

Cost & Benefit Analysis of the EU and US Regulatory Changes for Organic Production

VERSION 2 – APRIL 2024

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Acronyms

Acronym	Signification
AGM	Annual General Meeting
CB	Certification Body
COI	Certificate of Inspection
FIBL	Research Institute of Organic Agriculture
ICS	Internal Control System
NOP	National Organic Program
OTA	Organic Trade Association
SOE	Strengthening Organic Enforcement
USDA	US Department of Agriculture

1. Introduction

The European Union and the United States of America are mature markets for chocolate consumption. In both markets, organic chocolate has been thriving in recent years thanks to high purchasing power and growing interest in healthier living. But, despite the European and American consumers' willingness to pay more for organic chocolate, it remains a niche market.

More recently, consumers' skepticism has been triggered by scandals, notably on agricultural inputs allowed in organic production, while (non-organic) industry players often question the control process of organic certification. To address growing doubts and restore confidence, both EU and US organic standards have been amended to strengthen their enforcement¹.

The regulatory changes are foreseen to impact all organic stakeholders – although differently depending on their size, activities, and other factors – on three main aspects at least: the internal and external control systems of group certification, the traceability processes, and verification of absence of contamination from forbidden products.

To estimate the costs of complying with the new EU and US organic regulations as well as the potential benefits for all organic stakeholders, ICCO commissioned BASIC to conduct a cost-benefit analysis of the organic regulatory changes and build scenarios of the impacts on the value and costs distribution along the organic cocoa-chocolate chains. BASIC invited its partner Tero to complement its team, based on the complementarity between BASIC's ability to analyze cocoa value chains at a macro-economic level, and Tero's experience in collecting complex data from farming operators and its networks in cocoa producing countries.

1.1. Methodology

The end goal of the study is to compare estimates of benefits (for instance higher farmgate price or growing market shares) and costs of compliance induced by the regulatory changes, for organic cocoa stakeholders (both current stakeholders and those wishing to enter the organic cocoa market). Based on the estimates and cost-benefits analysis, the research team built scenarios exploring the impacts on the distribution of value and costs along the cocoa-chocolate value chain.

To that aim, the scope of study looks at:

- The EU and US organic markets of chocolate consumption,
- Five countries of organic cocoa production:
 - o Côte d'Ivoire and Peru, in which field work and data collection has been conducted,
 - o Dominican Republic, Ghana, and Sierra Leone, in which only remote data collection has been conducted.

¹ In the EU a new regulation was adopted in May 2018 and entered into force on 1 January 2022, the *Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products* (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02018R0848-20220101>). In the US a new legal text was published by the USDA Agricultural Marketing Service (AMS) *Strengthening Organic Enforcement (SOE) Final Rule* (<https://www.federalregister.gov/documents/2023/01/19/2023-00702/national-organic-program-nop-strengthening-organic-enforcement>) on January 2023 and entered into force on 20 March 2023.

The 5 countries were chosen to reflect a mix of dominant and upcoming actors in the organic cocoa market: while the Dominican Republic, Sierra Leone and Peru are major exporters of organic cocoa and organic cocoa represents a major proportion of their overall cocoa production, Ghana and Côte d'Ivoire are starting to develop organic cocoa, but this represents a minuscule share of their total production.

Within this geographical scope, the research team studied 5 types of actors at production level, as identified in the inception phase of the study:

- Cooperatives not yet certified, but wanting to apply for organic certification,
- Smaller and already certified cooperatives (<2000 members),
- Bigger and already certified cooperatives (>2000 members),
- Individual farms falling over the size/turnover threshold, which were certified as part of a group and will now have to seek individual certification²,
- Group certification as a project managed by an industry stakeholder (export, or chocolate manufacturer for instance).

35 key informants were interviewed to inform this report, with the following breakdown:

Type of stakeholder	Peru	Côte d'Ivoire	Other	Total
Producer organisations	6	7	6	15
Exporters	1		2	3
Importers / brands			4	4
Certification bodies / regulators	3	1	3	7
Others			2	2
Total	10	8	17	35

Table 1: Number of stakeholders interviewed by type

Other countries include the Dominican Republic, Ghana and Sierra Leone for producing countries, and the EU and the US for importing countries, certification bodies and regulator.

Other stakeholders include one NGO and a research institution.

Secondary sources were also consulted and are cited in the report.

1.2. Limitations

Given that these regulations are in a transition period, with implementation scheduled for early 2025, some minor adjustments could still be made:

- In the wording of certain regulatory requirements
- In the control procedures put in place by the various certification bodies and their representatives in the producing countries.

While efforts were made to balance to the number of cocoa production actors interviewed during field work and remotely, it has been harder to talk directly to stakeholders from Sierra Leone, Ghana

² In practice no organic cocoa farm which could be qualified as large following the EU definition could be identified in the course of this study.

and the Dominican Republic. It has also been very difficult to talk to organic chocolate companies, with several interviews turned down or which could not be organized in a timely manner.

Published data on the organic chocolate market and how it has been impacted by the recent market decline in the EU is scarce.

The current context of high prices also complicates the exercise of building scenarios. Indeed the common differential for organic cocoa oscillates roughly between 200 and 300€/t (between 180 and 280€/t for organic and between 270 and 300€/t for organic Fairtrade) becomes a much lesser incentive when FOB prices are in excess of 6000 USD/ton (falling below 5%).

2. Organic market: consumption and production

2.1. Organic production worldwide

Organic agricultural land amounted to 2% of the total agricultural land worldwide in 2022. Between 2021 and 2022, organic farmland grew by 26.6% amounting to a total of 96.4 million hectares of organic and in-conversion areas, with the largest increases in absolute terms reported in Australia, India, and Greece³. An estimated 4.5 million organic producers farm those lands, mostly located in Asia (61% of the estimated organic producers)⁴.

In 2022, organic cocoa occupied 515,214 hectares amounting to 0.5% of the total organic agricultural farmland worldwide and 4.4% of the total cocoa farmland worldwide⁵.

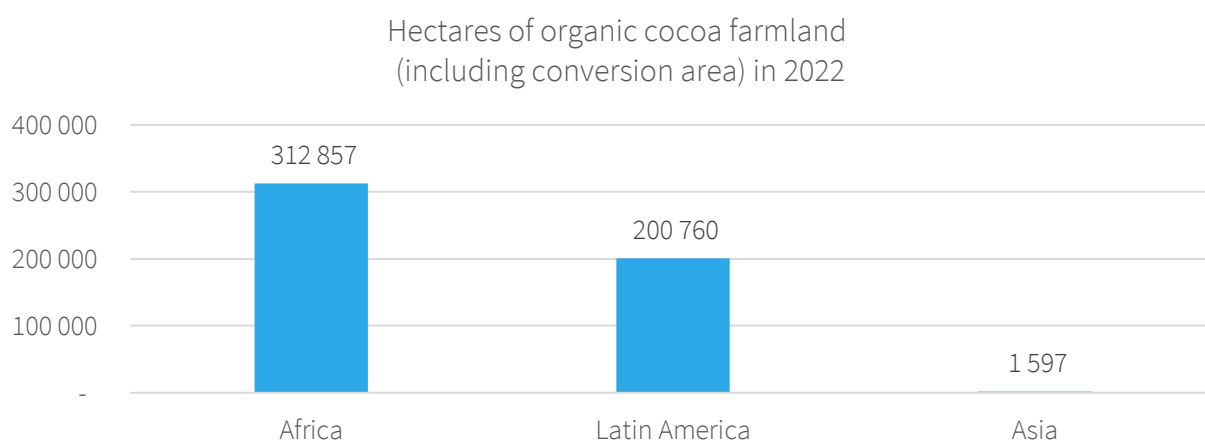


Figure 1. Hectares of organic cocoa (including conversion area) in 2022. Source: BASIC 2024, based on FiBL 2024

³ FiBL 2024

⁴ Ibid

⁵ Ibid

The leading area in organic cocoa farmland is Africa with 312,857 hectares, half of it being in Sierra Leone (see figure 2). Latin America is the second largest area with 200,760 hectares, with 57% in Dominican Republic (see figure 2).

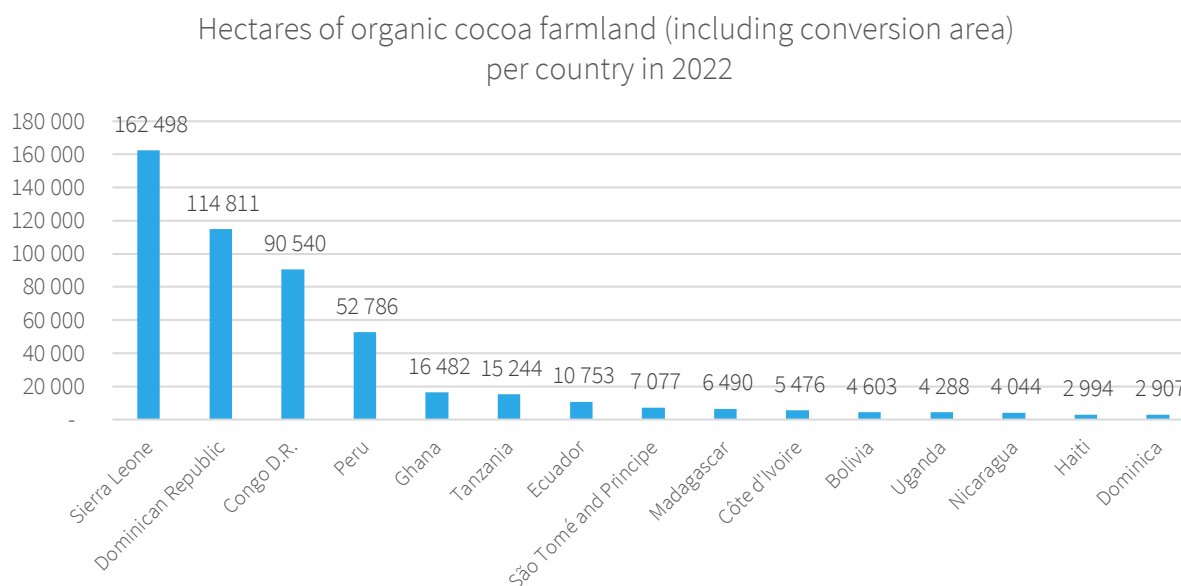


Figure 2. Hectares of organic cocoa farmland per country in 2022. Source: BASIC 2024 based on FiBL 2024

2.2. Organic cocoa exported out of Africa and Latin America

Organic cocoa follows the same path of trade and exports as conventional cocoa. On average, 60 to 70%⁶ of the world cocoa beans and cocoa semi-finished products go through Europe (mostly the EU market) before reaching other major areas of processing and consumption, including the United States of America.

Data compiled by FiBL on organic cocoa produced in Africa (figure 2) and in Latin America (figure 3) exacerbate this trend, all export reaching first the EU market before potentially being re-exported to the US market.

⁶ Confectionery News, “Time’s up: new European Union Deforestation Regulation (EUDR) comes into force at the end of 2024 - how ready is cocoa?”, 23rd January 2024

Africa: Key commodity groups exported to the EU and US in 2022

Source: Traces/European Commission 2023, GATS/USDA 2023

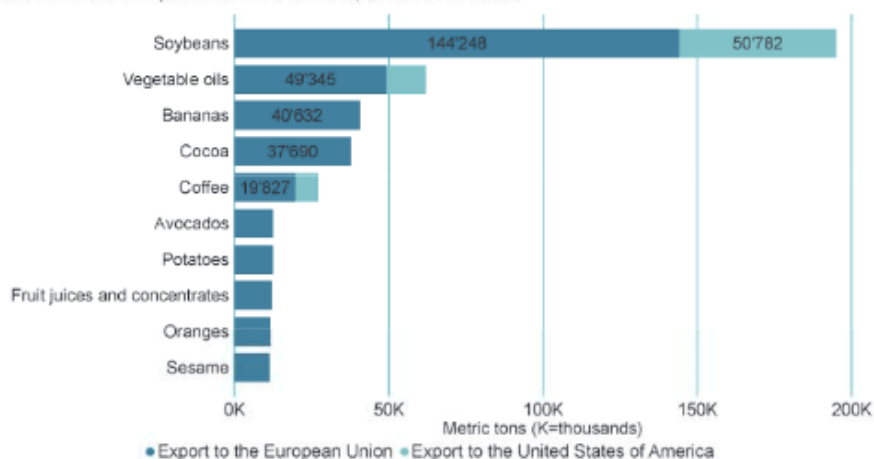


Figure 3. Organic commodities exported to the EU and US (export volume in MT). Source: FiBL 2024, TRACES/European Commission, GATS/USDA, compiled by FiBL

Latin America: Key commodity groups exported to the EU and US in 2021

Source: Traces/European Commission 2023, USDA 2023

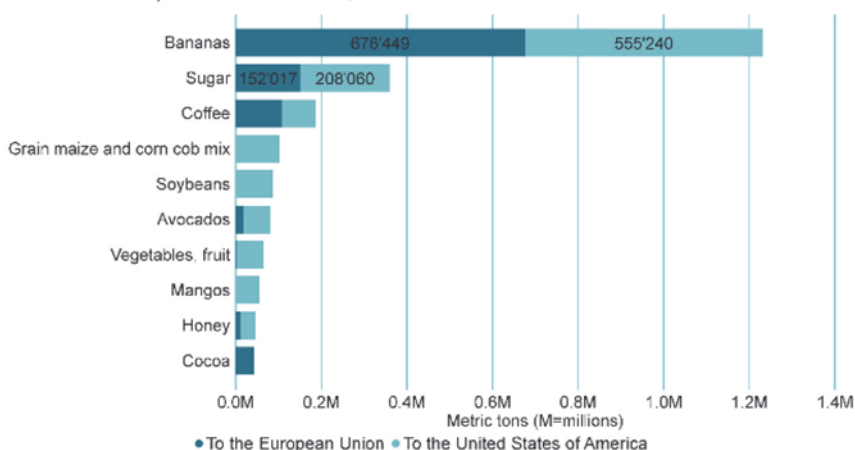


Figure 4. Organic commodities exported to the EU and US (export volume in MT) in 2021. Source: FiBL 2023, TRACES/European Commission, GATS/USDA, compiled by FiBL

These channels are consistent with the strategy that most if not all cocoa actors apply in terms of compliance with the EU and US organic regulations. Cocoa actors in fact aligned their practices with the EU organic regulation, which is a more demanding standard than the US one. That way, they ensure that the EU compliant organic cocoa will be first able to enter the EU market, the first area of world cocoa imports, and second be compliant to enter other markets with less demanding standard, including the US market.

Take note that there is an important gap between area of organic cocoa (more than 500 000 has worldwide), and the effective exports (less than 100 000 tons). Three main reasons can explain this fact. First one is a hypothesis that some areas certified (particularly in Sierra Leone and the DR of Congo) have very low density of trees and/or low yields, leading to lots of organic certified hectares

producing low organic certified volumes. Second one relates to the control of organic cocoa beans before exports, some of which can be declassified if contamination is found and therefore not sold nor exported as organic. Third explanation relates to the market: depending on the supply and demand, not all organic certified cocoa beans can find an organic outlet. Suppliers may choose to sell the cocoa beans on the conventional market rather than losing them completely.

2.3. Organic cocoa imports

In 2020 and 2021, an estimated amount of 76 to 77,000 tons⁷ of organic cocoa beans were imported in the EU market, making cocoa beans the 12th organic product category entering the EU market and the 2nd in organic permanent product crop⁸. For these same years, the EU imports of organic cocoa paste and powder amounted to respectively 1,971 tons and 2,632 tons⁹.

Main origins of organic cocoa beans were Dominican Republic, DR Congo and Sierra Leone for both years of 2020 and 2021 while Peru was 4th origin of organic cocoa beans but leading the EU imports of cocoa paste and powder:

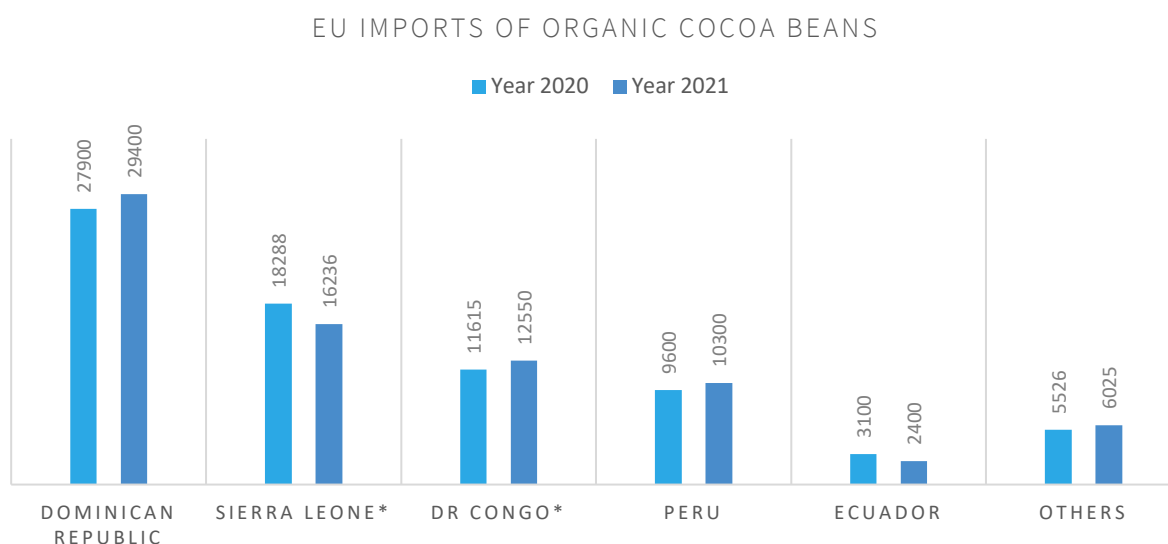


Figure 5. EU imports of organic cocoa beans in 2020 and 2021. Source: BASIC 2024 based on EC 2022

Note 1 on figure 5: EU cocoa beans imports from Sierra Leone and DR Congo are estimates, based on the qualitative information that cocoa is (almost) the only organic product for export in these two countries. Actual volumes of organic cocoa beans imports into the EU from these two origins may therefore be smaller, although the orders of magnitude in figure 5 are consistent with the information displayed in the report European Commission, “EU imports of organic agri-food products. Key development in 2021”, September 2022

Note 2: There is a discrepancy between vast areas certified as organic and actual organic trade volumes for some countries, which can be explained by a mix of lower productivity (lesser density of trees, lesser care for those trees...) and a lower percentage of the total production sold as organic

⁷ In 2021, an estimated amount of 2.87 million MT of organic agri-food products were imported in the EU market (FiBL 2023).

⁸ European Commission, “EU imports of organic agri-food products. Key development in 2021”, September 2022

⁹ Ibid

EU IMPORTS OF ORGANIC COCOA PASTE AND POWDER

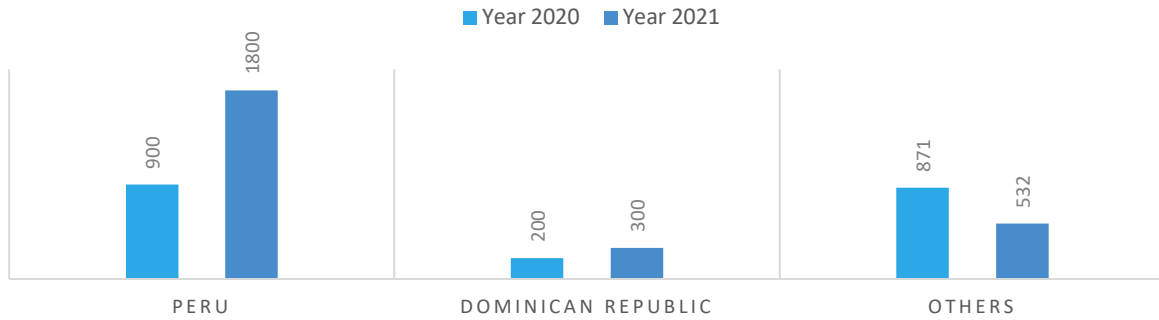
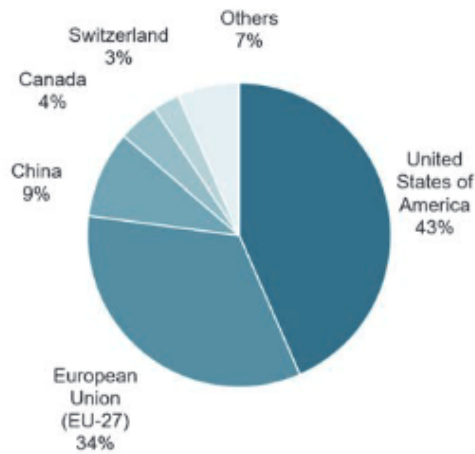


Figure 6. EU imports of organic cocoa paste and powder in 2020 and 2021. Source: BASIC 2024 based on EC 2022

2.4. Organic chocolate consumption markets

In 2022, the sales of organic food and drink products worldwide amounted to an estimated 127.7 billion euros according Ecovia Intelligence and to an estimated 135 billion euros according FiBL¹⁰. That same year, the first single market for organic retail sales worldwide was the USA, amounting to 58.6 billion euros and 43% world market share (see figure 7). The EU-27 is the second largest market, amounting to 45.1 billion euros and 34% world market share (see figure 5).

World: Retail sales by single market 2022
Source: FiBL-AMI survey 2024



Europe: Distribution of retail sales by country 2022
Source: FiBL-AMI survey 2024

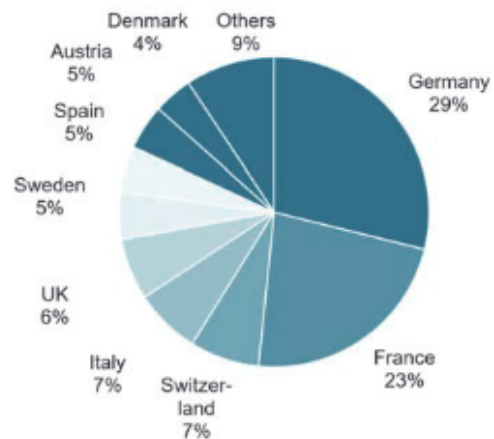


Figure 7. Distribution of organic retail sales per market worldwide (left) and by country within EU (right) in 2022. Source: FiBL 2024, FiBL-AMI survey 2024 based on national data sources

¹⁰ Ecovia Intelligence and FiBL use different methodologies to estimate total retail sales of food and drink products.

Both the US and EU organic markets have been increasing over the last 10 years (see figures 6 and 7 below). However, most recent data from 2022 highlight a divergence, with the US organic market which continues to grow while the EU and European markets take a hit and decrease:

United States: Development of US Organic Retail Sales 2013-2021

Source: NASS/USDA

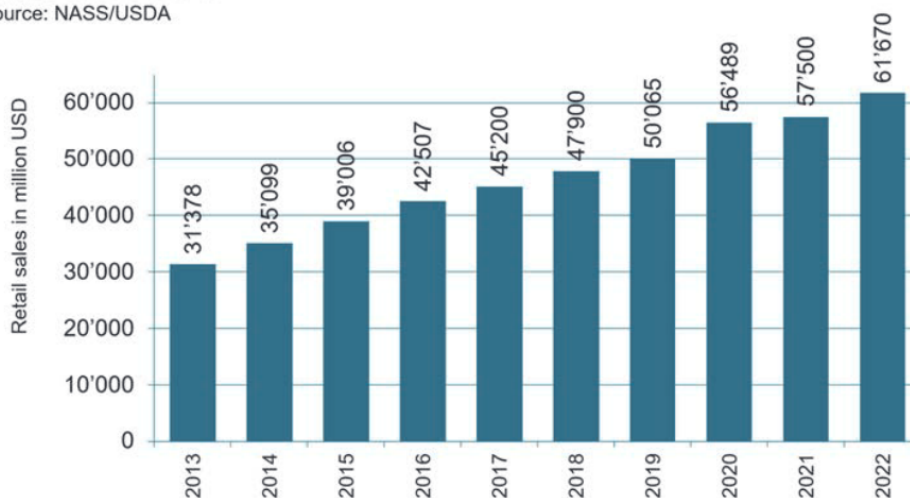


Figure 8. Development of organic retail sales in the USA between 2013 and 2022. Source: FiBL 2024, based on OTA data

Europe and the European Union: Growth of organic retail sales 2000 - 2022

Source: FiBL-AMI surveys 2001-2023



Figure 9. Development of organic retail sales in the EU and in Europe between 2000 and 2022. Source: FiBL 2024

Both markets endured inflation in 2022, which pressured consumers' purchasing power while driving up the costs in the entire agri-food supply chains (organic and non-organic)¹¹. In between, companies were squeezed between rising costs and pressure to contain the increase of prices to the consumers. Nonetheless, both organic markets reacted differently as evidenced by the figures above. The US organic market grew 7.3% between 2021 and 2022, while the EU organic market declined by 2.8% over the same period. It seems the EU organic market particularly suffered from rising production,

¹¹ FiBL 2024, op. cit.

distribution and retailing costs in the wake of the Ukrainian conflict that started in February 2022, while the strengthening of the US dollar sustained the US consumers' purchasing power¹².

Within the EU market, the two leading (and therefore more mature) organic markets (France and Germany) ranked last in terms of organic retail sales' development in 2022:

Development of organic retail sales 2022

Source: FiBL-AMI survey 2024

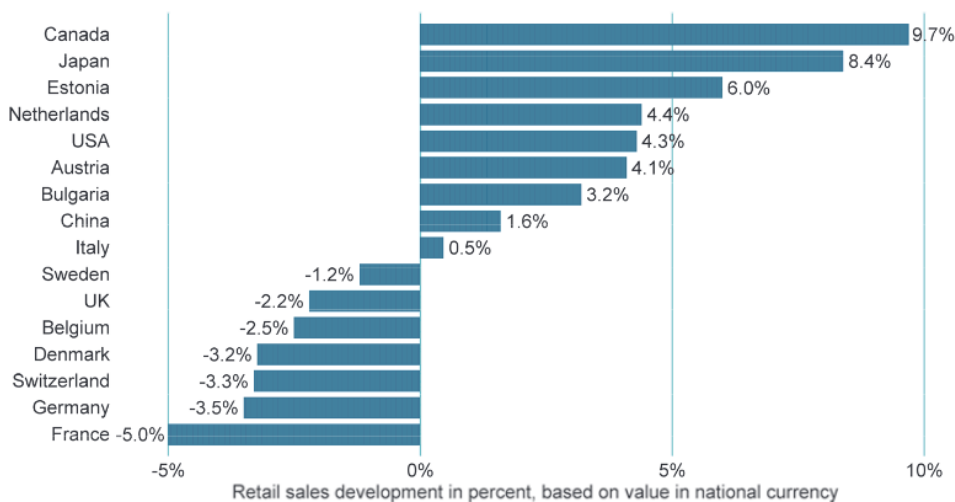


Figure 10. Development of organic retail sales per selected countries in 2022. Source: FiBL 2024

In both countries, consumers reduced their organic purchases to cope with inflation or sought more affordable options. More specifically in Germany for instance, organic purchases still grew strongly in discount stores in 2022 while they declined in general retail stores. As organic products are sold on average at a lower price to the consumers in German discount stores compared to retail stores, overall organic retail sales reduced in 2022 in value, but less in volumes¹³.

These trends across organic products seem to also apply to the organic chocolate sector - at least in France. One of the leading organic (and Fairtrade) certified chocolate manufacturers in France reported a decline of 4% of its retail sales during the first half of 2022¹⁴. In important market such as France, organic chocolate is a key product within the organic retail sales: it represented an estimated average of 46% of the expenses in the organic "sweet" product category over the 2017-2021 period¹⁵.

2.5. Consumer awareness of organic products

¹² Ibid

¹³ Ibid

¹⁴ La Tribune, « Sur un marché qui décroît, le spécialiste de l'équitable et du bio, Ethiquable multiplie les investissements », 22 Juin 2022

¹⁵ FranceAgriMer, "L'évolution des achats de produits issus de l'agriculture biologique par les ménages français depuis 2015", 2023

Consumers are increasingly aware of organic farming practices, and they recognize more and more the organic seals - whether the EU organic food logo or the USDA organic seal.

Numbers of consumers who recognize the organic food logo has increased significantly between 2012 and 2022, and is now the logo that most consumers recognize:

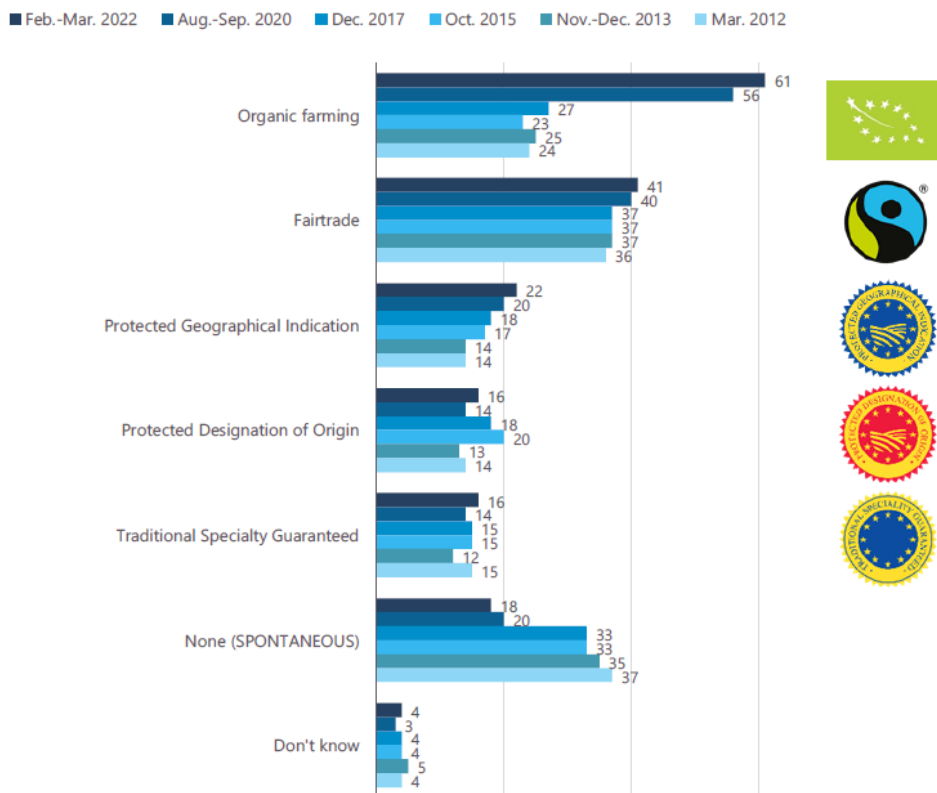


Figure 11. Answers to question "Which of the logos are you aware of". Source: Special Eurobarometer 250, 2022

As shown in the figure above, percentage of consumers recognizing the organic logo grew from 24 to 61% of the interviewees. It is the strongest growth among the food logo: for comparison, the Fairtrade logo recognition grew from 36 to 41% over the same period.

Overall, EU consumers increasingly agree (or tend to agree) that organic products comply with specific rules on pesticides, fertilizers, and antibiotics. Agreement over this statement is 83% of interviewees across EU27 in 2022, although some countries at national level show declines in agreement with that statement: while agreement grew by +6% and +5% between 2020 and 2022 in Italy (93%) and France (79%) for instance, it decreased by -8% over the same period in Spain (81%) and -6% in Ireland (87%)¹⁶. There are therefore differences between countries, most consumers know organic production must comply with a specific set of rules.

¹⁶ Special Eurobarometer 250, 2022

There is no equivalent survey in recent years for the US consumers. However, the Organic Trade Association (OTA) inform qualitatively that the USDA organic seal since 2002 gain recognition among the US consumers, and that they have a high trust in the seal¹⁷.

3. Regulatory changes of the EU and US regulations on organic production

Both the EU and the US have made recent changes to their organic regulations. The new EU organic regulation came into force in January 2022, but allowed a prolonged period before entry into force for products coming from third countries (outside of the EU), until January 2025. This date coincides with the entry into force of the EU Deforestation Regulation. Both regulatory changes are part of a package of regulations to address climate change and loss of biodiversity, as shown in figure 13.

¹⁷ Fooddive, “USDA Organic changes are coming. What will it mean for farmers and consumers?”, 7 February 2024

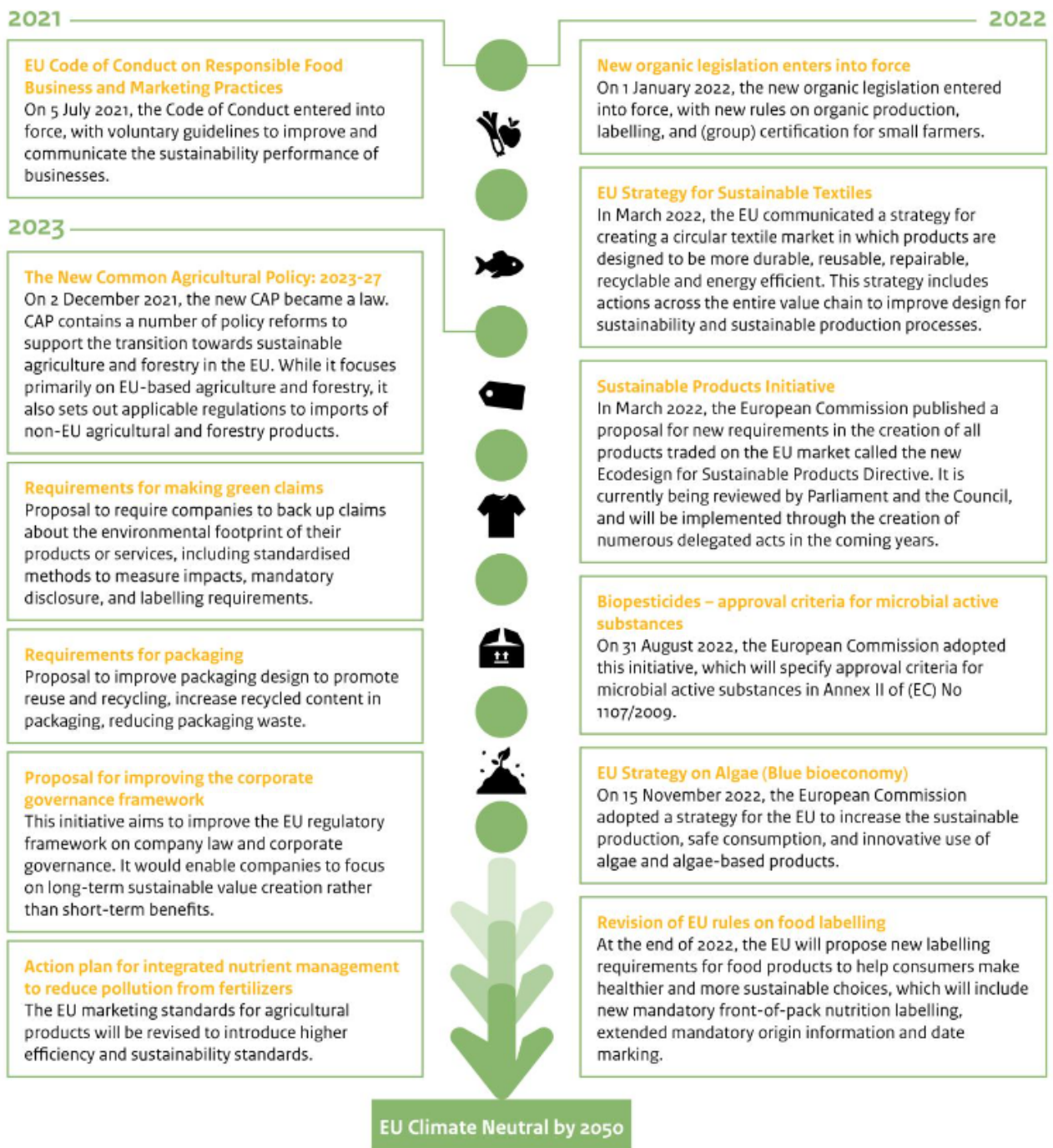


Figure 122. European Green Deal timeline and legislative train schedule. Source: EU Parliament

In the US, the US Department of Agriculture announced early 2023 a program to reinforce its National Organic Program (NOP), called the Strengthening Organic Enforcement (SOE) rule, which will come into force in March 2024.

Both initiatives aim to strengthen the integrity of organic products, at all levels of the supply chain: protecting organic products from accidental risk of being mixed with non-organic product and preventing fraud. Beyond the fraud aspect, which has been documented for some grain and oilseeds products imported into the EU from third countries, the EU regulation in particular is also clearly positioning itself as a consumer protection guarantee. Indeed, the organic movement in general

proposes a more holistic view of the purpose of organic agriculture (see the four principles of health, ecology, fairness and care put forward by the International Federation of Agriculture Movements, IFOAM¹⁸).

Both changes have also been years in the making: the EU regulation review process started in 2012.

3.1. EU organic regulation

The EU organic regulation is composed of different documents¹⁹:

- The basic text (act) of the regulation: [Regulation \(EU\) 2018/848](#), approved by the Parliament
- Secondary acts (32 in total), issued by the Commission, which supplement, amend, or clarify implementation of the regulation.

The basic act and secondary acts are quite complex, therefore the following parts of the report will focus on the aspects which have been identified as relevant for the cocoa and chocolate value chain. As the regulation has come into force in 2022 for all aspects of production, trade and control inside the EU, the analysis will focus on upcoming changes, which concern production, trade and control outside of the EU, and are of specific importance for cocoa production and trade²⁰.

To make the reading of the rest of the report clear to readers not familiar with organic control, some terms are defined below.

Certification bodies (CB): the companies accredited by competent authorities within the EU to certify against the regulation (Organisme de certification (OC) in French).

Operator: usually a farm producing organic product

Group of operators: a group of farms certified not as individual farms but as a group. This requires the group to have internal rules, which each operator has to abide by, and a quality management system.

Internal control system (ICS): this is the quality management system, with which the group checks that all its members follow the internal rules. This system enables a certification body to award certification by checking the robustness of the ICS and comparing the ICS data with results of external audits for a sample of farms only (instead of auditing each individual farm). Prior to this review of the regulation, this was only possible for producers from outside the EU; this mechanism has now been extended to farmers within the EU as well, but because it restricts the size of farms and/or turnover, very few groups are able to use it.

The following table (table 2) presents a summary of the changes.

¹⁸ <https://www.ifoam.bio/why-organic/shaping-agriculture/four-principles-organic>

¹⁹ https://agriculture.ec.europa.eu/farming/organic-farming/legislation_en

²⁰ Different parts of the regulation may impact other value chains differently.

Table 2: Summary of main regulatory changes to the EU organic regulation and their consequences on the organic cocoa value chain

Regulatory changes	Details	Expected consequences of this change	Type of operator impacted ²¹			Variation with Certification Body (CB)
			Cooperative (production + export)	Export company	Producer group	
Export level process						
Increase in pre-departure tests of batches	Batches tested for contamination with forbidden products prior to embarking ship (looking for presence of 200+ molecules) Most tests are done outside of the producing country	<ul style="list-style-type: none"> • Cost of tests • Cost of sampling when not done by the CB (but by accredited lab) • Cost of shipping sample to lab (courier...) • Delay of shipment while waiting for green light from CB: <ul style="list-style-type: none"> ○ Storage cost ○ Financial cost (immobilised goods delays reception of payment) ○ Risk of damage to cocoa while under storage • Management from exporter (staff time) 	x	x		% of tests : 100% in many contexts, in Peru all CBs do 10%
Issuance of COI (Certificate of Inspection) ²² prior to container loading on ship ²³	Closely linked to point above : capacity of exporter to know exact weight as per port scales ; capacity of CB to process documentation	<ul style="list-style-type: none"> • Administrative cost (producing documentation faster) • Storage cost as process likely to be slower 	x	x		In Latin America, CBs usually charge a small fee to issue the COI, processing times are reasonably fast. Not the case in West Africa

²¹ Here we consider the two main vehicles for organic certification in the cocoa value chain: through cooperatives who export themselves, or through (often informal) producer groups who sell their cocoa (dry or wet) to an export company which manages the group's ICS (this situation has been called here "exporter-led producer group", it may also be called contract production). There are intermediary situations, such as when a cooperative sells to an exporter.

²² Issued by Certification Body

²³ Previously the COI had to be issued before arrival into the EU port

Regulatory changes	Details	Expected consequences of this change	Type of operator impacted ²¹			Variation with Certification Body (CB)
			Cooperative (production + export)	Export company	Producer group	
Group of operators certification						
One legal structure per Internal Control System (ICS) ²⁴	It means having a legal structure grouping all organic farmers, and only organic farmers. The ICS is the internal management system implemented by the farmer organisation to ensure its members are following the regulation, which the audit will then check	In the case of cooperatives of less than 2000 farmers, with no mixed membership ²⁵ : no change In case of cooperatives with mixed membership: need to create a legal structure to group the organic producers together + another certificate for the cooperative. In case of exporter-led producer group: need to create a legal structure, implying formalising a farmer body (registration, organising AGM and formalising governance structure)+ 2 certificates instead on 1 (for exporter + producer group)	Only cooperatives with mixed membership (organic/conventional)		x	Some CBs advise organisations to go for more certificates (and more legal structures) than would be necessary, as it enables a finer level of risk management
Internal Control System (ICS) of no more than 2,000 farms ²⁶	One ICS needs to manage no more than 2000 farms, meaning systems does not get overly big. In practice the management of the ICS can be subcontracted to the “mother” cooperative or	For <u>large exporter-led producer groups</u> : it means duplicating the above For <u>large cooperatives</u> , it will imply changes in the governance structure, with meeting (AGM), legal (creating and registering new organisation ²⁷), and administrative costs. Costs of changing other certificates (Fairtrade certification carry over ²⁸). Plus non-financial costs in terms of change in power balance within an organisation, complexification of governance, possible exclusion of non-organic members	Only cooperatives with 2000+ members		Only groups with 2000+ members	

²⁴ Previously the ICS was not regulated, it was considered a tool used by organisations, and did not require legal personality

²⁵ Mixed membership is when there are organic and non-organic members

²⁶ Previously there was no limit on the size of the group run under a single ICS

²⁷ Beyond the cost, registering a new organisation can be very lengthy in some countries

²⁸ Organisation with a new legal entity will likely have to go through a whole new Fairtrade certification cycle (as a number of Fairtrade criteria deal with governance), which is an additional cost. Many organic cocoa organisations are also Fairtrade certified.

Regulatory changes	Details	Expected consequences of this change	Type of operator impacted ²¹			Variation with Certification Body (CB)
			Cooperative (production + export)	Export company	Producer group	
	to the client (in case of exporters)	For <u>all</u> : administrative and staff costs of breaking down on ICS into two or more (duplication of many activities)				
Farm size criteria	This is a complex criteria with several levels of checks. Its objective is to limit the use of “group of operators” certification to farmers which are considered small farmers	The financial criteria (>25k€ organic turnover) probably means no organic group is concerned ²⁹ , as very few farms would be able to reach production of 10+ tons of cocoa. This said, if cocoa prices continue to increase, some farms could reach the 25,000€ annual turnover , which is one of the thresholds. But it increases the quantity of data to be collected in the ICS in order to check that all operators in the group are “small”, which is an administrative cost	x		x	
Increase in the sample of farms of the ICS inspected	The previous rule was that the number of inspected farms was the square root of the number of members, now it is 5%	For groups under 400 members : fewer farms inspected (in principle), shorter audit time For groups over 400 members : more farms inspected, longer audit time Higher certification cost, possibly more non conformities identified	x		x	Generally, the 5% rule is unlikely to be used for smaller groups, where more than 5% of members will be inspected (remaining close to the sq root number)
Increase in number of points audited	Especially rules around ICS have been clarified, specific documents are required	Longer audit time, higher certification cost, possibly more non conformities identified	x		x	
Product sampling from members for tests	2% of members to be sampled (previously it	Cost of sampling + testing Cost of sampling can be high when the CB delegates it to an accredited lab.	x		x	Cost can be lower when making a composite

²⁹ If larger farms exist, they are not involved in group certification.

Regulatory changes	Details	Expected consequences of this change	Type of operator impacted ²¹			Variation with Certification Body (CB)
			Cooperative (production + export)	Export company	Producer group	
	was up to the CB to decide)					sample, which some CBs do
Only one certification body per structure		May decrease certification costs for organisations which had several certifiers for the same regulation, depending on wishes of customers.	x			Already a legal obligation in Peru, and in practice pretty much everywhere
Risk management						
Suspicion of contamination by forbidden product	Group of operators needs to warn CB and lead an investigation – meanwhile the certificate is usually suspended	Operational cost (staff time) + loss of trade (especially cashflow) and storage cost.	x	x	x	
Organisation considered at risk will be inspected 2x/year	CB have an obligation of 110% inspection (some clients have to be inspected twice/year) Also higher number of batches to be tested	Auditing costs increase (but not double) Also testing regime of export batches becomes higher : up to 100%.	x		x	
EU guidelines list	Increases sampling and tests for specific commodities from some countries	In practice, sampling regimes of CBs are already higher than the recommendations in the guidelines.	x	x	x	

3.2. US Organic regulations

The National Organic Program³⁰ (NOP), which is part of the US Department of Agriculture (USDA), sets and enforces standards for organic products sold in the United States.

The USDA organic regulations (7 CFR Part205) have been amended by the “Strengthening Organic Enforcement Program”. These changes³¹ are summarised in the table below.

³⁰ <https://www.ams.usda.gov/about-ams/programs-offices/national-organic-program>

³¹ Strengthening Organic Enforcement: Comparison of Old and New Regulatory Text, USDA

Regulatory changes	Details	Expected consequences of this change	Type of operator impacted			Variation with Certification Body (CB)
			Cooperative (production + export)	Export company	Producer group	
Export level process						
Requiring import certificates	This system will mirror the EU COI system.	This will impact exporters and importers of cocoa and chocolate, with additional administrative work and some cost ³² .	x	x		Not known but unlikely
Group of operators certification						
Producer group operations (This is equivalent to what is labelled as “group of operators” in the EU regulation)	The requirements for group operations are clarified, particularly with regards to the ICS and an overall organic system plan. Generally this is quite close to the EU regulation, although much less prescriptive. The producer group must have a legal entity, although there is no maximum size, and the minimum number of members to be audited is 2% or 1.4 times the square root of the number of members (whichever is higher).	The number of farmers to be audited is less than the 5% of the EU regulation for groups bigger than 500, but more for groups up to 500 members. In practice, for groups who are also certified against the EU regulation, this is not expected to have any consequences – except possibly for very small groups, where the number of audited farmers may be higher.	x		x	Not known
Risk management						
Certification of handlers	Requiring more operators (“handlers”) in the value chain to be certified	Previously many steps in the value chain were exempted from certification, e.g.: warehouses storing cocoa beans, some handlers and	Most likely trading and warehousing activities in Europe (incl. Switzerland) and the US			Unlikely

³² Where COI (for the EU market) are currently invoiced by CB, the cost is around USD200 per certificate.

		subcontractors did not have to be certified ³³ . This will lead to additional certification costs further down the value chain (most likely in Europe or the US).		
Reinforcement of traceability requirements	Various steps in the traceability requirements or control have been strengthened, including the level of training of staff involved in control	There will likely be some costs for companies processing cocoa, in terms of strengthening their systems and staff training.	This will mostly impact operators within the US	Not known

Table 3: Summary of changes to the US organic regulations with an impact on the cocoa and chocolate value chain

³³ The general definition of *to handle* provided under the former US regulation, i.e. “to sell, process or package agricultural products” has been amended in paragraph 205.2 to become ‘To sell, process, or package agricultural products, including but not limited to trading, facilitating sale or trade on behalf of a seller or oneself, importing to the United States, exporting for sale in the United States, combining, aggregating, culling, conditioning, treating, packing, containerizing, repackaging, labelling, storing, receiving, or loading.’”

The US regulation has a system of equivalence with other (authorized) organic regulations, whereby a product adhering to (for instance) the EU regulation can be imported into the US and considered equivalent. The EU explicitly removed this provision from the new regulation.

All production operators interviewed considered that the EU regulation was more stringent, and even if they were certified for both EU and NOP, all their internal systems (ICS and others) were based on EU requirements. In addition, most of the organic cocoa destined to the US market is initially exported for processing in the EU or Switzerland (in this case, it is often imported as cocoa complying with the EU regulation), and then reexported to the US as chocolate³⁴, using the equivalence system.

This is why, in the rest of the report, greater focus will be put on changes to the EU regulation, as, at the moment, this is the main driver in organic cocoa.

³⁴ See figures 3 and 4

4. Costs and benefits' analysis

4.1. Benefits

[DISCLAIMER: To date, requests for interviews have mostly been denied or delayed by chocolate manufacturers (they are very much focused on the EUDR, or do not have much to say on the new organic regulations).]

The rationale behind both EU and US new organic regulations is similar: offer high-level guarantee to the consumers on the organic products they buy. To that aim, both regulations enforce standards that level-up the controls along the organic supply chains, notably in the EU by replacing the principle of equivalence on imported organic products with conformity to the EU set of rules.

In this section, we will investigate what are the potential benefits that may derive from these regulatory changes: first we will analyse the transversal benefits of both regulations, and second focus on each regulation specific benefits.

4.1.1. Projected benefits from both new EU and US organic regulations

With their respective regulatory changes, both organic standards try to achieve an increase of consumers' confidence in organic products³⁵. Both standards state that the organic consumers are in fact paying a premium price for organic products, hence the importance of ensuring that consumers can be guaranteed the quality and the commitments they are paying (more) for³⁶.

Both standards strengthen the control system (see details in Chapter 3): they apply stricter precautionary measures and enforce stronger risk-based measures for each actor of the supply chain³⁷. Although the level of understanding of the specific rules applying to organic production is quite high among EU and US consumers (see 2.5 on Consumers' awareness), both standards aim for increased reassurance of the consumers. In other words, they try to go beyond the mere understanding that specific rules apply, to reach full confidence from the consumers that the rules are diligently followed by the organic actors and that the tighter control system has put in place every possible precaution to minimize or even fully eliminate any risk, especially the risk of contamination by unauthorized pesticide or chemical.

4.1.2. Focus on projected benefits from the new EU Organic Regulation

Fairness and conformity are two key words mentioned in the new EU organic regulation. The clear intention behind these words is to level the playing field by first harmonizing further the organic production and supply chains within the EU, and second oblige non-EU organic operators to comply with the same single set of rules (as opposed to the previous system of equivalence with other national standards).

³⁵ European Parliament, "The new organic regulation", 20 November 2017; USDA Organic, "USDA Organic Oversight and Enforcement Update", 2022

³⁶ Ibid

³⁷ CBI, « What does the new Organic Regulation mean for exporters of grains, pulses and oilseeds? », 15 July 2020

In fact, the former EU organic regulation was a great step forward harmonizing organic standards at EU level but still allowed some different rules or exemptions – at national level and/or product level. The new EU organic regulation goes further in harmonizing, ensuring only that one set of EU-wide rules apply to the entire EU organic sector, and for all actors of the supply chains. Moreover, the new EU organic regulation also enforces the same single set of rules to non-EU organic products entering the EU market, replacing therefore the 60+ different standards that formerly applied to the imported organic products with the equivalence system³⁸. Two main benefits derive from this, for consumer and for EU farmers.

Benefits for consumers

First, the message is clearer for the consumers: all products labelled “organic” in the EU market, whether they come from another EU country or even non-EU country, must apply the same set of rules for their product category. There is for the consumers a strict guarantee that all requirements, from agricultural practices to animal welfare and organic inputs allowed, are the same for the organic products they consume – wherever the organic product comes from. This is a great clarification for the consumers, and an important guarantee on the quality and health standards of the organic products they buy. This guarantee covers in particular the fact that contamination risk by forbidden pesticide products is reduced to a minimum, which is very important for some consumers.

Benefits for EU farmers

Second, the compliance with a single set of rules can also generate benefits for the organic farming sector, especially on products that can be farmed and/or sourced from within the EU or imported from non-EU countries. With the principle of compliance replacing the equivalence system, all organic operators are aligned on the same requirements, with the same level of scrutiny for control (see above). For instance, the possibility of lowering one’s costs of production by using agricultural inputs prohibited by the former EU organic standard but allowed by the equivalent organic standard in a given non-EU country is eliminated. This was a demand from EU organic farmers (this is especially valid for products from temperate regions, such as grains, oilseeds, etc.). By levelling the playing field, the new EU organic regulation therefore reduces the gap and therefore competition between EU and non-EU organic operators on a same product category.³⁹

Other stakeholders may find other benefits:

Benefits for non-EU farmers

For large groups of farmers (over 2000 members) using the Group of Operators certification modality, having to split their internal control systems into two or more, each with their own certificate, means that if one gets suspended (because of a non-conformity), the other(s) can continue to trade. It therefore allows them to spread some of the risks and alleviate some of the current and possible future costs. However, in the cocoa value chain, few groups fall in this category.

Benefits for the organic cocoa and chocolate industry

³⁸ Ibid

³⁹ It is important to highlight that other operating costs explain the differences between EU and non-EU organic production, among which cost of labour.

While in principle the strengthened regulation should also reinforce trust from consumers in organic brands, with a possible outcome in increased sales, this remains very theoretical. In practice, consumers are not aware of the new rules, as there has been very little communication on them. Besides, as explained prior, organic markets in several of the bigger markets are being challenged. And brands themselves are also considering other strategies (various forms of sustainability strategies), as reported by one interviewee who had participated in the Biofach organic fair in Germany.

Benefits for Certification Bodies

As will be detailed in paragraph 4.2 on costs, audits and certification requirements will increase, leading to more thorough auditing, which will increase the cost of auditing, creating new business for accredited certification bodies (but also testing labs and a few other operations connected to auditing).

4.1.3. Focus on projected benefits from the new US Organic Regulation

As the EU new organic regulation emphasizes the fairness and compliance to a single set of norms, the USDA puts forward fraud prevention along the organic supply chains at the core of the Strengthening Organic Enforcement (SOE)⁴⁰. It puts a stricter requirement on traceability, as well as increased transparency across the supply chains. The major expected benefit for the US consumers would normally be to have access to clearer and more transparent information on the farm to market supply chains of their organic consumers. Moreover, they would get more assurance that no violations have been committed along the organic supply chains – with again a potential to increase the level of trust that the US consumers will be able to have in the USDA organic seal.⁴¹

This paragraph on benefits show that the benefits identified so far are of a very qualitative nature and are very hard to assess in terms of commercial value. This is even more pronounced in a market situation where the consumers' willingness to pay a premium for organic products is showing a decline, at least in some markets.

4.2. Costs

As said earlier, the cost analysis focuses on cocoa production and export, as this is the main stage which will be affected by changes of the EU regulation. Operators inside the EU have not reported major costs incurred since the change came into force in 2022. The 2 main issues highlighted by same traders were 1) the rejection, upon arrival in an EU port, of containers accidentally loaded before the COI was emitted (by port operators not familiar with organic market procedures), meaning the container had to be sent back to the country of origin, and 2) the delay incurred by the slower process of COI emission.

⁴⁰ For further details, please refer to Chapter 3.

⁴¹ Ibid

4.2.1. Typology of costs

Table 4 below presents the typology of costs identified during the study. All costs listed (except “change in governance structure”) are already incurred by organic operators producing and exporting cocoa, but most of these activities will be intensified, therefore becoming more costly, as indicated in the rightmost column.

Costs fall into two categories:

- Internal management costs

These include all staff costs linked to implementing the internal control systems (overseeing and updating internal rules and processes, managing internal inspections and follow up, training farmers on the internal rules, collecting and managing data, identifying, reporting and managing non-

compliances...) and managing export (the administrative part, where documentation needs to be produced to allow the shipment to be labelled organic), as well as operating costs (local transport to visit farmers, computers and other equipment) and regular trainings.

They also include financial costs: taking into consideration the fact that the process of obtaining the COI is slower than it used to be, cocoa batches are immobilized at origin for longer (4 to 8 weeks instead of 2 to 3), meaning that the time between disbursement of funds to buy cocoa from members and the time the cocoa is paid gets longer, creating the need for more short term credit, with associated costs. Also suspension of organic certificates may happen more often (because more testing identifies more issues of contamination, and the source of contamination needs to be identified before it can be reinstated)⁴². During the time taken to conduct this investigation, trade of organic product is on hold (and some product may be downgraded to conventional: the batch where contamination was found, but also some other cocoa to keep selling and access cashflow).

- Certification costs

They include audit costs, costs of analysis of samples collected during the audit, often transport costs for the auditor and ICS team during the audit. They also include costs of testing samples prior to loading the container. Depending on the situation, between 10% and 100% of batches have to be tested, requiring sending a +/-20kg parcel by courier (often to Europe), lab costs for testing approximately 200 possible elements, and in some countries, subcontracting to an international audit firm (on request of the CB) to collect the sample at origin.

Additional costs are linked to auditing, and they include geolocation of plots with a polygon (even if not required by EUDR because it is under 4ha), which has been required by CBs in numerous places, and preventively sampling and testing cocoa from members.

⁴² This is already happening.

Notes:

“change of governance structure”: while this is not a requirement of the regulation, the regulation stipulates that the group of operators must operate a “joint marketing system for the products produced by the group”. In practice a group of farmers who share the same ICS and markets their products jointly is very close to what a cooperative is (indeed, these are probably the two most important services provided by organic cocoa cooperatives to their members), therefore, this requirement would impact cooperative governance arrangements very directly.

“additional audit”: this stems from the requirements for mixed groups of farmers to have a legal entity carrying the ICS, then selling the cocoa to the original cooperative, which will need to be certified as an additional entity. This cost is not incurred in all cases.

“downgrading”: while this situation is very common (several organisations have reported recent lower levels of organic sales, from 80-90% to 60-70%, due to downgrading), it has not been accounted for in the costs, due to its very unpredictable nature.

Table 4 below list the types of costs which will likely contribute to cost increases for EU organic certification. It is not possible to precisely say by how much these will increase, as this depends on too many factors (country of origin, size and history of group, risk assessment of the CB...), and how many of the types of costs will apply to any given group. The level of “contribution to costs increase” presented in the table has two levels:

- + signifies an increase likely to be under €1,000,
- ++ signifies an increase likely to be over €1,000 and possibly several times more.

Type of cost	Activity	Contribution to cost increase with new EU regulation
Internal management		
Implementation of the ICS	ICS and technical staff (training, etc.)	++
	Operating costs (overheads + motorbikes, computers, etc.)	
	Internal inspections (travel, expenses, etc.)	
Export management	Administrative export staff	++
	Financial cost of immobilising lots	++
	Additional storage costs (sending samples for analysis, waiting for COI)	++
Training	Training the ICS team and farmers	+
Change in governance structure	Staff time, validation Annual General Meetings (AGM), legal advisor...	if it happens: ++
Extra audit costs	Renewal of fair trade certification in cases where new legal structures are created	if it happens: ++
Organic certification		

Audit	Inspection (1 or 2)	++
	Analysis of samples taken during the audit	+
	Additional costs: transport, accommodation, surveyor	+
Additional audit (mixed groups)	Additional certificate for « mother » cooperative in case of mixed groups	if it happens: ++
Pre-shipment sample analysis	Trace analysis	++
Other		
Sample analysis	Operator analysis of samples	++
Other expenses	Geo-locating plots ⁴³	If/when it happens: ++
Downgrading of cocoa as conventional	Downgrading resulting from contamination, or from sales during a period of suspension of the organic certificate after a non-compliance identified	if it happens: ++

Table 4: Typology of costs linked to organic certification

4.2.2. Range of costs

While the organisations interviewed during this study vary greatly, they can be divided into four types, which are quite common in the organic cocoa value chain (table 5). The numbers given below are calculated based on the data collected from 13 different producer groups, classified into 4 types.

Findings in terms of range

The current cost of maintaining an organic certification varies mostly according to the size of the organization (in terms of number of members mostly), expressed as a cost per member it ranges around 200€/year/member, on average for 2023. Put in ton of cocoa beans, the average cost for 2023 is estimated at 100€/ton.

The total cost consists mostly of internal management costs: for the vast majority, internal management costs add up to more than 2/3 of the total cost.

Projected costs for 2025 and beyond, based on BASIC estimates, **could increase the total cost by 20 to 30%**, with possibly even higher increases for more “complex” organisations (more than 2000 members, with large volumes of trade) of up to 50%. For more “simple” organisations (such as type A below), increase could be more modest, at around 10%.

ADDITIONAL EXPLANATION EURO/TON: estimates 15 to 100 euros/ton

Main elements behind cost increases

Not all elements of the typology of costs could be assessed, and the focus was put on 3 elements:

⁴³ This is not a regulatory requirement, but something requested by CBs. It is one of the numerous examples of how processes are getting tightened in many areas (before geolocation with polygons, there were either dots on a digital map, or paper maps).

- ICS staff costs, with increases between 0 and 20%, in some rare cases 30% (when ICS has to be broken down)
- Certification costs (auditing and sample testing):
 - o auditing costs multiplied by 2 to 3 in the most extreme cases (when several entities need to have their own certificate instead of 1, the number of members to be audited multiplied by 4 to 6, and much more sampling and testing to happen during audits and pre-shipment), and between 0 to 50% increases on more average cases.
 - o The number of samples has been multiplied based on the volume of trade of the organisation. This was done on a case-by-case basis, based on current testing regime by the CB.

As said earlier regarding the unpredictability of downgrading due to contamination, several elements of costs have not been quantified, notably: downgrading, financial and storage costs, and governance and associated costs. While they are a real cost in many situations, their level varies depending on several factors, they are hard to estimate with much precision, and even harder to generalise.

Scenarii of changes and costs for 4 archetypes

To be more specific, the 4 types of operations described in table 5 below show what the changes might be, and which element of costs affects them. While theoretical, each type is actually quite common in the organic value chain (each one with variations).

Type	Description	Changes needed to remain compliant	Effects in terms of costs	Possible price increase range	Countries studied where this type can be found
A	100% organic cooperative 500 to 1500 members High level of sales as organic (>60%) Commercial autonomy even if working through exporter	No specific change required ⁴⁴	Higher level of residue testing downgrading Increase in audit costs: higher for larger organisations (where 5% represents a large number of farms), with high turnover, higher again if it is classified as “high risk” by CB Small increase in ICS staff costs	+/- 10%	Peru, Côte d’Ivoire, Ghana, Dominican Republic
B	100% organic cooperative More than 2,000 members (up to 10,000) High level of sales as organic (>60%) Commercial autonomy	Need to break down the ICS in 2 to 5 different ones Need to create legal entities for each one, and clarify relationship with “mother” cooperative (possibly complete upheaval of governance model)	Governance changes ⁴⁵ Additional certificates Increase in ICS staff costs Increase in audit costs (higher if it is classified as “high risk” by CB) Higher level of residue testing Downgrading	30 to 50%	Dominican Republic, Peru

⁴⁴ There is still an upgrade in requirements, such as better documentation of the ICS, better formalisation of internal roles, etc.

⁴⁵ E.g. : break down of ICS, reorganisation of legal structure to align ICSs with cooperative structures, organisation of a general assembly to approve those changes...

C	Mixed cooperative with 2000+ members, only 200 are organic Low level of organic sales (<20%) Often working through exporter	Need to create a legal entity with the 200 organic members, and clarify relationship with “mother” cooperative Need to certify the “mother” cooperative as a separate entity	Governance changes ⁴⁶ Cost of additional organic certificate (2 instead of 1) Possible small increase in ICS staff costs and audit costs Downgrading less likely as there are small volumes ⁴⁷	20 to 30%	Côte d’Ivoire
D	100% organic set up May be non-formal or cooperative May be more or less than 2000 members Usually very high level of organic sales No commercial autonomy and extremely strong link with exporter or importer	Need to create a legal entity and formalize relationship with exporter, including marketing and financial channels (if there was no cooperative set-up previously) In some cases, need to break down the ICS (as for type B)	Higher level of residue testing Little downgrading because of high level of testing prior to shipping Increase in audit costs (similar to Type A or B) Increase in ICS staff costs High costs of governance changes if happening	20 to 30%	Sierra Leone, Peru, Ghana

Table 5: The four more common types of production set up and consequences of the changes

At the beginning of the study, two further types of setups were identified: individual farms falling over the size threshold, and non-certified cooperatives seeking certification. During the course of the study (in the 5 countries looked at), none of these larger types of farms were identified within group certification. This does not mean they don’t exist, but more likely that they are uncommon among farmer groups in the countries studied. However, since the beginning of this piece of research, the price of cocoa skyrocketed, meaning that the volume of cocoa threshold we were looking for (approx. 5t of cocoa) would now be too high in several countries where prices have reached high farmgate prices.

As for cooperatives considering organic certification, a few were identified in Peru. They would fall somewhere between type A and C, as their market volumes are not assured to start with. An additional constraint is the “conversion period” before they can be fully certified organic, which

⁴⁶ E.g. : creating a union instead of a cooperative of farmers, spin-off of a “new” cooperative for all organic members...

⁴⁷ This problem has not been reported by Type C.

is stricter than was previously practiced, meaning the upfront cost is likely to be higher. In any case, given the organic market situation and the current cocoa market, such organisations are likely to adopt a “wait and see” attitude.

4.2.3. Beyond costs

Beyond financial costs, a number of other elements are affecting the feasibility of changes, and their long-term outcomes. Depending on the situation, these elements can far outweigh the impact of the cost increase and make organic certification impossible (or too hard) to maintain, even if the cost increase can be funded.

Lack of visibility on auditing costs

This is particularly an issue for smaller organisations. While the main audit normally generates a quote ahead of time and can be budgeted, other elements of certification (unplanned audit, tests which needs to be sampled by an accredited third-party...) are not and contribute to some level of financial uncertainty.

Overall costs vs cost/ton

While the overall cost increase presented above is an important element, the cost per ton of organic cocoa marketed is much more important. To be clear, a 50% cost increase on costs of 100€/ton will present a step but should remain manageable; in situations where costs are very high (e.g. 1,000€/t), even a 10% increase may be beyond bearable.

Our estimates are that costs under 200€/ton are bearable, but anything above this level (in our sample, estimates for a number of organisations indicate costs several times as high) needs to be temporary, as an investment towards growing a market.

Pressures on staff

An increasing number of non-conformities suspend certificates, making it impossible to export until they have been rectified. This signifies a high level of mobilisation of internal teams (overtime; pressure to find an acceptable outcome...)

Often, the consequence is to exclude one or more members, even if there is no certainty that the contamination came from there (several interviewees felt that this was the only outcome acceptable to CBs, but often the precise source of contamination cannot be found and may be linked to the neighbouring farm, to containers, etc.). This can weaken the cohesion of the group, but also weakens the production base (reducing the number of members).

Financial pressure

The longer immobilisation of batches (from 2 to 4 to 6 or 8 weeks) means a longer timespan between the purchase of the beans from farmers (disbursement) and the sale of the cocoa (payment from the buyer). For the groups who have access to finance, this translates in a direct financial cost (through interest rate), but for those who don't, this means an inability to buy cocoa from members until the container gets paid. In both cases, this weakens the farmer group's economic situation.

Feasibility of governance changes

This is especially true for organisations of type B and C: for type C (mixed groups), the changes may be too daunting (complex, with economic and certainly unforeseen consequences – e.g. the fact that creating financial transactions between 2 legal entities attracts taxes where there were previously

none), especially for a market venture which has not yet proven its worth. For type B, changes in governance can be extremely difficult to organize (some interviewees cited up to 2 years to create a new cooperative entity in some Latin American countries), and may also mean jeopardizing some stable markets with recurrent customers (for instance with temporary loss of Fairtrade certification because of a change in legal structure may drive away some customers).

Cut-off with future organic members

Several organizations interviewed highlighted that their strategy to attract new members (who are needed at least to replace older members retiring, those who quit cocoa farming, etc.) relied on including them in the cooperative as conventional cocoa growers and over time sensitizing and training them to grow organically, with this becoming more complex, it either comes with a cost (e.g. creating a legal entity for those conventional members, within a union) or it complexifies greatly the renewal strategy.

4.3. Comparison with value and costs' distribution in the organic cocoa and chocolate value chains

With data from the study on the value, costs, taxes, and net profit margins in the cocoa and chocolate value chain, we can compare the extra cost from the compliance with EU organic regulation with the profits and taxes generated along the value chain.

The figure below shows estimates of the aggregated organic dark and milk chocolate tablets sold in Germany in 2020:

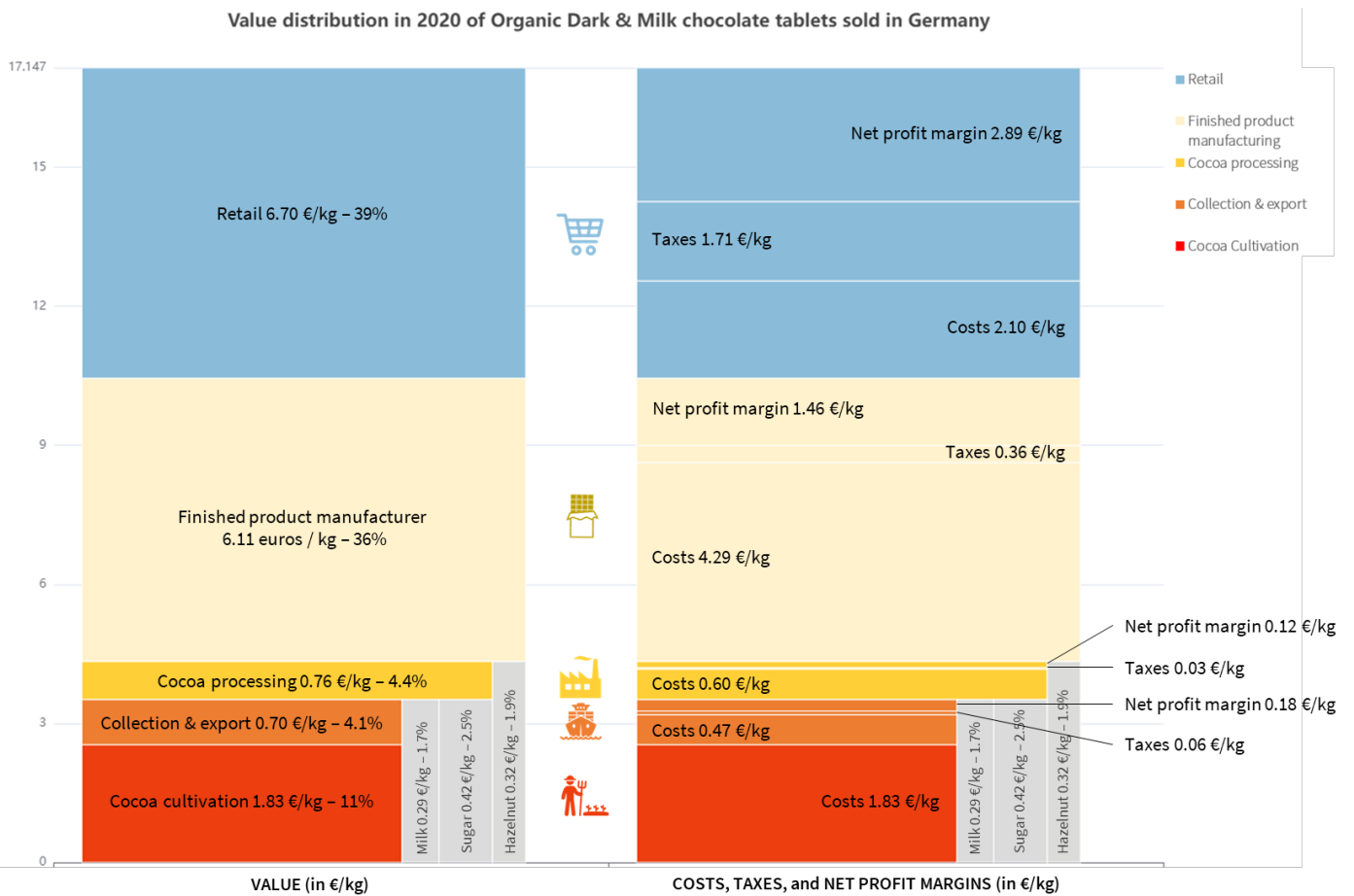


Figure 133. Distribution of value, costs, taxes, and net profit margins of the aggregated organic dark and milk chocolate tablet sold in Germany in 2020. Source: BASIC 2022

Focusing on the net profit margins for each stage of the chain, estimates highlight the actors' differences in their capacity to generate profits from cocoa and chocolate products:

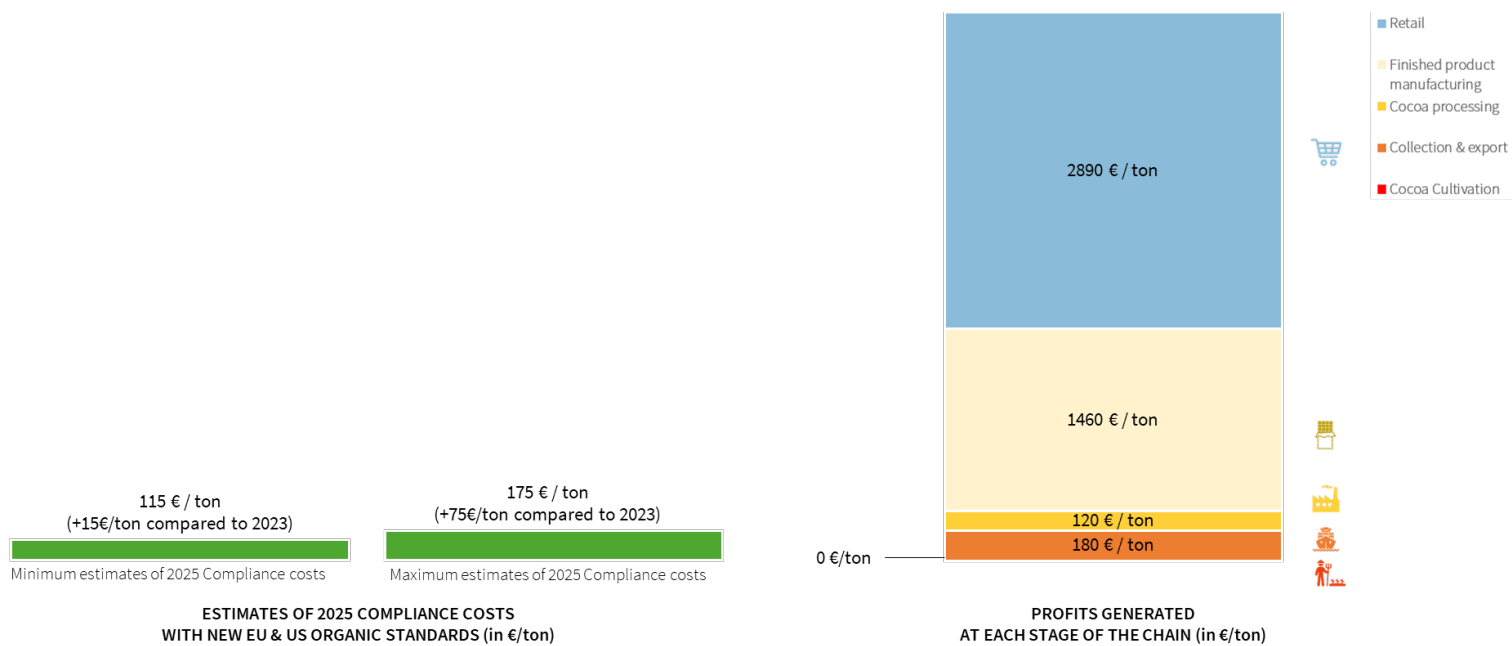


Figure 144. Comparison between compliance costs with new EU and US organic standards projected estimated for 2025 and distribution of profits generated along the supply chain of an organic dark and milk chocolate tablet sold in Germany 2020 (in euro per ton).
Source: BASIC 2024

Current costs of complying costs with the EU and US organic regulations are estimated at 100 euro per ton on average in 2023 (see 4.2.2. Range of costs). For 2025, the increase is estimated to range from around 10% to 50%⁴⁸: compliance costs with the new EU and US organic regulations are therefore estimated to range between 115 euro and 175 euro per ton.

When compared to the distribution of value and costs in the German cocoa-chocolate value chains from 2020, the above estimates highlight that actors do not have the same flexibility to buffer these higher costs. In fact, estimates indicate that the Collection and export (orange) and Cocoa processing (yellow) stages only generate benefits of respectively 180 €/ton and 120€/ton in 2020, while the Cocoa cultivation stage (red) seem to generate no margin at all.

In the meantime, estimates indicate that in 2020 that Chocolate manufacturers (beige) generated on average 1460 euros of benefits per ton of organic chocolate sold, while the German supermarkets (blue) generated on average 2890 euros of benefits per ton of organic chocolate sold.

Although estimates are dated from 2020 and do not reflect the recent development of the cocoa and chocolate sector, notably the inflation and rising costs of production, the orders of magnitude seem to indicate there is a higher capacity to accommodate rising costs due to the compliance with the new organic standards at Finished product manufacturing and Retail stages.

Focusing now on the taxes levied along the organic cocoa and chocolate supply chain, estimates tend to lead to the same conclusions. There is a higher capacity to buffer rising costs within the consuming country (here Germany) mostly thanks to the German VAT than at other stages). Especially at country level, there is no tax levied on cocoa production at the level of the cocoa farm (Cocoa

⁴⁸ For further details, please refer to the table listing the typology of cooperatives in section 4.2.2. Range of costs

cultivation in red below), and an estimated 60 euros of taxes levied along the supply chain in producing countries up to export (Collection & export stage in orange in the figure below).

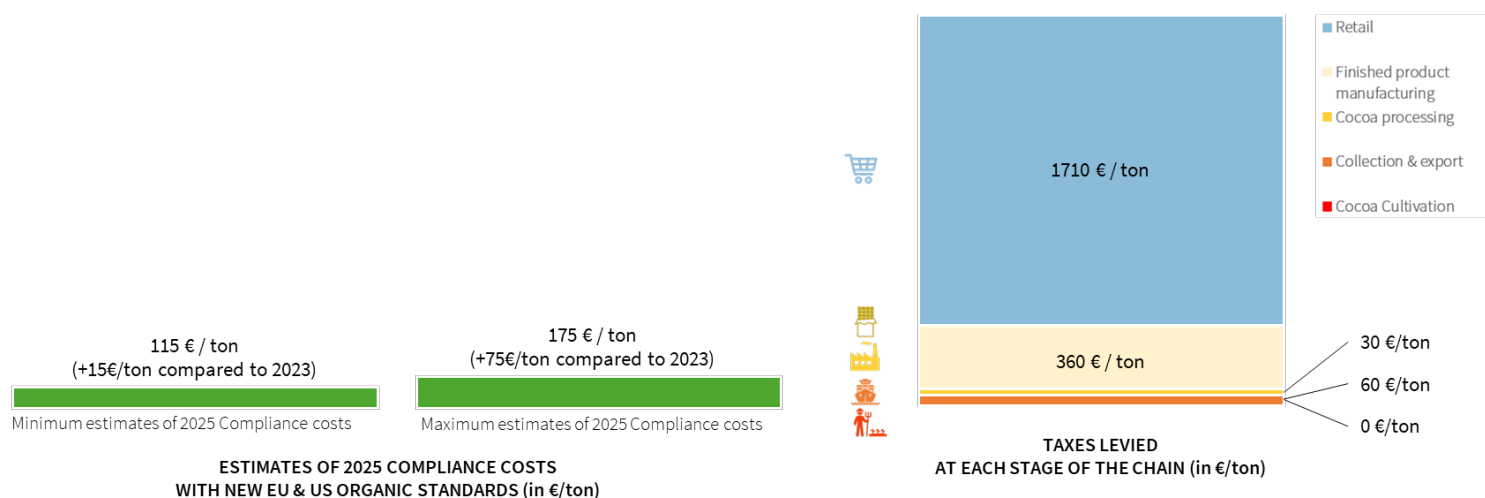


Figure 155. Comparison between compliance costs with new EU and US organic standards projected estimated for 2025 and distribution of taxes levied along the supply chain of an organic dark and milk chocolate tablet sold in Germany 2020 (in euro per ton).
Source: BASIC 2024

What these figures show is that there is little margin within producing countries. While they would be sufficient to cover additional costs of 50 to 100€/ton of cocoa bean, they would eat up most of the value created at origin, and would therefore be likely to be, at least in part, passed on to the farmers. In the situation of type D⁴⁹, with an importer involved, some if not all of this added cost (even maybe the whole cost of certification) is more likely to come from the combined margins of export and processing stages.

⁴⁹ For further explanation on the typology, please refer to section 4.2.2. Range of costs

5. Possible outcomes

5.1. General findings

Other findings of this study do not relate directly to costs, but will affect medium and long-term outcomes.

In terms of regulations:

- The new EU regulation's level of complexity: it is not easy to navigate all the changes and identify and understand all the requirements. Additionally, whereas within the EU there are public bodies in charge of outreach to farmers, which will provide an accessible level of information, there is no equivalent for countries outside the EU. The only source of information identified, which has provided a level of detail relevant for farmer organisations is the IFOAM, mainly under the form of webinars and detailed presentations⁵⁰
- The EU version of organic is dominating in the cocoa industry: NOP alone hardly exists in cocoa⁵¹, and the bar is set by the EU standard (for conceiving ICS, etc.)
- Generally, the step for new entrants is getting higher: it is impossible to assess by how much, but the general tightening of rules will make it harder to convert to organic, especially for a group

In terms of control and certification:

- Certification Bodies have very heterogeneous practices: despite being accredited under the same system, there are still differences in the way some crucial parts of the regulation are understood: this is a serious worry for many of the people interviewed
- In general, CBs have kept to the rule of not advising organisations they certify, but this has sometimes led to misunderstanding: some organisations not being aware that there were changes (because the CB in their only contact point for anything to do with certification), or overinterpretation of what a CB may have said; but in some cases, organisations have received recommendations from CBs, which may not be in their best interest
- Because of the lack of communication already mentioned, this makes communication from CBs difficult to understand, and more importantly impossible to challenge (there is no safe arena to do so, as bringing the challenge directly to the CB might jeopardise their certification). This includes understanding risk factors (what makes an organization "high risk" and what could be done to lower the risk)
- CBs have in particular comparatively little practice of the "Group of operators" modality, which is almost only used in countries outside of the EU, and results in many adaptations by CBs
- Great variability of testing costs (1 to 10)⁵²

⁵⁰ See : <https://www.ifoam.bio/news/insights-third-workshop-eus-new-organic-regulation-848>

⁵¹ Indeed, data from the FiBL presented in part 2.3 Organic cocoa imports shows that all organic cocoa traded transits through Europe first.

⁵² Cost collected range from 100€ to 150€ in Peru, 350€ in the Dominican Republic, to 800€ in Côte d'Ivoire (+200€ DHL for Côte d'Ivoire).

5.2. Scenari for four types of producer groups

The future of organic cocoa production and trade will be influenced both by regulations and by market conditions.

5.2.1. Consequences of regulatory changes

The generic factors influencing medium to long term outcomes are:

- An increase in costs due to auditing, staffing

And for some:

- A decrease in volumes (at least short term) due to downgrading
- Pressure on finances, and maybe on capacity to maintain volumes of trade, because of cashflow being immobilized (and credit not easy to obtain)
- Human resources being stretched (dealing with more stringent requirements, investigations in contamination cases and outcomes, etc.)

5.2.2. Influence from the market context

On top of this, the overall market context seems to show:

- A slight market decrease for organic cocoa (while no traders reported this, several producer organisations did)
- Extremely high international market prices for conventional cocoa, fully felt already in liberalized markets by farmers, but not yet in markets with controlled prices

Our experience observing commodity markets like coffee in period of high prices is that it is a very challenging time for cooperatives, for several reasons: for one, the amount of cashflow required to pay the cocoa to farmers increases as well (even if there is a delay or the increase is more or less steep), and short-term credit needs to grow accordingly, which is not always possible, or may be expensive. Secondly, many buyers will compete for the same cocoa, and it can be very tempting for growers to sell outside of the cooperative as other buyers will offer interesting conditions. Thirdly, the extra-price attracted by organic certification becomes much less significant in proportion to the total price, and farmers may be disincentivized to keep producing organic, as there may be a short-term gain to do so. This is compounded by the fact that chocolate manufacturers are bound by annual contracts to retailers, in which the selling price is fixed, thus limiting their ability to increase the top-up price for organic (in order to remain incentive)⁵³.

Therefore, it is likely that a greater portion of the cocoa which is certified as organic will be sold outside of the organic market; it is also possible that the current price situation challenges organic manufacturers, especially the ones with a high specialization in organic chocolate, as less specialized

⁵³ Smaller chocolate companies may not be in the same position as market leaders, who are more likely to be able to impose price increases.

operators can more easily manage a loss in one category if it can be compensated by profits in another.

5.2.3. Overall possible outcomes

Table 6 presents possible outcomes based on the type of production and export setup (as described in table 4).

Type	Type A	Type B	Type C	Type D
Description	100% organic <2000	100% organic >2000	Mixed	Exporter led group
Possible consequences of EU regulatory changes	Will concentrate production on fewer producers: drop less committed members, work on increasing productivity of others ⁵⁴	Will concentrate production on fewer producers: drop less committed members, work on increasing productivity of others	If market (volume) does not increase: will quit organic certification	If only exporters are involved: may try to concentrate on non-EU markets: Canada, Asia-Pacific and US If importers are involved: importers will bear additional costs
	Additional costs at least partly passed on to farmers for all types			
	Likely short to medium term decrease of volumes from types A, B and C			No change or increase in volumes
Possible additional consequences from high prices	Challenges to the less financially solid cooperatives, especially in Latin America (A, B and C) Likely short to medium term decrease of volumes from types A, B and C			No or little consequences

Table 6: Possible outcomes from changes in EU regulation coupled with high prices

Overall picture emerging from both changes in organic regulation and high prices seems to be a decrease in organic volumes available from types A, B and C, and possibly to the benefit of type D – on the condition that their capacity to invest and mobilise cashflow is maintained, which would itself depend on the health of the organic chocolate market – which we have not been able to fully assess.

6. Conclusions

While we are not able to assess a clear picture of potential outcomes for all actors in the cocoa and chocolate value chain, what is emerging is a clear tightening of rules in order to produce organic cocoa for the EU market. While the main benefits will be for European organic consumers, this has costs implications (a likely increase of 20-30% of certification costs), as well as practical constraints which are not financial in nature, but will limit access to organic certification for cocoa producers.

⁵⁴ in order to optimize the increasing costs of organic certification (which could be hard to accept for some organisations with social justice background, increase socio-economic inequities and conduct to a situation where organic activities focus on wealthier farmers)

While five different countries were chosen for this study, to get a cross sectional representation of organic production conditions, what emerges, is that both the direct outcomes of the regulatory changes, and the medium-term indirect outcomes will depend much more on the type of production and certification set up (rather than the country of origin), as presented in table 5.

Still some types are more common in some countries than others:

- Côte d'Ivoire has more of the C type, and a few As. As a consequence, the main issue is one of finding organic markets, not of cost increase.
- Sierra Leone has more of the D type, and there also the cost increase is less likely to be a major issue.
- Peru, the Dominican Republic, and Ghana (on a smaller scale) have more diversified organic production set ups, and there the cost increase and especially the other practical constraints described under 4.2.3 will be felt more acutely.

On the scale of the value chain, the main implication will be that organic cocoa following EU regulation is likely to become scarcer, considering also that farmers and cooperatives will have to support also the extra costs derived from the EUDR regulation.

One outcome could be the de-coupling of EU and US organic chocolate value chains, with organic cocoa bound for the US market not being processed through the EU or Switzerland any more. There are already some weak signals that this has started in other commodities such as coffee, with several organic certified organizations which will not seek EU certification in 2024 and focus on the US market instead.

It is also important to state that some organic groups of producers have been able to maintain their certification because of regular support from NGO and aid programs (through official development assistance funds), as well as with investment from Fairtrade premium (obtained through sales of conventional Fairtrade cocoa or other products), including to pay for growing costs of certification, polygon mapping and technical assistance when required. But this is unlikely to be sustainable and can be unfair as these aid programs can stop, based on each country's aid policy, and they currently can't support all organic farmers outside of the EU.

7. Recommendations

Based on this analysis, the following recommendations can be made, in order to facilitate this evolution.

To the EU and producing countries governments:

- To facilitate access to information, training and on the ground technical advice for farmer organisations (already certified organic or planning to)
- To facilitate access to short term credit to those same organisations
- To fund and facilitate the establishment of testing laboratories at regional level

To the ICCO, its members and the EU:

- To establish and fund a monitoring body of organic certification bodies, to facilitate information transparency on certification practices and to serve as mediator in case of disagreement between CBs and audited organisations

To the EU:

- To fund a dedicated program supporting:
 - o implementation of the new requirements in the organic regulation, accessible to farmer groups and to NGOs working with cocoa grower groups, to facilitate access to information, training and on the ground technical advice for farmer organisations (already certified organic or planning to)
 - o a communication campaign towards consumers, to explain the new regulation increase trust in the organic label
 - o research or studies on the drivers of contamination with chemical residues and best practice on how to decrease contamination risks around and within organic value chains
- to open spaces where market operators can discuss and devise industry mechanisms to allow for the downstream funding of regulatory obligations befalling upstream operators so as to ensure that the cost increase doesn't end up being paid by the farmers

To fair trade labels:

- initiate a review of the organic premium, which not only protect fair trade producer but also serves as a market signal outside of fair trade markets

To organic cocoa producers:

- to seek support from their respective ministries of agriculture or other dedicated bodies in order to get better access to training and testing, to have oversight systems for certification bodies (so that all certified organisations are on equal footing)

To the organic cocoa industry:

- to support initiatives that will:
 - o facilitate producers' access to finance and technical advice,

- advise on and showcase mechanisms to make publicly available what organic premiums are paid on which segments of the market and their justification, based on actual costs