
CONTRIBUTION OF AGRICULTURAL MARKETING COOPERATIVE SOCIETIES TO COCOA FARMERS' HOUSEHOLD INCOME IN KYELA DISTRICT COUNCIL

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ABSTRACT

This study examined the contribution of AMCOS to cocoa farmers' household income in Kyela District Council, Tanzania. Data were collected from 122 cocoa farmers and eight key informants from four AMCOS in Kyela District Council. Data were collected using questionnaires, key informant interviews and documentary reviews. Quantitative data were analysed using frequencies, percentages, means and paired t-test in SPSS version 26, and qualitative data were by thematic analysis. The findings show that most of farmers reported higher household income after joining AMCOS, received better cocoa prices, reported reduced problems with middlemen, and received credit through AMCOS. Mean annual household income increased, comparing before joining AMCOS. However, payment delays and differences in cocoa production affected the benefits received by some farmers. The study concludes that AMCOS contributes to household income through collective marketing, better cocoa prices, reduced reliance on middlemen and access to credit and agricultural services.

KEYWORDS: AMCOS, cocoa farmers, household income, collective marketing, Kyela District.

1. INTRODUCTION

Agriculture remains the backbone of Tanzania's economy, employing approximately 65% of the workforce and supporting rural livelihoods (WB 2026). Smallholder farmers dominate the

sector, yet they face challenges including poor market access, limited bargaining power, shortage of agricultural inputs and price volatility. To address these challenges, the Tanzanian government has promoted the establishment of Agricultural Marketing Cooperative Societies (AMCOS) as a strategy to empower farmers through collective effort (URT, 2021). AMCOS are member-based organizations that facilitate collective marketing of agricultural products, access to extension services and input provision. Cooperatives in Tanzania play an important role in raising farmers' incomes and improving their socioeconomic conditions by reducing transaction costs and strengthening market linkages (Chambo, 2020). Through collective selling, AMCOS often helps farmers obtain higher prices and avoid exploitation by middlemen

Cocoa farming has become one of the most significant economic activities for rural households. Studies indicate that cocoa contributes substantially to household income, with many farmers relying on it to finance housing, healthcare and education (Komba et al., 2025). A cocoa farmer who sells through an AMCOS is more likely to receive a higher and more consistent price compared to one who sells individually to traders. AMCOS in Kyela has been training farmers on improved farming techniques such as proper fermentation and drying, which enhance cocoa quality and increase market value. Cooperatives play an important role in the cocoa subsector because of the crop's high commercial value and export potential. Cocoa production requires coordinated marketing strategies, quality control and access to international markets, all of which can be facilitated through cooperative organizations. Cocoa production has grown as a significant economic activity in Kyela District Council, providing income and employment opportunities for many rural households. The district has favorable climatic conditions for cocoa cultivation, making it one of Tanzania's most important cocoa-producing districts.

Kyela Cooperative Union (KYEUCU) is the major AMCOS in Kyela District Council, collaborating with several primary AMCOS in villages to assist cocoa growers with marketing, training and inputs. These cooperatives help farmers access new markets, improve product quality and increase their income. Recent development projects have focused on enhancing farmer capacity in value addition, financial literacy and sustainable agricultural practices, emphasizing the role of AMCOS in rural transformation. Despite these efforts, variations exist in AMCOS's ability to enhance farmers' socioeconomic well-being. Some cooperatives struggle with challenges including inadequate access to agricultural funding, weak market linkage, limited information, inadequate technologies and delayed payments to farmers (Rwela, 2023). These challenges raise questions about whether AMCOS is achieving

all its intended goals. This study assessed the contribution of AMCOS to cocoa Farmers' Household Income in Kyela District Council.

2. RESEARCH METHODOLOGY

The study was conducted in Kyela District Council which is one of the most cocoa producers in Tanzania. The council has been identified as having a good number of AMCOS specialized with cocoa selling activities. The current study focused on four wards: Busale, Ngana, Ikolo and Itope selected based on their long history in cocoa farming together with AMCOS activities. The study used descriptive research design. This study used a mixed research approach, which combines quantitative and qualitative approaches. The quantitative approach was used to collect numerical information on farmers' income, cocoa production, market access. Also, the qualitative approach was used to obtain detailed information about farmers' experiences, views and perceptions of AMCOS activities. The study engaged cocoa farmers producers with the age between 18 to 55 years as the study population. Eight key-informants were used in this study of which four were AMCOS leaders from selected AMCOS and other four were the Agricultural Extension Officers from wards involved in the study.

The sample size of 122 respondents was used in the study obtained by using Cochran's sample size formula at 95% confidence level and a 5% margin of error were used. Simple random sampling was used to select cocoa farmers from the AMCOS member lists in selected wards and purposive sampling was used to select four AMCOS leaders and four agricultural extension officers because of their knowledge and experience in AMCOS activities and cocoa farming. The questionnaire with closed and open-ended questions to collect quantitative data from the respondents. Semi-structured interviews were held with AMCOS leaders and agricultural extension officers. The collected quantitative data was analyzed by using descriptive statistics such as frequencies, percentages and means with the help of Statistical Product for Social Science (SPSS) version 26. Thematic analysis was used to analyze the qualitative data, which involved coding interview responses and grouping them into themes.

3. RESULTS AND DISCUSSION

3.1 Respondents demographic characteristics

The demographic characteristics of the respondents covered in this study were sex, age, and education level. The results in Table 1 shows that 90 (73.8%) of the respondents were male,

and 32 (26.2%) were female. The findings indicate that men were more involved in the study than women. Respondents also asked to state their age category of which respondents with aged 36–45 years were about 34.4%, followed by those aged 46–55 years (27.9%). Respondents aged 26–35 years accounted for 19.7%, while 13.1% were above 55 years. The smallest group was those aged 18–25 years, at 4.9%. The high dependence on cocoa farming suggests that cocoa production is an important source of household livelihood in the study area. Also, 41% of respondents had primary education, followed by 28.7% with secondary education. About 16.4% of the respondents had no formal education, while 9.8% and 4.1% had tertiary and university education, respectively. Overall, most respondents had basic levels of formal education.

Table 1: Demographic characteristics of respondents. (N=122)

Responses	Frequency (N=122)	Percentage (%)
Sex of respondents		
Male	90	73.8
Female	32	26.2
Age Group		
18–25 years	6	4.9
26–35 years	24	19.7
36–45 years	42	34.4
46–55 years	34	27.9
Above 55 years	16	13.1
Education Level		
No formal education	20	16.4
Primary education	50	41.0
Secondary education	35	28.7
Tertiary education	12	9.8
University level	5	4.1

Source: Field data, 2026

3.2 Respondents' Membership to Agricultural Marketing Cooperative Societies

The respondents were asked to state the duration of membership to AMCOS based on duration of membership, reasons for joining AMCOS and services received from AMCOS. The results are presented in Table 2. Results in Table 4.2 show that 32.8% (n=40) of the respondents had been AMCOS members for 6–10 years. Respondents with 2–5 years of membership accounted for 27.9% (n=34), while 23.8% (n=29) had been members for more than 10 years. Respondents with less than 2 years of membership accounted for 15.6% (n=19). The largest group of respondents had been AMCOS members for 6–10 years. Also, 82.0% (n=100) of the respondents reported access to markets as a reason for joining

AMCOS. Better prices were reported by 73.8% (n=90), while 62.3% (n=76) reported access to inputs. Training was reported by 45.9% (n=56), while 18.9% (n=23) reported other reasons. Access to markets was the most frequently reported reason for joining AMCOS, followed by better prices and access to inputs. Furthermore, 86.1% (n=105) of the respondents received marketing services from AMCOS. Input supply was reported by 73.8% (n=90), while 55.7% (n=68) received credit. Training was reported by 45.1% (n=55), while 18.0% (n=22) received other services. Marketing was the most commonly reported service received from AMCOS, followed by input supply, credit and training.

Table 4.2: Respondents membership to AMCOS Membership Characteristics. (N=122)

Responses	Frequency (N=122)	Percentage (%)
Duration of Membership to AMCOS (years)		
Less than 2	19	15.6
2–5	34	27.9
6–10	40	32.8
Above 10	29	23.8
Reasons for Joining AMCOS		
Access to markets	100	82.0
Better prices	90	73.8
Access to inputs	76	62.3
Training	56	45.9
Others	23	18.9
Market services received*		
Marketing	105	86.1
Input supply	90	73.8
Access to credit	68	55.7
Access to training	55	45.1

Source: Survey data, 2026

*Multiple responses were allowed for reasons for joining AMCOS and services received.

3.3 Agricultural Marketing Cooperative Societies and Household Income

3.3.2 Contribution of AMCOS to Household Income

Respondents were asked to state the contribution of AMCOS to their household income in the study area. The results show that most of the cocoa farmers experienced an improvement in household income after joining AMCOS. About 85.2% reported higher income, while 88.5% said they received better cocoa prices through AMCOS. Also, 91.0% said AMCOS helped them avoid problems associated with middlemen. In addition, 63.1% had received credit through AMCOS. Payment delays were still a problem, as only 36.9% said they always received their payments on time. Respondents were also asked to state their household

income after joining AMCOS in the study area. The study shows that the mean annual household income rose from TZS 1,245,000 before joining AMCOS to TZS 2,180,000 after joining the AMCOS with a difference of TZS 935,000 (75.1%) (Table 3). The paired t-test showed that this difference was statistically significant at $p < 0.05$. The reported cocoa price also rose from about TZS 1,500 to TZS 2,500 per kilogram. Farmers who received credit through AMCOS obtained an average of about TZS 350,000. However, the level of income differed among farmers depending on farm size, production, access to inputs and length of AMCOS membership.

Table 3: Contribution of AMCOS to Cocoa Farmers' Household Income. (N = 122)

Responses	Frequency (N=122)	Percentage (%)
Respondents' monthly income from cocoa production after joining AMCOS (TZS)		
Below 100,000	20	16.4
100,000–300,000	47	38.5
300,000–500,000	38	31.1
Above 500,000	17	13.9
Cocoa income meets household needs		
Yes	99	81.1
No	23	18.9

Source: Survey data, 2026

In the interviews with selected Agricultural Extension Officers in selected wards, it was observed that there are many benefits the cocoa farmers area getting by joining the AMCOS. They observed that AMCOS provide collective marketing that bring to the farmers better cocoa prices and less reliance on middlemen. Credit facilities also made a difference, helping farmers buy inputs and cover day-to-day household expenses. But they didn't hold back on the downsides either. Payment delays, they said, often threw their plans off track, making it difficult to manage both farm costs and family budgets at the same time. Even so, many households have clearly stated that they now can pay school fees without the usual stress, buying more food, setting aside small savings, and meeting other basic needs that used to feel out of reach. These findings were noted during interview with Agricultural Extension Officer who pointed out that:

Life was hard for farmers before joining AMCOS. Middlemen called the shots and prices were rock bottom. Now they sell as a group and get a much better deal. You can see the change. Farmers who used to struggle just to eat can now send their children to school and

even save a bit. But it's not the same for everyone. Farmers with bigger harvests gain more, obviously. Still, those who actively use AMCOS services are clearly better off, and that's drawing more farmers in (Interview with Agricultural Extension Officer of Idope ward, 7th July 2026).

These findings are consistent with the study by Rwela (2023), who found that AMCOS members had better livelihood conditions, including improved income and household assets. Although Rwela did not specifically examine healthcare access, the findings are relevant because higher household income can help farmers meet healthcare costs when illness occurs. The present study provides further evidence by showing how cocoa income was actually used for treatment, medicines and transport among cocoa-farming households in Kyela.

4.5 Contribution of AMCOS to household access to healthcare

The findings on the contribution of AMCOS to household access to healthcare services are presented in Figure 1. The indicators considered were the ability to afford healthcare expenses and improvement in healthcare access after joining AMCOS. The study findings show that 88 (72.1%) of the farmers reported that they were able to afford healthcare expenses using income obtained from cocoa, while 34 (27.9%) reported that they were unable to do so. This finding indicates that income obtained from cocoa was an important source of financial support for healthcare among most of the surveyed households. The finding also suggests that the economic benefits associated with cocoa production and marketing through AMCOS may improve households' ability to meet some healthcare expenses. These findings from the study show that income from cocoa production can support healthcare access by enabling households to meet both direct and indirect costs. Direct costs include consultation fees and medicines, while indirect costs include transport and other expenses associated with seeking treatment. This finding is consistent with Marmot (2005), who identified economic resources as an important social determinant of health. In the present study, AMCOS contributed to healthcare access mainly by improving the economic position of farmers rather than by directly providing healthcare services

During interview with AMCOS leaders in the study area it was observed that there many benefits to the cocoa producers after joining AMCOS as pointed out during interview that:

When cocoa producer sell cocoa to the AMCOS and receive money, normally their accessibility to health services becomes easier, because they can use part of the income to pay for treatment, buy medicine and pay for transport to the health facility. Before, it was difficult because they had to depend on other sources of money. Now cocoa income helps them to

deal with some of these expenses, especially when a child or another member of the family becomes sick. This allows them to seek treatment without delaying for too long. It also helps them to manage health expenses when they come unexpectedly (Interview with AMCOS leader, Interview, Itope AMCOS, 14 July, 2026).

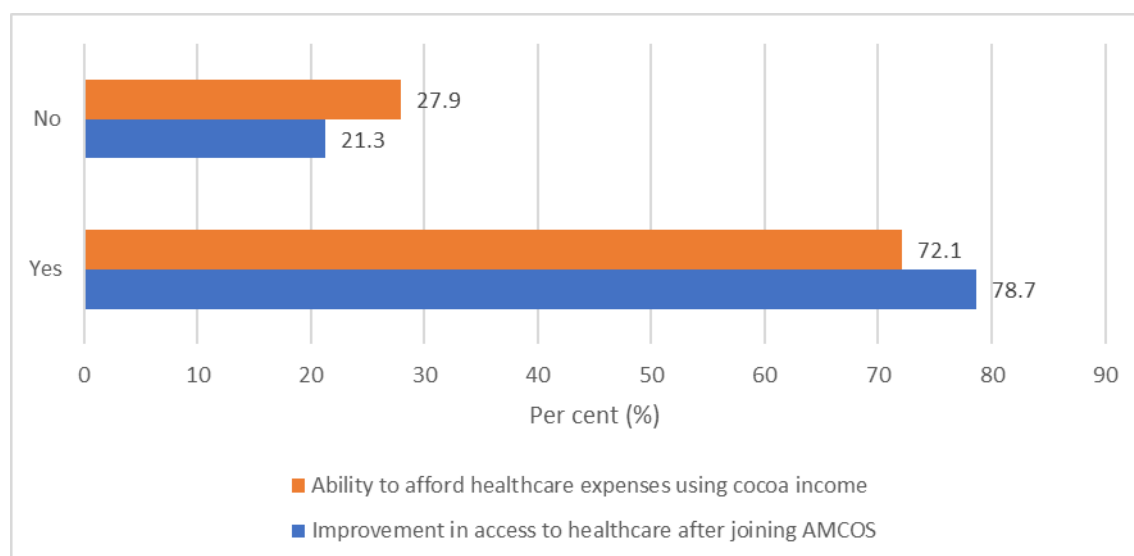


Figure 1: Contribution of AMCOS to household access to healthcare.

4.6 Contribution of Agricultural Marketing Cooperative Societies to Food Security

The contribution of AMCOS to household food security was assessed by using indicators such as improvement in household food accessibility, enough food throughout the year, use of cocoa income to purchase food, and production of food crops alongside cocoa. Respondents were asked to state status of the food accessibility after joining AMCOS. The findings in Table 4.4 show that 93(76.2%) of the cocoa farmers reported an improvement in their household food situation after joining AMCOS, while 23.8% (29) reported no improvement. The finding indicates that most farmers perceived an improvement in their ability to obtain food after becoming members of AMCOS of which the possible explanation for this improvement is the income obtained from cocoa sales. Cocoa is mainly produced as a cash crop, and farmers can use the income from its sale to purchase food when food produced at household level is not sufficient. This study finding is consistent with Mapunda (2021), who found that AMCOS membership improved household food security and reduced food insecurity among 1,400 households in Mbeya and Songwe regions.

The respondents were also asked to state the status of food availability at their household through out a year, ability to purchase food, production of other food crops after joining

AMCOS. The study found that 84 (68.9%) of farmers reported having enough food throughout the year, while 31.1% (38) reported that they did not have enough food throughout the year. This finding is related to Mchopa et al. (2020), who found differences in food security between cooperative members and non-members and reported that households involved in more than one cooperative activity generally had better food security conditions. On using income to purchase food, the study findings show that 104 (85.2%) of the farmers used cocoa income to purchase food, while 18 (14.8%) did not use income from the cocoa to purchase food items for their households. The finding indicates that cocoa income is an important source of purchasing power for food. Since cocoa is mainly produced for sale, its contribution to household food security is largely through the income obtained from marketing the crop. The finding is consistent with Manda (2026), who found that farmer-group membership increased household income and improved household dietary diversity among 579 farming households in Tanzania. The study explained that higher income improved households' ability to purchase different types of food. The present study shows a similar relationship, as most farmers reported using cocoa income to purchase food. Also, the study finding in Kilombero district by Molela (2025), confirmed that cocoa revenue is one of the main sources incomes that farmers can use to meet household food needs.

Table 4: Contribution of AMCOS to Household Food Security. (n=122)

Statements	Category	Frequency (n)	Percent (%)
Improvement in household food situation after joining AMCOS	Yes	93	76.2
	No	29	23.8
Status of food availability throughout the year	Yes	84	68.9
	No	38	31.1
Use of cocoa income to purchase food	Yes	104	85.2
	No	18	14.8
Production of food crops alongside cocoa	Yes	106	86.9
	No	16	13.1

Source: Field data, 2026

Also, the respondents were asked to state if they produce other crops alongside production of cocoa in the study area. The study findings show that 106 (86.9%) of farmers produced food crops alongside cocoa, while 16 (13.1%) did not. The high proportion indicates that most farmers did not depend entirely on cocoa and continued to produce food crops for household consumption. Food crop production provides direct access to food and reduces the amount of food that households need to purchase. Where production exceeds household requirements,

surplus food can also be sold to generate additional income. This finding is consistent with Mchopa et al. (2020) and Manda (2026), who found that participation in more than one cooperative activity was associated with better household food security conditions. Although the study did not specifically examine cocoa and food crop production, its findings support the importance of households having more than one activity that contributes to food security. The above findings were confirmed in the interview with cocoa farmer producers who reported that:

We cannot depend on cocoa alone. We grow food crops because the family needs food even before the cocoa money comes. Maize, beans and other crops help us to feed the family. If we produce more than we need, we can sell the surplus and use the money for other household expenses. This is important because cocoa does not provide food directly, so we need food crops to support the family throughout the year. Growing food crops also helps us to reduce household food costs. It gives us some security when cocoa income is delayed or low. (Interview with Cocoa Farmer of Mwalisi AMCOS, 23 July 2026).

3. CONCLUSIONS AND RECOMMENDATIONS

The study concludes that AMCOS makes a positive contribution to cocoa farmers' household income in Kyela District Council. The contribution is mainly reflected in improved cocoa prices, collective marketing, reduced dependence on middlemen and access to credit and agricultural services. Most farmers reported increased household income after joining AMCOS, although payment delays and differences in production limited the benefits for some farmers. The study recommends that AMCOS strengthen collective marketing arrangements to maintain favourable cocoa prices and improve farmers' bargaining power. AMCOS should also work with buyers and financial institutions to improve timely payments and expand access to affordable credit. Agricultural extension services should strengthen training on cocoa production and quality improvement to increase farmers' productivity and returns. Farmers should also be encouraged to diversify their income sources to reduce dependence on seasonal cocoa income.

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