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# The implications of governance factors for economic and social upgrading in Ghana's cocoa value chain

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## Abstract

This paper identifies several governance factors that enable economic upgrading and the link between economic and social upgrading /downgrading of smallholders and Abusa sharecroppers in Ghana's cocoa value chain (GCVC). The findings are based on qualitative interviews and focus group discussions with various actors in GCVC. Our findings suggest two types of economic upgrading: process and product upgrading, achieved by smallholder producers and Abusa Sharecroppers in GCVC. While process upgrading is enabled by governance factors such as price stabilization and controlling opportunistic behavior, transparency in the sale of certified beans and premium management is key for product upgrading. Regarding the link between economic and social upgrading, we reveal that process upgrading leads to the same outcome of social upgrading and downgrading for smallholders and Abusa sharecroppers due to governance factors such as production and purchasing policies and lack of resources and capabilities. However, product upgrading links to social upgrading and downgrading for smallholders and Abusa sharecroppers respectively owing to governance factors such as controlling resources and bargaining power. We provide insights into key actors and their interests, drivers of change and effects of incentives that play crucial roles in shaping governance factors that influence economic and social upgrading of smallholders and Abusa sharecroppers in GCVC. In our conclusion, we identify how regulations, institutional support and conflicts of interest are key for enabling upgrading of developing countries' agricultural value chains.

**Keywords:** Global value chain, Governance, Economic and social upgrading, Cocoa, Ghana

## Introduction

Over the past three decades, the organization of production on a global scale has increased significantly through the use of Global Value Chains (GVCs). Research has contributed to our understanding of two key concepts: governance and upgrading in GVCs. Governance highlights the management role of various actors, in particular lead firms, in shaping GVCs (Gereffi 2005). Governance has been linked to both economic and social upgrading in various GVCs. Economic upgrading seeks to identify ways in which economic actors can increase their share of value, while social upgrading aims to

improve working conditions and labor relations (Barrientos et al. 2011; Gereffi and Lee 2016; Ponte et al. 2019b; Selwyn 2013).

While the concept of governance has fundamentally improved our comprehension of upgrading in GVCs, our understanding of the governance role played by other actors beyond lead firms remains relatively limited (Karatepe and Scherrer 2019; Lombardozzi 2021; Neilson 2014; Neilson and Pritchard 2011; Tups and Dannenberg 2023). Previous research on governance in GVCs has primarily examined how lead firms from the Global North impact upgrading prospects, while little attention is paid to the governance role of local actors in promoting economic and social upgrading (Alford and Phillips 2018; Kissi and Herzig 2020; Selwyn 2013).

This study is situated in the literature on Global Agricultural Value Chains (GAVCs) and identifies governance factors enabling economic upgrading and the link between economic and social upgrading /downgrading of smallholders and Abusa sharecroppers in Ghana's cocoa value chain (GCVC). The study recognizes governance factors, stemming from multiple actors, especially local actors to the development of GCVC in a changing society. Beyond the governance factors, the study emphasizes the drivers of change and incentives derived from the relationships established among key actors that foster upgrading. Noteworthy local actors within this study encompass the Ghana Cocoa Board (COCOBOD), License Buying Companies (LBCs), farmer cooperatives, and smallholders.

By exploring the governance factors and examining the drivers and incentives arising from the interactions among key actors, this study offers an avenue for enhanced comprehension of the evolving dynamics within the governance and upgrading of GCVC (Carbone 2017; Ponte et al. 2019b). The research questions that this paper seeks to address are: (1) How and why do various governance factors enable economic upgrading for farmers and Abusa sharecroppers in GCVC? (2) How and why do governance factors link economic upgrading and social upgrading/downgrading for farmers and "Abusa" "sharecroppers" in GCVC?

The term sharecropping refers to a type of landowner/caretaker relationship in the agricultural production system where the latter provides labor on a piece of land in return for a share of the crops. In the GCVC, sharecropping involves two types: "Abunu", which means dividing the income received from selling the crops into two, with each partner taking half, and "Abusa", which means dividing the income into three, with the landowner taking two-thirds and the caretaker receiving one-third (Amanor 2010; Barrientos 2014; Bymolt et al. 2018; Kissi and Herzig 2023; LeBaron and Gore 2020).

While the Abunu sharecropper cultivates a virgin land, the Abusa sharecropper manages an already established cocoa farm. In this study, we focus on Abusa sharecroppers because they have a restricted ability to adopt innovative practices and engage in value chain activities due to their limited control over the production and marketing decisions of the cocoa beans. Furthermore, their diminished bargaining power is a consequence of restricted access to information, coupled with social class and identity limitations, which can increase their potential for labor exploitation (Kissi and Herzig 2023; LeBaron and Gore 2020).

GCVC presents an interesting case because of the many smallholders and sharecroppers who are more prone to upgrading challenges. In addition, Ghana's cocoa trade

policy is described as a partial market liberalization, which limits the participation of smallholders and sharecroppers when compared to Côte d'Ivoire, which has a liberalized trade policy (Bymolt et al. 2018; Kolavalli and Vigneri 2018). In what is described as partial market liberalization, the Ghanaian government, through COCOBOD, enjoys an export monopoly, yet allows intermediaries known as LBCs to operate the domestic purchase of beans at or above a fixed price announced by COCOBOD annually. Additionally, social upgrading challenges such as human rights abuse, and economic upgrading challenges such as lack of living income for smallholder producers, persist in GCVC (Berlan 2013; Fountain and Hütz-Adams 2022).

We conceptualize governance factors as the regulation and coordination of activities by key actors through a variety of formal and informal instruments to influence value addition and distribution of profits in GAVCs (Boström et al. 2015). We also define economic upgrading as the improvement in the income of smallholders and sharecroppers, and social upgrading as the improvement in working conditions resulting from increased income (Barrientos et al. 2011). This article contributes to the agricultural value chain literature of developing countries by arguing that understanding the governance factors that shape the behavior of key actors is crucial for promoting upgrading in GAVCs. A focus on multiple actors is key for economic and social upgrading in GVCs because of inclusiveness in decision making, improved trust and equitable distribution (Kumar and Beerepoot 2019; Ponte et al. 2019a; Sako and Zylberberg 2019).

In the next section, we present our conceptual approach, with a particular focus on the role of multiple actors in governance and upgrading in GAVCs and GCVC before explaining our methods of qualitative data collection and analysis in the methodology section. Then, we present our empirical results and discussions in light of the drivers, incentives, and governance factors that lead to economic upgrading in GCVC and the interlink to social upgrading. Finally, in the last section, we present our main findings and highlight future research and policy avenues in promoting governance factors enabling upgrading in GAVCs of developing countries.

### **Conceptual approach**

Here, we explain governance factors that facilitate economic and social upgrading/downgrading of smallholders in GAVCs and GCVC.

### **Governance and upgrading in GAVCs**

The earlier conceptualization of GVC governance distinguished between buyer-driven chains, such as the apparel and agriculture industries, and producer-driven chains, such as the automobile and electronics industries, as a broad way to capture the relationships between different actors (Gereffi 1994). In buyer-driven chains such as GAVCs, earlier literature has explained relationships more as captive governance by which lead firms drive, coordinate, and normalize the actions of various actors through concrete practices (such as codes of conduct, certification standards, and multi-stakeholder initiatives) and organizational forms (Carbone 2017; Gibbon et al. 2008; Ponte et al. 2019b).

However, recent studies have paid more attention to the governance role of other key actors and have shown that governments, intermediaries, and NGOs, play critical roles in the facilitation, regulation, implementation, and distribution of concrete

practices in GAVCs (Alford et al. 2021; Alford and Phillips 2018; Kissi and Herzig 2020; Lund-Thomsen et al. 2021; Strambach and Surmeier 2018). Therefore, the governance of GAVCs can be described as a “multipolar governance,” as explained by Ponte (2014). This shows that various key actors exercise some level of control that shapes the production and distribution of profits that alters economic and social upgrading in GAVCs.

Economic upgrading in GAVCs can be defined as the process by which economic actors—such as labor, smallholder producers, processors, manufacturers and distributors—move from low-value to relatively high-value activities (Gereffi 2005). The literature distinguishes four different types of economic upgrading in GAVCs: (1) process upgrading (where economic actors transform inputs into outputs more efficiently); (2) product upgrading (where economic actors move into more sophisticated product lines); (3) functional upgrading (where economic actors acquire new functions to increase skill capacity); and (4) chain upgrading (where economic actors move into new but related sectors) (Humphrey and Schmitz 2002).

In GAVCs, economic upgrading is primarily associated with product and process upgrading, as highlighted in previous studies (Kilelu et al. 2017; Neilson 2014). This can be attributed, in part, to the lack of industrial upgrading policies that would support their progression (Pipkin and Fuentes 2017). Furthermore, lead firms tend to prioritize and provide more support for product and process upgrading compared to functional and chain upgrading (Bassett et al. 2018; Dünhaupt and Herr 2022).

Recent advancements in GAVCs literature have expanded beyond solely focusing on economic upgrading to understanding social upgrading and the relationship between the two (Ponte 2022; Rossi 2019; Teipen et al. 2022). Social upgrading acknowledges that all actors fully participate with rights and entitlements to promote and improve labor conditions along GVCs (Rossi 2013). Social upgrading considers both measurable (e.g. health and safety, working environment and working hours) and non-measurable (e.g. freedom of association, the right to collective bargaining, non-discrimination) indicators (Rossi 2013).

Social upgrading has traditionally been applied by the International Labor Organization (ILO) to wage labor in an industrial setting or agricultural plantation context (Neilson 2019). Therefore, the early conceptualization of social upgrading neglected self-employed smallholder producers and their wage workers (Barrientos et al. 2011). However, recent conceptualization shows how the social upgrading of suppliers, including smallholders, interacts with economic upgrading governance paths (Gereffi and Lee 2016) and livelihood approaches (Neilson 2019).

The ultimate success of product and process upgrading and their link to social upgrading is not always clear and positive due to uncertain interests, demands and distribution of gains (Barrientos et al. 2011; Rossi 2019; Selwyn and Leyden 2022). Key actors in GAVCs pursue their upgrading objectives within the constraints imposed by the institutional context (Mohan 2016; Neilson and Pritchard 2011; Ponte 2022; Trienekens 2011). Therefore, governance factors matter in achieving upgrading in GAVCs. Governance factors refer to the regulation and coordination of activities by key actors through a variety of formal and informal instruments to influence value addition and distribution of profits in GAVCs (Boström et al. 2015).

The literature identifies that different governance factors such as policy and regulatory frameworks, conflicts of interest, social capital, norms and networks, institutional support and capacity building, infrastructural development and partnerships enable economic and social upgrading and the relations between the two in GAVCs. First, the state's role in addressing productivity-price trade-offs through price policies and regulations in export commodities is key for the economic and social upgrading of smallholder producers in developing countries (Busquet et al. 2021; Pipkin and Fuentes 2017; Tröster et al. 2019). This allows for a reduction of price volatility risk and promotes living wages and incomes for smallholder producers in GAVCs.

Second, conflicts of interest that arise as a result of information asymmetry, power asymmetry, risks and uncertainty, and profit maximization are crucial for economic and social upgrading in GAVCs (Bassett et al. 2018; Grabs and Ponte 2019; Krauss and Krishnan 2022). For example, low bargaining power among women and smallholder farm workers in GAVCs in developing countries leads to social downgrading (LeBaron and Gore 2020; Kissi and Herzig 2023; Riisgaard and Okinda 2018). These conflicts of interest that stem from differences in goals make smallholders vulnerable to distributional problems of gains leading to their unsuccessful upgrading.

Third, social norms such as gender dynamics, status of work and collective action are important for economic upgrading and social upgrading/downgrading simultaneously for smallholders (Barrientos 2014; Barrientos et al. 2016; Karatepe and Scherrer 2022; Krauss and Krishnan 2022). For example, unrecognized and vulnerable actors such as women, smallholder farm workers and irregular workers can achieve economic and social upgrading in GAVCs through collective action (Karatepe and Scherrer 2019).

Fourth, the importance of institutional support through effective industrial policy, technical assistance and extension services in building smallholder capacity and skill development, and inter-organizational learning are important for economic and social upgrading in GAVCs (Lebdioui 2022; Matheis and Herzig 2019; Nem Singh 2023). Such support services encourage active and inclusive participation of smallholders in GAVC governance leading to higher and fairer competition. Finally, infrastructural development and partnerships have been shown to play a vital role in promoting economic and social upgrading in GAVCs through the reduction of costs (Thorpe 2018).

Following the review of the literature on governance issues in GAVCs, we identify governance factors that facilitate upgrading in GCVC. We first identify key actors in GCVC with varying interests that drive upgrading through various incentives.

### **Governance and upgrading in GCVC**

GCVC can be defined as multipolar, where different key actors have varying degrees of control and decision-making authority despite the unequal distribution of power (Fold and Neilson 2016; Kolavalli and Vigneri 2018; Staritz et al. 2022). These key actors include COCOBOD, LBCs, Lead firms, Trade unions, and NGOs with varying interests that drive upgrading through various incentives.

COCOBOD is directly responsible for the production, marketing, distribution, and price regulation of cocoa beans (Barrientos and Asenso-Okyere 2009; Kolavalli and Vigneri 2018). COCOBOD designs and implements many concrete practices (including cocoa disease and pest control program, cocoa rehabilitation program, youth in cocoa

farming initiatives, and environmental and social sustainability projects) aimed at boosting productivity and quality of products to enhance an increased income for the country and producers. Additionally, COCOBOD, through the producer price review committee (PPRC) sets a guaranteed minimum price annually, known as the "producer price" which LBCs are required to pay cocoa farmers.

Despite Ghana's maintenance of the marketing board and COCOBOD's direct influence over other local actors, partial market liberalization occurs as LBCs are allowed to purchase beans on behalf of the state (Kolavalli and Vigneri 2018). In addition, LBCs are often the major actors implementing lead firm concrete practices aimed at improving the upgrading of smallholder producers. Non-economic actors, such as trade unions and NGOs, also play critical roles in implementing concrete practices by various actors to help smallholder producers manage their production in a sustained manner (Yamoah et al. 2020).

The governance of GCVC is not limited to state and local actors alone; it is also influenced by lead firms who regulate the sector through various set of concrete practices and organizational forms (Barrientos and Asenso-Okyere 2009; Fold 2002; Fold and Neilson 2016; Kolavalli and Vigneri 2018; Nelson and Phillips 2018). Lead firms have a significant impact on other actors in the GCVC through their regulation of production quantity and quality, which can have consequences for smallholders' economic and social upgrading (Fold and Neilson 2016; Staritz et al. 2022).

Ghana's upgrading strategy has focused more on product and process upgrading, while functional and chain upgrading has seen limited success due to the high costs of setting up cocoa processing plants, low skills and capabilities, and low chocolate consumption (Grumiller 2018; Kolavalli and Vigneri 2018; van Huellen and Abubakar 2021). The functional upgrading strategy in GCVC focuses on increasing domestic processing through an industrial policy that offers discounts on smaller or lighter beans to domestic grinders, mostly foreign firms established through free zones to attract foreign direct investment (Grumiller 2018; Kolavalli and Vigneri 2018).

Regarding the ultimate success of product and process upgrading and their link to social upgrading in GCVC, the literature identifies several important governance factors. First, it is essential to consider the role of price regulations and policies in mitigating price volatility in GCVC when examining the economic and social upgrading of smallholder producers and sharecroppers. In response to price volatility, GCVC has implemented commodity price policies and regulations such as forward sales, price stabilization funds, and living income differentials (LID) introduced by Ghana and Côte d'Ivoire in July 2019 to mitigate intra- and inter-seasonal price risks (Boysen et al. 2023; Staritz et al. 2022). However, inter-seasonal price volatility remains a challenge due to futures prices that drive seasonal exports and world market prices (Staritz et al. 2022). Furthermore, the long-term effects of policies such as LID on equitable welfare distribution are still uncertain due to the actual implementation of the policy and the market reaction of lead firms (Boysen et al. 2023).

In addition to price regulations and policies, addressing conflicts of interest that arise as a result of profit maximization, information asymmetry, power asymmetry and social norms is key for economic and social upgrading of smallholder producers in GCVC. For example, the market opportunism of LBCs is an emerging concern for smallholder

economic and social upgrading in GCVC (Amankwah-Amoah et al. 2018). This is because LBCs often have significant power in the supply chain and may prioritize their profits over the welfare of smallholder producers and sharecroppers.

Also, evidence in the literature shows that women in cocoa production often face discrimination and barriers to participation in GAVCs and receive low wages or work as unpaid family laborers, despite their significant contributions to the quality of bean production (Barrientos 2014). Moreover, lead firms and LBCs' control over quality and management of certification standards can influence the price and premium that smallholders receive for their cocoa beans (Barrientos and Asenso-Okyere 2009; Grumiller 2018; Staritz et al. 2022).

Overall, a smallholder cocoa producer and an Abusa sharecropper in Ghana may experience economic and social upgrading/downgrading differently due to several governance factors. In our analysis of upgrading, we follow Barrientos et al. (2011) and argue that a smallholder producer and Abusa sharecroppers experience economic upgrading when there is an increase in income, while social upgrading is achieved through a combination of indicators such as (a) the effective abolition of child labor, (b) elimination of gender discrimination, and (c) promotion of occupational safety and health. A decline in the combination of these indicators, on the other hand, represents social downgrading for both smallholder producers and Abusa sharecroppers.

We acknowledge that certain relevant social upgrading indicators, such as freedom of association and the right to collective bargaining, are not included in our analysis. These indicators do not typically apply to self-employed smallholder producers and Abusa sharecroppers who operate within the informal sector. They are more relevant to wage workers on plantations or those in the formal sector of GAVCs. Following the review of the literature on governance issues in GCVC, we conduct qualitative research to identify governance factors that facilitate economic upgrading and the link to social upgrading/downgrading of smallholder producers and Abusa sharecroppers. In our social upgrading/downgrading analysis, we focus on an improvement in some indicators of social upgrading and a worsening in others other than an overall assessment of whether working conditions and labor relations have improved or worsened. We first identify key actors and their interests, drivers of change, and incentives that can affect economic upgrading and retaining a higher proportion of the added value by smallholder producers and Abusa sharecroppers in GCVC. We then proceed to identify governance factors that explain why some social upgrading indicators are improving or worsening.

## **Methodology**

We collected qualitative data from a wide range of actors regarding the concrete practices set by different actors to govern the cocoa sector in Ghana as well as the drivers, incentives and governance factors that promote economic and social upgrading of smallholders and Abusa sharecroppers in GCVC (see the annex for interview guide). This approach allowed us to explore how governance factors enable economic and social upgrading/downgrading of smallholders and Abusa sharecroppers in GCVC from the viewpoints of various key actors (Yin 2017). Using purposive and snowball sampling, we conducted a total of 117 individual interviews and 16 group interviews

(with an average of 6 participants) in Ghana in 2018 with different key actors along the GCVC (see Table 1).

We noticed after our visit to the second region (in order as Ashanti, Brong-Ahafo, Western North and Eastern) that data collection no longer provided significant new insights or information, thus we had reached data saturation. However, we continued to the other regions because of their uniqueness. The Western North is the region with the highest production and hosts the highest number of implementations of concrete practices from various actors. On the other hand, the Eastern region is closer to the capital, Accra and is often chosen as a pilot region for the implementation of concrete practices from different actors. Most importantly, we continued our data collection after data saturation to triangulate our findings and enhance validity by observing consistency across different regions in GCVC as well as in anticipation of exploring variations. We acknowledge that strict adherence to the concept of data saturation could have reduced the interview number drastically.

A smallholder cocoa farmer in Ghana is someone who owns a piece of land and has full control over production and marketing decisions. On the other hand, Abusa sharecroppers are workers in a landowner/caretaker arrangement in which the caretaker or Abusa sharecropper manages an already established cocoa farm and receives one-third of the sales of the beans. The relatively lower proportion of sharecroppers stems from the fact that the sharecropping arrangement with a farmer has become more popular than with a tenant (Bymolt et al. 2018). For example, among the farmers interviewed, 40% held dual roles, meaning that in addition to their roles as smallholders, they were also in an Abusa arrangement. To compensate for the lower number of sharecroppers, we included questions about the economic and social upgrading of sharecroppers in our interviews with smallholder producers who held dual roles.

**Table 1** Overview of data collection methods

Interviewee	Number	Length (min)	Examples
Smallholder farmers	60 individual and 14 focus group interviews (6–10 participants)	20–60	
Abusa Sharecroppers	12 individual and 2 focus group interviews (6–8 participants)	20–60	
Farmer cooperative Managers	8 individual interviews	30–60	Kuapa Kokoo Farmers Union and ABOCFA Co-operative Cocoa Farmers and Marketing Society Limited
License Buying Companies (LBCs)	15 individual interviews	30–60	Produce Buying Company, Agro-Ecom, Olam and Yayra Glover LTD
Lead firms	4 individual interviews	30–60	Touton, Nestlé, Hershey and Mondelez
COCOBOD	2 individual interviews	30–60	Cocoa Health and Extension Division
NGOs	8 individual interviews	30–60	World Cocoa Foundation, Solidaridad and World Vision International
Trade union	2 individual interviews	30–60	General Agricultural Workers Union of Ghana
Certification bodies	6 individual interviews	30–60	Fairtrade, Rainforest Alliance and Afri Cert Limited



In conducting our field research, we focused on the top four growing regions in ascending order, including the Western North region, Ashanti region, Brong-Ahafo region, and Eastern region out of seven growing regions at the time of data collection from April to August 2018. Since 2019, the seven regions have translated into 10 regions because of the creation of three regions from the Brong-Ahafo Region and two regions from the Volta region.

For each region, we selected at least one district that was actively involved in various governance initiatives run by various actors based on an initial interaction with representatives of LBCs and farmer cooperatives. In each district, we interviewed several smallholders and Abusa sharecroppers in their villages and towns based on their availability and willingness. Table 2 presents a breakdown of the regions, districts, villages, and towns visited.

Our primary data was complemented by the 2018/2019 sustainability-related reports (Table 3) of various lead firms that source cocoa from Ghana, as well as some international NGOs in the sector to ensure data triangulation. In addition to multiple sources of data, we gathered additional data from two other regions despite reaching data saturation to triangulate the findings. Additionally, the second author independently reviewed the analysis and interpretations of the data to arrive at a common agreement with the first author. Moreover, we presented the initial findings at an academic conference [anonymized] in 2021 to gather a broader range of governance and upgrading perspectives in GCVC.

We conducted a form of inductive content analysis to generate codes, categories and themes of transcribed field notes (Silverman 2017). The inductive analysis provided an understanding of the dynamics of governance factors enabling upgrading for smallholder cocoa producers and Abusa sharecroppers in GCVC.

## Results and discussion

### Background

The African region supplies approximately 70% of the world's cocoa through over two million smallholder producers to the chocolate industry (FAO 2021). However, the majority of chocolate consumption occurs in the Global North, with emerging markets in China (Fountain and Hütz-Adams 2022). Ghana alone accounts for approximately 18% of the world's cocoa production, making it the second-largest producer after Côte

**Table 2** Locations of field work interviews in Ghana in 2018

Region	District	Villages and towns
Western North	Juabeso and Sefwi-Waiso Municipality	Aprakukrom, Ahidam, Bramajato, New Somanya, Caiphass 2, Domeabra, New Somanya, South Sonka, Domeabra-Alhaji Krom, Bunso-Nkwanta, pewodee, Sui, Madina
Ashanti	Adansi-South	Ataase, New Edubiase, Asare Krom, Kramo Krom, Odu-mase, Koforidua, Agogoso, Kyiraburoso
Brong-Ahafo	Asunafo-North Municipal	Goaso, Bowohomodien A, Mehame Nkwanta, Kukuom, Ahyiresu, Anwiam, Abetirenewom, Sienchiem, Dinkyin, Mensahkrom, Sunkwa, Dadiesoaba
Eastern	Suhum Municipality	Aponaponu, Kokotesua, Bana, Okyeame Akura, Nsuta wawase

**Table 3** Sustainability reports of selected key actors of GCVC as at 2018/2019 (Source: Authors)

Name of company	Actor type	Title of sustainability-related report	Year accessed
Barry Callebaut	Trader	Cocoa horizons foundation 2017–18 progress report <sup>a</sup>	2018
Cargill	Trader	Committed to more: The 2016/2017 Cargill Cocoa Promise global summary report <sup>b</sup>	2018
Ecom Trading	Trader	Achieving the impossible to create prosperity in rural communities <sup>c</sup>	2019
Hershey	Manufacturer	Introducing COCOA FOR GOOD our sustainable cocoa strategy <sup>d</sup>	2019
International Cocoa Initiative	NGO	Annual report 2017 <sup>e</sup>	2018
Lindt & Sprüngli	Manufacturer	Sustainability report 2017 <sup>f</sup>	2018
Mondelez	Brand	COCOA LIFE 2017 progress report: From cocoa farmers, connecting both ends of the supply chain <sup>g</sup>	2018
Mars	Brand	Cocoa for Generations 2019 Report <sup>h</sup>	2019
Nestlé	Brand	Tackling child labor 2018 report <sup>i</sup>	2018
Olam	Trader	Olam cocoa sustainability 2017 <sup>j</sup>	2018
Tony Chocloloney	Manufacturer	Annual Fair Report 2017–2018 <sup>k</sup>	2019
Touton	Trader	Going the extra mile: sustainable sourcing report 2017–2018 <sup>l</sup>	2019
World Cocoa Foundation	NGO	Cocoa Action 2017: What we have learned <sup>m</sup>	2018

<sup>a</sup> <https://www.cocoa Horizons.org/sites/www.cocoa Horizons.org/files/2017-18%20Assurance%20Verification%20Report.pdf>

<sup>b</sup> <https://www.cargill.com/doc/1432129192723/cargill-cocoachocolate-promise-report-en.pdf>

<sup>c</sup> <https://www.ecomtrading.com/noback/ecom-brochure.pdf>

<sup>d</sup> [https://www.thehersheycompany.com/en\\_us/home/sustainability/sustainability-focus-areas/cocoa.html](https://www.thehersheycompany.com/en_us/home/sustainability/sustainability-focus-areas/cocoa.html)

<sup>e</sup> <https://www.cocoainitiative.org/ici-annual-report-2017>

<sup>f</sup> [https://report.lindt-spruengli.com/17/ar/en/dist/pdf/Sustainability\\_Report\\_en.pdf](https://report.lindt-spruengli.com/17/ar/en/dist/pdf/Sustainability_Report_en.pdf)

<sup>g</sup> [https://www.cocoalife.org/~media/CocoaLife/en/download/article/Cocoa\\_Life\\_Progress\\_Report\\_2017.pdf](https://www.cocoalife.org/~media/CocoaLife/en/download/article/Cocoa_Life_Progress_Report_2017.pdf)

<sup>h</sup> <https://www.mars.com/sustainability-plan/cocoa-for-generations>

<sup>i</sup> <https://www.nestle.com/sites/default/files/2019-12/nestle-tackling-child-labor-report-2019-en.pdf>

<sup>j</sup> <https://www.olamgroup.com/content/dam/olamgroup/files/uploads/2017/09/Olam-Cocoa-Sustainability-Overview-2017.pdf>

<sup>k</sup> <https://tonyschocoloney.com/uk/en/annual-fair-report-2017-2018>

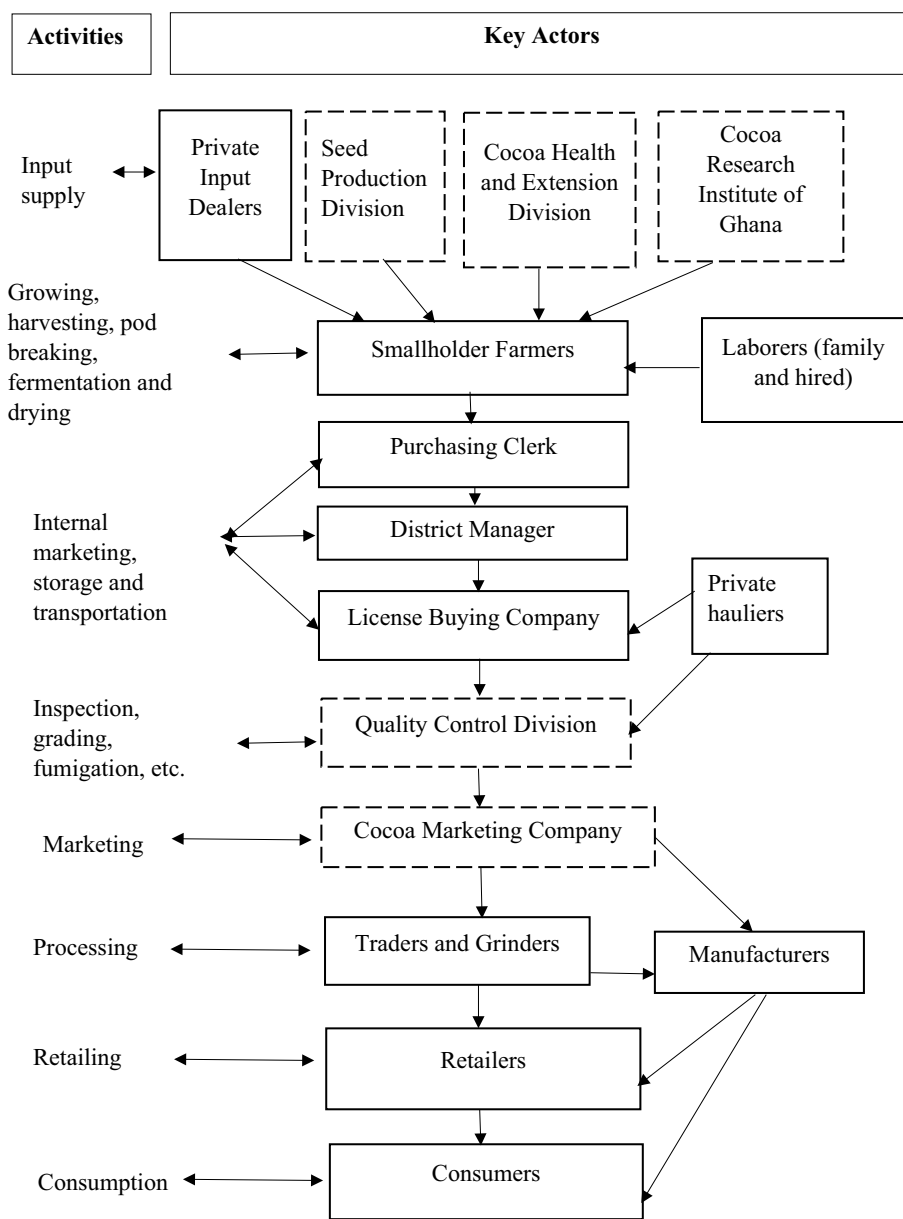
<sup>l</sup> <https://touton.com/images/resources/Reports/Brochure-ANGL-web.pdf>

<sup>m</sup> <https://www.worldcocoa foundation.org/2017cocoaactiondata/>

d'Ivoire (ICCO 2020). Over the last 5 years, cocoa has been the third major export earner in Ghana, after gold and oil, respectively (UN Comtrade 2022).

GCVC can be defined as a production system of interconnected key actors who perform various value chain activities (Fig. 1). GCVC depicts a multipolar governance structure that shows the inclusiveness of decision-making amongst different key actors to drive upgrading through various incentives because of the existence of various types of contracts. These include purchasing contracts (between COCOBOD and LBCs and COCOBOD and lead firms), certification contracts (between LBCs and lead firms), production contracts (between COCOBOD and smallholder farmers), and forward contracts (between COCOBOD and international buyers).

GCVC begins when COCOBOD, along with other private input dealers, supplies inputs to a large pool of about 800,000 smallholder farmers who own about 3–5 hectares on average (FAO 2021; Kolavalli and Vigneri 2018). In addition to family and communal labor support, smallholder cocoa farmers in Ghana usually employ casual labor



**Fig. 1** Ghana's cocoa value chain (GCVC). *Source:* Authors construct. *Note* Dashed boxes represent the subsidiaries (or divisions) of COCOBOD

or practice a sharecropping arrangement system to carry out their various activities (Amanor 2010; Bymolt et al. 2018; Kissi and Herzig 2023). Farmer cooperatives also exist in GCVC. Farmer cooperatives are formed voluntarily by individual farmers to engage in certification standards (such as Fairtrade) and other voluntary initiatives, for input (such as credit and finance, fertilizers, and assistance for training and capacity building) assistance, and for social support (such as communal labor support and village savings and loans).

Farmers sell their raw cocoa beans only to COCOBOD through LBCs, which operate the domestic purchase of raw beans at or above a fixed price that is determined by the

PPRC and announced annually by COCOBOD. COCOBOD then ensures quality control through inspection, grading, and fumigation before selling to a buyer, mostly processors and manufacturers abroad. In addition, COCOBOD has implemented a number of concrete practices (such as youth in cocoa farming, cocoa rehabilitation program, cocoa mass spraying, and hand pollination) over the years to drive upgrading (Kolavalli and Vigneri 2018; Maile 2020).

The role of domestic actors in GCVC largely ends at the export of raw beans. Thus, cocoa processing and chocolate manufacturing are controlled by lead firms. Lead firms implement concrete practices (such as certification standards, in-house sustainability programs, and multi-stakeholder initiatives) aimed at promoting upgrading. In GCVC, several lead firms are emphasizing high-quality cocoa due to the growing demand for ethical, premium and sustainable chocolate products.

Given the multiple actor engagement with uncertain interests in GCVC, we identify governance factors that facilitate economic and social upgrading/downgrading of smallholders and Abusa sharecroppers. We do so by identifying key actors and their interests, drivers of change, and incentives that can affect upgrading and retaining a higher proportion of the added value by smallholder producers and Abusa sharecroppers in GCVC and the link to social upgrading/downgrading.

By following triangulation steps, our findings effectively incorporate the perspectives of affected actors, especially smallholders and Abusa sharecroppers in GCVC. This adds depth and transparency to the exploration of governance factors that facilitate upgrading, highlighting the validity and reliability of our findings while also addressing ethical considerations and implications.

#### **Key drivers, incentives, governance factors and actors for smallholder economic upgrading**

Our findings suggest that the type of economic upgrading achieved by smallholder producers and Abusa Sharecroppers in GCVC is product and process upgrading. The two types of economic upgrading are achieved through key drivers, actors, incentives, and governance factors (Table 4).

Process upgrading aims to increase the productivity of cocoa beans. Studies by Barrientos et al. (2011), Dünhaupt and Herr (2022), and Karatepe and Scherrer (2022) suggest that productivity increase in GAVCs is associated more with process upgrading. According to the majority of the interviewees, actors such as lead firms, COCOBOD and LBCs, who hold an interest in higher profits and supply chain stability, enable higher yields to drive process upgrading in GCVC through various incentives. Our interviews with smallholder producers and sharecroppers, as well as our analysis of sustainability reports, revealed that incentives such as intensified education, skill development, financial support, training, and capacity building enable smallholders' increase in yield of at least 50% per acre.

These incentives create opportunities alike for smallholders and sharecroppers in GCVC to move up to higher-value activities and gain greater benefits (Gereffi and Lee 2016; Rossi 2015). However, the ability of smallholders and sharecroppers to access and act on these incentives may differ due to differences in land ownership, decision-making authority, information access and sharing, and long-term commitment to the land (Kissi and Herzig 2023). For example, our interview with sharecroppers revealed that

**Table 4** Key drivers, mechanisms, governance factors and actors of economic upgrading in GCVC (Source: Authors)

Type of economic upgrading	Key driver	Incentives	Key actors for key driver and incentives	Governance factors	Key actor (s) for governance factor
Process upgrading	Increased yielding	Support services such as financial support, skill development, training and capacity building	Lead firms; COCOBOD; LBCs	Price regulation and policy Controlling opportunistic behavior	COCOBOD LBCs
Product upgrading	Premium payment	Compliance to certification standards; market supply and demand; support services	Lead firms; LBCs; farmer cooperatives	Transparency in quantity of certified beans sold and bought Premium amount and premium distribution	Lead firms; LBCs Lead firms; LBCs; Farmer cooperatives

basic support services such as training and extension services, as well as input supply, is often organized for land-owners neglecting sharecroppers. Addressing these differences and ensuring equitable incentives for all category of smallholders and sharecroppers can contribute to the overall success of process upgrading in GCVC.

We noticed that the ultimate success of process upgrading for smallholders and Abusa sharecroppers is enabled through governance factors such as price regulations and policies, and controlling opportunistic behavior of LBCs. From our findings, we observed that COCOBOD's role in price stabilization and implementation of the LID is crucial for process upgrading because it reduces farmers' and sharecroppers' risk of facing volatile cocoa prices in the world market. As one LBC manager interviewed said; "Farmers and sharecroppers in Ghana benefited from the price fixing and stabilization mechanism during the significant decline in the world market price of the 2016/17 crop season." Additionally, as a result of the LID price policy introduced in 2019, COCOBOD maintained the producer price in the 2021/22 crop season despite the fall in the world market price while increasing substantially the price in the 2023/24 crop season due to record high cocoa prices.

Our findings show that COCOBOD's price stabilization scheme and LID that seek to respond to price shocks in global cocoa resulting from higher productivity in producing countries are crucial for smallholder process upgrading (Pipkin and Fuentes 2017; Tröster et al. 2019). COCOBOD's price stabilization scheme is financed through forward sales, government support and the price stabilization fund. The price stabilization fund is financed through surplus revenue because of production, price, and exchange rate (Kolavalli and Vigneri 2018).

Although the stabilization mechanism and LID in GCVC are critical governance factors for process upgrading through reducing intra-seasonal price risks, they offer limited support for inter-seasonal price volatility (Staritz et al. 2022). Therefore, transparent implementation of these policies and regulations, strategic measures to manage supply and the actual market response of lead firms deserve consideration for the complete

success of smallholders and sharecroppers' process upgrading in GCVC (Boyles et al. 2023).

The second identified governance factor enabling the success of smallholder process upgrading is controlling opportunistic behavior by LBCs. Evidence gathered from a focus group discussion with farmers and sharecroppers suggests that cheating on weight is a major risk they face in terms of income. Some LBCs do this to maximize their profit. One smallholder farmer spoke out against the purported 'scale adjustment' of some purchasing clerks, criticizing the questionable difference between weights at home and the depot. This action that is taken by some LBCs through their purchasing clerks limits process upgrading among smallholders and Abusa sharecroppers despite increased productivity. Our results confirm the growing 'market opportunism' exhibited by some LBCs in Ghana's cocoa sector (Amankwah-Amoah et al. 2018).

While we agree with Lund-Thomsen et al. (2021) on the role of intermediaries as implementers of concrete practices of various actors in GAVCs, our findings emphasize how the opportunistic behavior of LBCs as intermediaries impedes process upgrading of smallholder cocoa producers and sharecroppers. It is important to emphasize that currently, the problem of cheating is being addressed by COCOBOD in collaboration with other key actors through the introduction of a digital weighing scale for the purchase of cocoa. Addressing such behavior in a collaborative effort, transparency, and fair governance mechanisms is important to improve process upgrading of smallholder producers and sharecroppers in GCVC.

In addition to process upgrading, we identified product upgrading of smallholders and sharecroppers that relates to producing quality cocoa beans that meet specific market requirements in GCVC. Product upgrading focuses on producing high-quality cocoa that has a positive impact on the environment and society (Barrientos et al. 2011; Karatepe and Scherrer 2022).

Our interviewees recognized that lead firms, LBCs and farmer cooperatives who are interested in sustainable supply chains pay premiums to drive product upgrading through several incentives. Premiums are additional income farmers receive on top of conventional prices as a result of adhering to specific standards. As one farmer stated, "The premiums we receive through incentives such as compliance to certification standards, market supply and demand of certified beans, and support services bring about positive outcomes for our household income and farming practices." In GCVC, premiums are received directly by farmer cooperatives (e.g. Fairtrade) or through LBCs (e.g. Rainforest Alliance). The time for premium payment varies from at the time of sale to at a later time. The variation is a result of the certification body's payment schedule, the LBC arrangements, and farmer cooperative arrangements.

Unlike process upgrading, access and ability to act on incentives for product upgrading differ significantly among different smallholders and sharecroppers. Most sharecroppers, (especially in situations where the landowner is a farmer and resides in the same community as the sharecropper), farmers with small land sizes, and farms far away from road access hardly participate in certification schemes. According to one sustainability manager of an LBC interviewed, "Running certification and sustainability programmes for smallholder farmers is very expensive because of the high cost of training, monitoring and auditing; so usually, we prefer a smaller number of farmers who are capable of

following stringent rules, have road access and have the supply capacity as required by our clients to reduce transaction costs.”

We noted that governance factors such as transparency in the quantity of certified beans sold and bought, as well as the premium amount and premium management, are significant for the success of smallholder and sharecropper product upgrading in GCVC. First, to ensure successful smallholder product upgrading, transparency regarding the true quantity of certified beans sold and bought is key. Individual interviews and focus group discussions with smallholder producers and sharecroppers revealed that information disclosure and dissemination about the quantity of certified beans purchased by lead firms is always unclear.

Many smallholders and sharecroppers feel that their efforts in producing certified beans do not pay off, as they are often told by LBCs that some amount of certified beans produced is sold as conventional. For example, one Rainforest Alliance certified farmer stated, “Though the premium is helpful, we do not often receive the expected amount after going through rigorous processes because purchasing clerks tell us that the LBCs failed to find a final buyer for all certified beans.” Additionally, because farmers are at liberty to sell their beans to any LBC of their choice, some farmers voluntarily sell their certified beans as conventional to purchasing clerks who are not designated to buy certified beans due to their availability of income (Ansah et al. 2020). This raises questions on the commitment of lead firms towards sourcing 100% certified beans as claimed in their sustainability reports and on the issue of LBCs accountability and income availability regarding the certification program.

The second governance factor for a successful product upgrading relates to the premium amount and premium management. Most farmer and sharecropper interviews mentioned the lack of fixed price premium (related to Rain Forest Alliance for example) and low premium level (related to both Rainforest Alliance and Fairtrade for example) as a bane for product upgrading. For instance, smallholder farmer cooperative managers interviewed noted that although Fairtrade guarantees a minimum price and a fixed premium paid directly into the accounts of cocoa farmer cooperatives, individual farmers receive a low premium share, since such cooperatives’ membership increases despite a constant demand for certified beans from the buyer (i.e. a lead firm). Our findings add to the minimum price/fixed premium and living income debates in the cocoa sector certification program. We contend that while Rainforest Alliance should guarantee a fixed minimum premium, both Fairtrade and Rainforest Alliance should ensure that the existing premiums on certifications are appropriately elevated to the status of living incomes of smallholder producers. Promoting living income will help to promote decent standard of living among cocoa producers and their growing communities in Ghana (Smith and Sarpong 2018).

In addition to the premium level, we noticed that the active participation of smallholder farmers and sharecroppers in premium management may act as a visible incentive for product upgrading (Amuzu et al. 2022; Ansah et al. 2020; Brako et al. 2021). Our findings show that most farmers often complain about receiving low premiums for their certified products due to the lack of participation in the premium management. For instance, a smallholder farmer interviewed asserted that “A lot of smallholder farmers are not content with their participation in the certification programs in Ghana and

perceive that purchasing clerks and LBCs pay farmers low premium as received from international buyers.” When smallholders and sharecroppers in GCVC feel disconnected from and perceive unfair practices, their motivation to engage in certification programs to achieve product upgrading can decline (Ansah et al. 2020).

This finding highlights the relevance of addressing information asymmetry in the overall management of certification programs in GCVC to promote transparency (Amuzu et al. 2022; Ansah et al. 2020). Lack of transparency may potentially undermine the effective participation of smallholders and Abusa sharecroppers in concrete practices of various actors, which are crucial for achieving economic upgrading in GCVC (Camanzi et al. 2018; Gardner et al. 2019). Improving varying access to different types and levels of information on the quantity and income of sold and bought certified beans amongst LBCs, lead firms, smallholder producers and sharecroppers can ultimately promote the success of product upgrading in GCVC.

**Interlink between economic upgrading and social upgrading/downgrading of smallholder producers and sharecroppers.**

In Table 5, we present the social upgrading/downgrading outcomes of the two economic upgrading types and discuss the distinct governance factors that play a critical role in the interlink between the two for smallholders and sharecroppers simultaneously. In our social upgrading/downgrading analysis, we identify governance factors to explain why there is an improvement (positive) in some social upgrading indicators and a worsening (negative) in others.

**Interlink between process upgrading and social upgrading/downgrading of smallholder producers and sharecroppers**

We found that process upgrading through increased yield can lead to the same outcome of an improvement in some social upgrading indicators and a worsening in others among smallholders and Abusa sharecroppers owing to governance factors such as the production and purchasing practices of GCVC, the availability of resources and the capabilities of local implementing partners. According to most of our respondents, yield increase exacerbates the risk of child labor among both farmers and Abusa sharecroppers’ families. This is mainly due to the unavailability and rising cost of adult labor resources, as well as weak local child labor monitoring systems in the various concrete

**Table 5** Interlink between economic upgrading and social upgrading/downgrading of smallholder producers and sharecroppers (Source: Authors)

Type of economic upgrading	Social upgrading indicator					
	Smallholder farmer			Abusa sharecropper		
	Child labor reduction	Gender equality (access to training)	Occupational safety and health	Child labor reduction	Gender equality (wage)	Occupational safety and health
Process upgrading	Negative	Positive	Negative	Negative	Positive	Negative
Product upgrading	Positive	Positive	Positive	Negative	Negative	Negative



practices, including certification standards in GCVC. During focus group discussions, the majority of smallholder producers and sharecroppers admitted that they rely on family labor, particularly children, for harvesting and pod breaking during peak seasons from October to January, due to the high cost and unavailability of adult labor resources. Children are often deprived of their education during these peak seasons, which is detrimental to their future development.

Interviewees also indicated that child labor monitoring mechanisms incorporated in various concrete practices, especially certification standards to address child labor issues are generally weak, due to a lack of local capacity, inadequate incentives, and no rewards, as well as weak local enforcement mechanisms. Without an effective child labor monitoring system in place at the community level, it is challenging to identify and prevent instances of child labor, as well as provide support to affected children and families (Fountain and Hütz-Adams 2022; Sadhu et al. 2021). Furthermore, weak monitoring can also lead to a lack of trust among lead firms, who may seek out alternative sources of cocoa that are regarded as child labor-free. This can ultimately lead to economic downgrading and social downgrading for smallholder farmers and sharecroppers who rely mainly on the cocoa industry for their livelihoods in Ghana.

Most of our respondents also reported that process upgrading worsens occupational safety and presents greater health risks for both smallholder producers and Abusa sharecroppers. This is due to limited access to safety and health training resources and enforcement programs, as well as inadequate access to personal protective equipment resources (Scherrer and Radon 2019). Interviews with a number of sustainability managers of private companies confirmed that both spraying and pruning, which are undertaken to boost cocoa yield, pose significant health risks. Yet, very few of the concrete practices directly provide extensive health-related education and training programs. As one interviewee said, "Apart from certification standards, which only admit a minority of farmers, the majority of the productivity-enhancing interventions are silent on safety and health training and education, as well as health inspection and monitoring."

Health training and education are essential for smallholder producers and Abusa sharecroppers to understand and identify potential hazards, as well as take appropriate measures to mitigate risks and prevent accidents in the cocoa production process. Moreover, health training and education can help smallholder producers and Abusa sharecroppers to identify symptoms of common illnesses and injuries that may arise from their work, such as ocular injuries, respiratory problems, fall injuries, or back pain (Bert et al. 2016). By learning how to identify and prevent these health issues, they can protect themselves and their families from harm and improve their overall well-being, leading to improved income and the protection of human rights (Scherrer and Radon 2019).

Regarding gender issues, most of our interviewees suggested that process upgrading is likely to reduce gender discrimination among smallholder cocoa producers and Abusa sharecroppers. This improvement occurs through improved access to skill development and training, which are key to increasing women's empowerment. One NGO manager interviewed stated, "Women farmers have increasingly received profound attention in the majority of the concrete practices aimed at improving yields." This revelation was also echoed by several other interviewees who mentioned that women extension volunteers

in some communities attend to only women. Such arrangements can empower women who form a key part of family labor in the cocoa sector of Ghana yet are not recognized and face several labor exploitations due to gendered patterns of production and reproduction, and land access (Barrientos 2019; LeBaron and Gore 2020).

On the other hand, our analysis found that for Abusa sharecroppers, increased yields are likely to improve the wages of both male and female caretakers (although there are very few female caretakers) due to production and purchasing policies. According to several interviewees, sharecroppers are paid their exact share since they observe the weighing and sale of the cocoa beans with the farm owner or a representative of the owner.

To mitigate the potential negative social impacts of process upgrading in GCVC, focusing on building the capacity of local actors to effectively implement and monitor the concrete practices that are designed and implemented by various actors is crucial (Strambach and Surmeier 2018). Additionally, strengthened institutions that provide access to resources such as labour, and health and safety materials can significantly improve a positive relationship between process upgrading and social upgrading (Kissi and Herzig 2023).

#### **Interlink between product upgrading and social upgrading/downgrading of smallholder producers and sharecroppers**

Most interviewees acknowledged that product upgrading through premium payment is likely to reduce child labor, increase safety and healthy working conditions, and reduce gender discrimination among smallholder producers. This improvement in social upgrading indicators is because the premium serves as a reward for both quality and compliance with labor governance. As one farmer said, “We comply with labor rules to pass audit assessments so we can receive premium payment.” In response to questions about labor rights compliance in a focus group discussion, smallholder producers firmly claim that they avoid employing underage children or using children for difficult tasks, pay male and female workers equally for the same job, and avoid leaving empty chemical containers on the farm or using them for salt and sugar storage to qualify for the premium payment.

However, interviewees also indicated that the premium payment does not reduce child labor, occupational safety and health risks, and gender inequality for Abusa sharecroppers. The worsening in social upgrading indicators for Abusa sharecroppers is as a result of governance factors such as the control of resources and bargaining power. Nearly all respondents reported that Abusa sharecroppers do not directly participate in certification standards. Therefore, it is expected that a portion of the delayed premium payment and an insistence on compliance with labor rights must be passed on to Abusa sharecroppers. However, during a focus group discussion with Abusa sharecroppers, they confirmed that they do not receive any share of the premium or training on labor rights yet are unable to complain. One Abusa sharecropper critically pointed out that “Caretakers face hard times but prefer to remain silent because landlords can decide to sack us at any time, any day.”

Nearly all sharecroppers also revealed that they often manage remote farms that are likely to escape auditing around their compliance with labor rights due to limited road

access. As one sharecropper noted, “The majority of smallholders who own multiple certified farms at different locations often allocate the remote ones to us.” He further explained, “Because auditors rarely visit the farms we work on, farm owners do not insist on compliance with labor rights.” Consequently, sharecroppers often evade child labor monitoring and do not observe occupational safety and health protocols. Furthermore, sharecroppers do not receive any additional income from certified products beyond higher productivity gains.

From our findings, we observe that the low bargaining power of Abusa sharecroppers coupled with their lack of control of land resources, links product upgrading to an improvement in social upgrading indicators and a worsening in social upgrading indicators for smallholders and sharecroppers, respectively. In GCVC, Abusa sharecroppers hold low bargaining power due to their lack of control and dependence on landowners for access to land pursue cocoa farming endeavors (Kissi and Herzig 2023). Additionally, Abusa sharecroppers’ lack of access to financial resources such as credit or savings for investments to expand or own a farm, contributes to their worsening in social upgrading indicators despite the success of product upgrading.

Existing studies have mainly focused on how lead firms and first-tier suppliers shape and reshape power relations in GVCs to their benefit (Raj-Reichert 2019; Rossi 2019; Teipen and Meh 2022). We argue that smallholder producers also benefit from the power imbalance in GAVCs, contributing to social downgrading of their farm workers due to distributional problems (Barrientos et al. 2016; Kissi and Herzig 2023; Riisgaard and Okinda 2018). Identifying the available power resources that can enable Abusa sharecroppers to alter the power imbalance and enhance redistribution effects in GCVC is critical to achieve both economic and social upgrading concurrently (Kissi and Herzig 2023; Riisgaard and Okinda 2018; Teipen et al. 2022).

## Conclusion

We identified various governance factors that facilitate two types of economic upgrading, namely, process and product upgrading and the link between social upgrading / downgrading of smallholders and Abusa sharecroppers in GCVC. We also explored key actors and their interest, drivers of change and effects of incentives that play crucial roles in shaping governance factors that influence the economic and social upgrading of smallholders and Abusa sharecroppers in GCVC.

We found that actors (including lead firms, COCOBOD and LBCs), who hold an interest in higher profits and supply chain stability, enable higher yields through incentives (such as financial support, skill development, training and capacity building) to drive process upgrading in GCVC. However, our analysis suggests that the ultimate success of process upgrading leading to higher income for smallholders and Abusa Sharecroppers depends on governance factors such as price stabilization mechanism and controlling the opportunistic behavior of intermediaries.

We also identified that lead firms, LBCs and farmer cooperatives who are interested in sustainable supply chains pay premiums to drive product upgrading. Product upgrading in GCVC is achieved through incentives such as compliance with certification standards, market supply and demand and support services. Just like process upgrading, we note that transparency in the quantity of certified beans sold and purchased, along with

the transparency in premium amount and its management are governance factors that play a crucial role in facilitating product upgrading in GCVC.

Furthermore, our findings indicate that process upgrading yields similar outcomes of an improvement in some social upgrading indicators and a worsening in some for both smallholders and Abusa sharecroppers due to governance factors such as the production and purchasing practices of GCVC, the availability of resources and the capabilities of local implementing partners. On the other hand, product upgrading is linked to an improvement in social upgrading indicators for smallholders and a worsening in social upgrading indicators for Abusa sharecroppers owing to governance factors such as the control of resources and bargaining power.

Overall, our findings show that while policy and regulatory frameworks, institutional support and conflict of interest facilitate process upgrading and its link to social upgrading, conflicts of interest remain crucial for product upgrading and its link to social upgrading in GCVC. Hence, addressing and mitigating conflicts of interest that arise as a result of profit maximization, unequal bargaining power and information asymmetry through clear governance mechanisms is crucial for ensuring both product and process upgrading as well as their link to social upgrading of smallholder producers and Abusa sharecroppers in GCVC. Additionally, clear, inclusive, supportive and transparent price stabilization policies and institutional support remain vital for process upgrading as well as its link to social upgrading in GCVC.

Therefore, future research and policy could explore ways to create an enabling environment that allows different actors, particularly smallholder producers to participate and collaborate actively in the governance of GAVCs (Camanzi et al. 2018; Gardner et al. 2019). Such inclusiveness in governance decision-making is crucial for economic and social upgrading in GVCs (Kumar and Beerepoot 2019; Ponte et al. 2019a; Sako and Zylberberg 2019).

Finally, it is important to note that our analysis is limited to Ghana, and caution should be taken when generalizing our results to other cocoa-producing countries in West Africa. For example, Ghana's domestic and export market is non-liberalized, has centralized marketing, and maintains a high export quality system, which differs from Côte d'Ivoire, the world's largest cocoa producer (Kolavalli and Vigneri 2018). This suggests that the governance factors enabling such upgrading may differ across producing countries. Future studies that consider other producing countries with distinct value chain structures could advance our understanding of the governance factors enabling economic and social upgrading in developing countries' agricultural value chains.

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#### **Author contributions**

All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by EAK. The first draft of the manuscript was written by EAK and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

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#### Availability of data and materials

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

#### Declarations

##### Ethics approval and consent to participate

Not applicable. Verbal informed consent was obtained from participants prior to the interview.

##### Consent for publication

The authors approve the manuscript for publication upon acceptance by the journal and after peer review. In addition, the authors affirm that human research participants provided informed consent for publication of the data.

##### Competing interests

The authors declare that they have no competing interests.

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