idea is that tasters will rely on samples, so as to be as consistent as is humanly possible in their evaluations. The protocols also require assessors to record the conditions under which the evaluations are carried out, including: number of samples evaluated; location; number of assessors in the panel; use of reference samples; blind control samples; etc. (ISCQF, 2020: 19). There is, of course, inevitably some degree of subjectivity in flavour evaluations even after having completed standardized sensory evaluation trainings. There are pending decisions to be made regarding who will be responsible for distributing samples for sensory evaluations and for training panel members, tasters and instructors. The working group foresees that some form of certification of trainers will be needed for the effective implementation of the new standards, and this tends to imply costs.

There are also different opinions with regard to how much detail should be included in each of the protocols. Some people argue that if they are overly complex, they will be intimidating, and hence make adoption unlikely. Others insist that it is better to have as much detail as possible, to ensure replicability. The working group has opted to prioritize details, on the grounds that it is easier to simplify protocols later than to make them more complex. Effective training is thought to be crucial for the successful adoption and acceptance of the newly developed standards. The challenge moving forward is how to clearly and successfully communicate the quality targets described in the protocols in ways that work independently of culture, language, and variable education levels. In addition to the issue of knowledge and training, the question of the accessibility and costs of required measurement instruments is also controversial. To be able to use all of the protocols, a range of equipment and materials are necessary, and only those with sufficient resources will be able to purchase them.

The working group's intention is that these new protocols will be used by most cacao value chain actors worldwide, including all types of cacao farmers growing any cacao variety. Yet there is still no clarity as to how cacao quality standards will be implemented and enforced. The question of whether there should be a designated institution to work on standard implementation has repeatedly been discussed. In a 2019 gathering, for instance, "Participants discussed the long-term sustainability of this initiative and the possibility of creating a new organization or build on existing ones such as: Bioversity, CAOBISCO, CMA, CoEx, ECA, FCIA, FCCI, ICCO and WCF"[13] (Bioversity International, 2019: 16). Another suggestion was "that more than one organization share responsibilities, covering different aspects of the ISCQF [International Standards for the Assessment of Cocoa Quality and Flavor], such as the keepers of the standards, the development of reference samples, training and certification", similarly to how this is managed in the case of specialty coffee[14] (Bioversity International, 2019: 16). A third possibility is to insert the new standards in the ISO (Laliberté, 2017: 21).

The governance debate is highly political as the working group is composed of representatives of different stakeholders and interests, even if they are united behind the common goal of creating global standards. As Quark reminds us, "Whoever can successfully claim authority over quality standards has considerable influence over how the benefits of trade are distributed" (Quark, 2013: 30). The private sector is pushing to secure control over the standards, while others would like an independent third-party organization that prioritizes farmers' interests to be in charge of the standards. A key concern for value chain actors is how the new quality standards might impact costs and cocoa prices, and who

[13] CAOBISCO is the Association of Chocolate, Biscuits and Confectionary; CMA is the Chocolate Manufacturers Association; CoEx is the Cocoa of Excellence Programme; ECA is the European Cocoa Association; FCIA is the Fine Chocolate Industry Association; and WCF is the World Cocoa Foundation.

[14] In order to implement harmonized quality standards in the coffee industry, new institutions dedicated to this issue were created. The Specialty Coffee Association of America (SCAA), founded in 1982, provided the initial "forum to share ideas and develop quality standards and protocols" (Laliberté, 2017: 10). The SCAA, in turn, established the Coffee Quality Institute (CQI) to promote and oversee the use of the new standards through its Q Program. The CQI now "has over 4,000 certified Q (Quality) Graders around the world" (Laliberté, 2017: 11).

will pay for that. These concerns include "possible costs of modifying the production system to meet the standard, the costs of record-keeping and administration, the costs of implementing farmer training [or] the costs of undergoing an audit" (Bray and Neilson, 2017: 217). Most companies would evidently prefer not to pay more, while those concerned about farmers' livelihoods would like farmers to receive higher prices for higher quality cocoa. Some buyers would like it to be easier to understand quality at origin, in order to improve the quality of what is produced and what they will therefore purchase, while others are concerned about how that might shift farmers' price expectations. The disputes and debates around the new cocoa quality standards can be viewed as an attempt to design "strategic instruments for influencing the distribution of value added along the chain and set inclusion/exclusion thresholds" (Muradian and Pelupessy, 2005: 2033). Whether the standards end up being controlled by the private sector, by an existing institution or a new one will likely have consequences for the costs and benefits associated with the use and implementation of standards in the near future.

Questions abound regarding the future governance and enforceability of the standards. How will the new standards begin to be used and by whom? Who will be responsible for certifying or validating claims of quality? Are private third-party cacao quality certifiers likely to emerge? How will implementation be funded? The only immediate answer is that in 2021 the people working on the MOCCA project started training people on how to perform sensory evaluations. The hope is that this initial work can serve as a testing ground for the new standards and that farmers can then provide feedback that can help improve their content. According to one working group member, the standards are not thought about as mandatory punitive standards but are just meant to be helpful throughout the value chain (FCIA, 2020). As Timmermans and Epstein (2010) point out, if voluntary standards are not to become paper tigers, momentum needs to be created with built-in incentives. Firms are likely to adopt voluntary standards when "there are clearly-defined goals, the scope of the initiative is relatively narrowly defined, and where the objectives of the initiative are more immediately aligned with their interests" (Henson, 2011: 450). Mayer and Gereffi argue that "to the extent that standards can be met without incurring significant costs, or better yet, when they actually are cost-saving, they are much more likely to be adopted" (Mayer and Gereffi, 2010: 13-14). If FFC firms begin to use the new standards regularly and to demand that producers comply with them, these standards will likely become a prerequisite for farmers hoping to supply that market. Still, the organizational and institutional problem is yet to be solved, and tracing its evolution and consequences will be an important subject for future research.

Cocoa quality in a world with harmonized standards

In this section we hypothesize on how the introduction of the new quality standards could affect the prospect of different farmers and cocoa origins inserting themselves into the global FFC value chain. We also discuss how marketing strategies and discourses could change as a result of the adoption of new quality standards. It is evidently impossible to predict how standard implementation will evolve, so we start with the assumption that the standards will indeed begin to be used and acquire a life of their own in specific contexts. Such an ambitious standardization initiative will inevitably produce a series of unintended consequences as the standards begin to interact with local dynamics. As Loconto and Demortain (2017) point out, the diversity that will likely result in the standards being applied and in the circulation process should be viewed as part of the natural dynamics of standards adoption, as opposed to the product of concerted resistance to standards. Here we offer some preliminary ideas regarding their possible implications, but their future trajectory will require further original research.

Presently, West African countries are almost exclusively supplying the bulk cacao market, whereas Latin American countries are viewed as the major players in the FFC segment. We argue that the standards will offer new tools for African and Asian countries to be able to make claims of producing superior quality cacao. As a result, Latin American growers could face growing competition from other regions. Existing marketing strategies that rely on longstanding ideas linking place to quality would be challenged by narratives of intrinsic quality backed up by the global quality scores as delineated in the new standards. In Quark's (2015) terms, the standards could incentivize product-based as opposed to solely place-based branding strategies. A similar process occurred in the coffee industry. Certified quality systems, such as those developed by the Specialty Coffee Association of America, have increasingly replaced origin-based trust narratives. As a result, standards claiming intrinsic quality "partially de-link quality from place" (Ponte and Gibbon, 2005: 13-14). This is not to suggest that place-based strategies would disappear altogether, but they would coexist with other marketing discourses. As a result, the ICCO's Annex C classification of FFC producers may gradually become less meaningful. The dichotomy between bulk and FFC could also lose significance in a world with a wider range of recognized attributes. The grading system embedded in the global quality score provides a language to communicate on quality differently. In short, with the adoption of the new standards, the "rites of passage" (Busch and Tanaka, 1996) required to demonstrate "goodness" and quality could gradually begin to change.

Another significant implication of adopting global quality standards is that some quality evaluation practices and responsibilities could relocate. Historically, most companies have assessed flavour internally, and there has been some reticence to having open-source protocols and standards. Currently, it is the private sector that has most of the power with regard to telling growers whether what they are growing is good or bad. The new standards allow other actors to carry out flavour evaluations, outside the purview of particular companies. Actors with sufficient training and resources to effectively evaluate quality could therefore emerge in producer countries. They would be able to make an independent assessment of quality, opening possibilities for a more informed negotiation between buyer and seller around quality. Some working group members believe that the new quality standards can be a tool for making cacao origins and farmers more visible and important in future definitions of cocoa quality. The intuition is that understanding quality at origin can help make cacao farmers and producer countries more visible "stars" of the show, as opposed to chocolate makers in the Global North receiving most of the attention.

Even though the new standards may afford some opportunities for new countries and farmers to enter the FFC segment, it is critical to recognize that there are significant obstacles for farmers to benefit directly from specialty cocoa markets. The vast majority of the world's cacao farmers are relegated to the bulk cocoa market, dependent on single buyers and fluctuating stock market prices. The FFC segment is still relatively small even if it is growing. Moreover, while some "high-end fine and flavour cocoas have commanded as much as [US] $10,000 per metric ton (MT), the high-end share of the market is less than 12,000 tons annually, less than 0.25 % of the world market" (Villacis et al., 2019). It is therefore important not to have unrealistic expectations about the ease with which substantial price premiums associated with FFC can be obtained. Some of the major challenges farmers face include: the difficulty of changing a farm's genetic characteristics quickly, given that cacao trees are perennial plants; the power of intermediaries, which often means that they, not the farmers, capture premium prices (Daviron and Ponte, 2005); learning how to use the new quality standards and adopting better post-harvest practices all require resources, technical support, and contacts; it is difficult to build new relationships between FFC farmers and buyers; and the costs associated with use of the standards may be an unsurmountable economic burden for many growers.

Tampe (2018) argues that "suppliers can leverage standards to create value from vertical relationships with buyers" but that "standards do not, by themselves, directly contribute to better conditions. They do so indirectly only if suppliers manage to become competitive in an elite market, augmenting rather than dampening unequal trade conditions" (Tampe, 2018: 43). Thus, it is unlikely that in the absence of other contextually-specific support systems for small-scale cacao farmers, they will immediately or necessarily benefit financially from the new cocoa quality standards, especially if they need to obtain some form of private certification. Farmers will benefit from superior quality cocoa only if there continues to be rising demand for FFC cocoa, and provided that there are mechanisms in place that effectively transfer the price premiums to them. In short, quality standards should not be assumed to be homogenous instruments that linearly lead to either upgrading or downgrading. Instead, the benefits and trade-offs are likely to vary across social, economic and environmental dimensions in different contexts (Krauss and Krishnan, 2022: 66). The benefits are also likely to vary across different types of upgrading: product upgrading, producer firm upgrading, country upgrading, labour upgrading, and so on.

Conclusion

The future of quality standards governance in the cocoa sector is currently under dispute. This process is significant to the roughly 6 million cocoa farmers that exist worldwide, over 90% of which are small-scale farmers (Ozturk and Young, 2017: 434). This article has clarified how cocoa quality is currently understood, has addressed the ongoing attempt to institute harmonized quality standards, and has analysed what their implications could be if they were indeed adopted. We have built on the existing literature on quality standards in agriculture by exploring how the coexistence of diverse standards in the cocoa sector is being dealt with by actors hoping to construct globally harmonized standards. We have also addressed some of the challenges that have emerged during the attempt to standardize tastes and senses, a relatively understudied theme.

We have argued that the adoption of the new standards could have direct implications for quality evaluation practices, which could in turn affect the possibility of new producer countries and farmers entering the FFC value chain and capturing premium prices, assuming they overcome a series of obstacles to entry. The standards could also fundamentally change the way cocoa quality is understood and talked about, moving away from quality on the basis of visual/physical characteristics and place-based reputation, towards an understanding of quality that systematically incorporates flavour

attributes and global quality scores. The importance of origin as a proxy for quality will likely endure, as it is codified into markets and sourcing strategies, and these take time to shift. Yet the adoption of harmonized quality standards could nevertheless provide new tools enabling new origins and farmers to make claims to superior quality. This, in turn, could influence preferred marketing discourses and gradually rearrange the way quality-based competition between farmers and across countries is structured and disputed in the global cocoa market. The ongoing debates over the content of standards and their future governance structure reflect broader disputes over who will profit or pay the most for superior quality cocoa, the fastest growing segment of the global cocoa market. The ongoing process of elaboration of standards, as well as their future implementation and governance, merits additional research.

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