SEND GHANA

ASSESSMENT OF THE HUMAN RIGHTS, LIVING INCOME, ENVIRONMENTAL DUE DILIGENCE AND GENDER RIGHTS PERFORMANCE OF COCOA BUYING COMPANIES IN GHANA

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EXECUTIVE SUMMARY

An evaluation of the performance of human rights, living income, environmental diligence and gender rights and women farmers' support (HLEG) of cocoa purchasing companies was undertaken in the Asene-Manso-Akroso and Agona East districts of Ghana. The study had two components: (1) an assessment of HLEG performance based on a random sampling survey of 105 cocoa farmers and (2) a qualitative analysis involving in-depth interviews of 16 elite persons with considerable knowledge of the cocoa industry in the two districts. These elite persons included five purchasing clerks and a District Director of cocoa purchasing companies.

The four HLEG performance criteria were assessed based on the use of zero-to-five Likert scoring scale index. In general, most farmers indicated that cocoa purchasing companies performed well in terms of the respect of their human rights with regards to the purchase and sale of views, a view also affirmed by the 16 elite persons interviewed. The use of child labour on cocoa farms, especially on school days, was reported as non-existent. The adequacy of cocoa-based income to support families was assessed as modest. Cocoa famers and the elite persons involved in the study called for the Ghana Cocoa Board to increase cocoa producer prices starting from the next production year in October 2025. Bonuses and other additional payments to were reported by the cocoa farmers to be minimal.

The perceived cheating of famers' incomes through the manipulation of the weighing scales by purchasing clerks was assessed by both cocoa farmers and elite persons as minimal. The average Likert scale score for perceived cheating of cocoa farmers by purchasing clerks through the adjustment of weighing scales was 0.54 based on the zero-to-five score scale suggesting its very low occurrence. This was a very big improvement from the average 3.86 score recorded in a similar study in the Agona East district in 2018. The latter study was also sponsored by SEND GHANA; the organization used the findings of this study as advocacy for the introduction of electronic weighing scales by the Ghana Cocoa Board in 2020. For the current 2025 study, the efforts of cocoa cooperatives and foreign owned purchasing companies were deemed to be significant influencers of the low perception of weighing scale fraud.

On the environmental diligence, policies and practices performance, the general impression was that the survey area had already been fully deforested over the last 100 years. However, illegal mining of rivers and associated water bodies was absent from the area largely due to active role of traditional councils and professionals from the area. These efforts have thwarted

efforts to undertake illegal mining in parts of the survey area close to the Akora River. Efforts at sustainable farming practices have been undertaken by cocoa farmers largely assisted by extension officers of the Ghana Cocoa Board. In this regard, cocoa purchasing companies had played very minimal or no significant role. The planting of trees and agroforestry crops was undertaken by some farmers; however, the role of cocoa purchasing companies was very limited. Further, there was very little activity undertaken by cocoa purchasing companies to support community tree planting and clean up exercises.

On gender and support for women farmers, the major problems affecting women cocoa farmers included lack of credit to expand their farms and the high cost of labour which reduced their maintenance efforts on cocoa farms. While women were able to develop cocoa farms sometimes with the assistance of their partners and spouses, expansion of these farms was difficult due to the high cost of labour and the pre-occupation of many women with domestic household activities. It was widely acknowledged by both farmers and elite persons that cocoa purchasing companies did not provide any real support for women cocoa farmers. However, women cocoa farmers were not marginalized when compared to male farmers. The main assertion by farmers was that there was generally little support for them, whether they were female or male. Finally, the modestly active role of women cocoa farmers in cocoa cooperatives was acknowledged by respondents who were members of cocoa cooperatives.

Overall, the findings of the study indicated that the cocoa purchasing companies in the surveyed areas largely complied with the payment guidelines of the Ghana Cocoa Board and this had ensured that cocoa farmers received the publicly announced producer prices. Furthermore, cases relating to fraudulent weighing scale manipulation were found to be relatively low, suggesting improved fairness and transparency and a decline in historically prevalent fraud issues within the cocoa purchasing industry. However, the study also highlights a critical shortfall in cocoa purchasing companies' corporate social responsibility. Despite companies meeting legal financial obligations to cocoa farmers, their contributions to community development, including infrastructure, education, healthcare, and environmental initiatives, is generally low. This apparent neglect limits sustainable growth and development given that the wellbeing of cocoa farmers depends not only on fair payments but also on their access to social amenities and improved environmental and hygienic surroundings for which cocoa purchasing companies, as beneficiaries, of the sweat and toil of farmers could partner the State to improve the overall infrastructure in the survey areas.

1. INTRODUCTION AND PROBLEM STATEMENT

1.1 Background

Cocoa (*Theobroma cacao L.*) plays a crucial role in the economies of several West African countries, with the region accounting for over 60% of global cocoa production (International Cocoa Organization (ICCO), 2023). Ghana, the second-largest cocoa producer in the world, contributes approximately 15% of the global cocoa supply, generating significant export earnings and supporting the livelihoods of about 800,000 farmers (Oreamuno & Croppenstedt, 2023). The sector is a key driver of rural development, contributing to employment, foreign exchange earnings, and household incomes, especially in cocoa-growing regions.

Despite its economic significance, the cocoa industry of Ghana faces persistent challenges related to human rights, living income, environmental sustainability, and gender performance especially related to support for women cocoa farmers. Many cocoa farmers struggle to earn a living income, while gender disparities persist in land ownership, decision-making, and access to resources. Moreover, environmental concerns such as deforestation and unsustainable farming practices have drawn increased scrutiny, leading to regulatory interventions like the EU Due Diligence Regulation (EU-DR). Human rights concerns, including child labour and land tenure conflicts, further highlight the sector's vulnerabilities.

Multinational cocoa-buying companies play a critical role in shaping sustainability practices and labour conditions within Ghana's cocoa supply chain. These companies are expected to adhere to international standards on human rights, environmental diligence, and equitable treatment of farmers, particularly regarding income and gender inclusion. However, the extent to which these multinational firms uphold these responsibilities in practice remains a subject of debate. This study aims to assess the human rights, living income, environmental diligence, and gender performance of cocoa-buying companies, including multinationals operating in Ghana, focusing on the Asene-Manso-Akroso and Agona East Districts.

Cocoa Licensed Buying Companies (LBC) operate in tandem with the Ghana Cocoa Board, implementing parallel extension systems. This collaborative effort aims to effectively and efficiently reach out to farmers on adoption of agronomic practices. The LBCs rely on manuals and technical materials sanctioned by the Ghana Cocoa Board, particularly those of sustainable cocoa production, to conduct their farmer training programs. This cohesive approach ensures a unified and informed strategy for cocoa management and cultivation in Ghana.

The cocoa industry supply chain is structured into activities that take place both within Ghana and beyond. It involves various key actors, each with specific roles that contribute to the movement of cocoa along the supply chain. These actors interact in a network influenced by multiple factors that shape their behaviour and decision-making processes. Overall, the cocoa supply chain can be subdivided along four major product categories, based on the stage of processing. The categories are the cocoa beans (raw, or minimally processed), semi-finished cocoa products (cocoa paste/liquor, cocoa butter, cocoa powder), couverture, or industrial chocolate and finished chocolate confectionary products.

The domestic supply chain of Ghana encompasses the production and marketing of cocoa beans and semi-finished cocoa products from their origin up to the point of export. The supply chain is comprised of a wide range of actors, from input suppliers to farmers, to traders, to transport and other service providers, to processors. Each has a fundamental role to play in the supply chain that brings cocoa and cocoa products to the market.

The supply chain of Cocoa goes through a complex production process that includes farmers, buyers, transportation and trading, collection, certification, storage, processors, chocolatiers, and distributors. By examining these key issues, the study seeks to provide insights into the sustainability efforts of cocoa-buying firms and offer recommendations to enhance their impact on the livelihoods of cocoa farmers and the environment.

1.2 Problem Statement

The cocoa industry of Ghana remains the backbone of the national economy. The overall performance of the cocoa industry has been erratic. The share of the national economy accounted for by the cocoa industry has been steadily declining over the last two decades. This has occurred with the fluctuating growth rates of the industry. The conditions under which cocoa farmers operate reveal deep-seated structural challenges. Most smallholder farmers (73–90%) struggle to earn a living income, with cocoa farming providing between 60% and 90% of household earnings (Boysen et al., 2023; van Vliet et al., 2021). Price fluctuations, high production costs, and inadequate access to financial resources exacerbate their vulnerability, keeping many farmers in poverty despite their essential role in global cocoa supply chains.

Gender disparities in the cocoa sector further hinder sustainable development. Women, who contribute significantly to cocoa production, often face limited access to land, credit, and decision-making roles. They are typically involved in labour-intensive activities like

fermentation and drying but receive lower incomes compared to men, reinforcing gender-based economic inequalities in the sector (Dery & Dongzagla, 2020).

In addition, environmental diligence remains a pressing issue, as cocoa farming is a significant driver of deforestation and biodiversity loss in Ghana. Despite national and international efforts to promote sustainable production, illegal land clearing and forest degradation persist, posing risks to both environmental stability and cocoa production itself. Regulatory measures, such as the EU Due Diligence Regulation (EU-DR), aim to enforce stricter sustainability standards, but compliance and enforcement gaps remain.

Moreover, human rights concerns continue to be a challenge in Ghana's cocoa sector. Many farmers and labourers experience poor working conditions, with reports of child labour, land conflicts, and exploitative labour practices. Forest-dependent communities are particularly vulnerable to land tenure issues, as large-scale cocoa production sometimes leads to land grabs and displacement (Kolavalli & Vigneri, 2011).

Multinational cocoa-buying companies are uniquely positioned to address these challenges by implementing responsible sourcing policies, ensuring fair pricing mechanisms, and promoting gender-inclusive and environmentally sustainable practices. While some multinational firms have introduced initiatives to support smallholder farmers, there is limited empirical evidence on the effectiveness of these efforts and their impact on farmers' livelihoods.

This study seeks to fill this knowledge gap by assessing the human rights, living income, environmental diligence, and gender performance of cocoa-buying companies in Ghana, including multinational firms operating in Asene-Manso-Akroso and Agona East Districts. Through this assessment, the study provides actionable recommendations to enhance sustainability, equity, and social responsibility in the cocoa industry.

1.3 Objective and Scope

1.3.1 Objective

The objective of the study was to assess the performance of cocoa purchasing companies, including multinationals, with respect to their practices and promotion of sustainable and equitable practices in the cocoa production industry in Ghana. Specifically, the study aimed to assess the extent of compliance with policies on human rights, living income, environmental sustainability, gender equality and empowerment of women farmers, from the perspective of cocoa farmers and elite persons living within cocoa producing communities.

1.3.2 Scope

The scope of the study is limited to cocoa purchasing companies operating in the Asene-Manso-Akroso and Agona East districts including four multinational companies operating in the two districts. These multinational companies are Armanjaro, Cargill, Cocoa Touton and Olam. The study was based on the analysis of the performance of cocoa purchasing companies in four major themes regarding human rights, living income, environmental sustainability, and gender. Cocoa farmers, community leaders, purchasing clerks and other workers of purchasing companies in the study area were engaged to assess the performance of cocoa purchasing companies with respect to their HLEG policies based on various attributes. Attributes that could be used to validate HLEG performance are listed in Appendix 1.

1.4 Significance of the Study

This study is crucial in evaluating the role of multinational cocoa purchasing companies in addressing key issues such as human rights, living income, environmental diligence, and gender performance in Ghana's cocoa sector. The findings contribute to policy discussions and corporate strategies aimed at promoting sustainable and equitable cocoa production. Moreover, the study provides valuable insights for stakeholders, including policymakers, non-governmental organizations, and farmer cooperatives, to advocate for improved working conditions and equitable value distribution in the cocoa supply chain.

1.5 Limitations of the Study

The study focuses on cocoa purchasing companies operating within Ghana, specifically in the Asene-Manso-Akroso and Agona East districts in the Eastern and Central regions, respectively. It examines their policies, practices, and impact on human rights, living income, environmental sustainability, and gender equality from the viewpoint of cocoa farmers and other elites. Thus the study is not a labour or employee type of study where the policies and practices of companies are evaluated by employees and workers who work under hierarchical arrangements. The focus of the study was on the relationships between cocoa purchasing companies and cocoa farmers and whether these market-based relationships are fair based on HLEG criteria. These market-based relationships are driven by exchange of information from the sellers (cocoa farmers) and the buyers (cocoa purchasing companies). The information deals with cocoa beans as the commodity being exchanged. As such all the four classic information market failures, dealing with incomplete information, asymmetric information, adverse selection and moral hazard, can occur in the exchange relationships between cocoa

farmers and cocoa purchasing clerks, who represent their employers, cocoa purchasing companies. The role of the study is to ascertain whether the achievement of HLEG criteria could significantly reduce these information market failures to improve the economic welfare of cocoa farmers and the cocoa purchasing companies.

In this regard, the study elicited data and information from both cocoa farmers and elites in the surveyed areas. The involvement of elites including purchasing clerks and senior officers such as Directors of cocoa purchasing companies allowed for a two-sided bilateral flow analysis of information about HLEG performance of the cocoa purchasing companies. This approach allowed for cocoa farmers and purchasing clerks and senior officers of cocoa purchasing companies adequate space to assess HLEG performance based on individual and privately elicited data and information avoiding the biases and subtle coercion that are found in group-based studies such as focus-group interactions. Nevertheless, potential biases in stakeholder responses are still possible even though attempts were made to minimize these biases through rechecking of responses and the provision of adequate times for respondents to reassess and/or confirm their positions on issues that they could not initially state their answers.

2. LITERATURE REVIEW

2.1 The Cocoa Industry in Ghana and the Role of Cocoa Purchasing Companies

Ghana is the second-largest producer of cocoa in the world, with the Ghanaian cocoa industry playing a critical role in the economy of the country, especially in the creation of employment and enhanced rural livelihoods (refer to Appendix 2 on the contributions of the cocoa industry in terms of its share of the national economy). Cocoa contributes significantly to Ghana's gross domestic product (GDP) and foreign exchange earnings, with millions of smallholder farmers relying on it as their primary source of income (International Cocoa Initiative, 2019; Sadhu et al., 2020). The cocoa industry is structured around a supply chain that includes farmers, licensed buying companies (LBC), multinational cocoa-buying firms, and regulatory bodies such as the Ghana Cocoa Board.

Cocoa-buying companies, particularly multinationals such as Armajaro, Cargill, Cocoa Touton and Olam, play a crucial role in sourcing, processing, and exporting Ghana's cocoa. These firms often work with LBCs to purchase cocoa directly from farmers and ensure its quality before export. Additionally, they are key stakeholders in sustainability initiatives, certification programs, and corporate social responsibility (CSR) efforts aimed at improving farmer livelihoods and environmental sustainability (Buhr & Gordon, 2018; Perkiss et al., 2021).

The assessment of **human rights, living income, environmental diligence, and gender performance** in Ghana's cocoa industry is critical due to persistent social and economic challenges. Despite international frameworks such as the **International Labour Organization (ILO) Conventions** and the **Harkin-Engel Protocol**, the issues of child labour, hazardous working conditions of both adults and children, and low farmer incomes remain prevalent (International Labour Organization, 2011, 2023a; Babo, 2014, 2019).

Living income remains a pressing concern, as smallholder cocoa farmers often earn below a sustainable wage, forcing them sometimes to rely on child labour to meet household labour demands. Efforts such as the **Living Income Differential (LID)**introduced by Ghana and Côte d'Ivoire in 2019 aim to improve farmer earnings, but challenges persist due to global market fluctuations and buyer compliance (International Cocoa Initiative, 2019; Sadhu et al., 2020).

Environmental diligence is another key issue, with cocoa production contributing to deforestation and biodiversity loss. Multinational cocoa purchasing companies have committed themselves to sustainability programs, but concerns remain about effective implementation and enforcement (European Commission, 2021).

Finally, **gender performance** in the cocoa sector is critical, as studies indicate that female cocoa farmers face systemic disadvantages, including limited access to land, finance, and education (Hill & Vigneri, 2014; Osei-Owusu & Owusu-Achiaw, 2020; Jamal et al., 2021). Addressing gender disparities is essential for improving household incomes and overall cocoa industry sustainability.

Several multinational companies dominate Ghana's cocoa supply chain. These include:

- **Cargill:** A major global cocoa processor and exporter engaged in sustainability initiatives such as the Cargill Cocoa Promise, which aims to improve farmer livelihoods and reduce environmental impacts.
- **Cocoa Touton:** A significant cocoa trader with programs promoting traceability, responsible sourcing, and farmer training.
- **Olam Agri:** Operates across multiple sectors, including cocoa, with a focus on sustainability, farmer support, and environmental conservation.
- **Armajaro:** A key player in cocoa trading and sustainability certification, which works with smallholder farmers to ensure ethical sourcing.

2.2 Human Rights in the Ghanaian Cocoa Industry

2.2.1 Overview of Child Labour Issues in Ghana's Cocoa Industry

Child labour remains a challenge in the Ghanaian cocoa industry. Despite Ghana's commitment to international conventions, child labour continues to be a significant issue, particularly in rural farming communities, where children assist in the production of cocoa due to economic necessity and cultural norms (International Labour Organization, 2011, 2023a; Babo, 2014, 2019; Abdullah et al., 2022). Cocoa farmers often view children's participation as an educational experience rather than exploitation, with farming sometimes prioritized over formal schooling (Babo, 2014; Krauss, 2016). Studies indicate that around 55% of children in agricultural households in Ghana engage in hazardous cocoa farming activities, exposing them to potential health risks (Sadhu et al., 2020).

2.2.2 Regulatory Frameworks

Ghana has adopted various legal frameworks to address child labour, including ratifying the International Labour Organization (ILO) conventions and implementing the Harkin-Engel Protocol. Additionally, Ghana's Child Labour Monitoring System (GCLMS) plays a critical role in identifying and mitigating child labour cases (Ministère de la Fonction publique et de l'Emploi, Côte d'Ivoire, 2005; Republic of Ghana Ministry of Manpower Youth and Employment, 2018). Despite these efforts, enforcement remains weak due to resource constraints and deep-rooted socio-economic challenges (Babo, 2019; Perkiss et al., 2021).

2.2.2.1 Commitments and Actions by Multinational Cocoa-Buying Companies

Multinational cocoa-buying companies have taken various steps to mitigate child labour and improve labour conditions. Companies such as Nestlé, Cargill, and Mondelez International have adopted certification programs and direct farmer support initiatives (Buhr & Gordon, 2018; Perkiss et al., 2021). However, the effectiveness of these measures remains debated, as some programs fail to reach the most vulnerable populations (Collingsworth, 2020; British Broadcasting Corporation, 2021).

2.3 Labour Conditions and Fair Treatment

2.3.1 Wages, Working Conditions, and Labour Rights

The cocoa industry is characterized by low wages and precarious working conditions. Many cocoa farmers earn below the living income benchmark, leading to economic vulnerability and perpetuating child labour (Adonteng-Kissi, 2021). While Ghana has a regulated producer price for cocoa, the actual earnings of farmers are often insufficient to cover their basic needs, especially when adjusted for inflation and market fluctuations (Babo, 2014; Krauss, 2016, SEND GHANA, 2019). Additionally, labour rights violations, including exploitative working hours and exposure to hazardous chemicals, remain prevalent (Sadhu et al., 2020).

2.3.2 Role of Certification Programs

Certification schemes such as Fairtrade and the Rainforest Alliance have been introduced to promote sustainable and ethical cocoa production. These programs set standards for fair wages, environmental sustainability, and child labour prevention (Bundesrepublik Deutschland, 2021). However, the impact of certification remains mixed. While some studies suggest that certification improves farmer livelihoods, others argue that benefits are unevenly distributed and that compliance costs burden smallholder farmers (Buhr & Gordon, 2018; Babo, 2019).

2.4. Living Income for Cocoa Farmers

Living income refers to the amount of money necessary for cocoa farmers to afford a decent standard of living, including food, shelter, education, and healthcare. In the Ghanaian cocoa sector, this concept is highly relevant as many smallholder farmers struggle with low earnings despite the importance of cocoa to the national economy. Price volatility remains a major challenge, significantly affecting farmers' incomes. During the 1970s and 1980s, international cocoa agreements sought to stabilize prices through buffer stock mechanisms, but financial limitations and price miscalculations led to their collapse (Gibson, 2007; Gilbert, 1996).

Economic crises, such as the 1973-1980 international oil market shocks, forced many Sub-Saharan African countries, including Ghana, to adopt structural adjustment programs (SAP) under the World Bank and International Monetary Fund (IMF) (Ahoba, 2021; Poelmans & Swinnen, 2019). These SAP reforms led to the liberalization of cash crop markets, reducing government control over cocoa pricing and exposing farmers to fluctuating world market prices. While liberalization increased producer prices by 20%–40% in countries like Nigeria and Cameroon, it also introduced income instability (Varangis & Schreiber, 2001). Furthermore, mixed outcomes of SAP evaluations complicate their assessment, as they often focus on national rather than sector-specific impacts (Musila & Yiheyis, 2015; Keho, 2017).

2.4.1 Efforts by Cocoa Purchasing Companies

To mitigate income instability, cocoa-buying companies and certification programs have introduced several initiatives. One significant intervention is the Living Income Differential (LID) policy, implemented by Ghana and Côte d'Ivoire in 2019. This initiative adds a fixed premium of $400 per metric ton to the market price of cocoa to help ensure farmers earn a sustainable income. However, despite its introduction, many farmers continue to struggle financially due to rising production costs and market fluctuations (Boysen et al., 2023).

Beyond LID, multinational cocoa buyers such as Cargill, Touton, Olam Agri, and Armajaro have implemented support programs. These initiatives include premium payments, financial aid, and productivity training to enhance farmer earnings. Certification schemes, such as Fairtrade and Rainforest Alliance, were also established to improve income levels through price premiums, minimum prices, and agricultural training (Fountain & Hütz-Adams, 2018; Thorlakson, 2018). While these schemes have positively impacted some farmers, their effectiveness is limited by low consumer demand for certified cocoa, with only 20%–60% of certified cocoa beans sold at a premium (Fountain & Hütz-Adams, 2018). Organic certification

has shown promise, increasing farm income by 18.3% with Rainforest Alliance certification and up to 114.3% with Fairtrade and organic certifications, especially in premium chocolate markets (FAO, 2020). However, access to certification remains a challenge, as the costs and compliance requirements often exclude smallholder farmers (Hütz-Adams et al., 2016; KPMG, 2013).

To supplement certification programs, chocolate manufacturers have developed internal sustainability programs aiming for 100% sustainable sourcing by 2030 (Voora et al., 2019; Thorlakson, 2018). These programs address various challenges, including productivity, child labour, and deforestation. However, they often overlook price improvements for farmers (Thorlakson, 2018). While larger manufacturers may support certification premiums, smaller companies sometimes offer fixed premiums or living income guarantees above international market prices (Maile, 2020; Hütz-Adams & Schneeweiß, 2018). Additionally, multi-stakeholder initiatives, such as Germany's Initiative on Sustainable Cocoa, promote transparency and accountability within supply chains.

Despite these efforts, cocoa farmers in Ghana and Côte d'Ivoire continue to earn below a living income due to structural barriers, rising production costs, and limited diversification opportunities (van Vliet et al., 2021). Cocoa remains a preferred crop for many farmers because of its relative economic stability, which discourages shifts to alternative livelihoods. This dependence on cocoa ensures consistent government revenue and raw material supply, but it also reinforces farmers' financial vulnerability (Boysen et al., 2023).

2.5. Environmental Diligence in Cocoa Production

2.5.1 Impact of Cocoa Farming on Forests in Ghana

Cocoa cultivation has been a major driver of deforestation and land degradation in Ghana. The expansion of cocoa farms has often come at the expense of primary forests, leading to biodiversity loss and increased carbon emissions. The reliance on extensive farming practices, rather than intensification, has further exacerbated deforestation challenges. This environmental degradation threatens not only ecological stability but also long-term cocoa productivity (Wedeux & Schulmeister-Oldenhove, 2021).

2.5.2 Government Policies and International Regulations

In response to deforestation concerns, both national and international regulatory frameworks have been introduced to promote sustainable cocoa farming. The Ghanaian government has implemented afforestation and sustainable land management policies to curb forest loss. At the international level, the *European Union (EU) Regulation on Deforestation Free Products* aims to ensure that cocoa imported into the EU is not linked to deforestation. This regulation, effective from December 2024, mandates cocoa companies to provide geolocation data to verify the deforestation-free status of their supply chains. Given that 58% of Ghana's cocoa exports are destined for the EU, this policy could significantly impact Ghana's cocoa industry (Trase, 2023). However, the rising importance of alternative markets, particularly China, may reduce the EU's leverage over Ghana's cocoa industry (Schleifer, 2023).

2.5.3 Agroforestry and Climate-Smart Cocoa Farming

To mitigate the environmental impact of cocoa production, Ghanaian cocoa industry stakeholders are increasingly adopting sustainable farming practices. Agroforestry—integrating cocoa trees with native shade trees—has been promoted as a viable approach to enhance biodiversity, improve soil health, and increase carbon sequestration. Additionally, climate-smart cocoa farming techniques, such as improved soil management, water conservation, and climate-resilient crop varieties, are being encouraged to ensure long-term sustainability (Bastos Lima & Schilling-Vacaflor, 2024).

2.5.4 Satellite Monitoring and Traceability Programs by Major Cocoa Buyers

To enhance sustainability and compliance with environmental regulations, major cocoa buyers have implemented satellite monitoring and traceability programs. These initiatives utilize satellite imagery and blockchain technology to track cocoa origins and ensure adherence to deforestation-free commitments. By increasing supply chain transparency, these measures help multinational corporations to comply with the EU's sustainability mandates while promoting responsible cocoa sourcing. The effectiveness of these programs, however, depends on strict enforcement and continuous monitoring (Bastos Lima & Schilling-Vacaflor, 2024).

2.6. Gender Performance and Support for Women Cocoa Farmers

Female cocoa farmers in Ghana face significant disadvantages in various aspects of cocoa farming. Research indicates that women experience disempowerment across multiple domains, including production, resource access, income, leadership, and time management (Egyir et al., 2018). Structural barriers such as limited access to land, financial resources, and agricultural

inputs, along with restrictive social norms, further hinder their participation and benefits in the cocoa sector (Ahrin, 2022). Additionally, gender inequality in the cocoa value chain stems from the intersection of multiple disadvantages, including labour rights, economic opportunities, education, and policy constraints (LeBaron & Gore, 2020).

2.6.1 Land Rights

Women in Ghana face challenges in acquiring land due to complex land tenure systems influenced by both customary and statutory regulations (Addaney et al., 2022; Barrientos, 2014). Women can obtain land through inheritance, gifts from male relatives, or direct purchase, but their rights remain weak, especially in patrilineal societies where land is typically passed through the male lineage (Duncan, 2010). Even in matrilineal Akan societies, land rights for women are dependent on extended family and clan lineage arrangements which sometimes do not favour women (Addaney et al., 2022).

Despite legal efforts like the **Intestate Succession Law (PNDCL 111)** and the **Land Act 2020 (Act 1036)**, women continue to face discrimination in land ownership due to entrenched sociocultural norms (Duncan, 2010; Addaney et al., 2022). The traditional practice of clearing forests to establish land rights also gives men an advantage, as it requires significant physical effort (Hill & Vigneri, 2014). The relatively limited financial resources of women further constrain their ability to acquire land (Ahrin, 2022). As a result, female cocoa farmers own smaller and less fertile parcels of land compared to their male counterparts, making up only 20% of cocoa farm operators (Friedman et al., 2019; Hill & Vigneri, 2014). Challenges such as difficulty in obtaining land documentation and limited access to formal land processes further disadvantage women (Ahrin, 2022; Forson, 2013). However, studies suggest that land productivity does not significantly differ between men and women, although men exhibit higher technical efficiency in farm management (Adaku et al., 2023; Hill & Vigneri, 2014). Land ownership is crucial for women in cocoa farming, as it facilitates access to financial services, training, and extension support (Barrientos & Bobie, 2016). However, globalization and contract-farming models may reinforce gender disparities, as women without land struggle to participate in such agreements, limiting their economic opportunities (Callahan, 2019).

2.6.2 Labour Relations

Women in Ghana's cocoa sector balance roles as mothers, managers of household activities, moneymakers, and farmers (Dery & Dongzagla, 2020). Cocoa is a labour-intensive cash crop

often regarded as a “male crop” (Doherty, 2018; Hill & Vigneri, 2014), with more male farmers in the sector (Ankuyi et al., 2023; Anning et al., 2022; Jamal et al., 2021). Women contribute up to 45% of farm labour but spend more time on their husbands' farms while also handling domestic chores (Barrientos & Bobie, 2016; Duncan, 2010; Hill & Vigneri, 2014).

Women face gender-based labour inequalities, including unpaid family work and limited access to land (Barrientos, 2014; LeBaron, 2020). In the cocoa labour market, they are often employed in precarious roles and experience exploitation, including underpayment and coercion (LeBaron, 2020). Social norms, unsuitable tools, and physical demands create additional labour shortages for female farmers (Amuzu et al., 2022; Dery & Dongzagla, 2020; McCarthy & Muthuri, 2018). Women also struggle when resources are delayed, as male labourers prioritize their own farms first (Dery & Dongzagla, 2020).

2.6.3 Economic Rights

Ghanaian women face economic gender inequality, particularly in income control and access to credit (Jamal et al., 2021). In many households, men control earnings from cocoa and other cash crops, and women often need spousal approval for investments (Friedman et al., 2019; Dery & Dongzagla, 2020). When working alongside their husbands, women's wages are frequently received and unfairly distributed by their spouses (LeBaron & Gore, 2020).

Female cocoa farmers earn 25–30% less than men due to lower-paid tasks and social biases that undervalue women's labour (Doherty, 2018; Hiscox & Goldstein, 2014; Kissi & Herzig, 2023). Household responsibilities further limit their ability to engage in paid work, while some off-farm jobs are deemed inappropriate for women (LeBaron & Gore, 2020; Maguire-Rajpaul et al., 2020).

Limited access to credit and banking is another barrier. Women are 20% less likely to take loans and 50% less likely to have bank accounts (Ahrin, 2022). Studies show that compared to men, their chances of obtaining a loan or a bank account are 25% and 40% lower, respectively (Hiscox & Goldstein, 2014). Weak land rights further restrict access to credit and inputs (Hill & Vigneri, 2014), and financial resources are more readily available to men (Barrientos, 2014). Additionally, extension programs often overlook female farmers, as they are underrepresented among wealthier farmers (Hill & Vigneri, 2014).

2.6.4 Educational Rights

Education significantly impacts cocoa farmers, yet female farmers generally have lower education levels. Research on pesticide use found that 52% of female participants had at least primary education, while 48% had no formal education, compared to 85% and 15% for men, respectively (Osei-Owusu & Owusu-Achiaw, 2020). Other studies also report low literacy rates among female farmers (Hill & Vigneri, 2014). Additionally, only 46% of women attained primary education compared to 59% of men (Jamal et al., 2021). Limited education hinders women's ability to read pesticide instructions and manage paperwork for land ownership (Forson, 2013).

CHAPTER THREE

METHODOLOGY OF THE STUDY

3.1 Introduction

This chapter discusses the methods and procedures employed to undertake the study to tackle the major objectives of assessing the HLEG performance of cocoa purchasing companies in the Asene-Manso-Akroso and Agona East districts. The HLEG performance criteria are respect for human rights of cocoa farmers, improving the living income of cocoa farmers, establishment of environmental policies and practices to protect cocoa farmers and the community, and gender rights and support for women cocoa farmers.

3.2 Description of the Survey Administration Procedures

The study was made up of two components: (1) a farmer-based survey and (2) an elites-based survey involving prominent and influential people in the cocoa industry in the study area. The field work was undertaken in the Asene-Manso-Akroso in the Eastern Region and the Agona East district of the Central Region. The three towns covered were Agona Seth Okai, five kilometres north of Agona Nsaba, the capital of the Agona East district, Akyem Eshiem and Akyem Akroso in the Asene-Manso-Akroso district. The area covered a contiguous geographical area stretching from Agona Seth Okai to Akyem Akroso on the Agona Swedru to Akyem Oda road. The three towns, Agona Seth Okai, Akyem Eshiem and Akyem Akroso are approximately five kilometres apart from each town on a straight contiguous northern direction. The inclusion of the Agona Seth Okai was necessary to validate some of the conclusions especially with regards to the tampering and adjustment of the weighing scales which were established as clear perceptions of the farmers who participated in a similar SEND GHANA study in 2018. Agona Seth Okai was one of the three villages in the Agona East district that the 2018 survey was carried out.

The pilot survey of cocoa farmers was undertaken over a period of three days over the period from 24 to 26 January 2025 and covered three cocoa farmers at Agona Seth Okai. The full survey of cocoa farmers covered the period from 1 to 17 February 2025. The farmer survey was based on private personal and confidential interviews with several interviews conducted at central assembly points agreed upon with the chief farmers and chiefs of the various towns and villages. Further, some interviews were conducted at the farm sites of some farmers based on prior agreements. The optimal sample size of 81 was established based on statistical theory

using the concepts of binomial and normal probability distributions. An oversampling of 24 was undertaken and 105 randomly selected farmers were interviewed for the study. Thirty-five of these farmers came from Agona Seth Okai and environs. The remaining 70 farmers were selected from lists of farmers provided for Akyem Eshiem and Akyem Akroso by two cocoa health and extensions officers. In effect, each of the three village/towns was allocated 35 cocoa farmers to be interviewed. The extension officers also arranged for the locations and sites including houses that we used to interview the cocoa farmers. Prior to the start of the interviews in selected localities, community entry procedures and protocols were followed with visits to the houses and palaces of chiefs and other traditional rulers. Further, the Paramount Chief of the Agona Nyakrom Traditional Area, the Paramount Queen Mother of the Agona Nsaba Traditional Area, the Chiefs of Agona Seth Okai and Akyem Akroso, and representatives of the Chief of Akyem Eshiem were consulted for their advice before the start of the survey.

The details of the derivation of the optimal sample size are provided in Appendix 3 of this report. Altogether, the 105 interviewed farmers sold their dried cocoa beans to 15 cocoa purchasing companies including four foreign owned companies (Armajaro, Cargill, Cocoa Touton and Olam). The major Ghanaian-owned purchasing companies included CJ Commodities', Produce Buying Agency, Nyonkopa, Akuapa and Trans Royal. Out of the 105 cocoa farmers interviewed, 77 indicated that they sold their cocoa beans to only one purchasing company during the 2023/2024 production year. Another 28 farmers sold their cocoa beans to two separate companies. Hence, we generated 133 individual farmer responses as every farmer who sold to a different company was interviewed and treated as one response per company.

The survey questionnaire used for the interview of cocoa farmers was composed of six sections. Section one was devoted to general information about cocoa production including the characteristics and management of cocoa farms and the cocoa purchasing agencies that farmers sold their dried cocoa beans to. The next four sections were devoted to the four key HLEG themes of the study. Thus, section two elicited data and information on the human rights performance of cocoa purchasing companies. Section 3 was devoted to deriving data and information dealing with the improvement of living income for cocoa farmers. Sections 4 and 5 were concerned with environmental policies and practices and gender support and women empowerment activities of cocoa purchasing companies, respectively. The sixth and last section of the questionnaire was concerned with elicitation of various data and information on the socio-economic characteristics of farmers and their families.

The second component of the study was a qualitative analysis based on in-depth discussions centered around the four themes of the study with elite persons and cocoa industry officials in the study area including chief farmers, selected experienced male and female farmers, purchasing clerks and District representatives of purchasing companies operating in the area. The study team also visited several farms in villages close to Agona Nsaba and Akyem Akroso to interview some farmers and to quietly assess working conditions on farms including possible identification of children working on school days.

3.3 Analysis of the Survey Data

The survey data were analysed using simple descriptive statistics based on the compilation of frequencies and means of selected socio-economic characteristics of farmers. Data on the four HLEG themes were derived based on the zero-to-five Likert continuum scale with zero representing the total absence of the attribute or factor in the elicited information and with five meant to indicate the maximum possible score for the attribute or factor. The means and standard deviations of the scores of each factor were derived for the entire group of respondents and also separately for farmers selling to Ghanaian owned purchasing companies and farmers selling their beans to foreign owned purchasing companies. This separation of data analysis allowed for the derivation of statistical tests related to the significant differences in the mean scores for the two different groups based on the Student t values.

Given the importance of the improvement of living income and the perceived tampering of weighing scales for dried beans, regression analyses were conducted to ascertain the factors influencing the levels of perceived adjustment to weighing scales as indicated by individual cocoa farmers. Both standard multiple regression and binary logistic regression analysis were used to derive the factors influencing perceived weighing scale fraud.

3.4 Regression Analysis to Establish the Factors Influencing the Perceived Degree of Weighing Scale Fraud Related to the Adjustment of Weighing Scales

The first regression analysis involves a standard multiple linear regression model. This model was employed to analyse the factors influencing the degree of perceived weighing scale fraud related to the adjustment of the scale to reduce the income of cocoa farmers through the reduction in the weight of the cocoa beans. The dependent variable was termed SCALEFRAUD and was measured as the degree of perceived adjustment to the weighing scale by the purchasing clerk as declared by the cocoa farmer. This was measured by the zero-to-

five Likert continuum scale index with zero indicating total absence of perceived fraud and five for the maximum presence of weighing scale fraud. The independent variables are listed in Table 3.1 with the details of their description. The second regression analysis used in the study was the binary logistic regression model. The independent variables are the same as indicated in Table 3.1. However, the dependent variable is the likelihood of the farmer indicating weighing scale fraud. Where the Likert scale scores were 1 and over, the dependent variable was given a value of 1. The Likert scale value of zero was given a value of zero.

Table 3.1: List of Independent Variables Used in the Regression Model

Sex	This dummy variable denotes the sex of the cocoa farmer with 1 for females and zero for males.
Age	This variable denotes the biological age of the cocoa farmer in years.
Years of Formal Education	This variable is the years of formal educational acquired by the cocoa farmer.
Household Size	This variable is the size of the household of the cocoa farmer.
Cocoa Farming Experience	This variable represents the number of years of cocoa farming experience acquired by the farmer.
Farm Size	This variable denotes the size of all cocoa farms owned by the farmer in poles.
Foreign Company	This dummy variable takes a value of 1 if the purchasing company that the farmer sells his/her dried beans to is owned by foreigners. The value of zero is for Ghanaian owned companies.
FBO	This dummy variable is for the membership of cocoa cooperative or similar famer-based organization. A value of 1 is for membership and non-membership.
Degree of Owner Management	This is a continuous variable taking a value between zero and 1 reflecting the degree of owner management of cocoa farms by the farmer. The value of 1 implies that all the cocoa farms are owned and managed by the farmer. A value of zero implies that all the cocoa farms owned by the farmer are managed by other people under various caretaker arrangements. The variable is continuous since the average for a farmer is a fraction which can take a value from zero to one.
Christian	This dummy variable is for religious preferences and takes the value of 1 for Christians and zero for others including those Christians with mixed religious preferences.

CHAPTER 4

RESULTS AND DISCUSSION OF THE SURVEY OF COCOA FARMERS

4.1: Introduction

This chapter is devoted to the presentation of the results of the analysis of survey data acquired from 133 responding farmers who sell cocoa to a variety of cocoa purchasing companies including four multinational companies in the Asene-Manso-Akroso and Agona East districts of Ghana. Following the brief introduction, the next section deals with socioeconomic characteristics of the cocoa farmers. This is followed by a discussion of the characteristics of the cocoa farms cultivated and managed by the farmers. The results related to the four objectives of the study linked to HLEG are discussed in the third section of this chapter. The final section of the chapter is a report of the regression analysis of factors influencing the perception of cheating or fraud related to the adjustment of cocoa beans weighing scales.

4.2: Socioeconomic Characteristics of Cocoa Farmers

The socio-economic characteristics of the responding cocoa farmers are summarized in Tables 4.1 and 4.2 based on frequency analysis and simple statistical descriptive analysis. Almost one in five farmers (19.5%) sell their cocoa beans to foreign-owned companies. The remaining 80.5% of farmers sell their cocoa beans locally owned companies. As noted in Table 4.1, slightly over two-thirds of the farmers are male (67.7%). However, for those farmers selling their beans to foreign-owned cocoa purchasing companies, slightly over three-quarters of these farmers are male (76.9%). In terms of age group, most of the cocoa farmers were between 50 to 69 years (55.6%) generally indicating a relatively old cocoa workforce; 57% of farmers selling to locally owned purchasing companies were in this age group while the corresponding proportion of farmers selling to foreign-owned companies was exactly 50%. Close to four-fifths of the farmers were currently married at the time of the survey.

The predominant religious affiliation was Christianity; however, one in seven (14.3%) of the farmers practice mixed religious preferences involving African traditional religions and Christianity. Most of the farmers had received some formal education ranging from a few years of completed primary schooling to the university degrees. Most of the farmers selling to foreign-owned companies had at least senior high school qualification. In terms of ethnicity and tribal affiliation, about two-thirds of the farmers were Akan-Fantes, largely people who had migrated from the Gomoa area of the Central Region. The next two largest tribes were Akan-Agonas and Akan-Akyems. Four of five (80%) farmers selling to foreign-owned

purchasing companies were Akan-Fantes; the corresponding figure for locally owned companies was 63.6%.

As shown in Table 4.2, the average of the farmers was 54.9 years with a range of 23 to 89 years. Eighty-eight percent of the farmers had received some formal education. The size of the household was 5.4; households which sold their cocoa beans to foreign-owned companies had higher household size (6.5) compared to those selling to locally owned companies (5.2). There were minor variations in terms of average age of farmer, the extent of cocoa farm experience and the average number of children for the two groups.

Table 4.1: Summary of Socio-Economic Characteristics of Survey Respondents Based on Frequency Analysis Using Percentages for the Specified Groups

	Whole Group	Farmers Selling to Locally Owned Companies	Farmers Selling to Foreign Owned Companies
Characteristics of Farmer	**Percent**	**Percent**	**Percent**
Sex			
Male	67.7	65.4	76.9
Female	32.3	34.6	23.1
Age group of farmers			
20 to 29	3.0	3.7	0.0
30 to 39	8.3	8.4	7.7
40 to 49	19.5	17.8	26.6
50 to 59	32.3	35.5	19.2
60 to 69	23.3	21.5	30.8
70 to 79	12.8	13.1	11.5
80 to 89	0.8	0.0	3.8
Marital status			
Currently Married	78.2	76.6	84.6
Single	7.5	8.4	3.8
Divorced	6.8	6.5	7.7
Widowed	7.5	8.4	3.8
Religious affiliation			
African traditional religions and Christianity)	14.3	15.9	7.7
African traditional religions and Muslim	2.3	1.9	0.0
Christian only	81.2	79.4	88.5
Muslim only	2.3	2.8	3.8
Level of education			
No Schooling	12.8	14.0	7.7
Partially completed primary school	1.5	0.9	3.8
Completed primary school	7.5	8.4	3.8
Partially completed junior high school	6.8	8.4	0.0
Completed junior high school	22.4	21.5	26.9
Completed senior high school (SHS)	44.4	43.0	50.0
Post SHS diploma	0.8	0.9	0.0
College of education	2.3	1.9	3.8
University	1.5	0.9	3.8
Ethnic group and tribes of farmers			
Akan-Agona	12.0	14.0	3.8
Akan-Akuapem	0.8	0.9	0.0
Akan-Akyem	11.3	12.1	7.7
Akan-Asante	0.8	0.9	0.0
Akan-Fante	66.9	63.6	80.0
Ewe	6.8	6.5	7.7
Wangara	1.5	1.9	0.0

Source: Derived from survey data, 2025

Table 4.2: Summary of Socio-Economic Characteristics of Survey Respondents Based on Average and Range Figure for the Specified Groups

Characteristics of Farmer	Whole Group Mean	Farmers Selling to Locally Owned Companies Mean	Farmers Selling to Foreign Owned Companies Mean
Age in years	54.9 (23.0 to 89.0)	54.5 (23.0 to 78.0)	56.6 (33.0 to 89.0)
Proportion of farmers receiving formal education	0.88 (0.0 to 1.0)	0.87 (0.0 to 0.1)	0.92 (0.0 to 1.0)
Cocoa farming experience (years)	20.5 (2.0 to 45.0)	20.4 (2.0 to 45.0)	20.9 (7.0 to 42.0)
Household size (number)	5.4 (1.0 to 12.0)	5.2 (1.0 to 12.0)	6.5 (2.0 to 12.0)
Total children alive	5.55 (0.0 to 14.0)	5.44 (0.0 to 14.0)	5.96 (2.0 to 12.0)

Source: Derived from survey data, February 2025

Note: The figures in parentheses are the ranges of the variables.

4.3: Characteristics of Cocoa Farms Managed by Respondents

Several characteristics of cocoa farms managed by the respondents are reported based on frequency analysis in Table 4.3. Slightly over two-thirds (67.1%) of the farms were healthy with little or no incidence of diseases and pests affecting the farms. The remaining farms had some level of diseases and pests with the most severely diseased farms being 4.4% of the farms. Renting of land was the major source of the development of the cocoa farms. This was primarily due to most of the respondents being migrant Fante farmers. However, slightly over half (53.4%) of the farms were classified as actively owner-managed entities. This was due to some migrant farmers acquiring ownership status of the land after several years of developing the cocoa farms and sharing the bearing trees between the landowner and the migrant farmer. Incidentally, the management type related to the farmer being the developer and manager of the bearing cocoa trees but not the owner of the land was the second most important type of management (28%).

There were over 20 cocoa purchasing companies operating in the study area. As indicated in Table 4.3, the biggest company was CJ commodities which accounted for 18.0% share of farmers selling their cocoa beans. The next two biggest companies, both Ghanaian-owned, were the Produce Buying Agency (PBC) and Nyonkopa. Both PBC and Nyonkopa accounted for 17.3% of the share of farmers selling their cocoa beans. The biggest foreign owned cocoa purchasing company was Armajalo (11.3% share), followed by Cargill (5.3%), Olam (2/3%) and Cocoa Touton (0.8%).

Table 4.4 provides simple descriptive statistics on various characteristics of cocoa farms and their managers and owners. The average total farmland devoted to cocoa was 6.8 poles with cocoa farmers selling to foreign owned cocoa purchasing companies having bigger farm sizes as compared to those selling to Ghanaian-owned companies (7.8 acres versus 6.5 acres). The average age of cocoa trees for all respondents was 15.8 years with farms operated by managers who sell their beans to foreign-owned companies being older (17.1 years) as compared to 15.5 years for farms operated by managers selling their beans to locally owned companies. Not surprisingly, the generally older farms had bigger outputs in terms of bags of cocoa sold (refer to Table 4.4). Finally, 65% of cocoa farmers belonged to various cocoa cooperatives or farmer-based groups (FBO). A higher proportion of farmers selling their beans to foreign owned companies belonged to various FBOs.

Table 4.3: Characteristics of Cocoa Farms Managed by Respondents Using Frequency Analysis Based on Percentages

Characteristics	Frequency
State of Condition of Cocoa Farms	
Healthy (trees are in excellent condition)	67.1
Partly diseased (some trees are diseased)	28.5
Heavily diseased (most or all the trees are diseased)	4.4
Method of Acquisition and Development of Cocoa Farms	
Developed the cocoa farm on communal or on own land	43.6
Developed cocoa farm on rented land	54.5
Acquired cocoa farm as a gift	1.9
Current Management of Cocoa Farms	
Owner of the farm but not actively managing it	0.4
Owner of the farm and actively managing it	53.4
Abunu caretaker	3.0
Abusa caretaker	0.8
Other types of caretakers	7.6
Owner and manager of bearing trees but not the owner of the land with the bearing trees already shared between the developer and the landowner	28.8
Owner and manager of bearing trees but not the owner of the land with the bearing trees not yet shared between the developer and the landowner	0.8
Others	5.3
Types of Non-cocoa Farms Owned or Managed	
None	0.8
Tree crops	4.9
Food crops	48.8
Tree crops and Food crops	45.5
Cocoa Purchasing Companies Operating in the Survey Area	
CJ Commodities Limited	18.0
Produce Buying Company (PBC)	17.3
Nyonkopa	17.3
Armajaro*	11.3
Cargill*	5.3
Akuapa	4.5
TransRoyal	3.0
Olam*	2.3
Cocoa Touton*	0.8
Other Ghanaian companies	18.8

*** denotes foreign owned companies**

Table 4.4: Characteristics of Cocoa Farms Owned and Managed by Respondents Using Mean and Range Values

Characteristics of Farmer	Whole Group Mean	Farmers Selling to Locally Owned Companies Mean	Farmers Selling to Foreign Owned Companies Mean
Total size of all cocoa farms owned and/or managed (poles)	6.8 (0.5 to 24.9)	6.5 (0.50 to 24.9)	7.8 (1.50 to 24.9)
Tree age in years	15.8 (3.0 to 44.3)	15.5 (3.0 to 44.3)	17.1 (4.0 to 36.0)
Total revenues from in bags from cocoa beans during the 2023/2024 production year)	8.85 (0.50 to 54.0)	8.18 (0.50 to 42.0)	11.63 (2.5 to 54.0)
Total non-cocoa farm income in Ghana cedis for the year, 2024	5850.70 (100 to 100000)	5938.66 (100 to 100000)	5495.21 (280 to 20000)
FBO membership (proportion of farmers)	0.65 (0.0 to 1.0)	0.62 (0.0 to 1.0)	0.71 (0.0 to 1.0)
Degree of owner management of farm	0.45 (0 to 1)	0.43 (0 to 1)	0.53 (0 to 1)

Source: Derived from survey data, February 2025

Note: The figures in parentheses are the ranges of the variables.

4.4 Results of the Analysis of HLEG Performance

The objectives of the study revolve around the analysis of HLEG performance of cocoa purchasing companies including multinational companies. The results of the analysis of human rights performance, improvement of living income, environmental policies and practices, and gender rights and support of the companies are reported in Table 4.5, 4.6, 4.7 and 4.8, respectively for the whole group of respondents and for the two groups of famers: those selling to Ghanaian owned companies and those selling to foreign owned companies. These are also illustrated in Figures 4.1, 4.2, 4.3 and 4.4, respectively. Several attributes were used to assess the performance for each HLEG variable based on a Likert scale continuum measure with values ranging from zero implying complete absence of attribute and five for the maximum possible assessment score for the attribute.

The results of the analysis for the performance on human rights are reported in Table 4.5 and Figure 4.1 The respect for basic human rights of cocoa farmers was ranked the highest by the respondents. There was no indication of the use of child labour. Further, our random inspection of cocoa farms did not have any occurrence of the use of children on cocoa farms during school days. The attribute of child labour was dropped from the analysis. On the zero-to-five Likert scale, this attribute received an average score of 4.71. There was no statistically significant difference between the average scores for Ghanaian owned companies and foreign owned companies.

The second most important human rights attribute was the provision of clear and transparent contracts to farmers by cocoa purchasing companies. The average score for all respondents was 4.56. For this attribute, there was statistically significant difference between the average scores for Ghanaian owned companies and foreign owned companies with foreign owned companies adjudged as better than their Ghanaian counterparts. The third most important human rights attribute was the education of cocoa farmers on their rights with regards to the purchase and sale of cocoa beans. The average score was 3.96 and the analysis indicated that foreign owned companies treated farmers better than Ghanaian owned companies in this regard. Finally, the least important human rights attribute was the consultation of farmers in decisions concerning issues beyond the sale and purchase of their cocoa beans. The average score of this attribute was a low value of 1.71. There was no statistically significant difference between the average scores of the two groups of farmers for this attribute.

The results of the improvement of living income performance analysis are reported in Table 4.6 and are illustrated in Figure 4.2 based on eight attributes or factors. The most important factor influencing the living income improvement performance was the provision of fair prices to cocoa farmers by purchasing companies in line with the guidelines set by the Ghana Cocoa Board. The average score of this factor was 4.51 with no significant difference between the average score for the two groups of farmers. The second most important factor was the sufficiency of income generated from cocoa production for the care and maintenance of cocoa farmers' families. With an average score of 3.26, this factor could be regarded as modestly important in the context of the zero-to-five Likert continuum scale. The modest importance could be attributed to the recent increase in producer price of cocoa to 3,100 Ghana cedis per bag announced by the Ghana Cocoa Board taking effect from the start of the 2024/2025 production year which started on 1 October 2024.

Nevertheless, many farmers indicated that the producer price was still too low and needed to be increased to be in line with current international cocoa prices. All the remaining seven factors could be regarded as of lowly important with average scores between 0.54 to 2.31. Nevertheless, two of these seven factors recorded average scores which were statistically different for the two groups. The first attribute was farmers having access to financial assistance from cocoa purchasing companies which had a low average score of 1.64. However, farmers selling their cocoa beans to foreign owned companies had significantly higher score of importance than farmers selling their beans to locally owned companies (average scores of 2.42 versus 1.44, respectively.

Fraud linked to the reduction of cocoa farmer incomes arising from adjustment or tampering of the electronic weighing scale was deemed to be the least important factor influencing improvement of living income performance. The average score of just 0.54 was the lowest for the nine factors. Over two-thirds of the of the farmers (66.9%) indicated that there was no weighing scale fraud by purchasing clerks, indicating a Likert scale score of zero. Only 19.5% of the farmers indicated some level of cheating based on the reported Likert scale score between 1 and 5. However, 13.5% of the farmers indicated that they were not sure whether any weighing scale fraud occurred and refused to give a score.

The very low average score of weighing fraud of 0.54 was a very big reduction from the 3.86 score recorded for the similar survey sponsored by SEND GHANA in 2018 in the Agona East

District, one of the two districts in the current study. The large drop in weighing scale fraud is directly due to the activities of SEND GHANA which petitioned the Ghana Cocoa Board in 2019 with its findings of its survey in the Agona East District. This prompted the Ghana Cocoa Board to institute the electronic weighing scale system for the purchase of cocoa beans starting from 2020 after its own internal investigations supported by the Bureau of National Intelligence had confirmed the findings of the SEND GHANA report published in 2019 of widespread cheating of cocoa farmers through the tampering of the existing mechanical weighing scales (refer to various Internet sources on the advocacy efforts of SEND GHANA).

Despite the very low level of perceived cheating of cocoa farmers through the adjustment of weighing scales, there was statistically significant difference in the score recorded for farmers selling to foreign-owned companies versus those selling to Ghanaian-owned companies. Perceived cheating of farmers; income through adjustment to weighing scales, was higher for Ghanaian-owned companies. Further, only 61.7% of farmers who sold their cocoa beans to Ghanaian owned companies gave a Likert score of zero for weighing scale fraud as compared to the proportion of 88.5% of farmers who sold their cocoa beans to foreign owned companies. Only one cocoa farmer (3.8%) who sold his/her cocoa beans to a foreign owned company was not able to declare whether there was weighing scale fraud as compared to 17 farmers (15.9%) of farmers who sold their cocoa beans to Ghanaian owned companies.

Table 4.7 summarises the performance rankings of cocoa farmers' perceptions of the performance of cocoa purchasing companies in their environmental policies and practices in the survey area based on five attributes. These are also illustrated in Figure 4.3. Using the equal-interval zero-to-five Likert scale assessment score index, a value of 2.5 represents the average value on that scale. All the five factors had average scores below 2.5 suggesting the overall weak performance of cocoa purchasing companies on environmental policies and practices as assessed by the responding cocoa farmers. Further, of the five factors, there was no statistically significant difference in the average scores for the two companies, except for training on sustainable farming practices; for this factor, foreign owned companies had higher scores than Ghanaian owned companies (2.88 versus 2.06, respectively).

The results of the analysis of gender rights and support performance for cocoa purchasing companies are summarized in Table 4.8 using five attributes. These results are also illustrated in Figure 4.4. The promotion of gender equality in the sale and purchase of cocoa beans was

ranked the most important of the five factors of assessment with an average score of 4.08. The score for farmers using foreign owned companies was significantly higher than the score for farmers selling to Ghanaian owned companies (average scores of 4.62 versus 3.95, respectively). The second most important gender performance indicator was the involvement of women in the decision-making processes of farmer cooperatives. The average score was 3.37 and there was no statistically significant difference between the average scores for the two groups of farmers. The third most important gender performance factor was the initiatives of cocoa purchasing companies to remove barriers facing women in cocoa production. With an average score of 1.71, the performance in this area could be considered as weak. Finally, for the other two gender performance attributes, training and financial assistance to women cocoa farmers, the average scores were both below 1.0 indicating very little assistance was getting to women farmers in training and finance. Further, there was no statistically significant difference between the performance of Ghanaian and foreign owned cocoa purchasing companies.

Overall, on gender and support for women farmers, the major problems affecting women cocoa farmers included lack of credit to expand their farms and the high cost of labour which reduced their maintenance efforts on cocoa farms. While women were able to develop cocoa farms in their own right sometimes with the assistance of their partners and spouses, expansion of these farms, especially through critical operations such as brushing and removal of mistletoe weed, was very difficult to the high cost of labour and the pre-occupation of women in domestic home maintenance activities.

Table 4.5: Ranking of Respondents' Perceptions of the Performance of Cocoa Purchasing Companies on Human Rights

Assessment Factor or Attribute	Whole Group		Farmers Selling to Locally Owned Companies	Farmers Selling to Foreign Owned Companies	Student t test value and statistically significant difference between means of the two groups
	Mean	Ranking	Mean	Mean	
Cocoa purchasing companies respect the basic human rights of cocoa farmers	4.71 (0.660)	1st	4.69 (0.692)	4.77 (0.514)	-0.661
Cocoa purchasing companies provide contracts to farmers which are clear and transparent	4.56 (0.656)	2nd	4.50 (0.692)	4.77 (0.430)	-2.508**
Cocoa purchasing companies educate farmers on their rights with regards to the purchase and sale of cocoa beans	3.96 (1.307)	3rd	3.87 (1.397)	4.32 (0.802)	-2.171**
Cocoa purchasing companies consult farmers on decisions affecting their rights on other issues beyond the purchase of their cocoa beans	1.71 (1.990)	4th	1.57 (1.918)	2.23 (2.197)	-1.407

Source: Derived from survey data, February 2025

Notes: The figures in parentheses are the standard deviations of the variables.
The Likert zero to five continuum scale is used for the derivation of the perception figures with zero denoting the complete absence of the attribute and five the maximum assigned numerical score for the full presence of the attribute.

**** *** denote statistical significance at the 5% and 1% levels, respectively.**

Table 4.6: Ranking of Respondents' Perceptions of the Performance of Cocoa Purchasing Companies on Improving Living Incomes of Cocoa Farmers

Assessment Factor or Attribute	Whole Group		Farmers Selling to Locally Owned Companies	Farmers Selling to Foreign Owned Companies	Student t test value and statistically significant difference between means of the two groups
	Mean	Ranking	Mean	Mean	
Cocoa purchasing companies provide fair prices in line with the guidelines from the Ghana Cocoa Board	4.51 (0.895)	1st	4.46 (0.948)	4.69 (0.618)	-1.514
Income earned from cocoa farming is sufficient to maintain my family	3.26 (0.825)	2nd	3.24 (0.822)	3.35 (0.846)	-0.598
Cocoa farmers receive additional payments (bonuses) from cocoa purchasing companies	2.31 (1.966)	3rd	2.18 (1.917)	2.85 (2.111)	-1.477
Cocoa purchasing companies are committed to helping farmers to achieve living incomes	1.68 (1.764)	4th	1.65 (1.735)	1.80 (1.915)	-0.365
Cocoa farmers have access to financial services (loans and savings) through cocoa purchasing companies	1.64 (1.975)	5th	1.44 (1.905)	2.42 (2.082)	-2.188**
Cocoa purchasing companies' interventions have improved farmers' incomes	1.50 (1.710)	6th	1.46 (1.678)	1.68 (1.865)	-0.550
Cocoa purchasing companies invest in tools and resources used by cocoa farmers to improve farmers' outputs	1.27 (1.767)	7th	1.34 (1.783)	1.00 (1.708)	0.902

Purchasing clerks of cocoa purchasing companies adjust or manipulate weighing scales to reduce farmers' incomes	0.54 (1.172)	8th	0.66 (1.282)		0.12 (0.440)	3.576***

Source: Derived from survey data, February 2025

Notes: The figures in parentheses are the standard deviations of the variables.
The Likert zero to five continuum scale is used for the derivation of the perception figures with zero denoting the complete absence of the attribute and five the maximum assigned numerical score for the full presence of the attribute.

**** *** denote statistical significance at the 5%, and 1% levels, respectively.**

Table 4.7: Ranking of Respondents' Perceptions of the Performance of Cocoa Purchasing Companies in their Environmental Policies and Practices

Assessment Factor or Attribute	Whole Group		Farmers Selling to Locally Owned Companies	Farmers Selling to Foreign Owned Companies	Student t test value and statistically significant difference between means of the two groups
	Mean	Ranking	Mean	Mean	
Farmers engage in agroforestry due to support from cocoa purchasing companies	2.28 (2.013)	1st	2.22 (2.043)	2.54 (1.902)	-0.758
Cocoa purchasing companies provide training on sustainable farming practices	2.23 (1.933)	2nd	2.06 (1.968)	2.88 (1.666)	-2.169**
Cocoa purchasing companies' environmental efforts positively impact the community	1.76 (1.810)	3rd	1.75 (1.800)	1.84 (1.886)	-0.220
Cocoa purchasing companies support community-level environmental initiatives	1.75 (1.837)	4th	1.74 (1.861)	1.79 (1.769)	-0.128
Cocoa purchasing companies address soil degradation issues of farmers	0.27 (0.928)	5th	0.28 (0.944)	0.24 (0.879)	0.205

Source: Derived from survey data, February 2025

Notes: The figures in parentheses are the standard deviations of the variables.
The Likert zero to five continuum scale is used for the derivation of the perception figures with zero denoting the complete absence of the attribute and five the maximum assigned numerical score for the full presence of the attribute.

**** *** denote statistical significance at the 5% and 1% levels, respectively**

Table 4.8: Ranking of Respondents' Perceptions of the Performance of Cocoa Purchasing Companies and Cocoa Cooperatives on Gender Rights and Support for Women Cocoa Farmers

Assessment Factor or Attribute	Whole Group		Farmers Selling to Locally Owned Companies	Farmers Selling to Foreign Owned Companies	Student t test value and statistically significant difference between means of the two groups
	Mean	Ranking	Mean	Mean	
Cocoa purchasing companies actively promote gender equality in the community with regards to purchase and sale of cocoa beans	4.08 (1.577)	1st	3.95 (1.642)	4.62 (1.161)	-2.414**
Cocoa cooperatives and farmer groups actively involve women in decision-making process	3.37 (1.018)	2nd	3.33 (0.997)	3.50 (1.100)	-0.719
Cocoa purchasing companies support initiatives to reduce barriers facing women in cocoa production	1.78 (1.700)	3rd	1.65 (1.689)	2.33 (1.680)	-1.849
Cocoa purchasing companies actively provide training for women cocoa farmers	0.85 (1.446)	5th	0.84 (1.421)	0.90 (1.586)	-0.176
Cocoa purchasing companies provide financial support for women cocoa farmers	0.39 (1.084)	6th	0.31 (0.919)	0.71 (1.586)	-1.237

Source: Derived from survey data, February 2025

Notes: The figures in parentheses are the standard deviations of the variables.
The Likert zero to five continuum scale is used for the derivation of the perception figures with zero denoting the complete absence of the attribute and five the maximum assigned numerical score for the full presence of the attribute.

**** *** denote statistical significance at the 5%, and 1% levels, respectively**

Cocoa farmers' mean rankings of attributes concerning human rights performance

0 = total absence of the attribute 1 = very low level 2 = low level 3 = moderate level 4 = high level 5 = very high level

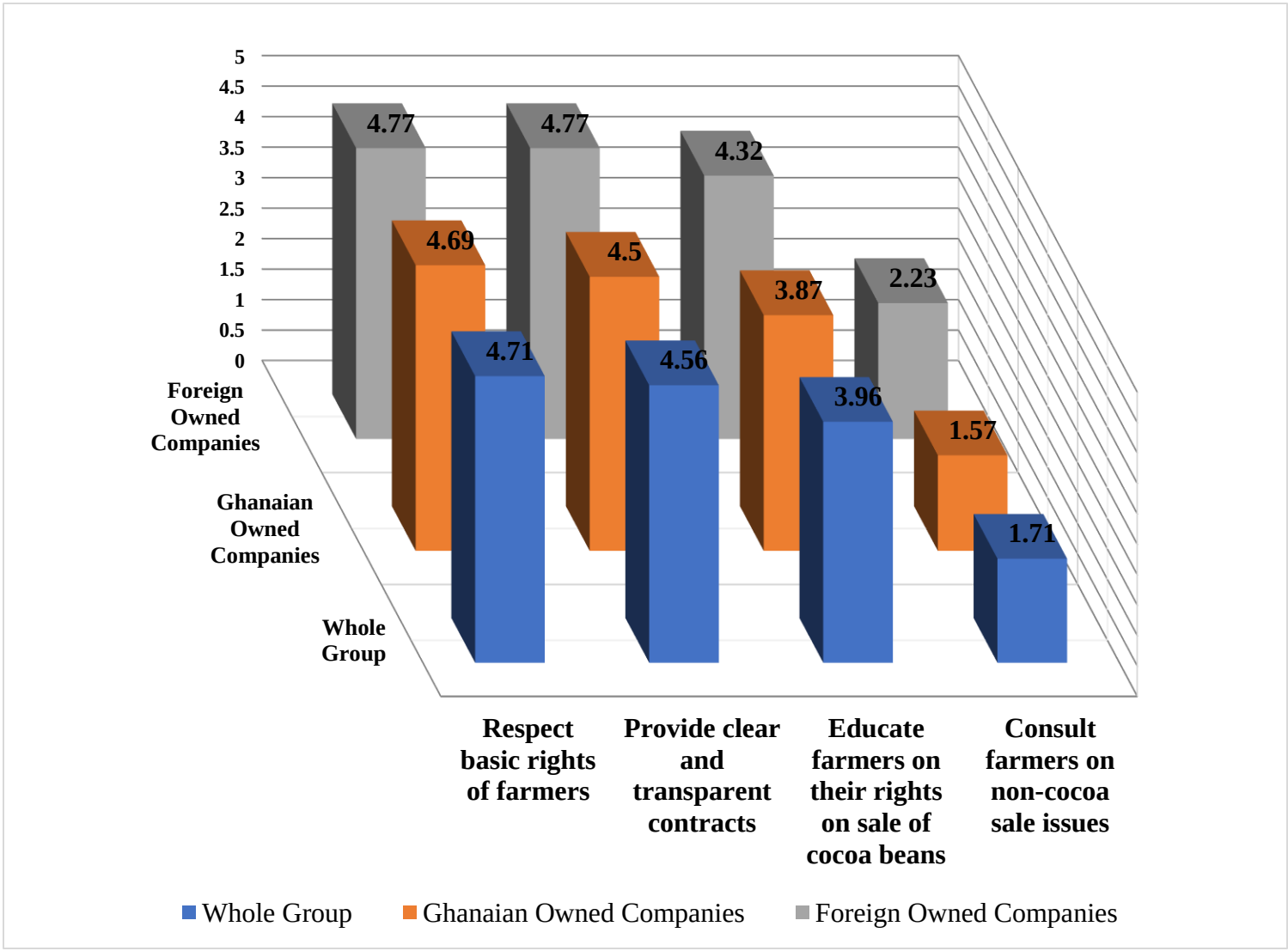

Figure 4.1: Graphical representation of cocoa farmers' perceptions of the performance of cocoa purchasing companies on human rights in terms of their average numerical rankings of the levels of various attributes.

Cocoa farmers' mean rankings of attributes concerning living income performance

0 = total absence of the attribute 1 = very low level 2 = low level 3 = moderate level 4 = high level 5 = very high level

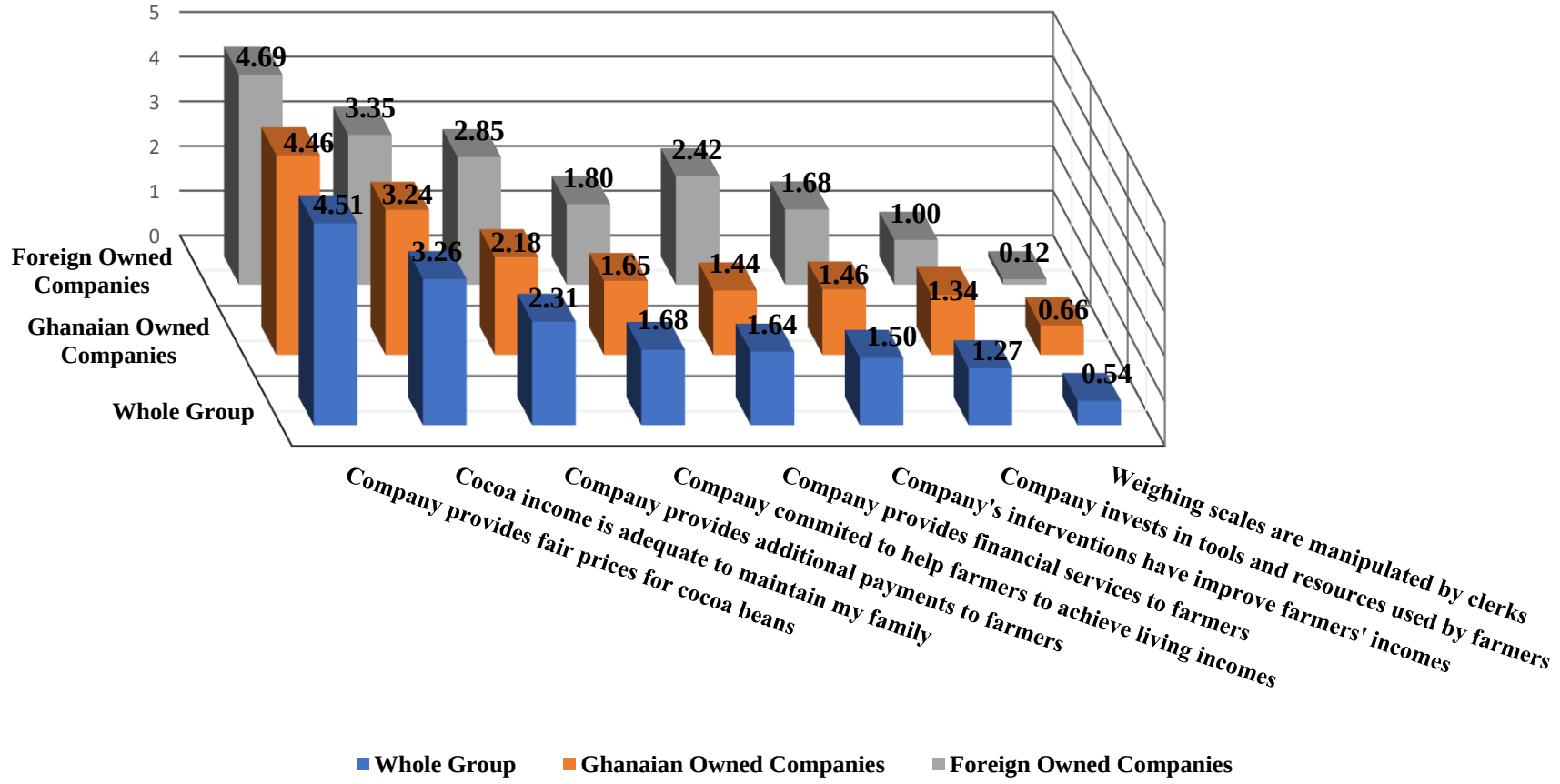

Figure 4.2: Graphical representation of cocoa farmers' perceptions of the performance of cocoa purchasing companies on living income in terms of their average numerical rankings of the level of various attributes.

Cocoa farmers' mean ranking of attributes concerning environmental diligence

0 = total absence of the attribute 1 = very low level 2 = low level 3 = moderate level 4 = high level 5 = very high level

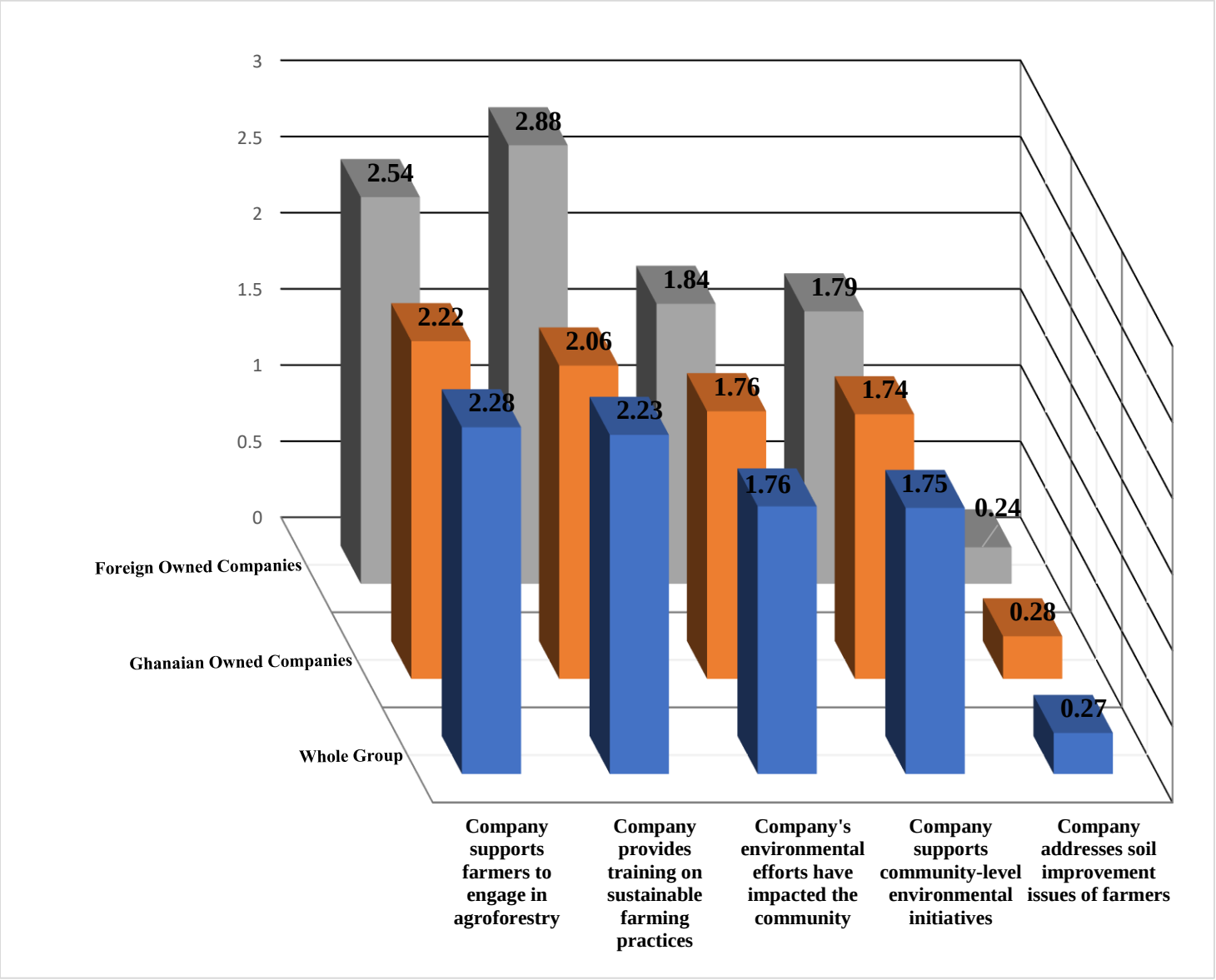

Figure 4.3: Graphical representation of cocoa farmers' perceptions of the performance of cocoa purchasing companies on environmental policies and practices in terms of their average numerical rankings of the levels of various attributes.

Cocoa farmers' mean rankings of attributes dealing with gender rights

0 = total absence of the attribute 1 = very low level 2 = low level 3 = moderate level 4 = high level 5 = very high level

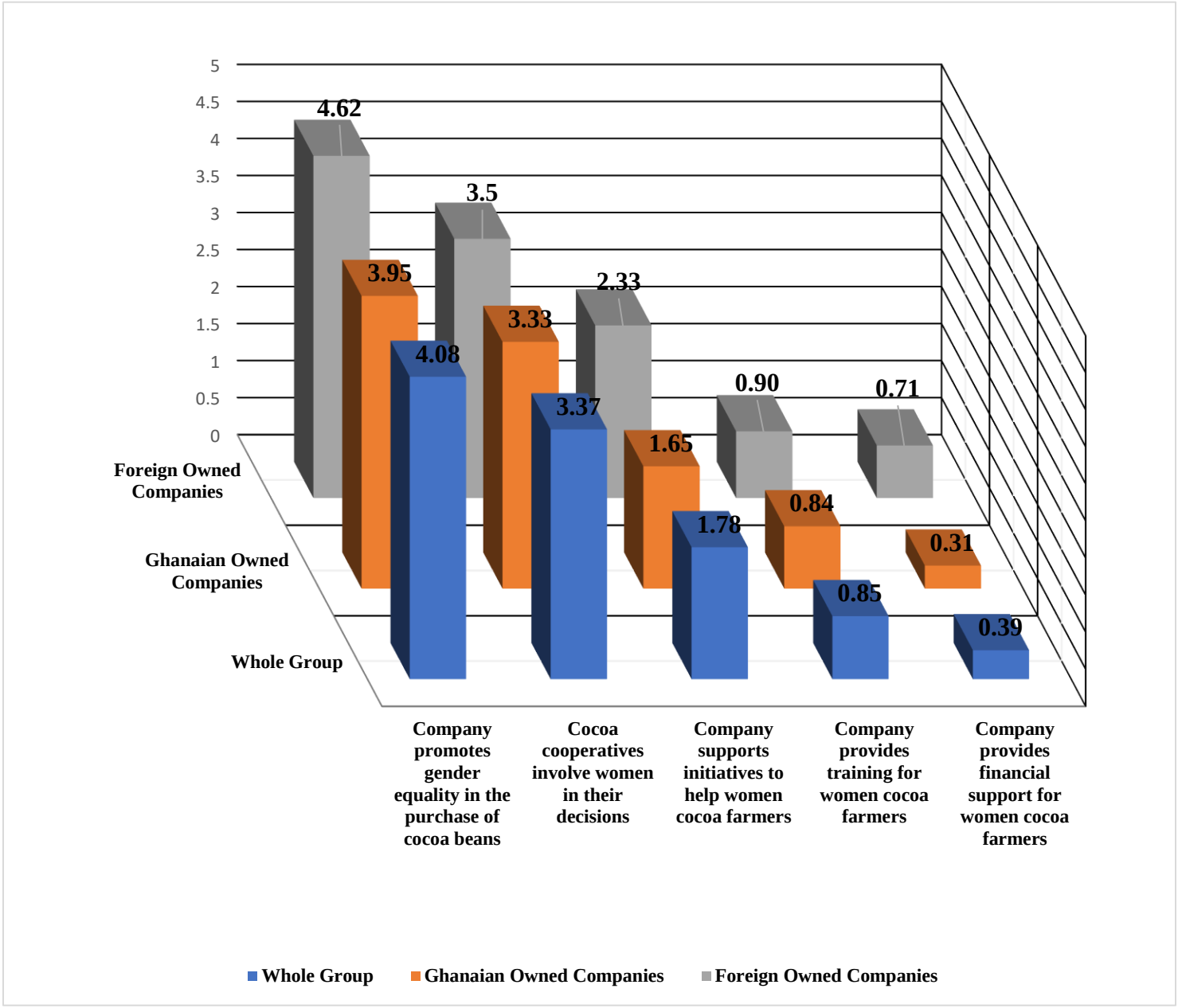

Figure 4.4: Graphical representation of cocoa farmers' perceptions of the performance of cocoa purchasing companies on gender rights and support to women cocoa farmers in terms of their average numerical rankings of the levels of various attributes.

4.5 Results of the Regression Analysis of Factors Influencing the Perceived Level of Cheating of Farmer Incomes Based on the Adjustment of Weighing Scales

As reported earlier in this chapter, weighing scale fraud related to adjustment of the cocoa beans weighing scales had dropped remarkably from the level of 3.86 established in a similar study sponsored by SEND GHANA in 2018 in the Agona East District to a very low value of 0.54 observed in the current study. Based on the zero-to-five Likert scale, the perceived level of cheating could be considered as very low with the average scores for both groups of farmers below 1.0 (the scores of 0.12 and 0.66 for foreign owned cocoa purchasing companies and Ghanaian owned cocoa purchasing companies, respectively. However, there was statistically significant differences in the average scores for the two groups of companies; this result would require further statistical analysis to unearth the factors influencing the degree or level of perceived fraud relating to adjustment of cocoa beings weighing scales by purchasing clerks.

We used a political economy regression model for further investigation. This model reported earlier in Chapter 3 incorporates human capital variables such as years of formal educational attainment, years of cocoa farming experience and the biological human capital variable of the age of the farmer. The perception of fraud by a farmer could be related to the size of the cocoa farm as higher farm sizes would entail higher production levels that would require greater supervision to ensure that the cocoa beans are correctly weighed. Poverty burden of the cocoa farmer could influence the acuteness of perceptions of cheating and is captured by the size of the household. Religious preferences are captured in the model as a dummy variable for Christian and non-Christian adherents.

The results of the standard multiple regression analysis of factors influencing the perceived level of fraud related to the cheating of farmers through the adjustment of cocoa beans weighing scales are reported in Table 4.9. The overall power of the model as measured by the R^2 was modest consistent with cross-sectional studies. However, this coefficient of determination was significant. The model was correctly specified based on the Ramsey Reset computed probability of rejecting the null hypothesis of no correct model specification of 0.065. This computed p value was higher than the 5% critical probability level used for this study. There was also no significant heteroscedasticity problem with the computed p value of the Glejser test of 0.155 above the critical

p value used for the study. The computed variance inflation factors (VIF) for the independent variables were all below 2.0 (refer to Table 4.9), considerably below the threshold value of 10.0 suggested by scholars such as Gujarati (2002) for the presence of the problem of multicollinearity.

The regression results reported in Table 4.9 indicate that the significant variables influencing the perceived degree of fraud related to the adjustment of dried beans weighing scale were the size of the cocoa farm, the dummy variables related to membership of cocoa cooperative and whether the farmer sold his/her cocoa beans to a foreign owned purchasing company. The size of farm was related to the amount of cocoa beans produced by a farmer and the increasing amount of produce would lead to more perception of weighing scale fraud. Membership of a cocoa cooperative was shown to lead to less perception of weighing scale fraud possibly due the organization's efforts at monitoring and improving members.

The results of the logistic regression analysis of the likelihood of a cocoa farmer reporting weighing scale adjustment fraud are reported in Table 4.10. The power of the model was high with the proportion of correctly classified observations being 84.3%. Six of the ten independent variables were shown to significantly influence the likelihood of reported fraud based on the adjustment to the weighing scale. These included the three variables identified through the standard multiple regression analysis – farm size, membership of cocoa cooperatives and farmers selling their beans to foreign owned purchasing companies. The three additional variables influencing the likelihood of reported fraud linked to the weighing scale were the sex of the farmer, household size and the degree of owner-managed intensity of cocoa farms. Female farmers were more likely to report fraud related to the weighing scale compared to male farmers. The likelihood of reporting fraud was directly linked to increasing household size. Finally, the increasing intensity of owner management of cocoa farms was linked to increasing likelihood of reporting fraud.

Table 4.9: Standard Multiple Regression Analysis of the Factors Influencing Respondent's Score Value of the Perceived Importance of Cheating by Purchasing Clerks at the Point of Sale of Dried Cocoa Beans Through Adjustment to the Weighing Scale (SCALEFRAUD)

Variable	Unstandardized Parameter Estimate	Standardized Parameter Estimate	Student t Value	P value	VIF
Sex	0.484	0.195	1.924	0.057	1.387
Age	-0.006	-0.068	-0.618	0.538	1.617
Years of Formal Education	0.006	0.022	.233	0.816	1.213
Household Size	0.071	0.178	1.893	0.061	1.192
Cocoa Experience	-0.004	-0.036	-0.338	0.736	1.507
Farm Size	0.097	0.407	4.177	0.000***	1.277
Foreign Company	-0.653	-0.231	-2.527	0.013**	1.124
FBO	-0.603	-0.238	-2.492	0.014**	1.226
Degree of Owner Management	0.303	0.112	1.229	0.222	1.127
Christian	-0.124	-0.039	-0.396	0.693	1.333
Constant	0.242	0.000	0.359	0.720	0.000

R Square 0.228*** Adjusted R Square 0.153***

Notes:

** *** denote statistical significance at the 5%, and 1%, respectively.

Probability level of significance of correct specification of the regression model based on the Ramsey Reset test 0.065

Probability level of significance of the Glejser test of heteroscedasticity 0.155

Table 4.10: Results of the Logistic Regression Analysis of the Likelihood of the Perceived Cheating by Purchasing Clerks at the Point of Sale of Dried Cocoa Beans Through Adjustment to the Weighing Scale (SCALEFRAUD)

Explanatory Variable	Parameter Estimate	Wald value	P-value
Sex	2.066	5.963	0.015**
Age	-0.043	2.206	0.137
Years of Formal Education	0.065	0.785	0.376
Household Size	0.296	5.043	0.025**
Cocoa Farming Experience	0.042	1.464	0.226
Farm Size	0.295	13.909	0.000***
Foreign Company	-2.743	6.957	0.008***
FBO	-2.525	9.597	0.002***
Degree of Owner Management	1.686	4.576	0.032**
Christian	-1.470	2.766	0.096
Constant	-2.819	1.981	0.159

Notes:

* ** denote statistical significance at the 5% and 1%, respectively.

The percentage of observation correctly classified based on the logistic regression model was 84.3%

CHAPTER FIVE

QUALITATIVE ANALYSIS OF THE VIEWS OF THE ELITES ON THE HLEG PERFOMANCE OF COCOA PURCHASING COMPANIES

5.1 Introduction

The chapter deals with the results of the qualitative analysis of the views of the elites with regards to the HLEG performance of cocoa purchasing companies including multinationals in the Asene-Manso-Akroso and Agona East districts. The HLEG performance criteria are respect for human rights of cocoa farmers, improving the living income of cocoa farmers, establishment of environmental policies and practices to protect cocoa farmers and the community, and gender rights and support for women cocoa farmers. The views of the elites are then compared with those established from the survey of cocoa farmers reported in Chapter 4. The methodology used for the qualitative study is the in-depth interviews of elites located in the study area on the four HLEG performance criteria of the cocoa purchasing companies.

5.2 Description of the Elites Interviewed for this Study.

Elites are people who have and/or exercise considerable power dealing with issues related to the governance of a community, industry, or the nation state. For the purposes of our study which concerns the performance of cocoa purchasing companies with respect to their HLEG performance in a particular study area, the appropriate elite persons would be those with deep and extensive knowledge of the cocoa industry and the work of cocoa purchasing companies in the study area. Thus, we purposively selected a group of 16 elite persons, including four women, to gather data and information from them. Each elite person's view was assessed based on the four HLEG performance indicators related to respect for the human rights of farmers, improvement of the living incomes of cocoa farmers, environmental policies and practices of cocoa purchasing companies and the gender support and assistance especially for women cocoa farmers.

The interviewees comprised of two chiefs, a District director of a cocoa purchasing company, five purchasing clerks working for different cocoa purchasing companies, two agricultural extension officers, and six experienced cocoa farmers made up of two chief cocoa farmers and four

experienced cocoa farmers, including three women, considered to be major influencers in terms of their mobilization role of famers in the survey area. The interviewees are as follows:

1. Respondent 1 is a traditional male ruler. As a major traditional ruler who is a very big cocoa farmer and as a custodian of large amounts of communal land, he has deep and extensive knowledge of the cocoa industry including the work of several purchasing companies which operate in his village.

2. Respondent 2 is a traditional female ruler or queen mother. As a major traditional female ruler in the study area, which is a matrilineal Akan system, she has considerable knowledge of the work of women cocoa farmers in the study area including the problems and barriers to cocoa production encountered by women cocoa farmers and how these could be addressed.

3. Respondent 3 is the District Manager of a Ghanaian owned cocoa purchasing company in the Asene-Manso-Akroso district. He is also a farmer who cultivates several crops including cocoa.

4. Respondent 4 is a purchasing clerk who works for a Ghanaian-owned cocoa purchasing company based in the Asene-Manso-Akroso district. He is also a farmer who cultivates several crops including cocoa.

5. Respondent 5 is a purchasing clerk who is located in the Agona East District. He buys cocoa beans from farmers for several cocoa purchasing companies, both Ghanaian owned and foreign owned. The respondent is also a farmer who cultivates several crops and has seven cocoa farms.

6. Respondent 6 is a purchasing clerk who buys cocoa beans on behalf of several cocoa purchasing companies, both Ghanaian owned and foreign owned. He is based in the Asene-Manso-Akroso district. He is also a farmer who cultivates cocoa and other crops.

7. Respondent 7 is a purchasing clerk who works for a Ghanaian owned cocoa purchasing company. He is based in the Asene-Manso-Akroso district, He is also a farmer who cultivates several crops including cocoa.

8. Respondent 8 is a purchasing clerk who is based in the Asene-Manso-Akroso district and works primarily for a Ghanaian owned cocoa processing company. He is also a farmer who cultivates several crops including cocoa.

9. Respondent 9 is an agricultural extension officer based in the Agona East district. He is also a farmer who cultivates several crops including cocoa.

10. Respondent 10 is an agricultural extension officer based in the Asene-Manso-Akroso district. He is also a farmer who cultivates several crops including cocoa.

11. Respondent 11 is an experienced male farmer, aged 52 years, with 21 years of experience in cocoa farming and was elected as the Chief Cocoa Farmer in a village in the Agona Nsaba Traditional Area. He cultivates several crops including cocoa.

12. Respondent 12 is an experienced male farmer, aged 56 years, with 30 years of experience in cocoa farming and was elected as the Chief Cocoa Farmer in a village in the Asene-Manso-Akroso district.

13. Respondent 13 is an experienced female farmer, aged 77 years, with 44 years of experience in cocoa farming. She is located in Akyem Eshiem in the Asene-Manso-Akroso district.

14. Respondent 14 is an experienced female farmer, aged 70 years, with 20 years of experience in cocoa farming. She is based at Seth Okai village in the Agona East district.

15. Respondent 15 is an experienced female farmer, aged 70 years, with 33 years of experience in cocoa farming. She is based at Agona Nsaba in the Agona East district.

16. Respondent 16 is an experienced male farmer, aged 63 years, with 30 years of experience in cocoa farming. He is based at Akyem Eshiem in the Asene-Manso-Akroso district.

5.3 The Views of the Elites on the Performance of Cocoa Purchasing Companies on the Respect for Human Rights of Cocoa Farmers

The interviewees revealed various sources of information about how cocoa purchasing companies respect the human rights of cocoa farmer. The respect for the basic human rights of farmers with regards to the sale and purchase of their cocoa beans was generally affirmed by all the elites. This affirmation was the same for both Ghanaian and foreign owned companies. Transparent negotiations and the lack of force or coercion in the processes of sale and purchase of cocoa beans and involvement of cocoa farmers in decisions made by companies with regards to the purchase of cocoa beans were articulated by all elites. For example, according to a respondent from Agona Nsaba indicated the following:

… "*Before we felt invisible. Now, cocoa purchasing companies listen to our concerns, pay fair prices, and treat us as equitable trading partners. This empowers us to continue to deal with them on a fair basis."*

Despite the above observation, it was generally observed that cocoa purchasing companies do not particularly care about issues affecting farmers beyond the purchase and sale of cocoa beans. Cocoa purchasing companies have traditionally treated farmers as partners in the exchange of the produced cocoa beings and do not normally extend additional benefits to cocoa farmers as they do for their employees as required by the laws of Ghana and international human rights conventions. Thus, for example, cocoa purchasing companies are not known to contribute money to help defray the sickness and treatment costs of cocoa farmers. Officials of these companies hardly even pay visits to farmers who have been sick for a long time.

5.4 The Views of Elites on the Performance of Cocoa Purchasing Companies on the Improvement of Cocoa Farmers Living Income

Most of the elite respondents indicated that current cocoa farm incomes were not adequate for the maintenance of the families of cocoa farmers. This was largely due to the inadequacy of current cocoa prices paid by the Ghana Cocoa Board, the regulator of the Ghanaian cocoa industry. The elites generally indicated that cocoa purchasing companies generally paid the correct prices as stipulated by the Ghana Cocoa Board. Several elites indicated that some cocoa purchasing

companies, especially the foreign owned companies such as Armajaro, consistently paid cocoa farmers regular bonuses. Additional income support was also sometimes paid in the form of gifts and farm inputs to help farmers to maintain their production. However, the general assessment from the elites was these additional income support payments were more frequent in past years when the cocoa industry was thriving and were very limited in more recent years. Further, even for foreign owned companies, these additional support payments also depended on purchasing clerks. With the demise or transfer of some dedicated purchasing clerks, these additional payments tended to cease.

An unanimous view of the elites was the substantial reduction in the perceived fraud related to the adjustment of the weighing scales used for the measurement of dried cocoa beans. This decline was due to the introduction of the electronic weighing scales. The introduction of electronic weighing scales by the Ghana Cocoa Board was considerably influenced by a similar study sponsored by SEDN GHANA in 2018 which indicated considerable fraud in the adjustment of manual weighing scales. The incidence of fraud using the old manual weighing scales was reported by several elite persons who also indicated the substantial loss of money especially for those with large farms. However, the introduction of electronic weighing scales has substantially reduced this fraud though some small illegal adjustments could not be totally ruled out.

For example, in the view of one respondent in Akyem Eshiem,
…" Before *the introduction of the electronic weighing scales, we lost huge amounts of money to cheating through scale manipulation. Currently, we get the right money equivalent to the weight of our cocoa beans. This intervention has brought trust and a little more money to our pockets.*"

5.5 The Views of Elites on the Environmental Policies and Practices of Companies

Most of the elite respondents could not provide any tangible practices or actions undertaken by cocoa purchasing companies with regards to environmental policies and practices in their areas. Nevertheless, some elite persons indicated that extension officers working for the Ghana Cocoa Board had been instrumental in the provision of several initiatives dealing with sustainable cocoa farming practices such as the distribution of disease-resistant seedlings, shade tree seeds (opram seed), and education and training on sustainable cocoa farming practices. A few of the elite persons indicated that some foreign owned companies complemented the efforts of the Ghana

Cocoa Board's extension officers by supporting farmers to use environmentally friendly cocoa production practices. For example, according to a respondent from Akyem Akroso,

… "*As I stated earlier, Ghana Cocoa Board has been my major support when it comes to environmentally friendly cocoa production practices. The Board has provided me with hybrid seedlings and taught me how to plant selective trees to shade my cocoa trees from the effects of direct sunlight. They indicated that these trees improved the supply soil nutrients and helped to maximize cocoa yields. Armajaro cocoa purchasing company, on the other hand, has also been doing quite similar thing for me.*"

5.6 The Views of the Elites on the Performance of Cocoa Purchasing Companies on the Gender Rights and Support for Women Cocoa Farmers

Four of the 16 elite persons were females, and they were particularly involved in discussions related to empowerment of women cocoa farmers. Overall, both female and male elites were of the general view that cocoa purchasing companies did not particularly discriminate against women farmers. This assessment was linked to the general weak support given to both female and male farmers by cocoa purchasing companies. The elite persons, particularly the women, suggested that cocoa purchasing companies needed to provide much more support to remove barriers in cocoa production for women cocoa farmers.

For example, in the view one respondent at Akyem Eshiem,
…" *Although the cocoa purchasing companies treat us fairly now, they should also know that the issue is not only about respect, but also about resources. We need credit and/or loans to grow our cocoa farms like the men do*." ……. (*quoted verbatim from audio recording*)

The role of women as members of cocoa cooperatives was seen by elites as positive. Women were generally active in the participation of cooperatives though the leadership of cooperatives tended to be controlled by men. One elite person, a director of a cocoa purchasing company indicated that they employed female purchasing clerks in the company and they are given adequate career advancement prospects. However, we were not able to find any female purchasing clerk to interview despite intensive efforts during our 17-day field work.

5.7 Discussion of the Similarities and Difference Between the Views of Survey Respondents and Those Obtained from the Qualitative Analysis of the Elites

5.7.1 Similarities

Respect for human rights of cocoa farmers: Both the masses (farmers) and the elites affirmed that the cocoa purchasing companies highly respected the basic human rights of cocoa farmers with regards to the sale and purchase of cocoa beans. Contracts also tended to be fair and transparent generally in line with the guidelines set by the Ghana Cocoa Board. Generally, cocoa purchasing companies had ensured the prompt payment of monies to cocoa farmers. The past behaviour of many purchasing clerks in delaying payments to farmers seemed to have declined. There was also an agreement among the cocoa farmers and the elites that the occurrence of the issue of child labour, related to the inappropriate use of children to work on cocoa farms, did not exist in the survey areas. This also applied to the impact of illegal mining on the economic welfare and rights of farmers and communities. Illegal mining was absent in the survey areas.

The organization of meetings and discussion fora by cocoa purchasing companies in cocoa villages and towns was a point of agreement among elites and ordinary cocoa farmers. Many of the farmers indicated that they were adequately informed about these meetings and discussions giving them ample time to participate if they were free as they were not compulsory.

Improving the living income of cocoa farmers*:* Both the masses (cocoa famers) and the elites indicated that the current levels of cocoa producer prices did not allow for the achievement of adequate living incomes that could allow farmers to take proper care of their families. Additional income support measures such as bonuses paid to farmers were reported by both cocoa farmers and elites. However, these support payments were generally low and not of the levels seen in past periods when the cocoa industry was thriving.

Environmental policies and practices*:* There was a general agreement between the masses and the elites that cocoa purchasing companies were not involved with active tree planting programmes which targeted the community. However, some companies such as Armajaro, sometimes provided some selective trees for planting on cocoa farmers' fields. As indicated earlier, there was a consensus that illegal mining or "galamsey" did not exist in the study areas.

Gender rights and support for women cocoa farmers*:* Equal treatment of men and women cocoa farmers in terms of the purchase and sale of cocoa beans by cocoa purchasing companies was a general point of agreement among cocoa farmer and elite persons. It was felt that the companies did not have support programmes to help cocoa farmers in general. It was also generally agreed that cocoa purchasing companies had not established initiatives specifically targeted at women farmers. The ability of women to actively participate at least modestly in programmes of cocoa cooperatives and other farmer-based organizations that they were members was a point of agreement among cocoa farmers and the elite persons.

5.7.2 Differences

Respect for human rights of cocoa farmers: Cocoa farmers generally indicated that cocoa purchasing companies were more focussed on buying cocoa beans from farmers at fair prices and transparent conditions based on the guidelines of the Ghana Cocoa Board. Beyond this practice, these companies were not particularly interested in other human rights issues of farmers, for example, financial and other assistance programmes for sick cocoa farmers did not exist in any purchasing company. While some elite persons concurred with these views of cocoa farmers, some elites especially chiefs and chief cocoa farmers indicated that cocoa purchasing companies sometimes provided education to farmers on the consequences of child labour and this education could have contributed to the non-observance of inappropriate use of child labour on cocoa farms in the areas. The support of some cocoa purchasing companies in providing enhanced school infrastructure, such as new buildings, was also pointed out by several elite people, including chiefs.

Improving the living income of cocoa farmers: Most cocoa farmers stressed that cocoa purchasing companies did not provide them with additional income payments such as bonuses, gifts and other cash payments. Support for cocoa farmers in the form of subsidized or free inputs for faming was also very limited. Conversely, the elites, on the other hand, indicated that some of the purchasing companies assisted cocoa farmers with cash-based incentives such as bonuses, loans, gifts, and other resources to help enhance their cocoa production. The cause of this difference in viewpoint could be that the additional income payments made by cocoa purchasing companies could be reaching some of the elite farmers rather than the general mass of the farming population.

Environmental policies and practices*:* The masses indicated that the cocoa purchasing companies were not helpful when it comes to community-level environmental initiatives, while some of the elites mentioned that a few of the foreign cocoa purchasing companies (Armajaro and Cargill) supported community-level environmental initiatives such as tree planting.

Gender rights and support for women cocoa farmers: Some of the elites stated that some cocoa purchasing companies provided additional support to help women cocoa farmers. Contrarily, the masses, on the other hand, emphatically indicated that the cocoa purchasing companies did very little or nothing to support women cocoa farmers in the community.

5.8 Conclusion

Cocoa purchasing companies in the surveyed areas generally complied with the guidelines of the Ghana Cocoa Board with regards to the purchase and sale of cocoa beans. They ensured the prompt payment of monies to cocoa farmers. The past behaviour of many purchasing clerks delaying payments to farmers seemed to have stopped. Furthermore, cases relating to fraudulent weighing scale manipulation were found to be relatively low, suggesting improved fairness and transparency and a decline in historically prevalent fraud issues within the cocoa purchasing sector. However, the study also highlights a critical shortfall in cocoa purchasing company's corporate social responsibility. Despite companies meeting financial obligations, their contribution to community development, including infrastructure, education, healthcare, and environmental initiatives remains low.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 Summary of the Study

An evaluation of the HLEG performance of cocoa purchasing companies was undertaken in the Asene-Manso-Akroso and Agona East districts of Ghana. The study had two components: (1) an assessment of HLEG performance based on a random sampling survey of 131 cocoa farmers and (2) a qualitative analysis involving in-depth interviews of 16 elite persons with considerable knowledge of the cocoa industry in the two districts. This chapter is devoted to the presentation of the conclusions of the study and some recommendations for policy decisions with regards to the design of interventions for strengthening the HLEG performance of cocoa purchasing companies including multinational companies.

Cocoa production in the study area was dominated by men with about 68 percent of the cocoa farmers being males. Most of the cocoa farmers were between 50 to 69 years indicating a relatively old cocoa workforce. Almost one in five (19.5%) farmers sold their cocoa beans to foreign owned companies. CJ Commodities was the biggest cocoa purchasing company and accounted for 18.0 percent share of farmers selling their cocoa beans, followed by PBC and Nyonkopa which accounted for 17.3 percent share of farmers selling their cocoa beans. Similarly, the biggest foreign owned cocoa purchasing company was Armajaro and it accounted for 11.3 percent share of farmers selling their cocoa beans. The other three foreign owned cocoa purchasing companies were Cargill, Cocoa Touton and Olam.

The four HLEG performance criteria were assessed based on the use of zero-to-five Likert continuum scoring scale index. In general, most farmers indicated that cocoa purchasing companies performed well in terms of the respect of their human rights with regards to the purchase and sale of views, a view also affirmed by the 16 elite persons interviewed. It was generally agreed that the use of child labour on cocoa farms, especially on school days, was non-existent. The elites ascribed some role for this non-existence of child labour on cocoa farms to the education of farmers undertaken by some cocoa purchasing companies.

The adequacy of cocoa-based income to support farmers and families was assessed as modest. Cocoa famers and the elite persons involved in the study called for the Ghana Cocoa Board and the Government to increase cocoa producer prices. Bonuses and other additional payments were reported by cocoa farmers to be minimal; however, one foreign owned company, Armajaro, was mentioned by several farmers and elites as providing bonus payments and inputs support to farmers.

The perceived cheating of famers' incomes through the manipulation of the weighing scales was assessed by both cocoa farmers and elite persons as minimal. The average Likert scale score for perceived cheating of cocoa farmers through the adjustment of weighing scales was 0.54 based on the zero-to-five score suggesting its very low occurrence. This was a very big improvement from the 3.86 score recorded in a similar study in the Agona East district in 2018. The latter study was sponsored by SEND GHANA. The organization used its findings as advocacy for the introduction of electronic weighing scale by the Ghana Cocoa Board in 2020. Further analysis was conducted in this (2025) study, using multiple regression analysis, to identify factors influencing the relatively low level of perceived cheating through the adjustment of the weighing scale. The positive efforts of cocoa cooperatives and foreign owned purchasing companies were deemed to be significantly influencing the low perception of the weighing scale fraud.

On the environmental diligence, policies and practices performance, the general impression was that the survey area had already been fully deforested over the last 100 years. Illegal mining of rivers and associated water bodies was absent from the area. Efforts at sustainable farming practices have been undertaken by cocoa farmers largely assisted by extension officers of the Ghana Cocoa Board. In this regard, cocoa purchasing companies had played very minimal or no significant role. The planting of trees and agroforestry crops by cocoa farmers was acknowledged by some farmers; however, the role of cocoa purchasing companies was very limited in this endeavour. Further, there was very little activity undertaken by cocoa purchasing companies to support community tree planting and clean up hygienic campaigns.

On gender and support for women farmers, the major problems affecting women cocoa farmers included lack of credit to expand their farms and the high cost of labour which reduced their

maintenance efforts on cocoa farms. While women were able to develop cocoa farms sometimes with the assistance of their partners and spouses, expansion of these farms was difficult to the high cost of labour and the pre-occupation of women with several domestic house activities.

It was widely acknowledged by both farmers and elite persons that cocoa purchasing companies did not provide any real significant support for women cocoa farmers. However, women cocoa farmers were not marginalized when compared to male farmers. The main assertion by farmers was that there was generally little support for them, whether they were female or male. Finally, the modestly active role of women cocoa farmers in the work of cocoa cooperatives was acknowledged by both male and female respondents who were members of cocoa cooperatives,

6.2 Conclusions

Overall, the findings of the study indicated that the cocoa purchasing companies in the surveyed areas largely complied the payment guidelines of the Ghana Cocoa Board which had ensured that cocoa farmers received the publicly announced producer prices. Furthermore, cases relating to fraudulent weighing scale manipulation were found to be relatively low, suggesting improved fairness and transparency transactional and a decline in historically prevalent fraud issues within the cocoa purchasing industry.

However, the study also highlights a critical shortfall in cocoa purchasing companies' corporate social responsibility. Despite companies meeting legal financial obligations to cocoa farmers, their contributions to community development, including infrastructure, education, healthcare, and environmental initiatives, is generally low. This apparent neglect limits sustainable growth and development given that the wellbeing of cocoa farmers depends not only on fair payments but also on their access to social amenities and improved environmental and hygienic surroundings for which cocoa purchasing companies, as beneficiaries, of the sweat and toil of farmers could partner the State to improve the overall infrastructure in the survey area.

6.3 Recommendations

The first major recommendation deals with the need to improve the living incomes of cocoa farmers. In this regard, the payment of bonuses and related cash allowances for cocoa farmers needs to be emphasized by cocoa purchasing companies. Many cocoa farmers complained about

the lack of payment of bonuses which they contended were regularly paid in the past. Further, the Ghana Cocoa Board should consider the review of cocoa producer prices this year to coincide with the start of the 2025/2026 production year in October 2025. The issue of lack of bonus payment appeared to be linked to the inclusion of the bonus amount in the announced producer prices of cocoa beans. Hence the former practice of separating the bonus from the actual price could be restored in order to assure some farmers that bonuses were actually paid.

We also suggest that cocoa purchasing companies participate in the monthly street and environmental cleaning of communities through cash grants and provision of items such as hand gloves and equipment to help volunteers to clean up gutters and streets of various cocoa farming communities. Cocoa purchasing companies could also participate in the annual tree planting programmes of the State with active involvement in community initiatives to plant and nurture trees to improve environmental quality of cocoa farming communities.

The expansion of CSR activities of cocoa purchasing companies could be expanded with activities in education, and healthcare to foster community resilience and trust. Ultimately, while the cocoa purchasing companies have made strides in safeguarding economic rights, expanding community engagement through the development of expanded in physical infrastructure, education and health would improve the wellbeing of cocoa farmers and increase trust and goodwill between farmers and companies. The expansion of gender-based programmes by cocoa purchasing companies is also recommended as a means of addressing concerns of children, women, men and marginalized groups such as the disabled.

We recommend greater collaboration and interactions between cocoa purchasing companies and District Assemblies (Councils). Collaborative efforts could allow the District Assemblies to incorporate community project organized by purchasing companies into their yearly and medium-term plans. In this regard, the Ghana Cocoa Board Act, P.N.D.C. Law 81 needs to be amended to allow for greater representation of District Assemblies in the functions of the Ghana Cocoa Board.

Illegal mining in the survey area was generally absent in the survey area mainly due to the determined efforts of local chiefs and professionals. The activism of these people effectively

stopped illegal mining of the Akora River, the major source of water in the area. However, this activism is risk-increasing and risk-efficient for unelected people like chiefs and professionals. The direct election of Mayors and District Chiefs in Ghana, through a Constitutional amendment, would likely create a new set of leaders who could lead the continuous fight against illegal mining necessary to ensure sustainable development in the survey area and the country.

APPENDICES

APPENDIX 1

Attributes Which Could be Used to Validate Human Rights, Living Income, Environmental Diligence and Gender (HLEG) Commitments of Companies

HLEG Policies	Attributes
Human Rights	Child labour prevention
	Safe working and deforestation
	Fair treatment (land grabs, violence, harassment, and deforestation)
	Grievance mechanisms
	Forced labour elimination
	Transparency in land contracts
	Community engagement
Living Income	Fair cocoa pricing
	Premium payments
	Income diversification
	Access to financial services
	Cost of inputs
	Inflation adjustment
	Productivity support
	Market stability
Environmental Due Diligence	Deforestation prevention
	Agroforestry adoption
	Climate change adaptation
	Waste management
	Soil health maintenance
	Water resource management
	Carbon footprint reduction
	Community programs

Gender	Equal pay
	Land ownership rights
	Training and capacity building
	Leadership opportunities
	Gender-based violence prevention
	Access to resources
	Cultural sensitization
	Health and welfare support
	Education for girls

APPENDIX 2

Real Gross Domestic product (GDP), Real GDP Contributed by the Agricultural Sector and Cocoa Industry in Ghana in Millions of Ghana Cedis, 1975-2023.

year	real GDP with 2013 as base year	national economic growth (%)	real agriculture GDP	real cocoa industry GDP	growth of cocoa industry (%)	share of GDP contributed by cocoa industry (%)
1975	31167.986	-12.86	8345.705	849.227	-	2.72
1976	30170.596	-3.20	8208.167	1098.844	29.39	3.64
1977	30856.582	2.27	7830.022	867.477	-21.06	2.81
1978	33448.829	8.40	9242.847	769.897	-11.25	2.30
1979	32241.454	-3.61	9591.496	732.513	-4.86	2.27
1980	33877.719	5.08	9799.956	802.129	9.50	2.37
1981	29878.011	-11.81	9548.743	766.953	-4.39	2.57
1982	28358.673	-5.09	9027.427	635.080	-17.19	2.24
1983	25440.189	-10.29	8396.743	545.006	-14.18	2.14
1984	26246.002	3.17	9212.356	499.086	-8.43	1.90
1985	27490.246	4.74	9272.011	564.876	13.18	2.05
1986	28831.527	4.88	9578.570	667.607	18.19	2.32
1987	30330.023	5.20	9581.553	689.390	3.26	2.27
1988	31930.385	5.28	9924.900	645.972	-6.30	2.02
1989	33626.894	5.31	10346.460	666.577	3.19	1.98
1990	34785.160	3.44	10137.668	686.446	2.98	1.97
1991	36573.456	5.14	10617.227	673.053	-1.95	1.84
1992	37997.002	3.89	10549.286	687.182	2.10	1.81
1993	39885.963	4.97	10758.235	687.210	0.00	1.72
1994	41189.957	3.27	10959.106	771.125	12.21	1.87
1995	42847.196	4.02	11369.123	856.311	11.05	2.00
1996	44816.519	4.60	11962.706	881.104	2.90	1.97
1997	46698.026	4.20	12476.544	963.112	9.31	2.06
1998	48889.914	4.69	13114.515	1069.912	11.09	2.19
1999	51055.006	4.43	13623.086	1064.827	-0.48	2.09
2000	52962.490	3.74	13911.498	1130.846	6.20	2.14
2001	55177.512	4.18	14470.448	1119.537	-1.00	2.03
2002	57687.157	4.55	15100.651	1113.777	-0.51	1.93

2003	**60714.539**	**5.25**	**16016.731**	**1296.674**	**16.42**	**2.14**
2004	**64101.101**	**5.58**	**17133.347**	**1684.379**	**29.90**	**2.63**
2005	**67862.679**	**5.87**	**18650.112**	**1907.054**	**13.22**	**2.81**
2006	**72227.901**	**6.43**	**18329.806**	**1945.195**	**2.00**	**2.69**
2007	**75366.838**	**4.35**	**19686.804**	**1785.812**	**-8.19**	**2.37**
2008	**82260.614**	**9.15**	**21109.241**	**1843.770**	**3.25**	**2.24**
2009	**86245.637**	**4.84**	**22225.148**	**1937.951**	**5.11**	**2.25**
2010	**93062.043**	**7.90**	**22411.132**	**2452.322**	**26.54**	**2.64**
2011	**106133.002**	**14.05**	**22927.756**	**2792.822**	**13.88**	**2.63**
2012	**115994.824**	**9.29**	**24229.648**	**2532.014**	**-9.34**	**2.18**
2013	**124477.579**	**7.31**	**25355.887**	**2597.216**	**2.58**	**2.09**
2014	**128032.957**	**2.86**	**25584.208**	**2708.779**	**4.30**	**2.12**
2015	**130748.228**	**2.12**	**26110.539**	**2493.202**	**-7.96**	**1.91**
2016	**135158.975**	**3.37**	**26824.149**	**2318.270**	**-7.02**	**1.72**
2017	**146145.906**	**8.13**	**28490.959**	**2531.209**	**9.19**	**1.73**
2018	**155207.066**	**6.20**	**29880.099**	**2625.415**	**3.72**	**1.69**
2019	**165307.592**	**6.51**	**31271.050**	**2768.096**	**5.43**	**1.67**
2020	**166157.177**	**0.51**	**33548.743**	**2807.053**	**1.41**	**1.69**
2021	**174592.090**	**5.08**	**36385.910**	**3098.582**	**10.39**	**1.77**
2022	**181257.151**	**3.82**	**37899.735**	**3126.700**	**0.91**	**1.73**
2023	**186594.786**	**2.94**	**39586.930**	**3116.259**	**-0.33**	**1.67**

Notes:

Data derived from various issues of the GDP series produced by the Ghana Statistical Service based on the backcasting method using the 1975 to 2009 series, 2006 to 2012 series and the 2013 to 2023 series released by GSS in 2009, 2016 and 2024, respectively.

APPENDIX 3

Derivation of the Optimal Sampling Size Used for the Survey of Cocoa Farmers

The optimal sample size of 81 was established based on statistical theory using the concepts of binomial and normal probability distributions. An oversampling of 24 persons was done to increase the optimal sample size to 105 (81 + 24). The assumptions were that each residential house contained at least one cocoa farmer; 30% of cocoa farmers were women; thus, male farmers constituted 70% (p = 0.30 and q = 0.70). The assumption that about 30% of cocoa farmers in the villages were female was based on a previous study commissioned by SEND GHANA in the Agona East District in 2018 which established this proportion. One of the three villages, Agona Seth Okai, was included in the current 2025 SEND GHANA study.

Allowing for a 10% maximum standard error (MSE) to be achieved with a 95% confidence level (1.96 standard errors from a normal distribution), the optimal sample size (n) was derived as follows:

MSE = s * 1.96 = 0.10. s = [(p * q)/n]0.5

s = 0.10/1.96 = 0.0510 = [(0.70*0.3)/n]0.5

0.00260 = (0.21/n)

n = 384.615*0.21

n = 80.769

APPENDIX 4

SURVEY QUESTIONNAIRE

CONFIDENTIAL

SURVEY OF COCOA FARMERS IN THE ASENE-MANSO-AKROSO AND AGONA EAST DISTRICTS ON HUMAN RIGHTS, LIVING INCOME, ENVIRONMENTAL DUE DILIGENCE, AND GENDER PERFORMANCE OF COCOA COMPANIES INCLUDING MULTINATIONALS OPERATING IN GHANA

SURVEY UNDERTAKEN IN FEBRUARY 2025

My name is Professor Kwabena Asomanin Anaman, of the University of Ghana, Legon, Accra, a consultant working for the SEND-GHANA organization based in Accra. I am currently undertaking a study on human rights, living income, environmental due diligence, and gender (HLEG) performance of cocoa purchasing companies including those owned by multinational companies in Ghana. My phone numbers are 0242982547 and 024059127.

I would be pleased if you could kindly spare about 30 minutes of your time to answer the following questions which will be conducted in strict confidence and in person only. Response to the questions will only be reported in aggregate without identifying any person.

ADDRESS OF RESPONDENT (NAME NOT REQUIRED):

VILLAGE/TOWN:

TELEPHONE NUMBER:

SURVEY QUESTIONNAIRE NUMBER:

SECTION A: GENERAL INFORMATION CONCERNING COCOA PRODUCTION AND LIVELIHOOD

1. Were you born in this village?
   Yes □ No □

2. If no, please indicate the reasons for moving to this village.

3. Where did you live before coming here?

Please specify the place

4. How many cocoa farms do you have

4b. What is the size of each farm in acres?

4c. Indicate the ages of the bearing trees for each farm

5. Indicate the health condition of each of your cocoa farm

6. How did you acquire each cocoa farm?

7. How many years have you been a cocoa farmer?

8. Management position of respondent for each cocoa farm

Possible answers for each farm are as follows:

(1) Owner but not actively managing (2) Owner and actively managing (3) Abunu caretaker, (4) Abusa caretaker (5) Caretaker special arrangement (6) Owner of bearing trees but not the owner of the land with the bearing trees already shared between the developer and the landowner (7) Owner of bearing trees but not the owner of the land with the bearing trees not yet shared between the developer and the land owner (8) Others

9. Indicate other major crops that you grow outside of cocoa

10. Over the last production year, please indicate the cocoa companies that you sold your cocoa beans to

SECTION B: PERFORMANCE OF COCOA PURCHASING COMPANIES ON THE HUMAN RIGHTS OF COCOA FARMERS

Please indicate in terms of importance your level of agreement with the following statements related to the influence of companies on human rights. Please circle the number closely representing your opinion. A score of 5 is. “Very high agreement”, 4 is “high level of agreement”, 3 is “moderate level of agreement”, 2 is “low level of agreement “ and 1 “very low level of agreement”.

Objective: Evaluate how cocoa companies uphold human rights in the cocoa sector.

Degree and level of agreement

11. Which of the following human rights issues have occurred in your community?
    - Galamsey □
    - Child labour □
    - Others, please elaborate if possible

12. Do you feel that cocoa companies respect your basic human rights as a seller of cocoa?

    5 4 3 2 1 0

    Please elaborate if possible

13. Do cocoa companies educate you on your rights with regards to the purchase and sale of cocoa beans

    5 4 3 2 1 0

    Please elaborate if possible

14. My contracts with cocoa companies are clear and transparent.

    5 4 3 2 1 0

    Please elaborate if possible

15. Cocoa companies consult and involve farmers in decisions affecting their rights on other issues beyond the purchase of cocoa beans.

    5 4 3 2 1 0

    Please elaborate if possible

SECTION C: PERFORMANCE OF COCOA PURCHASING COMPANIES ON IMPROVING LIVING INCOME OF COCOA FARMERS

Please indicate in terms of importance your level of agreement with the following statements related to the influence of companies on living income improvement. Please circle the number closely representing your opinion. A score of 5 is. "Very high agreement", 4 is "high level of agreement", 3 is "moderate level of agreement", 2 is "low level of agreement " and 1 "very low level of agreement".

Objective: Assess efforts by cocoa companies to ensure farmers achieve a living income.

Degree and level of agreement

1. The income I earn from cocoa farming is sufficient to cover my family's basic needs.
   5 4 3 2 1 0
   Please elaborate if possible

2. What specific challenges do you face in earning a living income from cocoa farming?

3. Cocoa companies provide fair prices in line with guidelines from Ghana Cocoa Board.
   5 4 3 2 1 0
   Please elaborate if possible

4. Purchasing clerks adjust or manipulate the weighing scales to reduce the money that I can receive when I sell my cocoa beans to them.
   5 4 3 2 1 0
   Please elaborate if possible

5. I receive additional payments (e.g. bonuses) from cocoa companies which increase my income.
   5 4 3 2 1 0
   Please elaborate if possible

6. Cocoa companies invest in tools and resources to improve my productivity.
   5 4 3 2 1 0

   Please elaborate if possible

7. I have access to financial services (e.g., loans or savings) through cocoa companies.
   5 4 3 2 1 0

   Please elaborate if possible

8. I feel that cocoa companies are committed to helping farmers achieve living income.
   5 4 3 2 1 0

   Please elaborate if possible

9. My income from cocoa farming has improved due to company interventions.
   5 4 3 2 1 0

   Please elaborate if possible

10. What additional steps should cocoa companies take to help farmers achieve a sustainable and livable income, for example, training and resources?

SECTION D: PERFORMANCE OF COCOA PURCHASING COMPANIES ON THEIR ENVIRONMENTAL POLICIES AND PRACTICES

Please indicate in terms of importance your level of agreement with the following statements related to the influence of companies on environmental policies and practices. Please, circle the number closely representing your opinion. A score of 5 is. “Very high agreement”, 4 is “high level of agreement”, 3 is “moderate level of agreement”, 2 is “low level of agreement “and 1 “very low level of agreement” and zero means absence of the attribute.

Objective: Measure the impact of cocoa companies' environmental policies and practices.

Degree and level of agreement

5 4 3 2 1 0

1. What specific environmental challenges do you face in cocoa farming?

2. Can you describe any environmental initiatives introduced by cocoa companies that have positively impacted your farm or community including training programmes?

3. Cocoa companies provide training on sustainable farming practices.

   5 4 3 2 1 0

   Please elaborate if possible

4. I use environmentally friendly practices (e.g., agroforestry) due to support from cocoa companies.

   5 4 3 2 1 0

   Please elaborate if possible

5. Cocoa companies help to address soil degradation issues of farmers

   5 4 3 2 1 0

   Please elaborate if possible

6. Community-level environmental initiatives (tree planting) are supported by companies.

   5 4 3 2 1 0

   Please elaborate if possible

7. Cocoa companies' environmental efforts have positively impacted the community.

   5 4 3 2 1 0

   Please elaborate if possible

8. What additional steps could cocoa companies take to improve environmental sustainability in cocoa farming?

SECTION E: PERFORMANCE OF COCOA PURCHASING COMPANIES ON GENDER RIGHTS OF COCOA FARMERS

Please indicate in terms of importance your level of agreement with the following statements related to the influence of companies on gender rights. Please, circle the number closely representing your opinion. A score of 5 is. "Very high agreement", 4 is "high level of agreement," 3 is "moderate level of agreement", 2 is "low level of agreement " 1 "very low level of agreement" and zero for the complete absence of the attribute.

Objective: Assess gender equality and support for women in cocoa farming.

Degree and level of agreement

1. What are the main challenges women face in cocoa farming in your community?

2. Can you provide examples of successful programs or initiatives by cocoa companies that have benefited women in your community?

3. Cocoa companies actively promote gender equality in farming communities.
   5 4 3 2 1 0
   Please elaborate if possible

4. Women farmers in my community receive training from cocoa companies.
   5 4 3 2 1 0
   Please elaborate if possible

5. Cocoa companies provide financial support for women farmers.
   5 4 3 2 1 0
   Please elaborate if possible

6. Cocoa companies support initiatives to reduce barriers for women in cocoa farming.
   5 4 3 2 1 0
   Please elaborate if possible

7. Women are involved in decision-making processes within cocoa cooperatives.
   5 4 3 2 1 0

   Please elaborate if possible

8. Company programs have improved the participation of women in cocoa production
   5 4 3 2 1 0

   Please elaborate if possible

SECTION F: SOCIOECONOMIC CHARACTERISTICS OF RESPONDENTS

1.Sex of respondent ----------

2. What is your age?----------

3. Marital status:----------

4. Educational attainment level based on years of formal education----------

5. Number of children ----------

6. Please state the number of people in your household?----------

7. Please indicate your religious affiliation ----------

Answers: (1) Adherents of traditional African religions (2) Christian plus adherent of traditional African religions (3) Christian only (4) Muslim (5) Muslim plus adherent of traditional African religions (6) Other religions (specify)

8. Please indicate your ethnic group (tribe; refer to the appendix) ----------

9. Your approximate total gross revenue from cocoa during last production year based on bags of cocoa sold in both the major and minor cropping seasons----------

10. Your approximate total gross personal income from non-cocoa agricultural ventures last year.

11. Net personal income from all non-agricultural ventures per month ----------

ANNEX: ETHNICITY CLASSIFICATION OF THE NINE BROAD ETHNIC GROUPS AND THE 89 TRIBES OR SUB-ETHNIC GROUPS IN GHANA INCLUDING CODES AS USED FOR THE 2017 GHANA LIVING STANDARDS SURVEY CONDUCTED BY THE GHANA STATISTICAL SERVICE

Akan (0)	**Dangme/ Ga (20)**	**Ewe (30)**	**Guan (40)**	**Gurma (50)**	**Mole-Dagbani (60)**	**Grusi (70)**	**Mande (80)**	**All other groups (90)**
Agona (1)	Dangme (21)		Akpafu, Lolobi, Likpe, Bowiri, Buem, Santrokofi, Akposo (41)	Bimoba (51)	Builsa (Kangyaga or Kanjaga) (61)	Kasena (Paga) (71)	Busanga (81)	All other groups originating from Ghana (91)
Ahafo (2)	Ga (22)		Avatime, Nyongbo, Tafi, Logba (42)	Kokomba (52)	Dagarte (Dagaba), Lobi, Wali (Wala) (62)	Mo (72)	Wangara (82)	All other groups originating from outside Ghana (92)
Ahanta (3)	Other Ga and Dangme (23)		Awutu, Efutu, Senya, Breku (43)	Basare (Kyamba) (53)	Dagomba (63)	Sissala (73)	Other Mande (83)	Fulani (93)
Akuapem (4)			Cherepong, Larteh, Anum- Boso (44)	Pilapila (54)	Kusasi (64)	Vagala (74)		Zabrama (94)
Akwamu (5)			Gonja (45)	Salfalba (Sabulaba) (55)	Mamprusi (65)	Other Grusi (Lela, Templensi, Birifor, Yangala, Miwo) (75)		
Akyem (6)			Nkonya (46)	Kotokoli (56)	Namnam (Nabdom) (66)			

Aowin (7)			Yeji, Nchumuru, Krachi, Nawuri, Bassa Achode (47)	Chamba (Kyamba) (57)	Nankansi, Talensi& Gurense (Frafra) (67)			
Asante (8)			Nkomi, Wiase, Dwan (48)	Wali (Wala) (59)	Nanumba (68)			
Assin (9)					Mosi (69)			
Bono (10)								
Chokosi (Anufor) 11)								
Denkyira/ Twifo (12)								
Evalue (13)								
Fante (14)								
Kwahu (15)								
Nzema (16)								
Sefwi (17)								
Wassa (18)								
Bawle (19)								

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