International Institute of Social Studies

Food Security and Everyday Hunger in Rural Ghana: A Case Study of the Akobima Community

A Research Paper presented by:

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(Ghana)

in partial fulfilment of the requirements for obtaining the degree of
MASTER OF ARTS IN DEVELOPMENT STUDIES

Agrarian Food and Environmental Studies

(AFES)

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December 2020

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List of Acronyms

AIDS	Acquired Immunodeficiency Syndrome
ISS	**International Institute of Social Studies**
CFSVA	Comprehensive Food Security and Vulnerability Analysis
COHA.	Cost of Hunger in Africa
FAO	Food and Agricultural Organization
FCRN.	Food Climate Research Network
FASDEP.	Food and Agricultural Sector Development Policy.
FGD	Focus Group Discussion
FRAC.	Food Research and Action Centre
GDP	Gross Domestic Product
GNNP	Ghana National Nutrition Policy
GOG	Government of Ghana
GSS	Ghana Statistical Service
METASIP.	Medium Term Agriculture Sector Implementation Plan
MOFA.	Ministry of Food and Agriculture
NGO.	Non-Governmental Organization
SRLA.	Sustainable Rural Livelihood Approach
UNECA	United Nation Economic Commission on Africa
UNPD.	United Nation Development Programme
UN	United Nations
UNICEF	United Nations Children's Fund
UNECO	United Nations Economic Commission Organization
WFP	World Food Programme
WHO	World Health Organization

Abstract

The issues of hunger and food insecurity had been previously understood as the unavailability of food in the marketplace. The argument that the main cause of hunger and food insecurity is lack of food availability has led to various research and debates about the actual causes of hunger in different contexts. Even-though reports of Ghana being just 5% food insecure, an important argument against this view is that household level in rural areas who are mostly farmers still experience food insecurity and hunger despite growing crops and even selling these crops in markets., in spite of various initiatives by international and state actors to address food insecurity and hunger, Ghana still experiences these issues. Contributing to studies, regarding the literature covering food insecurity and hunger in Ghana, this paper teases out the nature, patterns, and everyday experiences and struggles of food insecurity as to the livelihoods of rural households in Ghana. The main aim of the paper was to explore how different social groups experiences food insecurity; the different coping mechanisms that are adopted by the rural households in addressing their food insecurity and hunger conditions; and how the mechanisms help in supporting their livelihoods Akobima community. To meet its objective, the research used qualitative research design and gathered data using interviews and focus group discussions. The sample of the study was composed of small-scale farmers with different characteristics in terms of landholding status and household leadership (male/female) in the Akobima community. The study's findings showed a high prevalence of poverty and food insecurity in the Akobima community. The findings showed that women and children are the most affected by challenges as most of the youth migrated to the urban cities to seek better livelihoods. Analysing from the perspectives of SRLA the study found that migration, agricultural intensification as some of the coping strategies employed by the community members to supplement their farming activities. Pluriactivities such as wage labour work, were some productive coping strategy. Social coping strategies such as gifts, donations which form part of food insecurity and hunger concept were used by the people. There was notable absence of government interventions supporting the community as most of them depended on themselves and family members for support.

Acknowledgement

Relevance to Development Studies

Food security and hunger remains a global problem which is experienced by all countries in the world in various ways. Emphasis on the global south being the most affected. Food is a very vital to the sustainability of our livelihood. Nutritious food plays a very important part in fostering economic development. This paper tires to add a voice and contribution by looking at the everyday struggles and experiences of people in relation to food insecurity and how it affects different socially differentiated groups.

Keywords
Food security, food insecurity, rural livelihoods, coping strategies, rural households, hunger, Akobima, Ghana.

Chapter 1 : Introduction

1.1 Background to the study

This study explores the persistence of food insecurity and the everyday struggles of hunger experienced by different socially differentiated groups within Akobima community in Ghana's central region.Food insecurity is seen as lacking access both economically and physically by individuals and households to adequate food in meeting their nutritional needs and food preferences for a healthy and secure living (Food Climate Research Network (FCRN) 2020). The Food and Agriculture Organization of the United Nations defines four dimensions of food security, all of which must be fulfilled simultaneously in order to achieve food security. These four dimensions include food utilization, economic and physical access to food, physical availability of food as well as the secureness of all these dimensions overtime (FAO, 2008). Household food security is an issue that affects populations around the world. Every night, 815 million people go to bed hungry even though there is more than enough food produced daily to feed the global population. (FAO, 2017).

The percentage of people suffering from hunger living in developing countries sums up to Ninety-eight percent (FAO 2019). Paradoxically, despite developing countries having to be part of the largest food producers in the world. Nevertheless, even the producers of the food for the rest of the global population encounter massive barriers to food security. Particularly, developing countries within Sub-Saharan Africa, including Ghana as well as other countries in South-East Asia faces the highest effects and dangers of food insecurity (Nkegbe et al. 2017; Adjei 2008; CARE 2011: 1-2). Estimates have shown that, about 840 million people around the world experienced food insecurity and hunger in 2018 (FAO 2019) Sub-Saharan Africa alone represented 223.7 million of people experiencing food insecurity and undernourishment with 22.8 percent rate of prevalence (FAO 2019; WFP 2019). Most of the people who were seen to experience the most effects of food insecurity and undernourishment are rural communities with their major occupation as small-scale farmers (Nkegbe 2017; Kuwornu et al., 2013; WFP 2013). This situation replicates itself in the context of Ghana.

 climate change is a major cause of Food insecurity because of crop-related effects of drier and warmer conditions expected in agricultural regions (Tito et al., 2018). Furthermore, according to Hasegawa et al., (2018) efforts to lessen climate change through reduction of greenhouse gas emissions is also negatively impacting food security by increasing prices and reducing supply of key agricultural commodities (Hasegawa et al., 2018). Drought and conflict are also factor's that

adds to the problem of producing, distributing and access to food. High population growth rates and poverty also contributes to an environment already in an unsubstantial ecosystem. (Uozawa, 2017). Addressing the problem of Food insecurity goes beyond producing more food, it is very essential to take into account the rural livelihoods in general. The link between poverty and food insecurity is essential, because a greater number of the poor, derive more of their livelihood from agriculture. Thus, the improvement of food security can be achieved if poverty is reduced. (Misselhorn & Hendricks, 2017). Following this proposed solution, states and international actors including FAO have been developing initiatives that are aimed at increasing agricultural productivity in rural areas.

Ghana is a developing nation and food-deficit country, with an approximate population of 28.5 million and a gross domestic product per capita of USD 2,220 in 2019 (World Food Programme, 2020). Regardless of the latest progress made to lessen acute malnutrition and stunting at the national level, high rate of poverty and stunting still persevere in the Central Savannah Ecological Zone, at 21.4 and 31 percent, respectively. Furthermore, the November 2019 Cadre Harmonise indicates that 65,645 people were estimated to be food insecure during the 2019 post-harvest season, while 21,712 people are projected to be food insecure during the upcoming lean season (June-August 2020) (World Food Programme, 2020). The agrarian structure in the central part of Ghana are mostly made up of small -scale farmers, with an agricultural land area use of 7,684 km square (786400ha) (Ministry of food and Agriculture (MOFA), 2020). Crops cultivated in the central region of Ghana are tree crops such as oil palm, citrus, copra, pineapple, cashew and staple crops such as maize, cassava, plantain, vegetables, cocoa (MOFA, 2020). Major cash crops which are exported are cocoa and oil palm (Ghana Statistical Service (GSS 2014). To address the issues of poverty and food insecurity in rural areas, the government of Ghana has introduced initiatives such as Planting for Food and Jobs initiative (MOFA, 2020).

The motive behind Planting for Food and Jobs initiative is to deliver improved seeds, fertilizers and extension services to smallholder farmers across the country with government absorbing fifty percent of the subsidy (Tanko et al., 2019). However, the measures attempting to ensure food security in Ghana are faced with various challenges that hinder their effectiveness and their end goal. For instance, the Planting for Food and Jobs initiatives by the Ghanaian government is facing various challenges which hinder its objectives. These challenges included cumbersome registration process, long distance to registration and distribution points, late distribution of seeds and fertilizers in some districts, poor quality of seeds and fertilizers and political interference (Ansah et al., 2020).

Despite such initiatives, as reported by WHO (2020) and other reports that also suggests Ghana is just 5% food insecure and there is an improvement in our agriculture sector(Darfour 2016), reports like the Cost of Hunger in Africa (COHA)study on Ghana shows that Ghana loses about 6.4% of it GDP annually to undernutrition, with about four out of ten women of reproductive age and six out of ten children under 5 are anaemic (WHO 2020) shows that Food insecurity and it accompanying health related issues, still persist and it is lived and experienced differently by socially differentiated individuals and households which this research aims to unpack.

This research paper examines the nature and everyday lived experiences and struggles of food-insecure rural households in Ghana, using the case of the Akobima community within the Mfantseman district in the central region of Ghana. The Akobima community within the Mfantseman district in the central region of Ghana represents a rural farming community with its inhabitants working mostly as small-scale farmers (Government of Ghana (GOG 2020). The community despite its being dominantly a farming community, faces problems of food insecurity and has recorded higher numbers of health issues linked to food insecurity in the region such as anaemia with a recorded rate of 85 percent which in turn affects their general health and livelihoods (Ghana National Nutrition Policy (GNNP) 2013). The paper also explores how different social groups experience food insecurity. It further looks into the coping strategies employed by rural households who are mostly small-scale farmers for managing food insecurity.

1.2 Statement of the problem

This research aims to examine and unpack the persistence and the everyday lived experiences and struggles of food insecurity among socially differentiated social groups in rural Ghana. While there is a substantial evidence demonstrating improvements in national level food insecurity and malnutrition levels, previous development strategy attempts in Ghana to address malnutrition have proved unsuccessful as evident in the persisting food insecurity and associated malnutrition issues especially at the rural household level (Darfour 2016: Saaka et al., 2017: World Food Programme, 2020). Furthermore, evidence from several studies still point to increasing food insecurity and malnutrition issues at rural household levels in the northern and central regions of Ghana (Darfour & Rosentrater, 2016: World Food Programme, 2020).

Even-though food insecurity is connected with the concept of hunger, people who experience moderate food insecurity in Ghana's rural areas still are faced with the uncertainty of being able to obtain food and are been forced to compromise on the quality and/or quantity of the food they consume (Saaka et al., 2017). Jessup-Varnum (2018) highlights that the failure of government and

non-governmental initiatives to assist small farmer household in rural areas is partly because they are developed excluding the knowledge of the dimensions of the food insecurity issue at the household level and they do not support the existing knowledge and needs of these farming communities. The findings of Jessup-Varnum (2010) indicate the larger issue of lack of understanding of household poverty level and how it is experienced by outside stakeholders seeking to assist rural communities.

Moreover, Reports from the United Nations Economic Commission on Africa (UNECA) has also indicated that an amount 4.6 billion GHS which represents an equivalence of 2.6 billion US Dollars in the year 2012 is lost by Ghana annually. This is as a result of child undernutrition due to food insecurity (UNECA 2016). This represents 6.4 of Ghana's GDP (UNECO 2016). The report also indicated that about 24 percent of child mortality are as a result of undernutrition with about 37 percent of the total population of adults suffering from the effects of stunted growth due to food insecurity, as well as loss of about 3.7 percent of the country's productivity by the workforce as a result of child mortality and undernutrition within households. (UNECO 2016).

For instance, a study by Kuwornu et al., (2013) in the central region indicated that out of 120 households that were interviewed for the research, 60 percent were food insecure. A recent study conducted by Armah et al., (2019) in the rural farming community of the Bibiani Ahwiaso in Ghana also noted that out of the 210 farming households in the study 94 percent of the households faced the threats of food insecurity. Hence, despite reports, and policies including the Medium Term Agriculture Sector Implementation Plan (METASIP) and the Food and Agriculture Sector Development Policy (FASDEP), which are aimed at ensuring agricultural improvement through improved agricultural technologies for farming and post-harvest support for farmers, the threat of food insecurity and its accompanying health issues continue to persist in Ghana. Furthermore, food insecurity is experienced and lived differently among socially differentiated households and individuals, with especially small-scale farming households and rural communities faced with greater challenge of lacking access to safe food for their well living (Sri et al., 2005; UNDP 2010: 30-2; Yaro 2004). As such, it becomes necessary to explore the nature and everyday experiences and struggles of food insecurity within the community. Also, how food insecurity affects the livelihoods different social groups of people in the community and the coping mechanisms adopted becomes relevant to study.

1.3 Justification and relevance of research

The research is relevant as it tries to bring out the nature and patterns of food insecurity in relation to the livelihoods of small-scale farming and rural households in Ghana, particularly in the context

of the reported overall betterment at the national level. Furthermore, the research helps to bring to light the coping mechanisms that are adopted by the rural households in lessoning the food insecurity that they experience. The paper is also significant as it explores the dynamics of food insecurity and the effects it has on the livelihoods of different social groups households.

In addition, the findings from the research would be relevant for the government and its ministry of food and agriculture, NGOs and community groups on food security in understanding the patterns of food insecurity that manifests within the households. This will help in employing effective policies and strategies for addressing the food insecurity situation within households in rural communities.

1.4 Research Objectives and questions

The objective of the research is to explore the nature, pattern and character of food insecurity and the everyday lived experiences and struggles of those food-insecure rural households and individuals in the central region of Ghana. Furthermore, the paper aims to explore how different social groups experience food insecurity, focusing on the Akobima community. It also seeks to explore the various coping mechanisms employed by individuals and households in addressing their food insecurity conditions and explore the extent to which the coping mechanisms help support their food and livelihood security.

Main research question

What is the nature, pattern and character of food (in)security in the everyday lived experiences and struggles of food-insecure rural households and individuals among the Akobima community in Ghana's central region?

Sub-questions

1. How is food insecurity and hunger defined and perceived by rural households in Akobima community.

2. How are the different social groups, (class, gender) affected and impacted by food insecurity and hunger in different households?

3. What are the coping mechanisms employed in mitigating the food insecurity within the rural households and how effective are they?

1.5 Methodology

1.5.1 Study Area and Research Design

This study was conducted in Akobima, a community in Mfantseman, Central Ghana and was chosen because though the area has agriculture as their main economic activity, a large number of households still find it hard to satisfy their food and dietary needs of their family. Having lived there for work and to community services made me aware of their everyday struggles they go through in order to meet daily food needs. Therefore, is a feasible area to explore how the residents cope with the issue of food insecurity and explore how they get affected. MAP.1 and 2 show an example of map for poverty, food insecurity, and households in the study area for the entire Central Ghana including Mfantseman district where the study was conducted.
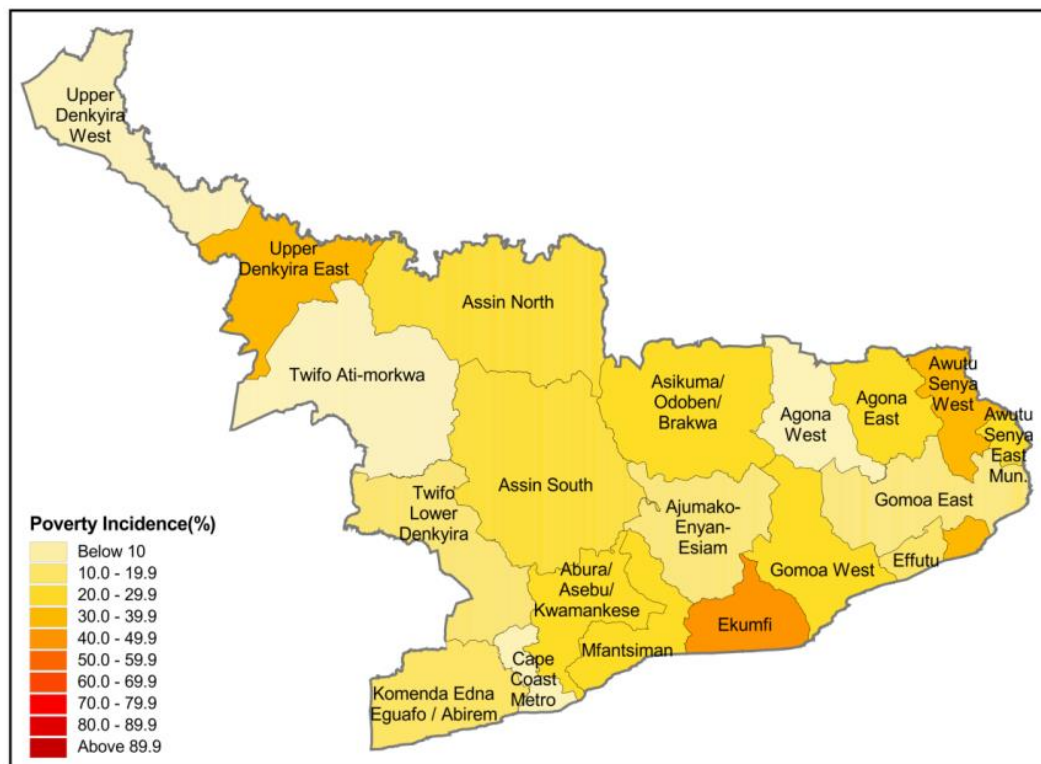
Map 1.1: *Poverty incidence in Central Ghana (Ghana Statistical Service 2015: 16)*
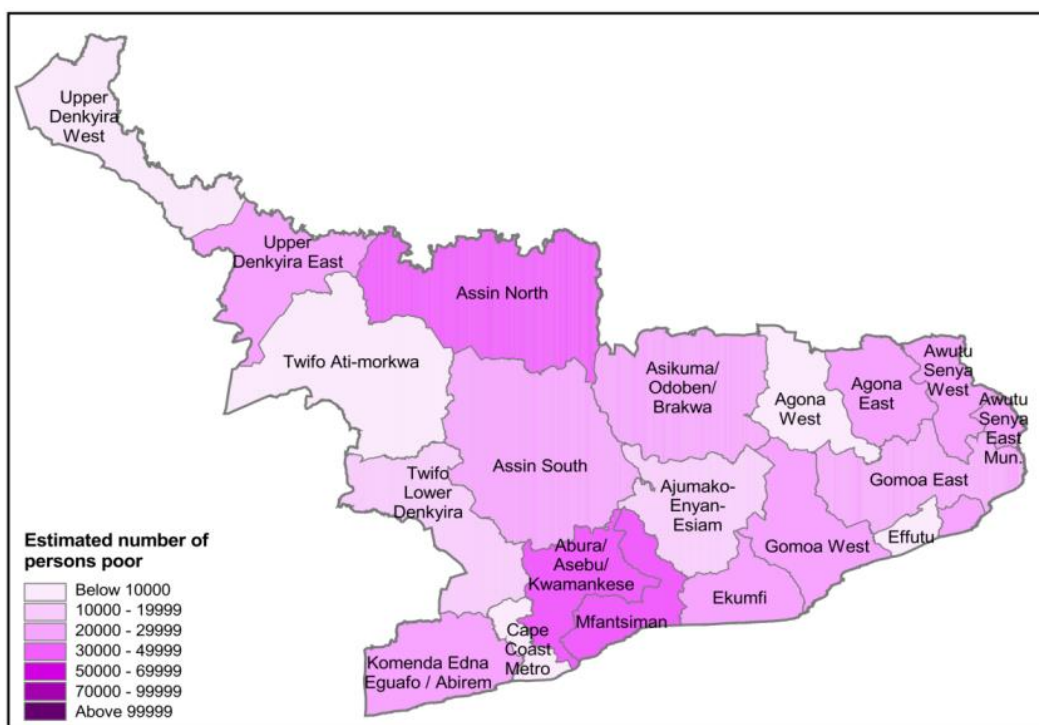
Map 1.2: *Estimated number of poor persons in Central Ghana (Ghana Statistical Service 2015)*

The study employed a qualitative approach from the perspective of participatory approach. According to Heron and Reason (1997), an outstanding quality of participatory approach is that it is often self-reflexive. This implies that it permits humans to acknowledge that everyone is part of the entire research exercise rather than just a segment of the process. As a result, it leads to collaborative forms of enquiry. It therefore means that the approach helped to understand the different human experiences affiliated with food insecurity in rural household. In other words, it was a better way of understanding the experiences participants have with food insecurity from their critical perceptions.

1.5.2 Selection of Participants

The selection of the participants followed a purposive sampling technique. Purposive sampling was used to help select the categories of respondents required for my research. The respondents was interviewed from various households made of different participants for the research namely migrants and non-migrants households, female-headed households, male-headed households, households made up married couples (man and woman), landholders(individuals that lend out their land or part of their land for farming in exchange for a fee, they can be farmer, themselves

as well), land tenants(individuals renting the land),farm labourers, small-scale farmers, households that are made of many children and that fewer children.

Overall a total of 22 respondents were interviewed, I personally interviewed 12 respondents out of the 22, the rest of the 10 where interviewed by my research assistant due to network issues in communication. Overall, there were 8 females and 14 males. Out of the 22 respondents, 5 where the key informants comprising 2 government officials, village head of the study area and 2 older persons (an 85years woman and 70 years old man) who had stayed in the community for long for a period of 70 and 55 years respectively. And 10 respondents out of the 22 respondents also took part in a focus group which they were selected also using a purposive sampling. The rest of 12 respondents were interviewed individually in their households. 6 respondents out of the focus group discussion were part of the 12 respondents that were interviewed individually in their households.

1.5.3 Data Collection

Currently, due to the prevailing pandemic of COVID-19, I worked with a research assistant from Ghana. The research assistant was important in helping me to carry out the research successfully as there were travel restrictions at the moment to prevent the spread of Covid-19 virus. So, I worked online with the research assistant as I guided him on what to do next according to the procedure I laid out for this research. He is about 43 years old with a small family. He had a bachelor's degree in social science and a master's in Project- Administration and currently works as a teacher and has been working part-time as a research assistant for the past 8 years.

 Moreover, he comes from the area of study and therefore, he had an understanding about matters to do with food insecurity in the region. The time period of the data collection started on the 15th of July 2020 and continued till 25th of August 2020. We first spoke to the village head about our intentions and to seek approval, before speaking to the village head the research assistant had to pay a fee in the form of cash and alcoholic drink as it is customary to do so , before getting access to a chief or village head.

 The collection of data entailed the use of semi-structured interviews. The data collected from 5 key informants and the 12 household members was collected through semi-structured interviews. Before this, I directed the research assistant to engage the participants in a Focus Group Discussion (FGD), which I was able to join through skype. But later had to leave because of network failure in communication.

1.5.4 Focus Group discussion

The Focus Group Discussions (FDG) was conducted on the 20th of July with 10 respondents, I selected 10 respondents to help cater for all the categories of respondents I needed for my research ,which comprises of population groups: Small-scale farmer household, Household of the landholder, Male-headed households, Female-headed households, Tenant farmer household to obtain data , explore their views and reactions of each category's on their specific understanding for the issues of food insecurity, hunger, and poverty and how it affects their livelihood.

The FGD was done in local dialect (TWI) to cater for everyone including the uneducated participants. This created a way of familiarizing with the participants thereby providing an efficient way of selecting the participants of which some 6 took part in the interview. Due to COVD-19 a lot of the respondents were reluctant to participate in the FGD but intervention by the village head most of the people agreed and felt safe to partake in the Focus Group discussion and social distancing protocol was observed. Others also joined to observe the discussion even though they were not part. I then followed up using a semi-structure interviews due to their ability to provide robust information regarding the phenomenon under study.

1.5.5 Semi-structured interview/Primary data

On the 25th of July I started with the semi-structure interviews. (see appendix 1) for the list of questions for the interview and focus group discussion. The interviews were conducted by me through skype with the help of my research assistant. The interview conducted for the key informants was helpful in deriving data on how food security was in the past and compared to now, the type of crops consumed and grown in the past, has it changed? coping mechanisms, source of food etc. The household interviews informed me on issues relating to their nutritional status, food sufficiency, other survival strategies, frequency of excess to food etc. The government officials added up with information on poverty and food insecurity levels in Akobima, government measures to help food insecurity issues, land distribution etc (see appendix 1) for detailed summary of the type data collected from respondents.

The semi-structured interviews formed the primary data of this research along with audio recordings using a phone and photos the research assistant captured with the permission of participants. In particular, the photos where expected to display the nature of foods sold in the market as agricultural yields obtained from the community and ways of how food are being stored. Apart from primary data, I also collected data from secondary sources with relevant literature from published papers on the study area, the FAO, official government websites, the Ministry of Food and Agriculture, government reports and Newspaper articles.

1.5.6 Data Analysis

After data collection, I worked with the research assistant who speaks both English and the local dialect to transcribe the data into English. All the data was analysed using a thematic technique. This involved classifying the data into various themes which forms my data analysis and findings in the course of study such as income, poverty, food secure, food insecure, coping strategies, and number of meals.

1.5.7 Limitations

The research encountered some limitations. The key limitation of the research was the unwillingness of the participants to gather due to fear of contracting the COVID-19 virus, most people were sceptical to be interviewed , so we had to waste a lot of time in trying to assure them of their safety , slowing down our projected time for collecting the data. Together with the research assistant we ensured to have them wear masks and follow sanitary precautions. However, some of the participants where not willing to wear the masks, because they felt the community had not recorded any cases, so it was safe, this also had to take a lot of education and talking to them to have them wear the nose mask.

Another limitation was the problem of online communication due to network issues in Ghana. The network was not stable and these sometimes in interfered with the online interviews. Because of these I could not interview some of the participants myself which made me loose the direct reactions of respondents to the questions. To mitigate the imitations, I compiled secondary data sources to help support my primary data.

1.5.8 Positionality

The idea of positionality, ethics and reflexivity was very relevant when conducting the study. Positionality encompasses the concerns and relations which are manifested and shows the links that are shaped within the power dynamics that are seen between a researcher, the research been conducted and the research participants (O' Leary 2013; Crossa 2012: 117-118). This brings in the need to critically look-into the researcher's ideas and opinions on what he/she recognizes as perspectives on the scope and the area of the research in comparison with the research that is carried out.

The relational structure and social dynamics in terms of the social relations which may manifest between research participants and the research could have strong influences and effects on the research being conducted and the area of the study at large (O' Leary 2017; 2013; Crossa: 2012:

117). This to some extent may affect the responses and answers provided for the research on the part of the research participants.

In carrying out a social research of this kind, the belief systems, as well as the opinions and perspectives of the social researcher on the way and manner that the researcher assesses and views the specific phenomenon of the research could in a way affect the objectivity of the research (O' Leary 2013: 50). In view of this, it was essential to consider and employ a multi-dimensional and a diversified view of perspectives when engaging in social research (O' Leary 2013: 51-2).

Graduating with a bachelor's degree in Business Administration and having worked in these rural areas with Kingdom Water, a company that specializes in providing water and sanitation facilities in rural areas, has made me understand the everyday struggles and challenges that rural people here encounter in relation to food security. The case of the Akobima community is well known to me because I stayed and worked there for over a year for my national service programme and saw I how some households will go a whole day struggling to provide meals for their family. My study in the ISS and becoming familiar with concepts like pollical economy, food security, sustainable rural livelihoods has informed me more of the political involvement in land ownership for farmlands, people right to get access to affordable and nutritious food for a better livelihood.

In conducting my study was very necessary to use a research assistant because of travel restrictions due to Covid -19. The positionality of the research assistant in conducting the research was having a background in social sciences made it easy relate to developmental issues.
He was qualified in conducting research associated with social sciences. He works as a teacher and he is also a member of an organisation that takes part to developmental projects to help improve conditions in the community. He was quite passionate about development in Akobima.

Moreover, he comes from the area of study and therefore, he had an understanding about food insecurity in the region. The role of the research assistant was to first understand what my study was about, he was responsible for identifying and gathering the research respondents and making them aware of interview dates and informing them about the study. I also handled some of the online interviews with the respondents through online mediums using the help of the research assistant, in certain times that the network was bad and was interfering with the interview the research assistant could conduct it on my behave. My role was also to analyse the data obtained from the study to answer my research questions for my findings.

1.5.9 Ethics

I had to seek approval from the ISS Crisis team before I could do in person field work or use a research assistant due to the present pandemic to ensure that it was safe. The research assistant also signed a non-disclosure form (see appendix 2) to confirm that he would keep the respondents' information confidential and ensure they are not accessed by anyone other than him. In the present study, I first sought consent from the participants using a consent note that I prepared by the time of fieldwork (see appendix 3). The consent note was crucial in explaining to the participants the purpose of the research, their roles, and rights. Also, I informed them about the confidentiality of the data especially where the photos were taken and used. I informed them that the data will solely be used for research purposes and protected well to avoid access by third parties. Also, since the research is being conducted at a time of COVID-19 pandemic, I instructed the research assistant to exercise social distance in all the gatherings, use mask, and carry sanitizer for the participants.

1.6 Chapter outlines

The research is structured into five chapters. Chapter 1 provides a background to the study and explains the study's rationale, significance, aim and objectives as well as the research methodologies used for answering the research questions. The second chapter discusses the study's conceptual framework employed in the study. The third chapter reviews previous literature related to the research topic and theoretical framework of the study. The fourth chapter presents the findings and discussions of the study's data analysis process. The fifth chapter contains conclusions drawn from the study's findings and recommendations.

Chapter 2 : Conceptual framework

2.1 Conceptualizing Food Security and Hunger

2.1.1 Defining Food Insecurity

In the past, up until the year 1951, the mainstream definition of food security was the decline in the availability of food. The premise taken by this description is that the main reason for the existence of famines was lack of food (De Waal, 2017). However, it was noted that this explanation did not explain the disparity of the impact of food insecurity on different sections of the populations. For instance, it was seen that agricultural labourers were more affected compared to other groups of people. Since then, there have been other comprehensive definitions that capture other factors (Watkins & Menken, 1985). Earlier conceptualizations on food security were limited to and more concerned with the analysis of the availability, as well as the supply of food nationally (Kuwornu et al., 2012). This was geared towards the analysing and considering the capacities of countries and their national governments to ensure the annually availability and access to food and stocks of the food and the food reserves (Peng and Berry 2018; STEM 2016).The Food and Agriculture and Organization (FAO) of the United Nations defines four dimensions of food security, all of which must be fulfilled simultaneously in order to achieve food security. These four dimensions include food utilization, economic and physical access to food, physical availability of food as well as the stability of all these dimensions overtime (FAO, 2008) -Figure 1.

Figure 1: Food and Nutrition Security
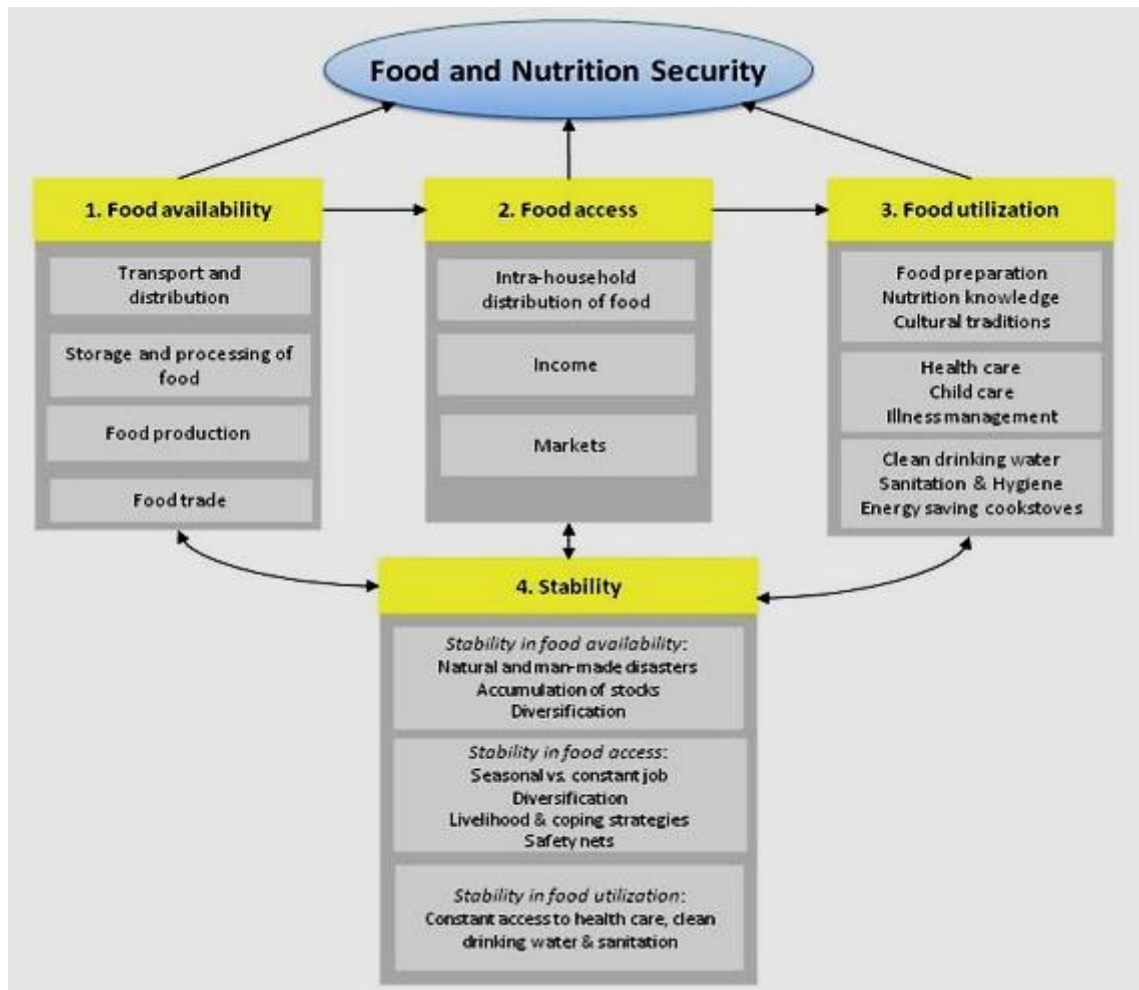
Source: Burchi et al. (2011)

FAO (2020) and the World Summit on Food Security (2009) describe four aspects of food security as follows:

i. **Food Availability**: According to FAO and WFP (2010), one of the primary elements of food security is the availability food and its associated ingredients. UNICEF, World Health Organization, & the World Bank. (2014a) revealed that there can be availability of dietetic energy but not well diversified to offer the macro and micronutrients fundamental for a healthy life. Dietary energy supply presents the best indicator of food availability with other pointers such food adequacy offering evidence on the gap between food availability and basic energy and nutritional necessities for a healthy life (WFP. 2009).

ii. **Food Accessibility**: In Ghana, hunger remains a critical issue so long as food availability is insufficient and unequally supplied among the people (UNICEF. 2016). With the WFP

advocating for everyone to have access to food physically and economically, this is primarily measured by the income capability of individual households hence dictating the people's ability to afford quality adequate food. Beside the economic affordability, physical access to food is made possible through the presence of better infrastructural developments such as transport network and systems, etc. (UNDP. 2012)

iii. ***Food Utilization***: FAO and WFP (2010) define food utilization as being able to measure of a population's ability to obtain enough nutritional intake and nutritional absorption. Biesalski and Birner (2018) added that diversification of poor diet is affiliated with deficiency and malnutrition which is a strong pointer to child stunting growth and development. Therefore, food management, preparation and storage affect food utilization (FFG. 2014).

iv. ***Food Stability***: according to WFP food stability describes the steadiness of availability, access and usage of food at all times without encountering risks. (FAO and WFP, 2010). In Ghana, the stability of food availability, access and usage is dictated by extreme climatic conditions, energy scarcity, socio-economic disruption and poor access to global markets. Handling of such risks demand promotion and support of production frameworks, ensure sustainable investment in rural development and improving market access frameworks.

Considering this conceptualization of food security, several essential features of food security can be advanced here. The features encompass the stability of food across time and space, availability of food, access to food physically, access to food economically, and the utilization of food (Peng and Berry 2018). From this, it could be emphasized that, food security entails a variegated dynamic, which interplays with each other to determine food security levels among households and their capacities to resist and cope with threats that they may encounter in the course of accessing and securing their food.

Food insecurity should be seen as the inability of people to secure and have access to adequate and healthy food that is essential for meeting their dietary and nutritional needs which are important for their daily activities at their entire livelihoods (Peng and Berry 2018; Weaver and Hadley 2009). Food insecurity should therefore not be seen necessarily as the limitation to unavailability of food but should encompass the multiple dynamics that may threatened people's food security, including their access to food physically and economically within time and space.

2.1.2 Defining Hunger

Hunger is defined as the painful sensation that is experienced as a result of people lacking food, as well as the involuntary and recurring absence of food for consumption (FRAC 2019). Malnutrition may come as a result of hunger in the course of time. Malnutrition in a sense may entail a lack of the necessary food nutrients that are required for a healthy growth and living (Mondal 2020; FAO 2017). Malnutrition amongst children is very common and key factor nutritional-related health problems among children. Hunger could be seen to an extent, as a consequence of people been food insecure. The painful sensation that is embedded within the definition of hunger underpins the likely effect of food insecurity among people. Also, the involuntary and recurring dimension in the definition of hunger come to explain the nature and pattern of food insecurity with regards to the economic and social problem in terms of the inability of people to access food (FRAC 2019; Mondal 2020; FAO 2018). With the presence of food security which results from a lack of access of adequate and safe food therefore, individuals and households who are limited with physically and economically to obtain the required food for their survival may fall into the trap of hunger (FRAC 2019; Mondal 2020). This draws a strong linkage between food insecurity and hunger as the prevalence of could lead to people being trapped in hunger and the health consequences that emerges with it.

This definition provided by FAO shows that the concept of food security goes beyond just 'freedom from hunger' and it has other dimensions as well. It emphasises the fact that food security is a condition that persistently affects people individually and that the nutritional and health aspects related to consumption of food as well as individual preferences and tastes are as crucial as the simple satisfaction of basic dietary and energy requirements. Moreover, the definition also demonstrates that the right to food should extend beyond simply survival as the basis for a productive and healthy life. Thus, the complex nature of the problems in this area presents obvious challenges for monitoring it.

2.1.3 Sen's Food Entitlement Framework of Food Insecurity and Hunger

Amartya Sen's `Poverty and Famines: An Essay on Entitlement and Deprivation' (1981) has stimulated particular interest, including testing of the approach on other cases of famine, its extension into identification and assessment of possible food insecurity- and hunger-relief policies (Devereux, 2001). Sen's entitlement approach examines the ability of individuals to control food via existing legal means. These means include using production possibilities, entitlements through the state, and trade opportunities to acquire food. This is not the same case in Sen's concept of food entitlements where it does not refer to legislative or legal mandates. Here, it is a concept that

unites three institutionally different ways whereby individuals have secure access to food (Sen, 1981). The first institution is the income-based entitlement which is considered the source of food security for most people in the developed nations. The second type is the grant- or gift-based entitlement and this entails situations where the needy are provided with food by well-wishers (Devereux, 2001).

The final institution of the entitlement approach is the direct production-based entitlement whereby individuals depend on farming, hunting, and fishing to acquire the food they consume. Sen's theory posits that the causal mechanism for precipitating starvation includes other variables apart from the reduction in the availability of food (Thompson, 2015. These variables include difficulty for an agricultural labourer to exchange his/her chief entitlement. The theory explains that the main reason for famines is that an individual loses his/her ability to exchange his/her entitlements and not because of lack of food. Sen's argument shows that each type of entitlement has an institutional structure each having distinct vulnerabilities. FAO's definition of food security and Sen's conceptualization of famine explain that food insecurity entails lack of economic and physical access to enough food or individuals lacking access to means of production such as capital, labour, or land. These definitions also denote the failure by governments to facilitate and protect access to means of production or to address inequality challenges a factor influencing food insecurity.

Sen's conceptualization of food entitlements and FAO's definition of food security and hunger are applied in the analysis of the experiences of hunger and food insecurity of the Akobima community.

2.2 The Sustainable Rural Livelihoods Approach

The sustainable rural livelihoods approach (SRLA) emerged in response to the destructive outcomes of previous approaches within the development discourse; in ensuring policies and programmes that are effective in ensuring grassroot development and alleviating poverty especially in developing countries (Manlosa et al., 2019; Buterburry 2016). According to OXFAM (2017) food security has a clear linkage to rural livelihoods. The central focus of the SRLA was therefore towards ensuring efficient and effective policies and methods that are essential for communities, groups and individuals in improving, enhancing and sustaining their basic needs and lives such as food, shelter, clothing, assets, health education. De Haan and Zoomers (2005) and Bebbington (1999) argue that the main reason why development projects intended to help the poor fail is because of the misperception of how the targeted individuals get by and how they do their things. Particularly Bebbington (1999) explains that the biggest change is that interventions are mainly based on the perception that rural livelihoods are based on agriculture and natural resources.

Indeed, even sophisticated frameworks that are aimed at analysing rural resource focus on the analysis of access to environmental resources which further underscores that negative perception of rural people.

Francis (2000) mentions that it is necessary to have a broad conception of the resources that individuals can access in seeking to compose a livelihood. This is more crucial in the context where the lives of individuals are shifting beyond just depending on natural resources to a wide range of assets, product, labour, income sources. For this reason, their livelihood can be considered in terms of access to five forms of capital asset namely cultural, social, natural, and human capital. All these forms of capital address the association between society, environment, and development (Scoones, 2009). Apart from the typical ways of acquiring money, food, and shelter, livelihood also entails ownership and circulation of information, the affirmation of personal significance and group identity, and management of relationships and skills. Other crucial aspects of livelihood include the responsibility to meet obligations, of status, identity, and security, as well as organizing time (Bebbington, 1999). This means that livelihood entails both material and non-material aspects of wellbeing.

The assets of an individual including land can be a means with which they make a living and they also give meaning to the individual's world. In this light, assets are not only considered resources that people use to build livelihoods but factors that give these people the capability to act and to be (De Haan and Zoomers, 2005). Therefore, assets should not only be considered as elements that allow people to adapt, survive, or avoid poverty but agents that enable people to act, change, or challenge rules that control or govern the use of resources. Having this holistic understanding of the concept of livelihood is crucial as it reveals not only the livelihood outcomes, but also the various forms of capital that the poor people can use to construct or compose their livelihoods (Bebbington, 1999). The approach demonstrates that other than the conventional assets such as livestock, land, and equipment, there are also other forms of capital such as social, and human capital. SRLA emphasizes flexible combinations and trade-offs between the various forms of capital. For example, if a lady in the rural context does not have access to land for cultivation, she may be able to make a livelihood through her network of social relations which is termed as social capital. Likewise, labour (human capital) can be transformed into physical capital in the case of the construction of an irrigation canal.

Food availability, food utilization, and food access are crucial elements of food security according to the Comprehensive Food Security & Vulnerability Analysis (WFP, 2009). These core elements are linked to the livelihood strategies, asset endowment of households, as well as institutional, social, economic, and political environments (Pieters, et al., 2013). The stability of the

household livelihoods approach is founded on its ableness to acquire a multidimensional and holistic profile of a micro-level context – food, livelihood, nutrition, and realization of rights with robust national and regional contextualization. The status of food security of an individual or household is usually determined by the interaction among various agro-environmental, biological, and socio-economic factors. Similar to the concepts of social welfare or health, there is no direct, single measure for food security (WFP, 2009). Still, the complexity of the issue with food security can be simplified by examining three different but interconnected dimensions namely household food access, aggregate food availability, and individual food utilization (Gross et al., 2000). In order for one to achieve food security, they should address all these three dimensions and ensure that:

- Household livelihoods offer enough access for everyone in the household to suppliers via market purchases, home production, as well as transfer from other sources;

- There is enough aggregate availability of physical supplies of food from commercial imports, domestic production, national stocks, and food aid; and

- The utilization of food supplies is appropriate to satisfy the specific health and dietary needs of everyone in the household (WFP, 2009).

Chapter 3 : Food Security and Hunger

3.1 Food Insecurity and Everyday Hunger in the Global Context

Food insecurity remains a critical global concern with global governments, regional organizations and agencies directing more efforts and resources towards addressing the issue of global food insecurity. A report by the World Food Programme (WFP) and the Food and Agriculture Organization (2010) revealed that through the efforts of different global organizations and agencies, the population of malnourished across the globe has dropped but continues to be higher above the worldwide agreed hunger-reduction level.

A declaration of the World Summit on Food Security (2009) stated that food security occurs when every human being in the world, at all times has physical, social and economic access to adequate secure and nutritive food that satisfy their dietetic needs and preferences for an active and healthy life. In other words, food security refers to sustainable access to sufficient food. On the other hand, food insecurity describes the conditions under which people do not have enough physical, social and economic access to food (World Summit on Food Security, 2009). Once WFP executive director, *Josette Sheeran* stated that throughout human history a hungry world is a dangerous world and if people do not access adequate food to consume, one of these three things happens: people revolt, migrate or perish. This is based on food insecurity statistics in the world showing its influence on individual nutritional wellbeing and behavior of people around the world (World Food Programme, 2017).

According to World Summit on Food Security (2009) the aspect of food insecurity based on food access should be addressed by amalgamating two analytical perspectives: one is that food security must be regarded as a necessity for guaranteeing the availability of food to the growing masses of global population especially in developing countries across the globe. The second perspective is the total quality and safety of the food generated and supplied must be sustainable and warranted. FAO and WFP statistics reveal that majority of the world's undernourished population reside in developing countries. Two-thirds dwell in seven countries (Bangladesh, China, Democratic Republic of Congo-DRC, Ethiopia, India, Indonesia and Pakistan) with over 40% of the population originating from China and India (FAO and WFP, 2010). Recent statistics by the UN, FAO, WFP and World Bank shows that a population of over 805 million people in the world have insufficient access. FAO estimated that 11% of the world's population are undernourished as of 2018 which means they have a caloric deficit required to meet the minimum energy requirement. There has been a decline in most regions in the prevalence of hunger since the

millennium. Globally this has decline from 14.8 percent in 2000 to 10.8 percent in 2018. Sub-Saharan Africa rate of hunger has contributed largely to the global increase in hunger levels. (where rates have risen by several percentage points in recent years) and small increases in the Middle East & North Africa – Figure 2.

Figure 1: Global undernourishment from 2000-2017, by region in percentages
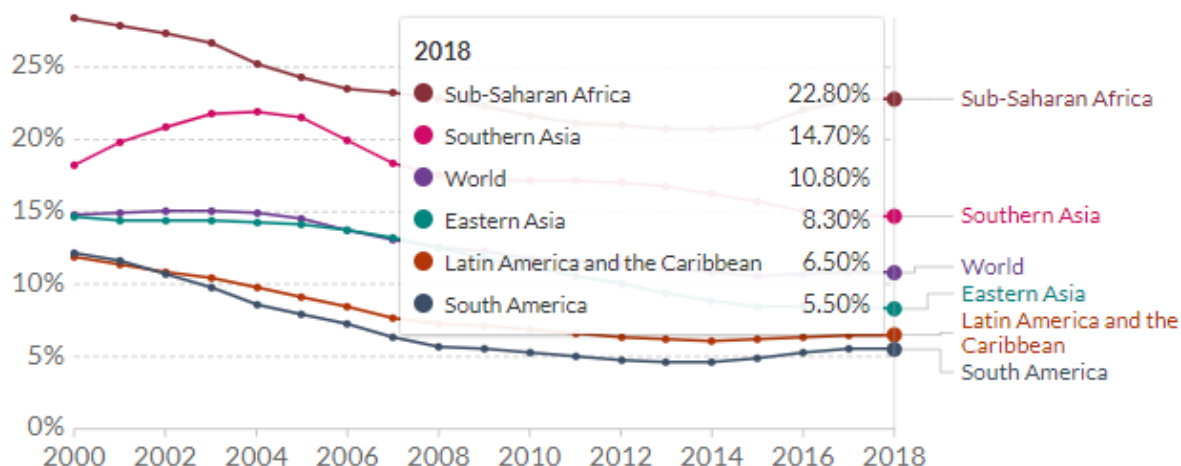
Source: Adopted from FAO (2020)

The World Food Programme (2017) report showed that the number of deaths recorded annually as a result of hunger is more than that of AIDS, Malaria and TB combined. Moreover, FAO (2015) estimated that a population of 870 million people across the globe were chronically food insecure hence have no access to nutritive food on a daily basis for a healthy life thereby exposing the population to a critical health situation with far reaching socio-economic and political effects.

The above section can be summarized into two paragraphs to give a brief global context within which greater focus on the African context and then go directly into the next section

3.2 Food insecurity and everyday hunger in Ghana

Just like other countries in the developing world, particularly sub-Sharan nations, Ghana also has challenges with food insecurity. FAO (2017) reported that 1 in 10 children live in extreme poverty and almost 1.2 million children live in households that cannot provide enough food. In addition, WFP (2009) reported that a population of 453,000 people in Ghana are food insecure with 34% dwelling in the Upper West region, 15% residing in the Upper East and 10% living in the Northern region. Hence the Food and Agriculture Organization-FAO (2015) estimate that

each night 1 in 9 people go to bed hungry. This is based on Ghana Statistical Service which reveal that the rate of poverty in Ghana stands 23.4% according to living standard survey conducted in country.

Similarly, WFP projected that about 2 million people in Ghana are vulnerable to food insecurity countrywide implying any unforeseen natural or man-made upsets can greatly influence the pattern of food availability for consumption. According to WFP statistics, most of those vulnerable to food security in Ghana (a total of 1.5 million people) reside in rural areas. Ghana being a country that depend on agriculture as the backbone of its economy, it is reported that over 60% of the people depend on farming for their livelihood (FAO, 2020). Ghana as an agricultural economy is faced with extreme climatic changes characterized by higher temperatures and low rainfall, exposing the country to high risks of droughts, famine and starvation. Other natural catastrophes include floods and pests which negatively affect the availability of food posing threats of food insecurity the people in Ghana. A report by the UNICEF, World Health Organization, & The World Bank. (2014a) expressed that prolonged hunger and malnutrition in most African countries is as a result of poverty level on the continent. With food inadequacy, parents struggle to work, and children strive to study presenting critical challenges to sustainable, long-term economic and social development (FAO, 2015).

The establishment of Comprehensive Food Security & Vulnerability Analysis (CFSVA) framework in 2012 has significantly helped to identify the areas and population groups experiencing food insecurity and the causes of food security in Ghana (UNDP. 2012). According to CFSVA a population of over 680,000 people were considered to be severely or relatively food insecure in Ghana. The CFSVA framework pointed out the following as the main causes of food insecurity in Ghana;

i. ***Persistent poverty***: the prevailing causes of unrelenting poverty in Ghana is beyond the span of the CFSVA framework but its influence on food security status for the people of Ghana is evident. According to UNDP (2012) poverty rate in the country restricts household resources available to access food and to invest in farming and agricultural inputs to enhance their agricultural production. The UNDP (2012) exposed that the level of poverty in Ghana makes families to lack buffers that can safeguard them against any shocks like climatic changes, upsurge in food prices and ailment or demise of household members.

ii. ***Restrained agricultural yields and seasonal effects***: Agriculture is the basic livelihood for many people in Ghana with about 88% of the people depending on crop production as the main revenue generating activity. However, the WFP (2009) uncovered that farmers

in Ghana experience serious structural issues ranging from lack of irrigation technology, fertilizer and insecticides due to lack of financial resources, to scarcity of rains and low soil fertility. The people in Ghana have to face seasonal challenges that reduces their ability to have access to sufficient and safe food (World Bank. 2017).

iii. ***Unstable food prices***: According to FAO (2020) the level of poverty in Ghana does not allow people to afford food due to fluctuating prices due to low food production leading to its scarcity and increasingly high inflation patterns in the country. The high cost of stable food in Ghana have been widespread and present a serious restriction to food access for majority of the people (UNDP. 2012).

Generally, the CFSVA framework indicates that a lot of household and people in Ghana are living below poverty line with many depending on small scale/ family farming for their livelihood (MoFA. 2015). Poverty constraints many households and people in Ghana unable to provide food and support their families sufficiently. Under the SDGs umbrella, the government of Ghana has increasingly prioritized food and nutrition in effort to address the problem of food insecurity in the country. Indeed, based on 2017 Global Food Security Index, Ghana is ranked among the most food secure nation in Sub-Saharan Africa (FAO, 2019). According to Grebmer et al., (2015) enhancing the agricultural activities such as crop production, fish farming, livestock rearing and improving the agricultural competitiveness to ensure effective integration into the domestic and international markets is vital to increasing revenue generation for the people and transforming the entire agricultural economy of Ghana. UNICEF (2016) report showed that Ghana has experienced growth in its economy in the last 10 years with the country's poverty rate improving from 56.5% in 1991 to 24.2% in 2013. As a result, the country achieved the target Millennium Development Goals of halving the country's poverty rate (UNICEF. 2016). However, despite this achievement, evidence shows disparities in level of poverty across the country with the other parts of the country showing less progress in poverty reduction and with high levels of food insecurity.

Chapter 4: Research Findings and Analysis

4.1 Introduction

In this chapter, data collected in the field has been analysed and discussed. The data was obtained through primary research from members of the Akobima community in Mfantseman, in Ghana. Besides the presentation of the data the results of the study will be analysed in light of the theories and studies featured in the literature review section. The study was designed to examine the nature, pattern and the everyday lived experiences, and struggles of food insecurity in relation to the livelihoods of rural households within the Akobima community in Ghana. For a more effective discussion, the question is sub-divided into three related sub-questions. The first section contains the biographic data of respondents, followed by an analysis of their responses. The analysis part begins by discussing how food insecurity, hunger defined and perceived by rural households in Akobima community, before discussing how different social groups, class, gender being affected and impacted by food insecurity and then the coping mechanisms employed in mitigating the food insecurity within the rural households. The analysis paid attention and related the findings to the concepts of SRLA and Food Entitlement Framework of Food Insecurity and Hunger. Finally, it ends with recommendations for remedying the food insecurity and poverty situation in the Akobima community.

4.2 Characteristics of Respondents

This section presents a summary of the biographic data of all the participants in the study. For easy reading the data is presented in table format.

Table 4.2.1 Household Respondents

respondents	Age (years)	Gender	Marital status	Education level	Occupation	No. of children	Land holding	Additional characteristics
*1	45	Female	Widowed	Basic	Farmer, trader	4	0.5 hectares	female headed household
*2,	80	Female	Widowed	No formal education	Unemployed	3 grand children	1 hectare	female headed household
* 3	47	Male	Married	Secondary	Land holder, farmer, carpenter	5	2 hectares	Male headed family
* 4	50	Male	Married	Basic education	Crop farming Land holder	10	2 hectares	Male headed family
*5	30	Male	Single	Basic education	Labourer	None	None	Male head
6	29	Male	Married	Basic education	Labourer	2	None	Male headed household

7	35	Male	Married	Tertiary education	Teacher	4	1 hectare	Migrant
*8	48	Male	Divorced	Tertiary education	Farmer, Landholder, Businessman	5	2 hectares	Migrant
9	44	Female	Single	Basic education	Tenant Farmer	None	0.5 hectares	Female head
10	35	Male	Married	Secondary	Tenant Farmer	3	¾ hectare	Male headed household
11	51	Female	Widowed	No formal education	Small scale farmer,	7	2 hectares	Female headed household
12	32	Male	Married	Secondary	Farmer, farm sprayer	2	1 hectare	Male headed household

*Household Respondents who took part in the focus group discussions

Table 4.2.1 gives information about the household respondents. 12 household respondents were interviewed to provide data to answer the question. Five respondents were 35 years and below, 5 were between 35 and 50 years old, one was 51 years old and one 80 years old.

Of the 12, respondents, 4 were female and the rest were males. Of the 4 female respondents, one was unmarried and the rest widowed. All the 8 male respondents were married except one. 8 out of the 12 household respondents work on farms as farmers or labour providers. The remaining 4 are not directly dependent on farming because they are involved in other economic activities.

Table 4.2.2 Government officials

Government Officials	Age	Gender	Marital status	Education level	Occupation
Government official 1	45	Male	Married	University	Agricultural extension officer
Government official 2	50	Female	Married	University	Agricultural extension officer

Table 4.2.2 above shows that the researcher collected information from 2 government officials who work under ministry of food and agriculture as agricultural extension officers as well. One is 45 years old and the other is 50. Both of them are married and they have university education.

4.2.3 Key Informant Respondents

Key Informants	Age (years)	Gender	Marital status	Education level	Occupation
Key Informant Respondent 1	70	Male	Married	Basic	Unemployed
Key Informant Respondent 2	85	Female	Widowed	Secondary	Farmer

Key Informant Respondent 3	60	Male Married	Secondary	Village head

As seen in table 4.2.3, there were three key informants interviewed for data collection. One was 70 years old, another one 85 and the last one 60 years old. One is an old lady who lost her husband and the other two are old men, but they are still married. Key informant 1 is unemployed, key informant 2 is a farmer and key informant 3 serves as village head.

4.3 Perception and definition of food insecurity and hunger by Akobima people

Findings

Food insecurity still remains a global threat to peace and health. As well said "A hungry man is an angry one" (Buchi Emecheta). The context of hunger and food security must be understood in the diverse definitions so as to be able to tackle the problem.

From this study conducted it was empirically evident from the findings that food insecurity is a challenge for people in the study population and the data collected indicates that poverty levels are high in the community. see (Appendix 4) for an example of a food insecure household in Akobima. Unlike the standard definition of food insecurity by FAO which described food insecurity as the inability of households to have physical access to food throughout the year, the understanding of the people of food insecurity to them means poor harvest (low crop yield), which eventually lead to lack of food to feed. One of the definitions given by one male key informant which was unanimously agreed by all was;

> "food insecurity means not enough food for as to eat as a result of poor yield from our farms. This usually result from poor rainfall pattern and pest infestation like we had last year (army worm evasion).

This definition means that factor depend solely on the farm for food and thus any disaster that strikes put them at risk of food insecurity. This is consistent to the concept of Food Entitlement Framework of Food Insecurity and Hunger by Sen which argues that food insecurity result from loss of entitlements and production. In this case of Akobima community their main entitlement is their farmland (including the farm produce) and thus once this is loss it results in food insecurity because these people do not have the capital access to afford food even if the food is physically accessible.

All the key informants confirmed that food insecurity and poverty persist in the community. For example, Key informant 1(male) said this about food insecurity:

No, we don't have food security here. A lot of households are really suffering, some go a whole day without food, if you do not have money how will you survive.

In addition, the 2 government officials interviewed confirmed that the levels of poverty and food security in Akobima are high. When asked about the level of poverty and food insecurity government official 2 said:

"It is very high, because there is no available land like before, all land has been given to state developers for their projects, making farming activities slow which has caused the level of food security to rise. Farmers lack the money to keep up with farms, pesticides, fertilizers etc"

The people of Akobima understand food insecurity and poverty to mean lack of food and poverty was described as the lack of money to care of the basic needs respectively. Hunger was also perceived to be the lack of food to feed the family. The study found that some farmer loss their lands to developers which according to Sen's argument is one of the causes of food insecurity since they do not have farmlands to produce enough food.

The persistence of the high levels of poverty in the community makes it hard for people to meet three square meals per day. The most impacted are the vulnerable people such as the aged and households with many children because they never get enough to eat.

The respondents complained that the economic availability of food is very expensive and that is another reason why poverty levels are high. Families that do not have enough land to cultivate depend on buying food from the market and that has not been easy for most of them. The amount of food purchased depends on how big a family's land is. Those with small pieces of land have to buy more food to supplement their farm produce and that becomes a burden to poor families. Sadly, that is the reality for most of them. Each of the focus group members said that at one point or another they have to buy food. When talking about the challenge of having to purchase food, government official 1(male) said:

Family heads struggle to get enough food for their households. They normally do not get the yields they want from the farm and so they purchase from the market. It expensive to buy food from the market too. Many of them do not have enough money to buy everything they need. Sometimes having even 2 meals a day becomes a problem.

The findings show that out of the 12 household heads, 10 of them consume their farm produce, but they have to buy from the market as well to supplement what they get from their farms. Only 1 depends fully on the farm and another 1 respondent relies fully on the market. The

poverty in Akobima is also manifested through the failure of some children to attend school due to lack of school fees. Three out of the 12 household respondents 3 said they have no money to send their children to school. 2 out of the 10 FGD members also said that they have children who are not attending school because they cannot afford it. 70-year-old key informant(male) 3 said:

No, my children do not attend school. Why? I do not have enough money to take them to school.

This situation can only predict a perpetual run of poverty and food insecurity in these households because children might not be able to develop their potentials to achieve success.

Focus group discussion

The FGD was also conducted to solicit views on their understanding of food insecurity and the prevalence of food insecurity in the community. During the focus group discussion. (see appendix 5) for detailed table of focus group members)

There were varied opinions on the definition of food insecurity. Some defined food insecurity as the absence of food for the households to feed. Some also added that food insecurity is not just about absence of food also it involves the inability to physical access of food (food not affordable because it is expensive). Poverty was identified as the main cause of food insecurity in the community. In the context Akobima community poverty meant inability to provide food and shelter which are the basic human needs. Lack of employment and social policies by government to alleviate poverty were the pertinent factors causing the high levels of poverty in the community. Critical to the farmers high levels of poverty would mean inability to own a piece of land.

For example, male household respondent 2 said:

"Ooh I would define food insecurity as not having access to enough food, poverty is when you do not have money. But not having a land or losing your farmland put you in high poverty level"

Focus Group Member 6(land holder, female) said:

"Food insecurity is when you do not have enough food and you are hungry. Poverty is when you do not have money and unemployed"

There has been a drastic decline in farming in the district and respondents noted that the current level of farming is much less compared to what was there before. On this point, most of the focus group participant said'

"Although people still do farm here, I would say there is a big difference between what you can see now and what we used to have like 5 to 10 years ago. Then, farming was very vibrant but today, is not the same."

They participants attributed lack of farming activities to the high levels of hunger, poverty and food insecurity in the community. According to them most youth in the community are migrating

to the cities like Kumasi, Accra and the mining community to seek for alternative means of livelihoods.

Analysis

The trend of food insecurity in the Akobima community in the Mfansteman district is on an increase for the past few years. Food production in the community has also decreased drastically and has resulted from loss of lands to developers (land grabbing) and resulted to the migration of the youth away from the community. This youth migration forms part of the livelihood diversification of strategies of SRLA. The SRLA concept explains migration as a livelihood strategy. In the case of Akobima community the youth migrate to seek for means of livelihood and to remit to their families back home. According to Oxfam (2017) food insecurity is clearly linked to rural livelihoods diversification strategies. Rural communing will explore different means to sustain livelihood during the period of food insecurity. Majority of the community members in the FDGs, household heads, government officials and key informants agreed that food insecurity is prevalent in Akobima community and that there is a high level of poverty in the area. The respondents also had a common way of defining food security. The respondents also agreed that farming was better in the past but now it has changed for the worst hence the acute shortage of food in the community.

The way food insecurity and hunger are perceived by the respondents agrees with the literature (Peng and Berry 2018; Weaver and Hadley 2009) where food insecurity is described as the inability of people to secure and have access to adequate and healthy food that is essential for meeting their dietary and nutritional needs which are important for their daily activities at their entire livelihoods. Hunger is defined in the literature as the painful sensation that is experienced as a result of people lacking food, as well as the involuntary and recurring absence of food for consumption (FRAC 2019). However, the perception of food insecurity and hunger given by the respondents is limited because it only focuses on the lack of food. In the literature food insecurity is understood as encompassing the multiple dynamics that may threatened people's food security, including their access to food physically and economically within time and space (FRAC 2019; Mondal 2020; FAO 2018). All these dynamics are evident in the Akobima community of Ghana. Analysing their context of understanding of food insecurity and poverty from the perspective of the concept SRLA makes us understand that the rural people are concerned about food that is enough for them to feed not the convention definition of food availability throughout the year.

4.4 How different social groups experience food insecurity and hunger in the Akobima community

Findings

In analysing the food insecurity situation in Akobima community, the household members where categorised into different vulnerable social groups to understand the different levels of food insecurity experienced. These groups include children, pregnant and lactating mothers and widows. Of all the social groups in the Akobima community, the findings showed that the most affected social group is the children. When there is not enough food, growing children and lactating mothers are affected the worst because they are more sensitive to lack of food due to their high level of nutrient requirements. 5 out of 10 FGD respondents said their children are affected by lack of food.

When talking about the effect of lack of food on the children, male household respondent 2 said:

> *Hmmm, they do not look strong. Most kids in the community look very skinny, like they sick. Look at my kids, that should tell you we struggle a lot, the government should come to our aid.*

The children suffer most when the family is large, and the food is little. For example, in large families the parents struggle to put food on the table and children rarely get enough. Families with many children experience hunger more because they have to share the little food that is available. Sometimes children eat one type of food such as cassava (Appendix 6) for a long time and that affects them because they lack essential nutrients available in other types of foods. These findings are supported in the literature by Mondal 2020 and FAO (2017) who stated that malnutrition amongst children is very common and key factor nutritional-related health problems among children.

When children don't eat enough, they are not able to concentrate at school and therefore their school performance goes down. 34-year-old Focus Group Discussion respondent 4 said:

> *Three of my children suffered from "KWASHIOKOR" the doctor said they do not get enough protein in their food. But it is not my fault I have no money.*

Another social group that is badly affected by food insecurity is the women, especially those who are pregnant. Women want to ensure that their children have eaten enough before they eat. When a woman is pregnant the situation is compounded because she needs the food and the nutrients the food provides as much as the children, otherwise her unborn baby is affected.

In the Focus Group discussions, 6 people out of the 12 who took part said pregnant women suffer a lot. 83-year-old key informant 2 said:

I think women are the most affected when pregnant, we do not get all the nutrients we need. The various food that the doctors recommend are not available. It makes us get complications sometimes, and the children do not look healthy when born.

Widows with children who have no husbands to give them support were also found to be another social group that is suffering a lot from hunger. Elderly widows do not have strength to go and work on their own farms and they also cannot do business or engage in other economic activities. Therefore, they lack food and other basic needs. Some widows depend on their children for support and when the children are not in a position to help, the suffering is too much.

50-year old government official 2 said:

When poverty is severe in this community, some of the people who go through the worst experiences are the widows. Most of them have no stable sources of income and they cannot fend for themselves. They only wait for their relatives to send financial support and whenever it fails, they can starve. In fact, a few years ago, one widow allegedly died of starvation in this area.

Out of all the participants there were 4 widows above 60 years old. All of them said that their ability to work has diminished. Of all the social groups in the Akobima community, the findings show that the most affected social group is the children. Children require food to grow and when they fail to get sufficient food with the appropriate nutrients, they may develop health complications. The findings indicate that there are cases of children having malnutrition and diseases such as kwashiorkor in the Akobima community. Children often get skinny and emaciated when they are not fed well.

In any of the interviewed households, food insecurity does not affect everyone equally. For instance, the two migrants interviewed were comfortable and food secure because they were involved in various economic activities (teacher and business- man, landholder) that made them comfortable. This was what they said when asked if the number of times they eat and if they are food secure?

My household eat three times a day there always food if anyone is hungry.

Analysis

The respondents agreed that different social groups experience food insecurity differently and that pregnant women, children and widows experience hard times in the community. This was attributed to lack of capital asset of these groups of people to buy food to supplement what the produce from their farms. According to Sen's concept of food entitlement framework of food insecurity and hunger the inability of these groups of people to control resources in order to

purchase food makes them more vulnerable to food insecurity and hunger. The groups do not control resources in the community, natural resources critical to livelihoods such as land is controlled by men. This makes it difficult for this social group. Most of them agreed that the most affected social group in the community are the children because they do not have access to the means of production nor any form of income generation activities but depend on their parents. Pregnant and lactating mothers, and widows also suffer from hunger and food insecurity. This was due to non-existing pluriacativities (including trading, labour work) which they could have engaged to earn extra income to produce food. Sen's concept of food insecurity explained possibility of trading as another source of earning extra income to be able to supplement farm produce in order to ensure food security in households. However, the lack of these opportunities for the women in Akobima community exposes women especially households were women are the heads or breadwinners to food insecurity. This usually result in malnutrition of children, women and unborn children (pregnant women specifically).

For instance, a study conducted in Sub-Sharan Africa, Bain et al (2013) on children malnutrition found that food insecurity was significantly associated with malnutrition which contributes to over a third of all deaths occurring in children. In another study by Moafi et al. (2018) there was a correlation between food insecurity and the quality of life in pregnant women. They found that pregnant women were highly vulnerable to food insecurity. Aftab et al (2012) states that the evidence of malnutrition in pregnant women is being underweight and it leads to the poor health of the mother, and it is eventually passed to the unborn baby so that it eventually makes the baby to be borne with low birth weight.

The food insecurity also affected this vulnerable group because of their inability to diversify their source of livelihoods. The concept of SRLA livelihoods diversification is crucial to sustainable livelihoods, thus the lack of livelihoods diversification by these women and children such as rearing animals, agricultural intensification makes it difficult for them to ensure food security. As indicated by White (2017) pluriactivity serves as one of the main sources of income to supplement small holders' farmers both in developing and developed countries. This could have served as an income source to these women and children who cannot migrate or work in the mines etc in order to supplement their farm produce to achieve food security.

4.5 Coping mechanisms employed by Akobima in addressing food insecurity and hunger conditions

Findings

According to Scoones (2009) coping strategies are very important to poor household in order to mitigate the scarce resources available. The concept of SRLA by Scoones (2009) argues that these coping strategies differ from each household depending on the resources (including social and material) available to them. It was therefore important in this study to consider these factors in analysing the coping strategies or mechanisms employed by these households.

Since the Akobima community has high levels of poverty and food insecurity, these households employed different coping strategies to mitigate their challenges. The study identified different strategies which they use to cope under the difficult conditions. At the individual level the main strategy employed by many farmers starvation, skipping of meals, buying inferior food which ocst less. These coping strategies were tropical to all respondents interviewed. The study found that most of the adults skip meals, starved overnight and give the little food to their children. Some of them could not hide their frustration as one woman shared her story.

I have three children, their father is not responsible, he drinks alcohol a lot out of frustrations, so we eat twice a day sometimes once. I own a lot of the food vendors here and now I cannot even go to them to buy food on credit.

This sentiment showed the poverty and food insecurity situation in the Akobima community. The solution suggested by most of the farmers was to develop the habit of storing food and not wating it during harvesting seasons so that they could have food to eat during the lean season since they cannot afford food in the market. To emphasize this point, 60-year-old focus group respondent 5 said:

The way things are here is not good. We are now used to it. We must store our own food for future use, otherwise somebody can starve to death. I am a widow and if I don't do that, I will have nobody to support me.

A similar response was also given by tenant farmer household respondent 1 who said:

We store some the food I get from the farm if I produce enough. And I work on people's farms to get some money as well. The money helps me to buy more food when what I got from my farm is depleted. I also use the money to buy clothes and pay school fees for my children.

All the key informant respondents 1, 2 and 3 also said that the most common method of survival is the storage of food. Storage of food which is the most popular coping mechanism helps to ensure that families can feed on their produce for longer as they wait for the next harvest. Setting a side part of the produce means that farmers do not need to purchase food from the market because they do not have money for that. The food stored is consumed in small portions to ensure that the family is fed. Food storage is done after every harvest season. Under this mechanism, people put aside part of the food they have harvested for future use. The food is stored in the house suspended under the roof especially in the kitchen (appendix 7). Alternatively, special structures made in the form of granaries are used for food storage. These traditional systems of food preservation and storage are effective and popular with most farmers in the community. But sometimes the food stored might go bad and are exposed to mold.

Another important coping strategy that came out of the study findings was the expansion of the land used for farming. Few of the respondents revealed that agricultural intensification was the best coping strategy but was critical to add that not everyone could cultivate on large scale especially the women. This coping strategy was in consistent with the concept of SRLA which sees intensification of agriculture as one coping strategy to ensure that enough food is available for households. Since the land set aside for farming has been shrinking continually, expanding it can help to have space for the production of more food. Of the 10 focus group respondents who took part in the discussion, 3 of them said that they have tried expanding their portions of land set aside for farming. The expansion of land under crop production helps to increase the yield for those using that mechanism. As a result, they have more to eat and store and the surplus can be sold so that the money can be used on other needs. The most common way of land expansion is renting land from other people who have bigger portions of land for farming. Fellow farmers who own larger pieces of land or are unable to farm on all of their land opt to rent it out to those in need. Farms are rented to other farmers for one season for an agreeable amount of money after which the lease can be extended based on the agreement of the parties involved. Families that have the financial capacity to rent land were found to have an advantage over other families without that ability because by producing more from the farm, their levels of hunger and food security were largely reduced.

Working on people's farms (Wage labour) was also identified as a coping strategy. This was done mostly by the more energetic members of the community. Spraying of crops was one of the, weeding, mounting mounds were some of the activities that one could be hired for. These wage labour served as a source of income for households to buy food to supplement their farm

produce. Also, there are other duties such tilling, planting and harvesting mostly done by women and children in the community.

All the government officials interviewed said that their observation of the community showed that some of the community members absolutely do not have solutions to their challenges.

Government official 2 said:

These people do not have plans. They only use what they have. They live as the day goes by. Hand to mouth and that is how many of them survive day in day out.

Key informant 3 (village head) said:

People save money and farm produce. When things are hard, I go to the coastal side to do some fishing, for money as well. Anything I can do to get food on my table.

Youth migration was also a coping strategy employed by family members to diversify their means of livelihoods. Families who have young children migrate to the mining communities to work and remit to their families. One male respondent said;

"migration is good, when my son was here it was difficult for all of us but after he travelled to Obuasi (mining community) , he has been sending us money for food and farming. We are now better than before"

This implies that youth migration was a coping strategy employed in the community to alleviate poverty and mitigate food insecurity.

The study also found social coping strategies such as gifts from family members, friends, donation from religious leaders and community leaders, borrowing as coping strategies. Paramount to them was the support from family members and churches as one female participant noted;

"my pastor is God sent else my family would have perished. He paid my daughter's medical bills and give as food everything we do no have food. He is my everything".

Analysis

Migration which is a key element of coping strategy in SRLA was a major coping strategy by the people in the community. Because of lack of economic activities in the community most energetic youth travel out of the community to work and remit to support their families. Sen's Food entitlement framework of food insecurity and hunger also highlighted gifts, donations and grants as strategies to cope with hunger and food insecurity. In the case of Akobima community gifts, donations formed part of the coping strategies to ensure food security in their households.

Money that was being saved was earned from farming and additional jobs such as provision of labour on farms and trading at the market. Respondents also said that community members try do other jobs apart from farming to earn some money. That way they do not have suffer whenever

their farms do not produce enough for them. They simply combine different strategies to try and deal with their predicament. All the respondents agreed that combining different coping mechanisms works very well to supplement what they get from the farm. Although not many families have money to save, a few of them do and it helps them to buy food when their farm produce is over. Savings may come from the sale of farm produce and income from other activities such trading and working on the farms of other landowners in the community who have big lands. The study findings show that a combination of different coping mechanisms works for some families. All the participants in the study agreed that to survive the hunger and food insecurity affecting their community, they combine different mechanisms because they have different levels of effectiveness. For example, the findings show that some people may store food and save money, but they would be required to go and rent more land for farming, or go to work on other people's farms in order to produce more food or earn money to save or both.

There were different views in the findings on how Akobima community members cope with the issue of hunger and food insecurity. The respondents did not agree that every community member has a coping mechanism used to overcome the challenges of food insecurity in Akobima community. As some respondents named certain coping mechanisms, the rest did not support them. Sparing some food for storage was one mechanism that some respondents (key informants, government officials, focus group members and household respondents) said that people store food during the harvest season to be used in times of hunger. Another coping mechanism was farming on other people lands. All the respondents also agreed that this strategy is common in the community but popular with those who can afford to rent land. Saving money was also cited as an important strategy that is used by some community members. However, not all respondents agreed on this mechanism. They could not agree on the use of this mechanism among community members.

Similar to the findings of this study, Farzana et al (2017) studied the coping strategies related to food insecurity in Bangladesh and found that many of the households were mostly inclined to use both financial and food compromisation strategies as coping mechanisms. Hatri-chhetri, A., & Maharjan, K. (2006) studied food insecurity and the strategies people un rural areas in Nepal use to cope. The researchers found that the people increased food production, by providing improved cultivation methods and inputs as well as the development of infrastructure to ensure easy movement of farm produce. In another study on food security and coping mechanisms in Northern Ghana, Quaye (2008) discovered that the most common coping mechanisms for rural populations in the region were migrating to southern Ghana to seek for wage labour, asking for

help from relatives and friends from other places, selling off livestock and goods from the house, reducing the quantity of food consumed and consuming less preferred foods.

4.6 Summary of findings

Poverty is a major problem that people in the Akobima community are dealing with. Government support to help people out of poverty is missing. The way in which people in the community perceive food insecurity is in line with past studies that define food insecurity as the inability of people to secure and have access to adequate and healthy food that is essential for meeting their dietary and nutritional needs which are important for their daily activities at their entire livelihoods. The respondents had a limited perception of food insecurity and hunger because their understanding is only focused on lack of food. People in a particular household are not affected by food insecurity equally and in the same way because pregnant women, children and widows have the hardest times when there is lack of food. There are different strategies used for coping in food insecure conditions. The chief strategy that most people use is to cut meals and saving on food. Food storage, expansion of land, saving money and laboring on the farms of other people are also strategies used to survive. The respondents did not agree on the coping mechanisms that people in Akobima employ. As some said they have certain mechanisms, others disagreed saying that they did not apply those strategies. Food insecurity and hunger are abstracted by this study's participants more broadly as not just referring to the lack of food but also encompassing the many dynamics that pose a threat to the food security of individuals including their physical and economic access to food in time and space and the ability to utilize food. This finding relates to the conceptualization of food security and hunger by FAO and Sen's entitlement approach.

Chapter 5: Conclusions and Recommendations

Conclusions

This study set out to examine food security and every day hunger in rural Ghana with a specific focus on the Akobima Community with a central question of "What is the nature, pattern and character of food (in)security in the everyday lived experiences and struggles of food-insecure rural households and individuals among the Akobima community in Ghana's central region?" The findings show the persistence of food insecurity at rural household level in the Akobima community and argues against Ghana having little and being just 5% food insecure. (Darfour,2016) On the basis of the findings from this study the following conclusions have been drawn.

The first research sub-question is, "How is food insecurity, hunger defined and perceived by rural households in Akobima community?" to answer this question, the findings show that Akobima community food insecurity and hunger are both defined by most of the community members as the lack of enough food to feed the family throughout the year. In the same community, poverty which is strongly linked to food insecurity and hunger was defined as the lack of employment and money to purchase food. People who do not have large parcels of land are believed to be poor because they are small land holders and therefore, they cannot produce enough food for their families. When compared to theories and previous studies these findings show that the way food insecurity and hunger are perceived and defined in the community differs a little from what it is in the literature. The definition of food insecurity by the community members and understanding of the food insecurity problem is not in-depth. The community members have gone through years of chronic poverty and food insecurity has become a way of life that people do not consider it special in any way. Nevertheless, the findings imply that food insecurity is prevalent in the community because the community members have an idea of what food security is. Most of the community has an experience with hunger and food insecurity because they define the concepts from their practical experience with it.

The second sub-question was, "How are the different social groups, (class, gender) affected and impacted by food insecurity in different households?"

In answering this question, the study findings indicate that most affected people by hunger and food insecurity in the community are children, pregnant women and elderly widows. Children are still growing and therefore their bodies require proper nutrition. Pregnant mothers have unborn babies that are developing in them and this means their nutrient intake and energy needs are also high. Widows with children are frail and going without food or getting insufficient food easily makes them weaker. In addition, these three groups of people are not able to provide for

themselves because they cannot go out to work for food or money. Since children require energy and nutrients to grow and the hunger in Akobima often leads to health problems for children from food insecure families. Pregnant women also need important nutrients to nourish the developing foetus and when fail to get good food, their health is affected. Widows are another social group that is badly hit by hunger. Since older widows have no strength to do farming, they are food insecure. A comparison of these findings with past studies and theories indicates that past studies support the study findings. Most of what was found about the effects of poverty and hunger on children, pregnant mothers and widows has support in the literature. Therefore, the findings imply that the mentioned vulnerable groups in the community are going through much suffering from hunger and a solution must be found for this persistent problem.

The third sub-question was, "What are the coping mechanisms employed in mitigating the food insecurity within the rural households and how effective are they?" The study found that to cope with the challenge of hunger and food insecurity, people in the community have adopted the strategy of food storage where community members set aside a portion of the food they have harvested for future consumption. Another strategy used by Akobima community members is consuming less food. A reduction of the amount of food consumed on daily basis allows families to save and spare food for the future. Some families are adapted to eating only two meals per day instead of three. That way, they can spare the unconsumed food for the next day. Other families opt to expand the size of the land used for farming. Mostly they do that by renting more land from other farmers who own bigger pieces of land. To increase the family income, some community members hire themselves out to work on other people's farms. The study also found that saving money works as a strategy as well. In some families, although not many, part of the money obtained from the sale of farm produce is kept aside for future use.

The implication of these findings is that community members have their own ways of tackling their hunger and food insecurity challenges, but they are not enough to deal with the problem. Their small-scale activities done at the household level such as consuming less food are not helpful but eventually, they may become destructive because they can cause malnutrition. The community needs more concrete and effective mechanisms that will help eradicate food insecurity. As already stated, the government and NGOS need to come in a step up their programmes and activities meant to alleviate hunger in the community.

Overall, the study has helped explore the everyday struggles of food insecurity and how it experienced by different socially differentiated groups and food security is perceived especially in rural household areas using the case study of the Akobima community. The study also contributed in exploring the coping mechanisms used to reduce food insecurity in rural households.

Recommendations

To help tackle the problem of hunger and food insecurity in the Akobima community, it is recommended in this study that the government should launch welfare support programs as a way of poverty alleviation among vulnerable groups such as children, pregnant women, the elderly and widows.

The government should ensure that there are workable and effective policies for supporting the most vulnerable social groups in the community such as the children, pregnant women and widows.

The government should provide subsidized or even free fertilizers and pesticides to families involved in farming to help increase their yields. This would be a very important initiative since the peasant farmers cannot afford to buy such farm inputs by themselves. Poor small-scale farm holders are not able to buy fertilizers, seeds and pesticides to improve their yields. It is therefore strongly recommended that the government should have programs for supporting the peasant farmers with farm inputs.

Finally, the government should start development projects that can help to eliminate general poverty in Akobima community such as roads and other projects where people can get employment. When people reduce their dependence on unproductive farming and diversify their incomes their levels of poverty will be drastically reduced.

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Appendices

Appendix 1: Interview Guide

Socio-demographic information

1. Age of household head
2. Sex
3. Level of Education
4. Household size
5. Occupation
6. Number of income earners within the household

Interview questions for households

1. How long have you been living in the community?
2. How many members are in your household?
3. How will you define poverty?
4. How will you define food insecurity?
5. How will you define hunger?
6. What is the monthly household income?
7. Where do you get your main source of income?
8. How many members in the household are working?
9. Do you get support in the form of money and food items from other extended family members?
10. What are the main food and cash crops grown in the community?
11. How do you get your source of food?
12. Do you get the food you eat from the farming activities in the community?
13. Do you have access to market where you can buy the food items that you want?
14. How do you access other markets in the district to buy food items that you do not get in your community?
15. Do you get support from the government in the form of cash transfers or food supplies?
16. What food do you normally take for breakfast, lunch, and supper?
17. How often do the household members get food to eat?
18. How many times do the household members eat a day?
19. Does the household have adequate food for the children?
20. Are the children fed in school?
21. Do the household members get adequate food nutrients in their food?
22. Are there times where members in the household have to go hungry?
23. Who are those who get the most share of the household food?
24. Do children complain of hunger in the household?
25. Do children usually fall sick as a result of not having food to eat?
26. Are children able to get adequate food and nutrition required to eat for their growth?
27. How does the food consume by household affect the health of the household members?

28. How does the food consume by the household affect health of the children?
29. How does the food consumed by the household affect the education of the children?
30. How does the food consumed affect the growth of the children?
31. How does the food consumed affect the health of women in the household?
32. How does the food consumed affect the health of pregnant women in the household?
33. Do you think that members in the household are secured with their nutrition in-take?
34. Do you see the household members to be secure with food?
35. Who are the most affected when there is no food in the household?
36. What strategies are used by members of the household to manage lack of access to adequate food in the household?
37. Which of the strategies are more relevant for the members in mitigating hunger and lack access of food in the household?
38. Are several strategies combined in mitigating the lack of access to food?

Interview questions for key informants (including village leaders, chiefs, old people who have stayed in the community for a longer time, older women etc).

1. How long have you stayed in the community?
2. What are the main economic activities in the community?
3. What is the main food consumed in the community?
4. Are there migrants in the community? Where do the migrants come from and do they have access to land?
5. How is the distribution of land in the community?
6. How are the farming activities in the community?
7. Do farmers in the community get higher yields from their farming?
8. How is the roads and transportation to and from the community?
9. Do farmers in the community have easy access to vehicles to convey their farming tools and goods to and from the farm?
10. How do the community get its main source of food?
11. How do the community get its main source of income?
12. How has the situation of food security and hunger in the community been in the past and in recent times?
13. Do households in the community have adequate food to eat?
14. Do the households get the necessary food nutrients for their growth and healthy living?
15. How often do members of household eat breakfast, lunch and super?
16. Are children in the household able to get the needed food nutrients?
17. How do children in the community feel with the food they eat?
18. How does the food consume by children impact on their education?
19. How does the food consume by the children affect their health?

20. Does the food consumed in the community affect the health of pregnant women?
21. Do you think members of the community are food secure?
22. Who are the most affected with lack of food in the community?
23. What strategies are used by households to manage lack of access to adequate food in the household?
24. Which of the strategies are more relevant for the households in mitigating hunger and lack access of food in the household?
25. Are several strategies combined in mitigating the lack of access to food?

Focus group discussions questions.

1. What your understanding of food insecurity, hunger, and poverty in the community.

2. What is are your everyday struggles and how do you cope with food insecurity and hunger.

Government officials

1. For how long have you been working in this region /MOFA

2. What is the definition of food insecurity according to the government?

3. In your recent statistics, what is the status of food insecurity and poverty in Akobima? Is it at low level, middle level, or high level?

4. Since the releasing of these figures, has food insecurity increased or decreased in Akobima/mfansteman district.

5. What do you consider to be the basic daily food requirement for households for it to be said it is food secure?

6. Have you received reports of people skipping meals in households over the last 12 months due to lack of money? If yes, what is the percentage?

7. Who are the mostly impacted people with food insecurity?

8. As part of the government, do you have any measures put in place to help food insecure households?

    a) Mention a few of these measures?

    b) Among the measures, which one is the most prominent one in terms of efficiency?

9. When calamity strikes thereby posing danger to food security, how do you help to mitigate the escalating food prices?

10. Which crops do households grow to survive food insecurity?

Table 1.1: The type of data that was gathered from the study

Research Questions	The Data Needed	The process and method of collection
1. **How is food insecurity and hunger defined, and perceived by the rural households in Akobima**	1. Ability to understand food insecurity in general (participants must show that lack of accessibility to nutritious and healthy food and low economic status of the household are the first indicators of food insecurity). 2. Number of people in the family 3. Information on poverty level 4. Income level 5. Number of people in the household who are working 6. Accessibility to the market to buy food 7. Frequency of obtaining food and how to get it 8. Nutritional status of the households.	Semi-structured interviews Literature (secondary sources) Focus group discussion.
2. **How are different social groups, class, and gender beings affected and**	1. Household income level	Semi-structured interviews

impacted by food insecurity in different households?	2. Number of people working in the household 3. Financial support 4. Source of food 5. Frequency of eating 6. Adequacy of food 7. Nutrition 8. Children's and Women's nutrition 9. Land accessibility 10. People who are mostly affected	
3. What are the coping mechanisms employed in mitigating the food insecurity within the rural households?	1. Source of food 2. Financial and food support 3. Access to food 4. Nutrition 5. Food sufficiency 6. Other survival strategies	Semi-structured interviews Literature (secondary sources)

Appendix 2: Non -disclosure agreement form

....
Non-Disclosure/Confidentiality Agreement

I Alhassan Mohammed Faisal will help Nadia Asuru with the research study titled Food Security and Every day Hunger in Rural Ghana: A Case Study of the Akobima Community.

My role will serve as language interpreter during focus group, transcribe interviews and enter participant.

In this role:
1. I will not disclose the names of any participants in the study.
2. I will not disclose personal information collected from any participants in the study.
3. I will not disclose any participant responses.
4. I will not disclose any data.
5. I will not discuss the research with anyone other than the researcher(s).
6. I will keep all paper information secured while it is in my possession.
7. I will keep all electronic information secured while it is in my possession.
8. I will return all information to the researcher when I am finished with my work.
9. I will destroy any extra copies that were made during my work

_____   6|7|2020
Signature   Date

_____   6|7|2020
Researcher Signature   Date

Full contact information of research assistant

Name: ALHASSAN MOHAMMED FAISAL
Phone: 0244035813
Email: faisalalhassan85@gmail.com

Appendix 3: Consent Form

<div align="center">

Participant's Consent Letter

</div>

Invitation to Participate in a Research Project

Research Title: Food Security and Everyday Hunger in Rural Ghana: A Case Study of the Akobima Community

Resescher : Nadia Asuru
Email: Nadiaasuru6@gmail.com

Supervisors:

Christina Sathyamala   Tsegaye Moreda Shegro

Email: Christaina Sathyamala   Shegro@iss.nl

Dear Participant,
I would like to invite you to a one on one interview , focus group discussion as part of my Master's research project being conducted through ISS (International Institute of Social Studies), which will last for about 1 hour. The project is about teasing out the nature, patterns, and everyday experiences and struggles of food insecurity in relation to the livelihoods of rural households in Ghana. Therefore, the paper aims to explore the different coping mechanisms that are employed by the rural households in addressing their food insecurity conditions; and how the mechanisms help in supporting their livelihoods and how different social groups experiences food insecurity in the Akobima community. You have been chosen to participate in the project because you might be a migrant, none-migrant, household breadwinner, farmer or a leader concerned with food insecurity in various households in the Akobima community and would, therefore, like to share some of the experiences.
If you consent to take part in the study, you will be contacted for the date, time, and place of the interview. You will be expected to answer the questions in regard to your experiences with food insecurity. I believe your input will provide valuable information on experiences of food insecurity and coping mechanisms. However, in case you feel upset and uncomfortable after commencing the interview, you will be at liberty to withdraw from the project and maybe return later. Also, if you feel distressed about the study, you can contact my supervisors and have your concerns discussed with them confidentially. Overall, participation in the research is voluntary and confidential, and therefore, you may withdraw from the interview without any prejudice.
As a participant in this study, I will protect your privacy by ensuring the information you provide on the interview sheets is treated confidentially and only accessed with the researcher and the supervisors. Therefore, if you choose to participate in this project, please read the letter carefully and keep a copy if necessary. If any complaint should arise, you can contact me or my supervisors .

Appendix 4: Picture of unsecured household.

Appendix 5: Focus group table

Focus Respondents	Group	Age (years)	Gender	Marital status	Education level	Occupation
Focus Respondent 1	Group	77	Male	Married	Secondary	Farmer
Focus Respondent 2	Group	60	Male	Married	Basic	Land holder
Focus Respondent 3	Group	34	Female	Married	Basic	Laborer
Focus Respondent 4	Group	28	Male	Single	Secondary	Farmer
Focus Respondent 5	Group	80	Female	Widow	Secondary	unemployed
Focus Respondent 6	Group	44	Female	Married	Secondary	Land holder
Focus Respondent 7	Group	25	Male	Single	Basic	Jobless
Focus Respondent 8	Group	53	Male	Married	Secondary	Land holder
Focus Respondent 9	Group	39	Female	single	Basic	Tenant farmer
Focus Respondent 10	Group	35	Male	married	Tertiary	Land holder, businessman, farmer

Appendix 6: Image of some crops grown (cassava)

Appendix 7: Picture food storage