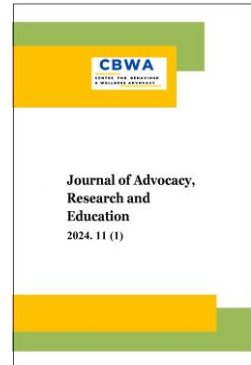




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Perceived Effectiveness of Ghana's School Feeding Programme in Improving the Livelihood of Beneficiaries in Assin South District

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Abstract

Ghana's SFP has played an essential role in combating malnutrition among school-age children and advancing the Universal Primary Education goal. This study investigates the overall impact of the school feeding Programme, with a focus on its effectiveness in improving the livelihoods of beneficiary communities in the Assin South District. The study followed a mixed methods approach, with 95 headteachers and 26 local food farmers as respondents. The study focuses on the perceived effectiveness of the Ghana School Feeding Programme in increasing employment opportunities within the district, as perceived by headteachers. The findings show that the Additional Employment Scheme component positively impacts the livelihoods of local food farmers, resulting in larger farm sizes and the adoption of improved farming practices. However, the challenges identified do not ensure a consistent market for local food farmers' produce, including cooks and caterers in beneficiary schools not frequently purchasing their produce. It has been revealed that caterers facing pre-financing challenges rely on suppliers willing to pay once government funds are released. Recommendations for improving the Programme's impact include expanding the programme to benefit more communities, thereby creating job opportunities. Furthermore, a registration system for local food producers as sole suppliers is proposed to ensure a market for their products. Other suggestions include allocating a percentage of the district's internally generated funds to caterers and collaborating with financial institutions to provide flexible loans to registered farmers.

Keywords: Assin South District, Beneficiaries, Ghana, Ghana's School Feeding Programme, Livelihood.

1. Introduction

Education is generally perceived as a basic human right. This has undoubtedly been confirmed by Article 26 of the Universal Declaration of Human Rights 1948, which declares that everyone has the right to education and that everyone is entitled to it irrespective of gender, religion, ethnicity, or status ([The United Nations Educational, Scientific and Cultural Organization \[UNESCO\], 2019](#)). Although education remains a right with its accessibility still posing a challenge in most developing countries, it is evident in the UNESCO Institute for Statistics (UIS) data in 2019

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that 19 % of children between the ages of six and eleven are not in school in low-income countries, compared to just 2 % in high-income countries. About 61% of all youths between the ages of 15 and 17 are out of school in low-income countries, as against 8% in high-income countries (UNESCO, 2019). Of this, 53 % are girls, and almost 43% are in sub-Saharan Africa (UNESCO, 2019). It has been further confirmed that the estimated number of out-of-school children has risen in sub-Saharan Africa from 29 million in 2008 to 31 million in 2010 due to poverty and hunger (World Food Program [WFP], 2013).

School-going children need to be fed properly to help them grow and concentrate on learning at school. Malnutrition and ill health remain impediments to overall educational outcomes such as academic performance, higher enrolment, and school retention. Although providing adequate food is a basic global right for children, most children of school-going age cannot meet their food requirements with parents and guardians (UNICEF, 2019). A balanced nutritious meal is needed for endurance, physical growth, cognitive development, and productivity of children at such a critical growth stage in their cognitive and psychomotor development (Asmare et al., 2018). In sub-Saharan Africa, many children's endurance, cognitive development, physical growth, and productivity have not been fully met. The reason is that malnutrition remains a pressing need that affects the ability of children to learn and causes them to perform below acceptable levels in school (Endalew et al., 2015).

Assessing the impact of malnutrition on academic achievement, Maghaireh (2019) indicated that the majority (67.1%) of the primary school children used in their study were academically disadvantaged due to inadequate nutrition. Poverty is the principal cause of malnutrition among children of school-going age in sub-Saharan African countries, including Ghana (Akombi et al., 2017). The School Feeding Programme (SFP) was, therefore, designed to help curb the problem of malnutrition that hinders children's academic progress (WFP, 2013). The programme was specifically designed to provide a feeding regime for school children in public primary and kindergarten schools, where one nutritious meal is provided per day in a school with locally produced foodstuffs and absorbs a higher percentage of feeding costs in the implementing communities (WFP, 2013). The SFP provides an opportunity to pursue Ghana's commitment to attaining the Sustainable Development Goals on poverty and hunger reduction.

The most obvious achievements of the SFP have been the increase in school enrollment and retention and the bridging of the gender gap in basic education (Mahama, 2018). A study conducted in the Tamale Metropolis showed that one hot, nutritious meal per day increased enrolment, attendance, and retention (Awojobi, 2019). Similarly, the provision of meals in basic schools in the Atwima Mponua and Atwima Nwabiagya Districts in the Ashanti Region positively impacted enrolment (Serebour, 2017). Also, the introduction of school feeding intervention in the Wa Municipality significantly increased girls' access to education (Mahama, 2018). The SFP also significantly impacted basic school enrolment in the Telensi District in the Northern Region (Awojobi, 2019). The study revealed that school enrolment in the district increased by 213 pupils after the commencement of the Programme (Awojobi, 2019).

To buttress the indicators mentioned above of the roles that the SFP play in ensuring higher enrolment, retention, and attendance, an assessment of the effectiveness of SFP in Burkina Faso revealed that school canteens had a relationship with increased school enrolment and regular attendance (Kamaludeen, 2014). Recounting the impact of the SFP on enrolment and retention in his study, Mahama (2018) pointed out that the programme feeds 1.6 million pupils nationwide. Literature that accounts for the contributions of the intervention of SFP to education has been numerous, but investigations about the perceptions of its effectiveness in improving the socio-economic livelihoods of the beneficiary communities in the Assin South District have been woefully limited. The study, therefore, sought to delve into detailed inquiries about stakeholder perceptions of the effectiveness of the intervention in improving the economic livelihoods of the beneficiary communities within the district. The purpose of this study is to examine the perceived effectiveness of SFP in improving the livelihoods of the beneficiary communities in the Assin South District. The research questions to be answered by the study are:

1. How does the Agricultural Extension Service component of the SFP influence the livelihoods of the local foodstuff farmers?
2. To what extent has the SFP effectively ensured the safety and prompt market avenues for local foodstuffs in the beneficiary communities?

This study intends to help examine the perceptions of beneficiary communities on the extent to which the SFP has been effective or otherwise in improving their socio-economic livelihoods. Also, the study intends to add to the body of knowledge on the SFP because previous studies had only concentrated on the impact of the intervention on enrolment, retention, and academic performance. Also, the results or outcome of this study could provide feedback to development agencies and stakeholders who are very concerned about the outcome of this social intervention and whether or not the SFP has met some of the economic needs of its beneficiary communities.

2. Research Method

Research paradigm and design

In this study, the pragmatist philosophical paradigm was used. This paradigm was deemed suitable for the study because the focus was to use an explanatory sequential mixed method in which the quantitative results were better explained with a detailed follow-up qualitative result (Creswell, 2014). The overall goal of this research study was to thoroughly investigate the extent to which the SFP has effectively improved the economic livelihoods of members of the beneficiary communities. Thus, the study sought to thoroughly examine the beneficiary communities' perceptions, views, and experiences regarding whether the intervention effectively brought about some changes in their socio-economic lives.

Study area

The Assin South District is part of the Central Region's 22 Municipal and District Assemblies out of 260 in Ghana (Ghana Statistical Service, 2013). The district has a male literacy rate of 85.3 % more than females (70.0 %). Six out of ten people (60.4 %) can speak and write both English and Ghanaian. Of the district's population aged three years and above (94,682), 19.4 % have never attended school, 44.3% are currently attending, and 36.3 % have previously attended (Ghana Statistical Service, 2013). Agriculture is a significant economic activity in the district, accounting for approximately 68.0%. Cassava, plantain, maize, and legumes are the most widely grown crops in the district. Cash crops such as cocoa, citrus, and oil palm provide a source of income for them.

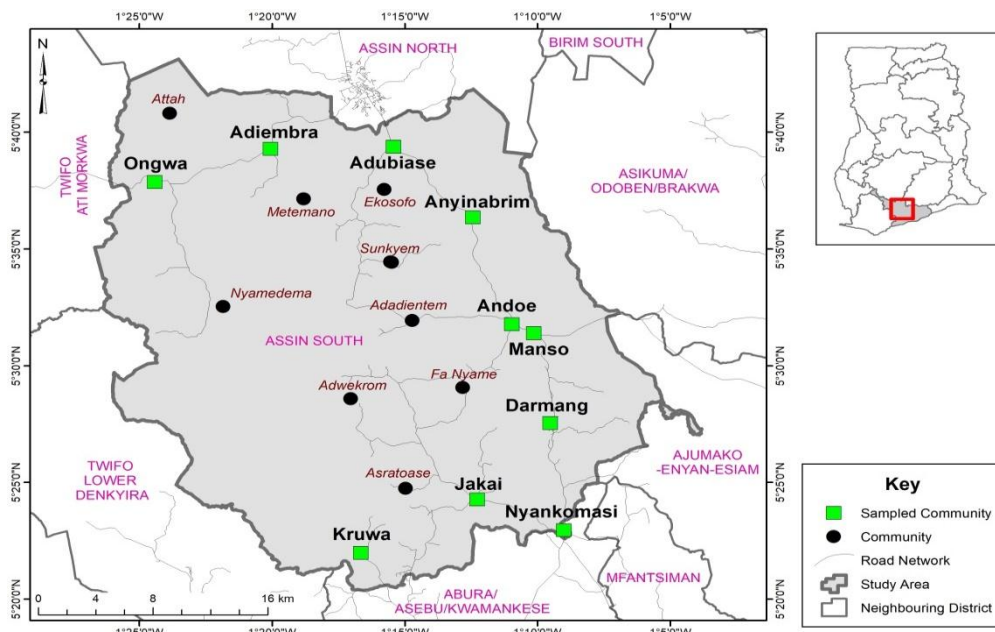


Fig. 1. Map of Assin South District showing the study area in green dots

Source: Department of Geography and Regional Planning, UCC.

Sample size and sampling procedure

The study population was made up of 95 headteachers from the total number of schools in the district (one head teacher from each school). However, at the time of the research, only 55 of the 95 schools in the district were under the SFP. Therefore, the study used the census to accommodate all 55 head teachers. For local foodstuff farmers, the study used all 26 local

foodstuffs farmers who supply foodstuffs to the 95 basic schools under the SFP in the 10 Educational Circuits in the district. See [Table 1](#) for details.

Table 2. Sample size of the study

Names of	Number	of Number	of Number of Local
Adiembra	9	9	3
Andoe	8	8	2
Manso	10	10	3
Darmang	10	10	4
Ongwa	7	7	2
Jakai	11	11	3
Kruwa	10	10	2
Nyankumasi	12	12	3
Adubiase	8	8	2
Anyinabrim	10	10	2
Total	95	95	26

Source: Field Survey (2021)

Purposive sampling was used for the qualitative data collection, with Andoe, Anyinabrim, and Nyankumasi circuits chosen from the district's ten educational circuits. This is because these circuits were known to have partaken in the feeding intervention for a longer period, and participants were expected to have more experiences to share about the programme ([Sarfo et al., 2022](#)).

Table 2. Selected participants for the interview sessions

Circuit	Head Teachers Population	No. Selected	Foodstuffs Farmer Population	No. Selected
Andoe	8	5	2	2
Anyinabrim	10	5	2	2
Nyankumasi	12	7	3	3
Total	30	17	7	7

Source: Field Data (2021)

Three (3) focus group discussions (FGDs) were conducted at different venues specifically for local foodstuffs farmers. The FGDs were adopted for this study due to their suitability for yielding extensive information from the farmers ([Sarfo et al., 2021](#)). The venues were selected based on their proximity to other circuits.

Table 3. Number of participants (foodstuffs farmers), duration, FGDs held and their centres

FGD	Duratio	Circuit	No. of		Pool
			Mal	Fem	
1 st FGD	8:30-	Andoe	6	3	2
2 nd	10:30-	Anyinabrim	5	3	2
3 rd FGD	12:30-	Nyankumasi	6	3	3
Total			17	9	26

Source: Field Data (2021)

Data Processing and Analysis

Questionnaires, informal interviews, and focus group discussions were used to solicit respondents' views and perceptions. Data processing and analysis were done in two different stages. The data (quantitative data) were coded and inputted into SPSS Version 25 to generate the required and appropriate statistical tools (frequencies, percentages, means, standard deviations, and thematic analysis) for the analysis. Table 4 below presents some basic characteristics of respondents used in the study.

Table 4. Basic characteristics of respondents

Characteristics	Headteachers		Foodstuffs farmers	
	Freq.	%	Freq.	%
Age of Respondents				
40 or below	20	36.3	5	19.2
Above 40	35	63.7	21	80.8
Marital Status				
Single	38	69.1	3	11.5
Married	17	30.9	23	88.5
Educational Level				
No formal	0	0.0	9	34.6
Formal education	55	100.0	17	65.4
Alternative Sources of Income				
Yes	42	76.4	25	96.2
No	13	23.6	1	3.8
Number of Dependents				
4 or less	18	32.7	3	11.5
Above 4	37	67.3	23	88.5
Source of Credit				
Banks	6	10.9	1	3.8
Personal Savings	42	76.4	25	96.2
Others	7	12.7	0	0.0

Source: Field Survey (2022)

3. Results and Discussion

Perceived effectiveness of the sfp in improving the employment situations (rates) in the beneficiary communities

Table 5 presents the mean analysis of headteachers' perceptions in the beneficiary community basic schools on how the school feeding intervention has effectively improved employment situations (rates). The efficacy of the SFP intervention in ameliorating employment circumstances within the communities where it is implemented is widely acknowledged. According to the composite mean score of 3.67, headteachers have a favourable perception of the programme's influence on employment. Headteachers perceive that the programme is exceptionally successful in generating employment prospects for diverse stakeholders engaged in implementing the SFP. The programme is particularly regarded for its efficacy in securing employment for caterers, providers of firewood, and farmers.

Although the majority of employment-related aspects associated with the SFP are regarded as highly effective, the employment of egg suppliers is considered moderate. This implies that there might be potential for enhancement in this particular facet of job creation within the initiative.

Table 5. Perceived effectiveness of the SFP in improving the employment (rates) in the beneficiary communities

Perceived Effectiveness	Mean	SD
Employment for some people as cooks for my school.	3.98	0.13
Employment for some people as caterers for my school.	3.89	0.31
Employment for some people as firewood suppliers for my school.	3.67	0.47
Employment for some people as palm oil suppliers for my school.	3.64	0.49
Employment for some people as suppliers of rice to caterers in my school.	3.56	0.50
Employment for some people as suppliers of eggs for my school.	3.45	0.50
Employment for some people as suppliers of meat and fish for my school.	3.51	0.50
Composite	3.67	0.41

Notes: n = 55, Source: Field Survey (2021), Scale: 0 = Cannot Tell, 1 = Very Lowly Effective, 2 = Lowly Effective, 3 = Moderately Effective, 4 = Effective, 5 = Very Effective

The results underscore the significance of the supply chain in executing the school nutrition programme and its capacity to generate employment prospects. The programme's beyond-direct employment within the school's economic impact is exemplified through the utilisation of various suppliers to provide ingredients for school meals.

A respondent of a beneficiary basic school shared how the SFP has helped in employing:

"...I can testify that the employment condition in this community has improved with the SFP. As I speak, my school alone can boast of 1 permanent caterer, two cooks, and two rice suppliers who have gained employment and are currently working in the name of the programme" [Headteacher Respondent 1].

In a similar informal interview, a respondent of a beneficiary basic school in Andoe Circuit also shared how the SFP functions to provide employment:

"... I have been a headteacher in this school since 2014. The SFP ceased to operate in this school just in the era of the COVID-19 pandemic. When the programme was operational, my school had two permanent caterers, three cooks, one rice supplier, and one firewood supplier" [Headteacher Respondent 2].

The SFP's objective of creating employment opportunities was also confirmed by the field data gathered on the number of people who have gained employment in the beneficiary circuit communities through the programme. These employment data are presented in [Table 6](#).

Table 6. Number of cooks, caterers, and firewood suppliers in the selected beneficiary schools in the ten educational circuits in the district

Name of Circuit	No. of Cooks	No. of Caterers	No. of Firewood Suppliers	Pooled
Adiembra	10	5	5	20
Andoe	12	4	4	20
Manso	13	6	6	25
Darmang	13	6	6	25
Ongwa	8	4	4	16
Jakai	15	6	6	27
Kruwa	12	6	6	24
Nyankumasi	15	7	7	29
Adubiase	10	5	5	20

Name of Circuit	No. of Cooks	No. of Caterers	No. of Firewood Suppliers	Pooled
Anyinabrim	12	6	6	24
Total	120	55	55	230

Source: Field Survey (2021)

These results support the Gelli et al. (2019) report that the SFP has been an effective social intervention that provides income, employment, and economic integration benefits to the implementing communities. The report further stated that the programme had employed about 20,000 people as caterers and cooks in these communities nationwide.

Influence of the agricultural extension service (aes) component of sfp on local foodstuff farmers

Size of farmers' farm

Table 7 presents the analysis of how the AES component of SFP has influenced the living conditions of the foodstuff farmers in the area of their farm sizes. Results in Table 7 show that the majority (61.5 %) of the farmers had their farm size increased by 1 acre while 38.5 % had an increase of 2 acres of their existing farm sizes. Interactions with the farmers revealed that “the increase in the size of their existing farms resulted from the extension officers’ recommendations on using weedicides to help manage large farms for the SFP”.

Table 7. Size of farmers' farm

Farm Size (in acres)	Frequency	Percentage
1	16	61.5
2	10	38.5
Total	26	100.0

Notes: n = 26, Source: Field Survey (2021)

In one of the informal interviews, a respondent in Anyinabrim Circuit shared how the AES officials have influenced the size of his existing farm:

“...The idea of going into commercial production was not part of my plans. Economic conditions in villages are such that they are unfriendly to farmers who manage small farms. Thankfully, I could increase my existing farm size from half an acre to one and a half acre upon the AES recommendation on the use of weedicides to produce in large quantities” [Farmer Respondent 1].

In an informal interview on the same topic, a respondent shared these as his inputs:

“... In the previous years, when the SFP was not operational in this community, I was only managing half an acre tomato plot for the livelihood of a family of 7 children. Economic conditions were extremely unbearable for me until the SFP and its AES component were introduced to give me sensitization on the use of weedicides for commercial production” [Farmer Respondent 2].

These results support the assertion by Jara-Rojas et al. (2020) that agricultural extension is meant to achieve a social balance and economic development in rural areas to maintain production capacities through increased farm sizes.

Farmers' methods of planting

The results in Table 8 indicate that row planting was the preferred method (100.0 %) practised by the study's respondents, with nothing recorded for both staggered (0.0 %) and broadcasting (0.0 %) methods.

Table 8. Farmers' methods of planting

Planting Method	Frequency	Percentage
Row Planting	26	100
Staggered Planting	0	0
Broadcasting	0	0
Total	26	100

Notes: n = 26, Source: Field Survey (2021)

In an informal interview, a respondent in Adiembra shared how the AES officials have influenced his choice of planting method:

"...Production used to be very low in the period before the SFP and its AES component were introduced because I was practising the staggered method of planting. Thankfully, the programme has been in this village for almost five years, and production has improved since I started practising the row planting method recommended by the AES officials" [Farmer Respondent 3].

These findings conform to that of a survey conducted by Donkor et al. (2016) on the impact of row-planting technology on rice farming in Northern Ghana. The survey revealed that more than two-thirds of the farmers adopted row planting. The findings also revealed that the farmers' massive adoption of the row planting method resulted from the ease in some farming operations being carried out and the realisation of a larger plant population compared to staggered and broadcasting methods.

Farmers' sources of planting materials

Table 9 showed that the majority (80.8 %) of the farmers adopted planting materials recommended to them by the AES officials. Four out of the farmers, representing 15.4 %, resorted to using their planting materials (materials from the previous harvest) and 1 of them, representing 3.8%, used materials from the local market.

Table 9. Farmers' sources of planting materials

Sources of Planting Materials	Frequency	Percentage
AES recommended materials	21	80.8
Farmers' materials	4	15.4
Materials from local markets	1	3.8
Total	26	100

Notes: n = 26, Source: Field Survey (2021)

Interactions with the respondents to know the reasons for their choice of the recommended planting materials revealed that *"AES planting materials are known for their early maturing and high yield"*. In an interview granted to a respondent in Andoe Circuit, he shared how the AES officials in the area have influenced his choice of planting materials:

"...I used to prepare my planting materials, but I realised they were giving me low returns because they were found to be less viable. I started getting better returns when the SFP was introduced, and the AES officials recommended their improved and high-yielding planting materials to me" [Farmer Respondent 4].

These results support the findings of Bekele (2017), who found a remarkable improvement in the livelihoods of 84.7 % of improved cowpea seed beneficiary farmers. The results also revealed that the improved seed beneficiary farmers earned 41.8 % higher income compared to the non-beneficiaries. The results also support the findings of Dokyi et al. (2021) that the adoption of an Improved Maize Seed Technology (IMST) by the majority (91.2 %) of maize farmers in the Northern Region of Ghana resulted in an increase in the production of maize by 33.8 %. Similarly, these results conform with the findings of some maize variety trials in Northern Ghana. At the end of the trial, Asselt et al. (2018) found that two recommended foreign hybrid maize seeds performed extremely better than Obaatanpa, a local maize variety widely known in the region.

Farmers' usage of fertilisers in a cropping year

Commonly grown crops such as maize, carrots, garden eggs, and cabbage were identified, and it was found that the frequency at which farmers applied fertilisers in a cropping year under the influence of AES is high, as shown in Table 10. The table also shows that 26.9 % of the respondents applied fertiliser once, while the majority, representing 73.1 %, applied twice in a cropping year.

Table 10. Farmers' usage of fertiliser in a cropping year

Type of Crops	Frequency of Usage	Frequency	Percentage
Maize, Carrot, Garden eggs and Cabbage	Once	7	26.9
Maize, Carrot, Garden eggs and Cabbage	Twice	19	73.1
Total		26	100.0

Notes: n = 26, Source: Field Survey (2021)

According to the respondents, most farmers' positive attitudes towards the use of fertilisers could be due to the higher returns on yield. In Nyankumasi Circuit, a respondent shared how her decision on why the use of fertiliser has been influenced by the AES officials:

"... Yield used to be poor and less encouraging on my garden eggs farm until the AES officials' advice on the use of fertilisers. I started getting better returns when I heeded their advice" [Farmer Respondent 5].

These agree with the findings of a demonstration carried out to assess the effect of the use of fertiliser on two maize fields by Asselt et al. (2018). At the end of the demonstration period, the field without fertiliser recorded 880kg/ha, while the one with N: P: K 90:38:38 fertiliser yielded 1610kg/ha.

Farmers' frequency of harvest in a farming year

Table 11 provides the analysis of how the AES component of the SFP influences the frequency at which the foodstuffs farmers harvest their farm produce in a farming year to improve their living conditions. Specifically, the table provides information regarding the frequency of harvesting some known crops like maize, cabbage, garden eggs, pepper, and carrots. It can be observed from the table that all the respondents, representing 100 %, harvested their crops twice in a farming year.

Table 31. Farmers' frequency of harvest in a farming year

Type of Crop	Frequency of Harvest	Frequency	Percentage
Carrots, Garden eggs, Cabbage, Maize	Once	0	0
Carrots, Garden eggs, Cabbage, Maize	Twice	26	100
Total		26	100

Notes: n = 26, Source: Field Survey (2021)

The researcher's interactions with the respondents brought to light that their ability to harvest more than once in a farming season is attributable to the fact that the AES officials in the district encourage the formation of cooperative groups to help farmers secure some farming inputs such as water pumping equipment which enable them to engage in additional dry season farming in every farming year. In an informal interview, a respondent in Nyamebebu shared how the AES officers have influenced the frequency of harvesting his produce:

".... I could only harvest once in a farming year due to my inability to afford irrigation for dry-season vegetable farming. Thanks to the AES officials for recommending the formation of a

cooperative group to help secure water pumping equipment for uninterrupted harvesting” [Farmer Respondent 6].

The results support an assertion by Bekele (2017), that a sound agricultural recommendation is a function of a functional extension system and aims to improve the livelihood of rural and poor farmers by expanding their production capacities.

Farmers’ usage of agrochemicals in a cropping year

Table 12 presents the analysis of how the AES component of the SFP influences the foodstuffs farmers’ agrochemicals usage in a cropping year. Commonly grown crops such as maize, cabbage, garden eggs, pepper, and carrot were identified, and the frequency at which farmers applied agrochemicals in a cropping year was shown to improve their living conditions.

Table 12. Farmers’ usage of agrochemicals in a cropping year

Frequency of Usage	Frequency	Percentage
Once in a Cropping Year	0	0
Twice in a Cropping Year	3	11.5
Throughout a Cropping Year	23	88.5
Total	26	100.0

Notes: n = 26, Source: Field Survey (2021)

The results indicated that 11.5 % of the respondents applied agrochemicals ‘twice’ in a cropping year while the majority, representing 88.5 %, applied agrochemicals ‘throughout’ a cropping year, as shown in Table 12. Some interactions with the majority of the respondents affirmed that “*their ability to manage large farm sizes could not have been realised if the extension officials had not introduced them to the use of agrochemicals*”. Specifically, the majority (88.5 %) of the farmers affirmed that “*the use of agrochemicals, such as weedicides, has come to increase their production capacities by reducing the use of simple farming tools such as cutlasses and hoes*”. In an informal interview, a respondent in Nyamebebu, a village in Kruwa Circuit, shared how the AES officers have influenced his decision on the use of agrochemicals:

“... Farming has been my major source of livelihood for almost 32 years. For all these years, productivity had been nothing to write home about because I was solely and unknowingly depending on family labour and simple farming tools. With the AES officials’ advice, I have shifted from sole dependency on family labour and simple farming tools to agrochemicals, and production has increased” [Farmer Respondent 7].

These results support the assertion by Dokyi et al. (2021) that extension officials have a responsibility to ensure farmers’ adoption of improved farming techniques.

Farmers’ access to credit facilities (funds)

The results presented in Table 13 depict how the AES component of the SFP influences foodstuffs farmers’ access to credit facilities in the form of funds to improve their living conditions. The study showed that the majority (76.9 %) of the farmers found access to credits in the form of funds low, while the rest (23.1 %) found it to be ‘fairly accessible’, as indicated in Table 13.

Table 13. Farmers’ access to credit facilities (funds)

Access to Credit Facilities	Frequency	Percentage
Lowly Accessible	20	76.9
Fairly Accessible	6	23.1
Total	26	100.0

Notes: n = 26, Source: Field Survey (2021)

During the data collection, farmers indicated that “the cause of their inability to access funds from most of the financial institutions is the lack of collateral”. It was further discovered that, though the extension officials function to provide directions to them as to where they can obtain funds, conditions attached to this loan procurement from these institutions are quite unbearable. A farmer in Anyinabrim Circuit shared his concerns on loan procurement in an informal interview:

“... I have been into green pepper production for six years. For all these years, the plan had been to commercialise the production of green pepper. Still, the collateral aspect of funds acquisition from banks has been a limiting factor” [Farmer Respondent 8].

Farmers’ access to agricultural information

Table 14 presents the analysis of how the AES component of the SFP influences foodstuffs farmers’ access to agricultural information to help improve their living conditions. It can be seen in Table 14 that agricultural information is ‘very accessible’ to the majority (80.8%) of the farmers. During the data collection, some interactions with the farmers revealed that “the AES officials in the district have been diligent in the discharge of their core duties by periodically making agricultural information available to them through their local information centres.”

Table 14. Farmers’ access to agricultural information

Access to Agricultural Information	Frequency	Percentage
Least Accessible	1	3.8
Lowly Accessible	1	3.8
Fairly Accessible	3	11.5
Very Accessible	21	80.8
Total	26	100.0

Notes: n = 26, Source: Field Survey (2021)

A farmer, in an informal interview in Adiembra, commended the AES officers in the community as:

“... Being privy to agricultural information is important for every farmer. The AES officials in the district are seeking the welfare of their farmers by making farming information available to us” [Farmer Respondent 9].

These results support the assertion by Koutsouris (2018) that the major focus of any agricultural extension system is the delivery of informational inputs to beneficiary farmers.

Perceived effectiveness of the SFP in ensuring the safety and prompt market for local foodstuffs in the beneficiary communities

In general, the SFP’s ability to ensure the promptness and safety of the market for domestically produced foodstuffs is regarded as being minimal. The composite mean score of 2.43 suggests that farmers hold a pessimistic perception of the programme with regard to its ability to guarantee the marketability and safety of their foodstuffs. These encompass the following: dependence on domestically sourced ingredients, assurance of a dependable and readily available market, implementation of alternative procurement strategies, provision of storage facilities for perishable goods, encouragement of timely harvesting, and coordination of seminars focused on produce handling. Farmers articulate apprehensions regarding the absence of authority over their produce after transportation to regional markets. They perceive their agricultural products to be dependent on intermediaries in the marketplace, which could result in unpredictability and potentially reduced prices for their goods.

The perception of limited efficacy implies that the SFP might not sufficiently attend to the requirements of regional food producers with regard to market entry and assistance for their agricultural endeavours. This suggests that there is a discrepancy between the intended outcomes of the programme and the practical challenges faced by producers residing in the beneficiary communities. The results underscore the significance of confronting obstacles pertaining to storage infrastructure, market accessibility, and post-harvest management in order to improve the efficacy of the SFP for regional food producers. Enhancements in these domains may result in more favourable consequences for producers and bolster the programme’s overall efficacy.

Table 15. Perceived effectiveness of the SFP in ensuring the safety and prompt market for local foodstuffs in the beneficiary communities

Perceived Effectiveness of SFP	Mean	SD
The SFP depends on my foodstuffs for the preparation of meals at school.	2.38	0.75
The SFP guarantees a reliable and ready market for my foodstuffs.	2.46	0.86
The SFP makes alternative arrangements for the purchasing of my foodstuffs when there are enough stocks.	2.42	0.81
The SFP makes provision for means of storing my perishable foodstuffs when there are enough stocks.	2.46	0.86
The SFP provides some kind of support to help me harvest my foodstuffs promptly.	2.46	0.86
The SFP organises some workshops on produce handling to help me reduce post-harvest losses.	2.42	0.81
Composite	2.43	0.83

Notes: n = 26, Source: Field Survey (2021), Scale: 0 = Cannot Tell, 1 = Very Lowly Effective, 2 = Lowly Effective, 3 = Moderately Effective, 4 = Effective, 5 = Very Effective

During an informal interview with a farmer in Andoe Circuit, he shared his plight as:

“... I have four children who are fed by the programme at school, but I am compelled to sell my local rice to the middle women in the local markets. They dictate prices of my rice, and I have no option than to accept their prices because I cannot transport the produce back to my village” [Farmer Respondent 10].

It was further discovered that caterers and cooks in most of the beneficiary schools depend largely on food items from other sources instead of those from local farmers. An informal interview granted to a farmer in Assin Kumasi, a village in Nyankumasi Circuit, revealed the following:

“... I have no option than to sell my gari to the middle women for any price because caterers in our beneficiary basic schools do not patronise our foodstuffs. Some caterers do not even buy common salt from our local markets. They buy all their food items from the cities and transport them to their schools” [Farmer Respondent 11].

These results completely contradict the findings of WFP and Food and Agriculture Organization (2018) that the SFP in Brazil has effectively addressed post-harvest losses resulting from a lack of ready market among local farmers. The basis of their findings was that about 67 % of the states and municipalities in the country were using part of their school feeding budgets to procure foodstuffs from smallholder farmers as of 2012. The results do not support Miranda’s (2018) findings that a school lunch programme in Thailand effectively guaranteed a reliable market for locally produced foods. His findings were based on the fact that about 90 % of the perishable foodstuffs used in the preparation of the meals were sourced from local farmers, with the remaining 10 % from urban areas.

Farmers’ perceptions on reasons for low patronage of their foodstuffs

The researcher intended to further investigate farmers’ views and perceptions on low patronage for foodstuffs. Specifically, it was to ascertain what precisely the farmers had as reasons why caterers and cooks in the beneficiary schools did not patronise their foodstuffs. Discussions were centred on four issues as follows: *“Farmers cannot wait till caterers are paid”*, *“Farmers’ foodstuffs are of low quality”*, *“Farmers’ foodstuffs are not obtained on time”*, and *“Prices of farmers’ foodstuffs are higher.”*

Table 16 presents the voting results for the alternative reasons. It showed that in all the FGDs, the alternative highly voted for (1, 7, and 8 votes, respectively) was *“Farmers cannot wait till caterers are paid.”* At each of the focus group meetings, participants interpreted and explained the reasons for this alternative as follows:

“...Caterers do pre-finance and do their foodstuffs purchases on a credit basis. They prefer to deal with suppliers who would agree to be paid when the government pays them, which most farmers cannot wait till such a time” [Farmer Respondents in FGDs].

Table 16. Voting results for alternative reasons for non-patronage of farmers’ foodstuffs

Alternative Reasons (Views)	1st FGD Votes	2nd FGD Votes	3rd FGD Votes
Farmers cannot wait till caterers are paid.	7	7	8
Farmers’ foodstuffs are of low quality.	0	1	0
Farmers’ foodstuffs are not obtained on time.	1	0	1
Prices of farmers’ foodstuffs are higher.	1	0	0
Total Votes	9	8	9

Source: Field Data (2021)

To obtain confirmation of the above results, further informal interviews were conducted with some caterers to ascertain their reasons for not patronising farmers’ foodstuffs. A caterer in one of the beneficiary schools shared her reasons for not patronising farmers’ local foodstuffs:

“... I can confidently say that 85% of caterers who run SFP do not make their purchases with physical cash. They make their purchases on a credit basis and pay their creditors when funds are released to them by the government. Economic conditions in rural communities are such that farmers depend on prompt sale and payment for livelihoods, and most caterers prefer purchasing from people who will understand their plights to local farmers who cannot bear these payment terms” [Caterer Respondent 1].

4. Limitation

The study had the following limitations: information obtained from the beneficiary basic schools was strictly provided by the head teachers of those schools. Teachers were unwilling to participate in the study when the head teachers were not present. This caused a delay in gathering the necessary data for the study because the researcher had to visit most schools several times to meet with the head teachers. Furthermore, some head teachers had recently been appointed substantive heads and were thus unaware of some of the programme’s issues. As a result, they were more likely to give incorrect answers.

5. Implication

By examining the perceived efficacy of the government intervention programme (school feeding) in enhancing the livelihoods of beneficiaries, this study contributes to social welfare theory. Understanding how social programmes influence the economic conditions and well-being of communities and individuals is beneficial. This research is consistent with the livelihoods approach, which emphasises comprehending individuals’ assets and strategies to maintain their means of subsistence. This elucidates the impact of the SFP’s provision of sustenance on its beneficiaries’ economic activities and livelihoods. Insights regarding the perceived efficacy of the SFP are uncovered through this research, which can be utilised to inform programme evaluation and monitoring initiatives. It assists programme administrators in evaluating the programme’s effectiveness, pinpointing areas that require enhancement, and formulating decisions grounded in empirical evidence. Gaining insight into the perspectives of programme beneficiaries has the potential to augment community involvement and engagement. Through the active participation of beneficiaries in the design and execution of programmes, policymakers can guarantee that interventions are sustainable, culturally sensitive, and adaptable to local requirements.

6. Conclusion and Recommendations

The SFPs have been used to alleviate the problem of malnutrition resulting from poverty and hunger for children of school-going age and as a tool for achieving the goal of Universal Primary Education (UPE) since the launch of the United Nations Development Goals in 2000 (Tagoe, 2018). The emphasis of this study was to showcase that the SFP contributes not only to the well-being of pupils but also to the community as a whole. The study focused on the perceived effectiveness of the SFP in improving the livelihood of the beneficiary communities in the Assin South District. Based on its findings, conclusions were that the headteachers generally perceived the effectiveness of the programme as 'high' in improving the employment situations of the beneficiary communities in the district. The AES component of the SFP influenced the livelihood of the local foodstuffs farmers as follows. Also, the programme led to an increase in the existing farm sizes of farmers and the adoption of improved farming practices. Additionally, local foodstuffs farmers generally perceived the effectiveness of the programme as 'lowly' in ensuring the safety and prompt market for their foodstuffs because cooks and caterers in most beneficiary basic schools in the district do not patronise their produce. However, it was brought to light that caterers pre-financed the feeding and made most of their foodstuff purchases on a credit basis, so they relied on suppliers who agreed to be paid when the government released funds.

The study recommends that to improve the employment situations in the district, the Assembly should gear its effort towards the extension of the programme to benefit more communities. This will help recruit more cooks, caterers, and other service providers. Secondly, the District Assembly, in collaboration with the SFP Coordinating Team, should ensure that local foodstuffs farmers who produce for the programme in the district are strictly registered as sole suppliers of food items. By this, cooks and caterers in the beneficiary schools will be compelled to patronise food items from these farmers, thus helping to provide a ready market for their produce. Thirdly, for the caterers to have sustained interest in patronising local farmers' foodstuffs, the district assembly should set aside a percentage of its internally generated funds (IGFs) for them. This will provide them with funds that can be used to readily purchase farmers' foodstuffs instead of purchasing on credit from outsiders due to undue delay in releasing the government's feeding funds. Again, the SFP Coordinating Team should collaborate with the District Assembly to ensure that the AES officers are provided with the needed support to help them render life-transforming services to the local foodstuff farmers. Lastly, the district's SFP Coordinating Team should ensure that registered foodstuffs farmers are not financially constrained by negotiating with the financial institutions on flexible terms and conditions to help them access loans for their farming businesses.

7. Declarations

Ethics approval and consent to participate

Before data collection began, ethical clearance was sought from the University of Cape Coast's Institutional Review Board (IRB-UCC). Ethically, the consent of research participants is critical to any research agenda. To gain respondents' consent, they were informed about the purpose of the study and the duration of their participation.

Consent for publication

Not applicable

Availability of data and materials

Data and other relevant documents to this manuscript are available upon request.

Conflict of interest statement

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