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# PERI-URBAN LIVELIHOODS AND FOOD SECURITY

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ASSESSING HOUSEHOLD LIVELIHOOD STRATEGIES AND  
FOOD SECURITY STATUS IN AMASAMAN, GHANA



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## **Abstract**

In the past decades, global challenges including food insecurity were viewed almost entirely as a rural phenomenon. However, at the beginning of the twenty-first century, rapid urbanization in the developing world has jeopardized livelihoods along the urban periphery leading to the gradual relocation of food insecurity closer to the urban areas. The purpose of this study was to explore household livelihoods in Amasaman (Ghana) by focusing on livelihood constraints and coping strategies and to distinguish between food secure and insecure households. Therefore, key questions centred on household livelihood activities, livelihood restrictions, survival mechanisms employed during hardships and household description of their food security situation. Mixed-methodology was employed whereby qualitative in-depth and semi-structured interviews were used to investigate household livelihoods, constraints and coping strategies while quantitative basic survey facilitated the distinction between food secure and insecure households. The findings revealed that more than half of households were food insecure, and although livelihoods are largely constrained by lack of assets the general hindrance confronting the study area is the loss of farmlands for residential purposes. The predominant coping strategy was engaging in what households termed as 'supplementary occupation'. The drawn conclusions suggest that food insecurity issues are not only a rural phenomenon but 'dwelling' within urban fringes as well. Therefore, policy-makers and civil society need to address the reality of the problem to potentially alleviate the situation.

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## **LIST OF ABBREVIATIONS**

CAADP	Comprehensive Africa Agriculture Development Programme
CARE	Cooperative for Assistance and Relief Everywhere
DFID	Department for International Development
FAO	Food and Agricultural Organisation
GPRS	Growth and Poverty Reduction Strategy
IFPRI	International Food Policy Research Institute
ILO	International Labour Organisation
ISSER	Institute of Statistical Social and Economic Research
MDGs	Millennium Development Goals
MoFA	Ministry of Food and Agriculture
MoH	Ministry of Health
NEPAD	New Partnership for Africa's Development
NGOs	Non-Governmental Organisations
ODI	Overseas Development Institute
SL	Sustainable Livelihoods
SPSS	Statistical Package for Social Sciences
UN ACC/SCN	United Nations Administrative Committee on Coordination - Subcommittee on Nutrition
UN	United Nations
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
VAM	Vulnerability Analysis and Mapping
WFP	World Food Programme

## 1.0 INTRODUCTION

### 1.1 General Background

Over the last decades, global challenges of food insecurity, poverty and malnutrition were viewed almost exclusively as a rural phenomenon. However, at the beginning of the twenty-first century, rapid urbanization in the developing world has jeopardized livelihoods and food security along the peri-urban interface<sup>1</sup> at an unprecedented magnitude resulting in the gradual relocation of these social menaces closer to the urban areas. This peri-urban upsurge has brought accompanying myriad socio-economic problems including unemployment, undernourishment, environmental degradation and a threat to food security (Maxwell et al., 2000).

The right to food was acknowledged in 1948 as part of the universal declaration of human rights, but the concept of food security appeared for the first time in the global arena of development in the mid 1970s. This period was a difficult one characterized by low grain reserves, escalating prices of oil and agricultural inputs and natural disasters. This instigated the food security discourse being introduced at the UN World Food Summit of 1974 with the motive of mobilizing international support and to reach agreements that would ensure that sufficient food is produced accompanied by the stability of supply and prices. However, less than a decade later, it had become obvious that making food available in enough quantities alone did not necessarily translate into making people food secure (FAO, 2003).

Therefore, with the failure of food availability to provide the panacea to eliminate the problem of hunger, by the beginning of the 1980s the discourse on food security was modified to incorporate the concern for ensuring actual access to food. At the World Food Summit of 1996, the discourse was once again broadened and food security was agreed to exist when “all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life” (ODI, 1997:2), and this definition<sup>2</sup> serves as the reference to food security in contemporary discussions as well as addressing the concept throughout this study.

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<sup>1</sup> Peri-urban interface refers to the portion or area which lies around the metropolitan areas and large cities. It is situated at the outskirts of the large cities between the suburbs and the countryside.

<sup>2</sup> In 2001, it was improved by adding the word *social* to “have physical, social and economic access to...” (FAO, 2003:28)

Globally, there is an estimated 925 million undernourished people in the world representing nearly 16% of the population of developing countries (i.e. where the majority of the world's undernourished people live). Two-thirds live in just seven countries (Bangladesh, China, the Democratic Republic of the Congo, Ethiopia, India, Indonesia and Pakistan) and over 40% live in China and India alone. Estimations for 2010 signify that the number of undernourished people will decline in all developing regions, albeit at different paces. The region with most undernourished people continues to be Asia and the Pacific but sub-Saharan Africa remains the region where the proportion of undernourished people remains highest, at 30% in 2010. This alarming incidence of hunger emanates from factors including conflict, natural disasters and mostly combining with unsustainable livelihoods system, weak governance and scarce resources (FAO, 2010a). With the existence of these myriad hindrances, the daunting question remains how this vicious cycle of persistent hunger and food insecurity could be broken.

## **1.2 Statement of Research Problem**

In recent years, the sudden and striking growth of cities in the developing world has negatively translated to widespread and increasing urban poverty and a threat to food and nutrition security. Nonetheless, attempts to address these recent problems are not as robust as compared to the escalation of the problems themselves. This is because efforts to improve and support livelihood initiatives have traditionally targeted rural areas since they are assumed to be worse off than urban areas. But the problems of underprivileged dwellers within and around big cities have become very critical, with issues of how livelihoods are earned and a corresponding influence on fundamental indicators of well-being such as food security gaining a great deal of attention (Maxwell et al., 2000).

The persistent expansion of the city of Accra has resulted in the sale and destruction of agricultural lands for residential purposes. The worse problem to this occurrence is that the lands are being sold at an astronomical rate and almost no land is bought for agricultural purposes. This change in land-use in peri-urban Accra translating to shortage of land for farming has affected food availability within households on the urban fringes of Accra including Amasaman leading to food security being compromised in these localities (Yankson and Gough, 1999). In Ghana, although the number of undernourished people has steadily declined both in relative

and absolute terms throughout the last decade, there still remain about 5% (or 1.2 million) of the population battling against food insecurity. Similar to poverty, food insecurity in Ghana is largely concentrated in certain geographical regions. The most food insecure households are in the Upper West, Upper East and Northern regions mostly due to climatic factors and the unproductive nature of the lands (Asante, 2004:6-7; Biederlack and Rivers, 2009:131). According to the Medium-Term Development Plan of the Municipal Assembly, farming activities has steadily declined within Amasaman and its environs despite several government initiatives to promote the growth of the sector. This has been caused by loss of existing farmlands to sand winners and the growth of estate development. It emerged that incomes accrued from lease and sale of lands for housing projects are generally higher than for agricultural purposes, hence the preference of landowners to lease out lands for purposes other than agriculture. In view of this, the food security situation for most households within Amasaman has been described as 'poor' and therefore has to resort to imports from Accra in order to make food available in the area.

Therefore, this study seeks to investigate household livelihood strategies with a focus on livelihood constraints and coping strategies undertaken to meet household food needs. Based on this rationale, the key questions addressed by the study include the following;

- i. What livelihood strategies do households undertake to earn a living?
- ii. What identified factors constrain livelihood activities of households?
- iii. What coping strategies are employed by households in the face of livelihood restrictions?
- iv. How various households describe their food security situation?

The research findings will be guided by these key questions to facilitate a detailed analysis using the theoretical framework. The theoretical framework employed for this study is the Sustainable Livelihoods (SL) framework. This framework provides a holistic approach for assessing household assets and how these are linked to strategies (economic activities) to reach desired outcomes. A comprehensive discussion on the framework is outlined in chapter 4. It is anticipated that the findings of this research augment decision-makers opinion on the situation of food security within the peri-urban interface to formulate appropriate strategies to improve upon livelihoods.

### **1.3 Objectives of Research**

The main aim of this research is to explore the livelihood strategies and food security situation of households in Amasaman. Therefore, in line with this aim, the specific objectives of the study are to find out:

- Livelihood constraints and possible coping strategies employed by households to meet food needs. In-depth interviews with household were conducted to elicit qualitative information on feelings, ideas and visions about these obstacles and survival mechanisms utilised to address household requirements.
- Food secure and insecure households. This distinction was made from a household survey on socio-demographic characteristics and food consumption patterns, and guided by data on expenditure and average incomes of various households. The adapted household food security scale facilitated this classification.

It has to be stated that, the first three research questions are related to the first objective while the fourth question is tied to the second objective.

### **1.4 Justification of Study**

The first reason for this study has to do with quantity. According to Haddad et al (1999:11) there is a surprisingly little research on peri-urban poverty, food insecurity and malnutrition since poverty is traditionally believed to solely be concentrated in rural areas. Hence the study would attempt to fill this research vacuum and provide current information on peri-urban food security. Moreover, this study focuses on resilience of households and how they respond to shocks in the face of livelihood constraints. This is relevant because very few studies actually track households on the urban fringe to understand how they construct strategies to deal with socio-economic difficulties as they move in and out of poverty. Lastly, it is hoped that the outcome of this research apart from its intended academic purpose would yield essential information for public usage and advocacy. This would form an indispensable document for Municipal/District Assemblies and other NGOs to have informed opinion on peri-urban food security in order to intervene appropriately with programs and projects.

### **1.5 Methodological Remarks**

The study employed a mixed-method approach by using both qualitative in-depth and semi-structured interviews and quantitative basic survey to elicit information. In addition, both

primary and secondary sources of data were used while sampling of interviewees was basically done using purposive and snowball methods. This methodology provided a comprehensive and context-specific understanding of the subject of livelihoods and food security along the peri-urban interface. It is essential to note that the research findings rather present the situation of the phenomenon; therefore generalizability will be difficult as only 30 households were interviewed. A detailed description of the study methodology is presented in chapter 3.

## **1.6 Scope of Study**

The study is confined to the geographical area of Amasaman and the units of analysis are selected households and Agricultural Unit of Ga West Municipal Assembly. The background of the study area, the current food security situation on the global scene, within Ghana and the households in the study area will further be considered. Again, the study will highlight programmes initiated towards food security by the Municipal Assembly and challenges they encounter in addressing the Municipality's food security situation. Finally, the socio-economic characteristics of households, their livelihood activities and coping strategies will be explored.

## **1.7 Limitations of Study**

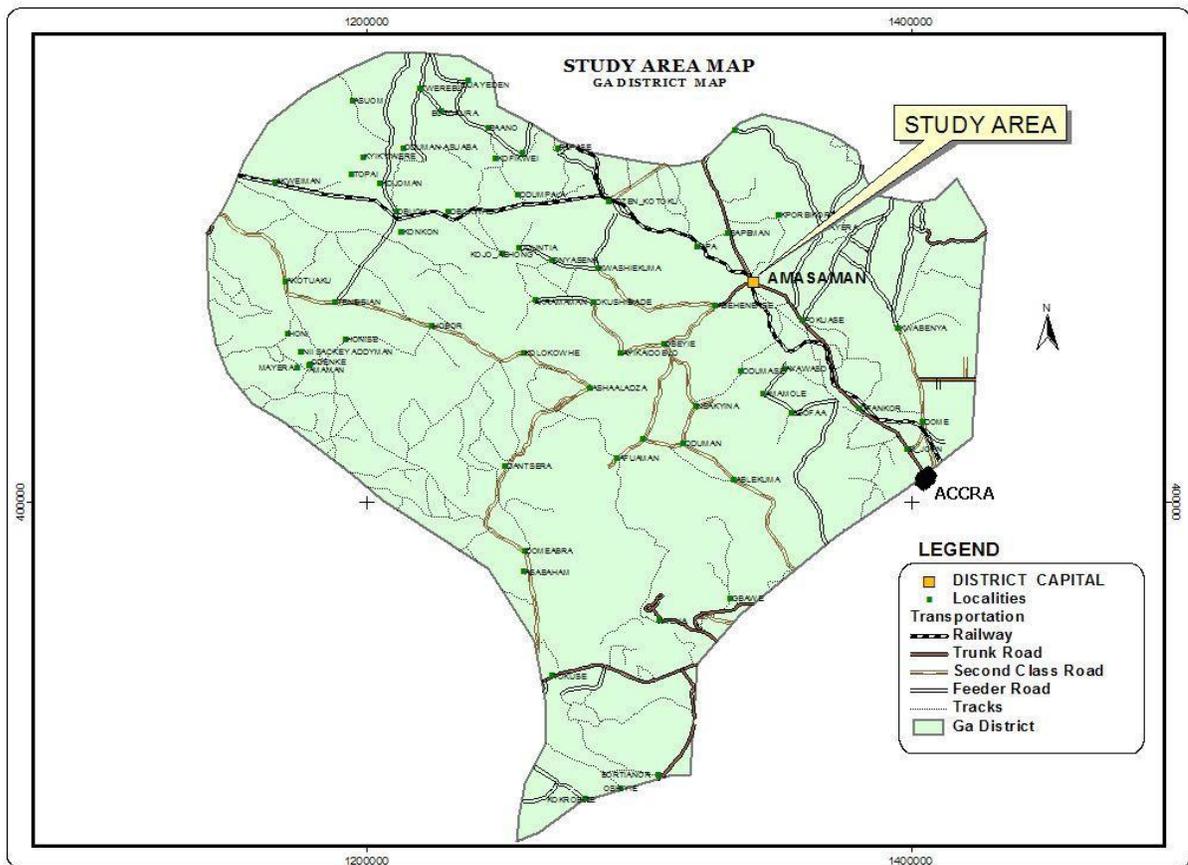
As is true of all research work, a number of problems were encountered. Firstly, time constraint posed a great problem as well as funds and transportation arrangements. In addition, I was faced with the problem of rescheduling appointments with respect to officials at the Municipal Assembly. Moreover, a proposed focus-group discussion which was initially planned did not materialise. This is because, through a preliminary discussion with a community leader in the study area, I got the information that some inhabitants find it uncomfortable and sometimes 'pretend' during focus-group discussions. In view of this and data quality, the basic survey was rather utilised to supplement the qualitative methods. The last problem I encountered was the difficulty in obtaining relevant information from the Municipal officials in soft copies as they prefer to hand over documents in hard copies rather than their digital formats to researchers.

## **1.8 The Setting**

The study area, Amasaman, is the municipal capital of the Ga West Municipal Assembly. This municipality is the second largest of the six Municipal/District Assemblies in the Greater Accra Region. It lies within latitude 5°48' North 5°39' North and longitude 0°12' West and 0°22'

West. The Municipality shares common boundaries with Ga East and Accra Metropolitan Assembly to the East, Akwapem South to the North and Ga South to the South. It occupies a land area of approximately 305.4 sq km with about 181 communities. In 2000, the population of the Municipality was estimated at 348,926, with intercesal growth rate of 3.4%. The growth rate is as a result of the Municipality's closeness to Accra where there is a lot of inflow of migrant workers. Actually, the population growth rate of the Municipality is 4.4% as compared to the national rate of 2.7% (Ga West Municipal Assembly, 2010). Moreover, the estimated population of Amasaman is 80,000 inhabitants (Dzator and Asafu-Adjaye, 1997) whereas the distance between Amasaman and Accra is approximately 25 kilometres (Addo et al., 2006).

**Figure 1.1 Map of Amasaman in the Municipal Context**



Source: Ga West Municipal Assembly, 2010

## 1.9 Disposition

Chapter 1 above has introduced the setting, study's purpose and research questions in relation to the primary problem it addresses. Chapter 2 presents a detailed literature review focusing on

definitions of food security and household food security. The aim is to put forward the diverse conceptual differences in the broader definition of food security and its application at the household level. This is followed by chapter 3 highlighting the research methodology. This clarifies data collection and sampling methods utilized for the study and how ethical issues were handled effectively. Moreover, chapter 4 provides an in-depth discussion of the study's theoretical framework (SL framework). Essentially, research findings were also analysed within the confines of this framework to answer the study's objectives. A thorough analysis of research findings is outlined in chapter 5. Here research questions are answered and compared with previous research. Finally, chapter 6 concludes by reviewing how research questions and objectives have been answered and also provides directions for further research.

## **2.0 LITERATURE REVIEW**

### **2.1 Introduction**

A number of studies have been carried out to depict and conceptualise food security at the household level. Some emphasise poor access to food as the main threat while others reveal the relationship between food insecurity and vulnerability. Past knowledge is essential in providing sound fundamental understanding of the situation under investigation. Therefore, this chapter reviews literature on the concept of food security, the current food security situation on the global scene and within context, household food security and assessing theories on peri-urban.

### **2.2 The Concept of Peri-urban**

Urbanization has been an important demographic trend of the twenty-first century, and growth is particularly rapid in developing countries. While some of this growth is manifested in the city centre, much of the growth is taking place at the peri-urban fringe. According to the Nottingham and Liverpool Universities (1998:8-9), peri-urban is a concept referring to a zone whereby urban and rural development processes meet, mix and inter-react on the edge of the cities. An important aspect of this definition is that it recognizes the emergence of a peri-urban area as an inevitable consequence of urbanization. Moreover, Rakodi (1998:3) put forward a definition of peri-urban by emphasizing that the relationship between urban and the immediate rural areas manifests due to a process over time. For her, the peri-urban interface means a dynamic zone

both spatially and structurally. Spatially, it is that zone of transition between fully urbanized cities and areas in predominantly agricultural use whereas structurally, it is an area of rapid economic and social change, characterized by changing land use patterns and labour markets.

As a result of two geographical areas interacting to create the peri-urban interface, it possesses a number of mixed characteristics. Parkinson and Tayler (2003) noted that peri-urban areas are characterized by a combination of land uses connected with a variety of urban and rural livelihoods. Also, settlements are generally inhabited by communities of different economic status and land prices are influenced by proximity to the city. The infrastructure facilities are often inadequate and normally occur in a piecemeal fashion, either through the resilient efforts of inhabited residents or due to pressure from civil society on elected representatives and government officials (Ibid).

Nevertheless, opposing perspectives have interpreted the impact of this rapid growth in areas surrounding large cities in significantly different ways. One school of thought postulates that peri-urban areas are zones that consist of dynamic markets and places (USAID, 1995). From this standpoint, the rapid growth in population is perceived as leading to the development of new markets and acquisition of privately held properties emanating from the conversion of property rights under customary tenure. Hence these forces will eventually lead to greater entrepreneurialism and the structural transformation of the local economy from a sluggish agrarianism to an active, dynamic free market whereby commerce, small-scale industry and commercial agriculture take precedence (Maxwell et al., 1998).

Another school of thought sees the destruction of fairly self-sufficient subsistence agriculture without suitable replacements with an economic system that ensures community or individual survival. Accompanied by the limited access to assets of these inhabitants, the loss of agricultural livelihoods in turn impedes well-being and leads to the expansion of an informal economy that only has the capacity to absorb more participants without a corresponding increase in economic output (Konate, 1993). This lack of planning results in the ever-increasing urban sprawl and environmental degradation. Although some of the inhabitants who will be on the move might prosper rampant poverty is also generated. On this viewpoint, Allen (2003) annotated that the

apparent changes in the peri-urban interface range from urban expansion to the decline of agricultural and rural employment opportunities without significant substitutes.

It is largely from this standpoint that this research dwells since livelihood strategies are destroyed in instances whereby farmlands and 'fallow-lands' have been lost or sold for housing projects without appropriate alternatives being put in place within the study area.

### **2.3 The Concept of Food Security and its Dimensions**

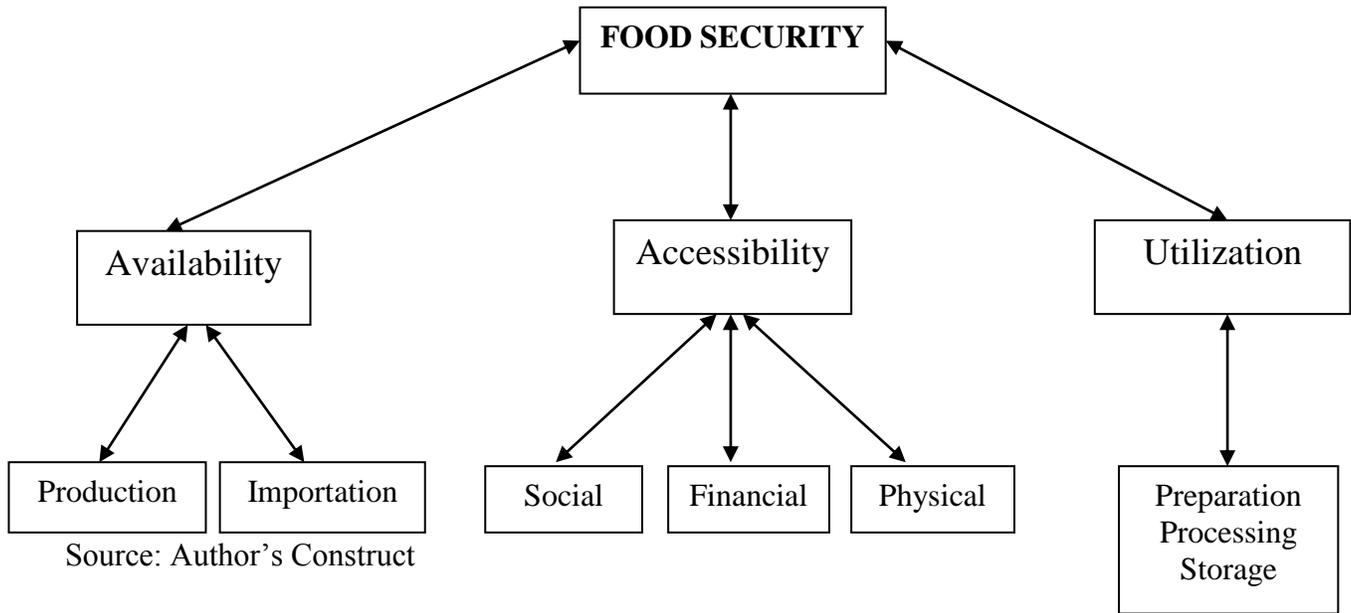
International deliberations have revealed that although the right to food was recognized in 1948 during the worldwide declaration of human rights, food security as a global concept emerged in the mid 1970s as rapidly increasing prices caused a global food crisis. Initially, the concept was meant to focus on the availability of food but that notion later evolved to embrace food access and use. The global food crisis prompt the introduction of the food security discourse at the 1974 World Food Summit to mobilize international collaboration and to ensure that adequate food is produced together with stability of supply and prices. Nonetheless, after few years later, there was a clear recognition that the solitary aim of available food in sufficient quantities did not necessarily make people food secure (FAO, 2003). Once food availability failed to eliminate the problem of hunger, the discussion on food security was adapted to integrate access to food in the early 1980s. The concept was once again expanded at the World Food Summit of 1996, and food security was universally agreed to exist when *"all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life"* (ODI, 1997:2).

Certainly, food security is central to the survival of humanity and can never be underestimated because essentially, we represent what we eat. Overall, food security requires that there should be enough food which is accessible and rightly used at every level; nationally, regionally, and within the households. It is an indispensable requirement for improving the nutritional status of people suffering from persistent hunger and undernutrition. The concept emphasizes the importance of individual access in all seasons of the year for survival and active participation in society. It does not only mean the availability of resources to produce food but highlights the power to purchase food when it is not in production.

Food security reflects a holistic approach embracing different interconnected dimensions. According to FAO (2006) four dimensions need to be fulfilled for food security to be realized, i.e. *availability, accessibility, utilization and stability*. **Availability** denotes that there should be adequate and physical presence of food supply on all levels ranging from national, regional, community to household levels either through local production or importation. For Oshaug (1994) food availability means that the overall food supply should potentially be of good quantity and quality (taste, texture) as well as being safe and culturally acceptable. Availability of food is affected by population growth, demographic trends, government policies, environmental degradation and natural disasters. **Accessibility** relates to the individuals' legal, political, economical and social access to entitlements or resources to obtain appropriate foods for dietary needs (FAO, 2006). Access to food proves to be the most challenging dimension of food security because food could be available in enough quantities but cannot be accessed by various households since it requires financial resources which most households lack. **Utilization** of food simply refers to the state of physical well-being through access to adequate nutritious food, clean water, sanitation and health. Thus utilization as a component highlights the non-food aspects of food security. Lastly, **stability** means that for individuals to be food secure, they must have access to food throughout the year at all times and be protected from losing this access (Ibid). Such loss could take place as a result of decreases in availability of food or income deficiencies emanating from rapid and unexpected changes including economic crisis, climate change and seasonal variations.

The movement of food security from available food to incorporate the additional dimensions has been proclaimed by others. According to the 2008 World Development Report (World Bank, 2008) food security goes beyond food availability and embrace food access and use. It also acknowledges that food availability could be achieved in areas but access and use which is dependent on financial resources remain the sole challenge to achieve ultimate food security. For instance, India has been able to move from food deficits to food surpluses, and attaining a per capita income higher than that in most parts of Sub-Saharan Africa, yet it remains home to 210 million undernourished people and 39% of the world's underweight children (Ibid:95). Figure 2.1 provides an illustration of the dimensions of food security.

**Figure 2.1 Pillars of Food Security**



#### 2.4 The World Food Security Situation

On the global scene, not every country can be said to be food secure. It has obviously been a divide whereby the majority of the populations of the developed world are food secure while the opposite is the reality in the developing world. In the 2010 State of Food Insecurity in the World, the FAO stated that globally, there are nearly 1 billion undernourished people worldwide. Majority of these people live in China, South Asia and Central Africa. Conflicts and natural disasters together with unsustainable livelihoods, ineffective governance and scarce resources are mostly the causes of this high prevalence of hunger. The situation of food insecurity has been precarious in protracted areas of the developing world and emergencies have lasted for decades in some parts (FAO, 2010a). The existence of these predicaments remains a challenge for the international community, national and local government as well as civil society to break this vicious sequence of persistent hunger and food insecurity.

From other literature, a different study by the FAO stated that 33 countries worldwide face a food security crisis whereby 14 have been in this situation for more than a decade. In these areas emergencies have continued for extended periods and traditional humanitarian and development paradigms have not provided the best avenue towards effective responses. It is important for humanitarian organisations to realize that emergencies for protracted crisis should differ from

ones that follow natural catastrophes. Protracted crises are often as a result of failed institutions and conflicts over resources. They are either characterized by weak public services or high susceptibility to violence. As countries become less effective in their ability to protect their citizens, widespread hunger and food insecurity becomes a common consequence (FAO, 2010b). In view of this, the same document noted that in order to address the food insecurity situation in protracted areas, *ad hoc* relief programmes must be eschewed and interventions should follow long-term strategies, build on local institutions and livelihood adaptation strategies to achieve more sustainable solutions to tackle the underlying causes of food insecurity.

In a similar fashion, Jaspars and Maxwell (2009) suggested that three broad types of intervention could be employed to support livelihoods and food security in protracted areas. These are livelihood provisioning, livelihood protection and livelihood promotion. Livelihood provisioning seeks to meet immediate basic needs and protect people's lives. This is mostly done through free food distribution and voucher systems for purchasing essential goods and services to serve as income support. Interventions for livelihood protection aim to shield and sustain people's assets and to prevent negative outcomes, including divesting productive resources. Here livelihoods are protected to discourage demographic trends like migration to big towns. Lastly, they annotated that livelihood promotion are the means to improve livelihood strategies and assets as well as supporting key policies and institutions that influence livelihoods. Interventions to promote livelihoods could utilize vocational training to enhance skill levels and overall employability once the crises are over.

## **2.5 Food Security in Ghana**

The food security situation in Ghana is moderately healthier in comparison to most countries located in the developing world. In Ghana, although the number of undernourished people has steadily declined both in relative and absolute terms in the past decades, there still remain about 5% of the population battling against food insecurity. Like poverty, food insecurity in Ghana is largely concentrated in the three northern regions (Upper West, Upper East and Northern). Moreover, aside the food insecure, there are about 2 million people nationwide that are vulnerable to food insecurity. Overall, with the rural-urban divide, the number of rural dwellers that are food insecure exceeds that of their urban counterparts. To address the root causes of this

situation, there requires an understanding of both macro and micro-level factors that necessarily influence the overall households' access to food (Biederlack and Rivers, 2009:131).

In a different study on the food security situation in Ghana, Asante (2004) argued that although roots and tubers were in surplus production in 2002, the overall domestic food production for the whole country was deficit. Availability of food was inadequate because at times road linking the rural and urban areas are impassable creating a situation of rural glut and urban scarcities in food. In order to access and use food, growing urbanization (43.8% in 2000) has created slums in the cities where unemployment and low incomes restrict increased calorie consumption. This occurrence keeps worsening and the nutritional status of city immigrants continue to deteriorate each year. The rapid urbanization has increased the demand for imported food (wheat and rice) resulting in the change of consumption patterns of urban dwellers from traditional staples to rice and wheat products. Nevertheless, Asenso-Okyere (2001) noted that since post-harvest storage losses are estimated between 20% for cereals and 70% for all vegetables produced in Ghana, a reduction of about 30-50% of the losses would significantly reduce the country's dependence on food imports. Moreover, the food insecure and vulnerable people are mostly subsistence farmers and unskilled labour whereby the underlying causes are macro-level factors (high food prices, natural hazards) and shortcomings at household level (illiteracy, poverty).

Food security has been given immense priority within the structures of the government of Ghana. According to the Ministry of Food and Agriculture (2007) the national vision for the food and agriculture sector is a modernized agriculture which structurally transforms the economy with focus on food security, employment opportunities and reduced poverty. This vision is connected to the national vision in the Growth and Poverty Reduction Strategy (GPRS II), the Comprehensive Africa Agriculture Development Programme (CAADP) of the New Partnership for Africa's Development (NEPAD) and the MDGs. This signifies that the vision has a direct linkage with the global, regional and national development programmes. Food security has been placed at the hub of these development programmes due to the realization of its importance as a cross-cutting issue that require concerted action in order to ensure the sustainable reduction of absolute poverty in all countries.

To address food insecurity, a number of policies and programmes have been put in place to champion that cause. The National Rice and Aquaculture Development programme has the overarching goal to deal with food security and alleviate poverty through increased productivity and growth of market. The Food Security Monitoring System jointly operated by MoFA, MoH and WFP, gives monthly updates on information related to food security within the three northern regions. Similarly, there have been continued informative research initiatives on food security by the World Bank, IFPRI and ISSER (Biederlack and Rivers, 2009:131). Nevertheless, lip-service has to be avoided and government need to be fully committed to these policies and programmes to effectively combat food insecurity within the country as a whole.

## **2.6 Household Food Security**

National food security implies that within a country the amount of food available in quality and quantity is enough to meet people's food needs. Therefore, deducing from the definition of food security, a household becomes food secure when all members of the household have both physical and economic access to the food needed for a healthy life. This food has to be adequate in terms of quality, quantity, safety and culturally acceptable. Moreover, such households must not be at an undue risk of losing such access to the food (UN ACC/SCN, 1991). Maxwell (1998) emphasizes the significance of food security by focusing on the long-term capability of households' as a productive and reproductive unit. He stressed that a household becomes food secure when their food system functions in such a way as to eliminate the fear that there will not be enough for household consumption. Also, food may be available nationally but may not be accessible by particular households due to financial constraints.

In other literature, the key defining characteristics of household food security is *secure access to sufficient food at all times*. In view of this, the four core components of household food security are sufficiency, access, security and time. *Sufficiency* or what is enough could imply the minimal level of food consumption; basic food needed to meet nutritional needs; adequate food to supply energy for all family members to live active, healthy and productive lives. This signifies that the unit of analysis is the individual and not the household in general. The household therefore stands for an aggregation of individuals whose food needs must be satisfied. *Access* determines whether individuals and the households in general have the ability to acquire sufficient food (Maxwell and Smith, 1992). It has often been argued that access is a phenomenon of the 1980s,

largely resulting from the pioneering work of Amartya Sen (1981) on food 'entitlements'. Nonetheless, others have the assertions that the interest in whether and how individuals and households acquire food has a longer history and is firmly rooted in nutrition planning. Security is the *secure* access to enough food. This highlights the idea of vulnerability by focusing clearly on risk. This insecurity or risk could be posed by acute food shortages as a result of extensive crop failure, natural disaster and the risk of fluctuations in prices. Lastly, time completes these key features because it denotes the secure access to enough food at *all times*. Time distinguishes between chronic and transitory food insecurity. Chronic food insecurity means that there is a persistently high risk for households' being unable to meet the food needs of its members. Conversely, transitory food insecurity occurs when there is a temporary decline in household food security and the possible risk of failure to meet food needs last for brief periods (Maxwell and Smith, 1992).

In modifying on the works of Bickel et al (2000) in determining household food security status, three categories have been defined; food secure, food insecure without hunger and food insecure with hunger households. Food secure refers to those households that show no or smallest evidence of food insecurity. Food insecure without hunger households' suffer from food insecurity because there are concerns about adequacy of the household food supply and in adjustments to household food management but evidence of starvation and subsequent hunger is not present within these households. Food insecure with hunger demonstrates that households both adults and children are suffering from acute food shortage resulting in the reduction of food intake and such household members have repeatedly experienced the physical sensation of hunger. Malnutrition and poverty becomes the notable characteristics of these households.

## **2.7 Livelihoods, Resilience and Sustainability**

It is clear that there are many conceptual problems with contemporary definition of household food security. Nevertheless, household food security covers issues of livelihoods, resilience and sustainability. The idea of food security has been observed as only one dimension to the broader conception of livelihood security. Sustainable livelihood security refers to the access and maintenance of assets and income generating activities to meet basic needs on a long-term basis. Because of the 'security', assets are held in high regards and their preservation sometimes take priority over meeting immediate food needs until the point of destitution when available options

vanish. For instance, during the famine in Darfur, Sudan in the mid-1980s people chose to preserve their assets and go hungry. This viewpoint is underpinned within livelihoods, coping strategies and long-term adaptation to food stress (Maxwell and Smith, 1992).

The food security literature is sometimes accused of overly focused on the current state of food insecurity than concentrating on changes over time and underlying processes. For that reason, resilience and sustainability need to be addressed since they play an important part in household food security. Accordingly Oshaug (1985:5-13) identified three kinds of households, “enduring households,” which maintains household food security on a continuous basis, “resilient households,” which suffers shocks but recover quickly, and “fragile households,” which become increasingly insecure in response to shocks. Resilience is the capacity to reproduce one’s ability after interference and setbacks.

The above discussion suggests that in pursuing food security, households have to strike a balance between two types of strategy. The first is to ensure a safe livelihood approach and secondly this strategy must be resilient and sustainable to ensure persistence and household survival.

## **2.8 Food Security, Poverty, Malnutrition and Vulnerability**

It is obvious that the notions of poverty, malnutrition and vulnerability are closely interwoven in definitions of food security. The relationship between these has been explored by Maxwell (1989). He acknowledges that poverty, malnutrition and vulnerability could be three overlapping scenarios. This implies that it is highly possible, in principle, to experience the three conditions separately or in any combination. For instance, one could be vulnerable without being poor or malnourished; or poor and vulnerable without being malnourished; or at the same time poor, vulnerable and malnourished. However, in reality, it is a common practice that poor people are generally assumed to be vulnerable due to their susceptibility to fluctuations in income and their relative lack of coping strategies in times of shocks. In relating these three overlapping scenarios with food security, it is common to witness that transitory food insecurity will be identified where poverty and vulnerability exist but where malnutrition, temporarily, does not. Conversely, chronic food insecurity will be found where poverty, vulnerability and malnutrition coincide.

The review of the above literature, concepts and definitions has provided useful information on the idea of peri-urban and the broader conception of food security and its dimensions. However, it was revealed that the food security literature has occasionally been accused of focusing excessively on the current state of food insecurity rather than concentrating on changes over time and underlying processes. Therefore, this research will not only probe households' ability to meet food security needs but will delve deep and shed light on underlying processes including offsetting mechanisms, coping strategies and resilience.

## **3.0 RESEARCH METHODOLOGY**

### **3.1 Introduction**

In striving to understand household livelihoods and food security in Amasaman, this chapter outlines the research design and study methods. From a methodological point of departure, the design is a case study using mixed-method approach. Yin (2003) noted that case studies present the opportunity to obtain detailed, practical and contextual understanding of social phenomena. Furthermore, this segment describes issues to give a clear understanding of the underlying research methodology and aspects of data quality. It is structured to highlight and comprehend the strengths and limitations of data and how they were efficiently used and analysed.

### **3.2 Designing the Research**

According to Bryman (2004:603) mixed-method research refers to studies that integrate both quantitative and qualitative methods within a single project. Most often mixed-methods are used as substitute for triangulation although the latter implies using more than one method or data sources in the study of social phenomena. The main strength of mixed-method research is the completeness and comprehensive picture it provides through data analysis. Therefore, integrating qualitative and quantitative methods makes it appropriate to handle the multiple dimensions of food security. As with any other concept, mixed methodology has not gone without controversy. A notable debate on this is the claim that qualitative and quantitative methods have different paradigms and therefore are incompatible and cannot be integrated to produce a successful research work. Nonetheless, the fusion of the two different methods is highly possible due to the technical position taken by the researcher, choice of data collection and analytical tools to be

employed by the researcher (Ibid). Analytically, the study utilized theoretical analysis whereby research findings were analysed within the confines of the SL framework. Also, findings were compared with existing research to determine the frequency or uniqueness of the phenomenon within the study area.

In justifying the choice of methods, it is necessary to state that this was influenced by the nature of my research problem, specific objectives and theoretical framework employed. This is in consonance with Marshall and Rossman (1999) who noted that the choice of research methods should be linked to the research questions developed in the conceptual framework of the study. Also, in designing the research my methods were influenced by what Bryman (2008:15) attributed as “distinguishing the human world from the natural world”. Hence, in my attempt to understand the meaning of human action, that is what governs food security issues and their consequences, it is relevant I apply a mixed-method approach for a thorough examination. The quantitative method was basically used to distinguish between food secure and insecure households while qualitative method was used to analyse data on household livelihood strategies, constraints and coping mechanisms.

### **3.3 Source of Data**

In order to conduct a thorough study, improve quality of explanation and allow for comparisons, both primary and secondary sources of data were used. Primary sources of data were obtained through interviews and survey with households from the study area. Alternatively, secondary sources of data were obtained from both published and unpublished sources including journals, documents, books, articles and the internet facilities.

### **3.4 Data Collection Methods**

The main methods of data collection for this research were in-depth interviews, semi-structured interviews and basic survey. The purpose of using multiple methods is to illustrate various perspectives of the phenomenon and thereby improve the integrity of the research. Despite the fact that Silverman (2005:122) claims that it is dangerous to use multiple methods in an attempt to ‘get the whole picture’, its usefulness and the prospects of a more holistic research cannot be understated. Logistical arrangements in terms of transportation and finance fairly challenged the overall data collection process.

### **3.4.1 In-depth Interviews**

The essence of the in-depth interviews was to provide a thorough understanding of the livelihood strategies and food security situation of the households. Issues relating to economic activities, family size, coping strategies and households' food circumstances were the focus of the in-depth interviews. In all, thirty households were interviewed during an intensive five-week period. Although there were initial hesitations from some respondents to reveal information, they later opened up and provided significant information and other 'sensitive issues'. Appropriately, this reluctance was surmounted by applying tact and diplomacy which won the trust and confidence of respondents facilitating easy and effectual interviewing.

### **3.4.2 Semi-structured Interviews**

The semi-structured interviews with the Municipal officials proved more difficult than expected. These series of interviews had the aim of inquiring about their perception of food security within their jurisdiction and investigate programs implemented to improve upon the situation. As annotated by Bryman (2008:438-9) these interviews were semi-structured in order to allow the Municipal officials to reveal information that I have not thought of asking about, but still stay within a constricted focus and predefined theme. Although I had an 'informative conversation' with the Director of the Agricultural Unit of the Ga-West Municipal Assembly, the main interviewees were the Municipal Development Officer and the Management Information Systems Officer. Even though these were not the expected respondents for the Municipal interviews, they were the most appropriate to provide relevant data from the Agricultural Unit of the Assembly. With the actual interviews, questionnaires were delivered in advance after preliminary discussions and appointment was booked for the following week. This strategy had to be used due to their busy schedules with regards to government appointments. Overall, despite some initial delays the interviews were fruitful as I gained valuable information especially on the challenges encountered in addressing the food security situation within the Municipality.

### **3.4.3 Basic Survey**

The basic survey was the quantitative method employed to augment the qualitative techniques. The main aim of this approach was to provide information on household expenditure and food consumption patterns to facilitate distinction between food secure and insecure households. Therefore the survey was in two sections. The first part was the household food security survey

and the second section surveyed on household incomes and major expenditures. In effect, the same households participated in both the survey and in-depth interviews.

### **3.5 Sampling Design**

The research employed purposive and snowball sampling methods. Purposive sampling was basically used for the Municipal interviews. This sampling method is utilized when the interviewer knows exactly the right respondents for data collection (i.e. Municipal Development Officer and Management Information Systems Officer). The in-depth interviews (same as survey) were essentially influenced by snowball sampling where you interview one person, who in turn leads you to another and so on. This was done with the assistance of a friend who lives in the study area. Bryman (2004) attributes that the danger with this sampling is its non-representative characteristic. Nevertheless, this was conducted with great dexterity and sound judgment. In justifying the sample size, it is necessary to state that the logistical arrangements previously mentioned and time constraints allowed a 'realistic' thirty households to be interviewed to adequately address the research questions. Hence the situation of the phenomenon is presented rather than generalizability of findings.

### **3.6 Data Analysis**

The data collected were analysed both qualitatively and quantitatively. Qualitative data obtained through the in-depth and semi-structured interviews were analyzed critically and descriptively. This analysis included the compilation and transcription of findings from a qualitative perspective similar to the process that Bryman and Teevan (2005:289) calls "coding". This process entails reading through the material several times and generating different "codes" that can serve as the basis for analysis. This was therefore followed by the identification of common themes that facilitated further in-depth examination. For quantitative analysis, SPSS was the main analytical tool and information was presented in the form of tables and graphs. The analytical device facilitated cross-tabulation to establish relationships between variables on socio-demographic characteristics and distinguish between food secure and insecure households.

### **3.7 Quality Considerations**

Bryman (2004:377) heralds that two important criteria for evaluating qualitative study are trustworthiness and authenticity. These two criteria is embedded within themselves the concepts

of credibility, transferability, dependability, and confirmability as these are invaluable when considering quality in qualitative research. In my viewpoint the most important of these criteria to maintain social relations and trust with local inhabitants is credibility which is a subset of trustworthiness. Credibility in essence implies that the research findings are presented to the members of the social world who were studied for confirmation that the researcher has understood the particular domain studied (Ibid). It is significant to note that since this is a mixed method research, the quality considerations centred on credibility and reliability without compromising on issues of validity, trustworthiness and authenticity to improve quality across the different spheres of this research. Reliability (related to the survey) implies that the results of the study are repeatable if the same study were to be done again. Also, reliability concerns whether definitions and concepts are clearly defined, reliably used and if the data collection procedures and methods are soundly clarified (Yin, 2009:45).

### **3.8 Ethical Considerations**

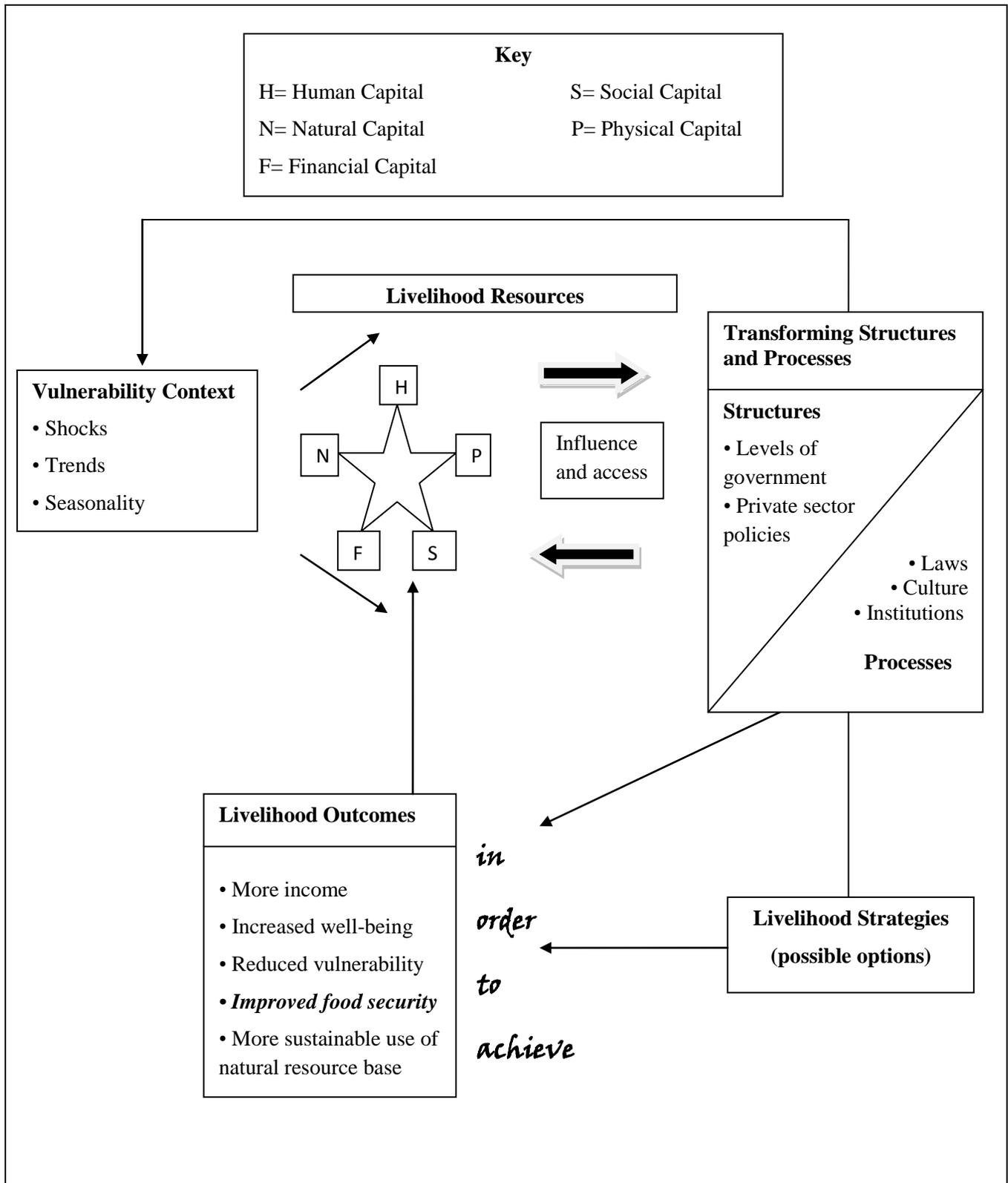
The main ethical issue pertaining to this research was confidentiality and the protection of participant interests. Due to the initial reluctance of certain respondents to participate, I was able to win their confidence and trust facilitating the overall interviewing process. Hence, throughout the study, I managed to build rapport and mutually beneficial relationships with respondents. Also, participants were made aware that the objective of participation was entirely voluntary and therefore respondents that wanted to withdraw could do so meaning data about them would not be used for the research.

## **4.0 THEORETICAL FRAMEWORK**

### **4.1 Introduction**

This chapter present a detailed discussion of the main theoretical framework used for this study - SL framework. A number of distinctly different conceptual literatures provide the background for this framework. Appropriately, research findings were analysed within the confines of this framework by focusing on the various aspects of the structure which applied directly to this research. Thus it aided the investigation of household livelihoods and constraints, coping strategies and determination of food security status to answer the objectives of this study.

**Figure 4.1 Sustainable Livelihoods (SL) Framework**



Adapted from DFID (1999)

## **4.2 The Sustainable Livelihood Approach**

Over the years, a constant headache for household heads has been their ability to expediently decide how to use their limited resources to meet their minimum needs in order of preference. In view of this, the SL approach provides a holistic framework for assessing the available resources and assets, and analyzing how these are linked to the strategies that are used to reach desired outcomes. Livelihood security has been defined by some analysts in terms of outcomes - particularly sustainable access to sufficient income (Frankenberger, 1996). However, many definitions of livelihood security derive from the work of Chambers and Conway (1992) which centred on capacities and activities. In their early work they asserted that 'a livelihood comprises the capabilities, assets (resources, claims and access) and activities required for means of [earning a] living; a livelihood is sustainable when it can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide opportunities for the next generation' (Ibid: 6-7).

For Scoones (1998), the concept of sustainable livelihood is broad and complex but the important thing to recognize is that it is always subject to negotiation. Nevertheless, he spelt out five indicators of sustainable livelihoods; ability to combine livelihood strategies to create gainful employment, poverty reduction, well-being and capabilities, livelihood adaptation, vulnerability and resilience and sustainability of natural resources. Thus, despite different views as to the priority indicators these five issues must always be recognized when the development debate on sustainable livelihoods is under discussion (Ibid: 5-7). In defining 'livelihood', Ellis (1999) placed more emphasis on improving access to assets and activities that is influenced by social relations (gender, belief systems etc) and institutions.

Many development organisations have developed livelihood frameworks to set out the various factors in a sustainable livelihoods system, and to represent relationships between these factors. Notable among these development organizations are DFID, UNDP and CARE but they use the framework slightly differently. For UNDP and CARE, the framework is basically used to facilitate the planning and programming of concrete projects and programmes. Alternatively, DFID uses the approach as a basic framework for analysis than a procedure for programming, and to assess and review on-going project and programmes to make them more responsive to the circumstances and needs of the poor. On the level of implementation, CARE supports a

household livelihood security principally at community level. But whereas UNDP and DFID work at community level, they also emphasize that providing enabling policy environments and legislation cannot be disregarded for effective poverty reduction (Krantz, 2001:14-20). Generally, the common feature that runs through these approaches is the recognition that assets available to poor people and households are basic to understanding the options available to them, their means of survival and ability to withstand unexpected events. The following paragraphs present a detailed discussion of the main themes of the framework.

### **4.3 Livelihood Resources**

The livelihood framework postulates that the livelihood resources of the household is crucial to understanding the options they have, the strategies they adopt to attain livelihoods, the outcomes they aspire to achieve and the vulnerability context under which they operate. These livelihood resources are the 'assets or capital'. Assets are the owned, controlled or claimed resources possessed by households. These assets determine the ability of households to participate in production, the labour market and exchange with other households (Ellis, 2000). According to Scoones (1998), livelihood resources are the fundamental material, social, tangible, and intangible assets that people use to construct their livelihoods. DFID distinguishes five categories of assets upon which livelihoods are built – natural, social, human, physical and financial (Carney, 1998).

Physical assets comprise the basic infrastructure and producer goods needed to support livelihoods. Infrastructure includes affordable transport, adequate water supply, access to energy source and communication. Financial assets signify the capital base and economic resources (cash, savings and equipment) that households use in pursuit of their livelihood strategies. Human capital represents the skills, knowledge, good health and physical capability that successfully enable households to pursue different livelihood strategies to achieve their desired outcomes. Consequently, social capital implies quantity and quality of social resources upon which people draw in pursuit of their livelihood objectives. They are developed through networks, associations, connections and membership of formalised groups and relationships of trust (DFID, 1999). Lastly, natural capital suggests the natural resource stock (soil, water, genetic resources etc.) from which resource flows and services useful for livelihoods are derived. Obviously, natural capital is essential for households whose livelihoods are centred on resource-

based activities such as farming and fishing. Also, within the framework, the relationship between natural capital and the vulnerability context seems close as many of the shocks that demolish livelihoods of the poor are natural processes (fire outbreaks, floods and earthquakes) destroying agricultural lands (Ibid).

#### **4.4 Vulnerability Context**

In as much as access to assets is essential to household livelihoods, these resources can be affected by events over which people have limited or no control. These events define the vulnerability context and outline the external environment in which people exist (DFID, 1999). Vulnerability implies the *trends, shocks and seasonality* factors that people are susceptible to as they pursue various livelihood options. Seasonality underlines the seasonal shifts in prices, employment opportunities and food availability and these are some of the greatest sources of hardship poor people face as they struggle to attain livelihoods (Chambers and Conway, 1992). Sudden shocks such as ill- health, earthquakes, floods and conflict can destroy assets directly or indirectly. Moreover, they can force people to abandon their homes and dispose of assets (such as land) prematurely as part of coping strategies. In recent times, international economic shocks, including changes in exchange rates can impact negatively on the poor. Trends are the common occurrences within a given context which are often predictable and affect chosen livelihood strategies (DFID, 1999). In some communities, a trend is a differential access to resources like land which is based on gender. But within the study area, the conversion of agricultural lands for residential purposes has been a common trend which has negatively affected food security.

#### **4.5 Transforming Structures and Processes**

Within the livelihoods framework, transforming structures and processes refer to the institutions, organisations, policies and legislations that shape livelihoods. They are crucial because their level of operation is on all levels; from households to the wider communities (DFID, 1999). Households' access, control and use of assets are largely determined by the institutional structures and processes such as laws, policies and societal norms. Therefore, apparent understanding of the structures and processes provide the link between the micro or local (household and community) and macro (regional, government etc) levels and how they operate (Ellis, 2000; Scoones, 1998). For instance, what roles are played by Municipal officials and other community organizations to assist the livelihood strategies of peri-urban dwellers? These

processes effectively determine access to various types of capital and decision-making bodies, and terms of exchange between different types of capital. In addition, they have a direct impact upon people's social incorporation; and as culture is included in this area they also explains the ways in which things are done in different societies.

#### **4.6 Livelihood Strategies**

The household assets and the structures and processes that influence them as well as the vulnerability context under which they operate determine the choice of livelihood strategies they undertake to achieve livelihood outcomes. Overall, livelihood strategies (occupation) denote the range and combination of activities and choices that people undertake to achieve their livelihood outcomes (DFID, 1999). For Ellis (2000), livelihood strategies are made up of activities that produce the means by which households survive. In his livelihood framework, he categorises livelihood strategies basically as natural resource based activities and non-natural resource based activities (including remittances and other transfers). Moreover, Scoones (1998) identifies three types of rural livelihood strategies: agricultural intensification, livelihood diversification including both paid employment and rural enterprises, and migration. In analysis, it is necessary to note that livelihood strategies have the tendency to change as the external environment over which people have little or no control changes.

#### **4.7 Livelihood Outcomes**

Livelihood outcomes signify the outputs or results of livelihood strategies. Therefore, they refer to the end product of the livelihood strategies people undertake as well as understanding people's priorities, why they do what they do, and where the major constraints lie (DFID, 1999). The word 'outcomes' is used instead of 'objective' in the DFID framework because outcomes is regarded a neutral term that reflects the aims of both DFID and its clients, whereas the term 'objectives' could imply top-down intent (Carney, 1998). Also, outcomes lead to a focus on achievements, indicators and progress to help reduce poverty in its broadest sense. The main outcomes that poor households strive to achieve include more income, increased well-being, reduced vulnerability, more sustainable use of natural resource base and *improved food security*. Food insecurity is a core dimension of vulnerability and it is highlighted in the framework to emphasize its fundamental importance (DFID, 1999).

#### **4.8 Strength of the Livelihood Framework**

The main strength of the framework is that, it presents a holistic view of livelihood systems and reflects the multi-dimensional nature of poverty. The SL approach is people-centred, designed to be participatory and places great emphasis on sustainability. Another crucial aspect of the approach is that it focuses on myriad of factors, at different levels, that directly or indirectly ensure or hinder poor people's access to all kinds of resources and their livelihoods. In addition, the framework provides a more dynamic perspective on livelihoods and makes it possible to understand that even the 'poorest of the poor' are active decision-makers, not passive victims in shaping their own livelihoods (Krantz, 2001). Furthermore, the approach firstly acknowledges what people have rather than focusing on what people do not have and what to do. Finally, it serves as a useful guideline and analytical tool for policy-makers and development practitioners (Singh and Gilman, 1999). In this study, in addition to the framework being used as an analytical tool, it aided the formulation of research questions and objectives.

#### **4.9 Critique of the Livelihood Framework**

Despite the above strengths of the framework, the SL approach is not flawless as there are concerns raised over what factors to be included in the conceptual framework. A major concern has been the complex nature of the approach. This is because it has been considered by some as over ambitious and only provides insufficient practical guidance on how poor household construct their livelihoods (Carney, 1999). Another problem with the approach is that it is designed to work across various sectors. But similar to what Carney (1999) noted, most government agencies and both local and international organisations are administered and funded separately on a sector basis and thus cross-sector development is difficult to achieve in reality. Lastly, the published framework ignores gender as it is not mentioned except for Ellis (2000) who lists gender, class, age and ethnicity under 'social relations'.

## **5.0 RESEARCH FINDINGS AND ANALYSIS**

### **5.1 Introduction**

This chapter presents the research findings with detailed analysis supported by the SL framework. In general, the chapter is divided into three sections. The first section assesses the

socio-economic characteristics of households to understand their relationship with livelihoods and food security. Moreover, section two renders an assessment of household livelihood strategies, constraints and coping mechanisms undertaken in the face of livelihood restrictions. Lastly, the third section examines the food security situation of households as a livelihood outcome.

## **5.2 SECTION ONE – SOCIO-ECONOMIC CHARACTERISTICS OF HOUSEHOLDS**

The socio-economic characteristics of households' present data on sex, age, educational background and household size. The aim is to determine how these characteristics, for instance, educational background influence livelihood strategies and how households' size affect food security status.

### **5.2.1 Sex and Educational Level of Respondents**

From the 30 respondents interviewed from various households, 12 (40%) were males whilst 18 (60%) were females. In terms of education, it could be deduced from Table 5.1 that overall, the educational level of respondents can be said to be relatively high because majority have obtained formal education (76.7%) as compared to 23.3% who have no formal education. But the problem is that as much as 60% of the educated have only received basic education whereas the remaining 16.7% have either secondary/technical or tertiary education.

The educational background of respondents is important to this study because it largely determines human capital which enhances livelihood alternatives as discussed in the livelihood framework. Investments in education and skill acquisition increase livelihood alternatives. Caldwell (1974) asserts that education offers individuals with great prospect and contributes to participation in formal employment. Thus educational level has an important influence on the quality of households' human capital to present the possibility of undertaking livelihood strategies. This assertion is buttressed by this research because the educational background of respondents proved to have an influence on household livelihoods because the two respondents who had tertiary education were salaried workers whereas those without formal education were farmers and traders. This further justifies that education is an important asset in the construction of livelihoods to achieve outcomes.

**Table 5.1 Sex and Educational Levels of Respondents**

Sex of Respondents	Educational Levels of Respondents								Total	
	Basic		Secondary/Technical		Tertiary		No Formal Education			
	A	%	A	%	A	%	A	%	A	%
Male	6	20	2	6.7	2	6.7	2	6.6	12	40
Female	12	40	1	3.3	-	-	5	16.7	18	60
Total	18	60	3	10	2	6.7	7	23.3	30	100

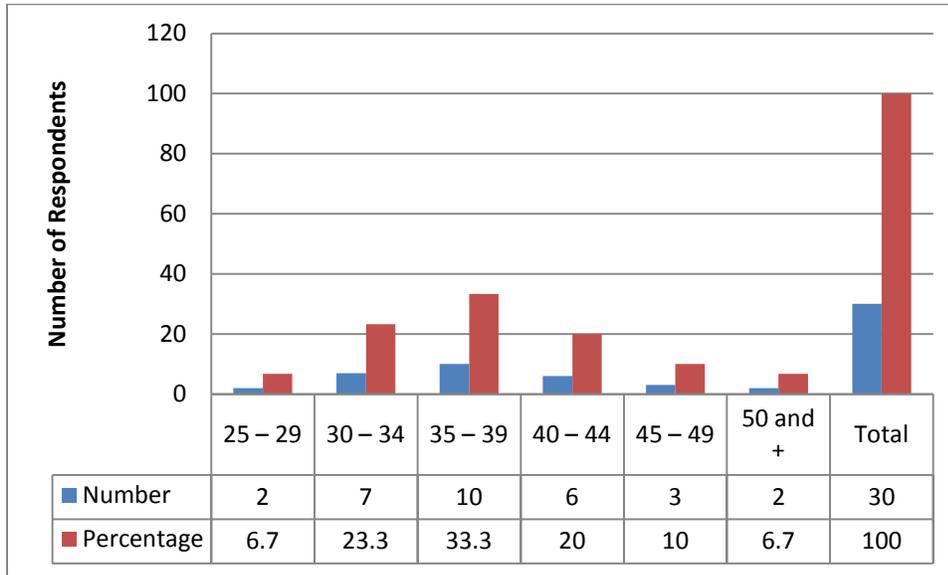
Source: Field Survey, 2011

### 5.2.2 Age Distribution of Respondents

The relationship between productivity and age has been posited by the life cycle hypothesis of human capital theory. This predicts that in the early life cycle productivity increases with age and then decreases with age late in the life cycle as human capital depreciation surpasses investment. Generally, the productive age is normally considered to be between age 18 and 49 (Johnson and Neumark, 1997). Although the study is not testing this hypothesis, it demonstrates that in analyzing household livelihoods, age becomes an important factor since it determines whether the respondents will be engaging in an economic activity or otherwise. From this study, approximately, all respondents fall within the productive age; hence they are capable of undertaking economic activities to make ends meet. Therefore, age becomes an essential livelihood asset that facilitates livelihood strategies.

From Figure 5.1 (presenting age distribution of respondents), it is evident that usually the share of respondents in each age group tends to decline as the age increases. Nevertheless, there are fewer respondents in the age group of 25-29 years and this could be attributed to the mobility of labour in this productive young age. Fall (1998) observed a similar occurrence by indicating that the mobility of migrants and labour in general decline at the age of about 34 years.

**Figure 5.1 Age Distribution of Respondents**



Source: Field Survey, 2011

**5.2.3 Household Size**

According to Gardiner (1997) households are usually organized around needs which have social, psychological, cultural and historical dimensions. The socially constructed needs are normally food, shelter, companionship and recreation. From the total households interviewed, only 6.7% (2) have a household size of 3 whereas 16.7% (5) have a household size of 4. In addition, 30% (9) have a household size of 5 whilst households with the size of 6 or more amounts to 46.6% (14). This reveals that the household size were generally high as almost half of the households fell within the highest category of 6 or more. Within the large households the number of dependants to cater for thus becomes excessive. These dependants were normally relatives including cousins, grandparents and grandchildren. The relatively large household size of respondents is a common feature within Africa and this is greatly attributed to the extended family system that is commonly practiced. Bongaarts (2001) noted that in the developing world the convergence theory, where households become less extended and more nuclear is little evidenced due to the dominance and preference of the extended family system. Moreover, Moore (1997) identifies a closer linkage between family size and way of living. Thus choosing to have or cater for a large family comes with its associated hardships since such families mainly have poor standards of living. In view of this, poverty is more likely to dwell within large households with proportionally small income earners.

### **5.3 SECTION TWO – LIVELIHOOD STRATEGIES**

This section renders an assessment of the livelihood strategies undertaken by households, constraints encountered in the quest to earn a living and the coping strategies adopted in times of need to meet households' requirements.

#### **5.3.1 Household Livelihood Strategies**

The livelihood strategies of households refer to their various occupations and these have been categorized under primary, secondary/informal and service sectors. Those within the primary sector were farmers whereas the secondary sector comprised of tradesmen (carpenter, mason, auto mechanic and welder) and petty-traders (vendors and stall traders). In addition, the service sector component was made up of salaried workers (teacher and office clerk). Overall, those household respondents whose occupation fall within the primary sector amounted to 6 whilst there were 22 households whose livelihood strategies could be categorized under the secondary/informal<sup>3</sup> sector. Therefore, the 2 remaining households had their occupation within the service sector. This signifies that the livelihood strategies of most respondents fall within the secondary sector and this is not uncommon within the urban fringes of Ghana and the developing world. The ILO (1990) noted that livelihoods in most African cities no longer centre principally on wage-earning jobs in the formal or government and parastatal sectors of the economy. However, increasing number of people earn their living from informal wage labour or self-employment. For those who work in the primary sector (6 farmers), they unanimously revealed that they were in this line of business as they inherited farmlands from their parents and grandparents. In view of this, natural capital becomes their greatest asset and this has influenced their choice of occupation as postulated by the SL framework. The service sector workers could be said to possess enhanced human capital in the form of education and skills hence their employability.

In general, livelihoods within Amasaman focus extensively on informal range of activities, and could be combined in complex ways but their transient nature cannot be overlooked. Hence characterizing livelihood strategies at the household level can be complicated, except with reference to the primary activity of the main income earner, and this is how the categorization of

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<sup>3</sup> For the purpose of this study, petty-traders have been incorporated under secondary/informal sector to avoid any conceptual confusion.

livelihoods for various households have been made for this study. Moreover, household livelihoods seem very volatile due to the informal nature of the businesses and changes in consumer demands. The volatility of livelihoods especially for those in the secondary sector was confirmed by some respondents.

*“I have changed my trading business three times in the last two years. I used to sell vegetables, and later changed to bread selling and now I am into second-hand clothing. I have moved between these businesses due to changes in demand from the general public” (Felicia Assan, 2011-01-24).*

The various household occupations and economic activities as discussed above are firmly entrenched within the theoretical framework as livelihood strategies.

### **5.3.2 Livelihood Constraints**

In an attempt to further explore household livelihoods, the critical challenges that households face in pursuing livelihood strategies to meet basic needs were assessed by the study. A general constraint to the livelihoods of households was the lack of assets. Most households lack assets ranging from human to social capital. Since these resources are the fundamental tangible and intangible materials needed to construct livelihoods, lacking them serves as a critical constraint on the resources that households could draw upon. For instance, the narrow range of social capital proves to be detrimental for several households. They attributed to lack the networks and connections that sometimes assist in exploring available opportunities that may arise. Additionally, low financial asset constrains livelihood strategies of most households interviewed. According to the farmers, this normally inhibits their need to purchase pesticides to prevent weevils from attacking their crops. For most traders, inadequate financial capital restricts the expansion of their businesses and to engage in other profitable ventures which require start-up capital. Moreover, it was further revealed that this hindrance inhibits households' ability to engage in diversification as a strategy for risk aversion.

Inadequate access to credit facilities which serves as a livelihood constraint also worsens low financial assets. In general, 60% of households disclosed that they lack adequate access to credit facilities due to non-existence of collaterals which are normally required by financial institutions. In view of this, most households take loans from savings and loans institutions that give out loans on a group basis by the formation of 'group guarantees'. But this has become extremely

dangerous due to unfaithfulness of some group members as everybody is held responsible when a group member defaults in loan repayment.

From the views of the tradesmen interviewed, competition remains their sole challenge with regards to their chosen livelihoods. They bemoaned that there were so many artisans within the town due to the many ongoing constructions. The mason interviewee attributed that:

*“As a result of most inhabitants moving from Accra and building their houses at Amasaman, there has been an upsurge of masons within the town and this has resulted in stiff competition to get a job” (John Afriyie, 2011-01-26).*

The farmers also mentioned that seasonal drought and other climatic factors occasionally disrupt their cropping calendar. For some traders, high cost of living within Accra and its environs has impacted negatively on their businesses as most people hardly have the financial resources to purchase goods. One trader lamented that:

*“Nowadays, the system is so hard that when you put up things for sale people hardly inquire about the products, not to think of buying. I barely make profit these days although I sell the same products” (Akua Danso, 2011-02-08).*

Consequently, another daunting livelihood constraint facing households' (especially farmers) is the loss of farmlands for residential purposes. One farmer mentioned that this practice has resulted in the loss of previously owned land whereby the compensation for this switch has been contended in courts for long periods. Moreover, this practice affects food availability as farmlands are destroyed at the expenses of housing. Similarly, Maxwell et al (1998) noted that in peri-urban areas although higher proportions of the population depend on agriculture, the amount of land available for farming is rapidly dwindling as the city expands. This is largely attributed to stone quarrying and sand winning for construction and authorities sometimes overlook these practices as it provides short-term employment. However, in the long-term, it translates to the destruction of the resource base of the environment. The interviews with the Municipal officials also confirmed this hindrance as a livelihood threat and restriction towards achieving food security. The Management Information Systems Officer of the Municipality noted that:

*“Loss of agricultural lands and environmental degradation due to sand winning is a major limitation the town is facing in order to achieve food security” (Franklin Adusei, 2011-01-26).*

Since this is an ongoing trend within the study area it is suffice to mention that this further explains the vulnerability context under which livelihoods are shaped within Amasaman. But overall, livelihood constraints as discussed above could be accommodated within the SL framework under transforming structures and processes due to the roles they play in shaping livelihoods. For instance, requirement of collateral securities is a private sector policy which inhibits loan acquisition for most households.

### **5.3.3 Coping Mechanism of Households**

With the existence of multiple constraints to household livelihoods, and in order to “make ends meet”, the study explored the survival strategies that households employ given the limitations on their ability to earn sufficient income from their livelihood strategies to sustain their households. The predominant coping strategy for several households was income diversification through the participation in what they referred as ‘supplementary occupation’. This mechanism was mostly utilized by those households whose livelihood strategies dwelled within the secondary sector. It is worth noting that almost all supplementary occupations involved some form of trading activity. These households expounded that they chose to do additional trading since it was a convenient way of ensuring they always had some cash in hand, no matter the amount to complement their main source of income generation. Moreover, in deciding to choose supplementary occupations; the demand for products in order to estimate returns and the crucial need to invest were the main factors households considered.

The involvement of children in income generation was another mechanism employed to augment household income. This was commonly practiced by households who had teenage children who hawk with diverse goods and products within the town. These children normally hawk after school and on weekends and portions of the income they make are spent on their immediate needs to encourage them. This practiced has also been witnessed by Jaiyebo (2003) when she noted that most women seem to be engaging their children in economic activities to help generate additional income for the households.

Consequently, savings and investments prove to be a more ‘formal’ type of coping mechanism. This strategy for survival was the main method utilized by the households that had their livelihood strategies within the service sector. However, 4 respondents working within the

secondary sector also had savings with financial institutions although 2 have loan repayment to make. The service sector employees revealed that they rely on savings as a coping strategy in order to get access to money within the course of the month when their salaries were not ready. Most petty-traders kept their savings through an informal means called 'susu'<sup>4</sup>. Occasionally, some households have resorted to the sale of properties including land, jewellery (especially women) and borrowing from neighbours as a mechanism to cope in times of need. Although they never wanted to borrow or do away with their 'priced asset', they had little choice due to challenges they were facing.

Adopting these coping strategies sometimes have adverse implications for the household and its members. For instance, involving children in economic activities reduce or eliminate their time for studies and leisure whereas engaging in secondary occupations sometimes seems risky as market feasibility are barely carried out before these little investments are made. Overall, although these coping strategies occasionally enabled households to obtain additional income to meet essential household needs, they generally opted to have only one income-generating activity, provided it gave them enough income to meet all household needs. Nevertheless, farming households had almost no coping strategies for survival since they attributed to continue to exist solely under their farm produce although they are sometimes affected by unfavourable climatic conditions. But overall, 8 households revealed that they hardly employ any coping mechanism in times of need and to supplement insufficient income from their livelihood strategies. According to some, they could not resort to supplementary occupations or engage their children in income generating activities as they lack available resources and the relatively young age of their children.

*"Sometimes I want to engage in other small business like selling fruits and vegetables in addition to my sachet water business but I do not have the necessary financial resources to participate"* (Patience Mensah, 2011-02-02).

The non-existence of coping strategies for certain households depict the vulnerability contexts under which they live as explained by the SL framework. This illustrates that when livelihoods are affected by unexpected shocks, households have no source of income generation to meet

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<sup>4</sup> Susu is an informal means of savings (a form of [microfinance](#)) whereby the 'susu collector' keeps money for its clients on a daily basis and the money is accessed monthly by clients who occasionally gain limited access to loans.

household needs. This absence of survival mechanisms for particular households is affirmed by Qureshi (2007) who attributes that due to poverty-related problems some households hardly employ survival mechanisms to meet basic needs at the household level in times of shocks.

#### **5.4 SECTION THREE – HOUSEHOLD FOOD SECURITY SITUATION**

Finally, this section examines the food security situation of the households' as a livelihood outcome outlined in the SL framework. Based on results from the basic survey, a distinction is made between food secure and insecure households. Also, an attempt is made to understand which of the dimensions of food security mostly prevents households' to reach this livelihood outcome.

##### **5.4.1 The Household Food Security Scale**

For the purpose of this analysis, household food security implies the *secure access to enough food at all times*. It is important to note that the full range of household food security cannot be captured entirely by any single indicator. Nevertheless, information on a variety of specific conditions, experiences, and behaviours could provide a useful guide that consistently characterizes the phenomenon of household food security (Bickel et al., 2000). In view of this, a household food security scale (see Appendix 5) has been employed for this study similar to the continuous measure indicator developed by Bickel et al (2000). The scale ranged from 1 to 10 and each measure locates the position of the household based on the household's overall pattern of response to the complete set of survey questions (refer to Appendix 1). These responses were analysed with SPSS and the average mark for each household determines their position. The scale is divided into 3 categories (1 – 3.9, 4 – 6.9, and 7 – 10) depicting food secure households, food insecure without hunger households and food insecure with hunger households respectively. The level of household food security can be visualized as declining at some point on this continuum, which stretches from entirely secure at one end to a severe level of food insecurity, with experiences of hunger becoming paramount within households, at the other.

##### **5.4.2 The Household Food Security Status**

The household food security status is determined by the extent to which the household best qualifies on the four criteria of *sufficiency, security, access* and *time*. Table 5.2 shows the classifications of household food security status in relation to household occupations.

**Table 5.2 Food Security Status of Households by Occupations**

Households by Occupations	Food Security Status		
	Food Secure Households	Food Insecure Without Hunger Households	Food Insecure With Hunger Households (Poor)
Farmers	3	2	1
Petty Traders	5	9	4
Tradesmen	2	1	1
Salaried Workers	2	-	-
Total	12	12	6

Source: Field Survey, 2011

### 5.4.3 Food Secure Households

These were households that obtained the mark between 1 and 3.9 on the scale. Overall, 12 households (40%) were within this category. Food secure households refer to those that reflect the absence or smallest evidence of food insecurity. Thus they show very minimal or no sign of faltering on the 4 indicators of assessment. This means that such households have enough food or money to meet households basic food needs at all times. Moreover, households in this category do not have the anxiety of food supply being insufficient to meet basic food needs; experience of running out of food without money to purchase more; food eaten by household members will be inadequate in quality or quantity; adjustments to normal food use, by substituting fewer and cheaper foods than usual. The farming households that were food secure engaged entirely in subsistence agriculture where the produce is used for household consumption. It is important to note that almost all the households that were food secure had relatively smaller household sizes of less than 6 and better educational level (aside the farmers). This is in accordance with Omonona and Agoi (2007) who mentioned that the incidence of food insecurity decreases with increase in level of education and where households have fewer dependencies to cater for.

### 5.4.4 Food Insecure Without Hunger Households

These were households that fell between 4 and 6.9 on the measurement scale and similar to the first category, also comprised of 12 households (40%). These households revealed that there are concerns over food adequacy, accessibility and the use of food in general. Hence such

households do not have sufficient quality food or money to meet households' basic need in relation to food. The main distinctive characteristic of this group is that although there are evidence of food insecurity manifested through reduction in food quality, there are very little or no reduction in members' food intake, despite the uncertainties. In view of this, food insecure without hunger households can be termed as "vulnerable" from a poverty perspective. Also, these households could be classified as experiencing transitory food insecurity since there is a temporary decline in household food security and the possible risk of failure to meet food needs are not prolonged. Households in this category further revealed to consume "less-preferred" alongside preferred foods concurrently.

*"Sometimes we have to resort to some kinds of food that we will prefer not to consume but the situation necessitates that we eat such foods"*  
(Edinam Amuzu, 2011-02-04).

#### **5.4.5 Food Insecure With Hunger Households**

The final category ranked from 7 to 10 on the food security scale and accounted for 6 (20%) of households interviewed. Food insecure with hunger households refer to those that replicate significant evidence of food insecurity. Thus they falter massively on the 4 indicators of sufficiency, security, access and time. This means that such households lack enough food or money to meet households basic food needs at all times. Moreover, households have immense concern over both quality and quantity of food supply; and adjustments to normal food use, by substituting fewer and cheaper foods than usual. Therefore, the distinguishing feature with this category is that there is a reduction in both quality and quantity of food consumed by households. Food intake for household members has been reduced (starting from adults to children) to an extent that members begin or have repeatedly experienced the physical sensation of hunger. These households can therefore be classified as *poor* or experiencing chronic food insecurity as there is a persistently high risk for households' being unable to meet the food needs of its members. Obviously, this group of households was basically characterized by large-size households of more than 6 as compared to the one indicated for food secure households. Moreover, majority of these households were petty-traders who had little or no educational background. Again, this confirmed the findings of Omonona and Agoi (2007) who annotated that the incidence of food insecurity worsens with low level of education and among households with significant larger family sizes. A male interviewee within this category confessed that:

*“Nowadays, we hardly have enough food to feed the entire households so we mostly eat twice daily. Therefore, I have been planning on sending two of our children to my elder brother in Accra” (James Allotey, 2011-02-09).*

#### **5.4.6 Households Reflections on the Dimensions of Food Security**

The dimensions of food security have been discussed as food availability, access and use. In view of this, the study attempted to elicit information from the respondents' perspective as to which of these dimensions prove a stumbling block in their quest to meet the households' food needs. Household interviewees overwhelmingly pointed out that *access* to food is their greatest threat because it depended on financial resources which most households' lack. For them, there was no problem with food availability since one could easily get whatever food one wishes to consume only if the money to buy is present. Food could be available within a community but access becomes another problem. Hence access to food (based on money) embrace available food which is put to use to ensure an active and healthy life for all household members. Likewise, Ruel et al (1998) noted that within urban vicinities households buy most of their food, so lack of income is the major challenge to food security. With enough income, prices may rise and households' could still buy enough to eat. Appendix 2 presents average household incomes and expenditure patterns in relation to occupations.

#### **5.4.7 Municipal Assembly's Policies for Improving Food Security in Amasaman**

In Ghana, the practice of decentralisation has resulted in power being devolved to the lower levels of government. Therefore within the study area, the Ga West Municipal Assembly is the sole implementer of government policies. In view of this, officials from the Agricultural Unit of the Assembly were interviewed to know their views on the current food security situation within the town and the policies implemented to address the situation. They easily admitted that the situation is “bad” because food production is insufficient to cater for all inhabitants therefore food is generally imported into the Municipality. To improve the situation, policies including Food Security Demonstration, Youth in Agriculture Programme and reshaping of feeder roads to improve market access has been implemented. The food security demonstration for instance exhibited technologies to farmers such as zero tillage, use of improved varieties and correct spacing of crops. Moreover, cultivation of crops including maize, cowpea and rice covering over 20 acres have been started by the Assembly to further improve the situation. The officials revealed that they have been advising the Assembly to create reserve areas for farming because

loss of farmlands for estate development and sand winning remains their greatest challenge in addressing the food security situation within the Municipality. Nonetheless, to critically analyse this circumstance it is essential to point out that the Municipal officials sometimes overlook these sand winning and quarrying activities.

## 6.0 CONCLUDING DISCUSSIONS

This study has explored household livelihoods and food security within Amasaman using a mixed-method approach. The preceding chapters have discussed the study's methodology, theoretical framework and presented its findings. The SL framework was employed because it provides an understanding of how households expediently make thoughtful decisions to make use of limited resources to meet minimum needs in other of preference. Also, for analytical purposes, it provided a guideline to analyse how *livelihood assets* are combined to pursue *livelihood strategies* within a particular *context and institutional processes* to achieve *outcomes*. In this instance the outcome analysed was food security. Nevertheless, the framework seems over-ambitious since practical guidance on household livelihood construction is insufficient. Also, the framework is silent on gender therefore incorporating gender-related issues could potentially enhance its application towards poverty alleviation. Consequently, although the study methods facilitated a thorough assessment of the research problem, data collected might have been more informative if the initially planned focus group discussion had materialised.

In essence, the study objectives were to investigate livelihood constraints and possible coping strategies and to distinguish between food secure and insecure households. The findings revealed that livelihoods of households' were generally concentrated around trading activities, although there were farmers, artisans and service sector workers. The constraints these households encounter with various livelihoods to meet household needs include lack of assets, loss of farmlands for housing purposes, unfavourable climatic conditions and competition among artisans for job placement. With these problems facing livelihood strategies, different coping mechanisms are employed by household to meet basic needs. These survival mechanisms include undertaking "supplementary occupations", drawing on savings, engaging children in trading activities and sale of properties. But overall, 26.7% (8) households do not employ any

form of coping strategies, signifying their vulnerability. An interesting finding about coping strategies was that households generally opted to have only one income-generating activity, provided it gave them enough income to meet all household needs.

The findings have further substantiated assertions by Maxwell et al (2000) that poverty-related issues including food insecurity are no longer an absolute rural phenomenon but a peri-urban problem as well. In all, 60% of households interviewed were food insecure (with or without hunger) and this proved the seriousness of the predicament. Majority of these food insecure households were either petty-traders with low educational background or households with low incomes and large family sizes. This signifies that as an emerging issue from this study, national and local governments should recognize that the fast pace of urban population growth has resulted in poverty within urban and peri-urban areas and this problem is likely to intensify over time—both in peri-urban Accra and across other Sub-Sahara African cities. Contextually, another rising issue is that, the households' reflections on the dimensions of food security revealed that, generally, food availability was not a problem within the study area. The difficulty had to do with *food accessibility* and this is reliant on financial resource which is mostly possessed insufficiently by several households.

Consequently, the Municipal officials corroborated that the food security situation within the area is “bad”. The criticism towards their assertion is that they focused only on food availability without touching on access and use. Nevertheless, they have implemented policies including Food Security Demonstration to help recover the situation. They revealed to have been advising the Assembly to create reserves and greenbelts for farming during planning since loss of farmlands for estate development is the greatest challenge they face in addressing the Municipality's food security situation. Nevertheless, closely linked to the issue of planning is the concept of economic development. Within free markets, as allocation of scarce resources (land) is assigned to the highest bidder agricultural land cannot compete with residential land unless there is a deliberate intervention to reserve land for agricultural purposes. In reality, such a policy could be time-tested, but emphasis has to be made that alleviating food insecurity requires such simple but pragmatic approach to planning and market operations, among other things, to succeed (Maxwell et al., 1998).

Finally, this study on food security within a peri-urban area has provided a bearing for additional research because it has highlighted a topic of emerging concern among local government and civil society. Future research could identify and focus more on vulnerable households to understand the gravity of the issue. Additionally, the relationship between food insecurity, poverty and malnutrition could be explored at great lengths in future studies. But although demographic trends will increasingly shift the locus of poverty-related problems into peri-urban areas over the next two decades, policy makers and civil society could launch capacity-building programs to potentially alleviate the menace of food insecurity to ensure *an active and healthy life for all* households.

**WORD COUNT**

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## APPENDIX 1 – HOUSEHOLD FOOD SECURITY SURVEY

These are set of questions about the food eaten in your household in the last 6 months and whether you were able to afford the food you need.

I am going to read you statements that people have made concerning their food situation. For the first two, Please tell me whether the statement was **OFTEN**, **SOMETIMES**, or **NEVER** true for you and members of your household in the last 6 months. Other questions require **YES/NO**.

Q1 – "The food bought/produced for the household just did not last, and we did not have money to get more." Was that often, sometimes, or never true for your household in the last 6 months?

- [1] Often true
- [2] Sometimes true
- [3] Never true
- [Don't know]

Q2 – "We could not afford to eat balanced meals." Was that often, sometimes, or never true for you and your household in the last 6 months?

- [1] Often true
- [2] Sometimes true
- [3] Never true
- [Don't Know]

Q3 – "In the last 6 months did you or members of your household ever cut the size of your meals or skip meals because there wasn't enough food or money?"

- [1] Yes
- [2] No (Skip to Q7)
- [Don't Know] (Skip to Q7)

Q4 – "How often did this happen -- almost every month, some months but not every month, or in only 1 or 2 months?"

- [1] Almost every month
- [2] Some months but not every month
- [3] Only 1 or 2 months
- [Don't Know]

Q5 – "In the last 6 months, did you or members of your household ever eat less than you felt you should because there wasn't enough food or money to buy food?"

- [1] Yes
- [2] No
- [Don't Know]

Q6 – "In the last 6 months, were you or members of your household ever hungry but didn't eat because you couldn't afford enough food?"

- [1] Yes
- [2] No
- [Don't Know]

Q7 – “In the last 6 months, what has prevented the households’ ability to acquire the food you desire to consume”? Note – Multiple answers are allowed.

[1] Money

[2] Distance

[3] Food not available within the town

[4] Other

[5] Nothing, we eat the food we desire

[Don't Know]

## APPENDIX 2

### AVERAGE HOUSEHOLD INCOMES AND SHARE OF MAJOR EXPENDITURES

Households Expenditure (Average)	Household Occupations			
	Farming Households	Trading Households	Salaried Workers Households	Tradesmen's Households
Number of Households	6	18	2	4
Household Average Monthly Income (GH¢)	110	130	200	150
Food (GH¢)	33 (30%)	68 (52.3%)	90 (45%)	78 (52%)
Clothing (GH¢)	8	10	20	12
Utilities (GH¢)	12	14	22	15
Housing (GH¢)	10	12	18	12
Light and Fuel (GH¢)	12	13	20	16
Welfare (GH¢)	17	13	22	14
Others (GH¢)	20	12	18	13
Monthly Expenses	112	142	210	160

**NB** – It is obvious from the table that all households' spend more that they receive from their various livelihood strategies. Therefore, enquiries were made to know where households acquire the additional income to meet these basic needs. Some revealed to obtain financial assistance from relatives. Other households constantly draw from available savings which were made whenever business “bumpers” especially the festive seasons for the various religious groups. Others also rely on gifts and remittances. Moreover, a very large proportion of the household income is spent on food (i.e.) 45.6% for all households. But excluding the farmers who only buy a small proportion of their food, 49.2% of the household income is spent on food.

### **APPENDIX 3 – INTERVIEW GUIDE – HOUSEHOLD IN-DEPTH INTERVIEW**

Sex, age and name of respondent?

Marital status and education level?

Household size, head and composition?

What is the main livelihood activity/occupation of the household?

What factors influenced the household's choice of occupation?

What are the identified factors that constrain your livelihood activities?

If the constraints are within your means, what have you done to redress these restrictions?

What kind of coping strategies do the household undertake in times of need?

What are the other problems facing the household in general?

How do you describe the food security situation of the household?

What is the household's average monthly income?

What are the major items that the household income is spent on?

How do you foresee the households' future situation to be like in ten years time (improving or worsening) and why?

### **APPENDIX 4 – INTERVIEW GUIDE – MUNICIPAL OFFICIALS INTERVIEW**

Name and position?

What are the main livelihood activities of the inhabitants of Amasaman?

Identify the major livelihood constraints to these inhabitants in the community?

How do you describe the food security situation within the Amasaman community?

What are the main limitations to achieving food security within Amasaman?

What specific projects/measures have the Municipal Assembly put in place to improve upon the food security situation in Amasaman?

What challenges do you encounter in addressing the food security situation in the Municipality?

How do you think these problems can be addressed?

How do you foresee the food security situation within Amasaman in the near future (improving or worsening) and why?

**APPENDIX 5 – HOUSEHOLD FOOD SECURITY SCALE -- CONTINUOUS MEASURE**

