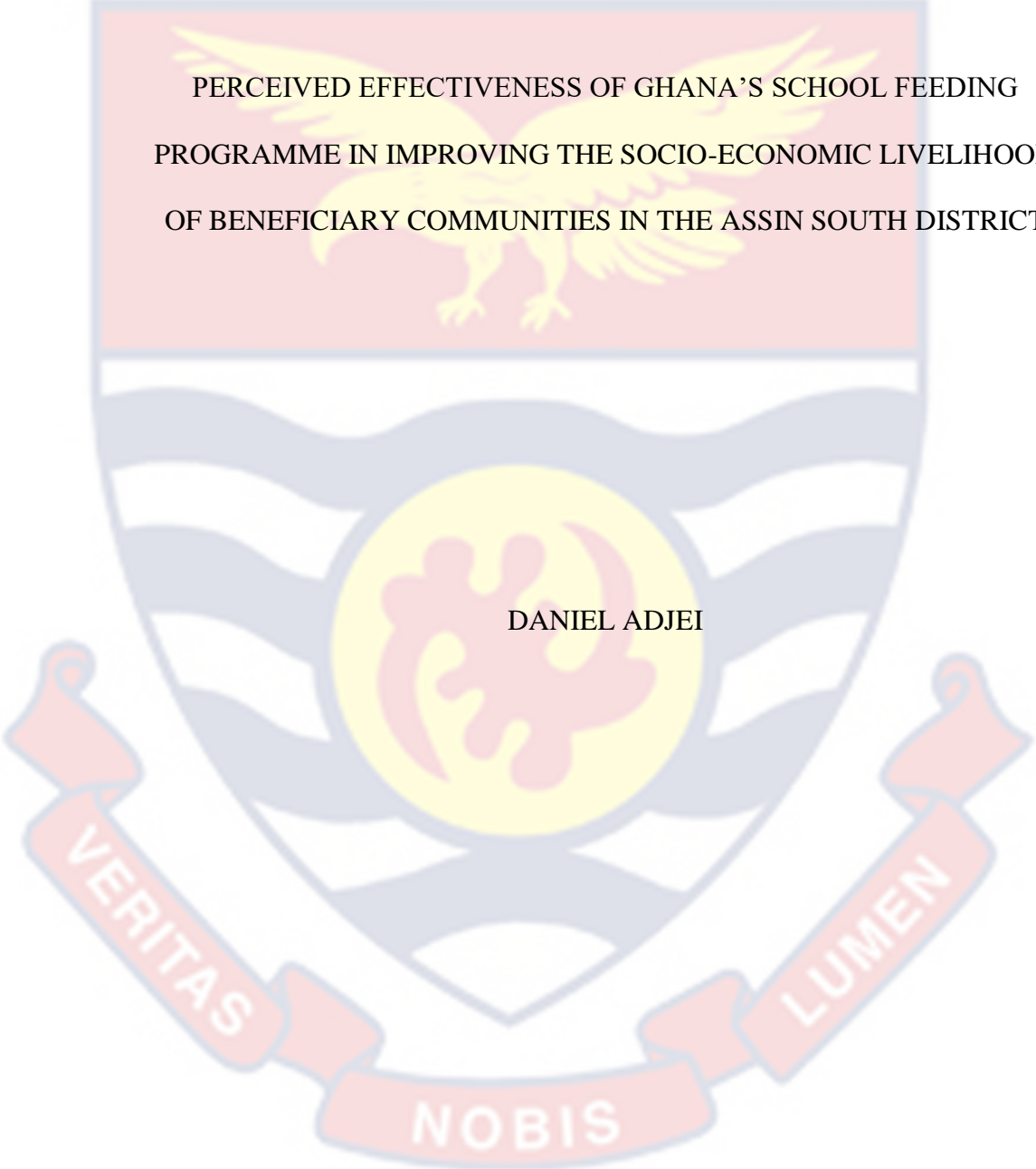


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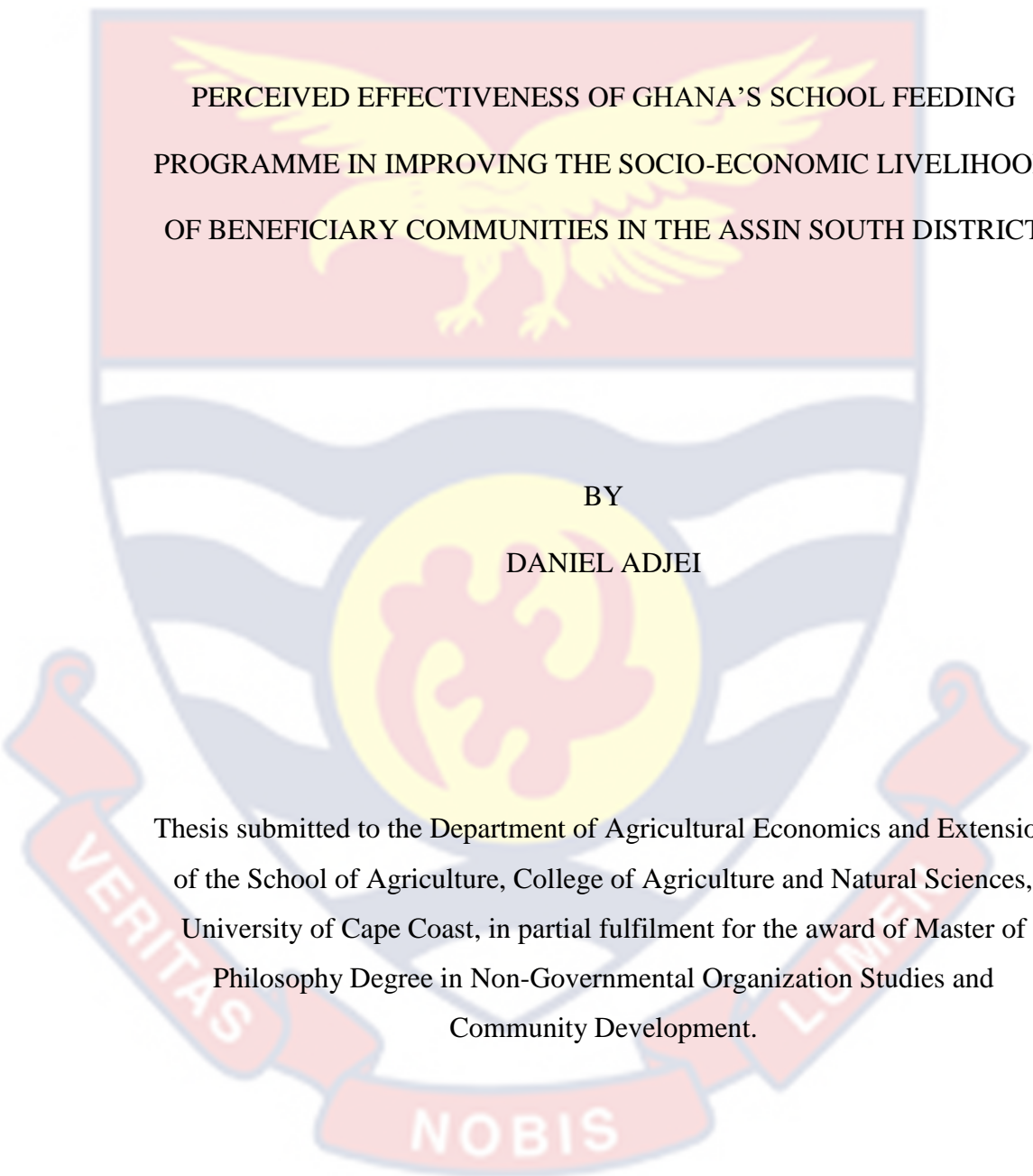


PERCEIVED EFFECTIVENESS OF GHANA'S SCHOOL FEEDING  
PROGRAMME IN IMPROVING THE SOCIO-ECONOMIC LIVELIHOOD  
OF BENEFICIARY COMMUNITIES IN THE ASSIN SOUTH DISTRICT

DANIEL ADJEI

2022

UNIVERSITY OF CAPE COAST



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BY  
DANIEL ADJEI

Thesis submitted to the Department of Agricultural Economics and Extension  
of the School of Agriculture, College of Agriculture and Natural Sciences,  
University of Cape Coast, in partial fulfilment for the award of Master of  
Philosophy Degree in Non-Governmental Organization Studies and  
Community Development.

OCTOBER 2022

## DECLARATION

### Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature: ..... Date: .....

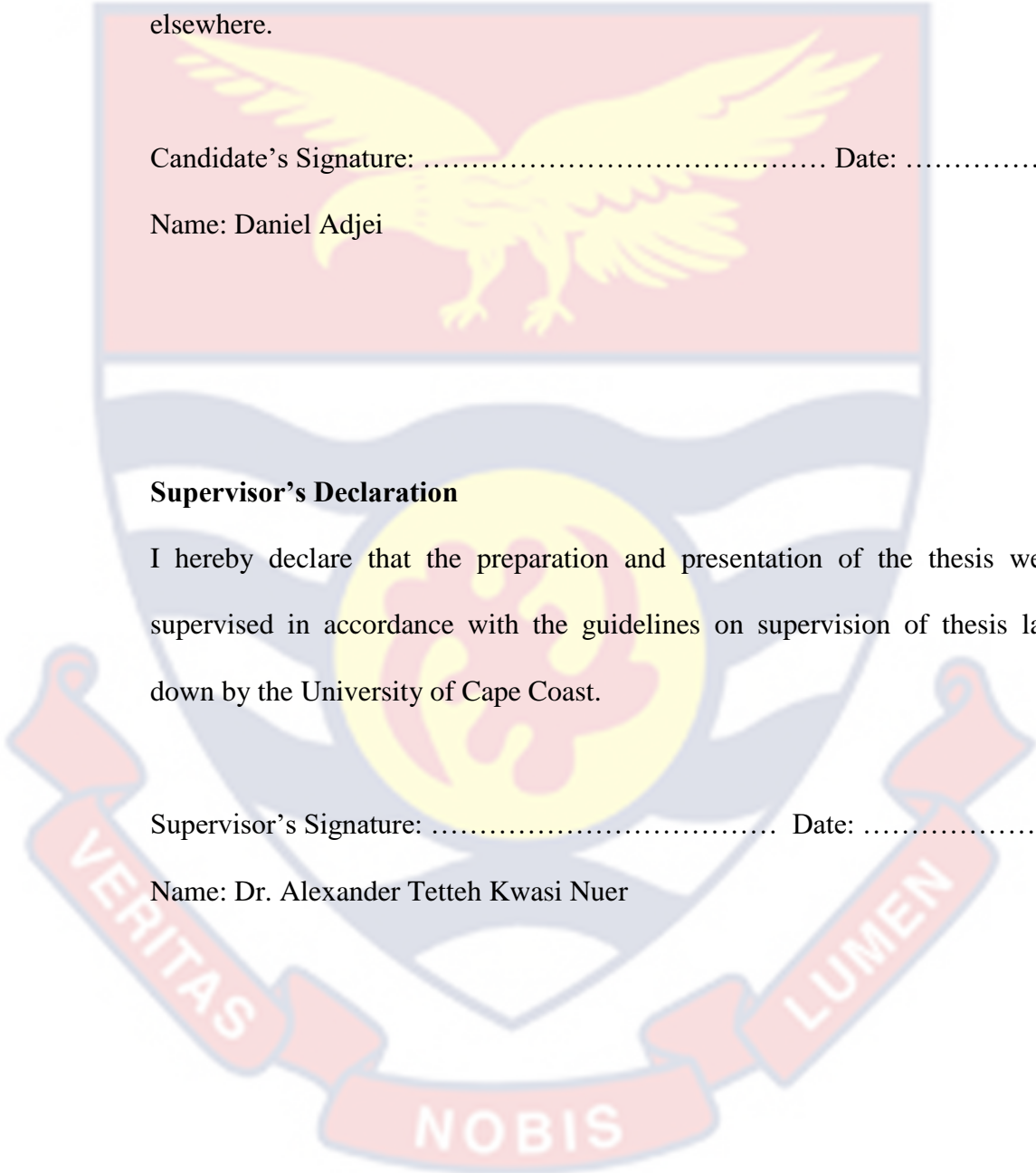
Name: Daniel Adjei

### Supervisor's Declaration

I hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Supervisor's Signature: ..... Date: .....

Name: Dr. Alexander Tetteh Kwasi Nuer



## ABSTRACT

Over the past decades, the Governments of Ghana have been committed to ensuring the attainment of the United Nations Millennium Development Goals on hunger and to bringing the socio-economic situation to a level, which would ensure that, the basic economic needs of the individuals are met. School Feeding is one of the policy interventions used by government in ensuring that these objectives are achieved. Generally, the study was to examine beneficiaries' perceptions on the extent of effectiveness of the school feeding intervention in improving the economic livelihoods of the beneficiary communities. Explanatory sequential mixed design was employed to fully explore the perceptions of 144 respondents, comprising of 55 head teachers, 63 parents and 26 local foodstuffs farmers, sampled from a population of 230. Selection of the respondents was done with the use of a multi-stage sampling method involving six (6) stages. The study used mixed method in the collection of data. Parents perceived the effectiveness of the programme as 'high' in motivating them to enroll their children and as 'moderate' in improving their income level. The results of the study also revealed that, the head teachers of the beneficiary schools generally perceived the effectiveness of the programme as 'high' in helping to improve the employment situations in the implementing communities. The study concluded that, local foodstuffs' farmers perceived the programme as 'lowly effective' in ensuring the safety and prompt market for their foodstuffs because caterers and cooks in the beneficiary schools do not patronize them. The study recommended that, foodstuffs farmers who produce for the programme should strictly be registered as sole suppliers of food items to ensure a higher patronage.

**KEY WORDS**

Beneficiaries

Effectiveness

Perceived

School Feeding

Socio-economic Livelihood



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Finally, I would also like to thank my course mate, Mr. Emmanuel Ekow Abban, for making time for the proofreading of the thesis.

## DEDICATION

To my wife, Hagar Adjei and my children, Yvonne Nelson Adjei, Lordina Adjei and Eugene Adjei.



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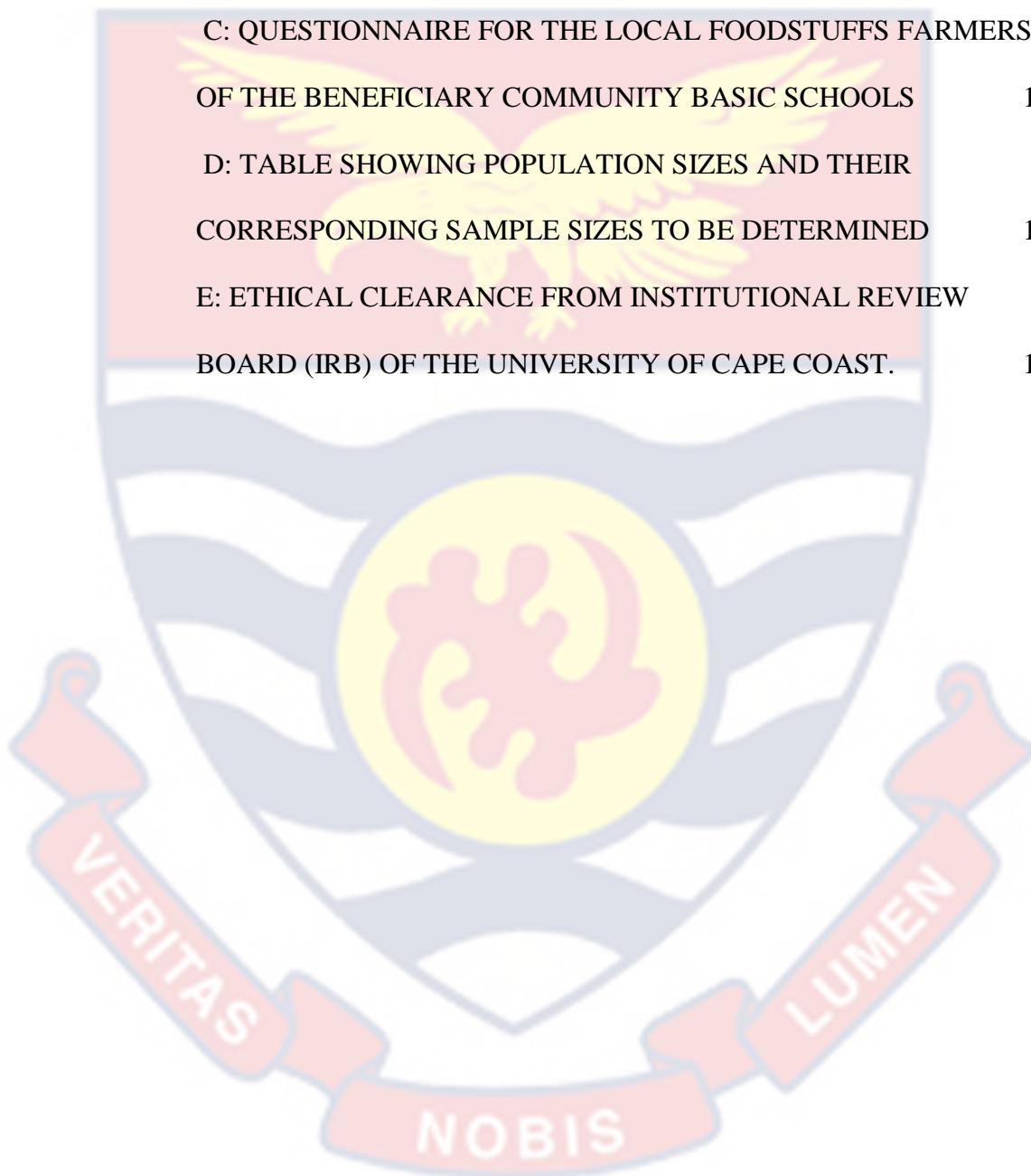
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**LIST OF ABBREVIATIONS**

AEOs	Agricultural Extension Officers
AES	Agricultural Extension Service
ASD	Assin South District
AAKD	Abura-Asebu Kwamankese District
BCs	Beneficiary Communities
CAADP	Comprehensive African Agricultural Development Programme
CIA	Central Intelligence Agency
CRS	Catholic Relief Service
ECs	Educational Circuits
FAO	Food and Agriculture Organization
FGDs	Focus Group Discussions
GDP	Gross Domestic Product
GoG	Government of Ghana
GSFP	Ghana School Feeding Programme
GSS	Ghana Statistical Service
HGSF	Home Grown School Feeding
IFAD	International Food and Agricultural Development
IFPRI	International Food Policy Research Institute
JHS	Junior High School
MDGs	Millennium Development Goals
MLGRD	Ministry of Local Government and Rural Development
MoFA	Ministry of Food and Agriculture
NDPC	National Development Planning Commission
NEPAD	New Partnership on African Development

The background of the page features a large, semi-transparent watermark of the University of Cape Coast crest. The crest is a shield-shaped emblem with a yellow eagle with outstretched wings in the center. Below the eagle is a yellow sun with rays. The shield is divided into three horizontal sections: a top red section, a middle white section, and a bottom blue section. A red ribbon banner wraps around the bottom of the shield, containing the Latin motto "VERITAS NOBIS LUMEN" in white capital letters.

NG	Netherland Government
SCCSs	Second-Cycle Community Schools
SDGs	Sustainable Development Goals
SPSS	Statistical Product and Service Solutions
UDHRs	Universal Declaration of Human Rights
UNDGs	United Nations Development Goals
UNDPs	United Nations Development Programmes
UNPR	United Nations Poverty Report
UK	United Kingdom
UN	United Nations
UNHTF	United Nations Hunger Task Force
UIS	UNESCO Institute for Statistics
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund
UPE	Universal Primary Education
WAAPP	West Africa Agricultural Productivity Programme
WB	World Bank
WFP	World Food Programme
WHO	World Health Organization

## CHAPTER ONE

### INTRODUCTION

This chapter of the research looked at the introduction. The sections covered under this chapter included the background to the study, statement of the problem, purpose and objectives of the study, significance of the study, definition of terms, limitation and delimitation of the study.

#### **Background to the Study**

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 declared that everyone has the right to education and that, everyone is entitled to it irrespective of gender, religion, ethnicity or status. Quality education plays an important role in the economic, social and political development of a country. Education is a medium through which an individual acquires the many physical and social capabilities demanded by the society in which the person is born into. Dangara (2016), asserted that, education remains a medium for the acquisition of many demandable social capabilities and an instrument through which a sound national development is achieved. The quality of every society is largely predicted by the quality of its educational system. The ultimate objective of any system of education is to equip the society with manpower needs for national development and to ensure a sustained quality in the standard of living of its products (Dangara, 2016). The 1998/1999 World Development Report (WDR) has shown that education is strongly linked to economic growth and poverty reduction. The report stated that, about 25% of the increase in Gross Domestic Product (GDP) per capita in the United States of America between 1939 and 1982 was the

result of quality education (Mahama, 2018).

Although education still remains a right and accessible across most developing countries, evidenced by increased in enrolment levels, UNESCO Institute for Statistics (UIS)'s data in 2019 shows 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, against 8% in high-income countries (UNESCO, 2019). Of this, 53% of them are girls and almost 43% of whom 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 as a result of poverty and hunger (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 the overall educational outcomes such as academic performance, higher enrolment and retention in schools. Although provision of adequate food still remains a global basic right for children, most school-going children are unable to meet their food requirement (UNICEF, 2019). Principally, poverty represents a major threat to proper nutrition among school-going children, especially in sub-Saharan countries (Luchuo *et al.*, 2013).

According to the WFP (2013), School Feeding Programme, among other interventions, is one of the policy interventions used by governments in the fight against threats to proper nutrition and food security in most developing countries.

The Ghana School Feeding Programmes (GSFPs) have been used to alleviate the problem of malnutrition resulting from poverty and hunger among school going children and as a tool for achieving the goal on the Universal Primary Education (UPE) since the launch of the United Nations Development Goals in 2000 (Tagoe, 2018). The programme has been fully operational since 2005 in the context of the Comprehensive African Agricultural Development Programme (CAADP) and in response to the first and second Millennium Development Goals (MDGs) on eradicating extreme poverty and hunger and achieving Universal Primary Education (UPE).

Basically, the implementation of School Feeding Programme in Ghana focused on providing public primary and kindergarten schools' children with one nutritious meal throughout the school days using local foodstuffs. Since its inception, the programme has succeeded in making remarkable impacts on the areas of enrolment, retention, academic performance, attendance and school drop-out (Mahama, 2018).

Studies on the impact of the programme on these educational outcomes and its other impressive achievements abound, however, investigations on its perceptions on the extent to which it has been effective in improving the economic livelihoods of the beneficiary communities still remains a gap at the district level. The study seeks to fill the gap by making a systematic enquiry to find out how effective or otherwise the programme has been in improving the socio-economic livelihoods of the beneficiary communities at the district level.

### Statement of the Problem

For many years, education has served as a vehicle for empowering and transforming peoples' lives for better societies (Dangara, 2016). Education is not all about getting children into schools. Governments shoulder the responsibility of ensuring that children obtain the fundamental knowledge and skills needed for personal well-being (Beyene & Ayalew, 2016). Provision of primary school education to pupils is a critical stage, a decision and an action point by governments where children develop their consciousness and personalities (Agrawal, et al 2013).

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). The development of endurance, cognitive development, physical growth and productivity of many children have not been fully met in sub-Saharan Africa. The reason being that malnutrition remains a pressing problem that affects the ability of children to learn and causes them to perform at a lower level in school (Endalew, Muche & Tadesse, 2015).

Assessing the impact of malnutrition on academic achievement, Maghaireh (2019), found that, majority (67.1%) of the primary school children used in the study were academically disadvantaged as a result of under nutrition. Poverty is the principal cause of malnutrition among school-going children in sub-Saharan African countries, including Ghana (Akombi, Agho, Merom, Renzaho & Hall, 2017).

The Ghana School Feeding Programme (GSFP) was therefore designed to help curb the problem of malnutrition that hinders children's academic progress (WFP, 2013).

Specifically, the programme was designed to provide a feeding regime for public primary and kindergarten schools' children in which one nutritious meal is provided in a school day with locally produced foodstuffs and to absorb a higher percentage of feeding cost in the implementing communities (WFP, 2013). The School Feeding Programme (SFP) provides an opportunity for the pursuance of Ghana's commitment towards attaining the Sustainable Development Goal (SDGs) on poverty and hunger reduction.

The most obvious achievements of the Ghana School Feeding Programme (GSFP) has been in the increment of school enrolment, retention and bridging the gender gap in basic education (Mahama, 2018). A study conducted in the Tamale Metropolis showed that, one hot nutritious meal per day contributed to an increase in enrolment, attendance and retention (Awojobi, 2019). Similarly, provision of meals in basic schools in the Atwima Mponua and Atwima Nwabiagya Districts in the Ashanti Region recorded a positive impact on enrolment (Serebour, 2017).

Also, the introduction of school feeding intervention in the Wa Municipality brought about a significant increase in girls' access to education (Mahama, 2018). The school feeding programme also recorded a significant impact on basic school enrolment in the Telensi District in the Northern Region (Awojobi, 2019). The study revealed that, school enrolment in the district was increased by 213 pupils after the inception of the programme (Awojobi, 2019).



To buttress the aforementioned indicators of the roles SFPs play in ensuring higher enrolment, retention and attendance, there is the need to move beyond the boundaries of Ghana in order to obtain similar evidence of the same indicators. An assessment on the effectiveness of SFP in Burkina Faso revealed that, school canteens had a relationship with increased school enrolment and regular attendance (Kamaludeen, 2014). Recounting on the impact of the GSFP 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 to education have been numerous, but investigations about the perceptions on 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 making detailed enquiries about peoples' perceptions on the extent of effectiveness of the intervention in improving the economic livelihoods of the beneficiary communities within the district.

### **Purpose of the Study**

The purpose of the study was to examine peoples' perceptions about the extent of effectiveness of the Ghana School Feeding Programme in improving the socio-economic livelihoods of the beneficiary communities in the Assin South District.

### **Objectives of the Study**

#### **General Objective**

Generally, the study was to find out the perceptions of beneficiaries in the Assin South District on the extent to which the Ghana School Feeding Intervention has been effective in improving their socio-economic livelihoods.

### Specific Objectives of the Study

Specifically, the study was to:

1. Examine parents' perceptions on the extent to which the School Feeding Programme has been effective in motivating them to enroll their children.
2. Examine parents' perceptions on the extent to which the School Feeding Programme has been effective in improving their level of income and finances.
3. Evaluate the extent to which the School Feeding Programme has been effective in improving the employment situations in the beneficiary communities.
4. Examine the extent of influence the Agricultural Extension Service (AES) component of the School Feeding Programme has on the livelihood of the local foodstuff farmers.
5. Examine the extent to which the School Feeding Programme has been effective in ensuring the safety and prompt market avenues for local foodstuffs.
6. Determine the relationship between the socio-economic and demographic characteristics of parents and their perceptions on the extent of effectiveness of the SFP.

### Research Questions

Information was sought to answer the following questions;

1. To what extent has the SFP been effective in motivating parents to enroll their children in school?

2. To what extent has the SFP been effective in improving the income level and finances of parents?
3. To what extent has the SFP been effective in improving the employment situations in beneficiary communities?
4. How does the Agricultural Extension Service component of the SFP influence the livelihoods of the local foodstuffs' farmers?
5. To what extent has the SFP been effective in ensuring the safety and prompt market avenues for local foodstuffs in beneficiary communities?
6. Do demographic and socio-economic characteristics of parents relate to their perceptions on the extent of effectiveness of the SFP?

#### **Hypothesis of the study**

1. **H<sub>0</sub>:** There is no significant difference among the respondents' mean perceptions on the extent of effectiveness of the SFP.  
**H<sub>1</sub>:** There is a significant difference among the respondents' mean perceptions on the extent of effectiveness of the SFP.

#### **Significance of the Study**

The study sought to examine the perceptions of beneficiary communities on the extent to which the Ghana School Feeding Programme has been effective or otherwise in improving their socio-economic livelihoods. Since the inception of the intervention in 2005, the aim and expectation have only been to increase enrolment, improve attendance and retention and ultimately, ensure improvement in the academic performance of the beneficiary pupils.

The study will add to the body of knowledge of the SFP because previous studies had only concentrated on the impact of the intervention on enrolment, retention and academic performance.

Secondly, development agencies and stakeholders are much concerned about the outcome of a social intervention. The results or outcome of this study could provide feedback to them as to whether or not the SFP exists to meet some of the economic needs of its beneficiary communities.

Finally, the results of the study will also provide a useful information and a basis for government and private agencies in the formulation of policies that would ensure improvement and sustainability of the programme in the district.

#### **Delimitation of the Study**

The Ghana School Feeding Programme has also been operational in some Junior High and Second-Cycle Community Schools in the district. The study only concentrated on the primary school communities to solicit for their views and opinions on the research topic. This prevented a higher percentage of potential respondents from sharing their perceptions on the extent of effectiveness of the programme in the study.

#### **Limitation of the Study**

Information sought from the beneficiary basic schools were strictly provided by the head teachers of such schools. In the absence of the head teachers, teachers were unwilling to partake in providing information in the study. This caused a delay in obtaining the required data for the study because the researcher had to visit most schools severally to meet the head teachers.

Also, some parents did not fully cooperate with the researcher during the data collection stage because they expressed their dissatisfaction about the quality and quantity of meals served to their children. This also delayed the specified period within which the data were to be gathered because the researcher had to spend much time to persuade them to participate in the study and cooperate.

Some of the head teachers had just been appointed as substantive heads and were therefore not privy to some of the issues about the programme. There was therefore the likelihood of them giving incorrect responses.

### **Definition of Terms**

**Beneficiaries:** People in the implementing communities whose livelihoods depend on the school feeding intervention.

**Effectiveness:** Effectiveness denotes the attainment of the economic needs of beneficiaries as a result of the introduction of the school feeding programme.

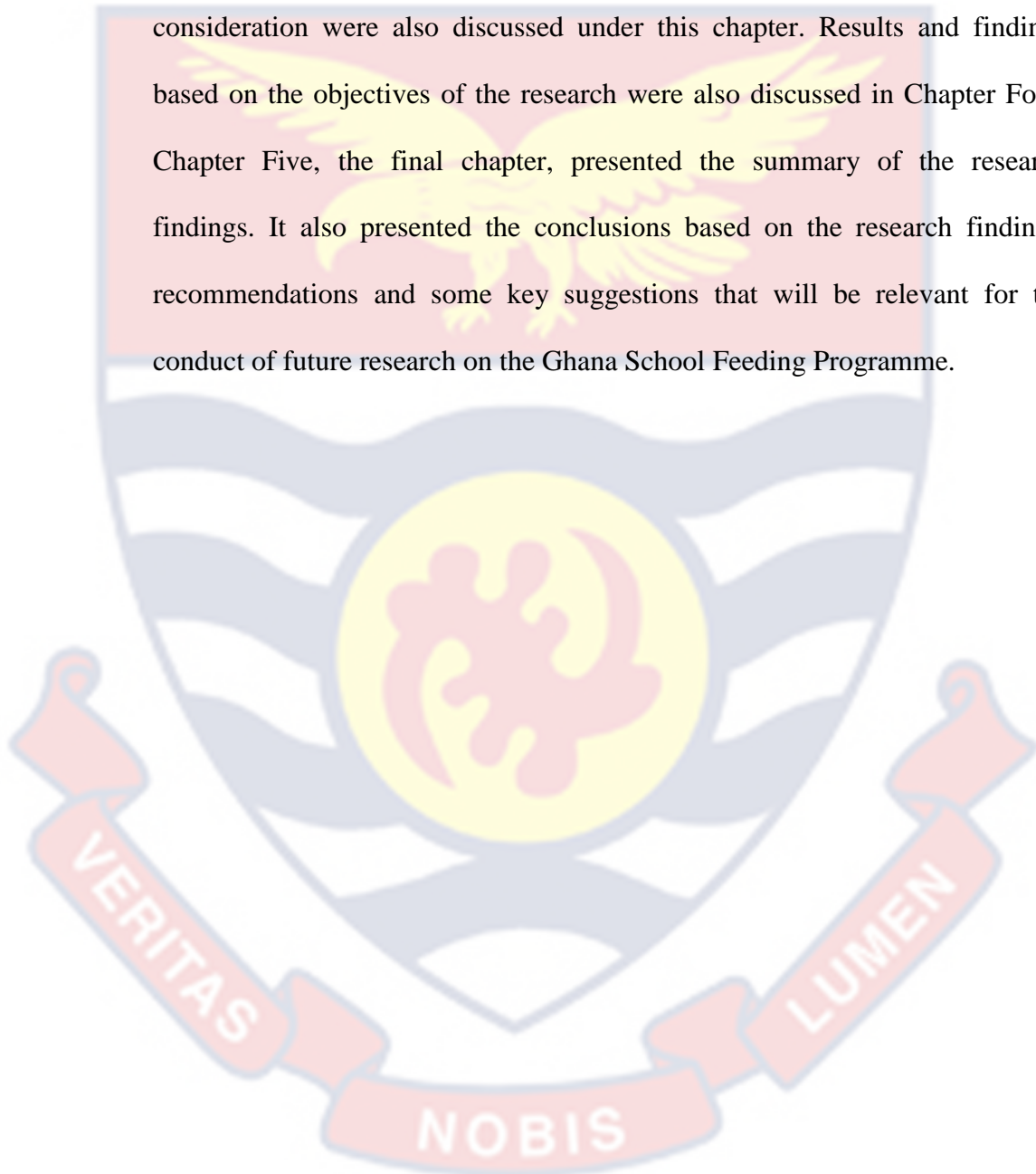
**Perceived Effectiveness:** The opinions of the beneficiaries as to the extent to which the feeding intervention has brought about improvement in their economic lives.

**Socio-economic Livelihood:** The previous living conditions of beneficiaries before the introduction of the feeding intervention.

### **Organization of the Study**

The study was structured to have five main chapters. Chapter One constituted the introductory chapter and consisted of the study background, statement of the problem, research objectives, research questions, significance of the study, delimitation and limitation of the study and definitions of key words. The review of relevant literature constituted the Chapter Two. The

methodology of the study constituted the Chapter Three and presented the research design, the profile of the study area, study population, sample size and sampling procedure. Data collection instruments, validity and reliability of the instruments, data collection, data processing and analysis and ethical consideration were also discussed under this chapter. Results and findings based on the objectives of the research were also discussed in Chapter Four. Chapter Five, the final chapter, presented the summary of the research findings. It also presented the conclusions based on the research findings, recommendations and some key suggestions that will be relevant for the conduct of future research on the Ghana School Feeding Programme.



## CHAPTER TWO

### LITERATURE REVIEW

#### Introduction

This chapter presented a review of existing literature on how School Feeding Programme, as an economic intervention, has influenced the socio-economic livelihoods of beneficiary communities in different places all over the world. Specifically, the review covered various issues relating to how school feeding programmes and other food interventions have influenced parents' decisions on education and financial savings. The review also covered the contributions of school feeding programmes in the areas of employment creation, adoption of improved farming practices and safety of farm produce in Ghana and beyond. The section also looked at the global history of school feeding, how school feeding started in Ghana and more importantly, the theoretical and conceptual frameworks underpinning the research.

#### Theoretical Framework

Creswell (2014), stated that, theories represent a key component of literature review and they must first be identified to help in the exploration of questions or a scholarly study. Similarly, Mkhomazi and Iyamu (2013), point out that, a theoretical framework that underpins a research study is a requirement in any social science research. According to Kipo (2011), theories function as guide when analyzing social or natural phenomena and are used to deeply describe the issues under study. Vithal and Jansen (2019), define theoretical framework as a well-developed, coherent explanation of an event or a phenomenon. These go to say that, without being informed by some underpinning theories, a research agenda cannot be realized because data

collection and research observations are based on prior theoretical assumptions.

### **Motivation Theory (The Incentive Theory)**

The incentive theory of motivation was propounded by Burrhus Frederick Skinner (1904- 1990). Huitt (2011), broadly defines motivation as the desire or want that fuel and provides directions towards a goal-oriented behaviour. According to Olusegun (2012), motivation is the ability to change behavior. It is a drive that compels one to act because human behavior is directed toward some goals (Olusegun, 2012). He stated that motivation is intrinsic when the source of motivation of the individual comes from within based on what one wants to achieve. Contrary to intrinsic motivation is extrinsic motivation in which an individual's motivation is driven by some external factors such as rewards, praise and promotions.

For the purpose of this study, the Incentive Theory of Motivation, which is extrinsic in nature, is applied. The theory states that human actions are repeatedly observed with the existence of continuous positive external forces or motivators. The theory believes that if the social system is motivated by way of providing some kind of incentives (social interventions), the deprived individuals will be motivated to make an informed economic decision to bring improvement in their lives. It stresses the need for the social system to be economically and continuously motivating for a continuous and observable economic improvement to be realized in the deprived individuals. The theory emphasizes that, human actions are repeatedly observed as long as these external forces remain and one continuously becomes attracted to them.



### Application of the Theory to the Research

In most deprived communities, the daily cost of feeding at school represents a major challenge for most parents and guardians and would quickly respond to the school feeding package by encouraging their school going children to take advantage of the feeding package. Similarly, parents would also be encouraged or motivated to develop the attitude of savings by responding to the feeding package.

Also, school feeding programme is largely dependent on locally produced foodstuffs. Purchasing foodstuffs from farmers in the beneficiary communities, thereby creating a ready market for and reducing post-harvest losses of locally produced foods would serve as a reward system. This reward mechanism would also encourage or motivate other members of the community to go into farming, thereby, helping to reduce the unemployment rates and boost local food production. These go to say that, school feeding programme is a social reinforcement or incentive that drives the beneficiary communities into engaging in some economic activities that improve their living conditions. Assessing the impact of SFP on education and poverty reduction in the Savelugu-Nanton district in the northern part of Ghana, Ghartey (2012), applied the theory of motivation to indicate the essence of adopting school feeding programme as an economic strategy to improve schooling in the rural poor communities. Using this theory, he was of the view that the feeding intervention serves as a satisfier or a motivator that drives the hungry and rural poor children to enroll in schools by responding to free meals.

### School Feeding Programme from Global Perspectives

Every country across the globe makes an effort to solve its increasing social problems resulting from globalization (Mahama, 2018). In response to the global increasing problems, the Sustainable Development Goals (SDGs) were formulated by the United Nations (UN) in the year 2000 to guide its member countries in solving their social problems. In the formulation of these development goals, the United Nations particularly, emphasized on hunger and poverty as indicated in MDG1 as “Eradication of extreme Hunger and Poverty”. On the basis of these goals, the United Nations looked forward to reducing the population of people who are considered captives under hunger and poverty across the world by more than 50% (United Nations, 2015). One of the surest ways by which these goals could be achieved was by the implementation of feeding interventions in schools (Drake, Woolnough, Burbano & Bundy, 2016).

In their report “Halving Hunger, it can be done”, the United Nations Hunger Task Force (UNHTF) recommended that, the implementation of the feeding interventions would serve to reduce the prevalence of hunger among school children and improve educational outcomes, such as enrollment, attendance, completion and academic performance (United Nations, 2015). The UNHTF also recommended that, the combination of the education and agriculture components in school feeding programs would help serve two purposes. These purposes can be achieved on the basis that, feeding interventions could help improve girls’ attendance in schools and ensure a sustained increase in demand for local foodstuffs on the market. They further stated that, the use of locally produced foods as a key factor in SFPs, instead

of imported foods, would help create employment opportunities to people in beneficiary countries and this could cause a reduction in the poverty rate (United Nations, 2015).

Emphasis was also placed on the fact that, SFPs should not only include provision of food, but should also be made to include improved sanitation, micronutrients supplements, regular deworming and provision of balanced diets. These would ensure good growth and development of school children (WFP, 2013).

The strategy of combining SFPs and agriculture, as proposed by UNHTF has been adopted and promoted by some international organizations across the globe. The New Partnership on Africa Development (NEPAD), adopted and promoted the strategy of combining SFP and agricultural development to help reduce the problem of malnutrition among school children and increase the demand for the production of local foods. Consequently, there would be improved food security, increased employment rates and expansion in agriculture in the less developed countries (NEPAD, 2003).

Other organizations and concerned partners have also contributed their quota in ensuring the implementation and sustenance of feeding interventions in schools. Mention can be made of the United Nations, World Food Programme (WFP), Netherlands Government and World Bank. The efforts of these organizations and partners have resulted in many less developed countries having functional school feeding interventions. For example, the World Food Programme alone had school feeding programs in 72 countries, covering 16.6 million school children in 2004 (Drake, Woolnough, Burbano & Bundy, 2016).

An estimation that was made in 2013 by the World Food Programme indicated that, close to 368 million school children receive food from the programme at pre-primary and secondary levels worldwide. The WFP further estimated that, between US\$47 billion and US\$75 billion is invested in the world's school feeding programmes annually, where a chunk of these resources is sourced from governments' budgets (WFP, 2013). Ample evidence shows that, SFPs as a social safety net, have been used to address social needs especially, in times of crisis, promote child development through enhanced nutrition and improved learning and to boost local agriculture to improve the economy and the income levels of local farmers.

Social safety nets are broadly defined as social programmes that target the economically disadvantaged citizens in a country. These programmes, inclusive of school feeding programme are designed to offer support to these people.

### **The Concept of the School Feeding Programme**

As mentioned earlier, school feeding represents a social safety net system that aims at economically challenged citizens in a country. Globally, some countries are in serious battle with the problem of poverty. Available report that gives a strong confirmation to this unfortunate statement indicates that there are about 805.1 million people who are gripped by hunger or have little food to depend on (FAO, 2014). As part of the stringent measures put in place to fight this global menace, several countries have adopted this interventional programme.

School feeding is an interventional safety net that provides school children with food with the aim of reducing their hunger during school days

(WFP, 2013). School feeding denotes a feeding regime in which foods are provided in school (on-site feeding) or taken home (take-home feeding) to sustain children's interest in schooling, ensure a sustained improvement in the educational outcomes and it is in place as a social safety net for households with very low income (Aliyar, Gelli & Hamdani, 2015). Generally, two school feeding regimes exist. These include, in-school feeding, in which children are provided with food in school and take-home ration, where families are provided with food on condition that, their children attend school. Depending on their objectives, different countries have adopted one or a combination of the two school feeding regimes (Oyefade, 2014).

### **The History of School Feeding Programme**

School feeding was first introduced in the 1930s when the United Kingdom (UK) and the United States (US) saw the need to improve the growth of children. In the United Kingdom, a feeding programme in which milk was subsidized for school children was implemented in 1934 and from 1944 onwards, milk was provided at no charge for the needy children. This interventional package was withdrawn in the late 1960s and early 1970s (Alderman & Bundy, 2011). In the early 1940s, a school feeding regime in which milk was supplied freely to white and colored schools was introduced in South Africa (Suresh & Anne, 2015). Since then, nutrient supplementation, fortified biscuits and meals have been included as components in school feeding programmes (Suresh & Anne, 2015).

### **The History of School Feeding Programme in Ghana**

The history of school feeding programmes in Ghana can be traced to the 1950s when children in Catholic primary and middle schools were provided

with take-home ration in the form of food aid (Alderman & Bundy, 2011). The objective of the initiative was to improve the nutritional status of school children and increase school enrollment and retention. Later, the World Food Programme (WFP) and Catholic Relief Services (CRS) jointly championed the provision of school feeding programmes in the country (Suresh & Anne, 2015). Particularly, much of their attention was paid to the Northern Regions because of the high incidence of poverty and food insecurity. Following the recommendations of the New Partnership for African Development (NEPAD) to governments of Africa to adopt the Home-Grown School Feeding (HGSF), the government of Ghana officially, launched the Ghana School Feeding Programme (GSFP) in 2005 (Drake, Woolnough, Burbano & Bundy, 2016).

In the late 2005, the Ghana School Feeding Programme was piloted in 10 primary schools when school children were fed with one cooked meal served at midday (Drake, Woolnough, Burbano & Bundy, 2016). Meals were prepared in schools with one caterer and a team of cooks assigned to 500 children. The year 2009 saw a significant growth in the programme in which 1,695 public primary schools, made up of 656,624 school children in 170 districts were covered and served (Darko, 2014). In 2012, Ghana recorded a coverage of 4,952 public primary schools, made up of 1,642,271 children in 216 districts. The end of 2013/2014 academic year saw a total coverage of 1,739,357 school children by the programme in 5,000 public primary schools (GSFP, 2014). The GSFP was designed as a strategy to increase domestic food production, household incomes and ensure food security in deprived communities (Gelli, Aurino, Folson, Arhinful, Adamba, Osei-Akoto, Masset, Watkins, Fernandes, Drake & Alderman, 2019).

## Hunger and Poverty Situation in Ghana

The United Nations Poverty Report in 2015 states that, more than 24% of the population of Ghana lives below the poverty line. The report further states that, a minimum of 45% of the Ghanaian population lives either on US\$ 1.25 a day or less. In the past two decades however, the country has witnessed a significant economic growth and this has accounted for a reduction in the poverty rate by half (Duque, 2018). Ghana witnessed an appreciable poverty rate reduction from 52.6% to 21.4% between the year 1991 and 2012 (Duque, 2018). In the World Bank Report titled “Poverty Situation in Ghana”, Molini and Paci (2015), stated that, unlike the other African countries, Ghanaian economy has grown at a faster rate and this development is similar to those of lower-middle income countries over the last 20years.

According to Abaidoo (2021), reduction in poverty has been quite significant and this is attributed to the rise in the production of cocoa, gold and oil. Despite this economic improvement, there are many people who still find themselves below the poverty line. This poverty situation can be attributed to the large disparity gap in the wealth distribution among Ghanaian population (Nutakor, 2020). Moreover, agriculture and food production are negatively being affected due to unfavorable weather conditions and continuous use of unproductive farming tools (FAO, 2014). This has resulted in hunger, poverty, food insecurity and malnutrition (Kipkoech, Murgor & Murgor, 2012).

In 2015, Food and Agriculture Organization (FAO) commended Ghana memorably, for being one of the world’s 72 countries whose contributions brought about a reduction in the malnourished population and people who are gripped with severe hunger. Although Ghana is known for this impressive

achievement, children who are chronically malnourished stands at 23 percent (Molini & Paci, 2015).

### **The Concept of Effectiveness**

The idea of the term effectiveness has been a key element in many academic disciplines (Poskart, 2014). He further claims that the term effectiveness is unambiguous because words such as rational, efficient, productive, economical or optimal are synonymous to the term “effective”. The word effectiveness is derived from the Latin word ‘effectivus’, meaning efficacy. The Polish dictionary of terms adopted from foreign languages describes the word ‘efektywność’ as a synonym of words like positive result, efficiency, efficacy and functionality. For the purpose of this research, the concept of effectiveness is defined from the economic point of view.

### **The Concept of Effectiveness from Economic View Point and how it is Measured**

The economic view point is adopted in the definition of the term “effectiveness” in this research due to the fact that, school feeding programme is perceived as an economic intervention that aims at bringing economic improvement in the beneficiary communities through job creation, income generation, quality and affordable education, improved nutrition and a higher food production leading to improved food security. Poskart (2014), defines economic effectiveness as the ratio between outputs obtained and the necessary inputs used to achieve those outputs.

Economic effectiveness is a measure of the result of a business activity, determined by the ratio between the output obtained and the inputs (Poskart, 2014). From the above definitions, it can be deduced that, every economic



input (activity or programme) initiated is expected to yield a positive or negative outcome to help the initiator better measure the effectiveness or otherwise of the economic input.

According to Peersman (2015), the effectiveness of any social intervention is measured on the basis of the extent to which the targets and objectives of the said programme were achieved. Similarly, Picciotto (2013), pointed out that, the effectiveness of a programme is determined by its potency to bring about a desired change or progress. To many development-oriented agencies and organizations, measuring the extent to which an intervention has been effective is a very crucial exercise (Peersman, 2015). This, they posit, would provide them the basis to better appreciate the factors that brought about the success or otherwise of their programmes and to help them make necessary changes and recommendations towards achieving a more beneficial result.

Primarily, the study sought to examine the perceptions of people on the extent to which the Ghana School Feeding Programme (GSFP) has been effective or otherwise in improving the socio-economic livelihoods of beneficiary communities in the Assin South District. According to Nantwi, De Carvalho, Dom and Fiadzigbey (2011), there is no better measure of the effectiveness of an implemented programme than assessing the desired outcomes or anticipated outputs that are produced in the implementation process. As a requirement, the assessment of the effectiveness or otherwise of an implemented programme should be undertaken in terms of delivery behaviors and outcomes in terms of changes in the behavior or conditions of the target populations (Palumbo & Calista, 2014) .This establishes the idea

that, the effectiveness or otherwise of any implemented programme can effectively be assessed based on the outcome or the output of the programme in terms of changes or otherwise occurred. Eshun (2015) defines the output of an implemented programme as the degree to which anticipated services are actually delivered. The study therefore operationalizes the perceived effectiveness of the Ghana School Feeding Programme (GSFP) in improving the socio-economic livelihoods using the following as proxies or operationalized variables:

1. SFP as a motivational package for parents to enroll their children in school.
2. SFP as a social programme to improve the income levels and finances of parents.
3. SFP as a social programme to improve the employment situations in the beneficiary communities.
4. SFP as a social programme to improve the living conditions of the local foodstuffs' farmers through an effective agricultural extension service.
5. SFP as a social programme to ensure the safety and prompt market for the local foodstuffs in beneficiary communities.

#### **Perceived Effectiveness of School Feeding Programme in Socio-economic Livelihood Improvement**

According to Adeogun and Agwu (2019), the perceptions of beneficiaries about the extent of effectiveness of an implemented programme are a key factor in judging the success or otherwise of the programme. They concluded that, beneficiaries' perceptions provide feedbacks to the implementers to help

them improve upon the programme. This accounts for the reason why beneficiaries' perceptions on school feeding programmes have attracted many researchers' attention.

### **SFP as a Social Programme to Improve the Income Level and Finances of Parents**

Since their inception, school feeding programmes have been used extensively as one of the key economic improvement strategies in the fight against poverty (WFP, 2013). For the purpose of this study, the school feeding initiative in Ghana as a social strategy to reduce poverty and improve the income level and finances of parents, is discussed in two contexts;

1. As a strategy used to reduce home expenditure on food.
2. As a strategy used to reduce expenditure on healthcare.

### **SFP as a Social Strategy to Reduce Home Expenditure on Food**

Daily expenditure on food represents a major challenge for most parents in most sub-Saharan African countries, including Ghana with the global economic crisis (WFP, 2013). The World Food Programme (2013)'s Report projected that SFPs would be one of the social protection initiatives that would serve to cut down home expenditure on food in the midst of the world economic crisis. The results of a survey on a school feeding programme in Malawi reported a positive correlation between SFP and expenditure on food for households in one of their sub-regions. Specifically, 77% of the children used in the survey reported that they eat less food at home when they receive school meals and this helps to reduce monies spent on food by their parents. According to WFP (2013), the Ghana School Feeding Programme has helped

to reduce poverty by relieving poor parents of some financial commitments that would have gone into feeding their children on every school day.

Fowler (2012), found the newly implemented SFP in Agyei Krom as effective in cutting down feeding cost for most parents and families. The indication of this development is the parents' ability to generate extra income as a result of non-payment of feeding fees (Fowler, 2012). Provision of school meals to children can be equated to providing extra 10% of an average household income (World Bank, 2008). Assessing the perceptions of parents on the school feeding initiative in Ghana, Tagoe (2018), reported that the introduction of the programme has helped to absorb a percentage of households' expenditure on food. This development has inculcated in many parents the culture of financial savings (Tagoe, 2018).

#### **SFP as a Social Strategy to Reduce Home Expenditure on Healthcare**

Healthy nutrition among school going children is linked to parents' financial savings. Undernutrition among children represents a major challenge in developing countries (Agbozo & Abubakari, 2017). According to Wegmuller, Bentil, Wirth, Tanumihardjo and Allen (2020), micronutrient deficiencies are the leading cause of infections that are widespread among children especially in developing countries. The International Food Policy Research Institute (2014), remarked that, good human health is dependent on proper nutrition. For these and other reasons, the GSFP was officially launched in 2005 as one of the social protection mechanisms to reduce malnutrition among children (WFP, 2013).

Meals provided to children in school are strictly based on WHO and WFP recommendations and are therefore fortified with the essential food nutrients

for proper growth and development (WFP, 2013). According to Awojobi (2019), SFPs enhance proper nutrition and good health of children in schools. This is clearly in support of what Tagoe (2018), noted, that, the SFP ensures proper nutrition and facilitates positive health among school children. Maggini, Pierre and Calder (2018), argued that, improving the nutritional status of children helps sustain their growth, develop their muscle mass and boost their immunity to diseases.

Indirectly, the issue of unnecessary household expenditure on healthcare delivery is cut down because it reduces the frequency at which parents rush their children to health facilities for healthcare.

#### **SFP as a Source of Motivation for Parents and Guardians to Enroll their Children in School**

Many empirical studies conducted on the contributions of the School Feeding Programmes in Ghana and beyond have established that, school feeding is one of the motivational policies that drives most parents into letting their children be in school for better schooling. According to Boateng and Tagoe (2018), the GSFP aims at providing a daily meal to public primary and kindergarten schools' children using foodstuffs obtained from the local communities. School feeding intervention has been an influential policy since its inception (Boateng & Tagoe, 2018).

Konzabre (2018), reported that school attendance rates in Ghana used to be lowest for children from poor households before the introduction of this laudable policy. The report further explained that, this was attributed to the fact that, most households could not afford the daily cost of feeding their children at school.

Examining the barriers to school attendance with a sample of Ghanaian school children, Wolf, McCoy and Godfrey (2016), found that 47.7% of the children attributed their low attendance rate to inability of their parents to cater for their feeding fees. Currently, the feeding intervention has been an important social safety net that serves as an incentive for poor households to get their children enrolled in school (Konzabre, 2018). The World Bank (2008), remarked that, providing school meals to children from poor homes can be equated to adding an extra 10% of an average household income. It has been reported that, diets served in most of the Ghanaian poor homes are reduced for children who are receiving food at school.

A survey conducted on a school feeding programme in Malawi showed that 77% of children reported that they eat less food at home when they receive school meals. WFP (2013), has justified that, foods prepared in schools are of high quality and therefore meet the nutritional requirements of children than those prepared by poor families.

In a study to examine the views of parents on the WFP's School Feeding Initiative in Tanzania, Oganga (2013), found that majority (68%) of parents and guardians perceived the programme as effective in ensuring higher enrolment and motivating them to keep and get their children enrolled in schools. The parents used in the study attributed this to non-payment of feeding fee at school. Evaluating the impact of GSFP on attendance and retention in the Weweso Circuit in the Ashanti Region of Ghana, Osei (2011), found that, majority (92%) of parents perceived the programme as effective in terms of its being an incentive package for them to ensure that, their children were retained in school. Alderman, Gilligan and Lehrer (2012), pointed out

that school feeding programmes have been instituted to influence the schooling decisions of most households who would not have sent their children to school due to financial constraints.

According to Lawson (2012), the recent overwhelming increase in enrolment, attendance and retention in schools are the clear manifestations of positive behavioral and attitudinal changes of parents towards their children's education. In sum, the discussion goes to say that, school feeding has come to serve as a source of encouragement for most parents to enroll their children in schools which was not the case in the period before its introduction.

### **SFP as a Social Programme to Improve the Employment Situations in Beneficiary Communities**

According to World Food Programme (2013), school feeding programme has made several contributions to the improvement in the global economy including that of Ghana. An aspect of the Ghana School Seeding Programme is its contributions to the development of the local economy by broadening the employment opportunity base for local communities (WFP, 2013). According to Government of Ghana (2015), school feeding programme in Ghana is largely dependent on locally-produced foods, hence the introduction of the Home-Grown School Feeding Model. Sumberg and Wheeler (2011), explained the concept HGSF as a component of school feeding programme in which agricultural development is made to link with school feeding and it is a dependent on local farmers in the communities for its foodstuffs.

Higher demand on local foods for the sustenance of the programme has been a source of motivation for most people in beneficiary communities to go into farming venture. The objective of the school feeding programme to create

employment opportunities has been supported by what the Ministry of Gender, Children and Social Protection (2015), pointed out in its report that, the GSFP has been effective in providing income, employment and improving the economic conditions in the implementing communities and that the programme has employed about 20,000 caterers and cooks nationwide. Investigating the impact of the National Home-Grown School Feeding Programme on the livelihood of some rural communities in Nigeria, Okolo-Obasi and Udoji (2022), found the programme to have contributed to employment creation by recruiting some local women as workers at the schools' canteen.

Assessing the impact of the WFP's School Feeding Initiative in Tanzania, Oganga (2013), found that the implementation of the initiative has brought on board some local citizens who served as cooks, caterers, suppliers of local food items and firewood. In a survey done to verify the economic implications of the Tanzanian School Feeding Canteen, WFP (2013), found that the programme was effective in increasing the country's employment rate by 9.2% through recruitment of some rural household women as cooks and caterers. Evaluations done by WFP (2020) on Bangladesh School Feeding Programme indicated that the initiative caused a significant increase in employment rate through the engagement of the local citizens as suppliers of local foodstuffs



## **Agricultural Extension Service as a Component of the SFP to Improve the Living Conditions of the Local Foodstuffs Farmers**

The section 2.1 of the Ghana School Feeding Programme Manual clearly specified the duties of the GSFP National Secretariat. The document specifies that the secretariat shall effectively collaborate with the Ministry of Food and Agriculture (MoFA) on the agricultural component for the sustenance of the programme (Government of Ghana, 2015). The point 13 of the duties of the district assemblies also specifies that, the assemblies shall encourage and support Agricultural Extension Officers to assist local farmers to produce for the GSFP (Government of Ghana, 2015). This suggests that the agricultural extension service officials of MoFA have key roles to play in ensuring that farmers produce abundantly to support and sustain this feeding intervention.

They are to influence farmers' adoption decisions on improved farming practices that would improve their production capacities to help sustain the programme. According to Koutsouris (2018), agricultural extension service represents a key instrument through which programmes and projects are instituted with the aim of developing agriculture to help improve the lives of the rural poor farmers. Recounting on how agricultural extension impacts the livelihoods of some rural farmers in the northern part of Ghana, Anang, Bäckman and Sipiläinen (2020), found that, the income of the participants (farmers) who applied the improved farming methods of the extension service officials was increased by GH¢916 compared to the non-participants.

Jara-Rojas et al., (2020), opined that agricultural extension is meant for achieving social balance and economic development of rural areas in order to maintain production capacities. Technology transfer denotes an agricultural

extension process in which innovative farming practices are transferred from knowledge generators (researchers) to a farming population (Koutsouris, 2018). The adoption, practicing and spread of an agricultural innovation from one point to another by a farming population are the results of an effective technology transfer (Koutsouris, 2018).

The study was intended to examine the extent to which the extension officials as key players in the GSFP, have been effective in influencing the adoption decisions of the local foodstuffs farmers to help them improve their living conditions through improved farming practices. Bampoe (2015), conducted a study to find out some cassava farmers' perceptions on the effectiveness of the West Africa Agricultural Productivity Programme (WAAPP). The participants perceived the extension service component of the programme as effective in improving their living conditions through its educative programmes on improved farming practices.

Similarly, Agbarevo (2013), conducted a study on an agricultural programme in Cross-River State in Nigeria. The beneficiary farmers perceived the agricultural extension service component of the intervention as effective in improving their living conditions through its training on the use of improved planting materials and proper methods of fertilizer application. Assessing the effect of the AES recommended improved seeds on food security of some poor farmers, Bekele (2017), found a remarkable improvement in the livelihood of 84.7% of the seed beneficiary farmers. It was also unfolded by the study that an annual income percentage of 41.8 was realized by the seed beneficiary farmers compared to those who did not benefit.

The adoption of recommended certified sorghum seeds by some non-commercialized sorghum producers in Tanzania had a positive impact on dietary diversification of most households and women (Kaliba, Gongwe, Mazvimavi & Yigletu, 2021). An agricultural related enterprise that focuses on the use of improved and recommended planting materials brings about a sustained food security and enhances poverty alleviation (Kaliba, Gongwe, Mazvimavi & Yigletu, 2021). The adoption of Improved Maize Seed Technology (IMST) by some maize producers in northern Ghana resulted in an increase in the production of maize by 33.8%, farmers' technical efficiency by 16.1% and improvement in the general livelihood in the region (Dokyi, Anang & Owusu, 2021). Donkor, Sekyere, Owusu and Jordaan (2016), found that rice farmers who adopted a row-planting technology in northern Ghana experienced an improved production higher than those who did not have access to the technology.

### **SFP as a Social Programme to Ensure the Safety and Prompt Market for Local Foodstuffs in the Beneficiary Communities**

Writing on the topic "The effects of post-harvest management practices on welfare of farmers in Tamale metropolis", Ansah, Ehwi and Donkoh (2018), found that, post-harvest losses in yam, resulting from poor road networks, poor storage and processing facilities, poor marketing systems and lack of farmers' education stood at 9.6% in every 2 months. This used to be a discouraging factor for most local food producers in the pre-school feeding era for fear of not getting a ready market for their farm produce. With the inception of feeding interventions in schools, foods produced locally have been on a higher demand because it is a locally-produced food dependent

(Tagoe, 2018). This has been confirmed by the operation manual of the SFP that, the programme is to provide children in public primary schools and kindergartens with one hot adequately nutritious meal prepared from locally grown foodstuffs on every school day. The programme's document categorically, emphasized the purchasing of locally produced foodstuffs for the preparation of meals in schools, thus, creating a sustained and ready market for local farm produce which partly helps reduce the incidence of post-harvest losses.

According to WFP and FAO (2018), report on the impact of SFP on socio-economic livelihood in Brazil, the programme is an effective social intervention to help local farmers overcome the seasonal problem of post-harvest losses. Their conclusion was based on one of their findings that, as of 2012, about 67% of the states and municipalities in Brazil were using part of their school feeding budget to procure foodstuffs from smallholder farmers. They concluded that, smallholder farmers perceived the school feeding intervention as effective in addressing the issue of post-harvest losses because it provided ready and sustained market for their farm produce.

In Brazil, Miranda (2018), reported that, in a school lunch programme, about 90% of perishable food stuffs used in preparing meals for children are sourced from local farmers, with the remaining 10% from urban areas. The discussion therefore goes to say that, the intervention has been in place to salvage the issue of post-harvest losses by providing a prompt and timely market for foods produced in its beneficiary communities. This has been confirmed by what Yendaw and Dayour (2015), noted, that, the strategy to feed school children with locally prepared food that is nutritionally adequate

will focus 80% of the programme spending on local foodstuffs. This would cut down post-harvest losses and provide markets for farm outputs and eventually impact the economy at the rural households and community level (Yendaw & Dayour 2015).

### **School Feeding Programme Implementation Factors**

According to Chelangat (2011), the success or otherwise of an implemented school feeding programme is dependent on some underlying factors. Also, the extent to which beneficiaries perceive the effectiveness of an implemented programme can be influenced by these underlying factors. These include community involvement, policies and regulations and resources.

#### **Community involvement**

In a community-based survey, Kibet (2017), concluded that community involvement and a successfully implemented interventional programme positively correlate. Community participation is one of the key factors that determines the extent to which a SFP will be effective in bringing about the desired change in the lives of its target group or communities (Kibet, 2017). Torres and Simovska (2017), noted that, community involvement in the operations of a SFP is an important factor if the expectation is to bring about improved lives to a targeted people.

According to Nkethia (2011), the involvement of community members, including parents, teachers and opinion leaders in decisions regarding a SFP allows it to be more effective to improve the economic lives of its beneficiaries. However, the author found out that, in Kenya, community and parental involvement in SFP is low and has therefore been less effective in improving the lives of parents. In the same vein, the WFP (2008), reported

that, parental and community participation in the implementation of the programme have been relegated in many countries and this affects the perceptions of parents and communities on its extent of effectiveness in improving their livelihoods.

### **Policies and Regulations**

Chelangat (2011), noted that, for a school feeding programme to be effective in solving some of the socio-economic problems of its targeted people, a sound institutional arrangement and policies should be in place to effectively carry out the programme. WFP (2013), reported that, a feature of an effective SFP is one that involves all stakeholders and ensures proper monitoring and evaluation of its operations. The WFP (2013)'s and United Nations (2015)'s reports have shown that, corruption, political instability and lack of effective monitoring system represent an impediment to effective operationalization of the SFPs in many less developed countries.

### **Resources**

Like any other national programme, effective running of a feeding intervention is a dependent on resource endowment base. For the purpose of this study, resource endowment is classified as human and physical. Both exert some degree of influence on the extent to which a feeding programme will be effective in addressing the socio-economic problems of its targeted people. Human resource includes the skills, knowledge and competencies of the district and regional officials and coordinators to effectively run SFP whiles the physical resources include financial and other physical resources which are often made available by members of the beneficiary communities. For a school feeding programme to run effectively and meet the socio-

economic needs of its targeted people, monies set aside for the programme must be channeled to the appropriate institutions and on timely basis (Nkethia 2011). Nkethia (2011), similarly noted that, schools in Kenya that receive monetary grants directly from government fails to run the feeding programme effectively due to the failure of timely release of grants.

### **Influence of Demographic and Socio-economic Characteristics of Respondents on Livelihood Improvement**

The demographic and socio-economic characteristics of beneficiaries of a programme or an intervention to a larger extent, have influence on the extent to which they experience improvement in their livelihoods. According to Ephraim and Arene (2015), the demographic and socio-economic characteristics of beneficiaries of any agricultural programme largely influence their productivity and income. Similarly, Ngema, Sibanda and Musemwa (2018), submit that, demographic characteristics such as number of dependents, sex and alternative sources of income of beneficiaries of an agricultural programme influence the extent to which they experience the impact of the programme on their economic lives.

To address the last objective of this research, the influence of respondents' socio-economic and demographic characteristics on the extent to which they experience livelihood improvement was examined.

#### **Age of Respondents**

Szabo, Apipoonanon, Pramanik, Leeson and Singh (2021), submitted that, age of farmers is linked to the level of their productivity and livelihood improvement because age determines the quantum of labour needed for food production. Age determines how much livelihood improvement activities that

could be engaged. Assessing the implications of socio-economic factors on the choice of livelihood activities among rural dwellers in Southeast Nigeria, Ifeanyi-obi and Matthews-Njoku (2014), concluded that the possibility for younger rural dwellers to engage in multiple livelihood activities to earn appreciable income was higher than the aged dwellers.

Examining an ageing agricultural workforce perception and farmers' productivity in Thailand, Szabo, Apipoonanon, Pramanik, Leeson and Singh (2021), found that age of the workforce had a positive correlation with livelihood improvement. Younger farmers possessed enough energy to help them manage large farm sizes to improve their livelihood compared to those who had advanced in age (Szabo, Apipoonanon, Pramanik, Leeson & Singh, 2021).

Age also assists in the determination of the livelihood status of a household. Assessing the perceived influence of a Plantation Establishment Livelihood Improvement Scheme on the livelihood of some communities in Nairobi, (Mwatika, 2013), found that the livelihood of members of some households were more likely to improve due to their reliance on other members who were found in the active age working category.

Age factor also determines the employment standings among members in a particular community. Younger and energetic people stand the chance of securing jobs that would help sustain and improve their income level compared to the aged (Ifeanyi-obi & Matthews-Njoku, 2014).

### **Marital Status of Respondents**

The issue of marital status is seen in its linkage with livelihood improvement due to the influence it exerts on family labour (Gwandi and



Adewuyi, 2022). Assessing farmers' livelihood security in the northeastern region of Nigeria, Gwandi and Adewuyi (2022), recorded a higher percentage (73.3%) of the farming respondents being married because the majority confirmed that higher productivity leading to improved livelihood is mostly dependent on labour supplied by married family heads. It is expected that, married farmers would have available labour to help them manage large farms to increase their productivity level and eventually improve their livelihood compared to the unmarried farmers (Gwandi & Adewuyi, 2022).

Also, empirical literature has shown that marital status is linked to livelihood improvement due to its influence on shared economic resources. Married persons stand a higher chance of benefiting from economy of scale by sharing a common household resource (Stimpson, Wilson, & Peek, 2012). Married persons stand a higher chance of withstanding economic risks to improve their livelihood as they share common economic resources compared to their single counterparts (Stimpson, Wilson & Peek). In a situation where one becomes unemployed, another person's income and other assets would be available to be relied on for improved livelihood (Stimpson, Wilson & Peek).

Badstue, Petesch, Farnworth, Roeven and Hailemariam (2020), were of the contrary view on the topic. Assessing the relation between marital status and farming innovativeness among women in a farming community in Ethiopia, Badstue, Petesch, Farnworth, Roeven and Hailemariam (2020), found that the livelihoods of the single farming women were more likely to improve compared to the married because they were likely to own lands and acquire resources for agricultural production through considerable struggle. Examining the relationship between socio-demographic variables and choice

of non-farm livelihood activities in Southeast Nigeria, Nwaogwugwu (2016), found that marital status positively correlated with livelihood improvement because married persons were found to be more responsible and the likelihood of them adopting sustainable livelihood strategies to help meet their expected and increasing household needs was high.

Also, parents' and farmers' marital status has some level of influence on how they embrace and respond to interventional programmes for livelihood improvement. A study conducted by Kolawole, Oladele, Alarima and Wakatsuki (2012), to find out farmers' and parents' perceptions on "sawah" rice production technology indicated that, majority of the participating farmers who adopted the technology were married. This presumes that married beneficiaries are more likely to be burdened with more economic responsibilities and would therefore embrace interventional programmes to help sustain and improve their livelihoods compared to the unmarried group.

Marital status also exerts some level of influence on the finances of a household for livelihood improvement. Married persons are perceived to have appreciable family sizes that would partly cater for labour requirements in their day-to-day income generating activities (Nwaogwugwu, 2016). In this way, the finances of such persons are improved through savings of monies that would have gone into employing labour.

### **Educational Level of Respondents**

Significantly, level of education is linked to livelihood improvement due to the influence it exerts on adoption of agricultural dynamics (Ntshangase, Muroyiwa & Sibanda, 2018). The results of a survey done by Ntshangase, Muroyiwa and Sibanda (2018), to find out farmers' perceptions and factors

influencing the adoption of No-Till Conservation Agricultural Technology revealed that, farmers who adopted the technology had a mean educational level of 3.7 compared to 2.6 for non-adopters. The study further revealed that, the probability of highly educated farmers adopting the technology to improve their livelihood was high because they easily understood and were very receptive to the innovation while less adoption rate was recorded for farmers with less level of education because they were conservative.

This mirrors the findings of a survey conducted by MoFA (2011), on some farmers that, 71.5% of them possessed some level of formal education and were very receptive to agricultural innovations against 28.5% who were without any form of education.

Educational status is linked to livelihood improvement due to its implication on the choice of a livelihood activity. Assessing the role of education in the livelihoods of households in Vietnam, Tran, Tran and Thi (2018), found a positive association between educational level of a household and choice of lucrative livelihood strategies. A head of a household who has attained a higher educational qualification is more likely to enjoy a decent livelihood because his chances of getting a decent wage paying work is higher than the uneducated (Tran, Tran & Thi, 2018). This also agrees with the findings of Tuyen (2015), who found education as a key contributor in improving the income dynamics of most households in Vietnam.

It has also been contended that parents' educational status has a significant influence on their livelihood. Educated parents having a fair knowledge about the economic relevance of education are intrinsically

motivated to let their children be in school to bring improvement in their livelihoods (Tran & Thi, 2018).

### **Number of Dependents of Respondents**

The importance of a household's dependent size is seen in its linkage to productivity. Shittu (2014), contends that, a farming household with a larger number of dependents is presumed to have available labour for agricultural production to better up its livelihoods. The results of a survey by Nandi, Gunn and Yukushi (2011), on cassava farmers in Nigeria revealed that, number of dependents positively correlated with their economic livelihoods by providing labour to manage their large farms.

On the contrary, Djangmah (2016), asserted that, a household with a larger percentage of its members not engaged in any economic activity would have its productivity and resources to be impacted negatively.

### **Income from other Sources for Respondents**

Alternative sources of income are important in the determination of socio-economic status of persons (ILO, 2012). Studies have shown that, alternative sources of income have a greater influence on productivity and the general living conditions. Examining the impact of alternative income sources on the income trend of some market women in southeastern part of Nigeria, Gwandi and Adewuyi (2022), found that women who had other income generating sources were found to be economically improved and seemed to enjoy decent livelihood compared to those who were dependent on single income sources.

A report from the International Labour Organization (2012), indicated that, production of honey, snails, grasscutter and processing of by-products

from cocoa represent additional livelihood activities which provide additional income for most cocoa farmers and parents in the western part of Ghana. Some studies have concluded that, public schools that have alternative means of generating internal funds pay their community-based cooks and caterers to improve their livelihoods whenever government subventions delay.

The results of a study conducted by Sumo (2015), also showed that, economic activities such as charcoal burning and rubber tapping were found to be additional sources of income which support the livelihood of most women and farmers in Liberia. Additionally, Kuwornu, Demi and Amegashie (2013), submit that, in sub-Sahara Africa, the engagement of farmers in other economic activities aside their main activities guarantee them additional income which supplement the proceeds from their main activities to improve their livelihood.

### **Sources and Availability of Funds for Respondents**

Households' livelihood improvement has some degree of correlation with accessibility to funds and credits and how they are made available to them. Sources and availability of funds have influence on agricultural production and other economic improvement ventures (Kuwornu, Demi & Amegashie 2013). Buttressing on this fact, Bekele (2017), admitted that, sustainability of agricultural development and farmers' welfare depend on the extent to which funds and credits are made available and accessible.

Assessing the impact of agricultural inputs and credits on the welfare of some smallholder farmers in Nigeria, Nwaogwugwu (2016), found that farmers and parents who easily accessed funds and credit facilities for farming

operations could easily increase their wealth and carry out more productive farming operations to improve their livelihoods.

Musiime and Atuha (2011), stated that, farmers access credits and funds purposely for purchasing farm inputs, hiring labour and machinery acquisition among others. Similarly, parents access funds to help them expand their businesses and to sustain their income level to help improve their livelihoods Nwaogwugwu (2016). Musiime and Atuha (2011), also maintain that, provision of collateral security serves as a major impediment to the acquisition of funds by most farmers and parents especially in sub-Sahara regions (Mwatika, 2013) and this tends to decrease their chances of becoming economically improved. The result of a study conducted by Asante (2015), indicated that, many smallholder farmers depended on their personal savings and monies obtained from the sale of their farm produce as sources of funds for their farming businesses.

### **Empirical Studies on Perceived Effectiveness of SFP in Livelihood Improvement**

Regarding the perceptions of beneficiaries on the effectiveness of school feeding programmes in livelihood improvement, some studies have been conducted. A study conducted by Katrina and Khan (2020), in Uganda to examine the local farmers' perceptions on the introduction of school lunches revealed that, farmers perceived the initiative as 'effective' in improving their livelihoods by reducing cost of transporting their foodstuffs to markets. The local farmers attributed this to the fact that, foodstuffs for the programme were directly procured from them.

Also, a study conducted by Upton et al (2012), in Burkina Faso to examine farmers' views on the effects of local foodstuffs procurement by the feeding programme beneficiary schools revealed that, local farmers perceived the school feeding intervention as 'effective' in improving their livelihoods by ensuring a higher profit margin in their farming activities. Following the 1997-98 economic crisis in Indonesia, a survey carried out on farmers showed that 72% of them reported that, the school feeding programme in the country had been effective in improving their livelihoods as a result of the purchases of their foodstuffs by the beneficiary schools.

The results of a household survey by IFPRI on school feeding programme evaluation in Bangladesh in 2003 revealed that, 50% of mothers perceived the school feeding system as 'effective' in improving their income and finances because the programme had given them the opportunity to give less pocket monies to their school-going children than what they used to give before its inception.

Using a qualitative longitudinal study in assessing stakeholders' perceptions on a newly implemented school feeding intervention in Adjeikrom in Ghana, Fowler (2012), reported that the intervention had been effective in helping parents and families generate extra income as a result of non-payment of feeding fees. In a study to examine the views of parents on the WFP's School Feeding Initiative in Tanzania, Oganga (2013), found that, majority (68%) of parents and guardians perceived the programme as effective in ensuring higher enrolment and motivating them to keep and get their children enrolled in schools.

Also, in maize variety trials performed by IFPRI in 2015 in the Northern Ghana, Asselt, Battista, Kolavalli, Udry and Nate (2018), found that local farmers preferred the two recommended foreign hybrid varieties to Obaatanpa, the widely known variety. Farmers attributed their preference to the fact that the AES recommended varieties outperformed the already known local variety after the trials (Asselt et al, 2018).

### **Conceptual Framework of the Study**

The study examined the respondents' perceptions on the extent to which the programme has been effective in improving their livelihoods in the areas of better schooling, employment, income level, foodstuffs safety and market avenues and food productivity. It was therefore expected that, the perceptions of the beneficiary communities about the programme's effectiveness would be known by assessing its impact on these areas.

### **Description of the Conceptual Framework**

The construct of the Figure 1 was informed by the Incentive Theory of Motivation which emphasizes the need for the social system to be provided with some incentives to motivate the beneficiary to make an informed economic decision for livelihood improvement. If the social system is motivated with interventional programmes, there would be an interplay of the various livelihood outcomes to bring about economic improvement in the lives of the beneficiary. School Feeding Programme is a social motivator. The existence of the programme would motivate the beneficiary to increase their income for their livelihoods to improve by saving the monies that would have been used for feeding their children at school.



The beneficiary would also be motivated to seek for employment as cooks and caterers to improve upon their finances and income which would translate to improving their livelihood. There would be motivation for the beneficiary parents to let their children be in school to better up their schooling. Bettering up the schooling of the beneficiary children would lessen the economic burden of their households to help improve their livelihood as they climb higher on the educational ladder. The beneficiary foodstuffs farmers would also be motivated to increase their productions to bring about improvement in their livelihood through improved farming practices recommended by the AES component of SFP.

Also, SFP is dependent on local foodstuffs. This would motivate the local farmer to increase his productions to attract a sustained market for his foodstuffs leading to increase in their income level to eventually bring about improvement in their socioeconomic livelihoods. Increased food production would also increase the income of the local farmers to help better up the schooling of their children which would eventually improve the livelihood of their households as they climb higher on the educational ladder. Sustained market for farmers' perishable foodstuffs leading to reduced post-harvest losses would increase their income level to help improve their livelihood. The ability of SFP to create employment for cooks and caterers is expected to bring an increase in the level of income of such employees leading to sustained improvement in their livelihood. Increased food production resulting from the AES recommendations on the use of improved farming methods is expected to be influenced by some demographic characteristics of local farmers such as age, educational level, farming experience and sex.

From the figure, increased income, increased employment, better schooling, increased food production and market for farmers' foodstuffs form the basis and objectives for the implementation of the SFP. Motivating the social system through the use of school feeding intervention, would motivate the beneficiary to make economic decisions for the realization of these livelihood outcomes which would then translate into improving their socio-economic livelihood.



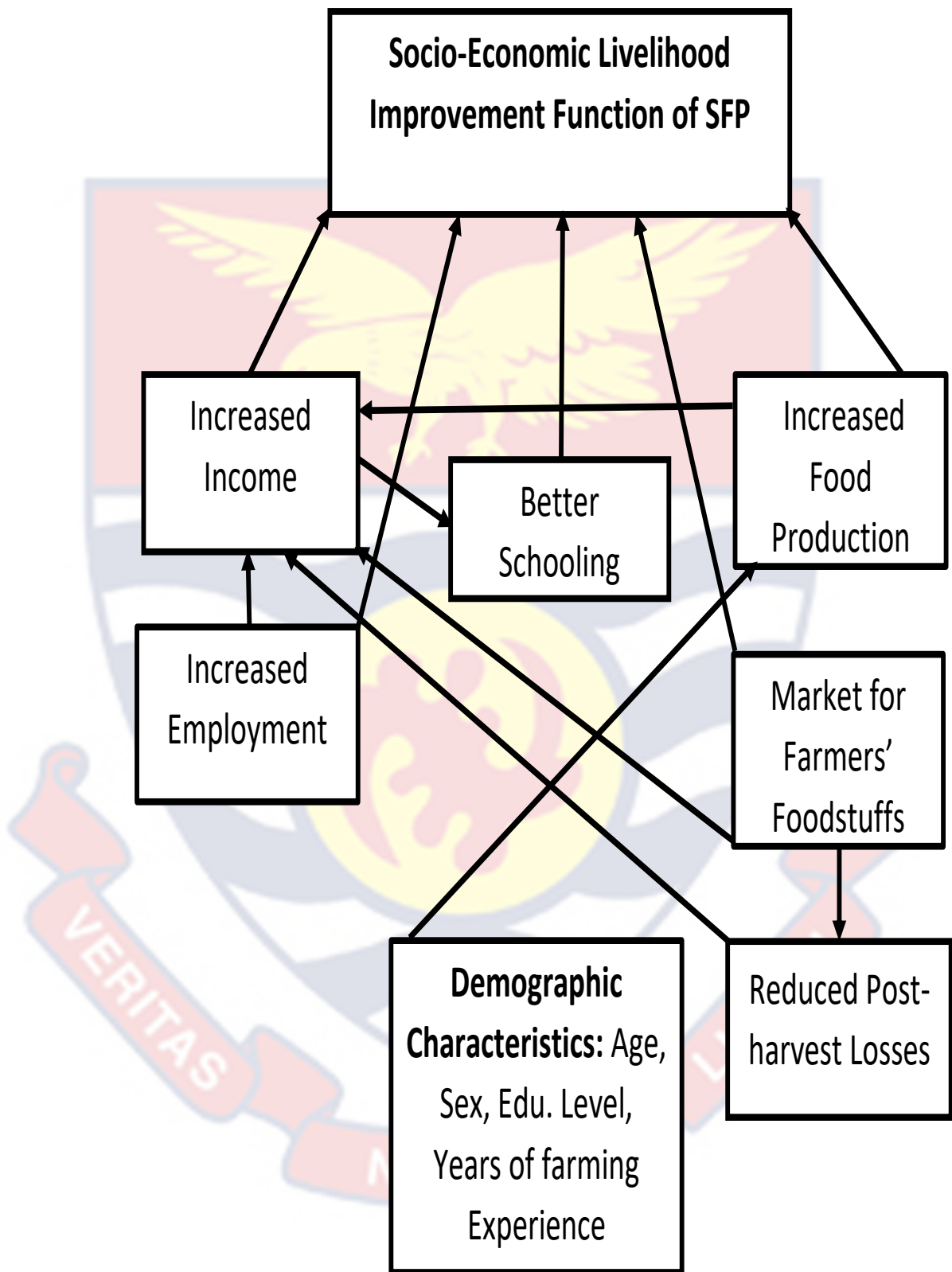


Figure 1: Conceptual Framework for Assessing the Perceived Effectiveness of GSPF

Source: Researcher's Own Construct

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### Introduction

This chapter was presented in two parts. The first part provided the description of the profile of the study area while the second part looked at the procedure and techniques such as the research design, sampling methods and analytical tools employed in the analysis of data. The second part also dealt with the determination of the study population and sample size and discussed the instruments used in the data collection.

#### Research Philosophy/ Paradigm

The choice of any philosophical underpinning is usually informed by the research approach employed. In this study, the pragmatist's philosophical paradigm was employed. Pragmatism is a philosophical paradigm which underpins application of multiple research approaches or methods. It emphasizes mainly on the research gap (problem) identified and assumes that knowledge about the identified gap can be obtained by using different methods. Creswell (2014), also perceived the philosophy of pragmatism as a research paradigm that permits the researcher to choose from a range of techniques, approaches and processes that are presumed to be suitable for meeting the purpose for which a study is conducted.

The assumption given by Creswell (2014), presupposes that pragmatist research approach attempts to cover and incorporate both quantitative and qualitative approaches for a better understanding of a research phenomenon. This paradigm was deemed suitable for the study because the focus was to employ explanatory sequential mixed method in which the quantitative results

were better explained with a detailed follow-up qualitative results (Creswell, 2014).

### **Research Design**

According to Asenahabi (2019), a research design describes a set of plans by which a research is conducted for a valid achievement of its stated objectives. Kumar (2011), also maintains that, a research design is a framework and it provides a direction as to how a study is constructed. Flexibility is one of the major factors that affect the choice of a research design. Flexibility describes the extent to which a research design allows the researcher to consider every aspect of a research problem. Thus, if the purpose of a research is to discover a more extensive ideas or insights, then the research design must provide enough room for the researcher to explore different aspects of the phenomenon. Explanatory sequential research design describes quantitative and qualitative research approaches in which the researcher uses a follow-up qualitative information to further explain or throw more light on quantitative data (Creswell, 2014).

Explanatory sequential design has an advantage of allowing the researcher to extensively discover ideas, insights, thoughts, beliefs, views and knowledge about a phenomenon by providing room for one data result to be further explained with another data result (Asenahabi, 2019). Broadly, the aim of this research study was to extensively explore the extent to which the Ghana School Feeding Programme has been effective in improving the economic livelihoods of members of the beneficiary communities. Thus, the study sought to fully explore the perceptions, views and experiences of the beneficiary communities as to whether or not the intervention has been

effective in bringing about some differences in their socio-economic lives. On that basis, the study used explanatory sequential mixed design to help the researcher obtain a more valid and extensive results by providing further explanation of the quantitative data results with follow-up qualitative data results (Creswell, 2014). In social science, three (3) research approaches have been identified as qualitative, quantitative and mixed methods. Whereas qualitative approach uses text in the analysis of data, quantitative approach uses numbers in the presentation of analysis.

The mixed approach applies aspects of both qualitative and quantitative approaches (Asenahabi, 2019). According to Creswell (2014), the use of mixed method allows a researcher to look for information (data) from diverse sources to help deal with questions at hand from different point of views. The use of mixed approach seeks to broaden the scope of a research by incorporating diverse information from different sources and guaranteeing research validity (Creswell, 2014). Using mixed approach increases the comprehensiveness of a research findings by indicating how qualitative data gives explanations for statistical data (quantitative data) (Asenahabi, 2019). The research study employed the mixed method approach because both quantitative and qualitative data obtained from participants (collected with the use of questionnaires, interviews and focus group discussions) were gathered and analyzed quantitatively and qualitatively.

### **Study Area**

The study was conducted in all the beneficiary communities in the Assin South District in the Central Region of Ghana. The study recounted the profile of the district under the following headings: location and size, population

distribution, vegetation and climate, cultural structure, the local economy and educational status.

The Assin South District is one of the 260 Metropolitan, Municipal and District Assemblies in Ghana and forms part of the 22 Municipal and District Assemblies in the Central Region (Ghana Statistical Service, 2013). The district was carved out of the former Assin District on 18th February, 2004 and currently, Nsuaem Kyekyewere serves as the district's capital. Assin South District is located on latitude 5° 30' N and on longitude 10° 2' W. According to the Ghana Statistical Service (2013), the district covers a total land area of 1100, 89650km<sup>2</sup> (square kilometers) representing 11.4 percent of the total land area of the Central Region.

The population of the Assin South District stands at 104,244 (Ghana Statistical Service, 2013). Of the 104,244 population, there are 53,308 females representing 51.1% compared to 50,936 males representing 48.9%. Compared to 5.3 percent of the aged group, more than one third, representing 42.9% of the population are children who are less than 15 years.

The Assin South District has two major traditional paramountcy; the Assin Apemanim and Assin Atendasu. Assin Apemanim paramount area is situated in Assin Manso, whereas that of Assin Atendasu is headquartered in Nyankumasi Ahenkro (Ghana Statistical Service, 2013). The dominant ethnic group, representing 48.4% of the population is the Assins followed by Fantes with 32% (Ghana Statistical Service, 2013). The Asantes, Akuapems, Ewes and Gas representing 20% of the population form the minority group. Asante Twi represents the most widely spoken language in the district. Of the population, 80% are affiliated to Christianity and this is followed by Islam

representing 7.6% and Traditional Religion representing 0.60%. 6.1% do not belong to any religious affiliation while 5.7% represents a section of the population whose religious affiliation cannot be identified (Ghana Statistical Service, 2013).

Agriculture is a major economic activity, accounting for about 68% in the district. There are also small-scale cottage industries for the processing of oil palm, palm kernel and cassava. These are the major sources of livelihood to the people. Cassava, plantain, maize and legumes are the commonly grown crops in the district. Cocoa, citrus and oil palm represent the cash crops component which also supports their livelihood.

Of the population 11 years and above, 77.3 percent are literate and 22.75 percent are non-literate. The proportion of literate males is higher (85.3 %) than that of females (70.0%). Six out of every ten people (60.4%) speak and write both English and Ghanaian languages. Of the population aged 3 years and above (94,682) in the district, 19.4 percent has never attended school, 44.3 percent are currently attending and 36.3 percent have attended in the past (Ghana Statistical Service, 2013).

The figure below shows the map of the study area and indicates the 10 selected communities in green dots where the study was conducted. The study area shares boundaries with Twifo Hemang Lower Denkyira District on the West, Abura Asebu Kwamankese District on the South, Asikuma Odoben-Brakwa and Ajumako Enyan Essiam District on the East and Assin North Municipal on the Northern border (Figure 2).



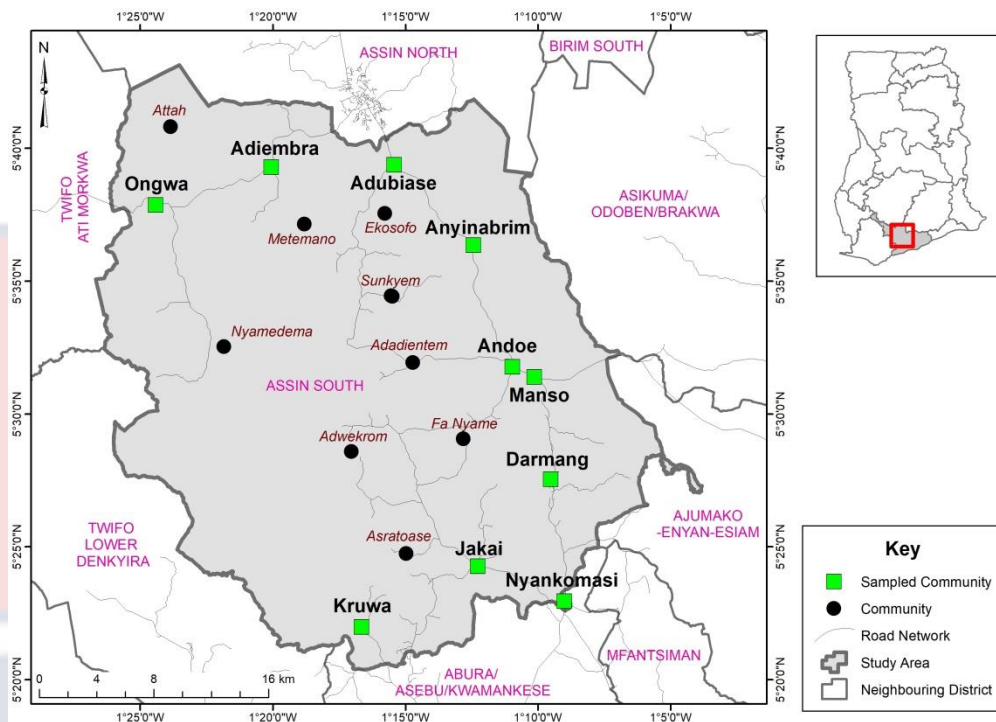


Figure 2: Map of Assin South District showing the Study Area in Green Dots  
Source: Department of Geography and Regional Planning, UCC.

### Study Population

The target population, as posited by Majid (2018), represents the population the research intends to study with reference to the gap identified. The study used 230 beneficiaries (Table 1), made up of 95 head teachers, 109 parents and 26 local foodstuffs farmers. The number of parents, head teachers and local foodstuffs farmers was obtained from the 10 Educational Circuits in the district. Parents whose names appeared in the schools' admission registers were listed and made to constitute their population. List of head teachers whose schools enjoy the programme was provided by the district education directorate and made to constitute their population. List of local foodstuffs farmers known to produce for the programme was collected from the district SFP coordinating officials and made to constitute their population. The

breakdown of the number of the study population from the 10 Educational Circuits was represented in Table 1.

**Table 1: Population of Head teachers, Parents and Local Foodstuffs Farmers from the 10 Educational Circuits in the Assin South District**

Names of Circuits	Number of Head teachers	Number of Parents	Number of Local Foodstuffs Farmers	Total
Adiembra	9	10	3	22
Andoe	8	10	2	20
Manso	10	13	3	26
Darmang	10	12	4	26
Ongwa	7	11	2	20
Jakai	11	10	3	24
Kruwa	10	10	2	22
Nyankumasi	12	13	3	28
Adubiase	8	9	2	19
Anyinabrim	10	11	2	23
<b>Total</b>	<b>95</b>	<b>109</b>	<b>26</b>	<b>230</b>

N = 230, Source: Field Survey, Adjei (2022)

### Sample Size and Sampling Procedure

Ofori and Dampson (2011), describe a sample as a portion of a study population chosen for the purpose of studying a peculiar behaviour, characteristic or attitude based on which generalization is made to the entire population. The authors further pointed out that, a sample size may be small or large and it is affected by factors such as accessibility of targeted population, nature of the study and manageability.

The study's sample size was determined using Krejcie and Morgan (1970)'s table of sample determination (Appendix D). Thus, for a population of 230, a sample size of 144, comprising of 63 parents, 55 head teachers and 26 local foodstuffs farmers was considered appropriate as a representative of the

population to find out their perceptions on the extent to which the feeding initiative has been effective in helping to improve the livelihoods of beneficiary communities. Multistage approach of sampling was adopted to select the respondents for data collection. The researcher's choice of this sampling technique was informed by what Taherdoost (2016), posited that, the use of the multistage technique saves the researcher from the difficulty of selecting the units of a research at a go. The selection of the respondents for data collection involved six stages.

In the first stage, census sampling technique was used to include all the 10 educational circuits in the study due to their lower number.

The second stage involved the stratification of the sampling into two strata. The first stratum was made up of community primary schools which are enjoying the school feeding programme and the second stratum made up of those that do not enjoy it in all the circuits. There are a total of 95 community primary schools which enjoy the feeding programme in all the circuits.

In the third stage, balloting was done to randomly select a number of schools from the 95 beneficiary schools under each circuit. To achieve this, the names of the beneficiary schools under each circuit were indicated on pieces of paper. The pieces of paper were then folded and collected in a bowl. This was followed by a selection of folded papers, indicating "Selected Schools" through replacement selection method. The selection procedure continued with the rest of the circuits to obtain the required number of schools. Number of beneficiary basic schools sampled was represented in Table 2.

**Table 2: Number of Beneficiary Basic Schools sampled from the 10 Educational Circuits**

Names of Circuits	Number of Beneficiary Community Basic Schools	Number of Selected Schools
Adiembra	9	5
Andoe	8	4
Manso	10	6
Darmang	10	6
Ongwa	7	4
Jakai	11	6
Kruwa	10	6
Nyankumasi	12	7
Adubiase	8	5
Anyinabrim	10	6
<b>Total</b>	<b>95</b>	<b>55</b>

Source: Field Survey, Adjei (2022)

The stage four involved the selection of head teachers for the study and this was done by census for all schools listed in Table 2. Thus, the study used 55 head teachers as respondents. The number of head teacher respondents was represented in Table 3.

**Table 3: Names of Circuits and Number of Head teacher Respondents**

Names of Circuits	Number of Head teachers from the Selected Schools
Adiembra	5
Andoe	4
Manso	6
Darmang	6
Ongwa	4
Jakai	6
Kruwa	6
Nyankumasi	7
Adubiase	5
Anyinabrim	6
<b>Total</b>	<b>55</b>

Source: Field Survey, Adjei (2022)

From each of the 10 Educational Circuits, the parent respondents were selected randomly from the list of parents obtained from the schools' admission registers. Specifically, this was done through replacement balloting method. Names of parents on the list obtained from the selected schools' (Table 2) admission registers were written on separate pieces of papers. With the help some class teachers, the papers were then shuffled and picked to constitute parents' respondents. This was done in stage five. The number of parent respondents selected from the 10 Educational Circuits was represented in Table 4.

**Table 4: Names of Circuits and Number of Parent Respondents**

<b>Name of Circuits</b>	<b>Number of Parents/Guardians</b>
Adiembra	8
Andoe	7
Manso	8
Darmang	8
Ongwa	5
Jakai	5
Kruwa	4
Nyankumasi	8
Adubiase	5
Anyinabrim	5
<b>Total</b>	<b>63</b>

Source: Field Survey, Adjei (2022)

Finally, the local foodstuffs farmer respondents were selected. The researcher performed this sampling by census due to the lower foodstuffs' farmer population obtained (Table 1). Thus, 26 foodstuffs farmers were used and made to provide responses in the study. The number of head teachers, parents and foodstuffs farmers selected from the 10 Educational Circuits as sample size was represented in Table 5.

**Table 5: Sample Size Selected for the Study**

<b>Names of Circuits</b>	<b>No. of Head teachers</b>	<b>No. of Parents</b>	<b>No. of Local Foodstuffs Farmers</b>	<b>Total</b>
Adiembra	5	8	3	16
Andoe	4	7	2	13
Manso	6	8	3	17
Darmang	6	8	4	18
Ongwa	4	5	2	11
Jakai	6	5	3	14
Kruwa	6	4	2	12
Nyankumasi	7	8	3	18
Adubiase	5	5	2	12
Anyinabrim	6	5	2	13
<b>Total</b>	<b>55</b>	<b>63</b>	<b>26</b>	<b>144</b>

n = 144, Source: Field Survey, Adjei (2022)

### **Data Collection Instruments**

The researcher used questionnaires, informal interviews and focus group discussions to solicit respondents' views and perceptions. Questionnaires were used to collect quantitative data whereas the qualitative data were obtained with informal interviews and focus group discussions. The questionnaires were administered on all the categories of the respondents to gather the quantitative data whereas the interviews and FGDs for the qualitative data were organized for some selected participants from each of the categories. The choice of these instruments by the researcher was informed by the fact that, the study employed mixed research approach. As Almalki (2016), indicated, the use of mixed approach allows for diverse information to be gathered from diverse sources and this assists the researcher in tackling diverse questions from diverse sources. Thus, since the study was explanatory

in nature and therefore employed the mixed approach, multiple data collection instruments were used on different respondents in the study for gathering diverse information.

### **Questionnaire (Structured and Semi-Structured)**

The choice of questionnaire was informed by what Creswell (2014), posited that, the use of questionnaire is considered important when statistically quantifiable data are to be gathered in social science research. Also, McLeod (2018), indicated that, the use of questionnaire is more advantageous because it allows a higher percentage of respondents to be covered and reached in no time. Both structured and semi-structured questionnaires were administered to the participants (parents, head teachers and local foodstuffs farmers). Questionnaires administered to parents who had their children enrolled in the beneficiary schools were structured (contained closed-ended questions) and consisted of three sections (A, B and C).

The Section A sought information on the extent to which the SFP has been effective in motivating them to enroll their children. The variable (motivation) was measured on a five-point Likert-type scale and interpreted as follows: 0 (cannot tell), 1 (Very Lowly Effective), 2 (Lowly Effective), 3 (Moderately Effective), 4 (Effective) and 5 (Very Effective). The section B sought information on their perceptions on the extent to which the SFP has been effective in improving their level of income and finances. The variables (level of income and finances) were measured on a five-point Likert-type scale and interpreted as follows: 0 (cannot tell), 1 (Very Lowly Effective), 2 (Lowly Effective), 3 (Moderately Effective), 4 (Effective) and 5 (Very Effective).

Section C finally sought to gather information on their socio-economic and demographic characteristics. Parents were asked to provide information on their marital status, age, number of dependents, alternative source of income, sex, level of education and sources of labour for their businesses. These variables were measured with the use of closed-ended questions.

The questionnaires for head teachers were also structured (contained closed-ended questions) and consisted of two sections (A and B). The section A sought information regarding their perceptions on the extent to which the SFP has been effective in improving the employment situations (rates) in the beneficiary communities. The variable (employment situation) was measured on a five-point Likert-type scale and interpreted as: 0 (Cannot Tell), 1 (Very Lowly Effective), 2 (Lowly Effective), 3 (Moderately effective), 4 (effective) and 5 (very effective). Head teachers of these communities were deemed suitable in helping to determine the employment situations with the inception of the SFP because, as part of their administrative duties, they keep records on number of cooks, caterers, farmers and other service providers who have gained employment through the programme.

The section B also sought information on their demographic and socio-economic characteristics. They were asked to provide information on their circuit name, age, sex, working experience, rank, marital status, enrolment situation, staffing situation and alternative source of income for their schools. These were measured using closed-ended questions.

The questionnaires for the local foodstuff's farmers were both structured and unstructured (contained closed and open-ended questions) and consisted of three sections (A, B and C).



Section A sought information on farmers' perceptions and views on how effective the Agricultural Extension Service (AES) component of the SFP has been in improving their living conditions. Specifically, respondents were asked to provide their views on how the AES component of SFP has been effective in influencing their living conditions in the areas of their farm sizes, methods of planting, sources of planting materials, fertilizer application, frequency of harvest, agro-chemical usage, accessibility to fertilizers, accessibility to credit facilities (funds) and agricultural information. These variables were measured using closed-ended questions.

Section B sought information on their perceptions and views on the extent to which the SFP has been effective in guaranteeing the safety and prompt market avenues for their farm produce. Specifically, respondents were asked to provide their views on the extent to which the intervention has been effective in relying on the locally produced foodstuffs, providing a reliable and ready market for foodstuffs, making alternative arrangements for the purchasing of farmers' foodstuffs, making provisions for means of storing farmers' perishable foodstuffs, providing some kind of support for prompt harvesting of farmers' foodstuffs and organizing workshops on produce handling to reduce post-harvest losses. These variables were measured with the use of both closed and open-ended questions.

Section C sought information on their demographic and socio-economic characteristics. Information about their age, sex, educational level, alternative source of income, number of dependents and sources of labour were sought and these variables were measured using closed-ended questions.

### Informal Interview

Some participants from each of the groups (parents, head teachers and foodstuffs farmers) were selected and separately engaged in informal face-to-face interviews. The intention was to help gather qualitative data regarding their views and perceptions on how the school feeding intervention seeks to address some of their socio-economic challenges. Forty-two (42) participants, comprising of seventeen (17) head teachers, eighteen (18) parents and seven (7) foodstuffs farmers were selected with a multistage technique and separately interviewed. The first stage involved the purposive selection of Andoe, Anyinabrim and Nyankumasi circuits out of the ten educational circuits in the district. This is because these circuits were known to have experienced the feeding intervention longer and participants were therefore presumed to have accumulated more experiences to share about the programme. In the second stage a simple random sampling method was used to select head teacher and parent participants from the population obtained for each of the selected circuits in Table 1. In the third stage, the foodstuffs farmer participants were selected by census from the population obtained for each of the circuits in Table 1 due to their lower number. Selected participants ( $17 + 18 + 7 = 42$ ) for the interview sessions are shown in Table 6.

**Table 6: Selected Participants for the Interview Sessions**

Circuit	HT	No.	Parent	No.	Foodstuffs	No.
	Population	Selected	Population	Selected	Farmer	Selected
					Population	
Andoe	8	5	10	5	2	2
Anyinabrim	10	5	11	6	2	2
Nyankumasi	12	7	13	7	3	3
<b>Total</b>	<b>30</b>	<b>17</b>	<b>34</b>	<b>18</b>	<b>7</b>	<b>7</b>

Source: Field Data, Adjei (2022)

Participants' responses during the interview sessions were recorded with the researcher's cell phone and later transcribed for analysis.

The choice of interview as a data collection tool in the study was informed by what Kumar (2011), indicated that, the use of interview grants the researcher the opportunity for further probing and clarification of issues to the respondents.

#### **Focus Group Discussion (FGD)**

According to Kumar (2011), Focus Group Discussion is a qualitative research data collection instrument employed to seek for the perceptions, opinions, attitudes and interests of a group of people on a particular topic or issue, programme, intervention, product or service through a cordial discussion between the members of that group and the researcher. Ofori and Dampson (2011), noted that, Focus Group Discussion exhibits the characteristics of a group interview where both the participants and the researcher are fully involved in a discussion, with the researcher serving as a facilitator. They further added that, in Focus Group Discussion, the group size is usually

dictated by the nature of the study, but ideally, it ranges from 6 to 12. The choice of this instrument in the study was informed by what Kumar (2011), asserted, that focus group discussion allows the researcher to have in-depth understanding of the views and perceptions of a programme because it guarantees group members the opportunity to freely articulate their views and perceptions about a programme in natural settings. The study was intended to examine the participants' perceptions, views, opinions and beliefs as to how effective the Ghana School Feeding Programme has been in improving their economic livelihoods, hence, the use of focus group discussions.

Three (3) different focus group discussions were conducted at different venues specifically for local foodstuffs farmers. The intention was to ascertain their views regarding why the caterers do not patronize their foodstuffs. Census sampling technique was used to include all the 26 foodstuffs farmers comprising of 9 (6 males and 3 females), 8 (5 males and 3 females), and 9 (6 males and 3 females) participants respectively for the three (3) focus group meetings. Three (3) Circuit Centers (FGDs venues), namely, Andoe, Anyinabrim and Nyankumasi were first selected on the basis of farmers' proximity to the discussion venues from their localities. On the basis of proximity, the farmers were then grouped into 3 and each group was assigned to its respective discussion venue. In consensus with the participating groups, a day and specific meeting time for the exercise were decided and each group was made to converge at its meeting venue at the time decided.

At each FG meeting, discussions were done within a period of an hour with the researcher serving as a facilitator and taking salient notes. Discussions were strictly centered on what the local farmers held as alternative

reasons (Table 25) why the caterers in the beneficiary basic schools do not patronize their foodstuffs. Table 7 shows the breakdown of the 26 participants (foodstuffs farmers), duration and number of FGDs held.

**Table 7: Number of Participants (Foodstuffs Farmers), Duration, FGDs held and their Centres**

FGD Held	Duration of Discussion	Circuit Centre (Meeting Centre)	No. of Foodstuffs Farmers		Pooled
			Males	Females	
1 <sup>st</sup> FGD	8:30-9:30am	Andoe	6	3	9
2 <sup>nd</sup> FGD	10:30-11:30am	Anyinabrim	5	3	8
3 <sup>rd</sup> FGD	12:30-1:30pm	Nyankumasi	6	3	9
<b>Total</b>			<b>17</b>	<b>9</b>	<b>26</b>

Source: Field Data, Adjei (2022)

### Pre-Testing of Instruments

The School Feeding Programme is also operational in some Basic Community Schools in the Abura-Asebu Kwamankese District (A.A.K.D) in the Central Region of Ghana. The instruments were pretested on 10 head teachers, 15 parents or guardians and 10 local foodstuffs farmers making a total of 35 respondents from this beneficiary district. To ensure authenticity, the instruments were subjected to validity and reliability tests after pre-testing.

According to Bolarinwa (2015), a research instrument is said to be valid only when it is able to accurately measure what it is meant to measure and meet its intended purpose for which the researcher designed and applied it. In this study, the instruments were validated using three validating approaches; face validity, content validity and construct validity. The face

validity of the instruments was checked by the researcher. This was done to determine whether or not the research instruments were in line with the variables they intended to measure and the research objectives they were to achieve. The content validity was checked by an officer in the SFP management team whereas the construct validity was done by the research supervisor.

The reliability of the research instruments was also determined. According to Pallant (2011), a research instruments are considered reliable only when its Cronbach Alpha Value is equal to or more than 0.7. The researcher ensured the reliability of the research instruments by inputting the field data into the SPSS version 25 to help estimate the Cronbach's alpha values for the number of items under each of the variables.

Tables 8, 9 and 10 present the Cronbach's alpha values obtained for the instruments (questionnaires) administered to parents, head teachers and foodstuffs farmers respectively.

As indicated in Table 8, 0.79 was obtained for the instrument administered to parents to find out the extent to which the SFP has been effective in motivating them to enroll their children and increasing their income levels.

**Table 8: Reliability (Cronbach's alpha value) of the Instrument Administered to Parents**

Item	Number of Items	Cronbach's alpha value
SFP as a motivation for Parents to enroll their children and increase their income level	14	0.79

Source: Field Survey, Adjei (2022)

Also, Table 9 shows that, 0.92 was estimated for the instrument administered to head teachers to determine their perceptions on the extent to which the SFP has been effective in improving the employment situations (rates) in the beneficiary communities.

**Table 9: Reliability (Cronbach's alpha value) of the Instrument Administered to Head teachers**

Item	Number of Items	Cronbach's alpha value
SFP to improve the employment situations (Rates) in the Ben. Com.	7	0.92

Source: Field Survey, Adjei (2022)

Finally, Table 10 shows that, 0.99 was scored for the instrument administered to foodstuffs farmers to determine their perceptions on the extent to which the SFP has been effective in ensuring the safety and prompt market for their foodstuffs.

**Table 10: Reliability (Cronbach's alpha value) of the Instrument Administered to Foodstuffs Farmers**

Item	Number of Items	Cronbach's alpha value
SFP to ensure the safety and prompt market for farmers' foodstuffs	6	0.99

Source: Field Survey, Adjei (2022)

It can be observed that, the Cronbach's alpha values obtained fall within the specification given by Pallant (2011), and this was an indication that, the instruments administered to these categories of respondents were reliable.

### **Data Collection**

Data collection was done by the researcher in the months of March and April, 2022. The administration of the validated and pretested research instruments to the respondents was done in their local dialect by the researcher. Responses from respondents were carefully and accurately recorded to facilitate the data analysis process. Prior to the administration of the instruments, respondents were briefed on the purpose of the study and assured that, any information they would provide would only be meant for academic purposes and would therefore be treated with utmost confidentiality. Respondents' time schedules were also taken into consideration to ensure that meeting hours were not interrupted by their daily activities.

### **Data Processing and Analysis**

For the purpose of employing mixed method in the study, data processing and analysis were done in two different stages. In the first stage, data (quantitative data) collected through questionnaires were coded and inputted into the SPSS Version 25 to generate the required and appropriate statistical tools (frequencies, percentages, means, standard deviations and correlations) for the analysis. The intention was to:

1. Determine the scores (in terms of mean perceptions) from parents on the extent of effectiveness of the school feeding programme in motivating them to enroll their children and improving their level of income and finances.
2. Determine the scores (in terms of mean perceptions) from head teachers of the beneficiary community basic schools on the extent of



effectiveness of the school feeding programme in improving the employment situations in the communities.

3. Determine the scores (in terms of percentages) from local foodstuffs farmers on how effective the AES component of the school feeding programme has been in improving their living conditions.
4. Determine the scores (in terms of mean perceptions) from local foodstuffs farmers on the extent of effectiveness of the school feeding programme in ensuring the safety and prompt market avenues for their foodstuffs.

For each of the research specific objectives, analysis was done as follows:

The objective one (1) sought to determine parents' perceptions on the extent to which the SFP has been effective in motivating them to enroll their children in school. The researcher employed means and standard deviations to describe their perceptions about the programme.

The objective two (2) sought to determine parents' perceptions on the extent to which the SFP has been effective in improving their level of income and finances. Means and standard deviations were used to describe their perceptions.

The objective three (3) sought to evaluate the extent to which the SFP has been effective in improving the employment situations (rates) in the beneficiary communities. Employment records of the programme were sought from the head teachers of the community basic schools. Means and standard deviations were employed to describe the level of effectiveness of the programme.

The objective four (4) also sought information on the local foodstuffs farmers' perceptions and views on how effective the Agricultural Extension Service (AES) component of the SFP has been in improving their living conditions. This data was analyzed with the use of frequencies and percentages.

Objective five (5) sought information on the perceptions and views of the foodstuffs' farmers on how effective the SFP has been in ensuring prompt market and safety of their farm produce. The data obtained were analyzed with the use of means and standard deviations.

Lastly, objective six (6) sought to determine the extent to which the socio-economic and demographic characteristics of parents influence the perceived effectiveness of the School Feeding Programme in improving their living conditions and the general wellbeing of the beneficiary communities. To analyze this data, the Pearson's Product Moment Correlation Co-efficient and linear regression were employed. Table 11 presents the summary on how the analyses were done for each of the specific objectives of the study.

**Table 11: Summary of Quantitative Data Processing and Analysis**

<b>Specific Objectives</b>	<b>Analysis Performed with SPSS</b>
Objective One (1)	Means and Standard Deviations
Objective Two (2)	Means and Standard Deviations
Objective Three (3)	Means and Standard Deviations
Objective Four (4)	Frequencies and Percentages
Objective Five (5)	Means and Standard Deviations
Objective Six (6)	Pearson's Product Moment Correlation Co-efficient and linear regression

Source: Field Survey, Adjei (2022).

In the second stage, the qualitative data collected through informal interviews and focus group discussions were manually transcribed and

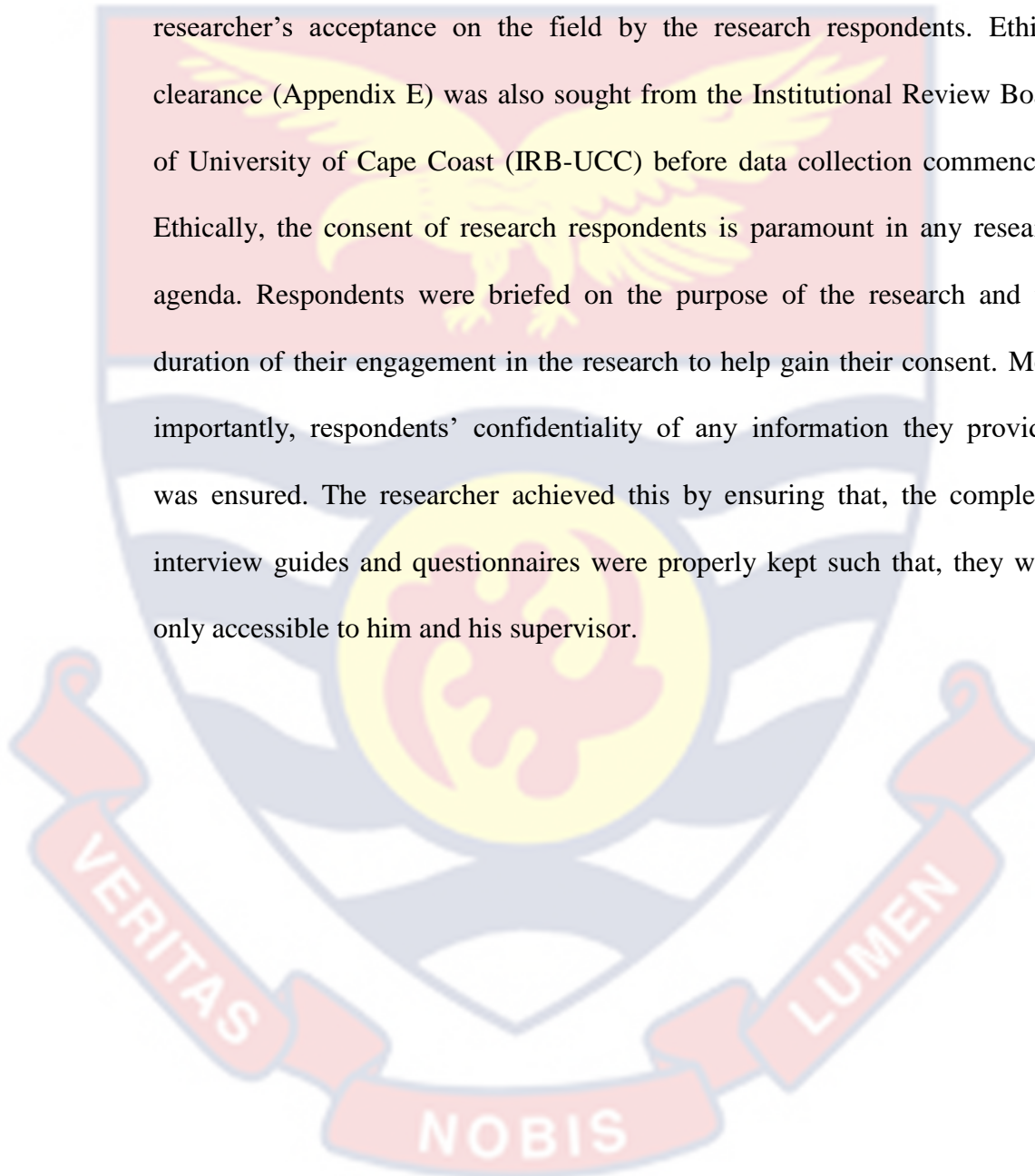
analyzed with the use of thematic analysis. Here, the transcribed data were read through for the purpose of identifying meanings and patterns. The identified meanings and patterns were coded and categorized into basic themes. This was followed by the grouping and sorting of the basic themes into organizing themes. The organizing themes were then sorted and similar themes merged into concluding themes as: SFP as a motivator for parents, SFP to reduce unemployment problems and SFP to improve the livelihoods of foodstuffs' farmers. These themes were made to constitute the general themes for interpretation and reporting.

**Table 12: Definition of Variables**

<b>Dependent Variable</b>	<b>Independent Variables</b>	<b>Unit of Measurement</b>	<b>Expected Direction</b>	<b>Tolerance</b>	<b>VIF</b>
Perceived Effectiveness of GSFP	Sex	1-Male 0- Female	-	.726	1.377
	Age	Years	+	.413	2.418
	Marital Status	0-Married 1- Unmarried	+/-	.512	1.953
	Level of Edu.	0- Primary 0- Others	+		
		Numbers	-	.764	1.309
	No. of Dependent	1- Banks 0- Others	+	.507	1.973
	Alternative Sources of Funds for Business			.931	1.074
	Sources of labour	1- Family Labour 0- Others	+	.680	1.470

### **Ethical Considerations**

Prior to the commencement of the field data collection, a letter was written and copied to the Department of Agricultural Extension and Economics to request for a letter of introduction to help guarantee the researcher's acceptance on the field by the research respondents. Ethical clearance (Appendix E) was also sought from the Institutional Review Board of University of Cape Coast (IRB-UCC) before data collection commenced. Ethically, the consent of research respondents is paramount in any research agenda. Respondents were briefed on the purpose of the research and the duration of their engagement in the research to help gain their consent. More importantly, respondents' confidentiality of any information they provided was ensured. The researcher achieved this by ensuring that, the completed interview guides and questionnaires were properly kept such that, they were only accessible to him and his supervisor.



## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### Introduction

This chapter presents concurrent discussions on the results of the analysis on quantitative and qualitative data collected from the field with reference to the objectives of the study. The chapter was structured to have six sections. The first section discussed the perceptions of parents on how effective the school feeding programme has been in motivating them to enroll their school-age children. The second section discussed the perceptions of parents on how effective the programme has been in improving their income levels and finances. The third section also presented the perceptions of head teachers of the beneficiary basic community schools on how effective the programme has been in improving the employment situations in the communities. The fourth section discussed the experiences of the local foodstuff's farmers on how influential the agricultural extension service component of the programme has been in improving their living conditions. Also, the section five dealt with the perceptions of local foodstuffs farmers on how effective the programme has been in ensuring the safety and prompt market for their foodstuffs. Finally, the sixth section discussed the results of the influence of the respondents' socio-economic and demographic characteristics on their perceptions on the extent of effectiveness of SFP.

#### **Perceived Effectiveness of SFP in Motivating Parents to Enroll their School-going Children**

Table 13 provides the mean analysis on how parents in the Assin South District perceived the extent of effectiveness of SFP in motivating them to

enroll their children. It can be observed that, for ‘reduced sickness rate’ (mean=3.21; SD=0.57), some parents perceived the SFP as ‘moderate’. The programme was found to be ‘effective’ by majority of parents in motivating them based on feeding cost alleviation (mean=3.95; SD=0.21), quality and nutritious foods served (mean=3.70; SD=0.46), less food eaten at home (mean=3.65; SD=0.48), diversity in foods served (mean=3.89; SD=0.32) and children provided with food whenever they attend school (mean=3.83; SD=0.38). It can also be observed from the table that, a composite means of 3.7 with a standard deviation of 0.40 was obtained and this supports the fact that, majority of the parents perceived the SFP as ‘effective’ in driving them to enroll their children. During my engagement in an informal interview with some respondents, this is what one of them had to say as why she is motivated to send her children to school:

*... In fact, I can confidently say that this food intervention was brought to this village because of me and purposely to save my situation. I see no reason why I should not be motivated to let my children go to school. Cost of feeding is no longer my burden because the programme has taken care of it [Parent Respondent 1].*

In a similar informal interview, a 42year old smallholder farmer articulated why she is motivated to send her children to school as:

*... Through the efforts of our local leaders, we are now enjoying the programme. My children can now boast of enjoying foods like gari and beans with fried plantain, banku and okro stew, rice and stew and others which they did not have the opportunity to eat at home [Parent Respondent 2].*

These results support similar findings in a SFP survey conducted by Osei (2011), that, 92% of parents perceived the programme as effective in terms of being an incentive package for them to ensure that, their children are retained in school. Furthermore, the survey revealed that, parents and guardians attributed this to non-payment of feeding fee at school. The results also supports the findings of Oganga (2013), that, the WFP's School Feeding Initiative in Tanzania had been effective in ensuring higher enrolment and motivating parents to keep and get their children enrolled in schools. Parents' perceptions on SFP as a motivating factor, justifies the findings of some empirical studies on the programme that, "food prepared in schools are of high quality and therefore meet the nutritional requirement of children than those prepared by poor families".

**Table 13: Perceived Effectiveness of the SFP in Motivating Parents to Enroll their Children**

<b>Perceived Effectiveness</b>	<b>Mean</b>	<b>SD</b>
Burden of feeding cost alleviated	3.95	0.21
Quality and nutritious foods are served	3.70	0.46
Children eat less at home when they eat in school	3.65	0.48
Children's sickness rate is reduced due to fortified foods served	3.21	0.57
Diversity in foods served to children	3.89	0.32
Children eat whenever they attend school	3.83	0.38
<b>Composite</b>	<b>3.7</b>	<b>0.40</b>

n= 63, Source: Field Survey, Adjei (2022), Scale: 0=Cannot Tell, 1=Very Lowly Effective, 2=Lowly Effective, 3=Moderately Effective, 4=Effective, 5=Very Effective

#### **Perceived Effectiveness of the SFP in Improving the Income Level and Finances of Parents**

Table 14 presents the mean analysis on the perceptions of parents on the extent to which the school feeding programme has been effective in improving

their income level and finances. It can be observed from the table that, for ‘increased income level’ (mean=3.73; SD=0.45), some parents perceived the SFP as ‘effective’. Majority of the parents found the programme to be ‘moderately effective’ in improving their level of income and finances based on ‘decreased debts’ (mean=3.33; SD=0.48), ‘saved money on healthcare’ (mean=3.13; SD=0.42), ‘settled some financial commitments’ (mean=3.14; SD=0.43), ‘increased savings with banks’ (mean=3.25; SD=0.44), ‘pay school fees for my children in tertiary schools’ (mean=3.06; SD=0.35), ‘an appreciable loan amount acquisition due to increased savings’ (mean=3.14; SD=0.43) and ‘provision of some financial support to some family members’ (mean=3.11; SD=0.41). Also, the table presents a composite mean of 3.24 with a standard deviation of 0.43 and this indicates that, majority of the respondents perceived the programme as ‘moderately effective’ in helping them improve on their income level and finances. In one of the researcher’s engagements with a respondent in an informal interview, she expressed her views and opinions as to how the SFP has brought improvement in her finances as:

*.....In fact, I have taken advantage of the SFP to save some money to take care of other expenses. This has been possible because the afternoon meal served to my children at school is able to sustain them till evening, so the issue of spending money on food for lunch is no longer a problem. I do not also spend much on food for supper because they come home with their stomachs already filled [Parent Respondent 3].*

These results agree with the findings of Tagoe (2018), that, the introduction of the GSFP has inculcated in many parents the culture of



financial savings. This was based on his results that, majority (73%) of the parents in the study perceived the SFP as effective in improving their finances because, they could save some monies which would have been spent on feeding at school. The results are also in agreement with WFP (2013)'s report, that, School Feeding Programme has come to relieve poor parents from the burden of spending on feeding their children on every school day.

**Table 14: Perceived Effectiveness of the SFP in Improving the Income Level and Finances of Parents**

Perceived Effectiveness	Mean	SD
Increased income level	3.73	0.45
Decreased my debts.	3.33	0.48
Saved money on health care	3.13	0.42
Settled some financial commitments.	3.14	0.43
Increased savings with banks.	3.25	0.44
Paid school fees for my children in tertiary schools.	3.06	0.35
I can acquire an appreciable loan amount due to increased savings.	3.14	0.43
I can provide some financial support to some family members.	3.11	0.41
<b>Composite</b>	<b>3.24</b>	<b>0.43</b>

n= 63, Source: Field Survey, Adjei (2022), Scale: 0=Cannot Tell, 1=Very Lowly Effective, 2=Lowly Effective, 3=Moderately Effective, 4=Effective, 5=Very Effective

#### **Perceived Effectiveness of the SFP in Improving the Employment Situations (Rates) in the Beneficiary Communities**

Table 15 presents the mean analysis on the perceptions of head teachers in the beneficiary community basic schools on the extent to which the school feeding intervention has been effective in improving the employment situations (rates).

It can be observed that, the effectiveness of the programme was generally

perceived as 'high' (Composite mean=3.67; SD=0.41) in helping to improve the employment situations in the implementing communities. Specifically, head teachers perceived the effectiveness of the SFP as 'high' in employing some cooks (mean=3.98; SD=0.13), caterers (mean=3.89; SD=0.31), firewood suppliers (mean=3.67; SD=0.47), palm oil suppliers (mean=3.64; SD=0.49), suppliers of rice to caterers (mean=3.56; SD=0.50) and suppliers of meat and fish (mean=3.51; SD=0.50), apart from creating employment for some people as suppliers of eggs (mean=3.45; SD=0.50) which was perceived as 'moderate'. A respondent of a beneficiary basic school shared how the SFP has helped in providing employment as:

*...I can testify to the fact that the employment condition in this community has improved with the SFP. As I speak to you, my school alone can boast of 1 permanent caterer, 2 cooks and 2 rice suppliers who have gained employment and are currently working in the name of the programme [Head Teacher Respondent 1].*

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

*..... I have been a head teacher in this school since 2014. The SFP ceased to operate in this school just in the era of the COVID19 pandemic. When the programme was operational, my school had 2 permanent caterers, 3 cooks, 1 rice supplier and 1 firewood supplier [Head Teacher Respondent 2].*

These results are in support of the Ministry of Gender, Children and Social Protection (2015)'s report, that, the GSFP has been an effective social intervention to provide income, employment and economic integration benefits to the implementing communities. The report further stated that, the

programme had employed about 20,000 people drawn from these communities as caterers and cooks nationwide.

**Table 15: Perceived Effectiveness of the SFP in Improving the Employment situations (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
<b>Composite</b>	<b>3.67</b>	<b>0.41</b>

n= 63, Source: Field Survey, Adjei (2022), Scale: 0=Cannot Tell, 1=Very Lowly Effective, 2=Lowly Effective, 3=Moderately Effective, 4=Effective, 5=Very Effective

The objective of the School Feeding Programme to create employment opportunities has also been confirmed by the field data gathered by the researcher to be specific on the number of people who have gained employment in the beneficiary circuit communities through the programme.

These employment data are represented in Table 16.

**Table 16: Number of Cooks, Caterers and Firewood Suppliers in the Selected Beneficiary Schools in the 10 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
Anyinabrim	12	6	6	24
<b>Total</b>	<b>120</b>	<b>55</b>	<b>55</b>	<b>230</b>

n= 230, Source: Field Survey, Adjei (2022)

### **The Influence of the AES Component of SFP on the Living Conditions of the Local Foodstuffs Farmers**

Under this heading, the results of the analysis on the influence of the Agricultural Extension Service component of SFP on the living conditions of the local foodstuffs farmers are presented. The analysis touched on how the AES influences foodstuffs farmers' living conditions in the areas of their farm sizes, method of planting, sources of planting materials, fertilizer application, frequency of harvest, application of agro chemicals, access to fertilizers, access to credit facilities and access to agricultural information.

#### **Size of Farmers' Farm**

Table 17 presents the analysis on how the AES component of SFP has influenced the living conditions of the foodstuff's farmers in the area of their farm sizes. It can be observed from the table that, majority (61.5%) of the

farmers realized an increase of 1 acre while 38.5% of them could realize an increase of 2 acres of their existing farm sizes. The researcher's interactions with the farmers revealed that, "the increase in the size of their existing farms was the result of the extension officers' recommendations on the use of weedicides to help manage large farms for the school feeding programme". In one of the informal interviews, a respondent in Anyinabrim Circuit shared how the AES officials have influenced his living conditions through increase in the size of his existing farm as:

*.....The idea of going into commercial production was not part of my plans. Economic conditions in villages are such that, they are unfriendly for farmers who manage small farms. Thankfully, I could increase my existing farm size from half an acre to one and 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 an assertion made by Jara-Rojas et al., (2020), that, agricultural extension is meant for achieving a social balance and economic development of rural areas in order to maintain production capacities through increased farm sizes.

**Table 17: Size of Farmers' Farm**

Farm Size (in acres)	Frequency	Percentage
1	16	61.5
2	10	38.5
3	0	0
<b>Total</b>	<b>26</b>	<b>100</b>

n = 26, Source: Field Survey, Adjei (2022)

### Farmers' Methods of Planting

Table 18 presents the analysis on how the AES component of the SFP influences the living conditions of the foodstuff's farmers in the area of their planting methods. The table indicates that, row planting was the preferred method (100%) practiced by the study's respondents with nothing recorded for both staggered (0%) and broadcasting (0%) methods. In an informal interview, a respondent in Adiembra shared how the AES officials have influenced his choice of planting method as:

*...In fact, production used to be very low in the period before the SFP and its AES component were introduced because I was practicing the staggered method of planting. Thankfully, the programme has been in this village for almost 5years and production has improved since I started practicing row planting method recommended by the AES officials [ Farmer Respondent 3].*

These findings conform to that of a survey conducted by Donkor, Sekyere, Owusu and Jordaan (2016 ), on impact of a row-planting technology on rice farming in Northern Ghana. The survey resulted in the adoption of row planting by more than two-third of the farmers. The findings also revealed that, the massive adoption of the row planting method by the farmers was as a result of the fact that the method permitted some farming operations to be

carried out with ease and also more plant population was realized compared to staggered and broadcasting methods.

**Table 18: Farmers' Methods of Planting**

Planting Method	Frequency	Percentage
Row Planting	26	100
Staggered Planting	0	0
Broadcasting	0	0
<b>Total</b>	<b>26</b>	<b>100</b>

n = 26, Source: Field Survey, Adjei (2022)

### Farmers' Sources of Planting Materials

Table 19 presents the analysis on how the AES component of the SFP influences the foodstuffs farmers' choices of planting materials to improve their living conditions. It can be observed from the table that, majority (80.8%) of the farmers adopted planting materials recommended to them by the AES officials. Four (4) out of the farmers representing 15.4% resorted to using their own planting materials (materials from previous harvest) and 1 of them, representing 3.8% used materials from the local market. The researcher's interactions with the respondents to ascertain the reasons behind the choice of the recommended planting materials by the majority 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 as:

*.....I used to prepare my own planting materials but I realized 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 are in support of the findings of a survey carried out by Bekele (2017), that, a remarkable improvement was found in the livelihoods of 84.7% of an improved cowpea seed beneficiary farmers. The results of the survey also revealed that, in terms of annual income, the improved seed beneficiary farmers earned 41.8% higher income compared to the non-beneficiaries. The results are also in support of the findings of a study by Dokyi, Anang and Owusu (2021), that, the adoption of an Improved Maize Seed Technology (IMST) by 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 are in conformity with the findings of some maize variety trial in Northern Ghana. At the end of the performance of the trial, Asselt, Battista, Kolavalli, Udry and Nate (2018), found that two recommended foreign hybrid maize seeds performed extremely better than Obaatanpa, a local maize variety widely known in the region.

**Table 19: Farmers' Sources of Planting Materials**

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

n = 26, Source: Field Survey, Adjei (2022)

#### **Farmers' Usage of Fertilizers in a Cropping Year**

Table 20 presents the analysis on how the AES component of the SFP influences the foodstuffs farmers' decisions on the use of fertilizers to improve their living conditions. Commonly grown crops such as maize, carrot, garden



eggs and cabbage were identified and the researcher was to find out the frequency at which farmers applied fertilizers in a cropping year under the influence of AES. The table shows that, 26.9% of the respondents applied once while majority, representing 73.1% applied twice in a cropping year.

According to the respondents, the positive attitudes towards the use of fertilizers by majority of the farmers could be explained by their ability to effect higher returns on yield. In Nyankumasi Circuit, a respondent shared how her decision on the use of fertilizer has been influenced by the AES officials as:

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

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

**Table 20: Farmers' Usage of Fertilizer 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
<b>Total</b>		<b>26</b>	<b>100</b>

n = 26, Source: Field Survey, Adjei (2022)

### Farmers' Frequency of Harvest in a Farming Year

Table 21 provides the analysis on 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 carrot. It can be observed from the table that, all the respondents, representing 100% harvested the crops twice in a farming year. 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. The results are in support of an assertion by Bekele (2017), that a sound agricultural recommendation is a function of a functional extension system and it aims to improve the livelihood of rural and poor farmers by expanding their production capacities. In an informal interview, a respondent in Nyamebebu shared how the AES officers have influenced the frequency of harvesting his produce as:

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

**Table 21: Farmers' Frequency of Harvest in a Farming Year**

Type of Crop	Frequency of Harvest	Frequency	Percentage
Carrot, Garden eggs, cabbage, Maize	Once	0	0
Carrot, Garden eggs, Cabbage, Maize	Twice	26	100
<b>Total</b>		<b>26</b>	<b>100</b>

n = 26, Source: Field Survey, Adjei (2022)

#### Farmers' Usage of Agro-chemicals in a Cropping Year

Table 21 presents the analysis on how the AES component of the SFP influences the foodstuffs farmers' agro-chemicals usage in a cropping year. Commonly grown crops such as maize, cabbage, garden eggs, pepper and carrot were identified and the researcher was to know how frequent farmers applied agrochemicals in a cropping year to improve their living conditions. It can be observed that, 11.5% of the respondents applied agrochemicals 'twice' in a cropping year while majority, representing 88.5% of them applied agrochemicals 'throughout' a cropping year. In their interactions with the researcher, majority of the respondents affirmed that, "their ability to manage large farm sizes could not have been realized if the extension officials had not given them the exposure to the use of agro-chemicals". Specifically, majority (88.5%) of the respondents affirmed that, "the use of agro-chemicals, such as weedicides, has come to increase their production capacities by reducing the drudgery of using 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 agro-chemicals as:

*... Farming has been my major source of livelihood for almost 32years. 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 agro-chemicals, and production has increased [ Farmer Respondent 7].*

These results are in support of an assertion by Dokyi, Anang and Owusu (2021), that, extension officials have a responsibility in ensuring the adoption of improved farming techniques by farmers.

**Table 22: Farmers' Usage of Agro-chemicals 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
<b>Total</b>	<b>26</b>	<b>100</b>

n = 26, Source: Field Survey, Adjei (2022)

#### **Farmers' Access to Credit Facilities (Funds)**

The results presented in Table 23 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. It can be observed that, accessibility to credits in the form of funds by majority (76.9%) of the respondents was low while the rest (23.1%) found it to be 'fairly accessible'. During the data collection, respondents expressed that, "the cause of their inability to access funds from most of the financial institutions is lack of collateral". It was further discovered that, although the extension officials function to provide directions

to farmers as to where they can obtain funds, conditions attached to loan procurement from these institutions are quite unbearable. A respondent in Anyinabrim Circuit shared his concerns on loan procurement in an informal interview as:

*... I have been into green pepper production for 6years. For all these years, the plan had been to commercialize the production of green pepper but the collateral aspect of funds acquisition from banks has been a limiting factor [ Farmer Respondent 8].*

**Table 23: Farmers' Access to Credit Facilities (Funds)**

Access to Credit	Frequency	Percentage
<b>Facilities</b>		
Lowly Accessible	20	76.9
Fairly Accessible	6	23.1
<b>Total</b>	<b>26</b>	<b>100</b>

n = 26, Source: Field Survey, Adjei (2022)

#### **Farmers' Access to Agricultural Information**

Table 24 presents the analysis on how the AES component of the SFP influences foodstuffs farmers' access to agricultural information to help improve their living conditions. It can be observed from the table that agricultural information is 'very accessible' to majority (80.8%) of the respondents. The researcher's interactions with them during the data collection 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 on their local information centers". When the researcher informally interviewed a respondent in Adiembra, he 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 actually seeking for the welfare of their farmers by making farming information available to us [ Farmer Respondent 9].*

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

**Table 24: 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
<b>Total</b>	<b>26</b>	<b>100</b>

n = 26, Source: Field Survey, Adjei (2022)

#### **Perceived Effectiveness of the SFP in Ensuring the Safety and Prompt Market for the Local Foodstuffs in the Beneficiary Communities**

Table 26 presents the mean analysis on the perceptions of the local foodstuffs' farmers in the beneficiary communities on the extent of effectiveness of the SFP in ensuring the safety and prompt market for their foodstuffs. It can be observed from the table that, the programme was generally perceived as 'lowly effective' (composite mean=2.43; SD=0.83) in guaranteeing the safety and prompt market for the locally produced foodstuffs. Specifically, farmers perceived the effectiveness of the SFP in relying on the locally produced foodstuffs (mean=2.38; SD=0.75), guaranteeing a reliable and ready market for foodstuffs (mean=2.46; SD=0.86), making alternative arrangements for the purchasing of foodstuffs (mean=2.42; SD=0.81), making

provisions for means of storing farmers' perishable foodstuffs (mean=2.46; SD=0.86), providing some kind of support for prompt harvesting of farmers' foodstuffs (mean=2.46; SD=0.86) and organizing workshops on produce handling to reduce post-harvest losses (mean=2.42; SD=0.81) as 'low'. The researcher's interactions with the farmers during the data collection revealed that, "although their school-going children benefit from the programme, farmers' foodstuffs in most of the beneficiary communities are left at the mercy of the middle women in their local markets". When an informal interview was granted to a respondent 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. Prices of my rice are dictated by them 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 the local farmers. When an informal interview was granted to a respondent in Assin Kumasi, a village in Nyankumasi Circuit, he shared his plight about the situation as:

*... 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 patronize 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 FAO (2018), that, the SFP in Brazil has been effective in addressing the issue of post-harvest losses resulting from 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 are also not in support of the findings of Miranda (2018), who found a School Lunch Programme in Thailand as 'effective' in guaranteeing a reliable market for foods produced locally. 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 by Caterers and Cooks through Focus Group Discussions (FGDs)**

The intention of the researcher was to further investigate the views and perceptions of farmers on low patronage for their foodstuffs. Specifically, it was to ascertain what exactly the farmers held as reasons why caterers and cooks in the beneficiary schools do not patronize their foodstuffs. In the three focus groups that were made of 9, 8 and 9 participants in each group respectively (Table 7), participants were asked to discuss and vote for the likely alternative reasons why caterers do not purchase their foodstuffs. Discussions were centered 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 25 presents the voting results for the alternative reasons. It can be observed that in all the FGDs, the alternative highly voted for (7, 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 credit basis. They prefer to deal with suppliers who would agree to be paid when government pays them, which most farmers are not able to wait till such a time [ Farmer Respondents in FGDs].*

**Table 25: Voting Results for Alternative Reasons for Non-Patronage of Farmers' Foodstuffs**

Alternative Reasons (Views)	1 <sup>st</sup> FGD	2 <sup>ND</sup> FGD	3 <sup>rd</sup> FGD
	Votes	Votes	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
<b>Total Votes</b>	<b>9</b>	<b>8</b>	<b>9</b>

Source: Field Data, Adjei (2022)

For the purpose of obtaining a confirmation for the above results, the researcher further granted informal interviews with some caterers to ascertain their views as to why they do not patronize farmers' foodstuffs. A caterer in one of the beneficiary schools shared her reasons for not patronizing farmers' local foodstuffs as:

*... I can confidently say that 85% of caterers who run SFP do not do their purchases with physical cash. They do their purchases on 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].*

**Table 26: Perceived Effectiveness of the SFP in Ensuring the Safety and Prompt Market for the Local Foodstuffs in the Beneficiary Communities**

<b>Perceived Effectiveness of SFP</b>	<b>Mean</b>	<b>SD</b>
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 organizes some workshops on produce handling to help me reduce post-harvest losses.	2.42	0.81
<b>Composite</b>	<b>2.43</b>	<b>0.83</b>

n = 26, Source: Field Survey, Adjei (2022), Scale: 0=Cannot Tell, 1=Very Lowly Effective, 2=Lowly Effective, 3=Moderately Effective, 4=Effective, 5=Very Effective

### **Socio-economic and Demographic Characteristics of Respondents**

Under this heading, the results of the analysis on the respondents' demographic and socio-economic characteristics were discussed.

Respondents' age, marital status, level of education, alternative source of income, number of dependents, sources of labour and sources of funds were the variables discussed.

### Age of Respondents

Table 27 presents the analysis of the age distributions of the respondents. It can be observed that, majority of parents (28.6%), head teachers (50.9%) and foodstuffs farmers (38.5%) fell within the ages of 40 and 50. The fact that majority of the respondents are found within these age brackets could mean that, majority of them are responsible and may be burdened with more economic responsibilities, including catering for cost of feeding their children and would therefore embrace the school feeding initiative to help alleviate a percentage of their feeding expenses.

**Table 27: Age of Respondents**

Parents			Head teachers			Food stuffs farmers		
Age	Frequ -ency	%	Age	Freque ncy	%	Age	Freque- ncy	%
21-25	2	3.2	21-30	1	1.8	30-34	1	3.8
26-30	4	6.3				35-39	4	15.4
31-35	12	19.0	31-40	19	34.5	40-44	10	38.5
36-40	18	28.6				45-49	9	34.6
41-45	15	23.8	41-50	28	50.9	50-54	1	3.8
46-50	7	11.1				55-59	1	3.8
Above 50	5	7.9	51-60	7	12.7	Above 60	0	0
<b>Total</b>	<b>63</b>	<b>100</b>	<b>Total</b>	<b>55</b>	<b>100</b>	<b>Total</b>	<b>26</b>	<b>100</b>

Source: Field Survey, Adjei (2022)

### Marital Status of Respondents

Table 28 presents the results of the analysis on the respondents' marital status.

The results show that, majority of parents, head teachers and foodstuffs farmers, representing 87.3%, 85.5% and 88.5% respectively were married.

These results are in support of the findings of a study conducted by Kolawole, Oladele, Alarima and Wakatsuki (2012), to find out farmers' perceptions on "sawah" rice production technology. Their findings indicated that, majority (93.6%) of the farmers were found to be married. The fact that higher percentages are recorded for respondents' marital status may imply that, majority of them have appreciable family sizes that may contribute to supply of labour in their day-to-day income generating activities for better living conditions. On the contrary, higher percentage of married respondents could also suggest that majority of them have more dependents' responsibilities that could partly be taken care of by the school feeding initiative.

**Table 28: Marital Status of Respondents**

Marital Status	Parents		Head teachers		Foodstuffs Farmers	
	Frequency	%	Frequency	%	Frequency	%
Single	1	1.6	5	9.1	0	0
Married	55	87.3	7	85.5	23	88.5
Divorced	4	6.3	1	1.8	2	7.7
Widowed	3	4.8	2	3.6	1	3.8
<b>Total</b>	<b>63</b>	<b>100</b>	<b>55</b>	<b>100</b>	<b>26</b>	<b>100</b>

Source: Field Survey, Adjei (2022)

### Educational Level of Respondents

Table 29 presents the results of the analysis on the respondents' level of education. It can be observed from the table that, majority (93.7%) of the parents had some form of formal education against 6.3% of them being

uneducated. This could mean that majority of them had positive attitudes towards education and may therefore be self-motivated to enroll their children. Also, of the 26 farmers, 65.4% had some form of formal education against 34.6% being uneducated. This result supports the findings of a survey conducted by MoFA (2011), that, majority (71.5%) of the farmers used in the survey possessed some level of formal education against 28.5% who were without any form of education. This could mean a better prospect for agricultural development in the district because there are more farmers who are less conservative and would therefore adopt and embrace the innovative farming practices of the AES component of the SFP to help realize higher productivity. A higher percentage of educated farmers could also mean that, majority of them may be passionate about educational initiatives and interventions and would embrace them as strategies to get their children enrolled in school. All the head teacher respondents, representing 100%, had some form of tertiary education. The researcher's interactions with them revealed that, per the GES requirements, all heads are to attain some level of tertiary education to help sharpen their administrative and managerial skills.

**Table 29: Educational Level of Respondents**

Level of Education	Parents		Head teachers		Foodstuffs Farmers	
	Frequency	%	Frequency	%	Frequency	%
No Formal Education	4	6.3	0	0	9	34.6
Primary Education	3	4.8	0	0	3	11.5
BECE	29	46.0	0	0	5	19.2
MSLC	14	22.2	0	0	8	30.8
SSCE/WASSCE	11	17.5	0	0	1	3.8
GCE 'O' Level	1	1.6	0	0	0	0
Tertiary	1	1.6	55	100	0	0
<b>Total</b>	<b>63</b>	<b>100</b>	<b>55</b>	<b>100</b>	<b>26</b>	<b>100</b>

Source: Field Survey, Adjei (2022)

### Alternative Sources of Income of Respondents

Table 30 presents the results of the analysis on the respondents' alternative sources of income. It can be observed that, majority of the parent, head teacher and foodstuffs' farmer respondents, representing 96.8%, 76.4% and 96.2% respectively had additional sources of income. These results mirror the findings of the International Labour Organization (2012), report, that, honey, snail, grasscutter productions and cocoa by-product processing represent additional livelihood activities for most cocoa farmers and parents in the western part of Ghana. The fact that majority of the respondents had additional income sources may suggest that most of them may not be economically disadvantaged and this may lessen their dependency on the feeding initiative for livelihood. The results could also mean that, the SFP has a better prospect of partly helping to solve some of the unemployment problems because head

teachers may be in a better position to recruit and pay their cooks and caterers even if there are delays in the payment of the SFP subventions.

**Table 30: Alternative Sources of Income of Respondents**

Alternative Source of Income	Parents		Head teachers		Foodstuffs Farmers	
	Frequency	%	Frequency	%	Frequency	%
Yes	61	96.8	42	76.4	25	96.2
No	2	3.2	13	23.6	1	3.8
<b>Total</b>	<b>63</b>	<b>100</b>	<b>55</b>	<b>100</b>	<b>26</b>	<b>100</b>

Source: Field Survey, Adjei (2022)

### Number of Dependents of Respondents

Table 31 presents the results of the analysis on the respondents' number of dependents. It can be observed that, all the respondents had an appreciable number of dependents ranging from 3 to 8. The results could mean that, each of the respondents possessed a certain quantum of dependents that could supplement their labour demands to relieve them of cost of labour in their economic activities to help improve their living conditions. The results could also imply that, most of the respondents had some dependents' responsibilities and could take advantage of the school feeding initiative to help lessen these responsibilities.

**Table 31: Number of Dependents of Respondents**

No of Dependents	Parents		Head teachers		Foodstuffs Farmers	
	Frequency	%	Frequency	%	Frequency	%
1-2	1	1.6	0	0	0	0
3-4	15	23.8	18	32.7	3	11.5
5-6	28	44.4	32	58.2	14	53.8
7-8	15	23.8	5	9.1	7	26.9
Above 8	4	6.3	0	0	2	7.7
<b>Total</b>	<b>63</b>	<b>100</b>	<b>55</b>	<b>100</b>	<b>26</b>	<b>100</b>

Source: Field Survey, Adjei (2022)

### Sources and Availability of Funds for Respondents' Businesses

Table 32 presents the results of the analysis on the respondents' sources of funds for their businesses. It can be observed that, majority of the parent, head teacher and foodstuffs' farmer respondents, representing 61.9%, 76.4% and 96.2% respectively, obtained their funds from personal savings for their businesses. These results mirror the findings of Asante (2015), that, many smallholder farmers depended on their personal savings and monies obtained from the sale of their farm produce as sources of funds for their farming businesses. The fact that majority of the respondents obtained their funds from their personal savings could mean that they could not access funds from financial institutions due to lack of collateral as maintained by Musiime and Atuha (2011), that, provision of collateral security serves as a major impediment for the acquisition of funds by most farmers and parents especially in sub-Saharan regions.



**Table 32: Sources of Funds for Respondents' Businesses**

Sources of Funds for Businesses	Parents		Head teachers		Foodstuffs Farmers	
	Frequency	%	Frequency	%	Frequency	%
Banks	0	0	6	10.9	1	3.8
Personal Savings	39	61.9	42	76.4	25	96.2
Others	24	38.1	7	12.7	0	0
<b>Total</b>	<b>63</b>	<b>100</b>	<b>55</b>	<b>100</b>	<b>26</b>	<b>100</b>

Source: Field Survey, Adjei (2022)

### **Relationship between Parents' Demographic and Socio-economic**

### **Characteristics and their Perceptions on the extent of Effectiveness of the SFP**

The study was to find out the relationship between respondents' perceived effectiveness of the SFP and their demographic and socio-economic characteristics. Analysis was run to obtain the correlation coefficients ( $r$ ) and the  $p$ -values for the various independent variables with the use of Moment Correlation Co-efficient.

Table 33 presents the results of the analysis showing the relationships between the perceived effectiveness of the programme on their livelihoods and their demographic and socio-economic characteristics. From the table, it can be observed that, at alpha level of 0.05, there was moderate, negative and significant relationship between age ( $r = -0.31$ ,  $p = 0.01$ ), marital status ( $r = -0.42^{**}$ ,  $p = 0.00$ ), number of dependents ( $r = -0.42^{**}$ ,  $p = 0.00$ ) and perceived effectiveness of the SFP on their living conditions. Also, there was low, negative with no significant relationship between alternative sources of income ( $r = -0.10$ ,  $p = 0.46$ ) and perceived effectiveness. However, the study recorded moderate, positive and significant relationship between sex ( $r = 0.31$ ,

$p = 0.01$ ) and perceived effectiveness of the programme. Furthermore, there was low, positive with no significant difference between their highest educational level ( $r = 0.02$ ,  $p = 0.88$ ) and perceived effectiveness of the SFP.

**Table 33: Relationship between Parents' Demographic and Socio-economic Characteristics and their Perceptions on the extent of Effectiveness of SFP**

Y=Perceived effectiveness (Dependent Variable)		
Independent Variables (X)	Correlation Coefficient(r)	p-value
Sex (X <sub>1</sub> )	0.31*	0.014
Age (X <sub>2</sub> )	-0.31*	0.013
Marital Status (X <sub>3</sub> )	-0.42**	0.001
Highest Educational Level (X <sub>4</sub> )	0.02	0.875
Number of Dependents (X <sub>5</sub> )	-0.42**	0.001
Alternative Sources of Income (X <sub>6</sub> )	-0.10	0.459

Source: Field Survey, Adjei (2022) n= 63, \* $p < 0.05$

### Testing of the Hypothesis

The hypothesis of the study was to test whether significant differences exist among the respondents' mean perceptions on the extent of effectiveness of the SFP. In the determination of this, analysis of variance (ANOVA) was computed. The results in Table 34 show that, there were no significant (0.194) differences among the respondents' (parents, head teachers and foodstuffs farmers)' mean perceptions on the extent of effectiveness of the SFP at alpha level of 0.05. This implies that, the prediction made by the alternate hypothesis that, there is a significant difference among the respondents' mean perceptions on the extent of effectiveness of the SFP was rejected.

**Table 34: One-Way Analysis of Variance (ANOVA) of Respondents' Mean Perceptions on the Extent of Effectiveness of the SFP**

Respondents	N	$\bar{x}$	SD	F	Sig.
Parents	63	3.4376	.22312	1.361	.194
Farmers	26	3.7692	.04599		
Head teachers	55	3.6727	.31786		
<b>Total</b>	<b>144</b>	<b>10.8795</b>	<b>0.58697</b>		

n = 144, Source: Field Survey, Adjei (2022), Scale: 0=Cannot Tell, 1=Very Lowly Effective, 2=Lowly Effective, 3=Moderately Effective, 4=Effective, 5=Very Effective

### OLS Regression of Selected Demographic and Socio- economic

#### Characteristics of Parents and Perceived Effectiveness of the SFP

Presented in table 35 was the results of linear regression analysis on selected demographic and socio-economic characteristics of parents and perceived effectiveness of the SFP. It can be observed that, age and marital status of parents were the best predictors, contributing 16.01 percent and 19.52 percent respectively of the variance in the perceived effectiveness of the SFP on their livelihood. The fact that parents' marital status was the best predictor can be traced to the fact, majority (87.3%) of them were married and perceived the SFP as effective because they were presumed to have a sizeable number of school children who were fed by the intervention to help improve their finances through savings of monies for feeding. This supports the findings of Fowler (2012), in assessing stakeholders' perceptions on a newly implemented SFP in Adjeikrom that, the intervention was perceived by parents and families as effective in helping them generate extra income and improve their finances as a result of non-payment of feeding fees.

Also, age of parents predicted their perceptions on the extent of the program's effectiveness because aged parents were presumed to have more economic

responsibilities including payment of their children's feeding fees and therefore perceived the intervention as effective since their children were fed at no fee. This mirrors the results of a household survey by IFPRI on school feeding programme evaluation in Bangladesh in 2003 that, 50% of mothers perceived the school feeding system as effective in improving their livelihoods by giving them the opportunity to give less pocket monies to their school-going children.

**Table 35: OLS Regression of Selected Demographic and Socio-economic Characteristics of Parents and Perceived Effectiveness of the SFP**

Predictor	Beta	St. Error	R <sup>2</sup>	Adjusted R <sup>2</sup>	R <sup>2</sup> Change	SEE	R
Age	1.601*	.571	.392	.255	.137	2.658	.626
Level of Education	.159	.471					
Alternative Income	-1.431	2.000					
Marital Status	-1.952*	.623					
No. of Dependents	-2.351	.766					
Sources of Labour	-.515	1.170					
Sex	.746	1.007					
Constant	52.047*	6.410					

n = 63, \*p- value < 0.05

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter is presented under three major headings. Heading one provides the summary of the major findings of the study with reference to the objectives. The conclusions and some suggested recommendations for improvement and sustenance of the SFP are presented under heading two. Finally, suggestions for further research work are provided under heading three.

#### Summary

Globally, economic insecurity still remains one of the major challenges for most countries. Particularly, countries mostly hit by this economic menace are those classified as under-developed. Over the past decades, governments have intensified and geared their commitments towards ensuring that, the menace is curbed through the use of some interventional programmes. Among others, school feeding is one of the policy interventions used by the Ghana Governments in the fight against the menace in the rural beneficiary communities in the Assin South District.

Basically, school feeding is a programme that provides meals to children at school. Primarily, it is to provide children in selected public primary schools and kindergartens in the poorest areas in the country with one hot nutritious meal per day, using locally-grown foodstuffs. Since its inception, the intervention has economically been impactful in its beneficiary communities in the areas of schooling decisions, income level, employment rate, foodstuffs market avenues and safety and food production through improved farming practices.

Generally, the study was to find out the perceptions of beneficiaries on the extent to which this food intervention has been effective in ensuring improvement in these areas to eventually translate into improvement in their general socio-economic livelihoods.

Specifically, the study was to examine parents' perceptions on the extent to which the school feeding programme has been effective in motivating them to enroll their children, examine parents' perceptions on the extent to which the programme has been effective in improving their level of income and finances and to examine the extent to which it has been effective in improving the employment situations (rates) in the beneficiary communities.

Also, the study was to examine the extent of influence of the agricultural extension service component of the school feeding programme on the livelihood of the local foodstuff farmers, examine the extent to which the school feeding programme has been effective in ensuring the safety and prompt market for local foodstuffs and to examine the extent to which the socio-economic and demographic characteristics of parents influence the perceived effectiveness of the SFP on their livelihood.

Explanatory sequential mixed design was employed to fully explore beneficiaries' perceptions about the extent to which the programme has been effective in addressing some of their socio-economic challenges. The Krejcie and Morgan (1970)'s table of sampling determination was adopted to select 144 respondents, comprising of 55 head teachers, 63 parents and 26 local foodstuffs farmers from a population of 230. Selection of the respondents was done with the use of a multi-stage sampling method involving six (6) stages.

Both quantitative and qualitative data were collected from the respondents using questionnaires, informal interviews and focus group discussions. The quantitative data were analyzed with frequencies, percentages, means, standard deviations and correlations generated by SPSS version 25 whereas the qualitative data were analyzed using thematic analysis.

The results of the study revealed that majority of the parents perceived the intervention as 'effective' (mean = 3.7, SD = 0.40) in motivating them to enroll their children. These findings provide a justification for the recent overwhelming increase in enrolment levels in most basic schools in the district. This finding is in support of the theoretical underpinning of the study that stresses the need for the social system to be motivated with some interventional programmes for the deprived to make informed decisions to help improve their economic livelihoods. The results depict that if the beneficiary parents are motivated with SFP, they would be motivated to let their children be in school to better up their schooling which would later translate to improving their livelihood.

Findings on the perceptions of parents on how effective the programme has been in improving their income level showed that, majority of the respondents perceived its effectiveness as 'moderate' (Mean =3.24, SD = 0.43) in helping them improve on their income level and finances. This finding provides justification for the theory of motivation to underpin the study. The result depicts that providing the beneficiary parents with SFP would serve as a motivation for them to make an economic decision of saving some monies that would have gone into feeding their children at school. These saved monies

would increase their income level and improve their finances which translates to improving their livelihood.

The study found out the perceptions on how effective the programme has been in improving the employment situations in the beneficiary communities. The results revealed that the head teachers generally perceived the effectiveness of the programme as 'high' (Mean=3.67; SD=0.41) in helping to improve the employment situations in the implementing communities. This finding provides some basis for the social system to be motivated by way of providing some interventional programmes. The result depicts that providing SFP in the beneficiary communities would motivate the jobless to make an informed economic decision by taking advantage of the programme to be job secured as cook, caterer, firewood supplier etc.

Furthermore, the study found out how the AES component of the SFP influences the livelihood of the local foodstuffs' farmers in the areas of their farm sizes, methods of planting, sources of planting materials, fertilizer application, frequency of harvest, application of agro chemicals, access to credit facilities and access to agricultural information. With respect to methods of planting, row planting was the preferred recommended method for all (100%) the respondents. Majority (80.8%) of the respondents adopted planting materials recommended by the AES officials. 15.4% of them resorted to using planting materials from previous harvest while 3.8% used planting materials from the local market. Fertilizer application was found to be used twice in a cropping year by majority (73.1%) of the farming respondents.



All the farming respondents (100%), could harvest their farm produce twice within a farming year upon the AES officials' recommendation on the use of water pumping equipment for dry season farming.

With the AES officials' recommendation, majority (88.5%) of the farmers could use agro-chemicals throughout a cropping year and this has drastically reduced their drudgery of using simple tools such as cutlasses and hoes.

Although the extension officials function to provide directions to farmers as to where they can obtain funds, accessibility to credits in the form of funds by majority (76.9%) of the farmers was 'low' due to unbearable conditions attached to loan procurement from most of the financial institutions. Agricultural information was found to be 'very accessible' to majority (80.8%) of the farming respondents. According to the respondents, relevant agricultural information is periodically made available on their local information centers by the district's AES officials. The findings provide the essence of adopting the theory of motivation to underpin the study. The results show that motivating the beneficiary foodstuff farmers with SFP would motivate them to increase their production capacities to improve their economic livelihood by taking advantage of the improved farming practices recommended by the AES component of the programme.

The study sought to examine the perceptions of the farming respondents on the extent of effectiveness of the SFP in ensuring the safety and creating prompt market avenues for their foodstuffs. The programme was generally perceived as 'lowly effective' (composite mean=2.43; SD=0.83) in guaranteeing the safety and ready market for the locally produced foodstuffs because cooks and caterers in most of the beneficiary schools largely relied on

food items from other sources instead of those from the local farmers. However, the researcher's engagement with some caterers in informal interviews revealed that they relied on other food suppliers who would accept to be paid until such a time funds were released to them by the government because they pre-financed the feeding and most of their purchases were done on credit basis. The findings also provide the justification for adopting the theory of motivation to underpin the study. The results shows that the programme failed to provide prompt market for farmers' foodstuffs to improve their economic livelihood because there was an observed break in the chain of motivation. Caterers were not motivated to purchase farmers' foodstuffs because they lacked ready funds to do so. Foodstuff's farmers also lacked the motivation to sell their produce to the caterers because caterers purchased on credit until funds were received for payments.

Finally, correlation coefficients and their respective p-values were estimated to find the relationships between parents' perceived effectiveness of the SFP on their livelihood and demographic and socio-economic characteristics. The results showed that, at alpha level of 0.05, there was moderate, negative and significant relationship between age ( $r = -0.31$ ,  $p = 0.01$ ), marital status ( $r = -0.42^{**}$ ,  $p = 0.00$ ), number of dependents ( $r = -0.42^{**}$ ,  $p = 0.00$ ) and perceived effectiveness of the SFP on their livelihood. Also, there was a low, negative with no significant relationship between alternative sources of income ( $r = -0.10$ ,  $p = 0.46$ ) and perceived effectiveness. However, the study recorded moderate, positive and significant relationship between sex ( $r = 0.31$ ,  $p = 0.01$ ) and perceived effectiveness of the programme. Also, there was low, positive with no significant difference

between their highest educational level ( $r= 0.02$ ,  $p = 0.88$ ) and perceived effectiveness of the SFP. The results of the regression analysis on parents' demographic and socio-economic characteristics and perceived effectiveness of the SFP revealed that, age and marital status of parents were the best predictors, contributing 16.01 percent and 19.52 percent respectively of the variance in the perceived effectiveness of the SFP on their livelihood.

### Conclusions

Based on the summary of the findings of the study, the following conclusions were made;

1. Parents perceived the school feeding programme as 'effective' in motivating them to enroll their school-going children. This justifies the overwhelming increase in the level of enrolment in most basic schools in the district.
2. Parents perceived the effectiveness of the programme as 'moderate' in helping them improve their level of income and finances.
3. The head teachers generally perceived the effectiveness of the programme as 'high' in improving the employment situations of the beneficiary communities in the district.
4. The AES component of the school feeding programme influenced the livelihood of the local foodstuffs farmers as follows;
  - a. Increased in the existing farm sizes of farmers by 1-3 acres with the AES recommendation on the use of weedicides.
  - b. All the farmers adopted row planting as their preferred method of planting.

- c. Majority of the farmers adopted high-yielding and improved planting materials recommended by the AES officials.
  - d. Fertilizer application was 'very frequent' for majority of the farmers.
  - e. Majority of the farmers could harvest their farm produce twice in a farming season.
  - f. Usage of agro-chemicals (weedicides) was reported by the majority as 'very frequent' and this has drastically reduced the drudgery of using simple farming tools.
  - g. Agricultural information was 'very accessible' to majority of the farmers.
  - h. The AES officials in the district provide directions to farmers as to where they can obtain credits in the form of loans. However, farmers' accessibility to loans was 'very lowly' due to rigid terms and conditions attached to loan procurement from most financial institutions.
5. 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 patronize their produce. However, it was brought to light that, caterers pre-financed the feeding and did most of their foodstuffs purchases on credit basis so they rather relied on suppliers who accepted to be paid when funds were released by the government.

6. There was a moderate, negative and significant relationship between age, marital status, number of dependents and perceived effectiveness of the SFP on the respondents' livelihood. A low, negative with no significant relationship was realized between alternative sources of income and perceived effectiveness of the programme. Also, there was a low, positive with no significant difference between respondents' highest educational level and perceived effectiveness of the SFP, however, the study recorded moderate, positive and significant relationship between sex and perceived effectiveness of the programme.

### **Recommendations**

The study makes the following recommendations;

1. To better 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.
2. 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 patronize food items from these farmers, thus helping to provide ready market for their produce.
3. For the caterers to have sustained interest in patronizing local farmers' foodstuffs, the district assembly should set aside a percentage of its internally generated funds (IGFs) for them. This will help them have

some quantum of funds which they can use to readily purchase farmers' foodstuffs instead of purchasing on credit from outsiders as a result of undue delay in the release of government's feeding funds.

4. 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 live transforming services to the local foodstuffs' farmers.
5. 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.

#### **Suggestions for Further Research**

1. The study should be carried out in the other districts in the Central Region of Ghana to help realize the full effectiveness of the programme on the livelihood of the beneficiary communities.
2. The study should also be carried out in the second-cycle community schools in the district to help ascertain the impact and the effectiveness of the one hot afternoon meal on the livelihood of beneficiary communities.

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## APPENDICES

## APPENDIX A: QUESTIONNAIRE FOR PARENTS AND GUARDIANS

I am an M. Phil. Student in the Department of Agricultural Economics and Extension, University of Cape Coast. This questionnaire is to gather your views and opinions to help work on my thesis titled *“Perceived Effectiveness of Ghana School Feeding Programme in Improving the Socio-economic Livelihood of Beneficiary Communities in the Assin South District”*. Be humbly assured that, any information provided on this document will solely be meant for academic purposes and therefore be treated with the utmost confidentiality.

Thank you

Daniel Adjei

Dr. Alexander T.K Nuer

Research Student

Supervisor

Indicate the extent of effectiveness or ineffectiveness of SFP in motivating you to enroll your school-going children in school and improving your income levels and finances by ticking [√] the appropriate boxes with one of the keys given below:

*Key: 0 = Cannot Tell, 1= Very Lowly Effective, 2 = Lowly Effective, 3 = Moderately Effective, 4 = Effective, 5 = Very Effective*

Targeted Areas of SFP	Extent of Effectiveness					
	0	1	2	3	4	5
<b>A. SFP as a Motivation for Parents/Guardians</b>						
i. SFP has alleviated my burden of feeding cost.						
ii. Quality and nutritious foods are served to my school-going children.						
iii. My school-going children eat less at home when they eat in school.						



iv. Sickness rate among my school-going children is reduced due to fortified foods served.						
i. There is diversity in foods served to my school-going children.						
ii. All my children of school-going age are fed whenever they attend school.						
<b>B. Income Level and Finances of Parents</b>						
i. It has increased my income level.						
ii. I have been able to decrease my debts.						
iii. I have been able to save money on health care.						
vi. It has enabled me settle some financial commitments.						
v. I have been able to increase my savings with banks.						
vi. I have been able to pay school fees for my children in tertiary schools.						
vii. I can acquire an appreciable loan amount due to increased savings.						
viii. I can provide some financial support to some family members.						



**APPENDIX B: QUESTIONNAIRE FOR HEAD TEACHERS OF THE  
BENEFICIARY COMMUNITY BASIC SCHOOLS**

I am an M. Phil. Student in the Department of Agricultural Economics and Extension, University of Cape Coast. This questionnaire is to gather your views and opinions to help work on my thesis titled *“Perceived Effectiveness of Ghana School Feeding Programme in Improving the Socio-economic Livelihood of Beneficiary Communities in the Assin South District”* Be humbly assured that, any information provided on this document will solely be meant for academic purposes and therefore be treated with the utmost confidentiality.

Thank you.

Daniel Adjei  
(0246259337)

Research Student

Dr. Alexander T.K Nuer  
(0245811175)

Supervisor

Indicate the extent of effectiveness or ineffectiveness of SFP in improving the employment situations in your school communities by ticking [ $\surd$ ] the appropriate boxes with one of the keys given below:

*Key: 0 = Cannot Tell, 1= Very Lowly Effective, 2 = Lowly Effective, 3 = Moderately Effective, 4 = Effective, 5 = Very Effective*

Targeted Areas of SFP	Extent of Effectiveness					
	0	1	2	3	4	5
<b>A. SFP and Employment Situations in the Beneficiary Communities.</b>						
The SFP has employed some people in the community as cooks for my school.						
The SFP has employed some people in the community as caterers for my school.						
The SFP has employed some people in the						



**APPENDIX C: QUESTIONNAIRE FOR THE LOCAL FOODSTUFFS  
FARMERS OF THE BENEFICIARY COMMUNITY BASIC  
SCHOOLS**

I am an M. Phil. Student in the Department of Agricultural Economics and Extension, University of Cape Coast. This questionnaire is to gather your views and opinions to help work on my thesis titled *“Perceived Effectiveness of Ghana School Feeding Programme in Improving the Socio-economic Livelihood of Beneficiary Communities in the Assin South District”*. Be humbly assured that, any information provided on this document will solely be meant for academic purposes and therefore be treated with the utmost confidentiality.

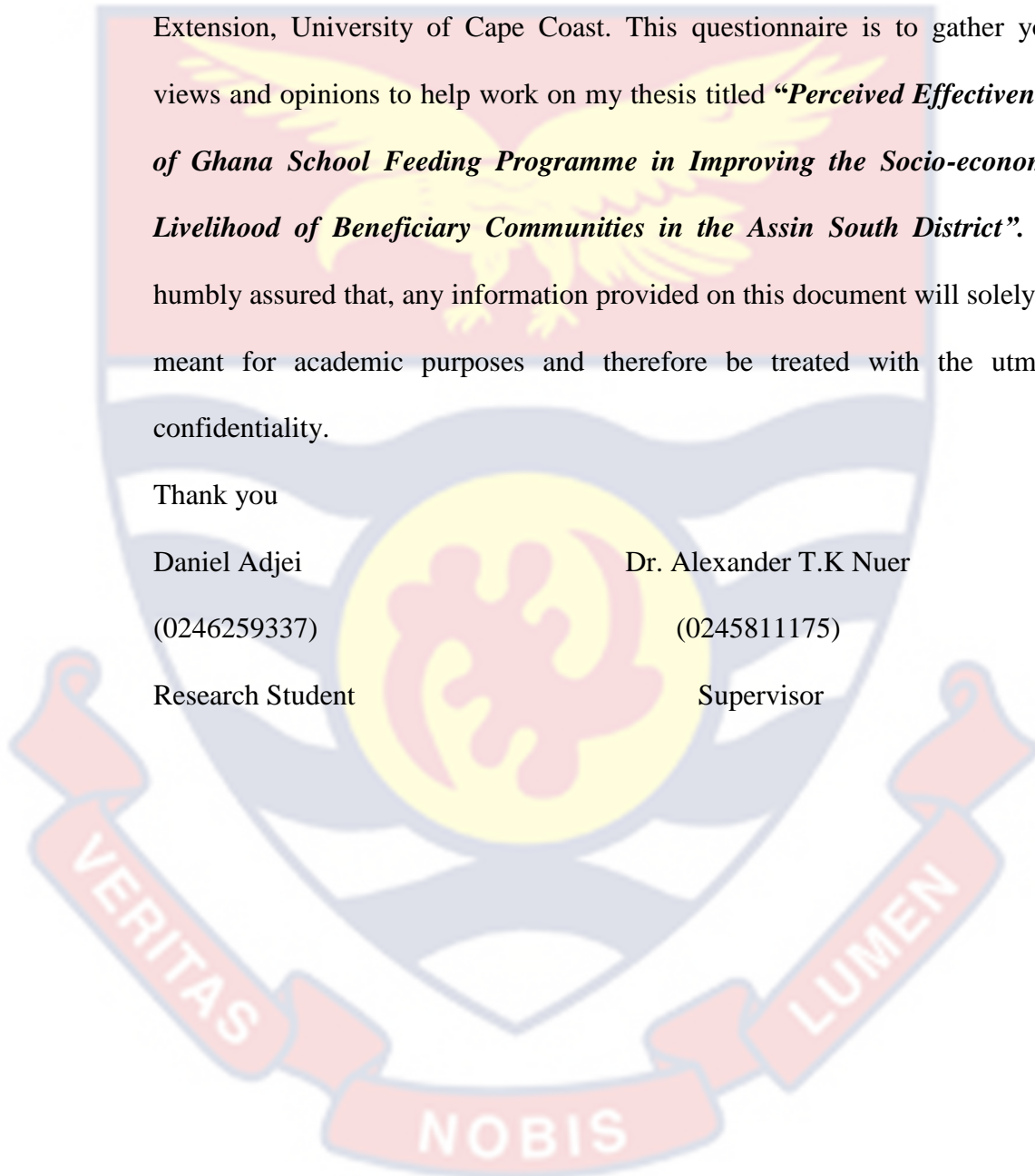
Thank you

Daniel Adjei  
(0246259337)

Research Student

Dr. Alexander T.K Nuer  
(0245811175)

Supervisor



## SECTION A

**The AES Component of SFP and the Living Conditions of the Local  
Foodstuffs Farmers**

I. Indicate how the AES component of the SFP has influenced your farm size (in acres) to improve your living conditions.

1. 0.5-1 [ ]      3. 2-3 [ ]      5. 4-5 [ ]  
2. 1-2 [ ]      4. 3-4 [ ]      6. Others

II. Indicate how the AES component of SFP has influenced your method of planting to improve your living conditions.

1. Row planting method [ ]  
2. Staggered method [ ]      3. Others [ ]

III. Indicate how the AES component of SFP has influenced your sources of planting materials to improve your living conditions.

1. AES recommended seeds    2. Farmers' own seeds [ ]    3. Markets seeds [ ]  
4. Seeds from friends [ ]    5. Others

IV. Indicate how the AES component of SFP has influenced your fertilizer application to improve your living conditions.

1. Least frequent [ ]    3. Fairly frequent [ ]  
2. Lowly frequent [ ]    4. Very frequent [ ]    5. Very highly frequent

V. Indicate how the AES component of SFP has influenced your frequency of harvest to improve your living conditions.

1. Once [ ]    3. Thrice [ ]  
2. Twice [ ]    4. Four times [ ]    5. Others [ ]

VI. Indicate how the AES component of SFP has influenced your frequency of agro chemical application to improve your living conditions.

1. Least frequent [ ]
2. Lowly frequent [ ]
3. Fairly frequent [ ]
4. Very frequent [ ]
5. Very highly frequent

VII. Indicate how the AES component of SFP has influenced your accessibility to fertilizer to improve your living conditions.

1. Least Accessible [ ]
2. Lowly Accessible [ ]
3. Fairly Accessible [ ]
4. Very Accessible [ ]
5. Very highly Accessible.

VIII. Indicate how the AES component of SFP has influenced your accessibility to credit facility to improve your living conditions.

1. Least Accessible [ ]
2. Lowly Accessible [ ]
3. Fairly Accessible [ ]
4. Very Accessible [ ]
5. Very highly Accessible.

IX. Indicate how the AES component of SFP has influenced your accessibility to Agricultural Information to improve your living condition.

1. Least Accessible [ ]
2. Lowly Accessible [ ]
3. Fairly Accessible [ ]
4. Very Accessible [ ]
5. Very highly Accessible.

**SECTION B****SFP and Safety of Farmers' Produce**

1. Do you have any knowledge about the School Feeding Programme?
2. Does the Feeding Programme actually depend on your foodstuffs for the preparation of meals at school?
3. Does the Feeding Programme guarantee a reliable and ready market for your foodstuffs?
4. Is there any arrangement made by the programme for your foodstuffs to be purchased promptly when the school has enough stock?
5. If yes, what kind of arrangement is that?
6. Has the programme made provision for any means of storing your perishable foodstuffs when the school has enough stock?
7. If yes, what kind of storage arrangement is that?
8. Does the programme provide support of any kind to help you harvest your produce promptly?
9. If yes, what kind of support is provided?
10. Does the programme organize training programmes on produce handling to help you reduce post-harvest losses?
11. If yes, how often are such programmes organized?



## SECTION C

**Demographic Characteristics of Local Foodstuffs Farmers**

Please indicate your demographic characteristics by ticking [] the appropriate boxes.

1. Sex:      Male []      Female []
2. Age (in years): .....
3. Marital status:
  - a. Single []      b. Married []      c. Others (Specify).....
4. Highest educational qualification:
  - a. No formal education []
  - b. Primary education []      c. others (specify).....
5. Number of dependents.....
6. Primary source of income.....?
7. Do you have an alternative source of income? Yes [] No []
8. If yes specify.....
9. If farming is your occupation, indicate the sources of funds for the farming business.
  - a. Banks []      c. Micro Finance []
  - b. Personal Savings []      d. Others (specify).....
11. Sources of labour for your farming business:
  - a. Family labour []      c. Family and hired labour []
  - b. Hired labour []

**APPENDIX D: TABLE SHOWING POPULATION SIZES AND THEIR  
CORRESPONDING SAMPLE SIZES TO BE DETERMINED**

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Note.—*N* is population size. *S* is sample size.

Source: Krejcie & Morgan, 1970

APPENDIX E: ETHICAL CLEARANCE FROM INSTITUTIONAL  
REVIEW BOARD (IRB) OF THE UNIVERSITY OF CAPE

UNIVERSITY OF CAPE COAST

INSTITUTIONAL REVIEW BOARD SECRETARIAT

TEL: 0558093143 / 0508878309  
E-MAIL: [irb@ucc.edu.gh](mailto:irb@ucc.edu.gh)  
OUR REF: UCC/IRB/A/2016/1291  
YOUR REF:  
OMB NO: 0990-0279  
IORG #: IORG0009096



28<sup>TH</sup> MARCH, 2022

Mr. Daniel Adjei  
Department of Agricultural Economics and Extension  
University of Cape Coast

Dear Mr. Adjei,

**ETHICAL CLEARANCE – ID (UCCIRB/CANS/2021/33)**

The University of Cape Coast Institutional Review Board (UCCIRB) has granted Provisional Approval for the implementation of your research **Perceived Effectiveness of the Ghana School Feeding Programme (GSFP) in Improving the Socio-Economic Lives of the Beneficiary Communities in the Assin South District**. This approval is valid from 28<sup>th</sup> March, 2022 to 27<sup>th</sup> March, 2023. You may apply for a renewal subject to submission of all the required documents that will be prescribed by the UCCIRB.

Please note that any modification to the project must be submitted to the UCCIRB for review and approval before its implementation. You are required to submit periodic review of the protocol to the Board and a final full review to the UCCIRB on completion of the research. The UCCIRB may observe or cause to be observed procedures and records of the research during and after implementation.

You are also required to report all serious adverse events related to this study to the UCCIRB within seven days verbally and fourteen days in writing.

Always quote the protocol identification number in all future correspondence with us in relation to this protocol.

Yours faithfully,

A handwritten signature in blue ink, appearing to read 'S. Asiedu Owusu'.

Samuel Asiedu Owusu, PhD

\*\*\* UCCIRB Administrator \*\*\*  
INSTITUTIONAL REVIEW BOARD  
UNIVERSITY OF CAPE COAST

NOBIS