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Evaluating the Influence of Economic Aid and Land Ownership on the Reduction in Coffee Yield and Its Socioeconomic Consequences: A Case Study of the Akuapem North Municipality, Ghana

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Abstract

Coffee is a highly valuable tropical agricultural commodity and the second most traded commodity in the international market after oil. Despite coffee being cultivated in Ghana since the late 18th century, around the same time as cocoa was introduced, cocoa became the dominant crop due to coffee having a low yield in Ghana. As a result, many farmers shifted their focus from coffee farming to other crops, particularly cocoa, as it has become the country's primary source of foreign exchange. The purpose of this research was to investigate the impact of the reduction in coffee production on the farmers' livelihoods in Akuapem North Municipality in the Eastern Region. The study aimed to identify the reasons behind the decline in coffee production as perceived by farmers, as well as to determine their views on potential solutions to the problem. The purposively sampling method was used to select two communities, namely Apirede and Tinkong, based on the intensive production of coffee in the municipality. The snowball sampling method was used to select 50 respondents from the two communities. The results showed that most (92%) respondents were males, while the remaining 8% were females, which means a lot of males are into coffee production in the district. The majority (24%) identified inadequate financial assistance from the government and other financial sources as the major cause of the decline in coffee production. The majority (26% each) chose financial assistance from the government and access to credit as a way to improve coffee production. The majority (94%) of the respondents indicated that the decline in coffee production has affected their income. The study established that the government, NGO's, and other financial institutions such as banks or credit institutions in Akuapem North Municipality must take responsibility for granting loans or credit to farmers to address problems of finance encountered in their search to maximize the economic returns of the coffee industry. In addition, the government could also help coffee farmers acquire vast arable lands through clearly defined tenure rights and agreements for landowners and coffee farmers in the Akuapem North Municipality.

Keywords: Coffee production, livelihood, farmers, decline, impact assessment, Akuapem North Municipal District

INTRODUCTION

Coffee is a type of evergreen shrub or small tree that grows in tropical regions, and it is extensively cultivated for commercial purposes in Africa (Davis *et al*., 2020). Arabica (*Coffea arabica*) and Robusta (*C. canephora*) are the two-primary species of coffee grown worldwide, with Arabica accounting for approximately 60% and Robusta for around 40% of the coffee global trading (Al Asmari *et al*., 2020; Abdelwareth, 2021). According to Campuzano-Duque & Blair (2022), Davis *et al*. (2022), Nguyen *et al.* (2020) and Yang *et al.* (2022), Arabica coffee is primarily grown in Latin America, while Robusta coffee is predominantly cultivated in Africa and Asia, including Ghana. Arabica coffee is the primary source of the world's coffee consumption, as it is known for its milder, more flavorful, and aromatic qualities making it highly sought after in the specialty coffee market compared to Robusta (Abdelwareth *et al.*, 2021; Costa, 2020; da Costa *et al*., 2023).

The coffee industry plays a crucial role in the economy of many countries, providing income and employment opportunities for millions of farmers worldwide (Sachs *et al*., 2019). Coffee production in agroforestry systems provides numerous benefits to farmers who prioritize environmental services (Cerda *et al*., 2020; Nguyen *et al*., 2020). These advantages encompass the preservation and enhancement of local biodiversity, erosion prevention, the establishment of carbon sinks (particularly when coffee is cultivated under shade trees), the creation of suitable habitats for migratory birds (Wagner, 2019), the improvement of water retention in soils (de Carvalho *et al*., 2021; Cervera-Mata *et al.*, 2021), and the mitigation of climate-related extremes (Bianco, 2020; Djufry & Wulandari, 2021). Coffee production has been a significant economic activity in the Akwapim North Municipal District, with farmers relying heavily on coffee cultivation as their primary source of income contributing to poverty reduction and rural development. The favorable agro-climatic conditions and fertile soils have traditionally made the region suitable for coffee cultivation (Doe *et al*., 2020; Smith, 2018). However, reports from local farmers and agricultural experts indicate a substantial decrease in coffee production over the past decade which has raised concerns about the livelihoods of coffee farmers. The decrease in coffee production not only affects farmers' income but also jeopardizes their food security, access to education, healthcare, and overall well-being (Rhiney *et al*., 2021; Wongnaa *et al*., 2021). This decline can be attributed to various factors, including climate change, pests and diseases, changing market dynamics, and the lack of access to modern agricultural practices (Anuga *et al.*, 2019; Kath *et al*., 2022; Pham *et al*., 2019).

The assessment of the impact of declining coffee production on the livelihoods of farmers in the Akuapem North Municipal District provides empirical evidence to support the anecdotal observations of farmers and experts regarding the decline in coffee production and its consequences. This study will contribute to the existing literature by offering localized insights into the challenges faced by coffee farmers in the specific context of the study area. The findings of this study will inform policymakers, agricultural extension services, and other relevant stakeholders about the specific needs and concerns of coffee farmers. This knowledge can guide the formulation of targeted interventions and policy measures aimed at supporting coffee farmers and revitalizing the coffee industry in the Akuapem north municipal district. The specific objectives of this study were to assess the decline in coffee production on the income of farmers; identify the causes of the decline in coffee production, and determine coffee farmers'

perceptions on the remedies to the decline of the coffee production in the Akuapem North Municipal District.

MATERIALS AND METHODS

Study Area Description

The Akuapem north municipality is situated in the southeastern region of the Eastern Region in Ghana, with Akropong serving as its district capital.

The district experiences a tropical rainfall pattern and a wet semi-equatorial climate. The highest amount of rainfall is typically observed between May to August, while the lowest occurs from September to November. The average annual rainfall in the area is estimated to range between 1250 mm to 1270 mm, with mean temperatures ranging from 20 ^{0}C to 24 ^{0}C.

The vegetation in the Akuapem North Municipal District consists of partially fragmented forests with shrubs and bushes. There are two significant forest reserves in the area, which are abundant in various species like odom, sapele, ebony, and sanfram. Additionally, numerous forest patches and sacred groves can be found scattered throughout the district.

The topography of the Akuapem North Municipal District is predominantly defined by a primary hill range known as the Akuapem range. This range exhibits varying heights, ranging from 381 m to 488 m above sea level, with its highest peak reaching approximately 500 m. The peak is located in Amanokrom, which is in close proximity to a natural water reservoir.

Sampling, Data Collection, and Analysis

The purposive sampling method was used to select two communities namely; Apirede and Tinkong based on the intensive coffee production decline in the municipality. Snowball sampling method was used to select

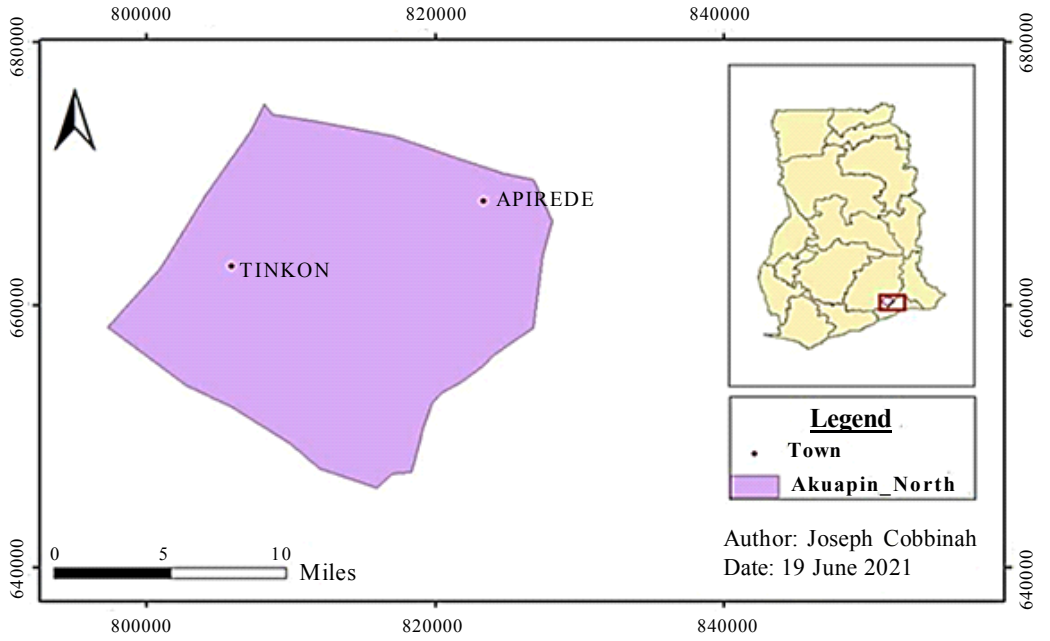

Figure 1. Map of the Akuapem North Municipal District showing the two communities

50 respondents from the two communities in the Akuapem North District.

Data were collected through the administration of structured questionnaires with open-ended and closed ended questions. Data were collected on the demographics of the respondents, causes and remedies of coffee production decline in the study area. Data collected was analyzed by the use of Statistical Package for Social Science (SPSS version 23.0), and the results were presented in a table, graphs and charts.

RESULTS AND DISCUSSION

Demographic Characteristics

Out of the 50 respondents, 92% were males, while 8% were females. The maximum age class recorded was within the range of 45–54 years, representing 34%, while the minimum age class range was recorded within 25–34 and 65 years, representing 8.0%. Most of the respondents, representing 49%, had non-formal education, followed by 20% having vocational education, 16% going to junior high school (JHS), and only 2% having tertiary education. Most of them (80%) were married, while 20% were divorced. The majority of the respondents, representing 56%, had their household size between 4-6, 22% had their household size between 1-3, 14% had their household size between 7-9, and a minority of 8% had their household size between 10-12 (Table 1).

Farm Size and Labor Sources

Based on the data collected, the majority of 24 respondents (48%) had a farm size between 5 and 10 acres, 19 respondents (38%) had a farm size from 1 to 5 acres, 5 respondents

Table 1. Gender, age, marital status, educational level, and household size of the respondents in the Akuapem North Municipality

Variable	Number of respondents	Percentage (%)
Gender		
Male	46	92
Female	4	8
Total	50	100
Age (years)		
25-34	4	8
35-44	12	24
45-54	17	34
55-64	13	26
65 and above	4	8
Total	50	100
Marital status		
Married	40	80
Divorced	10	20
Total	50	100
Household size		
1-3	1	22
4-6	28	56
7-9	7	14
10-12	4	8
Total	50	100
Educational level		
Non-formal	27	54
Primary	7	8
Junior High School	8	16
Vocational	10	20
Tertiary level	1	2
Total	50	100

(10%) had a farm size of 20 acres or more, and a minimum of 2 respondents (4%) had a farm size between 10 and 15 acres. The data showed that the majority of 44 respondents (88%) had their source of labor hired, whilst a minimum of 6 respondents (12%) also had their family as a source of labor. Additionally, 38 of the respondents (76%) were indigenes, while 12 respondents (24%) were migrants (Table 2).

Gender Distribution

Table 1 depicts that the majority of 92% of the respondents were males, with 8% being females. In many societies, agriculture, including coffee farming, has traditionally been viewed as a male-dominated activity. The higher representation of males in coffee farming compared to females can be influenced by several social, cultural, and economic factors. Cultural norms and expectations often assign specific roles and responsibilities to men and women, which may contribute to the gender disparity in coffee farming (Quisumbing & Pandolfelli, 2010). Gender inequalities in access to resources such as land, capital, technology, and training can limit the participation of women in coffee farming (Gurmessa *et al*., 2022). Limited access to these resources may hinder women's ability to engage in coffee cultivation and can perpetuate the gender gap in the sector (Kaaria *et al*., 2016). Coffee farming can involve physically demanding work that requires extensive labor. Societal norms and division of labor may lead to the perception that such tasks are more suitable for men, while women may be assigned other household or caregiving responsibilities (Nguyen *et al*., 2021).

Age Distribution

The predominance of coffee farmers within the 45-54 age range can be influenced by several factors related to experience, generational transition, and economic considerations. Coffee farming often requires substantial knowledge, skills, and experience to achieve optimal yields and quality. Farmers in the 45-54 age range may have accumulated years of experience and acquired the necessary expertise through long-term engagement in coffee farming (Batungwanayo *et al*., 2023). Their expertise and familiarity with the crop make them well-suited for coffee production. Coffee farming practices are often passed down from one generation to the next. The 45-54 age group represents a transitional phase where farmers in this age range may have inherited coffee farms from previous generations and are actively engaged in continuing the family tradition (Hasdiansyah & Suryono, 2021). The older generation may gradually hand over the responsibility to the next generation,

Table 2. Farm size, sources of labor and ethnicity of the respondents in the Akuapem North Municipality

Variable	Number of respondents	Percentage
Farm size		
1-5 acres	19	38
5-10 acres	24	48
10-15 acres	2	4
20 acres and above	5	10
Total	50	100
Source of labor		
Family	6	12
Hired	44	88
Total	50	100
Ethnicity		
Indigenes	38	76
Migrants	12	24
Total	50	100

thereby maintaining the continuity of coffee farming within the family. Economic considerations can also play a role in the concentration of coffee farmers within the 45-54 age group. Establishing and maintaining a coffee farm requires significant investments of time, resources, and capital. Individuals within this age range may have reached a stage in their lives where they have acquired the necessary financial stability and resources to invest in coffee farming. They may have had time to accumulate savings and acquire land, making it feasible for them to engage in coffee production (Solis *et al*., 2020).

Educational Level

Majority of the farmers were non-literates with 54% of the farmers having non-formal education. About 20% had vocational education, 16% possessed junior high school education (JHS), 8% had primary level of education 2% had tertiary education. Coffee farming has a long history, with its origins dating back centuries. In the earlier stages of coffee cultivation, which took place in regions like Ethiopia and Yemen, literacy rates were generally low due to limited access to education and the prevalence of agrarian-based economies (Prakash & Shetty, 2014). Many coffee-growing regions are situated in rural and remote areas, where educational infrastructure may have been inadequate or non-existent historically. Access to schools and educational resources, including books and teachers, could have been limited, making it challenging for farmers to gain literacy skills (Toro-Mujica & Castro, 2018). Coffee farming has often been associated with poverty and low-income communities. In such circumstances, households may prioritize immediate economic needs over investing in education. This situation can perpetuate illiteracy across generations, making it more likely for coffee farmers to have limited literacy skills (Vanderhaegen *et al.*, 2018). Additionally, this may reflect the degree to which educated people who relocate to towns and cities in quest of "white- and blue-collar occupations" ignore or reject the occupation. This could have a detrimental impact on production since new technologies and discoveries that boost farm yield may not be readily accepted by farmers who are illiterate (Agbongiarhuoy & Fawole, 2020).

Farmers Income

Table 3 shows the farm size of the respondents and the number of coffee bags. The majority of the 24 respondents who had farm sizes between 5 and 10 acres were previously getting an average of 23 coffee bags, but due to the decline in coffee production, they are currently getting an average of 21 bags of coffee. The result showed that 19 of the respondents had their farm size between 1 and 5 acres and were previously getting an average of 9 bags of coffee. Even though there is a decline in coffee production, farmers with their farm size between 1 and 5 acres stand in sharp contrast to that in terms of the average number of coffee bags. The current decline in coffee production has resulted in them getting an average of nine bags of coffee per year. Five of the respondents who had a farm size of 20 acres previously got an average of 36 bags of coffee but are now getting an average of 30 bags of coffee due to the decline in productivity. A minimum of two respondents with a farm size between 10 and 15 acres initially got an average of 58 coffee bags, but the decline in coffee productivity has led to the respondents currently getting an average of 48 coffee bags per year.

Average income received by coffee farmers in the past 5 years, when they got 126 bags of coffee is equal to USD 201. Meanwhile, average current income received

Table 3. Farm size, number of respondents, previous and current number of coffee bags in the Akuapem North Municipality

Farm size (acres)	Number of respondents (%)	Average number of coffee bags year for the past 5 years	Current number of coffee bags (kg) year^{-1}
1-5	19	9	9
5-10	24	22	20
10-15	2	58	48
≥20	5	6	30
Total	50	126	114

by coffee farmers when they got 114 bags of coffee is equal to USD 114. The calculations above show the average returns the farmers have had for the past 5 years, currently using past and recent pricing of the commodity. Although past and recent pricing showed that income has increased because of the price differences, farmers still complained that they were affected financially. This could be attributed to the difference in interest rates over the past 5 years. Even though the income has risen, they cannot purchase goods, undergo their livelihood activities, secure properties, etc. like they normally do because it is much more expensive now as compared to previously.

Economic Returns

Based on the collected data, the majority of respondents (94%) indicated that the decline in coffee production has affected their returns, whereas a minority of 6% said the decline in coffee production has no impact on their returns as a form of livelihood. This small group of respondents (6%) might be individuals who have diversified their income sources or are engaged in other economic activities apart from coffee production. Alternatively, they could be individuals who have been less dependent on coffee production for their livelihood and thus were less affected by the decline in coffee yields.

According to Arora (2023) and Rhiney *et al.* (2021), coffee serves as a crucial source of income for millions of households in impoverished nations. Small-scale farmers contribute to more than 75% of global coffee production, with approximately 33 million people in 25 African countries relying on it as their primary source of livelihood. The report estimates that the overall number of individuals worldwide who depend on coffee, either directly or indirectly, is approximately 500 million (Johnson *et al*., 2020).

The number of coffee bags obtained by farmers in the last five years was higher than the current number of bags. This means that in the past five years (2018), the farmers received a greater quantity of coffee bags than they are currently receiving (2023). In other words, coffee production during the last five years was higher than recent times. This is an indication that coffee production has declined in the municipality. Given that the number of coffee bags obtained by the farmers has decreased in the current period compared to the previous five years, it strongly suggests a decline in coffee production in the municipality which can have a negative impact on the respondent's income. The findings from this study agree with Ngango & Kim (2019) who reported that coffee production in most African and Latin American countries, and Asia is very low compared to countries like Colombia, Venezuela, and Indonesia. Coffee farming is a significant source of income for many farmers, especially in regions heavily dependent on coffee production. A decline in coffee production could lead to

a decrease in farmers' overall income (Pham *et al*., 2019). Lower yields may result from various factors such as adverse weather conditions, pests, diseases, or shifts in agricultural practices (Liliane & Charles, 2020). A decrease in coffee production can influence the supply and demand dynamics, leading to fluctuations in coffee prices. In some cases, when the global coffee supply decreases, prices may increase, benefiting the farmers who can sell their smaller yields at higher prices. However, this is not always the case, and fluctuations can be unpredictable and volatile, impacting the farmers' ability to plan and budget effectively. Results from the survey have demonstrated that 94% of the respondents had their income levels affected negatively as a result of the decline in coffee production. A decline in coffee production often indicates a decrease in crop yields (Pham *et al.*, 2019). This could result from various factors such as aging coffee trees, inadequate maintenance, diseases, pests, or unfavorable weather conditions (Garedew *et al*., 2022; Teshome *et al*., 2021). Lower crop yields directly translate to reduced quantities of coffee beans harvested, leading to a decrease in farmers' overall income. If there is a decline in consumer demand for coffee or a shift in consumer preferences, it can impact the market value of coffee produced in the Akuapem North Municipality (Tadesse *et al.*, 2020). This can lead to lower prices offered to farmers for their coffee beans, subsequently reducing their income levels (Wambua *et al*., 2019). The global coffee market is highly competitive, with various regions and countries producing coffee. If other coffee-producing regions experience increased production or gain a competitive advantage in terms of quality or pricing, it can lead to a decrease in market share for Akuapem North coffee farmers (Byrareddy *et al*., 2021). This can result in reduced income as farmers struggle to find buyers or negotiate lower prices (Koh *et al*., 2020). Dependency on a single crop, such as coffee, makes farmers vulnerable to fluctuations in its production and market conditions (Guido *et al.*, 2020). If coffee is the primary or sole source of income for farmers in the Akuapem North Municipality, a decline in production can have a severe negative impact on their overall income levels. Lack of diversification in agricultural practices increases their vulnerability to income fluctuations (Adnan *et al*., 2020; Weerasekara *et al.*, 2020).

Farmers Perception on Production Decline Causes

A majority of respondents (24%) identified inadequate financial assistance from government and other financial sources as the major cause of the decline in coffee production, while a minimum of 3 respondents representing 6% stated wastage of seedlings as a cause of the decline in coffee production in the municipality (Figure 2).

Results from Figure 3 demonstrated that inadequate financial assistance from government, NGOs and other financial sources were identified by the majority of the respondents as the major cause of production decline. Coffee production requires significant investments in equipment, inputs, and infrastructure (Bray & Neilson, 2017). Without proper financial assistance, farmers may struggle to access the necessary funds to purchase high-quality seeds, fertilizers, pesticides, and modern farming equipment (Naik *et al*., 2023). This can impact productivity declining and lower-quality coffee beans (Birthwright & Mighty, 2023). Financial assistance is crucial for promoting the adoption of modern and sustainable farming techniques (Ma & Wang, 2020). Without adequate funds, farmers may not be able to implement practices such as improved irrigation systems, agroforestry,

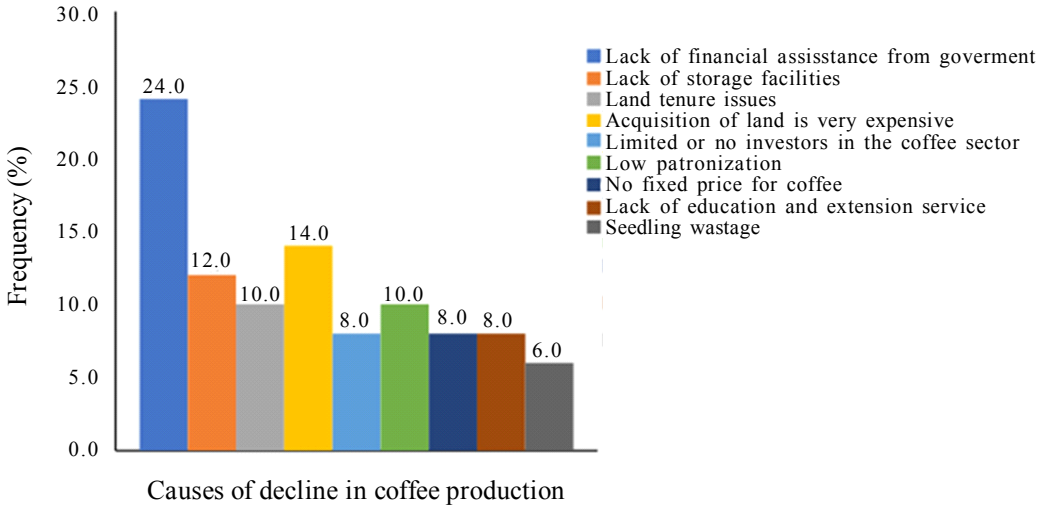

Figure 2. Causes of decline in coffee production in the Akuapem North Municipality

or efficient processing methods (Abegunde *et al.*, 2019; Mishra *et al*., 2021). This can lead to lower yields, increased susceptibility to diseases and pests, and reduced overall quality of the coffee produced (Lemma & Abewoy, 2021; Koutouleas *et al*., 2022). Infrastructure plays a vital role in coffee production, including transportation networks, storage facilities, and processing centers (Ceha *et al*., 2020). Insufficient financial support can hinder the development and maintenance of such infrastructure, making it difficult for farmers to transport their coffee beans, store them properly, and process them efficiently. This can result in post-harvest losses and a decline in overall productivity (Campera *et al.*, 2021). Financial assistance is often required to provide farmers with training programs and technical support. These resources can help farmers enhance their knowledge and skills in coffee production, pest management, climate resilience, and sustainable farming practices. Without access to such assistance, farmers may struggle to improve their practices and face challenges in adapting to changing market demands (Zollet & Maharjan, 2021). Respondents also indicated that acquisition of lands for farming activities is another issue of concern in the study area. The reason for the declining coffee production in the Akuapem North Municipality is attributed to the complex land tenure system in Ghana. The majority of the land in the country is categorized as customary lands, owned by various stool/skin lands, families, or clans. Farmers face difficulties in acquiring land for farming due to this fragmented ownership structure. ICO (2018) also acknow-ledged that the land tenure system is a significant obstacle in the agricultural sector in Ghana. According to the ICO report, only a small number of farmers in rural communities possess sufficient land to cultivate cash crops.

Ways of Improving Coffee Production

The results show that, the majority of 13 respondents representing 26% chose provision of financial assistance from the government and land acquisition by the government as ways to improve coffee production (Figure 3).

Alternate Livelihood Activities

The majority of the respondents, representing 96%, stated that, due to the decline in coffee production, they have taken on other

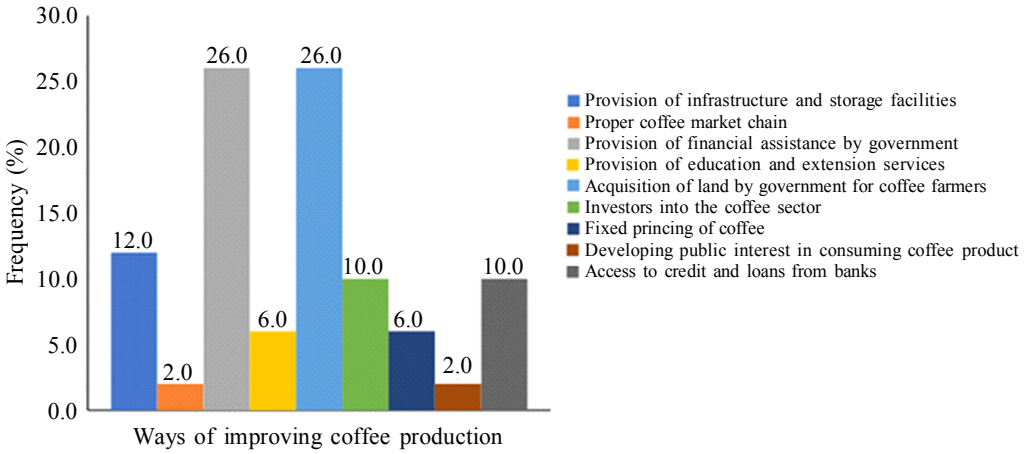

Figure 3. Ways of improving coffee production in the Akuapem North Municipality

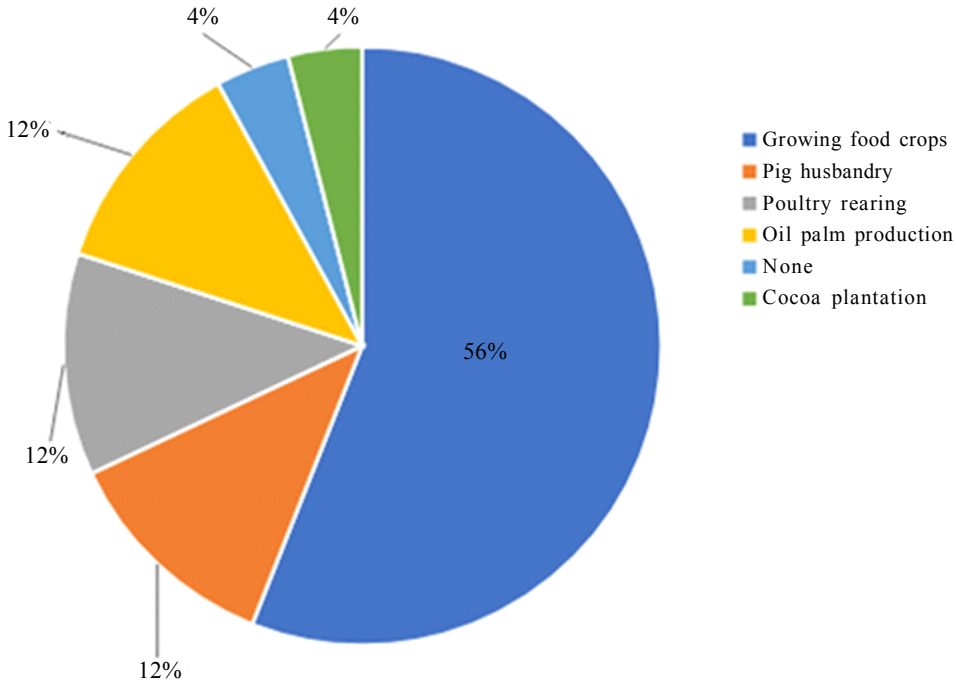

Figure 4. Alternative agricultural activities of the respondents in the Akuapem North Municipality

livelihood activities, while a minimum of 4% said they have not taken on alternate livelihood activities to cope with the decline in coffee production in the municipality. Results from Figure 4 demonstrate that the majority of 56% of respondents engage in the growing of food crops as their alternate livelihood activity, six respondents each engage in oil palm production, poultry rearing, and pig husbandry, representing 12% each, and two respondents representing 4% engage in cocoa production as their alternate livelihood source, with two respondents also representing 4% not engaging in any other form of livelihood as a coping strategy for the decline in coffee production in the municipality.

Results from Figure 2 depicts that respondents identified provision of credit facilities, financial assistance from government and acquisition of lands by government to coffee farmers are the major ways to revamp the coffee industry in the municipality. Access to credit is crucial for coffee farmers to invest in their farms, purchase necessary equipment, and cover operational costs (Akenroye *et al.*, 2021). Many small-scale farmers face financial constraints that hinder their ability to make such investments. By providing credit facilities specifically tailored for coffee farmers, they can secure funds at affordable interest rates and flexible repayment terms. This enables them to modernize their farming practices, improve productivity, and enhance the quality of their coffee (Balgah, 2019). With increased financial support, farmers can invest in better processing facilities, irrigation systems, and quality control measures, ultimately leading to higher yields and better profitability (Kittichotsatsawat *et al*., 2021). The coffee industry often faces various challenges, including price volatility, climate change impacts, and pests/diseases (Abebe, 2021; Smith *et al*., 2022; Vieira & Lequieu, 2021). Financial assistance from the government can help mitigate these challenges and support the coffee farmers (Bianco, 2022). Governments can allocate funds for research and development, allowing scientists and agricultural experts to find innovative solutions to combat diseases, improve crop resilience, and develop sustainable farming practices (Guido *et al*., 2022). Additionally, financial assistance can be used to provide training and education programs to farmers, empowering them with the knowledge and skills needed to adapt to changing market demands and environmental conditions (Ngango & Kim, 2019).

Availability of suitable land is a significant factor for the growth of the coffee industry. In some cases, coffee farmers may not have access to enough land or may struggle to expand their operations due to land scarcity or high prices (Gomes *et al*., 2020; Tadesse *et al.*, 2020). The government can intervene by acquiring underutilized or vacant lands and redistributing them to coffee farmers. This land redistribution allows farmers to expand their coffee plantations, increasing their production capacity and overall output. It also helps address issues of land inequality and promotes a more equitable distribution of resources within the coffee sector (Kagwe, 2020). The provision of adequate financial and credit sources by the government and or NGO's could help smallholder coffee growers to easily access enough credit services to buy the necessary agricultural inputs and farm tools on their own. This research agrees with Mohammed (2020) who asserted that the provision of loans and credits by government, NGOs and other financial institutions such as banks or credit institutions could address problems of finance encountered in their search to maximize economic returns of agroforestry. Additionally, acquisition of lands by the government will be a benefit to coffee farmers to expand production. This might be that the inability of coffee farmers to acquire lands is a constraining issue to coffee production in the municipality. Farmers who are not landowners will find it difficult to cultivate perennials such as coffee since they are not aware when they will vacate the land which subsequently affects the productivity of such crops. This assertion agrees with Mohammed (2020) who stated that difficulty for farmers to acquire lands could contribute to low agricultural production of crops such as cocoa, coffee etc.

Government, NGO's and other financial institutions such as banks or credit institutions in the Akuapem North Municipality must take the responsibility of granting loans or credits to farmers to address problems of finance encountered in their search to

maximize economic returns of the coffee industry. The government could help coffee farmers acquire vast arable lands, clearly define tenure rights and agreements for landowners and coffee farmers in the Akuapem North Municipality. Additionally, extension training programs could be intensified for coffee farmers in the Akuapem North Municipality to focus on technical training in the form of pest control, disease control and fertilizer application on various farms in the Akuapem North Municipality.

CONCLUSIONS

From the results, it is concluded that the number of coffee bags respondents had reduced from 126 in 2018 to 114 in 2023. Most (94%) of the respondents had their income levels affected negatively as a result of the decline in coffee production in the Akuapem North Municipality. This is attributed to the market volatility, inadequate access to infrastructure, financial resources, and market information, which limit sustainable livelihood (income) options for coffee producers. Respondents identified inadequate financial assistance from government and other financial sources, land tenure issues as the major causes of coffee production decline whilst a minimum number of respondents stated wastage of seedlings amongst others as causes of coffee production decline in the municipality. Respondents chose provision of financial assistance from government and land acquisition by the government as the major ways to improve coffee production whilst provision of extension education, provision of infrastructure, storage facilities and pricing of the market system were identified as potential ways to revamp the coffee sector in the municipality.

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Conclict of Interest

All authors declare no conflict of interest.

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