

**ASSESSING THE LIVELIHOOD OPPORTUNITIES OF RURAL POOR
HOUSEHOLDS: A CASE STUDY OF ASUTIFI DISTRICT**

By

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DECLARATION

I hereby declare that, this submission is my own work towards the Master of Science in Development Policy and Planning and that to the best of my knowledge, it contains no material previously published by another person or material which has been accepted for the award of any degree by this or any other university except where due acknowledgement has been made in the text.

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ABSTRACT

About 87 percent to 89 percent of rural households in Ghana engage in small scale farming to provide a variety of food crops to support the overall agricultural output in the country. However, rural poverty in Ghana is deepest among food crop farmers due to the vulnerable nature of their livelihood. Food crop farmers depend on single weather oriented agriculture and find it difficult to avoid or withstand livelihood stress and shocks such as drought, crop failure, pests and disease infestation. Hence, the ability of the traditional farm sector “alone” to adequately sustain rural livelihoods and income or reduce poverty among rural households is very much in doubt. The promotion of complementary livelihood engines to enhance the income options and provide new coping strategies is thus re-surfacing in rural development debate.

This study therefore focused on the need for rural households to develop additional livelihoods to provide vital income diversification, spread risk and provide means to cope when farming and other sources of income fail. A participatory research approach was adopted for the study. The study employed the simple random sampling method to select a sample of 138 heads of household who have adopted either Grasscutter: *Thryonomys swinderianus*; edible Mushroom: *Pleurotus ostreatus* and edible Snail: *Achatina achatina* production as an additional livelihood activity to augment their livelihood options. Four other institutions were also selected and interviewed. The primary data were collected through the use of questionnaires, interview guide and observation to complement secondary data from literature.

The study revealed that the major traditional livelihood option for households appears to be food crop farming (76 percent). Other households also engage in petty trading (16 percent), livestock rearing (4 percent) and salary work (2 percent). However, households earn relatively low income from these traditional livelihoods. When the income gains from these traditional and the adopted livelihoods were compared, it was revealed that the economic benefits or income gains from the adopted livelihoods exceeds that of the traditional livelihoods thereby providing the needed coping strategies and reducing the livelihood risks which previously surrounded their livelihoods. The study therefore recommended that, rural households need to be assisted to re-arrange their livelihood portfolios and traditional livelihoods that are no longer economically and socially viable to be supported with new ones better suiting the context of a more mature market economy.

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LIST OF ABBREVIATIONS AND ACRONYMS

ADADU	Asutifi District Agricultural Development Unit
AILAP	Agriculture Improvement and Land Access Programme
BYTRC	Bemcom Youth Training and Resource Centre
BAC	Business Advisory Centre
DFID	Department for International Development
DMTDP	District Medium Term Development Plan
EPA	Environmental Protection Agency
GPRS	Ghana Poverty Reduction Strategy
GSS	Ghana Statistical Service
GYEEDA	Ghana Youth Employment and Entrepreneurial Development Agency
HDI	Human Development Index
IFAD	International Fund for Agricultural Development
ICRA	International Centre for development oriented Research in Agriculture
LEG	Livelihoods and Environment Ghana
NRI	Natural Resources Institute
NGGL	Newmont Ghana Gold Limited
NGOs	Non-Governmental Organisations
OICI	Opportunities Industrialization Centers International
REP	Rural Enterprise Project
SIF	Social Investment Fund
SME	Small and Medium Scale Enterprise
SPSS	Statistical Package for the Social Sciences
SLA	Sustainable Livelihoods Approach

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CHAPTER ONE

OVERVIEW OF THE STUDY

1.1 Introduction

According to Aduse-Poku *et al.* (2003), the concept of livelihood has remained a subject of utmost importance due to its inevitable role to human existence. A livelihood is much more than a job as it covers a whole range of things people do to make a living. Increase in population and technology have also brought about more variations in livelihood activities thereby further puzzling the livelihood concept. Most people especially in the rural areas obtain their means of livelihood from their immediate environment. Carney (1999) also argues that, the livelihoods and quality of life of the rural dwellers in Sub-Saharan Africa is affected or even controlled by a multiplicity of factors or contexts that make life for them almost a struggle for survival. These factors border on economic policies, agro-climate, environment, socio-culture, demography, infrastructure, services, governance and so forth.

Diao *et al.* (2006) state that majority (60-70 percent) of Sub-Saharan Africa's population live in rural areas where poverty and deprivation are most severe. Since almost all rural households depend directly or indirectly on agriculture (in the area of small scale farming), and given the large contribution of this sector to the overall economy, it might seem obvious that agriculture should be a key component of growth and development. However, although agriculture-led growth played an important role in slashing poverty and transforming the economies of many Asian and Latin American countries, the strategy has not yet worked in Africa.

Diao *et al.* (2006) continue to call attention to the fact that most Sub-Saharan countries including Ghana have not yet met the requirements for a successful agricultural revolution, and factor productivity in agriculture seriously lags behind the rest of the world. This has led to growing skepticism in the international development community about agriculture's relevance to growth and poverty reduction especially in rural areas. While parts of Ghana are indeed disadvantaged by unfavourable natural and geographic conditions, agriculture's poor performance has often been due to underinvestment in physical, institutional, and human capital, as well as by attempts

to bypass agriculture through isolated industrialization, often at the cost of agricultural stagnation and worsening poverty.

Other researchers such as Donald *et al.* (2005) have also noted that the livelihoods of poor rural households are diverse across regions and countries, and within countries. While some rural households rely primarily on one type of activity, most people now seek to diversify their livelihood base as a way to reduce risk. In most developing countries, it is the small-holder farmers who produce greater proportions of staples but mostly at the peasant levels.

In relation to the above, Stephen (2001) provides evidence that these rural households engaged in farming activities face considerable risks in their income process. Variety of risks exposes farm households to very serious hardship. Harsh climatic conditions often result in harvest failure and famine. These exposures leave the rural food crop farmers poor, vulnerable and sometimes destitute. Households of the rural areas of Ghana are therefore prone to these risks as they depend on natural resources, which in turn depend on erratic rainfall and the unpredictable weather conditions. Since these farmers also mostly do not have well defined markets for their products, they normally suffer from price fluctuations. They are therefore often adversely affected by these shocks leaving them poor.

In Ghana, the capacity of the food-crop sector alone to continue to sustain the livelihoods of rural households is very much in doubt as dependence upon subsistence farming confronts households with a precarious living, exposing them to adverse contingencies which always make them 'risk-managers' (Dary *et al.*, 2012; Lay *et al.*, 2008; Tandoh-Offin *et al.*, 2013; Butler *et al.*, 2007).

It is therefore as a result of the above that non-farm alternative income sources (such as Petty trading, Grasscutter rearing, Mushroom production, Bee-Keeping, Weaving, Pottery among others) are increasingly becoming important across the rural areas of Ghana, and income gains at the household level therefore seem to be associated with a shift towards more non-farming wages and self-employment income.

Such employment provides vital income diversification and access to cash at key moments especially where the risks of farming are high and rural savings, credit and insurance mechanisms are poorly developed or not available (Reardon, 1997). Rural non-farm or alternative livelihoods may among other things; absorb surplus labour in

rural areas, help farm-based households spread risks, offer more remunerative activities to supplement or replace food-crop income, offer income potential during the farming off-season, and provide a means to cope or survive when farming fails (Gordon and Graig, 2001).

1.2 Problem Statement

According to Diao (2010), small scale farming employs almost about half of the population in Ghana on formal and informal basis and therefore functions as a dominant economic activity for the rural household, particularly in food crop production, since about 87 percent to 89 percent of rural households engage in small scale farming to earn a living (Ministry of Food and Agriculture, 2011; Ghana Statistical Service, 2008). Agricultural activities in Ghana are therefore mostly on small scale level and these farmers produce greater proportion of the entire agricultural output in Ghana.

However, the International Fund for Agricultural Development (IFAD, 2011) asserts that small-scale farmers in Ghana's poor rural areas (which the Asutifi District is part) have very limited access to the assets that would facilitate a shift from subsistence farming to modern and commercial agriculture. It should also be noted that, poverty in the Asutifi District is deepest among rural food crop farmers as a result of the vulnerable nature of their livelihood. A World Bank (2011) report also put the Asutifi District poverty rate at 30 percent, which is undoubtedly higher than the national rate of 28.5 percent as indicated by the Food and Agriculture Organization (FAO, 2012). According to Newmont Ghana Gold Limited (2005), about 77 percent of rural poor households in the Asutifi District usually depend on a single livelihood activity or strategy (that is weather oriented agriculture). These households therefore find it difficult to avoid, withstand or bounce back during times of stress and shocks or recover from the harmful impacts of adverse events such as drought, pests and disease infestation, flooding or general crop failure among others. Rural households in the Asutifi District that rely on subsistence food crop production as a single livelihood strategy for survival often go through cycles of relative abundance and scarcity. The period immediately prior to harvest is a "hungry period". During this period of scarcity, rural households lack sufficient income and resources to meet their needs (Newmont Ghana Gold Limited, 2005).

As a result of the above problems, Newmont Ghana Gold Limited (2005) again believes that traditional small scale farming in the Asutifi District currently falls far short of its potential to secure the necessary employment, income, food supply, and thus to reduce poverty among rural households. This situation poses a long-term threat to farmers' livelihoods and incomes, and encourages rural young men and women in the Asutifi District to leave their villages to the urban centres in search of unavailable jobs, while those who remain in the area resort to illegal small scale mining activities or "galamsey".

Therefore the question as to whether rural food crop farming alone can help rural households to move out from the claws of poverty still remains a mystery and the study intends to investigate this gap. The above problems account for the increasing inability of the traditional farm sector to sustain rural livelihoods. Hence, there is the need for alternative strategies that will enhance the wellbeing of the rural poor farmers. The growing consensus is that although farming continues to play a central role in rural development, the promotion of complementary engines of rural growth should be of paramount importance. It should also be noted that, sustainable rural development and poverty reduction requires that the incomes of poor households and the sources from which they derive their livelihoods must be enhanced and therefore, pro-poor income growth needs to be encouraged.

In conclusion, additional livelihood options for rural poor households will provide new coping strategies that will reduce the impacts of unforeseen contingencies on their means of survival.

1.3 Research Questions

This study provides answers to the following questions:

- What are the traditional livelihood options for rural households in the Asutifi District?
- What are the challenges faced by rural households with respect to their traditional livelihood options in the Asutifi District?
- What is the economic importance of some adopted or alternative rural livelihood options in the Asutifi District?
- What interventions can improve the livelihood outcome of rural poor households in the Asutifi District?

1.4 Objectives of the Study

The main objective of this study is to examine some selected alternative rural livelihood strategies as practised in the Asutifi District and their contribution towards the development of the people in the area.

Specifically, the study seeks to:

- Assess the traditional livelihood options for rural households in the Asutifi District.
- Assess the challenges faced by rural households with respect to their traditional livelihood options in the Asutifi District.
- Assess the economic importance of some adopted or alternative rural livelihood options in the Asutifi District.
- Recommend interventions that can improve the livelihood outcome of rural poor households in the Asutifi District.

1.5 Scope

- **Geographic:** Asutifi District.
- **Contextual:** The study examines some selected alternative livelihoods (Grasscutter: *Thryonomys swinderianus*; edible Mushroom: *Pleurotus ostreatus* and edible Snail: *Achatina achatina* production) that can help to enhance the livelihood opportunities of rural poor households in terms of their contribution towards employment generation, income and wellbeing, reduced poverty and vulnerability.

1.6 Justification of the Study

The slow pace of poverty reduction among rural food crop farmers points to an urgent need to improve the livelihood strategies that better target the rural areas where poor people live and the activities on which their lives depend. This study therefore assesses the potential of selected alternative livelihoods (Grasscutter: *Thryonomys swinderianus*; edible Mushroom: *Pleurotus ostreatus* and edible Snail: *Achatina achatina* production) as a means of enhancing rural livelihood options in the Asutifi District, thereby providing enough grounds or basis for policy makers to design more pro-poor policies which will have greater impacts on these livelihood activities as complementary options aimed at helping the rural poor to move out of poverty.

1.7 Organization of the Report

This study has been organized into five chapters.

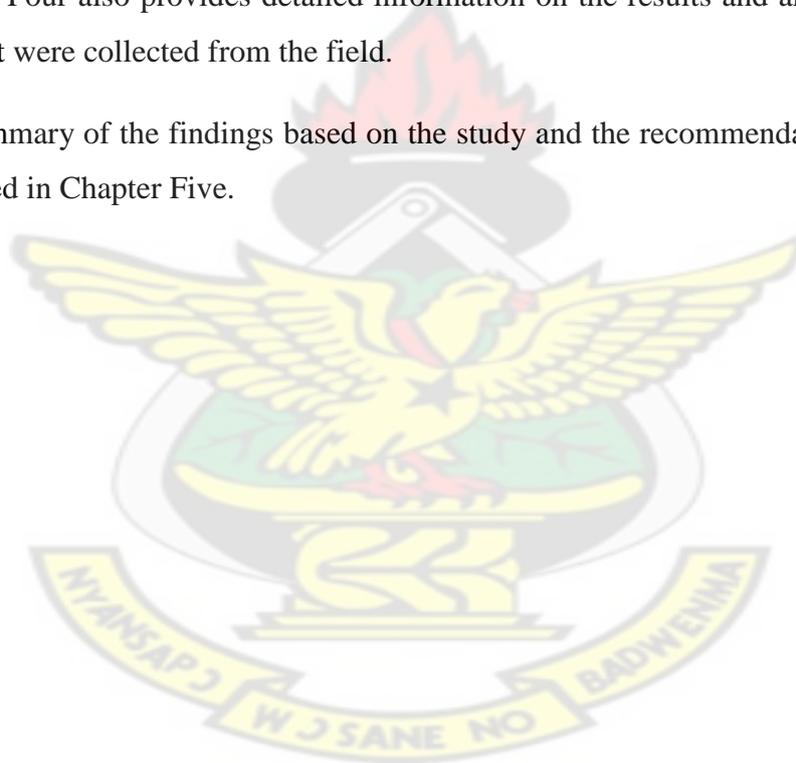
Chapter One provides a background, problem statement, research questions and objectives, scope as well as the justification for the study.

Chapter Two presents a contextual review of literature relevant to the study including practical experiences and a conceptual framework based on sustainable livelihoods.

Chapter Three discusses the research methods that were adopted for this study including the design, sources of data, sampling and sample size determination, and a brief description of the study area.

Chapter Four also provides detailed information on the results and an analysis of the data that were collected from the field.

The summary of the findings based on the study and the recommendations have been presented in Chapter Five.



CHAPTER TWO

CONTEXTUAL REVIEW OF THE LIVELIHOOD CONCEPT AND POVERTY REDUCTION

2.1 Introduction

The chapter one of this study provided a background to the problem and the objectives of the study. This chapter gives an account of what has been published on the topic by accredited scholars and researchers. The purpose here is to convey what knowledge and ideas have been established or expressed on the topic and what their strengths and weaknesses are. This chapter therefore provokes a discussion on the sustainable livelihood concept, livelihood diversification strategies for rural households, gender analysis on rural livelihoods as well as the implications of the sustainable livelihood approach for policy and poverty reduction.

2.2 Meaning of Livelihood

The concept of livelihood is widely used in contemporary writings on poverty and rural development, but its meaning can often appear elusive either due to vagueness or to different definitions being encountered in different sources. Its dictionary definition (Oxford Dictionary, 2013) is a “means of securing the necessities of life” which makes it more than merely synonymous with income because it directs attention to the way in which a living is obtained, not just the net results in terms of income received or consumption attained.

The most generally quoted definition of livelihoods is that given by Carney (1998) based on the work of Robert Chambers and Gordon Conway (1992);

A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base (p.5).

The above definition, with minor modifications, has been utilized by several researchers adopting the rural livelihood approach. It should be noted that, an important feature of this livelihood definition is to direct attention to the links between assets people possess in practice to pursue alternative activities that can generate the income level needed for survival and this is exactly what this special study seeks to delve into.

Niehof *et al.* (2001) describe a livelihood as a material means whereby one makes a living and livelihood generation refers to the bundle of activities that people undertake to provide for their basic needs (or surpass them).

Again, according to the International Centre for development oriented Research in Agriculture (ICRA, 2012), a livelihood (making a living) is largely about generating income. But this is really a means to an end, which also includes aspects of: food security (the ability to feed oneself and one's family), providing a home, health, security (reduced vulnerability to climatic, economic or political shocks, and so forth), sustainability (the ability to continue to make a satisfactory living), power (the ability to control one's own destiny), and others.

From the above definition also, ICRA (2012) again emphasize that it is important not to lose sight of long-term goals when analyzing the issue of livelihood. In other words, improving rural livelihoods involves more than just maximizing the production of crops or livestock. Although most agricultural research is about natural resources, plants and animals, agricultural researchers cannot ignore the fact that agriculture is a human activity. The farming systems that people develop depend on social, economic, cultural, psychological and policy factors, as well as on natural or biophysical factors.

Unituslabs (2012), a livelihood research organization, also defines livelihood as one's "means of support or subsistence" or the activities that economically support a person and his/her family.

In the light of this discussion, the following definition is proposed by the author as describing the meaning of the term livelihood; that is: a livelihood comprises the assets (natural, physical, human, financial and social capital), the activities and the access to these assets (mediated by institutions and social relations) that together determine the living gained by an individual or household or a community.

2.3 Conceptual Framework: The Sustainable Livelihood Approach

Livelihood researchers such as Krantz (2001) have noted that the concept of sustainable livelihood is an attempt to go beyond the conventional definitions and approaches to poverty eradication. These conventional approaches had been found to

be too narrow because they focused only on certain aspects or manifestations of poverty, such as low income, or did not consider other vital aspects of poverty such as vulnerability and social exclusion. It is now recognized that more attention must be paid to the various factors and processes which either constrain or enhance poor people's ability to make a living in an economically, ecologically, and socially sustainable manner. The sustainable livelihood concept therefore offers a more coherent and integrated approach to poverty reduction.

According to Chambers and Conway (1992), the sustainability of livelihood raises many questions and these fall into two groups: whether a livelihood is sustainable environmentally, in its effects on local and global resources and other assets; and whether it is sustainable socially, that is, able to cope with stress and shocks, and retain its ability to continue and improve. Sustainability is thus a function of how assets and capabilities are utilized, maintained and enhanced so as to preserve livelihoods.

In relation to the above, Chambers and Conway (1992) grouped the sustainability of livelihoods into two as:

- **Environmental Sustainability:** This concerns the external impact of livelihoods on other livelihoods. Here, the question is whether livelihood activities maintain and enhance or deplete and degrade the natural resource base. On the negative side, livelihood activities may contribute to desertification, deforestation, soil erosion and the like. To this end, livelihood activities can be regarded as environmentally unsustainable if they have a net effect on the claims (demands and appeals which can be made for material, moral or other support) and access (opportunity in practice to use a resource, service or obtain information, material, technology, employment, food or income) needed by others.
- **Social Sustainability:** This refers to whether an individual or household cannot only gain but maintain an adequate and decent livelihood. Here, two dimensions can be identified based on the work of Chambers and Conway (1992). The negative dimension relates to coping with stress (pressures which are typically continuous and cumulative, predictable and distressing such as seasonal shortages, rising populations leading to declining farm size or

declining resources, indebtedness and others) and shocks (impacts which are typically sudden, unpredictable and traumatic such as storms, floods, wars, droughts, human illness, epidemics of crop pests and so forth) while the positive dimension relates to enhancing and exercising capabilities in adapting to, exploiting and creating change, and in assuring continuity.

Sustainable livelihoods (for the purpose of this study) are therefore those that can avoid or resist stress and shocks and are able to bounce back when affected.

Thomson (2000) has argued that the sustainable livelihoods approach (SLA) has been adopted by a number of agencies and organisations during the 1990s as an integrative framework for thinking about development issues, and in particular for addressing poverty. The framework links the concepts of capability, equity and sustainability, each concept being seen as both a good in itself and an end (Chambers and Conway, 1992).

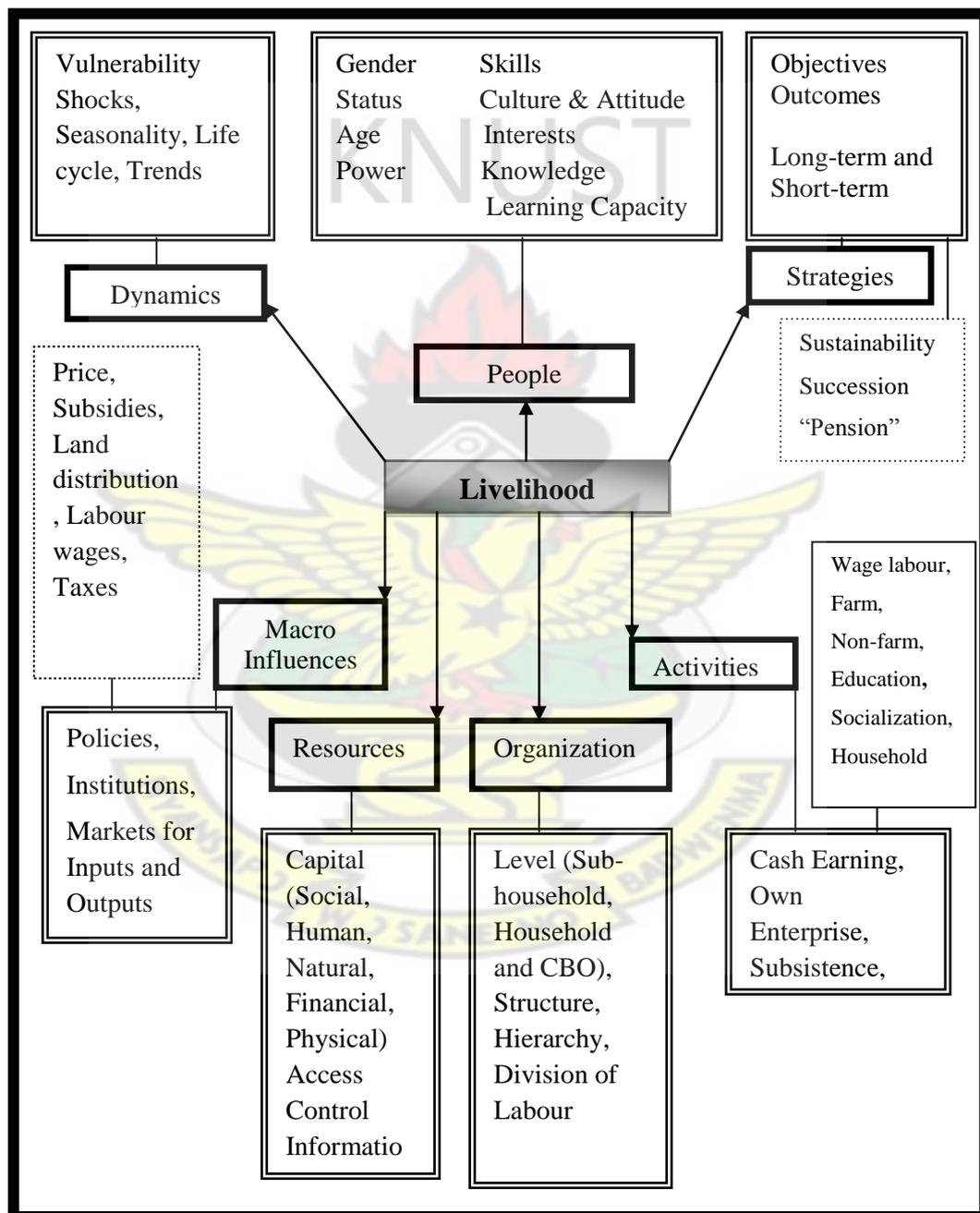
Thomson (2000) again argue that the SLA has evolved from thinking about poverty as a problem of lack of income, through the basic needs approach, then an emphasis on food security and vulnerability, and finally more recently an approach to poverty programmes which focuses on the provision of health and education services by government. A sustainable livelihoods approach is likely to encompass elements of all these aspects, but focuses on capacities rather than needs, assets and strengths rather than weaknesses and constraints.

The precise frameworks and tools used by different agencies vary (Carney, 1998). However, they all share the same basic concept of sustainable livelihoods, and use a framework that contains the following elements:

- An analysis of the causes of vulnerability – shocks and stresses in the economic, social and political context, trends, seasonality, fragility of natural resources among others.
- An analysis of assets, at the individual, household and community level, comprising human, social, economic, physical and natural resource assets.
- The context within which livelihoods evolve – policies at both micro and macro levels; civic, economic and cultural institutions, both formal and informal; the nature of governance and its processes at all levels in society.

- Livelihood strategies, including, but not restricted to, consumption, production and exchange activities.
- The resulting livelihood outcome, assessed multi-dimensionally in terms of food and other basic needs security, greater sustainability of the natural resource base, reduced vulnerability and increased income.

Fig. 2.1: Concept Map for Livelihood Analysis



Source: Author's Construct Based on ICRA's Summary Analysis of Livelihood (May, 2013).

From Fig.2.1, the idea of livelihood is depicted as a system with interrelated set of activities that are implemented within a broader environment. Based on these activities, people (depending on their age, gender, skills, culture and knowledge among others) develop several ways or strategies of making a living. Influencing these strategies are livelihood resources (something that can be used to provide a livelihood) including social, human, natural, financial and physical as well as who has access (who can use the resource) and who has control (who determines how the resource is managed).

Again, people's access to and control over resources may change over their lifetime and this makes livelihood a dynamic concept. For example, the ways of making a living often changes as families change and people move from one phase in their life cycle to another. Also embedded in this dynamic process are risk and vulnerability, shocks and seasonality.

Finally, livelihoods are affected by factors at both micro and macro levels. At the micro level, people develop and implement livelihood strategies by combining different resources and organize themselves to implement various activities to achieve short and long term objectives. These people do not operate in a vacuum but in a dynamic macro-context that determines the options open to them. This macro-context is shaped not only by biophysical and ecological factors, but also by policy, markets, institutions, culture and demography, and these determine who has access to which resources and who has control over those resources.

According to the Department for International Development (DFID, 2000), the SLA has two key components and these are:

- A set of principles to guide action to address and overcome poverty.
- A framework that helps in understanding the complexities of poverty.

The SLA has seven guiding principles which do not prescribe solutions or dictate methods. Instead, they are flexible and adaptable to diverse local conditions. These are:

- People-centered: The SLA begins by analysing people's livelihoods and how they change over time.
- Holistic: The SLA acknowledges that people adopt many strategies to secure their livelihoods and that many actors are involved; for example, the private

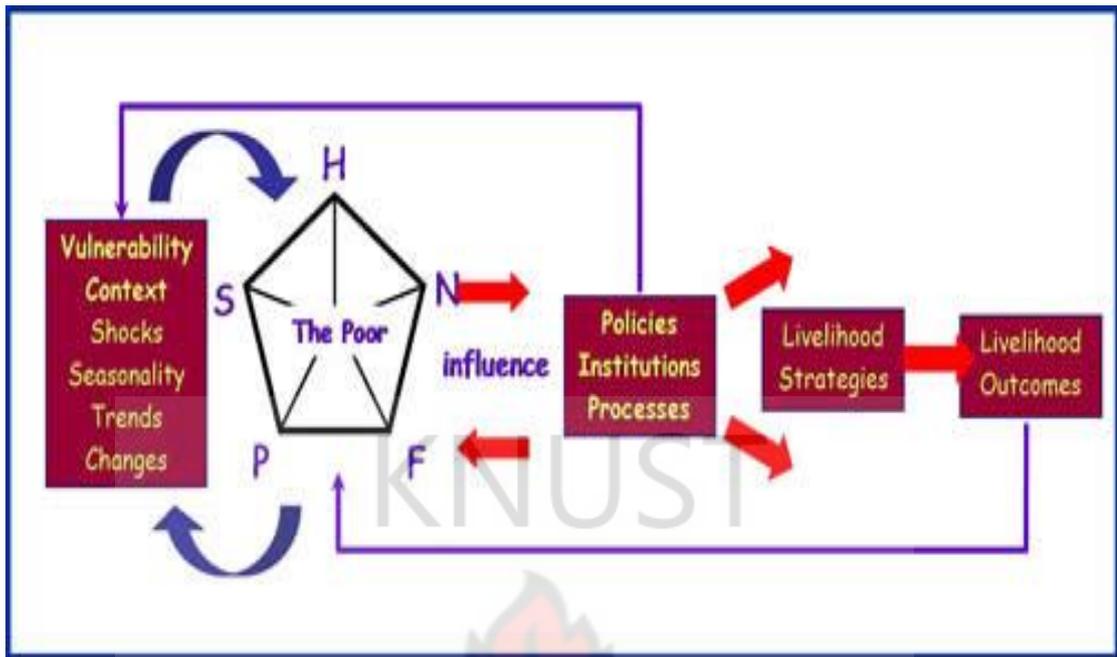
sector, ministries, community-based organizations and international organizations. The activities of all these should be coordinated and harmonized.

- **Dynamic:** The SLA seeks to understand the dynamic nature of livelihoods and what influences them.
- **Build on strengths:** The SLA builds on people's perceived strengths and opportunities rather than focusing on their problems and needs. The SLA therefore supports existing livelihood strategies.
- **Promote micro-macro links:** The SLA examines the influence of policies and institutions on livelihood options and highlights the need for policies to be informed by insights from the local level and by the priorities of the poor.
- **Encourage broad partnerships:** The SLA counts on broad partnerships, drawing on both the public and private sectors.
- **Aim for sustainability:** Sustainability is important if poverty reduction is to be lasting.

With the SLA framework, people are the main concern, rather than the resources they use or their governments. The SLA is used to identify the main constraints and opportunities faced by poor people as expressed by them. It builds on these definitions and then supports poor people as they address the constraints or take advantage of opportunities. The framework is therefore, neither a model that aims to incorporate all the key elements of people's livelihoods nor a universal solution.

The SLA framework is presented in a schematic form and shows the main components of SLA and how they are linked. It does not work in a linear manner and does not attempt to provide an exact representation of reality. Rather, it seeks to provide a way of thinking about the livelihoods of poor people that will stimulate debate and reflection about the many factors that affect livelihoods, the way they interact and their relative importance within a particular setting. This should help in identifying more effective ways to support livelihoods and reduce poverty (DFID, 2000).

Fig. 2.2: The DFID's Sustainable Livelihood Framework



Source: DFID, Sustainable Livelihoods Guidance Sheet (2000)

From Fig. 2.2, Human resource or capital (H), Natural resource (N), Financial capital (F), Social capital (S) and Physical resource (P) are critical to the livelihood of the poor.

The framework places people, particularly rural poor people at the centre of a web of inter-related influences that affect how these people create a livelihood for themselves and their households. Closest to the people at the centre of the framework are the resources and livelihood assets that they have access to and use.

These can include natural resources, technologies, their skills, knowledge and capacity, their health, access to education, sources of credit or their networks of social support. The extent of their access to these assets is strongly influenced by their vulnerability context, which takes account of trends (for example, economic, political, and technological), shocks (for example, epidemics, natural disasters, civil strife) and seasonality (for example, prices, production, and employment opportunities). Access is also influenced by the prevailing social, institutional and political environment, which affects the ways in which people combine and use their assets to achieve their goals or livelihood strategies (DFID, 2000).

2.3.1 Livelihood Assets or Resources

Scoones (1998) states that the basic material and social, tangible, and intangible assets that people use for constructing their livelihoods are conceptualized as different types of ‘capital’ to stress their role as a resource base “from which different productive streams are derived from which livelihoods are constructed” (Scoones, 1998; p.26). Livelihood resources and assets are the inputs to the livelihood system (Niehof and Price, 2001) and resources can be seen as immediate means needed for livelihood generation.

According to the International Centre for Development oriented Research in Agriculture (ICRA, 2012), in a legal or accounting sense, “assets” are something that can be balanced against “debts”. In discussion of livelihoods, “assets” are often considered in a way synonymous to “resources” or “capital” in a broad sense; that is something that can be used to provide a livelihood. Soussan *et al.* (2001) also consider livelihood assets as the means of production available to a given individual, household or group that can be used in their livelihood activities. These assets are the basis on which livelihoods are built and, in general, the greater and more varied the asset base the higher and more durable the level of social security.

Based on the above definitions, livelihood assets, in the context of this study can be described as both the natural and social environmental possessions available to an individual or household to be able to make a living.

Carney (1998) and ICRA (2012) both suggest that there are five dominant forms of livelihood assets and these are:

- **Natural Capital:** The natural resource stock from which resource flows useful to livelihoods are derived. These natural resources are made up of air, land, soils, minerals, plants and animal life that people use. Natural capital can be measured in terms of quantity and quality (for example acreage, diversity and fertility). It is important not only for its environmental benefits, but also because it is the essential basis of many rural economies in providing food, building material, fodder, and so forth. (Natural Resources Institute, 2000). Many of the factors identified as causes particularly of rural poverty reflect declining access to natural capital (Korsi *et al.*, 2001).

- **Social Capital:** The horizontal and vertical social resources (networks, membership of groups, relationships of trust, access to wider institutions of society) upon which people draw in pursuit of their livelihood. The Natural Resources Institute (NRI, 2000) defines social capital as that part of human resources determined by the relationships people have with others. These relationships may be between family members, friends, workers, communities and organisations, and can be defined by their purpose and qualities such as trust, closeness, strength and flexibility. Social capital is important for its intrinsic value, and also because it increases well-being; facilitates the generation of other capital; and services to generate the framework of the society in general, with its cultural, religious, political and other norms of behaviour. Korsi *et al.* (2001) again state that lack of social capital, or social exclusion, can be highlighted as a significant characteristic of poverty.
- **Human Capital:** The skills, knowledge and good health are important to the ability to pursue livelihood strategies. Human capital is therefore that part of human resources determined by people's qualities such as personalities, attitudes, aptitudes, skills, knowledge and physical, mental and spiritual health. Human capital is important, not only for its intrinsic value, but also because all other capital assets cannot be used without it (NRI, 2000).
- **Physical Capital:** The basic infrastructure (transport, shelter, water, energy, and communications) and production equipment are means which enable people to pursue their livelihoods. Physical capital is derived from the resources created by people, such as buildings, roads, transport, drinking water, electricity, communication systems among others, as well as equipment and machinery for producing further capital. Physical capital is important not only for meeting people's needs directly, but also for providing access to other capital via transport and infrastructure (NRI, 2000). Physical capital or assets such as housing type, sanitation, sources of drinking water and cooking are also often used as proxy indicators of household well-being (Korsi *et al.*, 2001).
- **Financial Capital:** The financial resources which are available to people (whether savings, supplies of credit, or regular remittances or pensions)

and which provide them with different livelihood options (NRI, 2000). It is often (by definition) the most limiting asset of poor people, but it is one of the most important, in that it can be used to purchase other types of capital, and also to have influence (good and bad) over other people.

Table 2.1: Resources and Assets in Livelihood Generation

	Personal Level	Household Level	Environmental Level	
			Natural	Man-Made
Material	Physical Strength, Health, Talents	Space, Income, Tools, Buildings, Livestock	Land, Soil, Water, Biodiversity	Infrastructure, Biodiversity
Non-Material	Skills, Education, Gender, Experience, Capabilities	Experience, Knowledge, Management, Information	(Kinship)	Market, Church, Social or Political Institutions, Support networks

Source: Niehof *et al.* (2001)

Note: Kinship is placed between brackets as natural environmental resource because though kinship has a natural or biological base, it works only through the meanings people attach to it.

2.4 Livelihood Diversification Strategies for Rural Households

According to sustainable livelihoods research, diversity (that is, the exploitation of multiple assets and sources of revenue) is an intrinsic attribute of many rural livelihood strategies (Warren, 2002).

With respect to the DFID's sustainable livelihoods glossary (DFID, 2001), the term livelihood strategies denotes: the range and combination of activities and choices that people make in order to achieve their livelihood goals. Livelihood strategies include: how people combine their income generating activities; the way in which they use their assets; which assets they chose to invest in; and how they manage to preserve existing assets and income. Livelihoods are diverse at every level, for example, members of a household may live and work in different places engaging in various activities, either temporarily or permanently. Individuals themselves may rely on a

range of different income-generating activities at the same time.

Reardon *et al.* (1998) estimate that non-farm income sources currently account for 40-45 percent and 32 percent of the average African and Asian rural household respectively. Escobal (2001) suggests that the equivalent figures for rural Latin America and rural Peru are 40 percent and 51 percent respectively.

Warren (2002) explains that rural livelihoods diversification has generally occurred as a result of an increased importance of off-farm wage labour in household livelihood portfolio or through the development of new forms of on-farm or on-site production of non-conventional marketable commodities. In both cases, diversification ranges from a temporary change of household livelihood portfolio (occasional diversification) to a deliberate attempt to optimize household capacity to take advantage of ever-changing opportunities and cope with unexpected constraints (strategic diversification). Other researchers such as Barrett *et al.* (2001) share similar view that livelihood diversification is a primary means by which individuals reduce risk and is widely understood as a form of self-insurance.

In Ghana, non-agricultural income diversification does not only refer to the fact that households are diversifying into non-agricultural activities but that they are often pursuing more than one, sometimes several, different non-agricultural activities simultaneously or at different times throughout the year. Most of the activities are highly opportunistic in nature, involving quick responses to market demand and supply as concluded by Bryceson (2002).

Already, there is evidence that non-farm activities in both the rural and urban areas are widespread in Ghana. The Ghana Statistical Service (2007), estimates that approximately 46.4 percent of households in Ghana operate non-farm enterprises. A case study of four rural communities in three ecological zones of Ghana by Oduro and Osei-Akoto (2007) gives further credence to this observation. Residents in the villages were found to be employed in a number of non-farm activities, such as hairdressing, carpentry, tailoring, trading, 'pito' brewing, food processing, charcoal trading, masonry, animal husbandry (Rabbit and Grasscutter rearing), sewing, teaching, and nursing. Lay and Schuler (2008) analyzed the changes in income portfolios of rural households in Ghana and found that asset-poor households, which

account for an important share of the rural population, are likely to be pushed into activities off the farm to meet subsistence needs.

It can therefore be deduced from the above discussion that rural livelihood diversification basically concerns the process by which rural households construct an increasingly diverse portfolio of activities and assets in order to survive and to improve their standard of living. Therefore there is the need for policy makers to have a deeper understanding of the micro-economic constraints and incentives that influence livelihood diversification and the welfare implications of such decisions especially by agricultural households.

2.4.1 Nature and Determinants of Livelihoods

According to Chambers and Conway (1992), the simple definition of a livelihood as a means of securing a living, summarises a reality which comes into focus as being complex as its parts are found and named and its structure unraveled. In their analysis of household livelihoods, four categories of parts were identified. Chambers and Conway (1992) again, expressed the core of a livelihood as a living and described the portfolio of tangible and intangible assets as the most complex of all the four parts (that is: people, tangible assets, intangible assets and a living).

Fig.2.3: Components and Flows in a Livelihood



Source: Adopted from Chambers *et al.*'s Livelihood Categorization (1992)

From Fig.2.3, Chambers and Conway (1992) describe stores to include food stock, store of value such as gold and cash savings in banks and resources to include land, water, trees and livestock. The claims are also demands and appeals which can be made for material, moral or other practical support or access. The support may include food, implements, loans and gifts. Claims are often made during times of stress or shock or when other contingencies arise. They are often based on combination of rights, precedents, social conventions, moral obligations and power. Access is also the opportunity to use a resource, store or services which include transport, education, health and markets or to obtain information, material, employment, food or income.

Out of these tangible and intangible assets, people construct and contrive a living, using physical labour, skills, knowledge and creativity. Skills and knowledge may be required within the household, passed on from generation to generation as indigenous technical knowledge or through apprenticeship, or more formally through education or extension services or through experiment and innovation. Adequate and decent livelihoods often improve capabilities by providing conditions and opportunities for widening choices, diminishing powerlessness and promoting self-respect, reinforcing cultural and moral values and in other ways improving the quality of living and experience (Chambers and Conway, 1992).

In their (Chambers *et al.*, 1992) final analysis of livelihoods, they postulated that there are numerous determinants of livelihood strategies. Many livelihoods largely are predetermined by accident of birth. Gender as socially defined is also a pervasive determinant of livelihood activities. A person may also be born, sensitized and apprenticed into an inherited livelihood as a cultivator with land and tools or as a fisherperson with boat and tackle; and each of these may in turn create a new livelihood(s) in the same occupation. Many livelihoods are also less singular or predetermined. Some people improvise livelihoods with degrees of desperation, what they do being largely determined by social, economic and ecological environment in which they find themselves. A person may also choose a livelihood, especially through education and migration.

2.4.2 Household Determinants of Livelihood Diversification Choices

Livelihood literature (Hussein and Nelson 1999; Ellis 2000) suggests that though exogenous trends and shocks play an important role in pushing rural people towards a diversified livelihood strategy, diversification choices are also firmly rooted in the micro-economic logic of farming households. Different elements are considered in this connection. These include:

- Availability of key-assets: Availability of key-assets such as savings, land, labour, education and/or access to market or employment opportunities, access to common natural resources and other public goods are conditions that make rural households and individuals more or less capable to diversify. Diversification may also develop as a coping response to the loss of capital assets needed for undertaking conventional on-farm production. Decreased availability of arable land, environmental deterioration among others can be indeed important drives towards diversification.
- Risk management: Risk management is another factor often invoked to explain diversification behavior (Bryceson 1996; Ellis 2000; Hussein and Nelson 1999). The basic logic of this argument is that previous experience of crop or market failure can provoke diversification as a means of spreading perceived risk and reducing the impact of total or partial failure on household consumption. The argument entails that diversification often requires choosing the second best income-generating alternative: risk-averse farmers perceive the amount of income given up by diversifying income sources as less important than the reduction of the total failure hazard.
- Strengthening the household asset basis: Strengthening the household asset basis can be an additional important factor in diversification choices. In particular, members of better-off household can undertake innovative activities or engage in highly remunerative wage labour (that is migrate abroad) with the specific aim of accumulating savings needed to expand the land holding, offer education opportunities to the young generation, or insure themselves against illness and aging. In addition to that, diversification may also occur as a means to consolidate household natural capital (that is to enhance the environmental sustainability of a particular livelihood strategy).

- Opportunities: Site-specific opportunities such as local market contingencies, development projects, infrastructure development (such as a new road), personal contacts might play an important role in pulling rural household towards livelihood diversification. Examples may include the opening of a market niche for non conventional agricultural commodities, the establishment of tourist resorts, a relative or friend acting as a liaison between the household and an employer in town or abroad, or the development of a cooperative enterprise in the community. These hypothetical examples suggest that the interplay among market dynamics, social capital assets and enabling interventions often play a major role in generating opportunities for livelihood diversification
- Gender relationships: Gender relationships are also important in shaping diversification process. Social organization and culture can significantly influence the relative access of diverse gender (and age groups) to household's capital assets (Ellis, 2000) or constraint or promote their mobility. This might result in a different degree of involvement in diversification activities and/or in an unequal distribution of their benefits between genders (Warren 2001). In some cultures, migratory wage labor or off-farm enterprises are basically men business, which results in transferring to women the whole responsibility for conventional subsistence and cash cropping (the so called "feminization of agriculture"). However, in other cultures, women are often able to play an autonomous role in livelihoods diversification by undertaking on their own small-scale enterprises or migrating to town or abroad. Participation in innovative enterprises is often advocated as an important means to promote rural women empowerment and more equitable gender relationships within the household.

All together, the above considerations suggest that rural livelihoods should be addressed as a complex adaptive process aimed at ensuring an optimal trade-off between satisfying immediate consumption needs, ensuring resilience against shocks and negative trends (Haugh, 2000) and meeting values and expectations. Research has shown that diversifying households often pursue this threefold objective through a continued re-shuffling of their livelihood portfolio according to contingent constraints and opportunities.

2.4.3 The Nature of Rural Livelihood Strategies in Ghana

Rural Ghana has seen major economic transformation, as households increasingly diversify their livelihoods by both increased migration and more local non-farm employment (Lay *et al.*, 2007). Aduse-Poku *et al.* (2003) also lay emphasis on the fact that, rural livelihood options found in Ghana include farming (crop production and animal rearing), gathering, hunting, trading, craft making, and public or civil service. Crop production has become uninteresting since marketing of the produce is a problem for the rural dweller. Animals are mainly reared on free range in the rural areas for subsistence, however, some people engage in it commercially. The main factor hindering commercial animal production is attributed to the high initial capital for putting up structures, acquisition of veterinary products and high cost of feed to maintain the animals. Fishing is an important source of livelihood for people who have water sources and ponds constructed to produce fish for subsistence and commercial purposes. But fishing has become unsustainable since the various water sources are over exploited.

They (Aduse-Poku *et al.*, 2003) again believe that, with the introduction of “commercialization”, trading has become very popular in most rural economies in Ghana. Items traded in include food crops, local and imported products. Women and the youth used to do most of the selling; however the trend is now changing since more men are getting involved. In some villages and towns, cottage industries such as pottery, woodcarving, soap making, basket weaving, palm oil extraction and food processing are found. Some rural dwellers that have some form of formal training are also employed in the public services such as teaching, nursing, or in providing services to the public. These people may be few due to lower levels of education in the rural areas.

2.4.4 The Nature of Rural Livelihood Strategies in Nigeria

The proliferation of non-farm activities as a source of income to complement agricultural income in rural Nigeria has been variously referred to as consumption smoothing measure or coping strategy against agricultural failure (Olusola *et al.*, 2011). Oluwatayo (2009) has also established that in many rural areas in Nigeria, agriculture alone does not provide sufficient livelihood opportunities hence diversification into non-farm activities has been seen as a form of self insurance. This

is because diversification offers the people options for coping with crisis. The ensuing effect of this is that rural households diversify their income sources by combining two or more jobs (multiple job holding) to enhance consumption smoothing and acquire other basic needs.

Adi (2013) pointed out that, in most cases, a household has one distinct occupation which it considers primary and to which more labour and time are allocated relative to other activity or activities, and identified four major patterns of livelihood in rural Nigeria as:

- **Farming:** Farming is the mainstay of households' livelihood and almost 90 percent of households participate in farming on a commercial and or subsistence basis. Where land is scarce as in Nguru, subsistence farming on own farm or on rented farm is quite common. Farming system in the entire region follows the mixed cropping pattern that is based on either roots or tubers planted in small farm holdings. Major food crops produced in most areas include cassava, yam and cocoyam. Maize is the only widely grown cereal with other crops such as banana, plantain, pawpaw, pepper and mango being grown in areas where there is land availability. The chief cash crop is the oil palm.
- **Commerce:** Trading is the second largest activity and it includes the sale of different types of farm produce at the village market squares, sale of imported food and clothes. There are two distinguishable classes in commerce. The first and most predominant is the class of petty traders who operate during weekly village markets and engage in other activities on non market days. The second class is the relatively wealthier households who are able to own shops which are in most cases operated with household labour. This class is usually more stable in operation with a relatively higher longevity.
- **Skilled Non-farm Activities:** Skilled non-farm activities refer to occupations for which requisite training is received by the household in the form of formal education or vocational training, which could be in the formal or informal sector. It encompasses the range of occupations found in the villages such as teaching, carpentry, and painting among others.
- **Low Skilled Non-farm Activities:** Activities that fall under this category are not easily identifiable. However, they can be broadly referred to as artisans,

casual workers, and labourers and all other menial tasks. Because activities that fall under this category are the riskiest, very few households fully depend on it.

Despite the recent emphasis on rural non-agricultural livelihood diversity in Africa (Bryceson, 2002), agriculture still remains the back bone of rural livelihood strategies.

A policy implication of the above is that a combination of policies that promote both non-agricultural activities as well as farming (agriculture) is crucial for rural development and welfare promotion in Sub-Saharan Africa. It is therefore important for policy makers to recognize the “complementarity” of agriculture and non-agricultural activities in sustaining livelihoods in rural areas and design strategies to address the challenges that confronts these rural livelihoods.

2.5 Gender Analysis and Sustainable Livelihoods

The gender-based division of labour within households in view of Niehof and Price (2001) is one of the most recognized aspects of how a household pursues its livelihood strategies. What men versus women do is in part reflective of their culture, that is, male and female roles are constricted by what is deemed fitting male and female behaviour. Cross cultural data on the sexual division of labour show great variation in what men and women have as tasks. Women in general have more restricted access to resources they can command compared to men and this is particularly critical among the poor and landless, as poor women invest their earnings more in child welfare than poor men (Buvinic, 1995).

The Food and Agriculture Organization (FAO, 2012) has estimated that about 80 percent of rural land in Ghana for example is regulated under customary law and it is the responsibility of lineage chiefs to lead community decision-making with regards to the distribution of land. According to customary law as emphasized by FAO (2012), all members of lineage are entitled to use rights or customary freehold regardless of their sex. In practice, however, male heads of family are in charge of setting up land tenure arrangements, sometimes even in matrilineal societies. The result is that women’s access to and use of land is through their male counterparts. Such practices may limit women’s direct access to land owned or used.

Gender disparities in agriculture also emerge in Ghana and according to Doss and Morris (2001 cited in FAO, 2012), only 39 percent of female farmers adopt improved crop varieties, compared with 59 percent of male farmers, because they have less access to land, family labour and extension services. Ghanaian women also own less livestock, use less fertilizers, own less mechanical equipment, have less years of education and school attendance rates than men.

Similarly, in Goldstein and Udry's study (2008 cited in FAO, 2012), women in Ghana are found to be as efficient as men in maize and cassava production, but they achieve lower yields and earned lower profits because they cannot maintain the fertility of their land. For this reason, if women enjoy the same level of inputs as men, this would lead to higher yields and potential benefits for themselves and for Ghana's rural economy. If these gender inequalities are addressed, women's economic and social benefits from market-oriented crops may increase substantially, a necessary condition for Ghana's poverty reduction efforts. The as yet untapped nature of this potential is an opportunity cost and demonstrates the importance of gender equity measures not only for women's welfare, but also for developing rural economies at large.

Niehof and Price (2001) once again assert and substantiate the belief expressed by FAO (2012) that, the above problem is compounded by the fact that even when women work as agricultural labourers, they make half or less than half of what men make as agricultural labourers. Assets within the household are also often accompanied by gender-specific customary and legal entitlements. These gender-based rights in many cases are ascribed, that is, are socio-cultural product based on whether one happens to have been born a male or female.

From the above analysis, it can thus be inferred in this study that the livelihood needs of men and women are not always the same due to their different roles, responsibilities and resources. The impact of different livelihood interventions will also vary according to gender. Women and men are likely to differ also in their capacity, authority or availability to participate in livelihood analysis or livelihood interventions, so attention must be paid to overcoming such barriers. All aspects of livelihood analysis should therefore explore gender issues. Patterns of gender difference and inequality may be revealed through gender analysis and will also examine why there are gender disparities and whether they are a matter for concern

and how they might be addressed. Gender analysis is therefore a tool to better understand the realities of women and men, girls and boys whose lives are impacted by planned development. Principally it is about understanding culture, expressed in the construction of gender identities and inequalities. It also aims to uncover the dynamics of gender differences across a variety of issues. These include gender issues with respect to social relations, activities, access and control over resources, services, institutions of decision-making and networks of power and authority as well as needs.

2.6 The Implications of the Sustainable Livelihood Approach for Policy and Poverty Reduction

Handley *et al.* (2009) concludes that poverty is not an easy concept to define and definitions describing 'the poor' vary in accordance with the perspective and objective of those doing the defining (Korsi *et al.*, 2001). As a result, a range of definitions exist, influenced by different disciplinary approaches and ideologies. The dominant Western definition since World War II has defined poverty in monetary terms, using levels of income or consumption to measure poverty and defining the poor by a headcount of those who fall below a given income or consumption level or 'poverty line' and the recognition that defining poverty in traditional consumption and expenditure terms is insufficient on its own to address the needs of the poor themselves has led to the inclusion of human and social welfare indicators in development indices and poverty alleviation programmes.

The Government of Ireland's Annual Report (2007) also put across that,

People are living in poverty if their income and resources (material, cultural and social) are so inadequate as to preclude them from having a standard of living which is regarded as acceptable by society generally (p.3).

People living in poverty lack the necessary resources to be able to consume a certain minimum basket of goods. This basket consists of food, clothing, housing and other essentials of life. Poverty is therefore deprivation, the denial of access to those things which make a life of dignity possible, including not only food, shelter and safe drinking water, but also such 'intangibles' as the opportunity to learn, to engage in meaningful employment to earn a decent living or to enjoy the respect of one's fellow. According to the World Bank (2000):

Poverty is hunger. Poverty is lack of shelter. Poverty is being sick and not being able to see a doctor. Poverty is not being able to go to school and

not knowing how to read. Poverty is not having a job, is fear for the future, living one day at a time. Poverty is losing a child to illness brought about by unclean water. Poverty is powerlessness, lack of representation and freedom (p.44).

It is however important to note that, poverty is traditionally defined by those who regard themselves as the social superior of the poor (Friedmann, 1992) and based on the analysis of the above definitions, this study can conclude that; to be poor is to be deprived of the means for a decent life, lack of opportunity and empowerment and bad quality of life in general. Deprivations of poverty may therefore include:

- Income: The lack of means to purchase basic goods and services.
- Consumption: Inadequate access to basic goods such as food and water.
- Capability: Insufficient knowledge, health or skills to fulfill normal livelihood functions.
- Living conditions: Poor housing, unhealthy or dangerous environment, and bad social relations.

Poverty therefore has a negative effect on people's quality of life, on the opportunities open to them and on their ability to participate fully in society. It can also be suggested that it is difficult to break out of the cycle of poverty, as poor children are more likely to become poor adults.

Again, the Government of Ireland's Annual Report (2007) highlights that there is no single measure that gives a complete picture of the situation regarding deprivation, poverty and social exclusion. Therefore, a number of indicators are used to measure progress in achieving economic and social inclusion covering areas such as Income (risk of poverty rate), Deprivation (levels of material, social and economic deprivation), Education (early school leaving, low reading literacy performance of pupils, academic attainments and others), Employment (long-term unemployment rate, jobless households and employment gap of immigrants), Health (short life expectancy, child mortality and diseases) are among other important indicators.

Therefore there are a number of structural factors that contribute to the existence of poverty. The uneven distribution of economic resources such as wealth, employment and infrastructure as well as social resources like health services, education, transport and housing, means that not all people have the same opportunities (Combat Poverty Agency, 2007).

Even though in recent times, non-income indicators such as access to health, education, housing, security and the level of employment have been increasingly considered in the measurement of poverty, the use of the poverty line is still widely used in Ghana (Government of Ghana, 2002). In other words, though the Ghana Poverty Reduction Strategy (GPRS) for example viewed poverty as multidimensional, the basis of the analysis and projections were, to a large extent, based on the poverty line.

In the view of the Food and Agriculture Organization (FAO, 2012), important milestones have been attained in terms of poverty reduction in Ghana, as the proportion of the population below the national poverty line (below US\$2 a day) fell from 40 percent in 1998-99 to 29 percent in 2005-2006. Nevertheless, inequalities are still significant between urban and rural areas, and between regions. With a Human Development Index (HDI) of 0.467, Ghana ranks 130 out of 160 countries, and this is above the Sub-Saharan Africa average (0.389). Owusu *et al.* (2003) also confirm that in general terms, there is a general decline in poverty level in Ghana; however poverty is still substantially higher in rural areas than urban areas, so that poverty in Ghana is disproportionately a rural phenomenon. In terms of the distribution with reference to locality (rural and urban), the largest proportion of over 80 percent of the population classified as poor can be found in rural areas. Low productivity and poorly functioning markets for agricultural outputs are among the main causes of rural poverty in Ghana as put across by FAO (2012).

Table 2.2 shows that inequalities still exist between urban and rural areas in Ghana: the rural population is 3.3 times poorer than the urban population. Also, inequalities in income distribution still exist as indicated by the Gini coefficient of income: 43 percent (with 0 percent indicating perfect equality and 100 percent maximal inequality).

Table 2.2: Poverty and Inequality Indicators in Ghana

Indicators (2006)	Percentage (%)
National Poverty Headcount	28.5
Rural Poverty Headcount	39.3
Urban Poverty Headcount	10.8
Gini Coefficient of Income	43.0

Source: FAO, 2012.

Among the causes of rural poverty in Ghana according to the government's poverty reduction strategy paper is low productivity and poorly functioning markets for agricultural outputs. Small-scale farmers rely on rudimentary methods and technology and they lack the skills and inputs such as fertilizer and improved seeds that would increase yields. Because of erosion and shorter fallow periods, soil loses its fertility, posing a long-term threat to farmers' livelihoods and incomes. Increasing population pressure also leads to continuous cultivation causing further deterioration of the land which is a determinant of life in the rural area (IFAD, 2006).

According to IFAD's Rural Poverty Report (2001),

The majority of the world's poor are rural, and will remain so for several decades. Poverty-reduction programmes must therefore be refocused on rural people if they are to succeed. Poverty is not gender-neutral; women enjoy less access to and control over land, credit, technology, education, healthcare and skilled work (p.3).

Poverty reduction or poverty alleviation is therefore any process which seeks to reduce or minimise the level of poverty in a community, among a group of people or countries. Poverty reduction programs may be aimed at economic or non-economic poverty as these efforts may aimed at removing social and legal barriers to income growth among the poor (Wikimedia Foundation Inc, 2008). Poverty is also multidimensional and therefore poverty reduction efforts have to be multi-targeted and they should show wide and diverse dimensions. The solutions have to straddle different disciplines and must encompass economic, social, political and institutional factors.

In this study, poverty reduction is thus defined as a collective responsibility to fight all avoidable forms of deprivation. It should involve collaboration to:

- Make poor people less poor
- Enable poor people to escape from poverty
- Build institutions and societies that prevent people from becoming poor or from slipping further into poverty.

It is therefore important at this point to examine sustainable livelihoods and poverty within the context of vulnerability. Soussan *et al.* (2001) give explanation that vulnerability is both a condition and a determinant of poverty, and refers to the ability of people to avoid, withstand or recover from the harmful impacts of a

shock. Within the context of the livelihoods framework, vulnerability is a dynamic notion, which captures the sense of a threat posed by adverse events. These events can take several forms, and include spasmodic as well as long-term trends or shifts relating to environmental and natural resource, economic, social and health conditions (World Bank, 1995). When viewed from a people-centered perspective, vulnerability is the risk that a household or an individual will experience a shock caused by an event over which she/he has no control. Whilst these shocks are 'external' in the sense that those who are vulnerable have no control over them, the impact of these events are internalised and affect the asset base on which individuals, households and communities depend. As given by Moser (1998),

Vulnerability is therefore closely linked to asset ownership. ..The means of resistance are the assets and entitlements that individuals, households, or communities can mobilise and manage in the face of hardship. ..The more assets people have, the less vulnerable they are, and the greater the erosion of people's assets, the greater their insecurity (p.10).

Korsi *et al.* (2001) also provide indication that, within the specific context of Ghana, the most vulnerable to external shocks are the rural poor, who rely heavily upon their natural resource asset base, and are thus susceptible to environmental events, whether one-off, seasonal or part of a long-term trend, and the urban poor whose livelihood strategies primarily depend upon income-generation, and are thus vulnerable to economic shocks, such as currency collapse, inflation and unemployment.

The various interpretations and elaborations of the livelihood concept have, in one way or another inspired a number of development agencies to apply what is now becoming known as sustainable livelihood approach to poverty reduction. This has emerged not only in response to negative experiences with conventional approaches to poverty reduction, but also as a result of recent findings regarding the nature and understanding of poverty.

Three factors shed light on why the sustainable livelihood approach has been applied to poverty reduction (Krantz, 2001).

- The realization that while economic growth may be essential for poverty reduction, there is no automatic relationship between the two since it all depends on the capabilities of the poor to take advantage of expanding

economic opportunities. Thus, it is important to find out what precisely it is that prevents or constrains the poor from improving their lot in a given situation, so that support activities could be designed accordingly.

- The realization that poverty as conceived by the poor themselves is not just a question of low income, but also includes other dimensions such as bad health, illiteracy, lack of social services, and so forth, as well as a state of vulnerability and feelings of powerlessness in general. Moreover, it is now realized that there are important links between different dimensions of poverty such that improvements in one have positive effects on another. For example, raising people's educational level may have positive effects on their health standards, which in turn may improve their production capacity.
- The recognition that the poor themselves often know their situation and needs best and must therefore be involved in the design of policies and projects intended to better their lot. Given a say in any project design, they are usually more committed to implementation.

Thomson (2000) finally maintains that, policy in itself can be analyzed conceptually at a number of different levels. In its broadest sense, the term policy can be used to include projects, programmes, strategies, plans and their implementation, in fact every element of public or collective decision-making and therefore a Sustainable Livelihood Approach (SLA) to poverty reduction can therefore change our perspective at the policy level in a number of different ways including the following:

- At a very fundamental level, a sustainable livelihood analysis may improve analysts' understanding of how existing policy, and the resulting institutions and structures, affect the livelihood possibilities of the poor. In particular, analysis of experience at the micro-level may help identify important micro-macro linkages.
- A sustainable livelihood analysis can provide a common framework and language for analysts and policy makers from different sectors. In some ways, it could be argued that the development of sustainable livelihood analysis is analogous to Sen's development of the entitlement approach in food security. Similarly the adoption of sustainable livelihood terminology may improve communications and broaden out the agenda

for poverty reduction.

- The more a sustainable livelihood analysis underlies the collection of data on poverty, case study data and survey data, the better the quality of information flowing up to the policy makers. The better policy makers understand the diversity and complexity of livelihood opportunities facing the poor, the more likely that policy choice will improve.

Therefore the fundamental question, for both governments and donors is, does the SLA make it easier or more effective to address the issue of poverty, or does it simply provide a different slant on an intractable problem? And if it does provide a practical approach to improving poverty reduction policy, in which of the areas outlined above will government and/or donors get the greatest return for focusing their efforts?

2.7 Lessons from the Review of Literature

Upon reviewing the livelihood concept (and the sustainable livelihood approach), livelihood diversification strategies for rural households among others, the following lessons or analysis can be made:

- By drawing attention to the multiplicity of assets that people make use of when constructing their livelihoods, the sustainable livelihood approach produces a more holistic view on what resources, or combination of resources, are important to the poor, including not only physical and natural resources, but also their social and human capital.
- The above approach also facilitates an understanding of the underlying causes of poverty by focusing on the variety of factors, at different levels, that directly or indirectly determine or constrain poor people's access to resources or assets of different kinds, and thus their livelihoods.
- The SLA has an in-built participatory feedback mechanism that can contribute to improving the design and implementation of projects, making them more relevant to livelihood issues encountered at the local level. The approach therefore appears to institutionalize risk management and encourages partnerships.
- However, the sustainable livelihood approach discussed here does not really deal with the issue of how to identify the poor that we are trying to assist and this can be described as a major gap in livelihood literature. The SLA may

indeed help us to understand the poor, but do not really help us to reach them. To be able to prepare the ground for effective livelihood analysis, the people (and particularly poor people, with their diverse characteristics), who are at the centre of livelihood analysis must be clearly identified. This would encourage us to think not in terms of “communities”, or “the poor” in general, but rather to focus in detail on how different individuals and households within communities, or different groups of poor people, have different livelihood outcomes, different access to livelihood assets and are affected by other factors in different ways. Key characteristics of these groups that need to be taken into account may include gender issues, age, ethnic and personal background as well as the characteristics of the locations or ecological zones where they live and work or obtain their livelihood.

2.8 Conclusion

This chapter assessed other existing literature, practical experiences and a conceptual framework based on sustainable livelihoods. Among the key elements in literature that this study focused on include livelihood diversification strategies (or combination of activities and choices) that rural households can adopt in order to exploit multiple assets and sources of income. The next chapter therefore examines the research methodology that was adopted for this study including the design, sampling techniques and mode of data collection and so forth.

CHAPTER THREE

RESEARCH METHODOLOGY AND PROFILE OF THE STUDY AREA

3.1 Introduction

The overview of this study as well as the relevant literature highlighting the conceptual framework were presented in chapter one and chapter two respectively. This chapter discusses the research techniques that were adopted for the study including the design, sources of data, sampling and sample size determination, data analysis and the location of the study area.

3.2 Research Approach

A participatory approach was adopted for this study since the research was conducted with rural households whose life and meaningful actions were under study.

The approach was therefore an interactive process (Bennett *et al.*, 2004), rather than an exercise of extracting information from the people and this increased the effectiveness of the research and any policy recommendation arrived at is likely to make sense to those affected.

The ultimate argument here is that, rural people have in-depth knowledge about their circumstances and livelihood systems and must therefore be assisted to articulate their feelings and problems, and recommend solutions to enhance the relevance and applicability of the research findings (Cornwall and Jewkes, 1995; Bennett *et al.*, 2004).

3.3 Research Design

A cross-sectional design was adopted for the study. Data was collected from selected households to answer questions of interest (Mann, 2003). Therefore the information needs of this research were provided by the selected population and only households who have adopted either Grasscutter: *Thryonomys swinderianus*; edible Mushroom: *Pleurotus ostreatus* and edible Snail: *Achatina achatina* production in addition to their traditional or primary livelihoods to improve their livelihood options were selected and interviewed.

The study focused on the above three alternative activities because they are the most commonly practiced alternative livelihoods in the Asutifi District but it appears that there is no empirical evidence in literature about their income or economic potentials which could impact on policy as a means of addressing rural poverty in the district.

The study also employed the simple random sampling method to select a sample of 138 heads of household from a population of 215 households practicing the alternative livelihoods under study. This was to help ensure a higher level of precision and representation.

3.4 Sources of Data and Research Instruments

The method adopted for this special study involved data collection from both primary and secondary sources. The primary source was the direct data obtained from the field. Apart from the rural households involved in the livelihood activities under study, other stakeholders such as the Bemcom Youth Training and Resource Centre, the District Assembly, Asutifi District Agricultural Development Unit and Newmont Ghana Gold Limited were also interviewed. This aspect therefore involved the use of standard questionnaires and an interview guide including necessary observations. Relevant literature was also consulted. These data collection instruments were used in order to obtain adequate and relevant data for the study.

3.5 Sampling and Sample Size Determination

A non-probability technique called purposive sampling was used based on the purpose or objectives of the study. Here, only households involved in the alternative or adopted livelihood activities in question (Grasscutter: *Thryonomys swinderianus*; edible Mushroom: *Pleurotus ostreatus* and edible Snail: *Achatina achatina* production) were selected and interviewed. This technique helped to reduce variation, simplified the analysis and provided enough justification to make generalizations from the sample that was studied (Patton, 2002).

A quantitative approach was used to determine the sample size using the formula:

$$n = \frac{N}{1 + N(\alpha)^2} \quad \text{where,}$$

n= Sample Size

N= Sample Frame

α = Margin of Error

According to the Bemcom Youth Training and Resource Centre (A livelihood training centre in the Brong Ahafo Region) and the District Directorate of the Rural Enterprise Project, a total of 215 households have been trained over the years and assisted to practice the livelihood activities under study in the Asutifi District and therefore with

a confidence level of 95% and confidence interval or margin of error of 5%, the sample size was determined as;

$$n = \frac{215}{1 + 215(0.05)^2}$$

Therefore, n= 138: This means that 138 out of the 215 households were interviewed.

3.6 Research Variables and Units of Analysis

A variable is any factor that can be manipulated and measured, and can take on different values. Thus, a variable can change in quantity or quality (Shuttleworth, 2008). Shuttleworth (2008) again stresses that a unit of analysis is the most elementary part of what is being studied, and can range from individual to groups, institutions, countries and beyond. In relation to the above definition, the units of analysis for the study were household heads engaged in Grasscutter: *Thryonomys swinderianus*; edible Mushroom: *Pleurotus ostreatus* and edible Snail: *Achatina achatina* production in addition to their traditional livelihoods. Other institutions were also interviewed and they include the Bemcom Youth Training and Resource Centre (BYTRC), the District Assembly, Asutifi District Agricultural Development Unit (ADADU) and Newmont Ghana Gold Limited (NGGL).

Table 3.1: Identified Variables and Sources of Data

Variable	Type of Data	Sources
Stakeholder contribution	Available institutions or organizations and the activities they perform for households in the study area	ADADU, BYTRC, NGGL, District Assembly, Households
Household characteristics	Information on Age, Sex, Household size, Educational level	Households
Traditional livelihoods	Information on major livelihoods, nature, income levels, major problems	Households, ADADU, BYTRC, NGGL, District Assembly
Alternative or adopted livelihoods	Information on distribution, reasons for adoption, source of start-up capital, income level	Households, ADADU, BYTRC, NGGL, District Assembly
Benefits from combining traditional and adopted livelihoods	Information on current state of employment, income, vulnerability, poverty and welfare	Households, ADADU, BYTRC, NGGL, District Assembly

Source: Author's Construct, May 2013.

3.7 Data Analysis

After the survey, the Statistical Package for the Social Sciences (SPSS) was used to ensure that the relevant portions of the data were translated into statistical tables and diagrams to give a picturesque description about the situation which were followed by an interpretation of these statistical tables and diagrams into meaningful information to give ideas and drawing of inferences and conclusions leading to the realization of the research objectives.

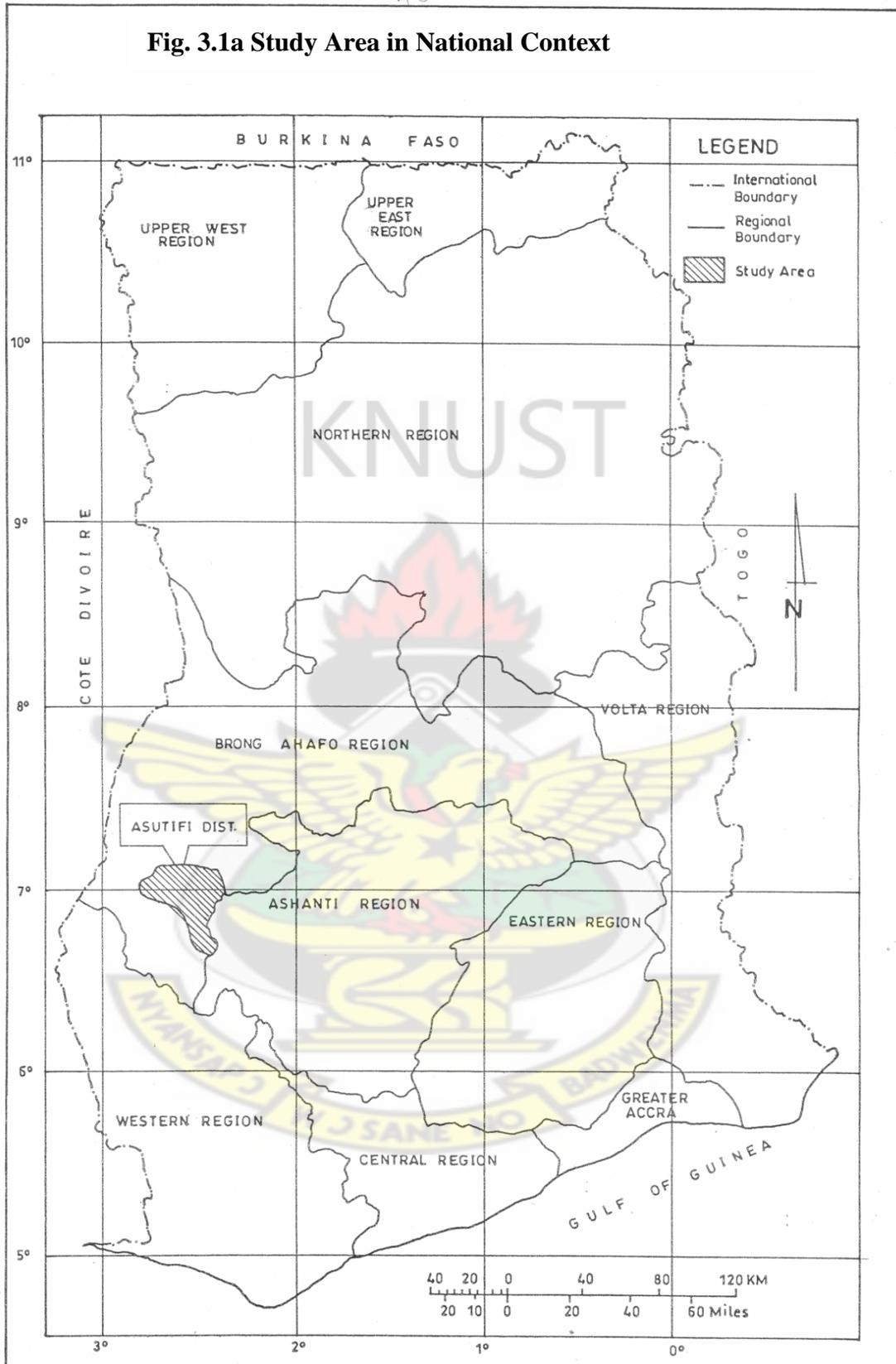
3.8 Profile of the Study Area

The Asutifi District was created in 1988 out of the Colonial Ahafo Region and is classified by the Ministry of Local Government as deprived (Asutifi District Medium Term Development Plan-DMTDP, 2010). The district economy is mostly agrarian and agriculture is in the hands of peasant farmers who still depend on rudimentary methods for production. As a result, output is low, soil is fast depleting and environmental degradation is setting in to disturb the once ecologically balanced semi-deciduous forest. Household incomes are generally low and poverty is widespread. With the upsurge of mining activities in the district, access to land is now limited in the mining affected communities compounding already existing poverty levels (Asutifi DMTDP, 2010).

3.8.1 Physical Characteristics

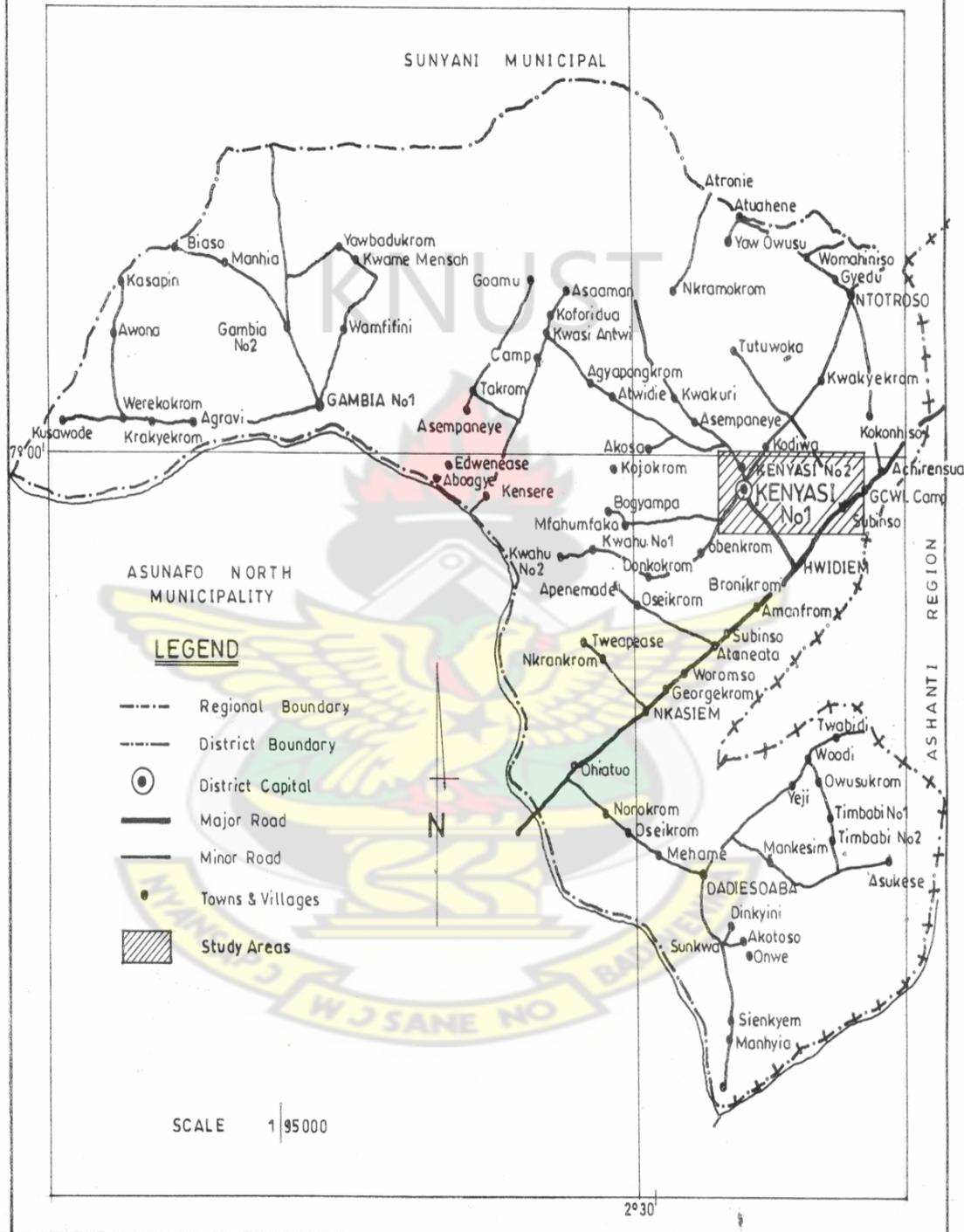
According to the Asutifi DMTDP (2010), the district is one of the nineteen districts in Brong Ahafo Region. It is located between latitudes 6°40' and 7°15' North and longitudes 2°15' and 2°45' West. It shares boundaries with Sunyani in the North, Tano South District to the North East, Dormaa District to North West, Asunafo North and South Districts in the South West and Ahafo Ano South and North Districts (Ashanti Region) in the South East. With a total land surface area of 1500 sq.km, the district is one of the smallest in the Brong Ahafo Region with 117 settlements.

Fig. 3.1a Study Area in National Context



Source: Asutifi District MTDP, 2010.

Fig. 3.1b Asutifi District Map



Source: Asutifi District MTDP, 2010.

The district lies within the forest dissected plateau physiographic region with average height of about 700 feet above sea level. The lowest part is about 650ft above sea level found along the river basins whilst the highest point is found within a chain of mountains in the north east reaching a height of 1400 feet above sea level. These mountains form water shed for the many tributaries of the Tano River and other streams (Asutifi DMTDP, 2010). The district lies within the wet semi-equatorial zone marked by double rainfall maxima; June and October with a mean annual rainfall between 125cm and 200cm. The first rainy season is from May to July (maximum) and the second rainy season is from September to October (minimum) when the district comes under the influence of the Wet Maritime Air mass. The district has a moist semi-deciduous forest. Man's activities notably farming, lumbering and occasional bush fires have however disturbed this vegetation. This has transformed some areas into a derived wooded savanna (Asutifi DMTDP, 2010).

Perhaps the most important potentials for the development of the district lies in the abundant natural resources in the areas of forest and forestry products, good soil of high agronomic value, sand, clay and mineral deposits like gold, diamond, and bauxite (Asutifi DMTDP, 2010). A variety of crops ranging from cash to food crops grow well in the district. The major crops cultivated in the district include cassava, maize, cocoyam, oil palm, cocoa, vegetables legumes and plantain. The district is one of the leading producers of plantain in the nation. However, the inadequate access to Agricultural Extension Services and the use of rudimentary practices in farming have greatly contributed to the degradation of the forest vegetation and hindered the full realization of the potential crop yield (Asutifi DMTDP, 2010).

3.8.2 Demographic Characteristics

According to the Ghana Statistical Service (GSS, 2010), the population of the Asutifi District was estimated to be 105,843 in the year 2010 with 55,046 males and 50,797 females constituting 52 percent and 48 percent respectively. The average household size for the Asutifi District is 4.4. The predominant occupation in the District is subsistence agriculture which engages the majority of the economically active labour-force. About 91 percent of those engaged in other occupations outside agriculture still take up agriculture as a minor activity. The next occupation after agriculture, the service sector, takes up 27 percent. This situation (27 percent) can be attributed to the

upsurge of mining activities in the district coupled with the influx of migrants and the demand for mining related services. From analysis, a substantial amount of household expenditure of 51 percent is spent on food though agriculture is the predominant occupation. This reflects low production in the agricultural sector (Asutifi DMTDP, 2010).

3.8.3 Economic Characteristics

Crop farming constitutes the major source of income in the district, and accounts for about 51 percent of all incomes. This is followed by wages and salaries 19 percent, business and trading 17 percent, small scale industry 6 percent, rents and remittances 4 percent, livestock farming 2 percent, pension and all other 2 percent (Asutifi DMTDP, 2010). Agriculture employs about 78 percent of the labor force; but the sector is dominated mainly by crop-farming. (Asutifi DMTDP, 2010).

The leading area of household spending is feeding. It represents 59 percent followed by energy 13 percent, transport 10 percent, education 8 percent, health 3 percent, funerals 4 percent and housing 3 percent. Generally, the standard of living of the people is low especially in the non-mining areas. About 49 percent of the people live below the poverty line. The people's access to basic facilities and services is also limited (Asutifi DMTDP, 2010).

3.9 Conclusion

This chapter basically discussed the procedural methods that were adopted for the study including the research approach and design, sources of data and research instruments as well as how the data that were obtained from the field were analyzed. A mathematical approach explaining how the sample size was determined and a brief description of the study area has also been outlined in this chapter. The next chapter presents the data obtained from the field and analysis or inferences based on the data.

CHAPTER FOUR

PRESENTATION OF DATA AND ANALYSIS

4.1 Introduction

The chapter one, chapter two and chapter three of this study provided an overview, conceptual framework and the research methods respectively. This chapter presents an analysis and findings based on the data obtained from the field. The research instruments were designed to collect information that addressed the objectives of the study. Therefore, the traditional or existing livelihood options in the Asutifi District and problems faced by households with respect to their traditional livelihoods as well as the economic importance of some selected additional or adopted livelihoods have been analyzed.

4.2 Institutional Analysis

Households in the Asutifi District do not stand in isolation in pursuance of their livelihoods since there are other groups or institutions that have “interest” or “responsibilities” with respect to the livelihood of these households. It is therefore very necessary to identify these key groups or institutions, assess their “interest” and the ways in which such “interest” affects the livelihood of these rural households.

4.2.1 Bemcom Youth Training and Resource Centre (BYTRC)

The Bemcom Youth Training and Resource Centre has been in existence for the past sixteen years to provide livelihood training for rural communities especially the youth to undertake activities towards national development. The centre started with edible Mushroom (*Pleurotus ostreatus*) training in 1997 and other activities such as Grasscutter (*Thryonomys swinderianus*) rearing. Edible Snail (*Achatina achatina*) production was later added to enhance the options available for individual beneficiaries who may practise these non-traditional activities as their means of living.

The centre has trained almost 3000 individuals over the years under the various alternative livelihood categories as presented below:

Table 4.1: Livelihood Categories and Number of Persons Trained

Livelihood Category	Number of Persons Trained	Percentage (%)
Grasscutter Production	975	34
Snail Rearing	620	21
Mushroom Cultivation	836	29
Bee Keeping	112	4
Rabbit	73	2
Fish Farming	289	10

Source: Author's Field Survey, May 2013.

Apart from Grasscutter: *Thryonomys swinderianus*; edible Mushroom: *Pleurotus ostreatus* and edible Snail: *Achatina achatina* training, other emerging livelihoods being promoted by the centre as illustrated in Table 4.1 include Bee-Keeping, Rabbit and Fish farming on commercial basis. It can also be seen that fish farming, also known as *aquaculture* is becoming popular and it is therefore worth mentioning that, according to the 2013 Budget Statement, the output of the Fishing sub-sector, which contracted by 8.7 percent in 2011, grew by 2.3 percent in 2012 due partly to the significant investments in the aquaculture component of the Youth in Agriculture Programme (Ministry of Finance and Economic Planning-MoFEP, 2013). This situation is therefore a clue that non-traditional livelihoods can provide a basis for sustainable youth employment and entrepreneurship development if the government continues to provide financial and material support to the youth to practise them for a living.

However, a major challenge to the youth is the cost of training and their inability to obtain start-up capital to practise them on commercial basis. The cost of the training in any of the above activities is usually borne by the trainee. Individuals pay at least GHC 300 to undergo two to three days training programme.

4.2.2 District Assembly

The Asutifi District Assembly supports the practice of alternative livelihoods as a means of enhancing the livelihood portfolio of rural people by way of continually building the capacity of its specialized departments and agencies such as the Business Advisory Centre (BAC) and the Rural Enterprise Project (REP) to provide business and entrepreneurial advice to those who practise these activities for a living.

Table 4.2: Asutifi District Assembly's Support through BAC and REP

Livelihood Category	Nature of Support	Opportunities	Potential to Reduce Poverty
Grasscutter Rearing	Skill training, Start-up capital	Market	Yes
Mushroom Production	Skill training	Market	Yes
Snail Farming	Skill training	Market	Yes

Source: Author's Field Survey, May 2013.

From the study, available market exists in the district for the products of the livelihood activities under study. For example, the presence of Newmont Ghana Gold Limited alone has expanded the demand for these products (Grasscutter: *Thryonomys swinderianus*; edible Mushroom: *Pleurotus ostreatus* and edible Snail: *Achatina achatina*) as the staff of the company within the District demands these products on daily basis. This suggests that practising the above livelihood activities can address poverty in the district as a result of their income generation potential (Table 4.18) as well as their ability to enhance the natural resource base of the district. For example, Grasscutter (*Thryonomys swinderianus*) domestication can considerably reduce bush fires which may destroy the vegetation cover since the local people can now have access to Grasscutter (*Thryonomys swinderianus*) meat without hunting them from the wild by setting fire to destroy protected forests in the area.

4.2.3 Asutifi District Agricultural Development Unit (ADADU)

With farming as the major or the traditional activity in the Asutifi District, the ADADU mentioned (during the interview) Plantain, Maize, Cocoyam, Rice and Yam as the major agricultural crops cultivated in the District. Table 4.3 below presents the major agricultural crops grown in the Asutifi District and the common or general challenges faced by farmers in the practise of their livelihood.

Table 4.3: Major Agricultural Crops Cultivated and Common Challenges

Food Crop Farming	Challenges
Plantain	Finance
Maize	Poor Farming Techniques
Cocoyam	High Cost of Labour
Rice	
Yam	

Source: Author's Field Survey, May 2013.

Among the identified problems associated with traditional food crop farming according to the ADADU is finance that would enable farmers to obtain agricultural inputs such as fertilizer and seedlings to increase farm yield. Traditional food crop farmers in the Asutifi District also lack the technology to increase production but these farmers refuse to accept this notion and to seek better farming skills such as fertilizer application, seed and land preparation, planting and spacing, among others from the ADADU. This implies that if farmers continue to use rudimentary practices, they are likely to waste arable land as a quantity of seedlings that can be planted on an acre of land would be used to cover about five acres through traditional farming methods and this can affect their level of production.

In addition, high cost of labour (which ranges from GH¢ 15 to GH¢ 20 per daily clearing of land) is affecting farming since many people especially the youth are turning attention to small scale mining with few people left as labour on farms. The few able-bodied youth have also taken advantage of the labour situation to “exploit” farmers as their “mine”. In an attempt to address the labour issue in farming, the ADADU introduced the use of chemicals but these farmers are now poisoning their food crops due to the overuse of these chemicals on their farms. Due to the above challenges faced by people who practice farming, some households may not be able to operate these livelihoods as a vibrant business. After production or harvesting, some farmers fail to reinvest in their activity because output and income are low. This condition therefore calls for the need for the ADADU to collaborate with other agencies such as the Business Advisory Centre and the Rural Enterprise Project to provide business and financial management advise to farmers to undertake their activities as business enterprise. Among the major alternative livelihoods and the areas in the district where they are practised can be found in Table 4.4.

Table 4.4: Alternative Rural Livelihoods in the Asutifi District

Activities	Areas Where they are Practised
Grasscutter Domestication	Obenkrom, Ntotroso
Snail Rearing	Wamahinso
Mushroom Production	Goamu-Camp
Bee Keeping	Mahame
Fish Farming	Dadiesoaba

Source: Author’s Field Survey, May 2013.

From Table 4.4, it can be inferred that non-traditional or alternative livelihoods as an expansionary measure by the rural people to create new or additional livelihoods is

becoming widespread in the various communities. Therefore a desk office has to be set up to provide the needed support or extension services to those who practice them for income. This is because the above livelihoods can be described as the best complementary options for rural people especially farmers. For example, a farmer can go to the farm during the day and take care of his Snail or Grasscutter (*Thryonomys swinderianus*) or water his Mushroom (*Pleurotus ostreatus*) during the evening so that in case of crop failure, he/she can at least get something to survive on. Again, a farmer can use for example the Mushroom for food due to its high nutritional value and this can even help the farmer to save the money intended for meat for other living expenses.

4.2.4 Newmont Ghana Gold Limited (NGGL)

Newmont Ghana Gold Limited as a corporate organization provides support towards the livelihoods of the rural people in the Asutifi District. This is done through three key programmes namely; Agriculture Improvement and Land Access Programme (AILAP), Vulnerable Peoples Programme, Skills Development and Improvement Programme. The above named programmes are in place to help people whose primary livelihoods are being affected as a result of mining operations to re-establish or create new livelihoods including land access and skill training.

Since food insecurity is becoming a major problem in mining communities in the country, the company has to adopt strategies to help households to increase or at least maintain the baseline of production by helping affected farmers to get access to land (with the company paying for the cost of the land), inputs among others. This will encourage some of the local people to at least go back into agriculture after their means of livelihoods are affected by mining operations. Again, it also in the right direction for the company to provide skill training and financial assistance to people who are interested and have adopted Grasscutter: *Thryonomys swinderianus*; edible Mushroom: *Pleurotus ostreatus* and edible Snail: *Achatina achatina* production as a means of securing additional livelihoods since these alternative livelihoods would at least provide income and employment to people negatively impacted by mining. This is also likely to reduce the “agitations” usually experienced by the company and the affected communities.

4.3 Household Analysis

The nature or background of the households from whom information were gathered for this study can be seen in Table 4.5 and Table 4.6.

Table 4.5: Age and Sex Characteristics of Respondents

Sex		Age	
Male (%)	Female (%)	Range (Years)	Percent (%)
83	17	Below 18	1
		18-25	16
		25-35	54
		Above 35	29

Source: Author's Field Survey, May 2013.

Approximately 83 percent of the respondents were males and 17 percent were females. It was observed that only 19 percent of the 215 households trained by the BYTRC in the Asutifi District were females as fewer women offered themselves for the training in their own interest. This consequently resulted in the relatively low (17 percent) females captured during the study. This means that, more males participates in the livelihood activities under study than females in the Asutifi District. This could imply that men and women in the district do not have equal participation in livelihood activities. Therefore livelihood interventions in the area should be able to address if possible any barriers that may impede the livelihoods of women in the district.

About 54 percent of the respondents were also aged between 20 to 35 years with only 1 percent aged below 18 years indicating low involvement of young people in the adoption of Grasscutter: *Thryonomys swinderianus*; edible Mushroom: *Pleurotus ostreatus* and edible Snail: *Achatina achatina* production as a livelihood activity in the Asutifi District. The low involvement of young people is the fact that they lack the needed start-up capital to begin their business. It has already been established in this study that even the cost of training poses a great challenge to the youth who would want to participate in the various alternative livelihoods. Even where some of the youth are able to afford the cost of the training, it is likely that they would abandon such initiative if they are unable to secure the necessary start-up capital. This also could imply that providing skill training alone to the youth may not be sufficient to enhance their livelihood options as access to financial and other material resources may become a necessary condition.

Table 4.6: Household Size and Educational Characteristics of Respondents

Household Size		Educational Level	
Range	Percent (%)	Level	Percent (%)
1-3	8	Basic	28
3-6	34	Secondary	6
6-8	56	Non-Formal	52
Above 8	2	Informal	14

Source: Author's Field Survey, May 2013.

It can also be seen from Table 4.6 that, over 56 percent of the people interviewed have household size of six or above which seems to be higher than the district average of 4.4. This appears to be among other reasons why these rural households have adopted multiple livelihoods to improve their income options to cater for their relatively large household sizes. It is also clear from the data gathered that, only 34 percent of the respondents have received formal education (Basic and Secondary level) while about 52 percent have undertaken their educational activities outside the school such as adult literacy courses and agricultural extension services (non-formal education). Lastly, 14 percent have also only participated in other non-school experiences such as learning on the job (informal education). It was observed that, the relatively low level of formal education experienced by households accounts for their high involvement in agriculture (or farming) and its related activities (as depicted by Table 4.7); which requires less sophisticated skills unlike other formal employments such as teaching and other public services. It is believed that, urban areas where households are more likely to have high educational experience, primary employments such as farming may be rare.

4.3.1 The Traditional Livelihood Activities in the Asutifi District

Food crop farming constitutes the major or primary source of livelihood in the Asutifi District, followed by petty trading and livestock rearing as illustrated in Table 4.7.

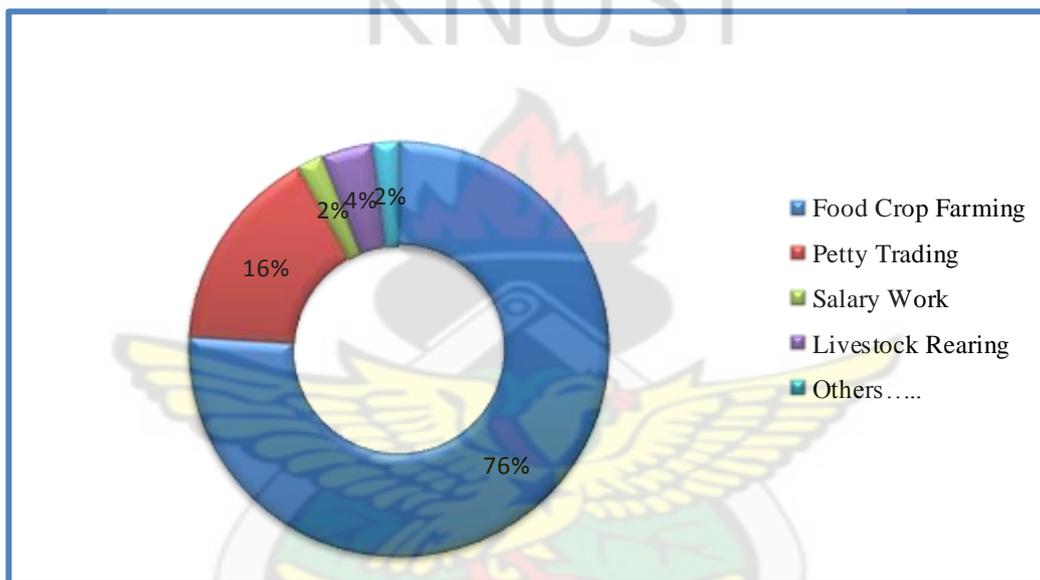
Table 4.7: Traditional Livelihoods in the Asutifi District

Livelihood Activities	Households	Percentage (%)
Food Crop Farming	105	76
Petty Trading	22	16
Salary Work	3	2
Livestock Rearing	5	4
Others:	3	2

Source: Author's Field Survey, May 2013.

Evidence from Table 4.7 and Fig.4.1 therefore demonstrate that food crop farming still continue to play a very key role in the livelihoods of rural households irrespective of its shortcomings. Food crop farming in the Asutifi District consists of a variety of agricultural products and approximately 76 percent of the households surveyed are engaged in food crop farming as their primary livelihood activity. This could mean that the climatic condition of the district favourably supports a number of crops and vegetables such as maize, cassava, plantain, cocoyam, tomato, garden egg, okro and pepper, and thus making it possible for interested farmers to produce them on regular basis.

Fig. 4.1: Primary or Traditional Sources of Income or Livelihood



Source: Author's Field Survey, May 2013.

Again, only 24 percent of rural households interviewed have sources of income other than farming. About 16 percent also engage in petty trading; and the main commercial activity in the district is buying and selling of agricultural and manufactured (industrial) goods. This also forms an important activity to the people of the district. These traders are mostly retailers who buy on market days and in turn sell during non-market days. Some of the agricultural goods that are traded include yams, plantain, cassava, fruits such as oranges, cereals such as maize and rice. Industrial goods that are traded in are farm implements, plastics, footwear, textiles, used clothing, provisions and other manufactured goods. These goods are brought into the market centers from places such as Kumasi, Goaso, Tepa, and Sunyani. The presence of these petty traders is likely to provide available market for farm produce and supply of farm inputs or implements to facilitate agricultural activities in the area.

Livestock sales also represent another income source for rural households in the Asutifi District as about 4 percent of household respondents keep a range of animals such as poultry (domestic fowl), sheep and goats.

Salary work (such as Banking and Teaching) which is not a major characteristic of the rural economy recorded 2 percent. Other sources of income according to the respondents include remittances, tailoring or sewing, rents and pensions; and all these together constitute 2 percent of livelihood options in the Asutifi District.

With farming playing a leading role as the traditional sector employing the majority of the households, one may believe that it is the most lucrative and that is why most people are involved. However, the nature of farming as illustrated in Table 4.8 does not make it possible for the sector to translate its role into the lives of the people in terms of income poverty.

Table 4.8: Nature of Practice of Existing Livelihoods in the Asutifi District

Nature	Households	Percentage (%)
Subsistence	107	77
Commercial	5	4
Both (Subsistence and Commercial)	26	19

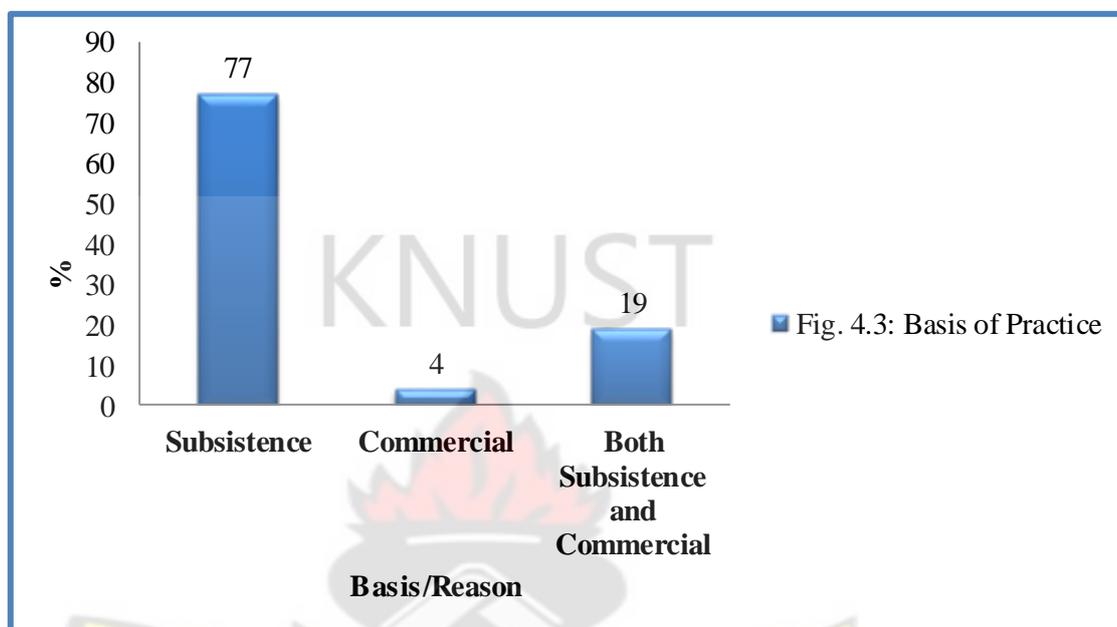
Source: Author's Field Survey, May 2013.

Most of the traditional rural livelihood activities and more specifically food crop farming are practised on subsistence levels. Households in the study area are able to meet food consumption needs only from household food production. About 77 percent of the respondents interviewed practise their livelihood activity as a means or basis of securing adequate food for themselves and their families. This situation is as a result of the nature of the mining operations (surface mining) in the area as well as the pertaining land tenure arrangements which works against large scale or commercial farming due to the limited nature of arable lands in the district. As a result, rural households in the Asutifi District are unable to harness the full potential of farming for their benefit. Post harvest losses also could mean that fewer amounts of produce would be left to sell.

Again, only 4 percent of the respondents practise their livelihood activity on commercial basis as few people have large commercial farms since majority of them are small scale farmers cultivating on small-plot subsistence farms every year.

However, 19 percent of these farmers do not only provide staple foods from their activities for their families, but in addition generate income by selling the surplus produce from their farm yields on the market as shown in Fig. 4.2.

Fig. 4.2: Practice of Traditional Livelihood Activities



Source: Author's Field Survey, May 2013.

As the majority (77 percent) lives on subsistence, the income gains from their traditional livelihoods are relatively low as illustrated in Table 4.9.

Table 4.9: Monthly Income from the Traditional Livelihoods

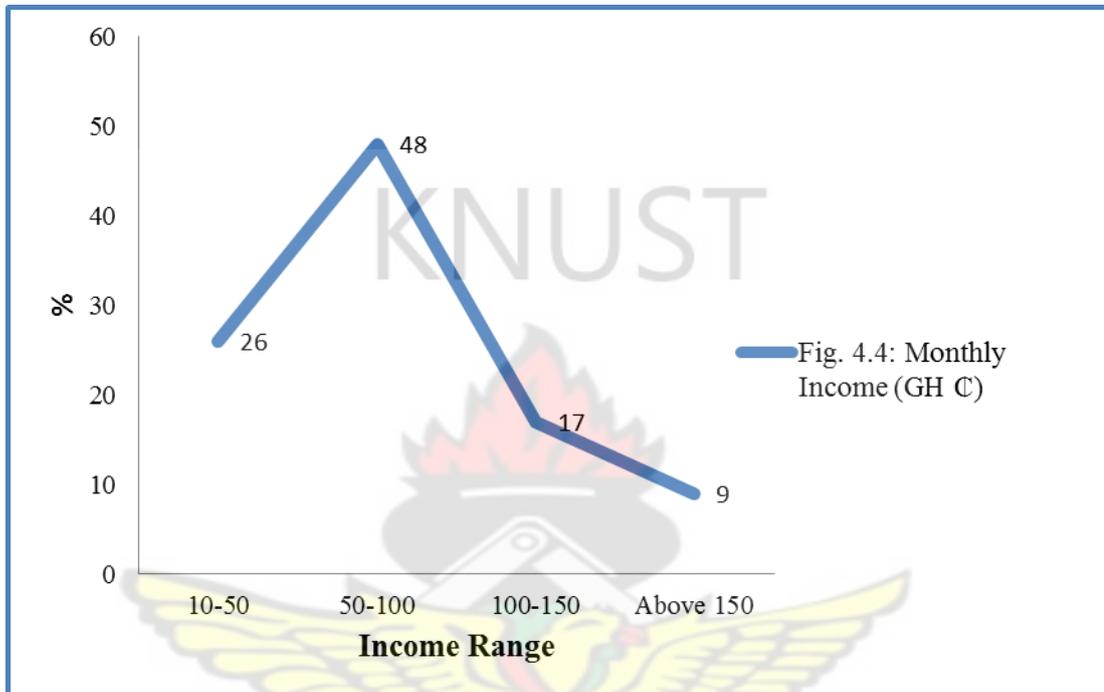
Amount/Income Range (GHC)	Households	Percentage (%)
10-50	36	26
50-100	66	48
100-150	24	17
Above 150	12	9

Source: Author's Field Survey, May 2013.

Food crop farming constitutes the major source of income in the Asutifi District (Fig.4.1). It can also be observed that, about 74 percent of the households receive monthly income of less than GHC 100 (as 26 percent receive income between GHC 10-50 and 48 percent receive between GHC 50-100). Most of the households in this category are small scale food crop farmers and this makes their primary livelihood activity a form of “social investment” as they practise farming to provide food and other basic necessities for themselves and their families on subsistence basis (Fig.

4.2). The few (9 percent) earning income above GH¢ 150 every month are the salary workers and petty traders who deal in agricultural and industrial goods in the district. This therefore buttresses the argument that farmers in the area are the most vulnerable in terms of income poverty.

Fig. 4.3: Monthly Income (GH¢)



Source: Author’s Field Survey, May 2013.

With household’s inability to generate enough income from their traditional livelihoods, the situation in the long run will affect households ability to pay their children’s school fees, clothing, health and other household necessities if they should continue to live on only their traditional livelihoods. Consequently, they would also not be able to save even part of their incomes against contingencies or “bad days”. This suggests that, improving rural livelihoods in the Asutifi District will not only increase food availability for the households but will also raise their incomes and enhance their general welfare.

4.3.2 Identified Livelihood Problems

Among the major problems cited by the households majority of whom are subsistence food crop farmers in the practise of the primary livelihoods include the following:

Table 4.10: Major Problems Relating to the Traditional Livelihoods

Activities	Major Problems
Farming	-Crop failure -Agricultural cycles and commodity pricing -Decline in soil fertility -High cost of labour -Land tenure arrangements
Petty trading, Livestock, Salary work and Others	-Irregular supply of farm produce -Improper housing structures for livestock -Poor veterinary services -Poor financial services and credit

Source: Author's Field Survey, May 2013.

- **Crop Failure:** Occasional crop failure either due to drought or excessive rainfall (floods) affects farmer's livelihoods. Food crop farmers claimed that their food crops are often affected by occasional floods especially in areas where the land have been affected by surface mining activities, leaving a number of the mining pits uncovered. Vegetables such as tomato, garden egg and pepper as well as other food crops also need much rainfall but the erratic and changing nature of the rainfall pattern also affect farmers output and income. Crops affected by pests especially during periods of drought also could mean that farmers have to spend more on inputs such as pesticides and fertilizers as well as irrigation. This ultimately affects farmers' income and livelihood.
- **Agricultural Cycles and Commodity Pricing:** Commodity pricing in terms of food crop farmers receiving higher income for their produce is a problem for most farmers. During peak or harvesting season, the relative abundance of food crops forces farmers to dispose-off or sell their food crops to retailers and food processors at very low prices to the extent that most farmers are unable to recoup the investment made for their production including the cost of inputs. During the off or lean season with less agricultural activities, these farmers are left with nothing to sell and few to survive on. At these times, only farmers who are able to store less perishable crops such as maize would be able to take advantage of higher prices for farm commodities. Subsistence farmers in the Asutifi District often going through these cycles of relative abundance and scarcity makes their livelihood more precarious and often battle for survival if there is no policy to address these challenges.

- Decline in Soil Fertility: Rudimentary farming practices as well as continuous cropping have rendered most farmlands in the Asutifi District less fertile to be able to support food crops. As a result, outputs over the years continue to decline affecting farmer income and livelihood. Uncontrolled and illegal surface mining in the Asutifi District have also caused most arable lands unsuitable for cultivation and appear to be denying people their livelihoods.
- High Cost of Labour: Traditional food crop farmers in the Asutifi District also adopt elementary and labourious practices in their farming activities. As a result, more hands are required to cultivate a small piece of land. Labour on farm over the years have dwindled and gradually leading to high cost of labour for farming. Labour for small scale mining also competes negatively for labour for agriculture and farmers who are unable to afford farm labour at a very high cost resort to subsistence farming on a very small scale. This can seriously affect food production thereby making the cost of living very high in the area.

Fig. 4.4: Small Scale Farmer Transporting Plantain Suckers to His “Small” Farm at Kenyase No.2



Source: Author’s Field Survey, May 2013.

- Land Tenure Arrangements: Within a family set up in the district, land is passed on from generation to generation of which a member is entitled to a portion which he/she can pass it on to the next of kin. This type of land tenure system does not augur well for large commercial and even subsistence farming in the area. Households especially settler farmers would therefore have to undergo difficult processes to acquire portions of land for farming activities on agreed terms. These processes may include share cropping, that is Abunu (a piece of land is given to a farmer and crops are shared equally between the farmer and landowner) or Abusa (Here the farmer takes two-thirds of the crops while the landowner takes the remaining one-third) depending on the type of crop. This circumstance can force the landless households in the area to migrate to the cities to search for non-agricultural related job.
- Lastly, petty traders, households rearing livestock and salary workers also suffer from other problems such as irregular supply of farm produce, inadequate or improper housing structure for livestock, poor veterinary services, poor financial services and credit among others.

Judging from the above, it is undeniable that rural households in the Asutifi District find it difficult to avoid or withstand livelihood stress and shocks and thus make them more vulnerable, thereby giving the impression that rural households do not have to depend on only one source of income or livelihood as doing so would continue to put them at risk and must therefore be encouraged and assisted to adopt new or multiple activities to enhance their livelihood options.

4.3.3 Alternative or Adopted Livelihoods

As a result of the problems outlined above (Table 4.10), rural households have adopted other complementary livelihood activities as a means of supplementing their income options. The basic idea expressed here is that, rural households do not need to scrape off their existing livelihoods but must rather secure additional alternatives and hence the success story from these combinations can be replicated among other rural households through policy.

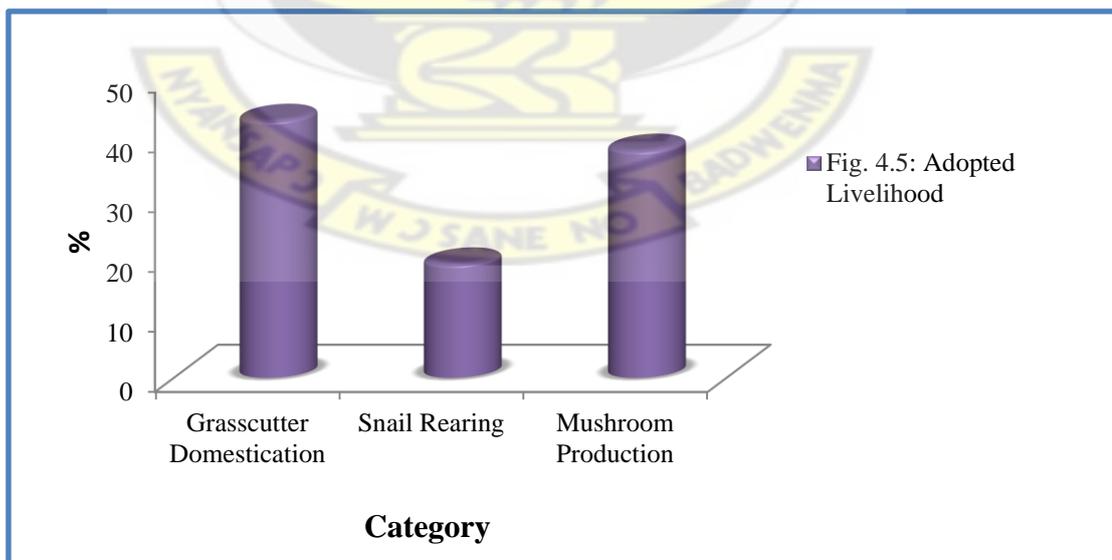
Table 4.11: Distribution of the Adopted Livelihoods by Households

Adopted Livelihoods	Households	Percentage (%)
Grasscutter Domestication	59	43
Snail Rearing	26	19
Mushroom Production	53	38

Source: Author's Field Survey, May 2013.

From Table 4.11, 43 percent of households have adopted Grasscutter (*Thryonomys swinderianus*) domestication, 38 percent in Mushroom (*Pleurotus ostreatus*) production while 19 percent are into edible Snail (*Achatina achatina*) rearing. It can therefore be observed that, all the additional livelihoods practised by the respondents are rural-based employments. The rural setting provides a conducive environment to undertake these activities than the service-oriented urban areas where agriculture related activities are not common. Apart from the fact that all the adopted livelihoods are rural-based employments, they are also natural resource or forest based livelihoods. For example, edible Snail (*Achatina achatina*) rearing or Mushroom (*Pleurotus ostreatus*) production all depends on forest products with respect to their cultivation or production. This also goes to support the argument that livelihoods are to a larger extent influenced by the environment. Figure 4.5 gives a picture of the distribution of the various alternative activities under study in the Asutifi District.

Fig. 4.5: Adopted Livelihood



Source: Author's Field Survey, May 2013.

It can be inferred from Fig. 4.5 that, rural household would find it easy to adopt newly introduced livelihoods if they are natural resource based or related to agriculture.

Households in the area or district based on their “assets” have diversified their livelihoods and among the reasons underpinning their desire to adopt the above additional livelihoods are shown in Table 4.12.

Table 4.12: Reasons for the Adoption of Additional Livelihoods

Reasons	Households	Percentage (%)
-Ease of adoption	15	11
-Mechanism for managing risk	46	33
-Relatively high income and economically sustainable	72	52
-Less space required	5	4

Source: Author’s Field Survey, May 2013.

- **Ease of Adoption:** Grasscutter: *Thryonomys swinderianus*; edible Mushroom: *Pleurotus ostreatus* and edible Snail: *Achatina achatina* have been a major source of protein for many people especially those in the rural areas. These were traditionally obtained from the wild or in their natural environment. However due to bush fire and other human activities, these were gradually becoming extinct and difficult to find. As a result, households were able to easily adopt or embrace their domestication and added them to their livelihood portfolio. It should also be noted that, all the adopted livelihoods are agriculture-related activities and it was therefore less difficult for the local people collaborating with the ADADU in terms of training and assistance. Respondents again hinted that, the training for these activities could even be done between two to five days and hence less time consuming.
- **Mechanism for Managing Risk:** Here, alternative livelihoods can be likened to the polygamous system of marriage in most traditional families (that is, one man to two or more wives) and 33 percent (Table 4.12) of the households reiterated that it is more risky or unsafe to depend on only one source of income especially for people living in the rural areas. It can therefore be observed that, rural households, majority of whom are food crop farmers can avoid some livelihood uncertainties by increasing their livelihood options open to them.
- **Relatively High Income and Economically Sustainable:** Incomes from food crop farming are relatively low (Fig 4.3) and as a result, many farmers derive less benefit from such livelihood. For example, food crop farmers are able to sell less of their farm produce at low prices and in most cases unable to even

recover the cost of production. However, after comparing incomes from the traditional and adopted livelihoods (Fig. 4.9) households argued that the adopted livelihoods usually yield more income than their primary livelihoods and therefore with little financial management skills, they can save and reinvest in these additional livelihoods thereby sustaining their income and other economic benefits associated with them.

- **Less Space Required:** Land for both commercial and subsistence farming pose a major challenge to the livelihoods of many rural households in the Asutifi District. Land tenure arrangements seem not to favour the landless. Households have therefore decided to adopt these activities because they require less space and can even be done at the backyard. For example, a piece of land can be used to raise thousands of edible Snail (*Achatina achatina*) where as Mushroom (*Pleurotus ostreatus*) production can even be done in a room.

In livelihood resource analysis, financial resource appears to be the most limited and it is therefore necessary to examine how households were able to mobilize financial resources to start their adopted livelihoods. Households started their adopted livelihoods with capital from different sources such as personal savings and NGO source.

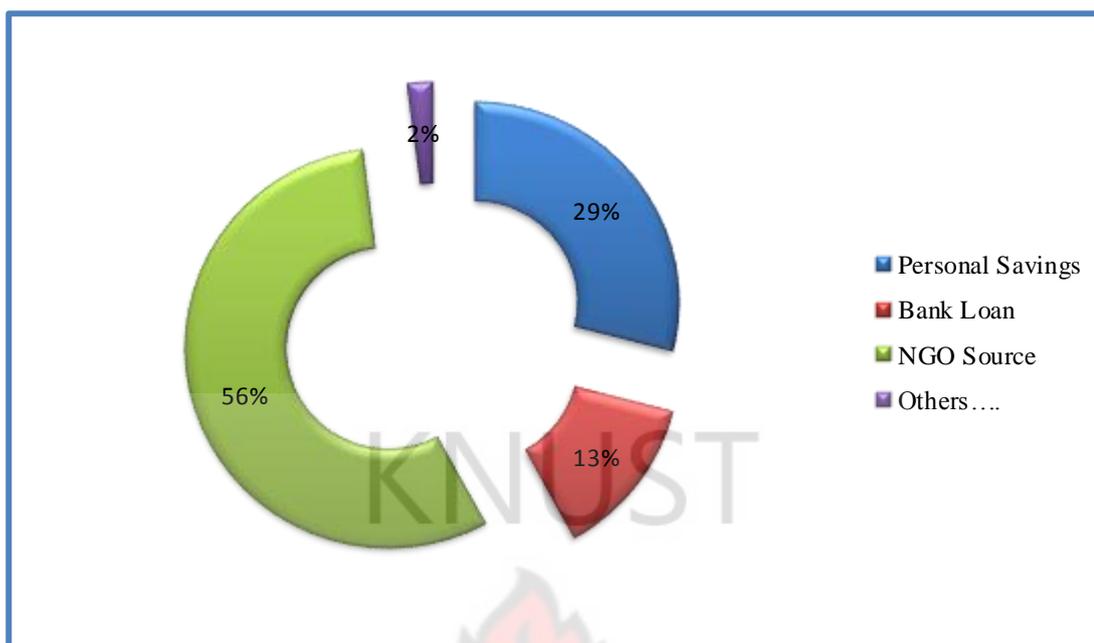
Table 4.13: Sources of Start-up Capital

Sources	Households	Percentage (%)
Personal Savings	40	29
Bank loan	18	13
NGO source	77	56
Others	3	2

Source: Author's Field Survey, May 2013.

Again, financial capital forms an important livelihood asset or resource and approximately 71 percent of households started their adopted livelihood with money from sources other than their personal savings or income. Only 29 percent used their own savings and this can be explained by their low savings capacity resulting from their relatively low income from their traditional livelihoods (Fig. 4.3).

Fig. 4.6: Source of Start-Up Capital



Source: Author's Field Survey, May 2013.

From Fig. 4.6, the majority 56 percent received start-up capital and training assistance from external Non-Governmental Organisations (NGOs) such as ActionAid Ghana through the ADADU. The remaining 2 percent also received their star-up capital in the form of inputs from other well-established households who have practised these adopted livelihoods over a long time in the form of credit.

It can therefore be inferred from the above that, to be able to reduce rural poverty especially in the Asutifi District, financial support to the rural poor in terms of undertaking a livelihood activity can be described as very crucial as many people are unable to start additional livelihoods from their own efforts.

In terms of monthly income from the livelihood activities under study, households earn a relatively high income from their adopted livelihood than their primary livelihoods (as compared in Fig. 4.9).

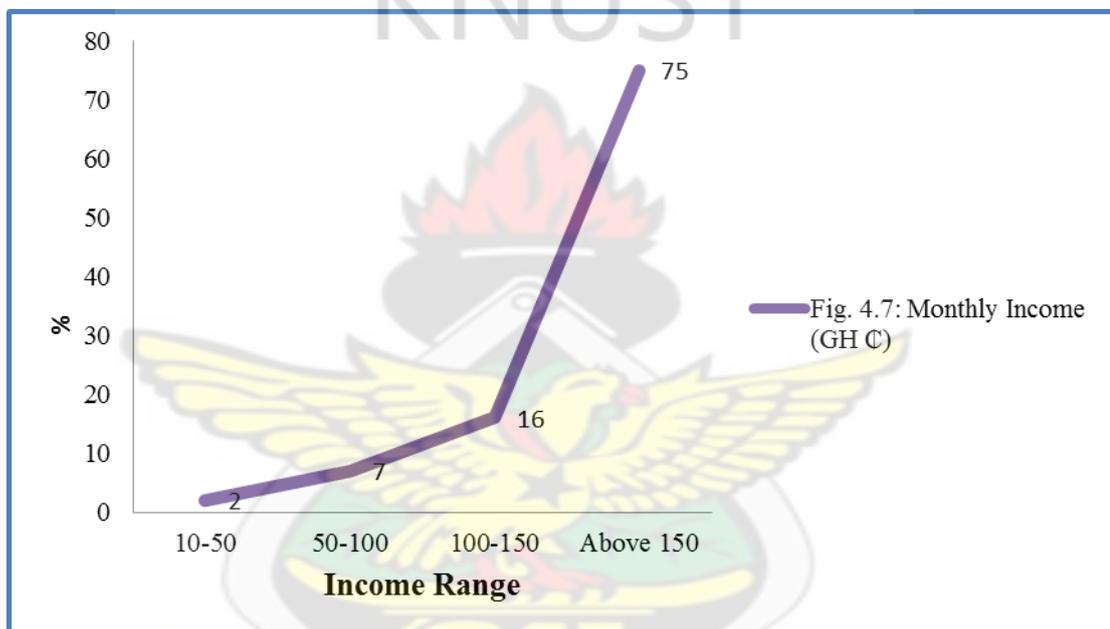
Table 4.14: Monthly Income from Adopted Livelihoods

Amount (GHC)	Households	Percentage (%)
10-50	3	2
50-100	10	7
100-150	22	16
Above 150	103	75

Source: Author's Field Survey, May 2013.

A significant portion (75 percent) of households practising these alternative livelihoods earns income of more than GHC 150 every month. Within this income category, majority are Grasscutter (*Thryonomys swinderianus*) farmers who earn a maximum of GHC 800, while edible Snail: *Achatina achatina* and edible Mushroom: *Pleurotus ostreatus* producers are able to earn a maximum of GHC 300 and GHC 500 every month respectively. Only 2 percent of households earn income of less than GHC 50. The household income distribution from the adopted livelihoods is graphically shown in Fig. 4.7.

Fig. 4.7: Monthly Income (GHC) from Adopted Livelihoods

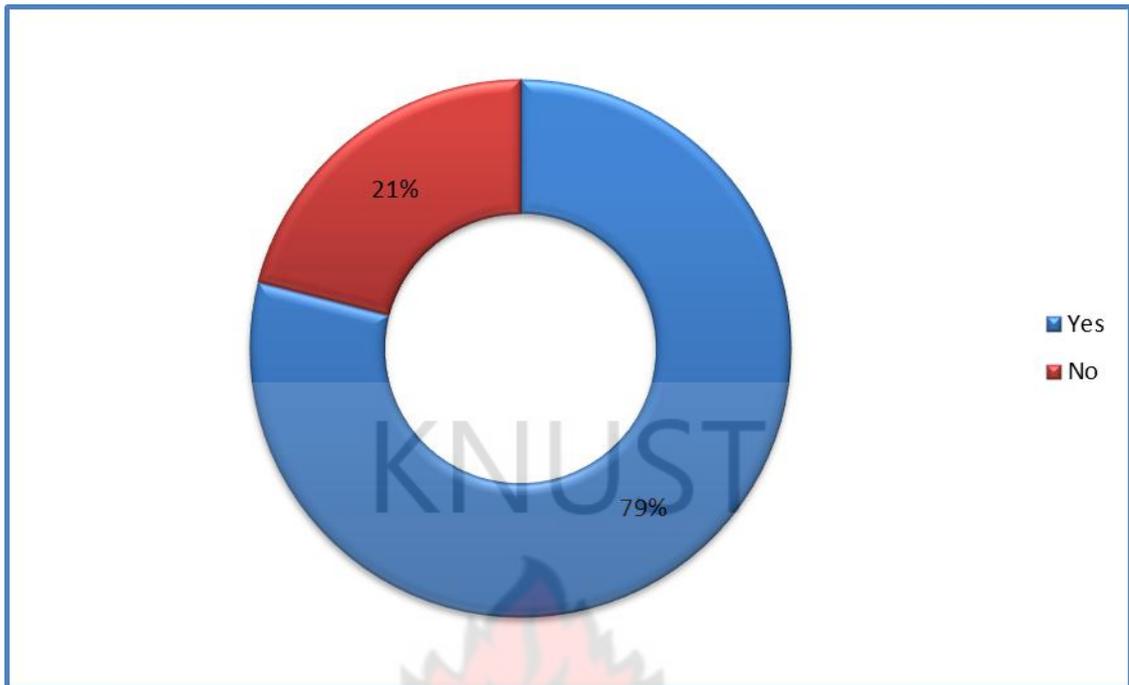


Source: Author's Field Survey, May 2013.

From Fig.4.7, it can be realized from the study that the few (9 percent) earning monthly income less than GHC 100 are households practising their adopted activities on a small scale basis and are therefore not able to fully realize the income generation potential from their activity.

It can therefore be concluded from the above that, the adopted livelihoods have the potential to generate the required income for households practising these activities if properly done and maintained. It is also important to note that, 79 percent of households hope to combine their traditional livelihoods with the adopted livelihoods while the remaining 21 percent stated otherwise as demonstrated by Fig. 4.8 below.

Fig. 4.8: Combining Traditional and Adopted Activity



Source: Author's Field Survey, May 2013.

Households willing to combine multiple livelihoods were of the view that depending on one source of income from either their traditional or adopted livelihood alone might not be enough to effectively sustain their living. They ultimately argued that, they would like to hold on to food crop farming, petty trading, salary work among others (Fig. 4.1) while at the same time undertaking their additional livelihoods in order to enjoy multiple benefits or income.

The remaining 21 percent who do not hope to combine both their existing and adopted livelihoods indicated that they are more likely to drop their primary livelihood in order to concentrate on the adopted livelihoods in the future if incomes accruing from their adopted livelihoods should continue for the next few years.

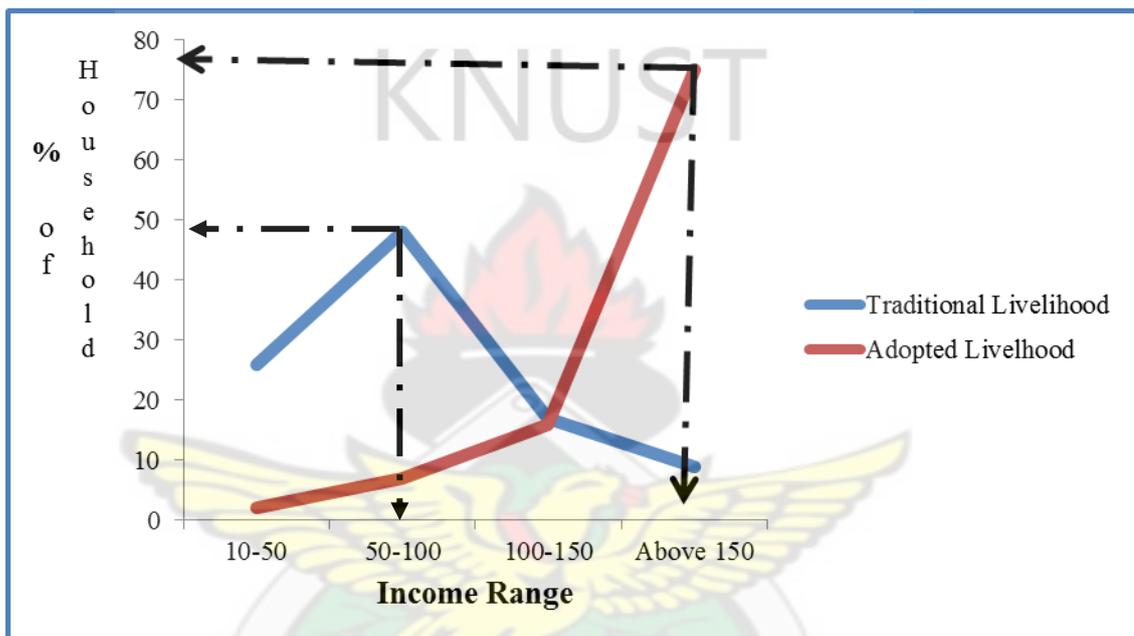
In the final analysis, the income generation capacity or the economic importance of the traditional and the adopted livelihoods of households have been compared in Table 4.15 and Fig.4.9.

Table 4.15: Comparing Income from Traditional and Adopted Livelihoods

Amount/Income Range (GHC)	Traditional Livelihoods (% of Households)	Adopted Livelihoods (% of Households)
10-50	26	2
50-100	48	7
100-150	17	16
Above 150	9	75

Source: Author's Field Survey, May 2013.

Fig. 4.9: Traditional and Adopted Livelihoods Compared (Income: GHC)



Source: Author's Field Survey, May 2013.

From Table 4.15 and Fig.4.9, in terms of primary livelihoods, 48 percent receive monthly income of only GHC 50-100 where as in terms of the adopted livelihoods; the greater majority of the households (75 percent) receive monthly income of at least GHC 150 up to a maximum of GHC 800. The economic viability of the adopted livelihoods as indicated in Table 4.12, Fig.4.7 and Fig.4.9 therefore strengthens the assertion and the need for rural households to explore and combine more livelihood activities so as to enhance their living through multiple income sources.

4.3.4 The Current Conditions or Situation of Households (After Combining Traditional and Adopted Livelihoods)

The analysis has so far examined the traditional and the adopted livelihoods of households. This aspect of the analysis describes the living conditions of households after diversifying or adopting multiple livelihoods. Among the spread effects and spin-off impacts that households derive from combining their traditional and adopted livelihoods have been grouped into two as exhibited in Table 4.16.

Table 4.16: Benefits and Impacts from Multiple Livelihoods (Traditional and Adopted)

Short Term Benefits	Long Term Benefits
<ul style="list-style-type: none"> • Alternative Source of Livelihood or Employment • Increased Household Income • Reduced Vulnerability/Risk 	<ul style="list-style-type: none"> • Reduced Poverty and Improved Welfare

Source: Author's Field Survey, May 2013.

From Table 4.16, livelihood diversification by households has been able to generate the needed or desired employment, income, reduction in risk as well as reduced poverty and increased welfare among the rural households and these are explained as follows:

- **Alternative Source of Livelihood or Employment:** Rural households in the Asutifi District with diversified livelihood portfolio have been able to develop stable employment by holding on to multiple jobs through a combination of traditional and non-traditional (adopted) income sources for a living. Households can now find rural living “attractive” and this is likely to reduce rural-urban migration among households concerned. Again, households are able to provide adequate food supply for themselves through multiple livelihoods and this has the potential to reduce hunger and lift hundreds of rural people in the Asutifi District out of poverty.
- **Increased Household Income:** Households have adopted supplementary activities to diversify their income sources and have insured themselves against shocks with respect to their traditional livelihoods, especially agricultural income, thereby increasing their purchasing power. The new income level of households with respect to their traditional and adopted livelihoods combined can be seen in Table 4.17 and Fig.4.10.

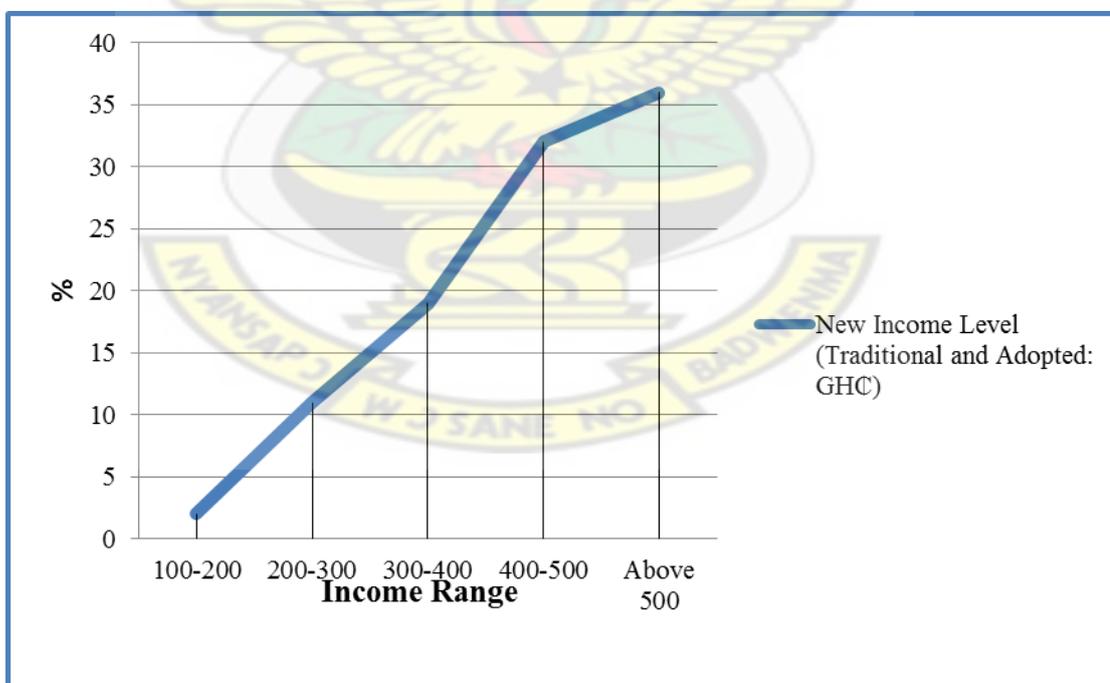
Table 4.17: The New Income Level of Households (Traditional and Adopted Livelihoods Combined)

Income Range (GHC)	Households	Percentage (%)
100-200	3	2
200-300	15	11
300-400	26	19
400-500	44	32
Above 500	50	36

Source: Author's Field Survey, May 2013.

From Table 4.17 and Fig.4.10, households have seen an upward movement in terms of livelihood incomes as compared to either their traditional or adopted livelihood alone. This to a large extent can enable households to pay for their children's education (both covert and overt cost) to improve their human capital and contribute to poverty reduction in the long-run, provide shelter or better their housing conditions, afford adequate health (that is, to be able to see a doctor when sick) and thus improve their mental, emotional and physical wellbeing which will consequently enhance their productive capacity among others.

Fig.4.10: New Income Level (Traditional and Adopted: GHC)



Source: Author's Field Survey, May 2013.

From Fig.4.10, the income gains of households are high and this can be attributed to the share of income from the adopted or alternative livelihoods (Table 4.14 and

Fig.4.7) as compared to that of the traditional livelihoods (Table 4.9 and Fig.4.3). The greater majority of households; 32 percent and 36 percent currently receive income between GHC 400-500 and above GHC 500 respectively every month. Even the minority few (2 percent) earning between GHC 100-200 are likely to earn higher if the problems encountered in their traditional livelihoods (Table 4.10) are addressed. These are therefore clear indication that combining traditional and adopted livelihoods under study as demonstrated by rural households in the Asutifi District can at least contribute to rural income growth.

Table 4.18: Livelihoods and Aggregate Income Analysis of Households

Traditional Livelihoods (A)	Average Monthly Income (GHC)	Adopted Livelihoods (B)	Average Monthly Income (GHC)	Total Average Income (GHC)	Impacts of Increased Income
Food Crop Farming (A1)	80	Grasscutter Domestication (B1)	400	A1+B1=480 A1+B2=230 A1+B3=330	-Increased purchasing power
Petty Trading (A2)	150	Snail Rearing (B2)	150	A2+B1=550 A2+B2=300 A2+B3=400	-Ability to pay their children's school fees (covert and overt cost)
Salary Work (A3)	250	Mushroom Production (B3)	250	A3+B1=650 A3+B2=400 A3+B3=500	-Ability to provide shelter or better housing
Livestock Rearing (A4)	100			A4+B1=500 A4+B2=250 A4+B3=350	-Ability to afford adequate health or able to see a doctor when sick
Others (A5): Remittances, Tailoring, Rents, Pensions	120			A5+B1=520 A5+B2=270 A5+B3=370	

Source: Author's Field Survey, May 2013.

The average income of households and the sources from which such income is earned have been explained in Table 4.18. According to the survey, households currently

earn a combined income from their traditional livelihoods (labeled A1-A5) and adopted livelihoods (labeled B1-B3). Therefore, a food crop farmer (A1) previously earning an average monthly income of GHC 80 is said can now earn an additional income of GHC 400 from Grasscutter (*Thryonomys swinderianus*) domestication (B1), making a total of GHC 480 (average income of A1 + average income of B1= GHC 480). Again, a food crop farmer (A1) earning an average income of GHC 80 after adding edible Mushroom (*Pleurotus ostreatus*) production (B3) is said can also earn an average of GHC 330 every month (A1+B3: GHC 80 + GHC 250 = GHC 330). Likewise, a petty trader (A2) with an average income of GHC 150 is capable of earning an extra income of GHC 250 from edible Mushroom (*Pleurotus ostreatus*) production (B3), raising his/her new income level to GHC 400 every month (That is: A2+B3= GHC 400). Such improved income levels of households the survey revealed have both direct and indirect impact on household consumption, education, health and other living conditions.

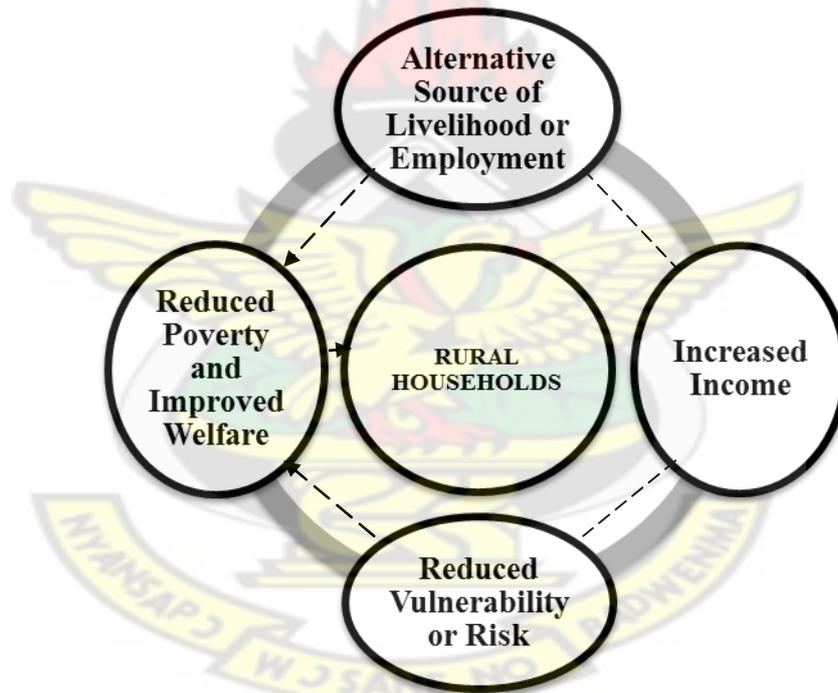
For example, household's recurrent expenditure on electricity or lighting, kerosene, transportation, potable water and clothing are said to be adequately catered for based on the survey. Households are also capable of paying their expenses on education including textbooks and school uniforms, and hence, their children are more likely to stay in school or experience higher educational achievements. Again, households at present have the ability to access basic health care and nutritional requirements (food) needed by the household and are therefore not likely to suffer from malnutrition which may be experienced by other family units trapped in income poverty.

- **Reduced Vulnerability or Risk:** Households in the Asutifi District who were dependent on “single” livelihoods and were finding it difficult to withstand or avoid livelihood risks such as crop failure due to drought or pest and disease infestation among others prior to the adoption of multiple livelihoods have now developed alternative livelihood technologies or skills that would enable them to cope during “hard times” especially when prices for agricultural produce fall. This phenomenon seems to have considerably reduced the level of uncertainties which hitherto surrounded their livelihoods and thus making them less vulnerable and poor.
- **Reduced Poverty and Improved Welfare:** Even though this study did not directly measure the level of welfare of households or by what extent or

amount that poverty has been reduced among the rural households concerned, however, sustainable and decent employment, increased income and reduced risk or vulnerability (Table 4.16) can be used as proxy or indicators of welfare and poverty reduction.

As indicated earlier, the main objective of this study is to examine some selected alternative rural livelihood strategies as practised in the Asutifi District and their contribution towards the development of the people in the area. Therefore, the relationships between these welfare (or development) indicators discussed above and how they have impacted on the lives of households concerned have been diagrammatically presented below.

Fig.4.11: The Contribution of Alternative Rural Livelihoods towards the Development of Rural Households in the Asutifi District



Source: Author's Construct/Field Survey, May 2013.

From Fig.4.11, rural households have developed alternative source of employment or income through the adoption of various alternative livelihood strategies, resulting in the rise of household income (Fig.4.10) and consequently reducing the risk or vulnerability with respect to their income processes and hence improving their living conditions. It is therefore envisioned that these benefits would ultimately and effectively translate in the lives of the households in the long-term thereby contributing to poverty reduction and enhanced welfare.

CHAPTER FIVE

FINDINGS, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

The data obtained from the field have been evaluated or analyzed in chapter four. To be able to stay focused on the research questions, the findings from this study have been summarized under the research objectives so as to ultimately address the research questions. This chapter therefore examines the traditional livelihood options for rural households in the Asutifi District and the challenges faced by rural households with respect to their traditional livelihood options as well as the economic importance of some selected alternative rural livelihood options in the Asutifi District. The interventions that can improve the livelihood outcomes of rural poor households have been covered under the recommendations for the study.

5.2 Findings from the Study

The major findings based on the various objectives are as follows:

Objective 1: To assess the traditional livelihood options for rural households in the Asutifi District.

- From the study, food crop farming constitute the major livelihood option for rural households in the Asutifi District in view of the fact that about 76 percent of the households are involved (Table 4.7 and Fig.4.1) and this is obviously not a variation from what exists in the Brong Ahafo region and even other rural districts across the country.

The Brong Ahafo region is well noted for the production of various food crops such as maize, yam, plantain, cassava and cocoyam; and the same can be said of the Asutifi District based on this study. For example, the Ministry of Food and Agriculture-MoFA (2013) provides an idea that food crop production accounts for about 70 percent of agricultural output of the region. According to Newmont Ghana Gold Limited (2005), about 77 percent of the working population in the Asutifi District is involved in agriculture (food crop production). All these statistics put across by MoFA (70 percent) and NGGL (77 percent) compare favourably with the 76 percent (Fig.4.1) based on the results obtained from the field.

- Even though food crop farming dominates or serve as an activity in which most households are involved, other off-farm livelihoods such as petty trading, livestock rearing and tailoring (Fig.4.1) also exist in the Asutifi District to “support” the other livelihoods. For example, petty trading in the district provides an opportunity for the retailing and processing of farm related produce as well as manufactured or industrial goods.
- As indicated in Fig. 4.1, food crop farmers, petty traders and households rearing livestock among others are able to “pair” their activities with other additional livelihoods (Table 4.11) without abandoning their traditional livelihoods. Again, about 79 percent (Fig.4.8) also hope to combine or undertake multiple income sources. Therefore by their nature, rural livelihoods from the study are “complementary” as most livelihoods within the rural area can be undertaken concurrently, and this buttresses the claim in this study that single income sources for rural households (mainly in the area of food crop farming) appears not to be “sufficient” and hence the need for combination of multiple or additional livelihoods.

Objective 2: To assess the challenges faced by rural households with respect to their traditional livelihood options in the Asutifi District.

From the study (Table 4.10), among the major factors that confront the livelihoods of the rural households in the Asutifi District based on the study include:

- Agricultural cycles (relative abundance and scarcity) and commodity pricing
- Crop failure
- Decline in soil fertility
- High cost of labour
- Land tenure arrangements
- Irregular supply of farm produce, improper housing structures for livestock, poor veterinary services and poor financial services and credit.

It is important to note that, these problems cited in this study go to confirm what already exist in literature. For example, The International Fund for Agricultural Development (IFAD, 2011) argues that food crop farmers in Ghana's poor rural areas experience low productivity and income annually as a result of poor market for agricultural produce, pests and diseases, lack of access to appropriate technology and

inputs including fertilizers and seedlings which would increase farm yield. Again, a land ownership and tenure problem cast a darker shadow on small scale farming and food security. Similarly, Stephen (2001) claims that households engaged in farming, experience considerable risks in their income process such as harvest failure and since these farmers do not have a well defined market for their products, they normally suffer from price fluctuations.

Therefore, based on what has been emphasized by IFAD (2011) and Stephen (2001) above, the findings from this study continue to relate to the findings of other previous research and other scholarly works reported in literature.

Objective 3: To assess the economic importance of some adopted or alternative rural livelihood options in the Asutifi District.

From the study, rural households in the Asutifi District have developed alternative sources of income in years when food crop production and other sources of income are poor as it seems to appear that their traditional livelihoods (Fig.4.1) alone would not solve the problem of poverty.

Households have therefore decided to enhance their livelihood options with the adopted livelihoods because they:

- Are easy to be adopted
- Provide a mechanism for managing risks with respect to their primary livelihoods
- Are able to yield relatively higher income and therefore economically sustainable and;
- Also require less land and space

The income levels of households from their traditional livelihood activities are comparatively low with 74 percent earning GHC100 or less every month (Fig.4.3). Fewer households, 9 percent (Fig.4.3) earn above GHC 150 up to a maximum of GHC 350 and it could also be observed that households belonging to this category are the few petty traders, tailors and salary workers. No food crop farmer belonged to this relatively high income category in terms of the traditional livelihoods and this in some way make rural livelihoods especially food crop farming a less economically viable activity by nature and usually undertaken to provide sustenance for households.

However, majority of households (75 percent) can earn above GHC 150 up to a maximum of GHC 800 every month from their adopted livelihoods (Fig.4.7) unlike in the case of the traditional livelihoods. The economic viability or importance of the selected livelihoods under study is made even clearer after comparing the incomes from households' traditional and adopted livelihoods as presented in Fig.4.9. Again, households who in the long-run decided to undertake their traditional and adopted livelihoods concurrently have now seen a rise in the level of their income (Table 4.17 and Fig.4.10) and accordingly contributing to the reduction of income poverty among households.

Therefore, the share of income from the adopted or non-traditional sources increases considerably and in fact, drives the income growth (Fig.4.10) of rural poor households whose income from their traditional livelihoods and more especially food crop farming stagnate. Hence, non-traditional diversification can constitute an important means to deal with livelihood risks and smoothen incomes of households in rural areas. This is not surprising in view of the fact that food crop farming and other rural livelihoods are often subjected to great uncertainty.

It is also noteworthy that, although the additional livelihood activities adopted by rural households to enhance their livelihood yields more income or economic benefits than their traditional livelihoods (Fig. 4.3, Fig. 4.7 and Fig. 4.9) in the long-run, care should be taken in order not to completely replace or scrape off the primary or traditional source of livelihood (Fig. 4.1). For example, food production from farming activities in the rural areas can at least provide food security as well as other non-quantifiable benefits for the family to enhance their survival. Therefore, adequate food supply appears to be a prerequisite for rural poverty reduction at the household level. This condition is more likely to make rural poverty less acute or severe than urban poverty.

5.3 Recommendations

The recommendations made in this study primarily address the last objective of this study.

Objective 4: To recommend interventions that can improve the livelihood outcomes of rural poor households.

Rural livelihoods and poverty reduction continue to be a complex phenomenon and rural households in the Asutifi District will remain poor if their livelihood outcomes remain “inadequate”. The recommendations made below (Table 5.1) are specifically based on the major challenges or issues raised in this study on how the outcomes from the traditional livelihoods (Table 4.10) can improve in order to improve the wellbeing of the majority of rural households.

Other recommendations based the various issues identified in this study with regards to the adopted livelihoods have also been outlined to address the above objective.

Table 5.1: Improving the Livelihood Outcomes of Rural Poor Households (Traditional Livelihoods)

Identified Issues	Recommendations
Agricultural cycles (relative abundance and scarcity) and commodity pricing	<ul style="list-style-type: none"> ❖ In terms of the agricultural cycles, being familiar with these cycles should enable development practitioners to anticipate and prepare for period of acute need of assistance for rural households. Therefore, the Asutifi District Assembly should: <ul style="list-style-type: none"> • Facilitate the construction of storage facilities such as cribs, application of right chemicals and the introduction of “super grain bags” to store food crops during periods of “relative abundance” • Sensitize farmers on the need to use standard weight system in pricing of commodities as well as awareness of the food prices of major crops on the market through new methods such as the announcement of the prices on radio and other information centres in the district.
Crop failure	<ul style="list-style-type: none"> • The Asutifi District Agricultural Development Unit (ADADU) should enhance the supply of farm inputs to enable households especially farmers to have easy access to improved seeds, chemicals and fertilizers to boost production.

Source: Author’s Construct/Field Survey, May 2013.

Table 5.1 Continued

	<ul style="list-style-type: none"> • Small to medium scale irrigation facilities should also be developed by the Opportunities Industrialization Centers International (OICI) around the banks of the major rivers in the area including the Tano River to enable farmers to cultivate crops and other vegetables during periods of drought.
Decline in soil fertility	<ul style="list-style-type: none"> • With respect to decline in soil fertility, the District Department of the Environmental Protection Agency (EPA) and local NGOs such as Livelihoods and Environment Ghana (LEG) should embark on demonstration and reach-out programmes on conservation and good agricultural practices such as chemical and fertilizer application, mulching, compost preparation and application, intercropping with leguminous crops among others to enhance the fertility of the soil for crop production.
High cost of labour	<ul style="list-style-type: none"> • The Asutifi District Agricultural Development Unit should again restore the formation of farmer groups and producer associations for collective efforts, encourage proper spacing and planting distance or planting in rows and the use of appropriate chemicals to control weeds instead of manpower.
Land tenure arrangements	<ul style="list-style-type: none"> • To bypass the complex customary land tenure relations in the district, Newmont Ghana Gold Limited should continue to increase the coverage and investment in the Agriculture Improvement and Land Access Programme to enable food crop farmers and households impacted by mining to regain access to land. • The EPA should collaborate with Newmont Ghana Gold Limited to again embark on land restoration or reclamation projects to restore lands which were once viable for agriculture to become arable again for households. For example, abandoned mining sites with pits should be covered with top soil to reduce the level of erosion for the land to regain its fertility after a period of time.

Table 5.1 Continued

<p>Irregular supply of farm produce</p>	<ul style="list-style-type: none"> • The OICI should help the community based organisations such as the Kenyasi Traders Association to undertake steps to absorb the excess produce of farmers during harvesting season through proper storage practices to take advantage of the off season period.
<p>Improper housing structures for livestock</p>	<ul style="list-style-type: none"> • The ADADU should educate farmers on the need to house their animals and to provide supplementary feed to increase livestock production.
<p>Poor veterinary services</p>	<ul style="list-style-type: none"> • Immunization programmes should be organized for livestock farmers through the Asutifi District Veterinary Department on regular basis.
<p>Poor financial services and credit</p>	<ul style="list-style-type: none"> • Available financial institutions located in the area such as EcoBank Ghana Limited, Agricultural Development Bank and the Tano Rural Bank should facilitate households' access to credit through Newmont's Small and Medium Scale Enterprise (SME) linkages programme.

The following recommendations are also made to improve the outcomes of the adopted or alternative livelihoods:

- As agriculture continues to play a key role in rural development and livelihoods, and once rural households also give the impression they practice their traditional livelihoods (farming) as a “way of life”, any livelihood expansion or improvement programme should be related to or compatible with agriculture or farming in order to enhance the ease of their adoption. Therefore, for effective poverty reduction, alternative or additional source of income must be developed by households in collaboration with organizations working towards livelihoods such as BYTRC, ActionAid Ghana, OICI and the Ghana Youth Employment and Entrepreneurial Development Agency (GYEEDA).

- Again, all the adopted livelihoods in the study area are natural resource based. Therefore attempts should be made by the Asutifi District Agricultural Development Unit to initiate a study into the environment and resource base of the district and develop more sustainable and natural resource based livelihoods to enhance the living conditions of rural households in the Asutifi District. In other words, there is the need for the Asutifi District Assembly through the Business Advisory Centre and the Rural Enterprise Project to undertake careful studies into the economy of the area so as to develop more rural friendly or pro-poor livelihood activities to cushion the rural poor, as the future of most of the traditional livelihoods look more uncertain.
- Lastly, rural livelihood in the study area hangs on the precarious balancing of agricultural and non-agricultural sources of income. If success is therefore to be recorded in poverty alleviation, food security, employment, and lowering the tide of rural-urban migration, it is important for the government through its decentralized departments and agencies such as Department of Trade and Industry, Community Development Department, GYEEDA, Social Investment Fund (SIF) and among others to support both agricultural and non-agricultural activities. At the same time agricultural extension services, provision of low-cost farm inputs would go a long way towards revitalizing the farm sector of the rural economy as well as other non-farm livelihoods.

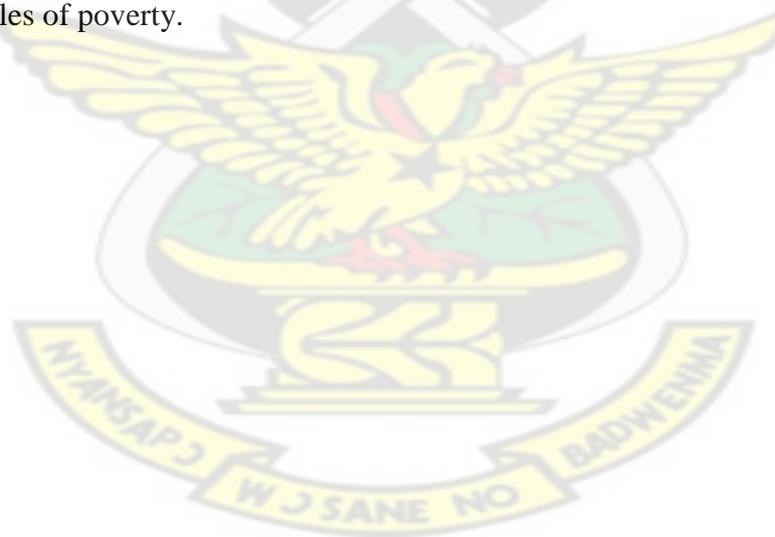
5.4 Conclusion

Man, since time immemorial has been battling with poverty, a situation which few rural people can avoid. Poverty even though is sometimes described as a natural phenomenon by certain people or social groups or classes, systematic measures and interventions can help rural people surge out of poverty as discussed by Fields and Pfeffermann (2003). This special study therefore focused on establishing the contribution of some selected alternative rural livelihood strategies that are being undertaken by households in the Asutifi District towards the development of the people in the area in terms of their capacity to generate adequate employment, income and reduced vulnerability, lessening poverty and improved wellbeing.

Rural households should therefore be assisted or supported to identify and utilize the full potentials of their natural, social and physical assets available to them to make a

living. Therefore, understanding the livelihood opportunities and constraints within the rural area should be the starting point in exploring the potentials of any livelihood intervention or poverty reduction strategy. However, diversification or expansionary decisions by households should not be driven to a large extent by desperation but rather as new opportunities and progressively re-arrange their traditional livelihood portfolio. Activities no longer economically and socially viable have to be complemented or supported with new ones better suiting the context of a more mature market economy. Exploiting additional non-farm or alternative opportunities could offer a pathway out of poverty for the rural poor households in the Asutifi District as households who have already taken such advantage (alternative opportunities) are now benefiting from stable employment, increased income and reduced risk (Table 4.16).

It is strongly envisaged that, if the issues raised in this study are not stalled but are acted upon, it will go a long way to see rural households holding on to multiple income sources and improving their livelihoods, and ultimately emerging out of the pigeonholes of poverty.



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Appendices

5. Photo: Grasscutter: *Thryonomys swinderianus* in Captivity



Source: Author's Field Survey, May 2013.

6. Photo: Matured edible Snails: *Achatina achatina* Ready for Market



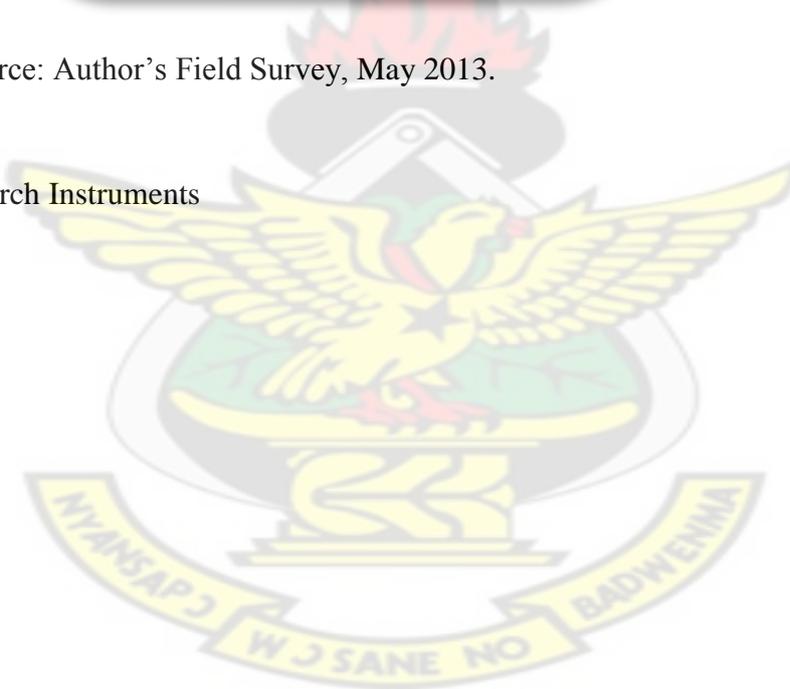
Source: Author's Field Survey, May 2013.

3. Photo: Cultivated edible Mushroom: *Pleurotus ostreatus*



Source: Author's Field Survey, May 2013.

4. Research Instruments



KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
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DEPARTMENT OF PLANNING

RESEARCH TOPIC

Assessing the Livelihood Opportunities of Rural Poor Households: A Case Study of Asutifi District

INSTITUTION

Bemcom Youth Training and Resource Centre

The information is needed to investigate the contribution of some selected alternative livelihood strategies (Grasscutter domestication, Snail rearing and Mushroom production) towards the development of rural households in the Asutifi District. This will make it possible for the study to assess the livelihood options available for rural poor households to escape from poverty.

Information provided would only be used for academic purpose.

Date of Interview Name/Signature of Interviewer

1. As a training and resource centre, what is your mission or vision?
.....
2. Can you provide an overview of your activities in relation to livelihood training (with emphasis on Grasscutter, Mushroom and Snail rearing)?
.....
3. What factors informed your decision to establish this livelihood training centre?
.....
4. What other livelihood training do you provide apart from Grasscutter, Mushroom and Snail rearing?
.....
5. For how long have you been providing these training for households who intend to adopt them?
.....
6. How many households or individuals have benefited from livelihood training at this centre?
.....
7. Who pays for the cost of the training?

.....
8. Do you monitor the operations of these rural people who adopt these activities after the training?

(a) Yes [] (b) No []

9. If Yes/No, why

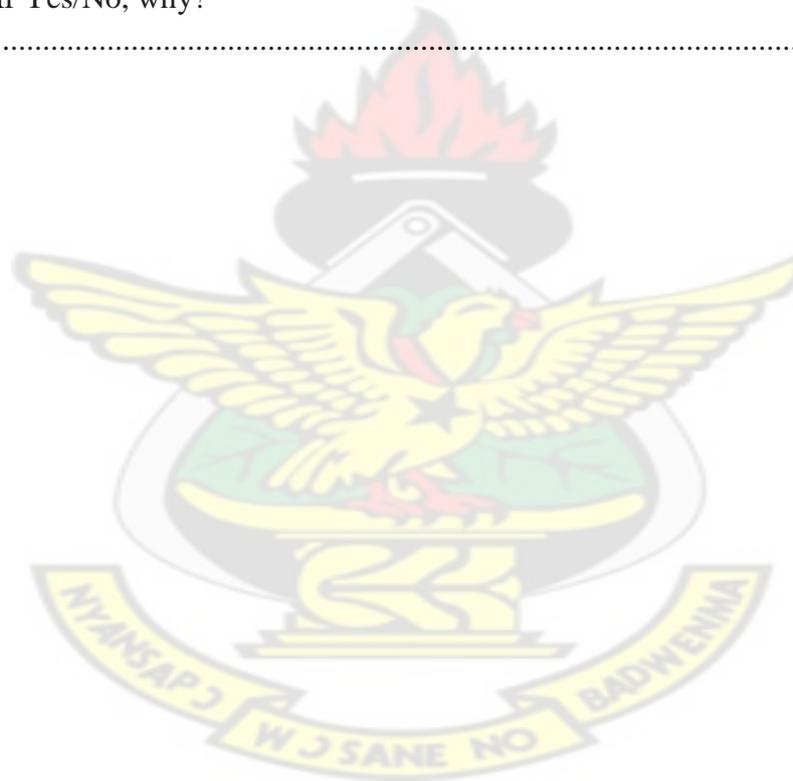
.....
10. What start-up capital is required for the practise of these activities?

.....
11. Are there any advantages associated with these livelihood activities over other alternative rural livelihoods?

.....
12. In your own view, are these alternative activities adopted by rural households to expand their livelihood options able to provide sustainable employment?

(a) Yes [] (b) No []

13. If Yes/No, why?



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DEPARTMENT OF PLANNING

RESEARCH TOPIC

Assessing the Livelihood Opportunities of Rural Poor Households: A Case Study of Asutifi District

INSTITUTION

Asutifi District Assembly

The information is needed to investigate the contribution of some selected alternative livelihood strategies (Grasscutter domestication, Snail rearing and Mushroom production) towards the development of rural households in the Asutifi District. This will make it possible for the study to assess the livelihood options available for rural poor households to escape from poverty.

Information provided would only be used for academic purpose.

Date of Interview Name/Signature of Interviewer

1. As a District Assembly, are there any measures in place to promote or support Grasscutter, Snail and Mushroom production?
(a) Yes [] (b) No []
2. If Yes, how?
.....
If No, why?
.....
3. Apart from these livelihood activities in question, are there any other livelihood improvement projects in the district being promoted by the District Assembly?
(a) Yes [] (b) No []
4. If Yes, what are they?
.....
If No, why?
.....
5. Does the District Assembly provide any business advisory service for people who engage in alternative activities to expand their livelihood options?

(a) Yes [] (b) No []

6. If Yes how/why?

.....

If No, why?

.....

7. Are there any marketing opportunities for these activities in the district?

(a) Yes [] (b) No []

8. If No, how do you intend to assist the local people to get market outlet for these activities?

.....

9. Does the District Assembly see the practise of these activities as having any potential to address poverty in the district?

(a) Yes [] (b) No []

10. If Yes how?

.....

If No, why?

.....

11. In your own view, are there any benefits associated with the practise of these activities on the natural resource base of the district?

(a) Yes [] (b) No []

12. If Yes, how?

.....

If No, Why?

.....

13. Do you see the practise of these livelihoods towards poverty reduction in the district as being sustainable?

a) Yes []

b) No []

14. If yes, what are the indicators of sustainability?

.....

If no, why?

.....

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DEPARTMENT OF PLANNING

RESEARCH TOPIC

Assessing the Livelihood Opportunities of Rural Poor Households: A Case Study of Asutifi District

INSTITUTION

Asutifi District Agricultural Development Unit

The information is needed to investigate the contribution of some selected alternative livelihood strategies (Grasscutter domestication, Snail rearing and Mushroom production) towards the development of rural households in the Asutifi District. This will make it possible for the study to assess the livelihood options available for rural poor households to escape from poverty.

Information provided would only be used for academic purpose.

Date of Interview Name/Signature of Interviewer

1. What are the major agricultural crops/livestock produced by the people in this district?
.....
2. Apart from Grasscutter, Snail and Mushroom, what other agriculture related alternative livelihoods are being adopted by the rural people in the district to enhance their living?
.....
3. What are some of the identified problems associated with traditional food crop farming in this district?
.....
4. Do you provide any support or extension services for households practising these livelihood activities?
(a) Yes [] (a) No []
5. If Yes, what kind of support or service do you provide for these people?
.....

If No, why?

.....

6. Do you foresee any negative effects of these activities on food crop production in this district?

(a) Yes [] (b) No []

7. If Yes, how?

.....

If No, why?

.....

8. How do you compare traditional food crop farming and the practise of these livelihood activities in the area?

.....

9. In your own view, what problems are being faced by people who practise these alternative activities?

.....

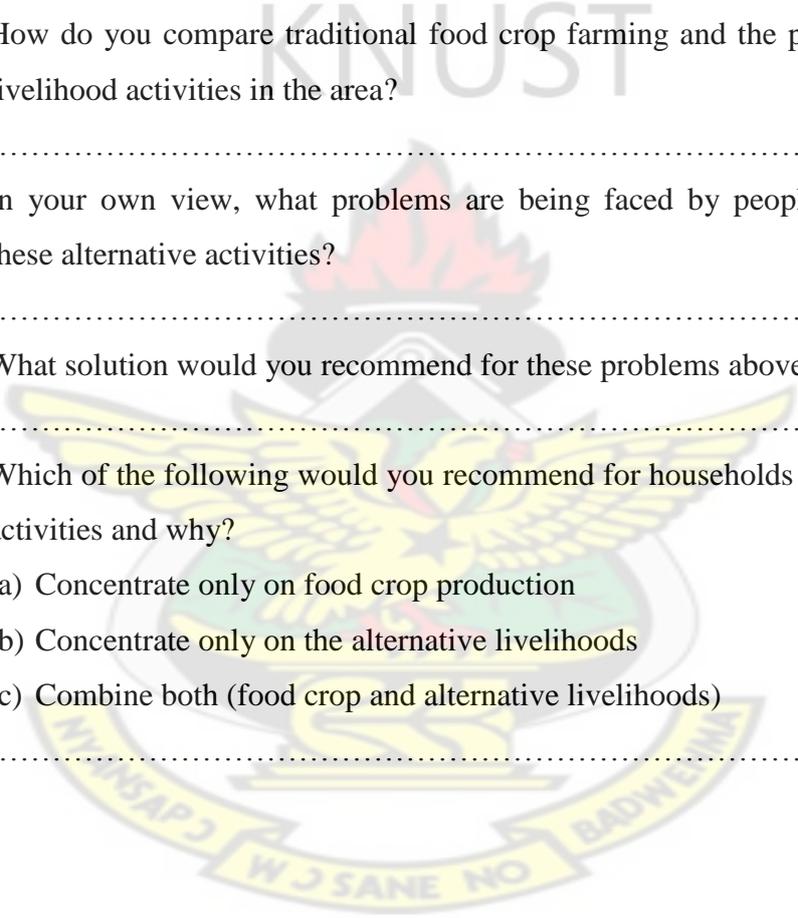
10. What solution would you recommend for these problems above?

.....

11. Which of the following would you recommend for households practising these activities and why?

- (a) Concentrate only on food crop production
- (b) Concentrate only on the alternative livelihoods
- (c) Combine both (food crop and alternative livelihoods)

.....



KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
COLLEGE OF ARCHITECTURE AND PLANNING
DEPARTMENT OF PLANNING

RESEARCH TOPIC

Assessing the Livelihood Opportunities of Rural Poor Households: A Case Study of Asutifi District

INSTITUTION

Newmont Ghana Gold Limited

The information is needed to investigate the contribution of some selected alternative livelihood strategies (Grasscutter domestication, Snail rearing and Mushroom production) towards the development of rural households in the Asutifi District. This will make it possible for the study to assess the livelihood options available for rural poor households to escape from poverty.

Information provided would only be used for academic purpose.

Date of Interview Name/Signature of Interviewer

1. Do you provide any support towards the livelihoods of the rural people in your operational area?

(a) Yes [] (b) No []

2. If Yes, how?

.....

If No, why?

.....

3. Is there any evidence from your activity having any negative effects on the livelihoods of the people in the area?

(a) Yes [] (b) No []

4. If Yes, how?

.....

If No, why?

.....

5. Are there any project initiatives to help people whose primary livelihood may be affected by your mining operations to re-establish or create new livelihoods?

(a) Yes [] (b) No []

6. If Yes, how?

.....

If No, why?

.....

7. In your own view, do you see the practise of these alternative livelihoods as having the potential to provide both short term and long term benefits to those involved?

(a) Yes [] (b) No

8. If Yes, how?

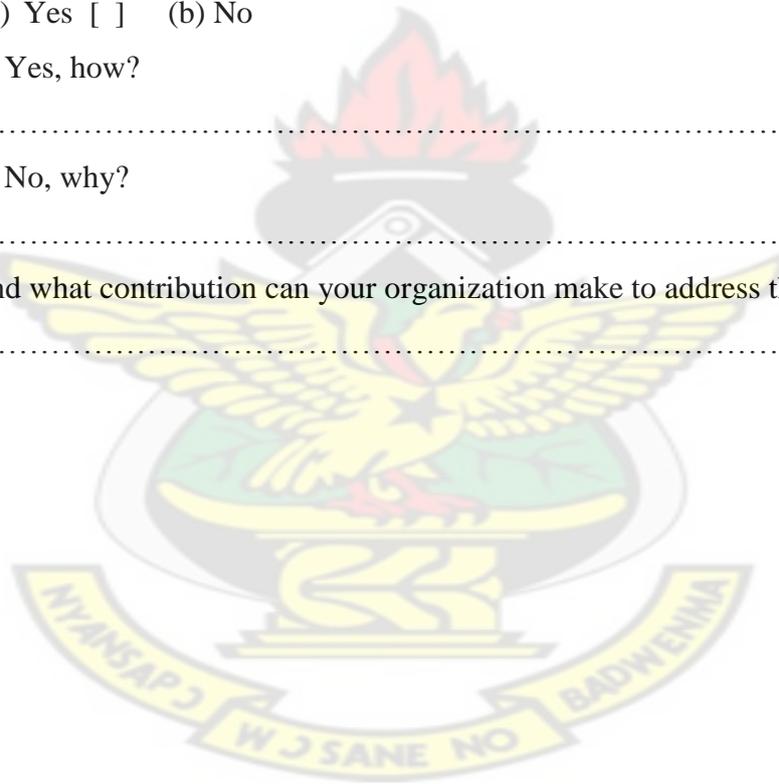
.....

If No, why?

.....

and what contribution can your organization make to address the situation?

.....



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HOUSEHOLD

The information is needed to investigate the contribution of some selected alternative livelihood strategies (Grasscutter domestication, Snail rearing and Mushroom production) towards the development of rural households in the Asutifi District. This will make it possible for the study to assess the livelihood options available for rural poor households to escape from poverty.

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Date of Interview Name/Signature of Interviewer

Background Characteristics of Respondents

1. Sex
(a) Male (b) Female
2. Age
(a) Below 18 (b) 18-25 (c) 25-35 (d) Above 35
3. Household size
(a) 1-3 (b) 4-6 (c) 6-8 (d) Above 8
4. Level of Education (a) Basic (b) Secondary (c) Non-Formal (d) Informal (e) Other

Existing Livelihood

5. Which of the following can be described as your *primary* source of income or livelihood?
(a) Food Crop Farming (b) Petty Trading (c) Salary work (d) Livestock Rearing (e) Other, Specify.....
6. On what basis do you practise the selected activity above?

(a) Subsistence (b) Commercial (c) Both

7. For how long have you been practicing the above activity? (In years)

(a) 1-5 (b) 5-10 (c) 10-15 (d) Above 15

8. What is your Weekly/Monthly/Annual income from the above activity? (In GHC)

Option	Weekly	Monthly	Annual
a	10-50	10-50	100-500
b	50-100	50-100	500-1,000
c	100-150	100-150	1,000-1,500
d	Above 150	Above 150	Above 1,500

9. Are you able to save any or part of your income?

(a) Yes [] (b) No []

If Yes/No, explain

.....

10. What problem(s) do you face with respect to the practise of the above activity?

.....

11. In what way(s) do you hope to improve your activity to overcome the above problem(s)?

.....

Alternative Livelihood

12. Which of the following activities do you practise in addition to your *primary* livelihood or source of income?

(a) Grasscutter domestication (b) Mushroom production (c) Snail rearing

13. For how long have you been practising this *secondary* activity? (In years)

(a) Below 1 (b) 1-2 (c) 2-3 (d) 4 and Above

14. What reason(s) can you assign for the adoption of this new or extra activity?

.....

15. What was your source of start-up capital?

(a) Personal savings (b) Bank loan (c) NGO source (d) Other,
Specify.....

16. What is your Weekly/Monthly/Annual income from this new activity? (In GHC)

Option	Weekly	Monthly	Annual
a	10-50	10-50	100-500
b	50-100	50-100	5,00-1,000
c	100-150	100-150	1,000-1,500
d	Above 150	Above 150	Above 1,500

17. What other benefit(s) do you derive from this new activity?

.....

18. What problem(s) do you face with respect to the practise of this new activity?

.....

19. Do you hope to continue to combine these two activities?

(a) Yes [] (b) No

If Yes/No, why?

.....

20. In your own view, what services or support do you need to enhance this new activity?

.....

21. How do you finally compare your old (primary) and new (alternative or secondary) activities in terms of:

Income Generation:

.....

Sustainable Employment:

.....