

**EFFECTS OF URBANIZATION ON ACCESS TO LIVELIHOOD RESOURCES:  
EXPERIENCES OF FARM FAMILIES IN THE GA WEST MUNICIPALITY, GHANA**

BY

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THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL  
FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF **M.PHIL** DEVELOPMENT  
STUDIES DEGREE

JULY 2015

## DECLARATION

I, Evelyn Naa Kochoe Cofie, hereby declare that this thesis, except for references to other literature on urbanization, access to farm resources, livelihood diversification, adaptative strategies which have been duly acknowledged, is the fruit of my own effort and that it has neither in whole nor in part been presented anywhere for the award of a degree.

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This thesis has been carried out and submitted with our approval as supervisors

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## ABSTRACT

Ghana has been lauded for being able to achieve the MDG target of “halving the proportion of those living in extreme poverty before the target date of 2015” (Ghana Statistical Service, 2013). But livelihood activities in the rural areas, which are dominated by farming, have become exposed to higher risks and vulnerabilities with new threats to access to resources. For example, with increasing urbanisation landowners are withdrawing land from farming for other uses leaving farmers stranded.

The main objective of the study was to examine the effect of urbanization on access to livelihood resources by farmer households in Ga West Municipality and the adaptive strategies employed by affected families to formulate resilient livelihood. The study used a mixture of both qualitative and quantitative methods of data collection to elicit information from respondents. This involved two (2) community focus group discussions, eight (8) key informants’ interviews at community and Municipal Assembly level and 71 household interviews in a total of five (5) communities. Three of these communities were used as study communities and two were control communities in the Ga West Municipality. The quantitative data from household interviews were analysed using SPSS version 16.0 and Microsoft excel to generate descriptive statistics. The focus group discussions and in-depth interviews were analyzed thematically.

The main finding was that urbanization and changes in population trends caused smallholder farm families to lose more than 70% of their farmlands to sand winners and estate developers. This subsequently led to reduced access to related farm resources, including, labour, technology and credit. Young people and farmers are drifting into off-farm activities. Women have resorted

to selling cooked food and petty trading, which need minimal initial capital. On the positive side, parents are now sending their children to school to wean them off dependency on the land. It is recommended that central government together with local government institutions in peri-urban areas should not only acquire land for huge housing and other infrastructural development purposes, but in addition, create access to farmlands through deliberate government policy formulation aimed at conserving fertile farmlands for smallholder farmers. This would ensure that people whose livelihoods are land based have access to land for farming purposes at all times to protect them against changing demands for land for non-agricultural use.



## DEDICATION

This work is dedicated to my daughters, Betty-Ann and Daniella



## ACKNOWLEDGEMENTS

I wish to sincerely acknowledge and thank Prof. George Owusu and Prof. Ellen Bortei-Doku Aryeetey of the Institute of Statistical, Social and Economic Research (ISSER), University of Ghana for availing to me their matchless and immense research experiences and guidance through the writing of this thesis.

I also wish to extend my appreciation to Dr Ernest Appiah (former Coordinator) and Dr Simon Bawakyillenuo (Coordinator) of the MA/MPhil Programme and their teams for their exemplary sense of responsibility, and to all the lecturers at ISSER for their insightful contributions to this study.

To Dr Richard Ampadu-Ameyaw of the Science and Technology Policy Research Institute (CSIR-STEPRI), Mr Frank Otchere of ISSER, Mr Gabriel Cofie formerly of University of Ghana Business School (UGBS), Legon, Mr Frank K. Neequaye and Mr Samuel N. Lawer of Ga West Municipal Assembly, Mr B. Korkortsi of the Municipal Agricultural Development Unit, and Ms Juliana Adubofuor of Rural Enterprise Programme (REP) Ga West , I say thanks.

I am appreciative of the opportunity given me by the Management of ADRA-Ghana and my GWASH and ISSER colleagues for their readiness to assist any time they were called upon.

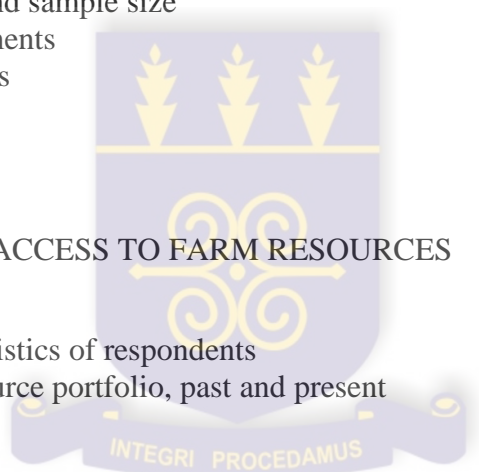
Finally, I wish to thank my family especially my husband, Mr Daniel A. Adjei, and my mother, Mrs Eva B. Cofie for their support throughout this study.

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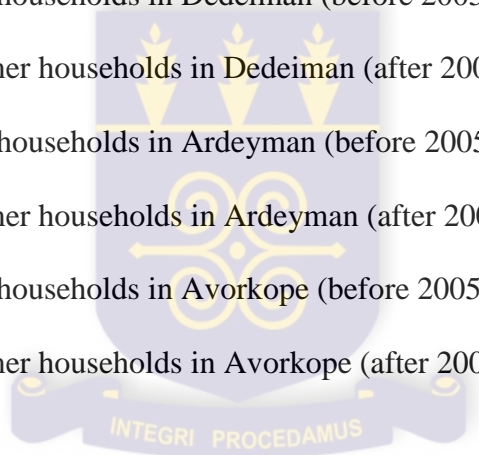


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## LIST OF ABBREVIATIONS

ADB	Agricultural Development Bank
ADRA	Adventist Development and Relief Agency
AEA	Agricultural Extension Agent
AMSEC	Agricultural Mechanization Services Enterprise Centres
ASCA	Accumulating Savings and Credit Association
BAC	Business Advisory Centre
CBRDP	Community Based Rural Development Project
DFID	Department for International Development
EPA	Environmental Protection Agency
FAO	Food and Agriculture Organization
FBO	Farmer Based organization
FGD	Focus Group Discussion
GHAMFIN	Ghana Microfinance Institutions Network
GOG	Government of Ghana
GSS	Ghana Statistical Service
GWMA	Ga West Municipal Assembly
IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
JHS	Junior High School
MA	Municipal Assembly
MADU	Municipal Agriculture Development Unit
MDA	Ministries, Department and Agencies

MDG	Millennium Development Goals
MFI	Microfinance Institutions
MOFA	Ministry of Food and Agriculture
MPO	Municipal Planning Officer
MSLC	Middle School Leaving Certificate
NFI	Non-farm Income
NGO	Non Governmental Organization
R&D	Research and Development
REP	Rural Enterprise Programme
ROSCA	Rotating Savings and Credit Associations
SEND	Social Enterprise Development Foundation
SPSS	Statistical Package for Social Sciences
SSA	Sub Saharan Africa
SWOT	Strengths, Weaknesses, Opportunities and Threats
T&V	Training and Visit

## CHAPTER ONE

### INTRODUCTION

#### **1.1 Background to the study**

The livelihoods of farm families have gained prominence in the academic, policy and donor literature. The agricultural landscape in the developing world is dominated by small farms which provide the largest source of employment and income for the rural poor who still remain highly susceptible to poverty (Lipton, 2005). The World Bank estimated that South East Asia and Sub-Saharan Africa (SSA) contained over 92% of the world's 1.1 billion poor people who lived on less than one dollar a day and suffer from chronic hunger and malnutrition (World Bank 2004, Conway 2012). The activities of small family farms on which a greater majority of these poor people are based have proven to be resilient and dominate most part of this developing world (Collier and Dercon, 2014). Family farms are said to be production units which obtain most of their labour and enterprise from the farm family (Lipton, 2005).

Family farms vary in sizes across the globe but the emphasis is not so much on size as it is on use of resources and management of the farms. Use of family labour is key in the operations of family farms (van Vliet, Schut, Reidsma.....Giller 2015). The Food and Agriculture Organization (FAO) also characterized the family farm as having limited access to land and capital resources and is dominated by the use of family labour. Whilst the household head participates directly in production, he/she is not only a manager of the unit but a worker as well (FAO, 2012). The World Bank and others give an average cultivation size of the family farm as being less than two hectares (World Bank 2003, Masters, Djurfeldt, De Haan.....Reardon, 2013). Based on the above, a “farm family” for the purpose of this study refers to small scale farmer

household with land holdings or cultivation area of one to five acres who is neither fully committed to production for profit (like the commercial farmer) nor cultivates with the sole aim of subsistence or family consumption. He/she farms somewhat for equal purposes of selling for profit and consumption (Ellis, 1992) “it is a joint production-consumption unit” (Ellis, 1992, p14).

Livelihood and poverty reduction issues have been on the agenda of development and donor agencies for decades. In their attempt to holistically look at how poor people construct their livelihood with the myriad of resources at their disposal, the sustainable livelihood approach became the lenses through which academia and development agencies analytically dissect the challenges that poor people are structurally faced with, and how they employ their agency to overcome the challenges. That poor people are increasingly becoming landless in Africa is an established fact (Bryceson 1993, 2002; Rigg, 2006) which has resulted from several factors viz rapid urbanization, agricultural and land policies of developing countries and micro level resource (mis)allocation. The resultant effects are multiple in nature, hence the issues of livelihoods have to be contextualized to avoid over-generalization.

Similarly, the nexus between livelihood and urbanization have not been overlooked because rapid urbanization requires large amounts of land; more often than not prime agricultural land is the most available. This ends up being converted into other uses at the periphery of the cities, normally referred to as peri-urban areas. Unlike rural or urban, the term peri-urban as used frequently by policy makers does not lend itself to easy definitions and it is largely situational and case specific. There is a perception that rural, peri-urban and urban operate in a continuum

which is difficult to delineate (Jaquinta & Drescher, 2000). Peri-urban space is seen as the rural-urban transition zone characterised by urban sprawl, changing land use pattern in favour of infrastructural development rather than agriculture and changing economic activities in favour of non-farm wage earnings Kombe, (2005). Thus livelihoods which are dependent on land, especially farm livelihoods are affected in these processes of change. Local government authorities in charge of such new developments lack the capacity and political will to plan, implement and monitor development in an orderly manner. The results in an urban sprawl and loss of agricultural livelihoods.

These land dependent households eventually go through changes which require adaptive strategies to reduce vulnerability. Thus urbanization is characterised by a decline in land based livelihood activities in response to the changes which occur in access to livelihood assets or resources. The effects as shown by several studies include diversification of income sources, non-farm wage employment, increased opportunities for formal education among others. Some negative effects which show on families are higher land rent for farmers, reduced agricultural productivity leading to low agricultural income (Oduro, 2010, Owusu, 2013, Oduro, Adamtey and Ocloo, 2015). These effects are more pronounced in Greater Accra and its peripheries because the urban growth rate in the region is as high as 90.5% as against a national rate of 50.9% in 2010 (Ghana Statistical Service, 2012).

## **1.2 Problem statement**

Urbanization as a phenomenon is an irreversible and inevitable process and the effects on the environment and thereby livelihoods can be difficult to manage (Frayne, 1998). In the developed countries, rapid urbanization has often been associated with the development of alternative forms of livelihood. This occurs through industrialization, expanded commercial activities or vocational training so that those who lose their agricultural lands are able to obtain alternative livelihood opportunities in factories, manufacturing firms or set up their own businesses (Satterthwaite, 1996; Maxwell, 1998; Suu, 2009).

However, the situation in developing countries including Ghana is different. Like many other countries in SSA, Ghana is currently facing an unprecedented rapid urbanization (Owusu and Agyei, 2008). Such high rates, coupled with imbalances in the distribution of economic opportunities between rural and urban areas have resulted in high population densities in peri-urban locations. Additionally, migrants tend to settle in peri-urban areas because the cost of land and housing are cheaper compared with the central business areas where they normally work. (Owusu, 2008; Adarkwa, 2012). Several areas in Ghana, particularly in the Greater Accra Region are currently facing similar challenges as a result of the intensive reallocation of agricultural land to other uses including housing development and sand winning. These have become alternative sources of employment for some people in the community, while depriving poor smallholder farmers of theirs (Maxwell, Larbi, Lamptey, Zakariah and Arma-Klemesu, 1998). In general the replacement of agricultural lands with housing projects and the consequent loss of agricultural land could lead to de-agrarianization, compelling many families to diversify

their resources as an explicit way of responding to the current trends and events and providing themselves livelihoods in other sectors of the economy.

Another issue that could contribute to loss of farm livelihoods resulting from urbanization and other global events is the practice of land tenure rights which is embedded in the local social power structures (Yaro, 2010). This is changing so fast in the developing regions of the world such that it is creating serious several livelihood implications. Worsening the situation is the reality that “peasant farmers have basically derived their access to land by tenancy or customary tenure rather than by ownership” (Ellis, 1992, p.196). Such changes in land tenure often results in the creation of winners and losers, which is a subject that must be critically explored as competition, contestation and conflicts over land increases (Ampadu, 2013). Arguably, those who have secure rights in the form of title deeds can transfer their land without recourse to those who actually till the land thereby rendering them landless and vulnerable.

The following authors, (Yankson and Gough, 1999; Abass, Afriyie and Adomako, 2013; Oduro, Adamtey and Ocloo, 2015) posit that the peri-urban zone in Greater Accra Region and other areas in Ghana, where urban and rural forces meet is characterised by mixed land uses which tend to relegate rural mode of land use and activities to the background and establish new forms of urban land use. In the process farm labour also shifts into new activities causing serious labour shortage in the low technology labour intensive agriculture that is commonly practiced in rural areas. Greater use of mechanisation could help farmers make up for the loss of labour and actually increase productivity through intensification. However, this option of intensification is also not available to farmers because changing techniques require education through serious and

intensive extension services which is somewhat not readily available. It is clear from case studies that there is the need to extend coverage and improve the quality of extension services offered to farmers in Ghana (Davis, 2008).

Ready access to credit for small holder agricultural activities has been a mirage for most farm families. Formal financing of family farms in Sub-Saharan Africa is considered risky by financial institutions. This is because agriculture itself is seen as risky due to the over dependence on rainfall. Although there is a huge need for agricultural credit to ensure the day to day running of smallholder farms and to assist in their development, this is faced with a limited or non-existent supply (Lesaffre and Perche, 2002).

In the Ga West Municipality of Greater Accra Region, where this study is based, most rural people in the past engaged in agricultural activities as the major means of livelihood. In recent times however, as the rate of urbanization has increased and land markets have emerged, there is a change in access to land and its use. Besides land, access to labour, equipment and machinery, and agricultural extension services which help to diffuse improved techniques in farming to farmers have been mixed. It is within this context of urbanization in Ga West, which triggered several responses from farm families in Ga West, subsequently resulting in changes in access to resources in livelihood construction and the dynamics associated with it, that this research is undertaken.

As noted earlier, this study focuses on the urbanisation process and its effects on access to resources for livelihood construction of farm families in the Ga West Municipality. Two things

are important here, resilient livelihood and resource access relationships. Resilient livelihood depends on access to and availability of resources, and how these resources are combined in particular contexts. The resources are categorized by Ellis (2000) into five broad areas, namely; natural, physical, human, social and finally financial. This showcases a wide range of assets from which rural households can construct their livelihood. For the purpose of this research, basic resources needed by families engaged mainly in agriculture as a means of livelihood would be specifically explored; these are land, labour and technology as in the use of machinery and extension services and finally credit facilities.

### **1.3 Research objectives**

The main objective of this research is to find out how the phenomenon of urbanization in the Ga West Municipality has affected access to farm resources by farm households and the adaptive strategies employed in their livelihood activities. To this effect the specific objectives are to:

1. Examine the factors related to urbanization that influence changing access to farm resources and their effect on livelihood patterns of farmers in Ga West Municipality.
2. Assess the combination of resources and strategies that affected families have adopted to construct their livelihood in the face of changes in access.
3. Assess the measures the government and others have put in place to control and alleviate the problems associated with loss of farmlands and subsequent loss of farm livelihood in the Ga West Municipality.

#### **1.4 Research questions**

The main research question to this effect is how has urbanization affected farmers access to livelihood resources and what strategies have farm families put in place to reduce vulnerability to the changes in access?

1. What are the factors associated with urbanization that have affected access to resources for livelihood activities in Ga West?
2. How have farmers in Ga West Municipal managed to survive the changes in access to farming resources?
3. What is the role of local government and other institutions in assisting families adapt and survive?

#### **1.5 Justification of study**

Agriculture supports about fifty five percent (55%) of the economically active population directly or indirectly through farming, livestock development, fisheries and distribution of farm produce and provision of services to the sector in the Ga West Municipality. About 95% of the farmers are smallholders with 5% being large-scale. Approximately 70% of those in the rural areas of the Ga West Municipality depend on agriculture and agricultural related activities for their livelihood (Ga West Municipal Assembly, 2010). However, the agriculture sector in the Municipality has not seen much growth within the past few years in spite of several government initiatives aimed at facilitating the growth of the sector. This has basically been caused by the loss of existing farmlands through urbanization leading to a growth in estate development and acquisition of land for private housing projects. It has been observed that incomes accrued from the lease of lands to private and estate developers are generally higher than for agricultural

purposes, hence the preference of landowners to sell or lease out lands for purposes other than agriculture (Ga West Municipal Assembly 2010).

This research is relevant and timely because it would inform policy making at the Municipal Assembly level, the Business Advisory Centre (BAC) of the Rural Enterprise Programme (REP) and the Municipal Agricultural Development Unit of the Ministry of Food and Agriculture on what entrepreneurial training and agricultural innovations are needed by different categories of people in the municipality. Interventions must be suited to the peculiar needs of the youth, elderly, male and female farmers in order to build sustainable livelihoods. Additionally, it is expected to assist the Municipal Assembly and other stakeholders to fashion out a more strategic approach to estate development and sand winning to safeguard livelihoods and reduce vulnerability of residents who are dependent on the land.

It would also add to the literature on the much discussed topic of changing access to agricultural land due to urbanization. Little research has been conducted to take a critical look at other agricultural resources which are affected by loss of land. This research can be used to bridge that gap. Finally, it would inform other development partners (NGOs) who want to assist in livelihood activities in the municipality on which project interventions would be suitable for the area to avoid waste and duplication of resources.

## **1.6 Outline of research**

The study is divided into seven chapters. Having looked at a general introduction in chapter one, chapter two discusses the drivers of change in relation to urbanization that may have influenced

access to the farm resources and therefore its implication on livelihood activities of farmer households in the research area of Ga West. In this chapter the sustainable livelihood framework is introduced as a framework for conceptualizing how households adjust to (un)favourable changes which occur in farm resource use as a result of urbanization. Chapters three and four discuss the profile of Ga West Municipal Assembly and also present the methodology of the study. Chapter five captures the changes occurring in access to farming resources and their effect on livelihood patterns, and also the adaptive strategies adopted by farm families in the study communities. Chapter six looks at enabling or disabling institutions and structures affecting their choices and linkages formed in livelihood formation. Finally, chapter seven draws conclusions and makes recommendations based on the findings.

## CHAPTER TWO

### LITERATURE REVIEW

#### **2.1 Introduction**

This chapter reviews literature on the subject of urbanization and how its processes affect access to farm family livelihood resources. It introduces the sustainable livelihood framework as the analytical tool for this study and further dilates on some of the resources - land, labour, technology and credit employed by farm households.

As a critical resource in agriculture, availability and access to land plays a crucial role in how households which are dependent on land are able to adjust to change in land use pattern. The rippling effect of the change is seen in the availability and utilization of other farming resources like labour, tractor usage, extension services and also the farm household's ability to access credit to increase productivity on the farm. In such situations, Boserup (2005) concludes that choices have to be made as to which combination of resources households can adopt to construct meaningful and decent livelihoods.

#### **2.2 Urbanization and farm livelihood construction**

Urbanization as a process of change is associated with alterations in the mode of land acquisition and usage, which invariably relegates the use of land for farming activities to the background. Nearly all urbanization taking place now is in the global south where most families are reliant on agriculture or agriculture related livelihoods. Peri-urban areas remain typically unplanned as state and traditional authorities are more reactive to land issues rather than proactive. This has

negatively affected agricultural development in many Ghanaian localities, especially those at the fringes of cities. In the unfolding urbanization, land for agricultural activities is used for infrastructural development leading to a reduction in agricultural activities and thereby fall in production, increased food insecurity and loss of livelihood resources for some affected families (Kusaana and Eledi, 2015). Thus commoditization of land is promoted to the detriment of poor households who cannot afford to buy land for farming purposes rendering them vulnerable. Whilst some persisting families are pushed further into the hinterland for arable land where they lack access to good roads, technology and extension services, others divert completely to pursue non-farm livelihood activities.

Abass, Afriyie and Adomako (2013) found that in the Kumasi peri-urban interface the key effect of urbanization was the constant conversion of agricultural lands to residential building leading to a reduction in the number of farm households. The rippling effect is that as more families move away from agriculture to the construction industry and to other non-farm livelihood activities, labour to the agricultural sector becomes redundant and has to find employment in other sectors of the economy. In order to mitigate this, diverse range of livelihood portfolios are built to act as safety nets to absorb indigenous families who lose their farmlands.

Similarly, Naab et al, (2013) again found in a case study of Tamale in the Northern Region of Ghana that rapid urbanization has negatively affected agricultural development in many areas. These authors posit that the peri-urban farmer household is always adversely affected because his/her livelihood is dependent on land which is now being converted into residential and industrial infrastructural properties.

### **2.3 Concept of livelihood**

The concept of livelihood is widely used in contemporary writing on poverty and rural development, yet its meaning can appear elusive. When a livelihood system can cope with and recover from stresses and shocks, as well as maintain or enhance capabilities of people, without undermining the natural resource base, it can be said to be sustainable (Scoones, 1998). The earlier versions of the livelihood framework as defined and conceptualized by Scoones (1992) is linked to five outcome indicators of creating workdays, reducing poverty, wellbeing and capabilities, livelihood adaptation and resilience and natural resource base sustainability. Three of these address security, wellbeing and capability issues and their link to work, employment and poverty reduction. The last two focus on sustainability and looks at the resilience of livelihood and the natural resource base on which they depend. This framework incorporates Sen's ideas about the creation of working days for a certain portion of the year where people engage in off-farm or non-farm activities to generate income, production and recognition (Sen 1984, 1987). This recognition transcends survival and brings to focus intrinsic elements like self esteem, security, happiness, power, stress and exclusion (Chambers 1989, 1997).

Chambers and Conway (1992), emphasize that the conventional analysis of livelihood activities along production, employment and poverty lines is defective. They conclude that this is a minimalist approach adopted for ease of measurement. This approach does not capture the complexities and realities of rural lives, in the end it has failed to show the plural priorities of rural life and the varied strategies rural people apply to obtain a living. In the developing world many families depend on several activities including farming, non-farm and wage employment to support them (Lloyd-Jones and Rakodi, 2014).

Ellis' (2000) model which is termed the “assets-mediating processes-activities approach” places emphasis on assets status of households and the productive uses to which these are put. This approach to livelihood gives a view of the survival strategies of the poor and stresses diversity and adaptability as positive aspects of constructing livelihood. For Ellis, a broad array of social relations, institutions and organisations interplay to modify access to the available resources. These resources, assets or capital will henceforth be used interchangeably in this study

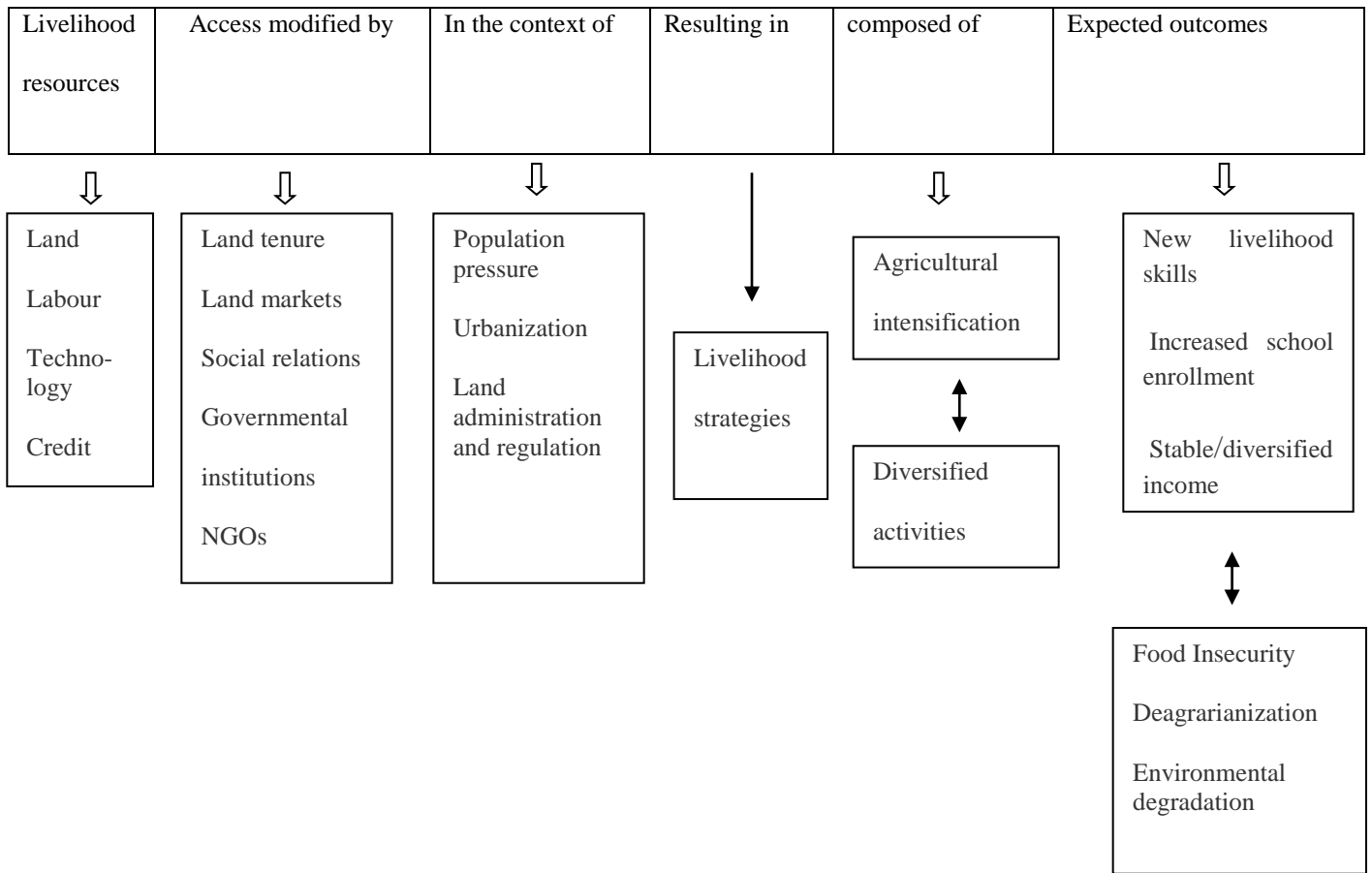
### **2.3.1 Conceptual framework**

The complexity of livelihood construction demands an analytical framework that can incorporate all the aspects of livelihood formation taking cognisance of the contextual dimensions of livelihood and its associated dynamisms. The central theme of livelihood construction is the availability of resources or assets and their combination at different levels under varying conditions for a meaningful living. The livelihood framework would be used to analyse and explain how farmer households in the research communities in Ga West eke out a livelihood with the farm assets of land, technology, credit and labour they command in the context of the current challenges of urbanization and land use change.

In reality, livelihood construction is based on a number of decisions regarding the range of resources available (which by themselves are shifting and interacting in complex ways with other forces and processes) to a household or individual. These resources are combined in a fashion determined by the influences from social norms and policies operating in the communities. To form a meaningful livelihood system in Ga West therefore, access to the aforementioned assets must be utilised in dynamic context of several livelihood possibilities. The outcome of this

interaction informs the farmer household about what decision to take in terms of resource combination that will yield the desired outcome. This then determines the livelihood strategies to be adopted in order to obtain a particular livelihood outcome that brings satisfaction or allows the family unit to achieve their livelihood goals.

Figure 2.1 Livelihood framework



Source: Adapted from Ellis (2000)

### **2.3.2 Strengths and weaknesses of the livelihood framework**

Waddington (2003) asserts that in the absence of a well developed cash economy or where social protection by government is absent or inadequate, the livelihood framework helps to analyse how people put their resources together and diversify their activities to reduce risk and ensure individual and collective wellbeing. The major strengths of the livelihood frameworks recognise that poverty is not only a lack of income, but multi-dimensional in nature. The focus of this approach is on people and draws on the interactions between institutions and structures at all levels and puts emphasis on poor people's agency and opportunities (De Haan, 2012). Special attention is given to institutions at the micro, household or individual level (Ashley and Carney, 1999). The livelihood framework can be adapted to suit any given situation and it is intended for planning and management of resources (Scoones, 1999).

In this adaptability lies the danger of misconstrued interpretation; in that interpreters might lose focus by laying more emphasis on a part to the detriment of others thereby putting the bigger picture of poverty reduction on the backburner. In addition, it only provides a way of conceptualising the constraints and opportunities for livelihood but does not ensure that important factors are not neglected in trying to arrive at a sustainable solution to the problem of poverty. It does not capture every aspect of poverty analysis so other tools like social and institutional analysis are needed in conjunction with this framework (Ashley and Carney, 1999).

Furthermore, the complexities of livelihood such as power relations, gender, market, the private sector among others may be lost (De Haan, 2012). However, these are important in shaping livelihoods which are based on the use of land as a primary resource (Power, 2003). In analysing

livelihoods the unit of analysis is often the household. The assumption is that the household is homogenous and harmonious and ignores important inequalities among women, men, the elderly and children in resource distribution and the different ways in which conflict is manifested and power resisted (Waddington, 2003). Based on this risk, unitary household models have given way to bargaining household models because household members have diverse preferences and resource needs (Udry, 1995). Arguably, he suggests that aggregating the household into a single unit can be possible and justifiable under some restrictive assumptions because neoclassical economists tend to base their theories on the behaviour of individuals (Udry, 1995).

In spite of the above shortcomings of the livelihood framework, Ellis' asset- mediating process – activity approach that emphasises assets status of households and the productive uses to which they are put will be utilized as an analytical tool for this study. The following sections discusses the farm resources that this study looks at; how (in)accessibility to these help shape livelihood choices.

#### **2.4 Agricultural resources and livelihood construction in the context of urbanization**

Despite the discovery of oil and gas in the country, agriculture is still the mainstay of the Ghanaian population. Although the population of Ghanaians engaged in agricultural activities has reduced over the years, the 2010 population and housing census show that it is still the highest employer in Ghana. It employs 41.3% of people fifteen years and above. In Greater Accra Region however, the number of active households engaged in agriculture is 6.6 %. These are mostly poor smallholders (GSS, 2012).

In rural and peri-urban areas of Greater Accra Region, a much higher proportion of the population depends on agriculture for a living. This varies from 31.4 % in some areas to as high as 59% in others (Maxwell et al, 1998; GSS, 2012). Several resources are needed for an agricultural dependent livelihood, the major one being land. Because other technologies which use less land are uncommon or virtually absent in Ghana, a farmer's primary resource is land. After acquiring this other resources are then mobilized to assist in cultivation. Labour, finances, technical know-how and other complementary assets are combined by the farmer for production.

#### **2.4.1 Land as a primary agricultural resource**

In the urban and peri-urban areas of Ghana, the amount of land used for agricultural activities is gradually reducing. Some 2000 to 3000 hectares are lost each year to construction, sand winning and stone quarrying in the Ga districts alone (Larbi, as cited in Maxwell et al, 1998). These are activities related to urbanization which in the short run create employment for some people in the destination community. The authorities are however reluctant to talk about them despite their negative effects on smallholder farmers.

Bryant (1982) attributes the changes in the peri-urban scene, to rapid urban population growth, which is a primary condition for land use change in the fringes of cities. As people search for cheap land for activities other than farming, land owners and heads of families and lineages are willing to dispose of their property and those of the family for capital gains. These have accounted for rapid peri-urbanization and in other instances land disputes in Greater Accra Region (Archer, 1973; Barry and Danso, 2014; Oduro et al 2015). Some respondents in a study by Owusu (2008) in Accra affirmed that there have been changes in the availability of farmland

in their areas within the last decade, a significant move away from the primary use of land for farming purposes. Associated with this change in land use is the increasing value of land. The author observed that when there is competition and market forces are allowed to allocate resources, land will be allocated to the highest bidder and best use.

Raikes (2000) asserts that in Africa, land as the main resource for farming is critical for livelihood construction, especially among the peasantry, yet African farmers have small holdings and an increasing number are landless. In view of the dwindling access to land for farming, farm families that depend on land and other natural resources as a means of constructing meaningful livelihood have resorted to diverse forms of activities for survival. This assertion of increasing landlessness is confirmed in a recent study conducted by Ampadu (2012) who found out that the hitherto vibrant farming communities in South Eastern Ghana, specifically Manya Krobo are now a shadow of themselves. This is so because local land is now a priceless commodity which can be afforded by only the wealthy and influential, making access difficult if not impossible for the poor and landless. Ellis (2000) recognizes that undertaking diverse forms of livelihood activities can enhance the resilience of vulnerable livelihoods by spreading risk and increasing the option for substitution. In effect, people survive by doing many different things rather than just one or few. The way these activities are managed by the household may impact positively or negatively on their standard of living. For the majority of poor rural families, farming alone is no longer able to provide sufficient means of survival (Ellis, 2000).

#### **2.4.2 Changing access to land and its consequences.**

Increases in the price of land as a result of shortage due to demand for land for non-farming purposes, which is a typical occurrence during the process of urbanization has affected most

family farms. Presumably, the larger the proportion of land being used for non-farming activities, the bigger the number of families being deprived of their livelihood in farming. Because claims to land in most parts of West Africa are backed mostly by customary procedures and not legal documents, farm families' ownership of cultivated land may be threatened by stronger interest groups whose priority may not be in farming (Toulmin and Gueye, 2003; Owusu 2007, 2013).

Kasanga, Cochrane, King and Roth (1996) found that prior to the 1980s when population was small and demand was dormant, land was abundant in Accra. Land was mainly used for subsistent farming of cassava, yam, maize and vegetables. This is confirmed by Doan and Oduro (2012 pp 1311) in the following statement "whereas only a decade ago peri-urban Accra consisted of dispersed rural settlements where subsistence agriculture was widely practiced, today these settlements are surrounded by new housing at various stages of construction and little farmland remains". Farmlands are now very scarce due in part to government acquisition or intervention in the land market and rapid urbanization. In a study of compulsorily acquired land by government in Ofankor, Gbawe and Ashongman which until recently were major farming communities in Ga West Municipality, the researchers summarized the effect as follows: there was shortage of land for all uses including agriculture especially in Ofankor (which is still a part of Ga West) and even landlessness of the indigenous people (Kasanga et al, 1996). Subsequently Ofankor has become one of the most urbanized communities in Ga West with retail trade as a main livelihood activity of the residents (Oduro et al, 2015).

Besides government acquisition, Uchizi and Ampadu (2011) found that though uncommon, some chiefs and family heads are using the excuse of marginality of land to dispossess families and

individuals of their land. They argue that some lands are no longer productive for agricultural purposes and have to be sold to land winners and estate developers. Primarily, access to land is derived from social networks in which these leaders play a key role. In recent times, however, some communal custodians in certain traditional jurisdictions are selling land that belongs to collective groups without regards to them, making access to these lands precarious and insecure thereby affecting their livelihood. Uchizi and Ampadu 2011 again affirm that such situations prevail in Kasoa, a fast growing peri-urban community which shares boundaries with Ga West. Some clan leaders have deprived families or family members whose total livelihoods depend on land.

Additionally, until the recent oil discovery in Western Region, Accra was the most attractive place in Ghana as far as livelihood opportunities and jobs are concerned. This situation has put intense pressure on land in and around Accra for residential and industrial purposes, relegating agriculture to the background. Access therefore depends on one's ability to pay. Coupled with this is speculative behaviour by urban dwellers in anticipation of increase in demand and subsequent increase in prices as a result of the continued rush for land for uses other than agriculture (Owusu, 2008). Continued access to land is now dependant on one's ability to pay cash, which is now the mediating medium for acquiring land for any purpose.

Furthermore, the existing land tenure systems practised by a group also determines who has access to land for what purpose and who has not. Generally, land tenure systems vary widely among countries and between the developed and developing countries. In SSA the most prevalent is the customary land tenure system where whole communities, clans, lineage or

families but not individuals own the land. The individual as a member of the unit enjoys unrestricted access or right to usage. But this customary collective land ownership is undergoing structural changes due to demographic pressures and global economic paradigm shifts. Commercialization, individual ownership and secure land titles are now the norm. There is a view that the cumulative effect of the changes occurring as a result of urbanization are leading to the destruction of agricultural livelihood without alternative and viable strategies for diversification for families involved (Gough and Yankson, 2000; Owusu, 2008).

## **2.5 Access to, and use of labour on family farms**

In most parts of West Africa, farm production is organized around unpaid family labour. Although there is no cash payment for family members who work on family farms, they receive support in the form of food, shelter, support and security in old age and other obligations which members have towards one another as a single unit (Toulmin and Gueye, 2003). Commitment of labour to the family farm ensures that members maintain their rights to a part of the farm in the event that the farm has to be shared because the principal owner who is usually the head of the household has died. Although family labour is heavily relied on, non-household labour also provide a significant additional source for land preparation, cultivation, harvesting and other crucial activities pertinent to agricultural production. This happens when there is insufficient labour in the household (Toulmin and Gueye, 2003; Garner and Compos, 2014). This may be due to reasons like out-migration by members of the family unit to seek employment outside their homes as a result of reduced farm sizes emanating from rapid urbanization.

The type of labour normally associated with small scale food farmers in Ghana is mainly family labour where members of a family operate as a production unit. Additionally, there is the

indigenous cooperative popularly called '*nmoboa*' which works on the basis of reciprocity and finally hired labour where labourers are hired either on daily basis or on contract basis for a period of time (Benneh, 1988). The quantity and quality available in terms of education, skill and health level constitute the human capital that is basic for formulating livelihood strategies. In a context where mechanization is virtually absent, having access to both the right quantity and quality of labour affect the level of household farm income. When it becomes necessary skilled labour can be diversified into other non-farm income earning activities to provide additional income for the household (Takane, 2008).

It is estimated that 65% of land in SSA is prepared manually, which translates into sixty (60) days per person to clear a hectare of land for cultivation. This makes human labour a critical part of the production process both in terms of availability and productivity. Where such labour is limited, production as well as productivity is also low. In Ghana, Egyir and Ackah-Nyameke (2006) found in their research on urban and peri-urban agriculture (UPA) that, the non-agricultural labour market in peri-urban and urban Accra is well developed. However, most of the energetic youth prefer to sell along the major streets of Accra rather than engage in weeding small farms popularly called "by day" in the local parlance. Nonetheless labour supply is better on large farms where monthly salaries are assured. This means that if farm sizes were not reduced as a result of reduced sizes of farmland due to the phenomenon of urbanization, labour would have been available to work on farms. Farmers are therefore forced to rely on their own labour and that of their families where available. Households use various means to circumvent some of the constraints to access by hiring additional labour to assist on farms or employ the

*nnoboa* system mentioned earlier. Others also borrow labour saving equipment from neighbours to minimise the use of human power (Bishop-Sambrook, 2003).

## **2.6 Technology: Effect of urbanization on access to mechanization and extension services**

### **2.6.1 Mechanization of agriculture in Ghana**

Mechanization is said to reduce the drudgery in farm work, increase productivity and quality of farm products. This in turn reduces the cost of production and increases farm incomes thereby curbing migration of the youth to the cities. In developing countries, the kind of mechanization employed is mainly hand tool technology (70%) and animal draft power (20%) (Harvard and Wander, 1999; Sims and Kienzle, 2006). However, the use of mechanical power is very minimal in countries like Ghana (Josiah, Bani, and Mahama, 2008), which are still making significant efforts to improve agriculture through mechanical farming (MaCauley, 2003). Power tillers and tractors which are often suitable for small scale farms in other parts of the world are found to be unsuitable for the soil and climatic conditions that prevail in SSA (Ellis, 1992; Raikes, 2000).

In Ghana, trials of mechanization started as far back as 1938 in the north of the country with the introduction of animal traction. Over the years the use of tractors for farming was intensified and acquisition of tractors for large scale farming was done. In the 1960s and 1970s, large quantities of agricultural mechanization machines were imported, but this proved unsustainable and subsequently failed. This failure was partly as a result of limited training for users, high initial and running cost, inability of farmers to pay for services, inaccessible and small farm sizes as a result of fragmentation and change in land use pattern due to urbanization (Rijk, 1999).

Under the structural adjustment programme in 1986 funded by the International Monetary Fund (IMF), the government of Ghana decided to withdraw completely from agricultural mechanization for the private sector to take over (Ngeleza, Owusua, Jimah, and Shashidhara 2011). In recent times however, government has again taken up the provision of subsidized tractor services with the introduction of centres called Agricultural Mechanization Services Enterprise Centres (AMSEC). This initiative forms part of government's bid to transform agriculture through the accelerated agriculture modernization policy. This is supposed to provide timely and affordable mechanized services to farmers who cannot afford to buy tractors on their own. From 2003 when it was set up till date there are 87 AMSECs in the country, three of which are in Greater Accra, out of these, two are in the Ga West Municipality (Houssou, Diao, Cossar, Kolavalli, Jimah and Aboagye 2013).

In spite of the above effort by government, human labour is still highly used on farms but it is also not economically feasible for an individual farmer with less than five hectares of land to own a tractor. While the last option is considered appropriate for the farmers, a recent research by the International Food Policy Research Institute (IFPRI) in 2012 shows that mechanization may not be sustainable on the grounds that the conditions for successful mechanization more often than not are absent in Ghana. These factors among others include the reasonable plot sizes, reasonable access to fields and shape of the fields on which the tractors would be used. These conditions are necessary for farmers to obtain the full benefit of agricultural mechanization initiatives (Benin et al., 2012).

From the literature, it's been realized that government intervention in the provision of tractor services has not always been successful. Secondly, as land holdings for agricultural activities is turned into infrastructural development due to urbanization in Accra (Maxwell et al, 1998), the use of tractors become redundant and other technologies have to be introduced to families engaged in farming. Additionally, in the absence of tractor services, new structures could be introduced to stimulate local production and manufacture of small farm equipment by recognizing the different ecological zones and changes occurring in the use of land due to the process of urbanization (International Rice Research Institute 1998; Sims and Kienzle, 2006; Houssou et al, 2013).

The recent mechanization programme (AMSEC) initiated by government was found to have increased the cultivation of land size per farmer from about five acres in 2008 to 6.9 acres and 7.8 acres in 2009 and 2010 respectively. However, farmers who increased their farm sizes benefitted from extension of their acreage through block farms which made available more land for the purpose. This suggests that such a programme cannot benefit farmers in areas where there is limited access to farm land. Hence mechanization in urbanized areas where such conditions exist as in Ga West cannot be successful (Benin et al, 2012).

Furthermore, smallholder farmers who have reduced farm sizes due to change in the use of land are not able to access these subsidized tractor services because they are left to compete with commercial farmers. As agriculture is time bound, such waiting periods do not augur well for production. Hence tractor usage is mostly by private operators who are not subsidized by government and so charge more. From the above the use of tractor services for farming is limited

as a result of continued rapid and urban growth, unavailability of tractor services and farm size among others. While mechanization is critical in improving agriculture, and reduce drudgery of operations, it is not suitable for urban areas because of the factors discussed above thereby supporting de-agrarianization processes, hence the use of machines in urban areas where agriculture is characterized by small land size areas is not necessary.

### **2.6.2 Access to and role of extension agents in agricultural livelihood formation**

Closely related to mechanization are extension delivery services which have been used to disseminate technologies generated by public sector research institutions through demonstrations, field visits, farmers meetings and use of the media. Advisory services and non-formal education approaches have also been used at various times to transfer specific management practices such as integrated pest management or some technical knowledge to increase production. Facilitation extension which is now the most widely accepted approach acknowledges that extension agents should facilitate the teaching and learning process by acting as knowledge brokers. In this procedure, farmers with common interest are brought together to work towards achieving a common objective through needs assessment (Beintema and Stads 2004; Swanson and Riikka 2010). Among other factors however Martey, Al-Hassan and Kuwornu, (2012) found that the level of agricultural extension services in Ghana is low. This is characterised by lack of access to extension agents and has implications on the extent to which farmers are able to gain surplus output for commercialization and hence livelihood and food security enhancement.

A SWOT analysis of extension delivery in some Asian and African countries by Oladele and Sakagami (2004) indicated that in Ghana one of the strengths of extension service delivery which can be harnessed to improve access is that there are officers at the grass root level who have improved qualification, competencies and experiences with the potential for effective delivery of extension services. These qualities are necessary to boost agriculture but lack of access to transportation services in rural areas which is a common feature in developing countries hinders the delivery of extension services. This implies that apart from contact during open fora, extension agents find it difficult to contact farmers individually on their farms on regular basis. Those who urgently need their services call them through the use of mobile phone services which have been enhanced as a result of urbanization (Dzadze, Mensah, Aidoo and Nurah 2012).

In a study on rice farmers in northern Ghana, Al-Hassan (2008) estimated the extension agent farmer ratio to be 1:3000, denying farmers of regular extension visits or contact. This means that, farmers' contact with Agricultural Extension Agents (AEAs) per year was minimal, meaning that some farmers were left out of extension services. The situation might be better in urban and peri-urban Accra as Egyir and Ackah-Nyamike (2006) also estimated the extension agent farmer contact to be 1: 500 resulting in as low as (1) visit per annum. The effect is the same as farmers do not get the necessary and recommended technical know-how to effectively apply to increase productivity. Extension methods which attract attention and stimulate desire for further contact were not commonly used by AEAs. These methods were itemised by Directorate of Agricultural Extension Services (2011) of the Ministry of Food and Agriculture as field days, agricultural shows, cinema or film shows, and brochure and leaflet distribution.

Access to extension services should be able to address the new challenges in agriculture. Moreso, extension agents should play a more diversified role as access to resources for farming dwindles especially in the face of urbanization so that they can become relevant. They must assist farmers to form linkages, promote crop diversification and encourage smallholder farmers to adopt agricultural intensification technologies which require less land to increase production (Madhvani, Pehu and Birner, 2010).

Additionally, a broader rural livelihood approach is needed by extension agents to deliver information on local organization development like farmer based organizations (FBOs), micro enterprise development, non-farm employment and environmental issues. These were the activities that MOFA found out through an evaluation of extension service delivery in Ghana that farmers were reluctant to request from extension agents because they (farmers) doubted their (AEAs) ability to deliver (MOFA, 2011). This suggests that farmers do not have confidence in the extension system and agents, a trend which has to be addressed if AEAs are to contribute to the livelihood activities of their respective clients. Davis (2008) and Hussein (2007) note that technological adoption and decision making by smallholder farmers are influenced by their contact with extension agents.

Generally agricultural extension systems are meant to enhance technical, managerial and marketing skills of farmers, be they small, medium or large scale, landless or indigenous farmers to improve their livelihood. In order to achieve this, it is necessary to differentiate the type of farmer household, their context, that is whether or not they have land, their location which may

be urban or rural and then formulate appropriate extension services to meet specific needs. (Swanson and Riikka, 2010).

### **2.7 Effect of urbanization on access to credit in smallholder farming**

In developing countries, credit provision in agriculture has been a popular state intervention as well as one of the largest agricultural sector recipients of aid funds from donors. Over the years, financing smallholder farms has been a concern of most governments of developing countries. Pre and post-colonial development efforts in Ghana demonstrate that governments over the period have given half-hearted attention to smallholder food crop farmers who form a greater majority of the peasantry and agricultural labour force as against cash crop farmers who have benefitted from government effort to promote cash crops for the export market (Social Enterprise Development Foundation (SEND Ghana, n.d). Although there is a huge need for agricultural credit to ensure the day to day running of smallholder farms and to assist their development, this is faced with a limited or non-existent supply. Financial institutions and banks find it difficult to advance credit facilities to smallholder farmers because of the issue of non-payment due to dependence on rain fed agriculture, fungibility of credit and low productivity as a result of less cultivation area due to reduced access to farm land. Few smallholder farmers benefit from credit today (Lesaffre and Perche 2002).

Small scale farmers have always played a dominant role in agricultural productivity in rural SSA, but this role is hindered by limited access to credit. Research has established that the surest way of breaking the vicious cycle of poverty in these rural communities is by giving farmers increased access to credit to boost their productivity and to subsequently strengthen the rural

economy (Oruonye and Musa, 2012). “Credit constraints have a dampening effect on input use and farm productivity” (Awunyo-Vitor and Al-Hassan 2014: 239). Microfinance institutions (MFIs) can also contribute to create more access for family farms. For them to be able to design an appropriate credit scheme for agriculture there is the need to have adequate knowledge about the calendar and constraints in agricultural production. This is important because natural, economic and political factors can affect the delivery and repayment of credit advanced to small farms. If MFIs are faced with unfavourable conditions, there is the tendency to invest carefully and to limit the share of agriculture in their credit portfolios and concentrate in areas where the above mentioned factors would not negatively affect credit advanced and repayment rate (Lesaffre and Perche 2002).

A study by SEND Ghana, an NGO, showed that most smallholder farmers do not have access to credit because they cannot produce the collateral demanded by FIs. Those who are able, borrow money at high commercial rates because FIs are unwilling to lend money to farmers at lower rates. Beyond this group the majority borrows from informal sources because no collateral is needed but their rate of interest is much higher than that of the FIs. Thus smallholder farmers have to contend with such borrowing and lending environment if they need to secure credit for agricultural activities. This necessitated the setting up of an Agricultural Development Bank (ADB) in Ghana to assist farmers get easy access to credit to boost production and to reduce rural poverty. Established by an Act of Parliament in 1965, ADB is one of the prime institutions through which public funds are channelled into agricultural production. The ADB was mandated to extend finances mostly to farming and allied activities but Mensah (1993) and Ranade (1994)

as reported by Dzadze (2012) found that only 27% of ADB's branches were in rural areas and 15% of their loan portfolio was advanced to farmers in rural areas.

Empirical evidence from a study in rural Ghana showed that access to formal credit is significantly influenced by educational level of farmers, possession of savings account and contact with agricultural extension agents. These variables are not finite but can be offset by the formation of groups either ad hoc or formal based on group solidarity or mutual trust of the members to access formal loans from FIs (Dzadze et al, 2012). This means that in Ghana members of farmer based organizations (FBO), be they literate or not can access loans from formal banks.

## **2.8 Resource combination in livelihood formulation**

Formulating resilient livelihood in agriculture requires that resources are combined in a particular way to achieve a desired result. The intensity of land use varies across the globe. In the past, a greater part of Africa and Latin America and some parts of Asia engaged in extensive land use. Any type of land use that the smallholder farmer adopts depends on the availability of resources, not only land but availability of labour and technology are determinants of which land use type a family in farming adopts (Boserup, 2005).

Changes in the availability of land will always elicit adaptive responses from farmers. As land becomes scarce due to changes in land use pattern, farmers are expected to intensify agricultural production by adopting technologies that help them increase output not through land expansion but by using land-saving technologies. They can as well diversify into high value crops that yield

more returns per unit of land and labour. Following rapid urban growth and changes in traditional tenure systems in Kenya, farmers had to adjust their decision with facilitation from extension agents to meet the increasing demand of producing on smaller farms (Oduol and Tsuji, 2005). In addition to land intensification, labour substitution and better knowledge management through extension services is required in such situations for farm families to be able to adapt and improve their livelihood (Pingalli, Hossain, and Gerpacio, 1997).

In most parts of the world, the introduction of tractor services increases the intensity of cultivation because all other complementary services are rendered by these tractors; this reduces the use of human power drastically. Nonetheless in Ghana because tractor services are limited to land preparation to the exclusion of other services, farmers rather tend to increase their farm size to be able to benefit from mechanization. For this reason peri-urban areas in Ghana which are experiencing reduction in farm sizes due to rapid urbanization may not benefit from such initiatives (Agarwal, 1983; Houssou et al, 2013 ).

By and large it is realized from the literature that livelihood construction based on agricultural and other natural resources is determined by a synergistic combination of factors, none of which can be described as superior or unimportant. The conceptual framework as presented in figure 2.1 serves as a guide in conceptualizing the intricacies of livelihood construction.

## **2.9 Conclusion**

From the literature reviewed, access to farm resources determines the combination of strategies that farm families can adopt for meaningful and resilient livelihood. Several authors cited above

(Kasanga et al, 1996; Owusu and Agyei , 2008; Uchizi and Ampadu, 2011 ) have confirmed that the phenomenon of urbanization has resulted in reduced access and usage of the resources under discussion is a reality in some peri-urban areas of Ghana. However, farmer household's ability to reduce vulnerability and attain decent living is dependent on enabling structures and their ability to combine available resources for meaningful livelihood construction.

## CHAPTER THREE

### PROFILE OF STUDY AREA

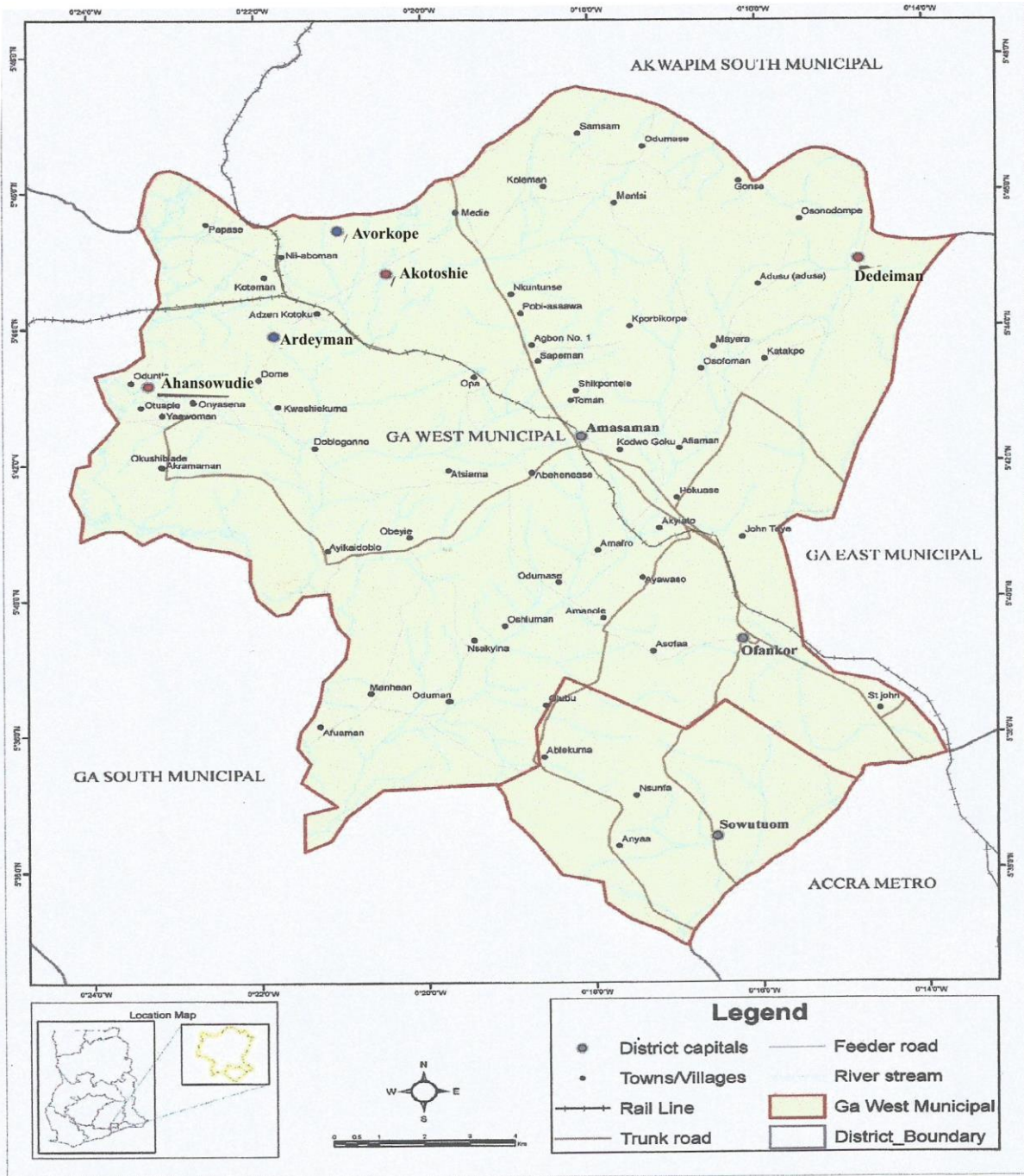
#### **3.1 Introduction**

This chapter takes a look at the profile of the Ga West Municipality and gives a description of the area. It begins with an overview of Ga West, including its physical setting, demography, vegetation and climate. The economic activities that the people engage in, including agriculture, manufacturing and service provision are also discussed. Finally, land and land tenure systems are briefly described.

#### **3.2 Physical Information**

Ga West is one of the sixteen municipalities and districts in the Greater Accra Region. It was formed out of the then Ga District in 1998. It lies within latitude 5<sup>0</sup>48' and 5<sup>0</sup>39' north and longitude 0<sup>0</sup>12 and 0<sup>0</sup>22' west and shares boundaries with Ga East Municipal and Accra Metropolitan Assembly to the east, Akwapim South and West Akim to the North, and Ga South Municipal to the south. Amasaman is the capital of the municipality. Figure 3.1 shows Ga West Municipality. The study communities are designated by red dots and the control communities by blue dots.

Figure 3.1 Map of Ga West showing research communities



Three major rivers namely the Densu, Nsaki and Ponpon rivers drain the municipality. The largest of the three is the Densu which drains down from the Eastern Region through the western portions of the municipality to Weija where it enters the sea. It is the main source of water supply to over half the entire population of the Accra Metropolis. Other water bodies mostly tributaries of the Densu are the Adaiso, Doblo and Ntafafa. The soils are rich in sandstone and limestone that are good source of material for the construction industry, hence the uncontrolled and extensive winning of sand for the fast growing estate development industries springing up in the municipality.

### **3.3 Demography**

The dynamisms inherent in demographic issues have policy and livelihood construction implications and hence would affect the lives of families in peri-urban locations where farming is the mainstay of the people. In Ga West, the migrant population is greater than the indigenous land owning families and this has effects on land access for farming activities in the municipality. Ga West Municipality is occupied by the indigenous Gas. It has pockets of settler communities which are mostly Ewe speaking communities. There are however people of other ethnic groupings like the Akans and others of Northern descent in the municipality. The 2010 census report gives the population of the municipality as 262,742. Of this number, 181,526 persons live in urban locations and 81,216 live in rural locations. The average number of persons in a household is four (Ghana Statistical Service, 2012). The municipality occupies an area of 710sq km. In 2000 when Greater Accra Region had a population density of 895.5 persons per sq km, that of Ga West was 491 persons per sq km. The current 2010 population density of Greater

Accra is 1,306 persons per sq km, it follows logically that the population density of Ga West has also increased (Ga West Municipal Assembly, 2012).

Communities in Ga West Municipality totalling 196 are grouped under six zonal councils by the municipal assembly. These are Amasaman, Ayikai Doblo, Kotoku, Mayera, Ofankor and Pokuase zonal councils. Major urban and commercial towns also include Pokuase, Ofankor, Amasaman, New Achimota and Omanjor (Ga West Municipal Assembly, 2012). The Percentage of the population of the three major ethnic groupings in the municipality is as follows: The Akans are in the majority and form 44.3%, of the total population, followed by the Ewes who form 25.7% and the indigenous Ga-Dangme are 19.1% of the total population of the municipality (Ghana Statistical Service, 2012).

### **3.4 Vegetation and Climate**

The Municipality lies wholly in the coastal savanna agro-ecological zone. The relief is generally undulating at less than 250 feet above sea level except for the areas around the Akwapem hills. The rainfall pattern is bi-modal with an annual mean varying between 790 mm on the coast to about 1270 mm in the extreme north. This means that, all things being equal, farmers in the municipality have two cropping seasons to plant their crops and harvest for the market. This is expected to enhance their livelihoods and reduce vulnerability.

### **3.5 Economic Activities**

Various forms of Agricultural activities serve as a source of livelihood for about 55% of the economically active population in the municipality directly or indirectly through farming, livestock development, fisheries, distribution of farm produce and provision of services to the sector. Agriculture is rain fed but rainfall is insufficient and erratic and irrigation infrastructure is almost non-existent. Approximately 70% of those in the rural areas of the municipality depend on agriculture and its related activities for their livelihood. About 95% of the farmers are smallholder farmers who cultivate cassava, maize, cowpea and vegetables. The rest of the 5% who are large scale farmers cultivate non-traditional export crops like chilli pepper, pawpaw, pineapples and Asian vegetables like tinda and marrow. Due to the availability of water bodies, fresh water fishing is commonly practised in some communities like Manhean and Afuaman which are near rivers (Ga West Municipal Assembly, 2012).

Over the past few years the municipality has seen growth in the service provision and manufacturing sector but little growth in the agriculture sector. Productivity in the area is low due to high illiteracy, poor soil conservation, improvement and management, low capital and high cost of inputs. There is also high incidence of pests and diseases and subsequently high post harvest losses of between 25% and 30%. The losses in cowpea, cassava and vegetables are even higher (Ga West Municipal Assembly, 2012).

Growth in the industrial sector has been in the establishment of manufacturing companies such as Voltic and Aburaaba Mineral Water Companies, aluminium manufacturing companies such as Rocksters and Instyle Companies and improved performance of existing ones like Agya

Appiah Bitters and Le Country manufacturing just to mention a few of them. The financial service sector has also seen some growth with Amasaman as the head quarters of the main banking institution, Ga Rural Bank which has branches at Achimota and Mallam. Other commercial banks like Standard Chartered Bank and Ecobank are also in brisk business in Achimota. With respect to transportation, a large proportion of the road network is unpaved with generally poor conditions, becoming inaccessible in the raining season. The Achimota-Nsawam –Kumasi highway passes through the municipality. The main Accra –Nsawam railway line also passes through the municipality with three stations at Adzen Kotoku, Opah and Amasaman.

### **3.6 Land tenure system**

In the study communities of Ga West, chiefs are the custodians of the land and hold it in trust for their subjects. Direct ownership is however in the hands of clan or family heads. In spite of this, anyone in the lineage could inherit from the grandparent/parents. Land could be owned either by direct purchase or leasehold. Share cropping tenure arrangement for a period of one farming season is also common. Land sale is one of the quickest ways of making money and the major cause of conflict among the people. Hence, land as a resource for agricultural production is under siege from the estate development sector. In view of this, land sizes for agricultural activities are small and over exploited (Ga West Municipal Assembly, 2006). The rising value of land, which in part is due to the creation of land markets in peri-urban areas, has led to the unrestrained sale of land which was hitherto given out to family members and even strangers who want to engage in agricultural activities free of charge. One's ability to pay is now the main deciding factor of land ownership in urban and peri-urban areas. Opportunities for urban

agriculture have become less as a result of intense competition in allocating land through the market (Yaro and Zacharia, 2008).

### **3.7 Conclusion**

From the profile above, the geographic location of Ga West Municipal at the periphery of the capital city of Accra has been a major contributing cause of change in access to agricultural resources (Yaro and Zacharia, 2008). However, other naturally occurring relief and drainage features like the rivers and streams which flow through many communities in the municipality aid many households around these water bodies. Household members are still inclined towards various agricultural activities although other prevailing conditions associated with agricultural land holdings dictate otherwise. Additionally, the peri-urban location can help create a niche market for high value vegetable crops which are mostly consumed by urban dwellers and have export value as well. Thus Owusu and Agyei (2008) have concluded that the changing land use pattern from predominantly agricultural base to other uses in peri-urban Accra have created opportunities and challenges, losers and winners and impacted differently on all categories of people.

## CHAPTER FOUR

### METHODOLOGY

#### **4.1 Introduction**

This research hinges on access to farming resources by farm households in peri-urban area of Accra. This has become necessary as a result of the change in land use and access patterns resulting from the current urbanization processes and how it impacts on livelihood construction activities of farm families. This chapter outlines the methodological approach and processes used to elicit the necessary information needed to address the research questions posed earlier. The complexities of livelihood formation require a combination of different data sources and research techniques. To obtain a holistic view of the intricacies involved in how households react to changing access to farming resources, different categories of stakeholders are needed and hence a combination of methods and approaches necessary. The mixed method approach which allows researchers to cater for inadequacies of a single method (either the use of quantitative or qualitative techniques) was used in the study (Creswell, Fetters and Ivankova, 2004). A triangulation method was also employed to help affirm responses and findings elicited from respondents, thereby making authentic the finding therein.

#### **4.2 Research approach**

This research adopts an exploratory and qualitative case study approach involving a mixed method of data collection. According to Yin (2003) the case study approach gives the researcher opportunity to obtain detailed, practical and contextual understanding of a social issue. In this case, the phenomenon of urbanization and change in access to farming resources

that this research seeks to investigate. The intensity and rapidity of the process of urbanization vary from location to location. It is therefore imperative that diverse strategies be adopted by affected farm families. Although urbanization is taking place all over, this case study was necessary to bring out peculiarities associated with the process in the Ga West Municipal Area. Some quantitative data was also used in this study to give one a sense of the scale of occurrence of the phenomenon under investigation (Laws, Harper & Marcus 2003). Thus quantitative data was used to buttress points and issues raised in interviews with key informants in the study communities in Ga West.

### **4.3 Sampling technique**

Different sampling techniques were used at different stage to select respondents. The first stage involved the selection of five communities using purposive sampling. This sampling technique allowed the researcher to deliberately pick areas in which the phenomenon under investigation was more pervasive and needed a serious and immediate attention both in research and policy. The aim was to obtain relevant information from respondents to assist in unravelling the dynamisms associated with (in)access to farming resources in Ga West Municipality and its impact on different groups of individuals. Additionally, the choice of this technique was informed by preliminary investigations conducted by the researcher at the Municipal Agricultural Development Unit (MADU) and the Municipal Assembly (MA). It was revealed that there were some communities in the municipality in which farming was no longer relevant to their livelihood. These communities were once vibrant farming communities which no longer have any more farmlands due to activities of sand winners and estate developers. Members of these communities were mainly engaged in non-farm income earning activities. The

communities thus selected for the research based on this information were Ahansowudie, Akotoshie and Dedeiman as study or treatment communities and Ardeyman and Avorkope as control communities in which farming had become a secondary source of income for the households because they could no longer access the resources needed especially land for farming.

At the community, individual household heads were selected using systematic random sampling. The electricity meter numbering on houses and other forms of house identifications were used to identify the number of housing units in the community. After obtaining the number of houses in each community, this number was divided by the number of respondents required. The following calculation was used to undertake a systematic random selection of which housing unit an interviewee (household head) was picked and interviewed. In this case, for each community selected the household to select was identified by using the formulae:

Total number of houses / total number of respondents. So in the case of Ahansowudie which had 70 houses, we had  $70/12 = 5.8$  household selected. This means that every sixth house was picked for a respondent. A similar process as described above was used to select the control respondent households.

#### **4.4 Research population and sample size**

The unit of analysis for the study was farmer households in Ga West Municipality of Greater Accra. The choice of location was influenced by the fact that the phenomenon of changing farm resources as a result of urbanization and its attendant issues and possibly, the consequent

diversification associated with it seemed pervasive in this area. Three communities in the municipality were selected based on the following characteristics: nearness to a major road, proximity to a perennial water source and finally a community further away from a major road.

The reason for these criteria was to bring out the various scenarios pertaining to the situation of resource loss and how communities' geographical and ecological locations affected the dynamisms. The individual communities as presented in the Municipal Water and Sanitation Plan (2011 -2014) which fitted the above description included, Akotoshie, Ahansowudie and Dedeiman. Akotoshie is about 3km away from the Accra–Nsawam highway and has a population of 1,327. Taxis are a common sight from Medie Junction through Akotoshie and other communities to Adjen Kotoku.

The second community, Ahansowudie is about fourteen kilometres (14km) away from Amasaman the capital of Ga West. It has a population of about 484 persons. The Densu River is near this community and is a major source of water for farming and household chores. This community is accessible by the use of a feeder road which is mostly used by heavy duty trucks which carry sand to the cities. It becomes impassable and sometimes gets cut off in the rainy season. Residents mostly rely on motor cycles as a means of transportation.

Finally, Dedeiman with a population of 221 persons lies below the Akwapim range and it is also about thirteen kilometres (13) from Pokuase which is the nearest big town. Dedeiman does not have its own lorry station and those who want to travel to Pokuase or Amasaman have to wait for

vehicles which are passing through the community from Nsakyi in the Akwapim South Municipality of the Eastern Region.

At the community level, ten percent of household heads were interviewed in each of the three communities selected. Using the mean municipal household size of four (GSS, 2012) and 2,032 as a total population of these three communities (Ghana Shared Growth and Development Agenda, Ga West Municipal 2011- 2014), the number of respondents picked for each community is found in Table 4.1. These approximations were necessary because there was no reliable data at the community level to show the exact number of individuals in each household. Ten percent of total number of households was chosen due to time and financial constraints. Furthermore, gaining rich understanding of a situation in a particular context is more important in qualitative research than trying to gather data that can be generalized to other geographic areas (Laws, Harper & Marcus 2003). Hence the 10% of household heads in each of these communities were selected.

Table 4.1: Sample size calculation for respondents in study communities

Name of Community	Population of community	Total No. Of households in community(sample population /4)	No. of household heads interviewed (no. of households *10%)
Dedeiman	221	55.50	5
Akotoshie	1,327	331.75	33
Ahansowudie	484	121	12
<b>Total</b>	<b>2,032</b>	<b>508.25</b>	<b>50</b>

After selecting respondents for the interview with farmer household heads, another 21 respondents were selected to serve as a control group in two other communities for the study. The main criterion for purposively selecting the control communities of Ardeyman and Avorkope also in the municipality was the households' inability to access arable land in their communities for farming, and hence only engaged in farming as a secondary income generating activity, unlike those households in the study communities whose main livelihood activity was farming. The purpose of selecting this control was to bring out and ascertain whether the livelihood changes experienced by these two groups when juxtaposed against each other could be attributed to the variables of land, labour, mechanization, extension services and credit .under discussion. The control respondents were selected using the same technique of systematic random sampling described above in these two (2) communities in the municipality. Ardeyman had a population of 621 persons and Avorkope's population according to the municipal water and sanitation plan was 252. The total population of these communities was 873 with 218 households. The five communities used for the study was picked out of a total of 196 communities in the municipality. Calculating the sample size is shown in table 4.2

Table 4.2: Sample size calculation for respondents in control communities

Name of Community	Population of community	Total No. Of households in community( sample population /4)	No. of household heads interviewed (no. of households *10%)
Ardeyman	621	155.25	15
Avorkope	252	63.00	6
<b>Total</b>	<b>873</b>	<b>218. 25</b>	<b>21</b>

Two groups were used for the FGD. A first group of both young men and women from farm households who were part of their parents household were selected as participants for the focus group discussion (FGD) using homogenous sampling. This selection was necessary in order to present a holistic view of all members of the household. Homogenous sampling was necessary in order to have people with similar experiences and knowledge in farming. A second group of young men and women whose parents were not dependent on farming as a major livelihood activity was selected for further FGD in one of the control communities. Two FGDs were conducted, one in a study community of Akotoshie and another one in a control community of Ardeyman. The number of people who took part in the FGD in Akotoshie was ten and those who took part in Ardeyman were seven.

The FGD is a carefully planned discussion which when facilitated properly allows for opinions to be expressed on issues in a permissive and non-threatening environment. The assumption was that people would become aware of their own perspective when confronted with disagreements by others. In addition eight (8) key informants were purposively selected and interviewed, one each from the five (5) communities and three (3) from relevant institutions; Municipal Assembly, Municipal Agricultural Development Unit and the Rural Enterprise Programme. The FGD and the key informant interviews were to help give a holistic interpretation of the phenomenon of urbanization and the subsequent change in access to resources experienced by farm families in the research area (Blaikie, 2000).

#### **4.5 Data collection instruments**

A semi structured interview schedule containing both open ended and closed ended questions was used to seek in-depth knowledge of the issue of resource changes and diversification from

heads of households of farm families in the study communities. The interview allowed respondents to fully express their views. According to Twumasi (2001) this form of interview technique is appropriate for all segments of the population but the interviewer must be able to speak the language of the people and understand their culture. As and when necessary the interviewer can adjust the questions to suit the situation. This allows the researcher to elicit responses that are meaningful and culturally salient and sometimes unanticipated (Creswell, 2003). It also allows for flexibility in how questions are asked and answered.

A second semi structured interview guide was used to conduct key informants interviews. Interviewees were made up of one (1) Planning Officer at the Municipal Assembly, one (1) Municipal Development Officer of the Ministry of Agriculture, one (1) Head of the Business Advisory Centre (BAC) of the Rural Enterprises Programme (REP) in Ga West. The purpose was to find out how they were dealing with the rapid livelihood changes in the municipality and what policy changes they had instituted as authorities to enable households construct meaningful livelihoods and finally if there were any interventions by government and other institutions to cushion affected families. The interviews were recorded. In addition, one (1) opinion leader in each of the research communities was also interviewed as a key informant using the same interview guide used for the officials. A focus group discussions guide was used to interact with selected youth of the research communities. The responses were also recorded using a tape recorder.

These instruments were tested before finally administered. This was to ensure that there was no ambiguity in the choice of words and that the researcher had been able to render exactly what was intended in the instrument and the rendition was also culturally acceptable.

#### **4.6 Method of data analysis**

This study was basically a qualitative one, but quantitative data was necessary to ascertain how widespread the affected families themselves perceived the phenomenon. For this reason descriptive data of percentages, frequencies and proportions were used to analyze the objective which sought to find the effect of changes in access to farming resources and assess the combination of resources and strategies which affected families adopted. The quantitative data was analyzed using SPSS version 16.0 and tabulated as frequency and percentages. The asset pentagons were analysed and represented by the use of Microsoft excel. The focus group discussions and the in-depth interviews which were recorded were transcribed thematically. The output was then used to address the questions posed at the beginning of the study. Generally these answers sought to explain what policy measures and framework government and other stakeholders had instituted to assist affected families.

The sustainable livelihood framework as shown in figure 2.1 was used analytically to answer specific questions pertaining to the study. The resources as categorized in the literature was assessed based on availability in the past and present, in trying to delineate the change in access over time the asset pentagon was used to graphically show the changes. The access level for the various resources listed by respondents as important both in the past and present was calculated using percentages. For uniformity and to avoid ambiguity, the total number of households which

employed a certain resource at a particular time was used to calculate the percentage of access level. This is because there is no standard quantity or level of resource combination that can be used as a measure against the actual. Additionally, some resources like water and trees could not be quantified and so a uniform measurement had to be used, hence the use of number of households with access within a particular time period and not the quantity of resources available.

#### **4.7 Conclusion**

The combination of different data sources and research techniques used enabled the researcher to obtain a greater degree of reliable information to address the research questions posed at the beginning of the study. The use of both qualitative and quantitative methods with different categories of respondents helped authenticate the findings through triangulation. This gave the researcher the opportunity to delve into details of that particular context in which the issues under investigation occurred.

## CHAPTER FIVE

### RESEARCH FINDINGS:

#### EFFECT OF CHANGES IN ACCESS TO FARM RESOURCES

##### **5.1 Introduction**

This chapter discusses the changes that have occurred over the years with regard to access to farming resources. It focuses on the factors or drivers of change and their overall effect on farm livelihood of the respondents as a result of urbanization. It delineates the effect on families which still depend on farming as a basic source of livelihood and juxtaposes it against families or households which engage in farming as a secondary activity. As land is a dominant resource in agricultural production in Ghana, the quantity of land cultivated would necessarily result in demand for other resources needed to support land or vice versa. Thus the rippling effect on labour, technology and credit are also examined. The first section outlines the demographic description of respondents used in the research and then a brief exposition on the kinds of resources used by farmer households for livelihood construction in the past and present is presented. This is to show the extent of the change in accessibility that has taken place over time.

##### **5.2 Demographic characteristics of respondents**

From the responses elicited from the household heads, the respondents for the study were categorised into three broad groups of indigenes (I), migrants (M) and indigenous migrants (IM). The migrants were the respondents from regions outside of Greater Accra. All these were from the Volta Region. Their forebears came to settle in these communities as farmers about sixty or more years ago. Although the present generation of people were born in Accra, they still

classified themselves as migrants because they still had strong connections to their hometowns in the Volta region and took part in family activities there. The indigenous migrants were Gas who also came from other part of Greater Accra to settle in Ga West as farmers. They did not own any land in these areas. They acquired land for farming just like the non-Ga speaking people and finally the indigenous Ga speaking land owning families of the communities in which the research was conducted classified as indigenes in this study.

In the study communities, 33 (66%) out of 50 respondents were migrants who still had limited access to farmlands. In the control communities, (12 out of 21) (54%) though indigenes, had lost all their farmlands, hence no longer engaged in farming as a main livelihood activity. This revelation shows that those individuals or family heads involved in the disposal of farmland which has resulted in the present phenomenon of reduced or lack of access do not discriminate. They do not care about who actually bears the consequences, whether indigenes or migrants. Their actions are targeted at locations and not ethnic groupings, hence devoid of any ethnocentric sentiments. Cumulatively, of the total 13 female respondents in the study communities, 6 were heads of households. About half of the 50 respondents, 26 had household size between 3 and 4 persons and 13 respondents had between 5 and 6 persons in their household, 9 households comprised 2 persons husband and wife or single parent and child. This description fits the national average household size of four persons per household, which also applies to the control respondents. Below is table 5.1a which shows the above description disaggregated by the various communities.

Table 5.1a: Demographic data of respondent households (study communities)

Community	Residential status			Sex of household head		Household size			
	I	M	IM	M	F	1-2	3-4	5-6	7-8
Ahansowudie	6	0	6	9	3	4	4	3	1
Akotoshie	0	33	0	31	2	4	21	7	1
Dedeiman	5	0	0	4	1	1	1	3	0
<b>Total</b>	<b>11</b>	<b>33</b>	<b>6</b>	<b>44</b>	<b>6</b>	<b>9</b>	<b>26</b>	<b>13</b>	<b>2</b>

On the level of formal education attained by these respondents, 17 had never been to school, 5 had primary school education, 27 were able to complete Middle School of the old educational system or present Junior High School (JHS) and one had technical education. Of the 50 respondent household heads from the study communities, 18 were up to 45 years, and the rest of 32 respondents were 46 years and above. This breakdown shows an aging farming population similar to that in the control communities where 19 respondents were 46 years and above and only 2 below 46 years. This connotes a total shift of the youth in both sets of communities away from agricultural activities, but more especially those in the control communities. Of the fifty (50) household respondents, 38 were married and of the rest, 3 were widowed whilst 9 were either divorced or separated from their spouses. The breakdown in the various communities is shown in table 5.1b below.

Table 5.1b: Demographic data of respondent households (study communities)

Community	Educational background				Age (in years)				Marital status			
	none	prim	JHS	SHS/tech	<35	35-45	46-55	56+	M	W	NM	D
Ahansowudie	2	2	7	1	3	3	2	4	11	0	0	1
Akotoshie	14	2	17	0	3	9	11	10	26	1	2	4
Dedeiman	1	1	3	0	0	0	2	3	1	2	1	1
<b>Total</b>	<b>17</b>	<b>5</b>	<b>27</b>	<b>1</b>	<b>6</b>	<b>12</b>	<b>15</b>	<b>17</b>	<b>38</b>	<b>3</b>	<b>3</b>	<b>6</b>

Author's field survey 2013

Similarly, like the study communities, respondents in the control group had low level of formal education. Of the 21 respondents, 7 did not attend any school at all and 14 had up to JHS level. This meant that livelihood opportunities were limited for them in the formal sector. Tables 5.1c and 5.1d show the statistics described above from the control communities.

Table 5.1c: Demographic data of respondent households (control communities)

Community	Residential status			Sex of household head		Household size			
	I	M	IM	M	F	1-2	3-4	5-6	7-8
Ardeyman	12	2	1	10	5	4	6	4	1
Avorkope	0	6	0	6	0	1	2	3	0
<b>Total</b>	<b>12</b>	<b>8</b>	<b>1</b>	<b>16</b>	<b>5</b>	<b>5</b>	<b>8</b>	<b>7</b>	<b>1</b>

Source: author's field survey (June 2013)

Table 5.1d: Demographic data of respondent households (control communities)

Community	Educational background				Age (in years)				Marital status			
	none	prim	JHS	SHS/tech	<35	35-45	46-55	56+	M	W	NM	D
Ardeyman	5	6	4	0	0	0	8	7	11	2	1	1
Avorkope	2	2	2	0	1	1	3	1	2	1	2	1
<b>Total</b>	<b>7</b>	<b>8</b>	<b>6</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>11</b>	<b>8</b>	<b>13</b>	<b>3</b>	<b>3</b>	<b>2</b>

Source: author's field survey (June 2013)

### 5.3 Farmer household resource portfolio, past and present

The availability, combination and use of farm resources by farm families determine how they construct their livelihoods and to an extent what diversification activities they can embark on if need be. The prime resource of any farm family is the amount of land available for cultivation, and where necessary for fallowing. Thus, fallowing is necessary to enable farmlands regain their fertility after use because, the intensity of the use of fertilizer in Ghana is lower than in the rest of Africa (Food and Agricultural Organization, 2005).

For respondents in all the study communities, past<sup>1</sup> resource portfolio comprised land, water bodies, forest products including trees and game animals, human labour (both waged and family labour), tractor services for those who wanted it, farm implements like water pumps and accessories and knapsack sprayers were abundantly available for livelihood construction activities on the farm. Present<sup>2</sup> resources available for livelihood construction in farming consist

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<sup>1</sup>from the estimation of respondents, it is a time period before 2005 when farmers could get any quantity of land and other farming resources without any inhibitions

<sup>2</sup> from the estimation of respondents, is a time period after 2005 when they started experiencing the effects of changes in land use pattern in Ga West Municipality as a result of sand winning, estate development etc. to the present time

of reduced quantities of farm land, no trees, and some contaminated water bodies, the banks of some of them cannot be used for dry season farming because of silting. Water pumps and accessories, knapsack sprayers and agro-chemical specifically herbicides and weedicides are new resources which farmer households did not use in the past. For respondents who have other sources of livelihood apart from that on the farm, other resources mentioned were sewing machines and minor implements or tools for carpentry and masonry work. Iron pots used for preparing food to sell were also mentioned as important resources by the women.

The asset pentagons<sup>3</sup> below are disaggregated by community and are used to show comparative access to various resources in the past and at present (time of data collection). Farmer households in study communities listed land, labour, trees, water bodies and technology (as in the utilization of extension services and mechanization) in that order as important resources they had at their disposal to construct their livelihood in the past. Other resources were area specific because of the dry season farming they undertook along the water bodies. These resources were knapsack sprayers, water pumps and accessories. The centre of the pentagon represents zero access to resources whilst the outer perimeter shows the level of access to resources.

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<sup>3</sup> The pentagons are the author's construction based on Ellis' (2000) asset pentagon

Figure 5.1a Past resources of farmer households in Ahansowudie (before 2005)

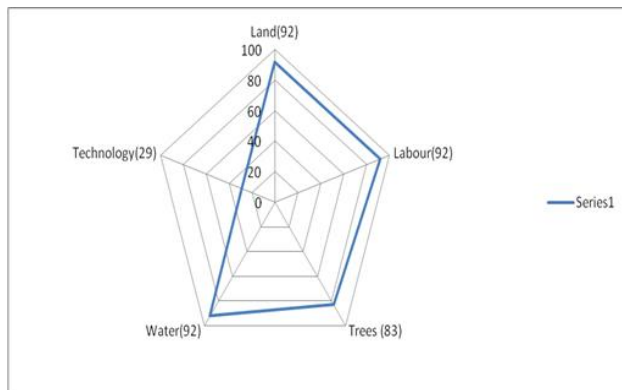
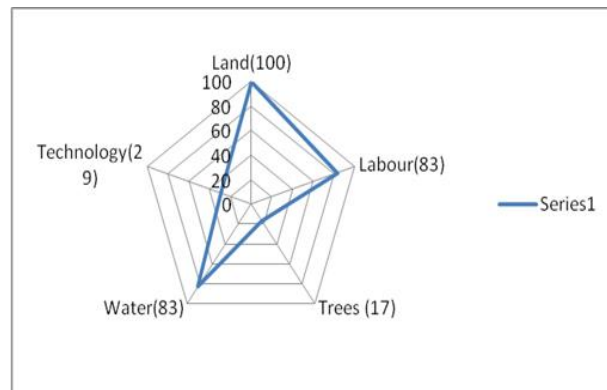


Figure 5.1b Present resources of farmer households in Ahansowudie (after 2005)



Figures 5.1a and 5.1b above are the asset pentagons for Ahansowudie which show access to farming resources both in the past and at present. Access to land along the Densu River made Ahansowudie more of an agricultural community than all the other study communities. Hence their present access to water, land and labour is still more than 80%. Respondent household heads maintained that their use of tractors both in the past and at present was minimal. This was due in part to the dry season farming along the river and to prohibitions by some land owners on the use of tractors. Extension services were also minimal both in the past and present.

The community's proximity to water, a major factor in their access to land for dry season farming deepened their commitment to agricultural activities. As compared to other nearby communities like Ardeyman, this geographic location gave Ahansowudie more resilience among the study communities. Conversely, there were other study communities which had access to water bodies but could not utilize them due to silting by sand winners and estate developers like

the case of Akotoshie, or nearness to a mountain and therefore shallow and stony like Dedeiman.

Although access to labour and land were comparatively high in Ahansowudie, the total number of farm labourers available for farm work reduced from 43 persons per cropping season in the past to 19 persons per cropping season at the time of data collection, showing a 56% reduction in number of labourers used. Again, households access to land which was 91%, increased to 100% because there was a new household which entered farming after the 2005 cut off date. However, availability was reduced by 6.1 % from 33.2 acres in the past to 31.2 acres. Access to trees was the most negatively affected.

In Akotoshie, however, about 4 out of 10 young people engaged in the FGD mentioned having to go for firewood as a livelihood activity to assist their parents take care of the needs of their household. None of the communities had access to commercial quantities of firewood which could be relied on as a main income generating livelihood activity at the time of data collection. In the past, gathering firewood was a major livelihood formulation activity in all the study communities. The problem of silting mentioned above reduced access to water to a present level of 33%. In Akotoshie again, there was a reduction in the number of hired labourers for a cropping season from 89 to 15 persons, reducing availability to 17% and access to 27%. Similarly, access to technology also reduced from 57% to 15%. Access to land however remained 100% but availability reduced to 74%. Figures 5.2a and 5.2b show the assets pentagons for Akotoshie discussed above.

Figure 5.2a Past resources of farmer households in Akotoshie (before 2005)

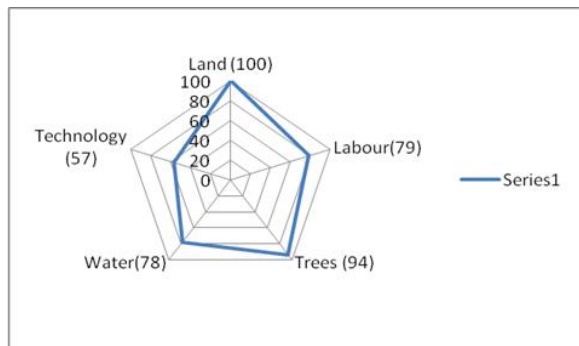
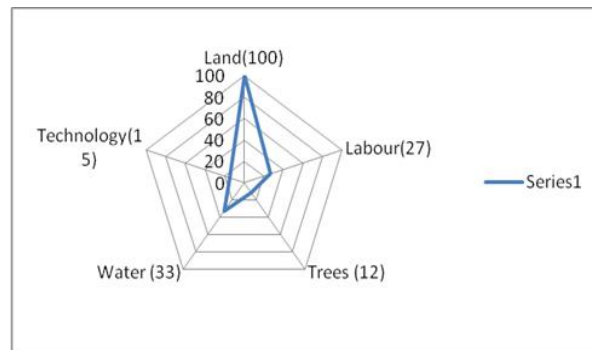


Figure 5.2b Present resources of farmer households in Akotoshie (after 2005)



Availability of land in Dedeiman increased by 12.5% because at a period when farmer households were shying away from farming in Dedeiman, one respondent household head affirmed to developing a cocoa plantation. Thus the increase in availability of land was due to this shift. The use of technology was 30% and 10% in the past and present respectively. Households in Dedeiman did not use tractor services at any point in time because of the mountainous nature of their community. Extension services was however available to them, three out of the five household respondents used extension services in the past and two in the present. Although there was water available, households in Dedeiman did not engage in dry season farming, hence all five households mentioned that water was available but not useful for farming even in the past. These are presented in figures 5.3a and 5.3b.

Figure. 5.3a Past resources of farmer households in Dedeiman (before 2005)

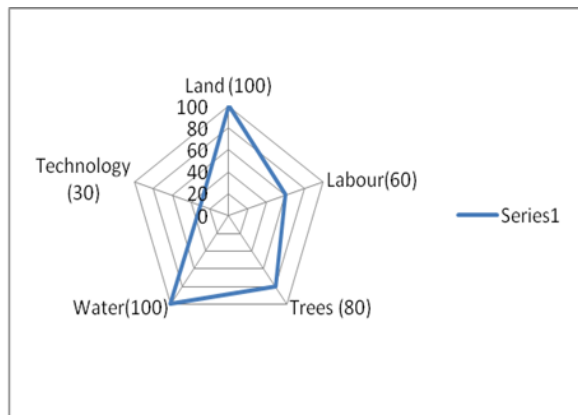
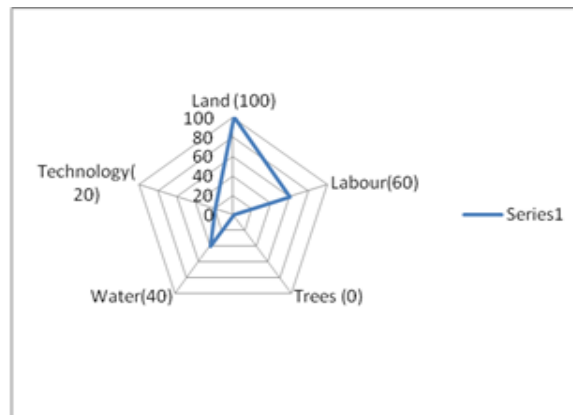


Figure 5.3b Present resources of farmer households in Dedeiman (after 2005)



Figures 5.4a, 5.4b, 5.5a and 5.5b below show the level of access to assets by respondents in the control communities of Ardeyman and Avorkope. Level of access to resources in the past was not as high as that for the study communities except for land which every farmer household (in both study and control) had uninhibited access to in the past.

As a natural resource which no human person can allocate, the availability of a water body near one of the study communities was a major contributing factor to their present state of high farming activities. It can therefore be inferred that the unavailability of a water body in the control community of Ardeyman which is near Ahansowudie might be a contributing factor to their inability to maintain minimum farming in and around the community in the present situation of reduced access to land. The present level of 67% access to land indicates that, about five (5) households entirely lost their land and no longer depend on farming as a livelihood activity. The rest of the ten (10) households only farm as a secondary income earning activity in nearby communities (this might however, need further investigation because of the low number of respondents from the control communities and also other factors pertaining to serious land

disputes which were outside the domain of this study). Reduced farming in the control communities obviously affected the level of access to labour and technology.

Figure 5.4a Past resources of farmer households in Ardeyman (before 2005)

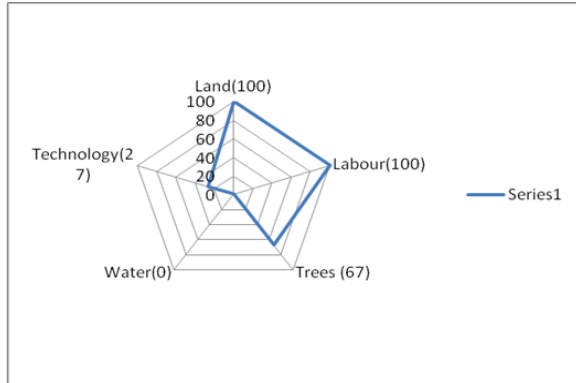
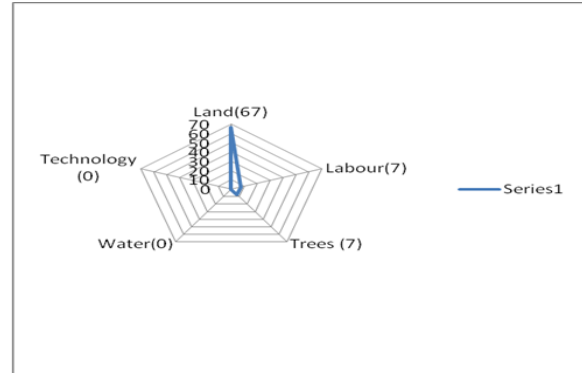


Figure 5.4b Present resources of farmer households in Ardeyman (after 2005)



In Avorkope, the availability and use of water for farming purpose was minimal both in the past and at present. Households which farmed around the community did not have access to any water, except those whose farmlands were in other vicinities where water was available. Similar to the situation in Ardeyman, access to land, technology and labour reduced to 17%, water as a resource for farming was totally lost by all households in Avorkope. Availability of land reduced to 12% and five (5) out of the six(6) respondent households lost all their farmlands, reducing access to 17%.

Figure 5.5a Past resources of farmer households in Avorkope (before 2005)

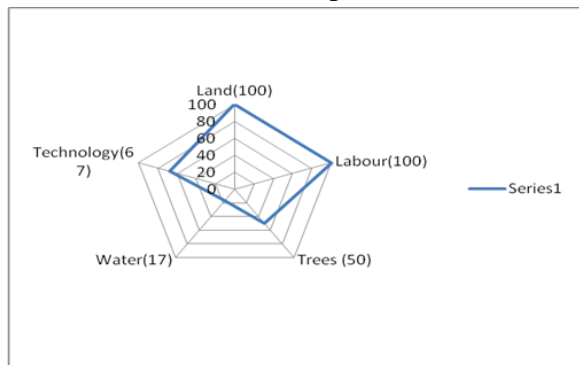
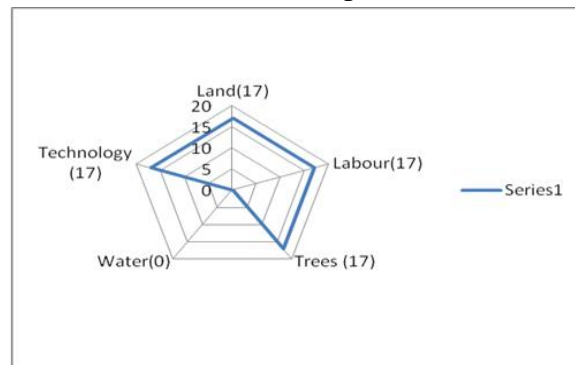


Figure. 5.5b Present resources of farmer households in Avorkope (after 2005)



The discussions below on the key findings of this study on access to the resources shown in the pentagons above bring out the consequences and strategies affected families have adopted. It also shows how the institutional framework within which they operate shape the dynamisms involved in their livelihood construction in the face of changing access to resources as a result of urbanization.

## 5.4 LAND

### 5.4.1 Acquiring land for farming in Ga West

The study showed that, in the Ga West Municipality, and most especially the study communities, land could be ‘owned’ by chiefs, families and individuals. The chief ‘owns’ or has right over land by virtue of being the head of a particular family and not because he is a chief. Members of various land owning families have equal rights of use and can in principle cultivate any part on ‘first come first served’ basis once the family head is made aware (key informant interviewee in Ardeyman). On the other hand, non-land owning families or individuals can also access land through various tenure arrangements popularly called *adode* which come in different forms and

shades. The migrants and indigenous migrants, who are settlers, access land through the same process of *adode*. The different forms of *adode* as practised in the communities are as follows; First, a customary drink is paid for a request to use the land, after which a rate is put on it for the lessee to pay after harvesting. If after cultivation there is a general failure of crops which is experienced by most farmers in the area, the fee which has not yet been paid can be renegotiated downward. Secondly, if an occupant has cultivated a piece of land for a long time, in the season when the land is not cultivated, the occupant pays one third of the *adode* amount to the lessor<sup>4</sup>. The stipulation of a 'long time' in such a transaction is based on the discretion of the person leasing out the land, it normally ranges from seven years and above. The third form of *adode* is a typical *abusa* share cropping arrangement where the farmer who cultivates the land pays one third of his harvest for use of the land; and finally an annual amount is paid by the migrant households on the land on which their homestead is built. This amount is paid during the Ga festival of *Homowo* in the month of August to the land owning family heads or designated individuals in the family who give account of money collected to the family heads.

The *adode* as described above comprises different kinds of land tenure arrangement, a specific type is not exclusive to a community but a combination of the various types can be practised in one community. The amount charged for use of land varies from community to community and ranges between fifty Ghana cedis (GHc50.00) in the more remote areas and one hundred Ghana cedis (GHc 100.00) in the communities bordering the capital Amasaman and other big towns. Thus making geographic location a determining factor of how much is paid.

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<sup>4</sup> The definition of lessor is functional and refers to an individual or group of persons who have a right to give out land to another person to use for agricultural purposes in exchange for a fee

Over the years, the mode of acquiring land for farming purposes from family heads and chiefs has not changed, the *adode* system is mostly used by all, except in communities where all or most of the land has been sold to individual developers. Another form of land arrangement observed in these communities was that vacant and undeveloped building plots were given out by owners to farmers to cultivate and take care of. This form of arrangement is popularly called *security* farming in the migrant communities as the farmers are now regarded as security guards on the land they were formally cultivating. This arrangement is to ensure that no other person encroaches on the land, and the farmer is supposed to report any encroachment to the new owner. This arrangement starts the process of land loss experienced by occupants because at any time the owner of this plot of land can start putting up structures on it. Table 5.2 shows the types of acquisition agreement that the lessees had.

Table 5.2: Types of agreement (by duration) used by households to acquire land for farming

Type of land acquisition	Frequency of respondents	Percentage (%)
Annual leasing	6	12
Seasonal leasing	13	26
Long term leasing	2	4
Share cropping	6	12
Own land	11	22
Security or care taker	12	24
<b>Total</b>	<b>50</b>	<b>100</b>

Source: author's field survey (June 2013)

From Table 5.2 the first four types of acquisition namely, annual, seasonal, long term and share cropping all fall under the *adode* arrangement. The difference is in the duration of agreement. With the annual leasing, the agreement is done using the calendar year of January to December, whereas in the seasonal leasing the agreement starts at the beginning of the cropping season. The long term lease also uses the calendar year and is mostly a five year agreement.

All arrangements for farmland be it *adode* or *security* were verbal. It was sometimes witnessed by two or three family members or acquaintances from both families of the lessee and the lessor of the land and did not have any documentary backing in any form. The exceptions were recorded when two (2) respondents household heads mentioned having been given a receipt and a lease agreement as evidence of the transaction they undertook when acquiring their land. This verbal or oral agreement according to respondents' generated conflict as any aggrieved member of the lessor's family who was not given a share of the money could also go back to tenants cultivating their family land, feigning ignorance of the transaction to demand another payment. According to some key informants at Ahansowudie and Ardeyman, this could be attributed to greed on the part of family heads who refused to share proceeds with other prominent members of the family. When such situations occurred, farmers claimed their refusal to pay could result in the loss of their land to other farmers. This could also result in unnecessary and protracted dispute settlements, usually involving the elders of the communities. The resultant effects could be disruption of farming activities or schedule and thus adversely affecting their livelihoods. As to why the lessors had not yet formalized this agreement one key informant in Ardeyman pointed out that;

*This type of verbal arrangement has existed since the days of our grandfathers and I do not think it should be changed most especially when the person is not buying the land but just using it for a while to earn a living and will have to relinquish it anytime it is needed by the rightful owners. Processing land papers demand a lot of time and money and by the time you finish that adode amount and the year would have passed and you would have to start all over again (key informant interviewee, Ardeyman).*

Similarly, Owusu and Agyei (2008) found out that due to rampant boundary disputes in Greater Accra Region, land purchasers paid double for the same piece of land and sometimes lost investment which negatively affected their livelihood. The issue of double payment is prominent in both cases but the causal factors are different, whereas it was inter community in Owusu and Agyei's study areas it was intra-family in this study, bringing out the fact that the era in which land was an asset which bound family ties was fast eroding (Amanor, 2001). However, it came to light that some members of the land holding family who had usufruct right did not pay *adode* but rather paid tokens to the family heads during funerals of a dead family member and annual *Homowo* festival celebration for *weku seijamor* (literally translated to mean worship of the family stool).

Respondents who claimed ownership of the land they cultivated also did not have any documents of ownership and had not seen the original documents or titles covering the land they were claiming ownership of. They were owners because their fathers inherited the land from their grandfathers and they also inherited it upon the death of their fathers. This kind of inheritance had resulted in fragmentation of the land to the extent that one respondent had a piece of land as

small as *three quarter of a pole*<sup>5</sup> measuring approximately 37.5 feet square for her farming activities. This finding is similar to what Addo and Asiedu (2008) found in the Manya Krobo District of the Eastern Region. They observed that the sharing of farm land among siblings has led to fragmentation of farmland to the extent that a strip of land about 420 metres has been continually divided to the extent that from 1963 to 2006 there has been about 51 portions of the same piece of land. The division is still being done to meet the needs of an ever increasing household membership. Table 5.3 gives the breakdown on documentary proof on land occupancy.

Table 5.3: Documentary proof on land occupancy

Type of documentation	Frequency of holders	Percentage (%)
Lease agreement	1	2
Payment receipt	3	6
No document	46	92
<b>Total</b>	<b>50</b>	<b>100</b>

Source: author's field survey (June 2013)

Referring to land issues in peri-urban Accra, in the past, is said to be about a decade or more ago when the issues relating to urbanization and land markets were not common and rampant as to cause a change in livelihood activities based on the use of land (Owusu and Agyei, 2008). In the same manner, respondents who spoke of the past referred to a time period preceding year 2005 when household heads who wanted to engage in farming as a main livelihood activity for the

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<sup>5</sup> The pole is a unit of measurement for a 50 feet square piece of land

first time could acquire farmland in their locality of residence. Up to about 78% of respondents (39 households) acquired their land through the period before 1990 to 2005.

Beyond 2005 to present, all 6 household heads who acquired land had to move out of their communities of residence (study communities) to communities farther beyond to acquire farm lands. The new places were either at the foot of a mountain where sand winning and infrastructural development proved difficult or near perennial water bodies. This explains why in Ahansowudie all the respondent households undertake farming as a major livelihood activity because the Densu River which is a few meters away from the community is used for dry season vegetable farming. Hence these respondents' geographic location within the municipality has become a major determinant of their livelihood portfolio.

This contrasts the situation at Ardeyman where the youth engaged mainly in illegal transportation of passengers using motor bicycles commonly called *okada*. Households engaged in farming only as a secondary livelihood activity because there was no available land for farming and no water body whose banks had been left free of sand winning. A key informant who is also an elder remarked that;

*The building industry needs sand which must definitely be supplied; we cannot deny them because as we grow old and cannot farm again we must also have some form of social security like the formal sector workers. Once this is not available other sources of income have to be explored to earn a living (Key informant interviewee at Ardeyman).*

#### 5.4.2 Effect of urbanization on access to farm land

As Ghana experiences rapid urbanization like many other countries in SSA, agricultural livelihoods based on the extensive use of land gives way to other alternative livelihood activities. Farmlands are given out for uses other than farming to meet the needs of in-migrants who converge at the fringes of the city and require land for infrastructural development (Kasanga, Cochrane, King & Roth, 1996; Owusu, 2008; Yaro 2010).

*Before the time of rapid housing development, only indigenes requested plots, even those requests were far between, suddenly all these migrants started coming in from all over to buy land and because we Gas say *ablekuma aba kuma wor*<sup>6</sup> we could not send them away. We had to give them a place to lay their heads, in any case the money they offered was bigger than what we got for *adode* so there was no point holding on to the land. Unfortunately we have also lost respect in the process (Key informant interviewee at Ardeyman).*

Because “*the building industry needs sand which must definitely be supplied*” sand winners are given priority. They first win the sand on the land after which the land is demarcated as building plots for sale to interested persons. The existing verbal *adode* land tenure arrangement (which only spells out the terms of payment without any specificity with regard to period of use and terms under which the arrangement can be terminated) practised by most land lessors in the municipality as shown in table 5.7 gives room for them to abrogate the agreement without recourse to the lessee. Thus in two (2) of the three (3) study communities and all the two (2) control communities, farmers’ crops were destroyed by sand winners without any compensation paid to them.

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<sup>6</sup> *Ablekuma aba kuma wor* as translated by the informant means hospitality to all and sundry

The process of acquiring land for sand winning is a simple one involving the land owners (those with the right to sell), the Environmental Protection Agency (EPA) and the Municipal Assembly. The contractor approaches the owner who charges according to the number of acres given out. The next step is for the contractor to acquire a permit from EPA. After obtaining the permit, the contractor then pays some amount at the Municipal Assembly as tax. In addition, a reclamation fee per acre is also charged at the Assembly. The purpose of this fee according to the Municipal Planning Officer is for reclamation of the land by the Assembly in the event that the contractor refuses to do so after winning the sand. The final step is for the contractor together with the farmer who cultivates the land to assess the crops (if any) on the land for payment of compensation. The contractors are mandated to push away the top soil which contains plant nutrients to be spread over the land for the purpose of land reclamation after winning the sand. According to respondents, this reclamation is never done by the contractors. They however push back the top soil but later come back for it when the sand gets finished.

According to all respondents (100%) in the study communities, the compensation was never fully paid. In Akotoshie and Ahansowudie, they were paid about 30% of the total amount with a promise by the contractor to pay the rest later, but this never materialised. In Avorkope, they were not paid anything at all. In Dedeiman however, the phenomenon of sand winning is absent because it is a mountainous area with no sand so farming is still the mainstay of the older people but there are stone quarries which according to respondents have not interfered with farming activities. In the words of a respondent;

*Although some have been sold to individuals to be developed into houses, we still have plenty of land to farm and I have even started developing cocoa and coconut plantations, there is still plenty of it.*

The payment of compensation is reminiscent of what happened in the acquisition of Ofankor land by the government of Ghana through an executive instrument in 1978. Eighteen years after this acquisition Kasanga et al (1996) found out that compensation had not been paid. There was however, documentation to that effect and an interest calculated to reflect the delay in payment so the affected people of Ofankor could follow up. In the above situation of paying compensation for crops destroyed by sand winners however, there was no documentary proof of any transaction, although this activity hinged on the very core of their livelihood and survival. The inability of the contractor to pay compensation therefore meant that the farmers lost their crops with no alternative means of livelihood and the contractors could not also be traced for any future payment to be effected.

The above occurrence which can deny individuals or groups such crucial livelihood resources as compensation for lost assets show structural failures at governmental level which can manifest at the micro level to affect vulnerable individual who are voiceless, thus affecting their agency and their ability to construct decent livelihoods. The institutions and structures which households were supposed to depend on to mediate favourably in the prevailing trend of land loss due to urbanization in the Ga West Municipality were not supportive. The Municipal Assembly collected the reclamation fee from the sand winners but never reclaimed the land for re-use by affected families when the contractors failed.

#### **5.4.3 Effect of changing land use pattern as a result of urbanization**

Several people (88% of respondents in study communities) claimed to have lost a substantial part of the land they farmed on. In the past all respondents claimed they had three (3) or four (4)

separate plots that they cultivated. Calculations done using data from the study communities showed that at the time of data collection, up to 88% (44 respondent households) did not have a third plot and 52% (26 respondent households) did not have a second plot. All households however could lay claim to one plot on which they had their farm but there was a reduction in farm size compared to what they previously had. Other households moved entirely to other more remote communities to gain access to land. Seventy four percent (37 respondents households) had farm size which ranged from 0.1 to 2 acres and 14% (7 respondents households) had farm size between 2.1 acres and 3.5 acres and the remaining 10% (5 respondents households) had 3.6 acres with 2% (1 respondent household) having more than 6 acres. Tables 5.4 and 5.5 capture this breakdown.

Table 5.4: Number of farm plots owned by respondent households (study communities)

Number of plots owned	Frequency of respondents	Percentage
1 plot	50	100
2 plots	24	48
3 plots	6	12

Source: author's field survey (June 2013)

Table 5.5: Aggregate farm size (in acres) of respondent households (study communities)

Aggregate size of farm land	Frequency of responses	Percentage
0.1 to 2 acres	37	74
2.1 to 3.5 acres	7	14
3.6 to 5.9 acres	5	10
6 acres and above	1	2
<b>Total</b>	<b>50</b>	<b>100</b>

Source: author's field survey (June 2013)

In the control communities where all respondents were engaged in farming as a secondary livelihood activity, some respondents had what they termed “heaps of sand” which they could not quantify especially where the sand winners heaped the top soil before excavating the sand but had not yet gone back to take the top soil away. The total land area under cultivation for these respondent households during the time of data collection was 19.6 acres from a previous quantity of 73.5 acres. This shows a reduction of 73.4%, leaving 26.6% for farm work and livelihood construction (author’s field survey, June 2013).

On the contrary, for respondents who were still engaged in farming as a major livelihood activity, the reduction was lower than for the control group. Their total area under cultivation in the past before the phenomenon of sand winning and sale for residential structure development was from 87.8 acres to 77 acres, a reduction of 12.3 % in the total land size cultivated. The quantity of land loss for these people seemed minimal because some respondent households moved to other communities farther away from their residence to find farm land. One female respondent remarked that;

*At Okushibiade there is a family with a large tract of land which has not been given out to sand winners, they are the only family who have farm land and that is where most people within three to four mile radius of that community now go for farm land. We all walk to the place in the morning and come back after work in the evening, it is just like going to work in an office somewhere and coming back home after the day’s work. Most people do not have their offices in their place of residence and that is how we view it now, if they also decide to give it to sand winners then that is our end.*

Another young couple who decided to venture into farming when everybody else was complaining of land shortage in their community moved to Ayikai Doblo. They also had the following to say

*There is no available land around us here in Ahansowudie even the banks of the Densu that people in this community farm is choked because everybody has a plot there for okra cultivation in the dry season. So, we decided to go to Ayikai Doblo, although it is far it is worth it because we got about six acres along the Doblo and Densu rivers which flow through the town.*

The resultant effect was that some respondent households have had to spend time and money to commute to farm every day using “*okada*”. This cost money and would eventually affect their income and livelihood. But this respondent claimed cultivating export crops like chilli pepper, tinda and marrow was lucrative and that was the sole reason why they (respondent and his wife) decided to farm at the time that everybody else was complaining about it. They also mentioned that they had to pay twice as much “*adode*” GHC 100.00 per acre as against the prevailing GHC 50.00 rate per cropping season in their community. Thus farming as a livelihood activity is still viable but at a high cost which could exclude some poor people who might still be willing to pursue it.

In addition, others (24 households) see the effect of change in access and eventual change in the use of land as bringing about a reduction in farming activities leading to reduced income for the household. In the control communities, respondents commented on similar repercussions of reduced farming and hunger in the community where they “*have to now buy every single food crop in addition to soap and salt*”. Reduced household income without any immediate alternative income generating activity to offset the reduction means that households would be more

vulnerable and subsequently move further into poverty. In the control communities five (5) respondent households could not point out any positive or negative effect of the change in land use pattern in the municipality on their lives. Similarly, thirteen (13) respondent households in the study communities did not also give any response to the question of whether the present changes in land use pattern in the municipality has any effect on their livelihoods. The implication might be that, they have come to accept the changes as a part of their lives and the new trend in the municipality. Hence they could not isolate the effect on their livelihoods or offer any explanations on their occurrence.

About ten (10) respondent households also complained of the youth moving away from the community as well as from farming because of the unavailability of land which has been the driving force behind all the changes that have occurred in access to the other resources of labour, technology and credit. For some respondents in the control communities, there was no effect because they had never attempted to farm. The focus group discussions (FGD) held with the young men and women who were still part of their parents' household confirmed this finding, that none of them was aspiring to become a farmer, especially in the migrant community of Akotoshie.

Firstly, they saw their parents' farms being turned into sand pit and subsequently residential units and the struggles they have had to go through to take care of their daily needs. About six (6) young women in the group also mentioned working at construction sites which they felt was meant for men because of the physical strength required for such activities. They noted that:

*Some of us cannot carry water or block or even kponkpor<sup>7</sup> as our friends do at the construction sites. So we go for firewood and sell to also make a living and to help our parents take care of our siblings. We cannot think of farming because the Gas are asking us to even leave the land on which our houses are built. After selling the farm lands they want to expel us from Accra because they said neither did our grandfathers buy nor lease the land on which our houses are built from them. (FGD Akotoshie).*

The above is one of the numerous repercussions of the oral *adode* system of land acquisition existing in the municipality. The landowners want to resettle the migrants on a smaller piece of land farther away from the road because their present location by the road side is now seen as a prime area with high monetary value. A key informant in the community remarked that they had petitioned the landowners to leave them alone but there was no response yet. At the time of data collection, the youth however were thinking of taking the land owners to court to assert their right of occupation, though they knew their forebears did not have any documentary proof of occupation.

In a farming area where the youth are gradually moving away from farming the process described by Bryceson (1996) as a pattern of deagrarianization is occurring and might be inevitable sooner than later. Scoones et al (2005) prescribe that in such situations, different groups of farmers must be assisted to pursue different livelihood strategies. Some may want to intensify whilst others diversify into non-farm activities of their choice. This can be achieved through context specific policies which address individual needs and not wholesale national policies and programmes made to fit all. Tables, 5.6 and 5.7 depict the various responses on how

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<sup>7</sup> Kponkpor is the lingua franca for cement and sand mixture or cement, sand and stone mixture (mortar and concrete) used at the construction sites.

respondents thought the effect of change in land use pattern had been on their livelihood activities for both group of respondents (study communities and control communities).

Table 5.6: Effect of change in land use pattern (study communities)

Effect of change in land use pattern	Frequency of responses	Percentage (%)
Spends more time and money to commute	3	6
Reduced farming leading to reduced income	24	48
Youth are moving away from community and farming	10	20
No response	13	26
<b>Total</b>	<b>50</b>	<b>100</b>

Source: author's field survey (June 2013)

Table 5.7: Effect of change in land use pattern (control communities)

Effect of change in land use pattern	Frequency of responses	Percentage (%)
No longer farming	9	42.9
Reduced farming leading to reduced income	6	28.6
Hunger	1	4.8
Never farmed therefore no effect	5	23.8
<b>Total</b>	<b>21</b>	<b>100</b>

Source: author's field survey (June 2013)

## **5.5 LABOUR**

### **5.5.1 Effect of urbanization on use of labour on smallholder farms**

In the absence of vibrant agricultural activities labour is released into other parts of the economy to be able to construct other livelihood activities. Pertaining to this, researchers have found that farmers in Ghana, like other parts of SSA also use more human labour on smallholder farms than mechanical power (Takeshimo and Salau 2010). From the study all respondents whose major livelihood occupation was farming used family labour. The farmer and his/her spouse both engaged actively in extending the use of their labour on their farms. The family was the core and prime source of labour for key activities including weeding. Hired labour was also used extensively for planting, spraying crop with agro chemicals and pumping water from the rivers to water crops during the period of dry season farming.

In family farms or smallholder farming, family labour is not restricted to the husband and wife or wives but other members of the immediate and extended families who form part of the farm families' household. In the study communities of Ga West however, this was not the case as all respondents except one mentioned that their children did not assist in farm work. This is contrary to the notion of use of family labour on smallholder family farms, thus hired labour was the norm.

### **5.5.2 Changing access to labour**

The changing access to labour in Ga West Municipality was mainly as a result of reduced farming activities in the area and the scarcity of these labourers was affirmed by respondents. As noted earlier, as families' land holdings reduced, some through degradation and others through

fragmentation, there was a reduction in activities pertaining to farming. The repercussion, from the respondents' view was that contract labourers<sup>8</sup> who had come from other parts of the country to the south in search of farm work moved out entirely. One would expect such labourers to be available in Dedeiman where respondents mentioned that because of the non-existent of sand winning in the community, farming was still the main stay of the populace. This is however not the case, as all five (5) respondents in Dedeiman except 1(one) have reduced their farming activities mainly due to old age and loss of faith in farming as a viable means of income, as the narrative below demonstrates.

*Farming is a dead end with no progress at all. One cannot become somebody with enough cash to take care of your children if you decide to be a full time farmer; the land which the older generation is talking about is dead, it is not yielding much these days even with a lot of fertilizers. Hence our parents have decided to let us go to school instead of becoming farmers. Unlike other parts of the municipality there is no serious construction work going on here for any of us to benefit financially as construction site labourers (informal conversation with 4 young men in Dedeiman).*

Although this study cannot be generalized for the entire Ga West Municipal area, this remark brings to the fore that it is not only the creation of land market as a result of urbanization which led to the sale of farm lands that is affecting farming activities in peri-urban Accra and for that reason Ga West Municipality. Additionally, an overt aversion to farming by the youth is also a factor. This assertion is true for all the study communities as all households except one did not benefit from their children's labour as noted above.

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<sup>8</sup> From respondents definition contract labourers are those who are hired as labourers on a farm for a specific cropping season and are paid after all farming activities within that season are over

Besides the above paramount reasons, other causes of change in access to labour were that some of the labourers migrated to other non-farm wage earning activities. Firstly, wages offered on the construction sites was higher than that offered by the farmers. From the interviewees' estimations, a labourer could clear about *two poles of farmland* in a day, each costing averagely six Ghana cedis (GHC 6.00). In the construction industry however, a day's wage for a labourer was twenty five Ghana cedis (GHC 25.00) which was twice what they got on the farms, hence their preference for construction. For the few involved as labourers in the sandpit they got even higher amounts of thirty Ghana cedis (GHC30.00) per truck load of sand. On a good day they loaded five or six trucks, totalling one hundred Ghana cedis (GHC100.00) or one hundred and twenty Ghana cedis (GHC120.00), making it the most lucrative. Averagely they earn about four hundred Ghana cedis (GHc400.00) per week, an interviewee remarked;

*Please tell me which labourer in Ghana gets this much money in a day, I have stopped farming and will not go back to it, when the sand gets finished in this area we will move forward and will keep moving until wherever.*

For other respondents the challenges associated with access to labour had to do with the attitude of the farm labourers. Because of their scarcity, advance payment had to be made to commit them to the work but even that did not work. They collected these advance payment and still refused to work. As most activities in farming were time bound and affected yield negatively if not undertaken at the appropriate time, farmers sometimes spent twice as much on a single farm activity. Hence some farmers had actually stopped the use of man power and had replaced it with the use of agro chemicals to eliminate the frustrations associated with the attitude of labourers in the municipality.

The above notwithstanding some respondents still used the services of these labourers because they had collected several telephone numbers of the labourers and called them using their mobile phones and that worked for them. This meant that proper networking and the use of mobile phone technology could be explored in the field of agriculture not only to disseminate the prevailing prices of farm produce as IFPRI in collaboration with other Non-Governmental Organizations (NGOs) are piloting in Ghana (Hinne, 2013). This can be extended into other areas of agricultural production to boost productivity. Table 5.8 gives the breakdown of the various responses on factors affecting the change in access to labour in Ga West Municipality.

Table 5.8: Factors affecting change in access to labour

Factors affecting change in access to labour	Frequency of responses	Percentage (%)
Migration to non-farm work	6	12
Reduced farming activities in the municipality	15	30
Unavailability of labour	15	30
High cost of labour	7	14
Did not use hired labour	7	14
<b>Total</b>	<b>50</b>	<b>100</b>

Source: author's field survey (June 2013)

In general, the use of family labour by smallholder farm families has given way to the use of waged labour. Parents now prefer to send their children to school and later after school, when they are not able to make the grades to second cycle institutions, they are sent out of the community to urban areas to learn vocations of their choice. This actually started a process of

migration where after the apprenticeship period they did not come back to join their parents again. Some eight (8) young men and women in the FGD together with an elder mentioned that;

*Attending Junior High School (JHS) in the village is cheap because one can eat breakfast at home and take just one Ghana cedi to school but going to a Senior High School (SHS) in Amasaman or elsewhere is a bigger investment for which there is no money. The transportation alone to and fro is gargantuan and unaffordable. The only option left for us is to learn a trade. (FGD Akotoshie)*

Due to reduced activity in farming, there were other respondents who had stopped using waged labour and depended on their own energy to accomplish tasks on their farms. These were mainly found among the farmers undertaking *security* farming or squatting on building plots in the migrant communities. From the point of view of the respondents, these causal factors were not exclusive of each other but one could lead to the other and so were more or less cyclical with each having a spiral effect on the others.

### **5.5.3 Effect of urbanization on changing access to labour**

The culminating effects of the above mentioned factors in table 5.9 below were that; there was hunger in certain households as bluntly put by the affected household heads. In addition, having replaced labour with the use of agro-chemicals, the users were expected to follow specific instructions on their use. This however was not the case because of the high rate of illiteracy as shown in the demographic characteristics of the respondents and the absence of agricultural extension agents in some of the study communities. The use of agro chemicals was characterised by substance abuse; during application of these chemicals some farmers tested the strength of the

mixture by tasting. This has serious implications for their health in the long run. In the words of one female respondent;

*If it is not properly mixed the crops may wither especially with the use of fertilizers, this will amount to sheer waste of money. When you taste and the saltiness is still in it, it means that you have to add more water to make it work for you. The sellers teach us how to mix the pesticides and weedicides.*

The change in access to labour in the study communities as shown in table 5.9 below did not have any effect on those who engaged in security farming because they only planted small portions with *ademe* (*corchorus olitorius*)<sup>9</sup> which they harvested between three and four weeks of planting and so did not require the services of any waged labourer. The question was not applicable to two (2) (4%) household respondents because they claimed they did not use hired labour. Some six (12%) households chose to respond positively by employing the use of weedicide, although application of this was not properly done, their attitude showed some resiliency and innovativeness in combating the reduction in access to labour. For the remaining 60% (30 households) the effects were spiral with one repercussion of reduced farming activity, leading to reduced yield and finally to hunger.

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<sup>9</sup> A leafy green slimy vegetable from the Tiliaceae family locally called *ademe* by the Ewe migrant community.

Table 5.9: Effect of changing access to labour on farming (study communities)

Effect of changing access to labour	Frequency of responses	Percentage (%)
None	12	24
Reduced farming activities	8	16
Reduced yield	9	18
Hunger	13	26
Use of weedicide	6	12
Not applicable	2	4
<b>Total</b>	<b>50</b>	<b>100</b>

Source: author's field survey (June 2013)

Within the control respondents communities depicted in table 5.10, there was no effect since they were not involved in any serious farming. The responses showed a situation of despondency but it was not surprising because they had given up on farming as a major source of livelihood activity. Their concentration was more on their current primary income earning activities which are discussed later under household diversification strategies. Four households heads also lamented that *“hunger was killing them all because there were no labourers”*. For individuals whose main occupation was not farming but other livelihood activities which brought in income to secure food for the family, saying that hunger was an effect of reduced access to labourers was deemed too strong. Further explanations by an informant at Avorkope revealed that;

*Even if one does not farm, buying food produced in your community is cheaper than buying food produced from another community and bought by a profit making seller and resold to you. You pay for transportation of the person together with transportation of the food crops to the community and additionally pay for the profit of that seller. We are not able to buy enough to*

*feed the family properly. We have food insecurity! Most part of our income is spent on buying food.*

Table 5.10 Effect of changing access to labour on farming (control communities)

Effect of changing access to labour	Frequency of responses	Percentage (%)
None	5	23.8
Reduced yield	1	4.8
Hunger	4	19.0
Not applicable	11	52.4
<b>Total</b>	<b>21</b>	<b>100</b>

Source: author's field survey (June 2013)

## 5.6 TECHNOLOGY

### 5.6.1 Accessing tractor services for farming in Ga West

The government's mechanization project done nationwide was to make available timely, reliable and affordable tractor services to farmers through private individuals. In Ga West the Municipal Assembly was also a beneficiary of this initiative, government allocated two tractors to the Assembly for the same purpose as stated above (interview with Municipal Planning Officer). At the time of the study however, one was not serviceable. Beside the Agricultural Mechanization Services Enterprise Centres (AMSEC) and the Municipal Assembly, no private individuals owned any tractor in the municipality. From the study, farmers established that all tractor services to their farms were contracted from neighbouring Nsawam in the Eastern Region.

The centres set up by government were not functioning as the operators had left the municipality because of low level of patronage from the farmers. Interviewing the owner of Bremoah Ventures (one of the AMSEC supposed to be in Amasaman), he was allocated five tractors which had to be paid for, but patronage was low and he could not make enough to pay for the cost of the tractors. He confirmed that farmers' holdings were too small for the use of tractors. The sizes ranged from one building plot which measured 100 feet by 70 feet to one acre of land. He attributed this to rapid urbanization in the area which resulted in conversion of farmlands to building of houses. After the first year of operation in 2009 he moved out of the municipality to Ejura in the Ashanti Region and Dzodze in the Volta Region. He was expected to pay for the tractors so he had to find a way to do that. It meant moving to areas where the services of tractors were needed.

This was confirmed by the respondents who said that they used more tractor services in the past than at present. The main reason was not the cost involved in hiring as these service centres charged lower than what pertained in the competitive market. Reduced farm size and unsuitable land type were some of the reasons whilst for some others, tractor services was simply not one of the resources they needed on their farms. Government programmes such as the AMSEC should have alternatives developed for such areas which might not require the use of tractors. Several studies have established that, because of changing land use pattern in favour of non-agricultural purposes, agricultural interventions should be tailor-made to meet the needs of specific ecological zones because vegetation, climatic conditions and land holdings are not homogenous even within the same country (Ellis, 1992; Rijk, 1999).

Furthermore, the issue of reducing agricultural land holdings in peri-urban Accra due to urbanization and compulsory government land acquisitions and their consequences on the use of other agricultural resources have been the subject of several published researches (Archer 1973; Kasanga et al 1996; Maxwell et al 1998; Owusu, 2005). The activities of advocacy groups and NGOs like Action Aid Ghana in assisting to reclaim some portions of land for re-use in farming are all expected to inform government policies to help adapt interventions for better livelihood formulation. The extension of the AMSEC intervention to Ga West depicts a de-linkage among relevant players and a top-down approach to programme formulation and implementation in which beneficiaries or end users do not participate, making the project unsustainable in the final analysis (Abiona and Belo, 2013).

### **5.6.2 Effect of urbanization on access to tractor services**

Mechanization has attracted some criticisms because it has failed to yield the expected results in many SSA countries due to failure by governments to sustain it. Nonetheless, some smallholder farmer households have benefitted from its use and have been able to increase productivity and income leading to improved livelihood (Benin et al 2012). For farmers in Ga West and for that reason the study communities however, tractor usage had been minimal and so were the benefits. The cumulative outcomes of this were that; there was reduced yield for those who ever used it but stopped due to scarcity of tractors and reduced land size mentioned above.

For other respondents, frequent illnesses due to overwork was also one of the outcomes of non-use of tractors. The purpose of tractor usage reducing drudgery so that human labour could be preserved was not achieved. The problem associated with lack of tractors for those who wished

to use them was mentioned by the respondent households. The complaints made by respondents who could not access tractor services bothered on them not being affiliated to certain political groups. According to some respondents, the tractor operated by the Municipal Assembly could not be accessed at a time that it was needed most by the farmers. However, some favoured farmers got timely tractor services through patronage and clientelism. Timeliness as a factor of availability was important in farming as deviations in timelines could cost a farmer a whole harvest. The effect was low productivity which affected livelihoods negatively because income to the household was reduced.

Some households did not however wait for the services of tractors which were not readily available but found other solutions for this challenge; just like some farmer households substituted the use of labourers with weedicides so did those who found themselves in this situation. A few had the following to say;

*Using weedicide is even cheaper than hiring old or even new tractors with all their problems. Sometimes when you force to get a tractor onto your field the frequent breakdown even stresses you out. When you get to the market weedicide is abundant, you can buy as many as you want without any restrictions, instead of government providing tractors which farmers in this area never get to use, they should rather subsidize the chemicals for us here. That is what we use.*

The use of agro-chemicals however, which is characterised by substance abuse mentioned earlier is an age old challenge in Ghana's agricultural sector. Clarke, Levy, Spurgeon and Calvert (1997) found out in a study on the use of agro-chemicals in the Accra Plains that farmers were not fully informed about the route of absorption of these chemicals into the human body. High risk behaviours including the non-use of personal protective gears were common among users.

These, Clarke et al (1997) concluded, contributed to human poisoning which were under reported because most of these cases did not go to the hospitals.

### **5.6.3 Changing access to extension services by smallholder farm families**

The changing face of agriculture requires that technological innovations were disseminated and utilized appropriately by farmer households for improved livelihood both in farm and non-farm activities. Agricultural innovations involve new knowledge and technology related to primary production, processing and commercialization which can positively affect productivity, competitiveness and livelihoods of farmers and others in the rural areas (Asenso Okyere, Davis and Aredo, 2008). These innovations can only be disseminated by Agricultural Extension Agents (AEA) trained for the purpose. AEAs as agents of change are expected to work with the final recipients of technological innovations who are the farmers. Asiedu-Darko (2013) found in his research on agricultural extension delivery in Ghana that the level of farmer involvement in innovation dissemination is low, making the farmer a passive recipient. This reduces their willingness to accept and practice the innovation. In addition irregular visits by AEAs which culminate in reduced contact with farmers also affect access to extension services and hence utilization of technologies.

From the study, the unavailability of AEAs to assist farmers carry out some activities on their farms resulted in farmers seeking substitute services in untrained agro chemical sellers who were not able to fulfil that role. For farmers who used the services of AEAs in the past, the major role of these agents was in disseminating agronomic practices. These agronomic practices included;

land preparations, weed control, crop establishment methods like planting density and arrangement, pest and disease control, crop rotation considerations and fertilizer application.

At the time of data collection the farmers did not come into contact with these AEAs anymore, however some still practised whatever technology was disseminated to them. Furthermore activities of AEAs were limited to data collection exercises or message delivery. The only meeting held recently by an AEA in relation to farming was to give farmers information on the government fertilizer subsidy project. The farmers were assured that they would be given coupons to enable them access subsidized fertilizers for their crops. Some however maintained that those coupons never got to them. For those who got the coupons, they did not get the fertilizers because when they got to the depot in the Municipal capital they were told the fertilizers were finished.

In the past when farming was the main livelihood activity, usage of extension services and agents' contact with farmers were better. Data from this study showed that extension service in the past was found to be better than an estimated 1:500 AEA- farmer contact which translated into one visit by an AEA per year Egyir and Ackah-Nyameke (2006). Thirty eight percent (38%) of farmers were visited one (1) to two (2) times in a month in the past, which meant that the visit was done biweekly by the AEAs. In contrast to the present situation where 88% of respondents said that the AEAs did not visit the farmers anymore. Only 12% (6 households) had the privilege of a visit for purpose of communicating information to them and not for technical agricultural extension services. This is very much in line with the present situation at the Municipal Agricultural Office where most of the staff has been transferred. Farmer households posited that

presently they would want extension agents to give them new directions and educate them on new livelihood activities, but these were not forthcoming. They felt that the Agriculture Office in the Municipality should be closed down since the officers were redundant. The Municipal Agricultural Development Officer did not agree to this position of the farmers. In his words;

*The AEAs have reduced in number because most of them have been transferred but the few of us left have organized training programmes in aquaculture, poultry and rabbit rearing for some farmers, but we are limited by lack of funds. Some of the farmers who benefitted have also started complaining because thieves are stealing from their fish ponds.*

The above again confirms that AEAs do not visit the farming communities for farming purposes anymore. The demand driven paradigm of extension services which is being proposed and promoted by researchers is somewhat lacking in extension services delivery in Ghana and for that reason the research area. Challenges associated with farming in peri-urban areas require that extension plays an expanded role. This includes positioning farmers to take advantage of international market dynamics, enhancing crop diversification and seeing agriculture as a part of a wider set of rural development process which includes enterprise development and non-farm employment, building linkages between farmers and other agencies. Diao, Hazell, Resnick and Thurlow, (2007) believed this would culminate into an enhanced livelihood. The above summarizes and confirms the MOFA (2011) finding that extension agents are concentrating on delivering services which are not relevant to the needs of present day farmers. But they are limited in training so cannot offer tailor made guidelines to assist farmers adapt to changing economic situations. In view of this limitations that farmers have observed on the parts of AEAs they also feel reluctant to approach them on issues of alternative livelihood activities.

Tables 5.11 and 5.12 show the frequency of AEA visit to farmers in the study communities

Table 5.11: AEA visit to farmers in the past and at present (study communities)

AEAs past visit to study communities	Frequency of response	Percentages	AEAs present visit to study communities	Frequency of response	Percentages
Yes	28	56	Yes	6	12
No	22	44	No	44	88
<b>Total</b>	<b>50</b>	<b>100</b>	<b>Total</b>	<b>50</b>	<b>100</b>

Source: author's field survey (June 2013)

Table 5.12: Frequency of AEAs visit to farmers in the past (study communities)

Frequency of visit to study communities	Frequency of responses	Percentage
Three to four times per month	5	10
One to two times per month	19	38
Once per three months	4	8
Once per year	1	2
None	21	42
<b>Total</b>	<b>50</b>	<b>100</b>

Source: author's field survey (June 2013)

#### 5.6.4 Effect of reduced access to extension services on farming as a livelihood activity

The total effect is that extension services and extension officers are losing their relevance in the present scheme of affairs on livelihood issues among the farmers because their services have mostly been in the area of crop cultivation. The older farmer population beyond the age of fifty five years thought that since they were beyond learning vocations like masonry or carpentry they could be linked up to institutions like NGOs to be assisted. They (farmers) could start new

income generating activities because they saw farming as an activity which very soon (not more than ten years) would cease to provide for them and their families. It is a process which has started and the remotest village will be affected. The Municipal Agricultural Development Officer also thinks so, to buttress this point he said;

*The process of farmland depletion started in Pokuase zonal area and now there are no more farmers in that area, similarly Kotoku zonal council is also getting gradually depleted of farm land. Together with Actionaid we tried reclaiming some farmland but the project ended and that was the end. The department needs to be properly resourced to effectively work with farmers on alternative livelihood activities. However we are still very important because even if you have a few domestic animals like fowls and goats, you are still considered a farmer. There are vegetable farmers around who need our services. Even the metropolitan assemblies have agricultural departments, how much more a place like Ga West*

As a local government representative the Municipal Planning Officer (MPO) thought that the department of agriculture should be assisted to properly handle this livelihood construction problem of farmers because the area used to be the food basket of the region. The issue is also about food security of the people in the entire municipality. In view of this, the Assembly stopped issuing licenses to sand winners since 2010 to stop the practise. The tipper trucks seen in the municipality get their sand from some part of the Eastern Region so Ga West Municipal is a transit point for them, (Municipal Planning Officer, Ga West Municipal Assembly).

The assertion that there was no more sand winning activities in the municipality was refuted in the course of interviewing an informant. He got a telephone call and the message was that “*the people have come again*” He exclaimed in exasperation;

*You see what we are talking about, now we are absolutely fed up, they can do whatever they wish, if they get food to buy in future we will also get food to eat. They can do whatever they please with their land but those of us who depend on the land should also be assisted and stopped being deceived by the very institutions which should enable us live, like the extension people who come and deceive us with fertilizer coupons. The Assembly collects reclamation fee from the contractors but they never reclaim any land for reuse.*

As farmers gradually lose their livelihood from agriculture, the onus is on the department of Agricultural Extension Services to adapt to the changing needs in the municipality by equipping extension officers with the requisite skills. This will enable them meet the aspirations of households which are presently going through this period of transition which they claim will soon make them redundant farmers. From the key informants and FGDs, the extension officers form a better link between them and the government;

*They are nearer to us than other government officials, when there is a project funded by donors we see them work very hard at it, and come often to the communities than even the Assembly people that we vote for and elect. We think that the government can effectively channel any programme related to our livelihood through them. Or else they can give the monies to NGOs to help us because they can also do it.*

## **5.7 CREDIT**

### **5.7.1 Credit facility as a needed farm resource**

The availability of funds to carry out timely purchases of inputs for agricultural production has been one of the constraints of smallholder agricultural producers. The scarcity is due to the poor functioning of rural financial markets in poor countries (Ellis, 1992). Credit markets operate unevenly in rural areas if at all. Several reasons have been cited, among them are the high cost of

setting up banks in rural areas, lack of information on potential borrowers, risk of loan default and the lack of collateral are the ones frequently mentioned (Ellis, 2000). Bigsten and Kayizzi-Mugerwa (1995) found that unlike Asia rural credit availability in Africa is low. Private money lending exists in Asia but these money lending businesses tend to be associated with personalized transaction in interlocked markets that can place the borrower in a continuous condition of debt to the lender (Bhaduri, 1986).

In the study communities of Ga West, respondent households did not have any access to formal credit from any financial institution (FI) or NGO to undertake their farming activities. Majority of households' response on whether they had ever used any form of credit in the past or at present for their livelihood activities on the farm elicited a negative response. Forty three out of the fifty respondents had never taken any loan be it from a buyer, an organization or financial institutions (FI) or even family member to purchase any farm input. Several reasons were given for this; some NGOs actually came around to offer assistance in the form of input credit and other interventions but only few farmers with their own land benefitted. This was because the project was a tree planting one which warranted that beneficiaries had their own land, so only few farmers participated. Apart from that project, individuals from savings and loans organizations also came around to offer loans but one has to save with them to be part of a group. This was difficult because there were people whose intention was to take the money and not repay and joining groups with such people was enough to tarnish one's image and reputation.

Additionally payment of loans from the buyers was on individual basis but if the harvest was not as good as expected one did not benefit from such a loan.

The interest rate per cropping season was between twenty five percent (25%) and thirty three percent (33%) depending on personal relationship between the buyer and the farmer such as number of years that the individual buyer and the farmer had transacted business. Most of the benefits according to the farmers went to the traders who advanced the loans. In their words;

*The buyer takes all the benefit because generally prices go up after each cropping season and because of the predetermined rate of the loan; the farmer is obliged to fulfil it, leaving him/her with no money for the next planting season. It then becomes a cycle of borrowing and repaying. If for one reason or the other your crops fail they do not understand and think you are deceiving them, they send you threatening messages through other farmers who go to the market, disgracing you in the process.*

The traders also face moral hazard which is always cited by FIs as one of the reasons for refusing agricultural loans (Dzadze et al, 2012). The farmers' credibility is brought to question but the traders have to protect their investments with the farmers. Further questioning of respondents revealed that such a situation where farmers "pretend" to lose their crops was not uncommon and had ever occurred although not with the traders. The challenge with advancing loans to farmers or people in the informal sector and getting them to repay has been the bane of several credit schemes instituted for farmers. Hence some financial NGOs have found a way to circumvent this problem by instituting repayment in kind for debtors in the farming sector, which increases the repayment rate and makes lending to such group of people less risky (Ghana Microfinance institutions Network, GHAMFIN 2006).

### **5.7.2 Limited access to credit and its effect on productivity of farmers**

From their responses, the farmer households in the study did not see lack of access to credit as a major hindrance to their farming activities. They conceded that rather lack of a proper functioning market was their major challenge. Their argument was that if there was no loan they could still cultivate with the little resources at their disposal because presently, accessing formal loan for farming especially with their limited access to land was not “*sensible*”. This was because the area cultivated with crops had reduced drastically as a result of the urbanization processes going on in the municipality. Market structures should rather guarantee them good prices at all times so that they could adequately plan the use of the little resources they had left for livelihood construction in farming. From the FGD the youth thought that:

*Government had neglected food crop farmers as if our operations were not important but we feed the country and will continue to do so. If the prices of cocoa go up and cocoa farmers get so much money they will still need to buy food to eat, so in the scheme of things food crop farmers are even more important because now no food can be planted under those old cocoa trees anymore. Now they have looked on and sand winners have also destroyed the land for food crops, some people are also destroying other parts of Ghana for gold, very good business, all because farming in these areas have not been properly organized. If government does not take a second look at farming and we continue like this, we are doomed as a nation. As young people we need credit for other things that will make our lives meaningful, in the absence of factories to employ us, they can give us credit not for farms but to buy taxis or even motor bikes for business, corn milling machines and others.*

From the above, lack of credit for farming has not been a major challenge for farmers in the study communities. The effect of Government interventions like the AMSEC was new to them because such interventions were not relevant to them hence the need for policies to be area specific and not “one size fit all”. From the above interaction it came to light that they would have preferred other policy interventions suitable for their specific needs in the municipality in the light of their prevailing circumstances of agricultural land loss not interventions like the AMSEC. They concluded that “*no wonder the operators left*”. Generally, lack of credit have been known to hamper agricultural productivity (Salami et al 2010) but not in the case of Ga West Municipality. Here, the farmers preferred to depend on their own resources to finance their agricultural activities because they recognized the constraints that dwindling access to farmland had placed on farming as a major livelihood activity.

### **5.8 Household level strategies to combat reduced access to farming resources**

This section outlines the adaptation strategies that households in the study communities have adopted in the face of reducing farming resources for a meaningful and sustainable livelihood construction. The strategies as they relate to the resources in the study would be looked at to ascertain if households took cognisance of the natural resource base upon which these activities are formed and whether institutions and structures have in anyway impacted their decisions.

Evidence from a variety of locations suggests that rural households do indeed engage in multiple activities and rely on diversified income portfolios. In SSA research has established that there is 30% to 40% reliance on non-farm income sources (Ellis, 2005). In Ghana, Senadza (2011) found that non-farm income as a share of total household income in rural areas increased from 35% in

1998 to 41% in 2006. Having the potential to diversify increases resilience of rural households and contributes to livelihood sustainability. Diversification takes in different forms in different contexts. It is sometimes a means to enable households accumulate for consumption, investment, spread risk and manage temporary crisis. It can also be an adaptive response to longer term decline in income or entitlement due to serious economic or environmental changes beyond local control (Hussein and Nelson, 1998; Ellis 1999).

### **5.8.1 On-farm household income diversification**

In the context of Ga West diversifying income portfolio through on-farm activities was not a viable option for farmers. This was because the technical innovations involved in such farming practises demanded the constant presence of AEAs who were not readily available to offer that assistance to the farmer households or to present other available options to them. Gradual loss of land demanded intensifying agricultural production to incorporate the cultivation of high value export crops which grew well in the municipality. Some households took the step to do so without any technical know-how on the cultural practises needed to cultivate crops successfully. The households involved sought technical assistance from friends to cultivate exportable chillies, but, the rest of the households were left to their own devices so they *“used whatever land they got along the river to plant okra”*. Where there was no water body they changed from cultivating maize and cassava to cultivating *ademe* (*corchorus olitorius*). This was quick growing and harvested and sold within four weeks, hence this little piece of land was replanted as many times as the farmer wished. This meant that at the end of every four weeks some income could be obtained from this for family needs.

These practises of planting vegetables like okra or other high value crops and *ademe* as described above does not properly fit the orthodox definition of intensification in the literature where a greater amount of non-land resources are used for a given land area (Ellis 2000, Boserup 2005). The use of fertilizers among these farmers was very low, whilst some used less than the required quantity, others like those who planted *ademe* did not use any at all. It is acknowledged that this practice fits the specialization aspect of intensification but not the resource use aspect. But livelihood challenges are more context specific and individual households and communities take decision based on available resources and local conditions and may not necessarily fit into universal or generalized definitions.

From the responses elicited from all groups of respondents there was a gradual gravitation towards land near perennial water bodies for agricultural purposes because it aided dry season farming. In Ghana's Environmental Profile, the practice of farming close to water bodies and winning sand for the uncontrolled construction industry are seen as polluting and degrading the environment and laws which have hitherto not been enforced need to be looked at by the appropriate bodies for the conservation of Ghana's environmental endowments (Government of Ghana, 2012). Thus although some households have comfortably intensified cultivation as a strategy to mitigate the trend in land loss, it is not environmentally sustainable. Hence the strategy undermines the natural resource base and does not conserve it in anyway. The sustainable livelihood framework proposition which advocate that "diversification should not undermine the environment but help sustain it" is defeated in this case.

Additionally, small scale livestock production was an activity that the households mentioned as forming part of their income portfolios. A question on whether household heads had ever sold any family asset to purchase farm inputs was met with an affirmative answer indicating that sheep, goats and fowls were sold for the purpose. They further elaborated that such asset replenished themselves by reproducing and was a major agricultural income for their households besides what they got from their ever declining farm incomes. Here again, the suggestion that AEAs could take up the responsibility of assisting farmer households improve the production of livestock and further introducing the rearing of rabbit and grass cutter to them was forcefully articulated. The Municipal Agricultural Development Officer also mentioned small scale animal rearing as a recognised agricultural activity which could be promoted to enhance income generation towards improved livelihood.

Small ruminants are reared in Ghana not only for historical or cultural reasons but also for economic reasons. The cost involved is minimal because these animals are mostly left to free range. They are managed by children in the household who feed, provide water and clean their pens which are normally made from locally available materials such as timber off-cuts, bamboo, tree branches and thatch or iron sheets. Breeding is normally not controlled and animals are open to conception once they reach puberty. (Oppong-Anane, 2001). This corroborates what some households head said concerning replacement of asset sold to purchase farm input that;

*Goats and sheep replenish themselves so you can even sell all and leave two ewes and by the same time next year your pen will be full again. If we cannot have land to farm can't we rear these on a large scale for some cash? The interviewee inquired.*

The demand for these animals is high because they are slaughtered for various occasions and functions such as births, funerals and marriages and are used daily by local food houses called “chop bars” to supplement the protein needs of the population.

### **5.8.2 Off-farm household income diversification**

In contrast to on-farm income diversification is off-farm household income diversification which refers to engaging in wage earning activities on farms other than one’s own. It also involves agricultural or natural resource based activities such as gathering of firewood, burning charcoal, processing of agricultural produce, gathering of house building materials and wild plants to sell for income (Ellis 2000). The reduction in farming activities in the study communities resulted in shortage of farm labour because some labour migrated as in the case of Dedeiman, where all the contract labourers left. An alternative for those left behind was to diversify from on-farm to off-farm activities to take advantage of the situation but such natural resources were depleted in the environment due to the phenomenon of urbanization under discussion. Additionally wage labour on other farms was also not available since those who had farmlands to work on needed no extra hands on their farms because of the reduction in farm sizes. Other livelihood activities absorbed the remaining youth into non-farm activities in the construction and sand winning industries because of higher daily wage in these areas as earlier mentioned.

### 5.8.3 Non-farm household income diversification

Non-farm income (NFI) diversification includes all economic activities other than the production of primary agricultural commodities. NFI activities include mining, manufacturing, construction, personal and government services. (Haggblade, Hazell and Reardon, n.d.). Non-farm income is important for poverty reduction and for improving household welfare and subsequently the overall livelihood of the household. It contributes significantly to reducing the fluctuations associated with rural household incomes from agriculture (Dercon and Krishnan 1996; Block and Webb 2001; de Janvry and Sadoulet 2001).

Ellis (2005) opined that small farms are getting smaller in SSA each passing day. This demonstrates an orientation towards low levels subsistence than was the case twenty or thirty years in the past. The contributing factors are the inability of the rural areas to urbanize fast enough to stabilize the quantities of land available for farming. This could be due to poor land use planning and the seemingly lack of urban development policies on the part of policy makers. Also the willingness of farm families to cede their access to fragments of land owned because it has hitherto provided a safe haven should non-farm occupations fail.

The finding that some family members were unwilling to cede their fragments of land to others was found to be true for a few households. A young lady respondent of 27 years had stopped working as a seamstress because clients whom she sewed for could not afford her charges. She decided to take up farming on a piece of land measuring *one rope* that her father gave her. Realising that it was not enough she and her husband hired two more acres on *adode* basis in addition for farming and they had been cultivating okra for the past two years. She found it to be

better than her previous vocation in which she even made a few enemies because she would not leave them alone when they refused to pay her charges, she said. The small piece of land from her father was the starting point for her, if she had ceded it to other members of her family due to its size her household would not have been able to combat the insecurity associated with her previous occupation by coming back to the land. This gives credence to the findings on fragmentation of land and the unwillingness of some members of a family with fragmented pieces of land which are not put to any use to cede them to other family members whose livelihood is formed around farming. The main reason for such actions is the security inherent in owning a piece of land regardless of the size (Asiedu and Addo 2008; Ampadu, 2012).

From the study communities, non-farm income generating activities engaged in to cushion these households from the risks of fluctuating incomes in agriculture due to reduced access to farm resources included stone quarrying and operating grain milling machines. Others were blacksmithing, tailoring, driving, selling lottery tickets and pastoring churches and okada riding (these make up the other activities referred to in tables 5.13 and 5.14). Two household heads ventured into the formal sector where they were working as revenue collector for the zonal councils and security man at the government hospital in Amasaman. These men also complained about poor labour practices.

*The practice of keeping a worker for years on temporary basis is disheartening; when they do that there are a lot of benefits you do not get. Your social security contribution is paid alright but is that all there is to working? You are not promoted, you stay in one position for a very long time and you cannot complain because if you do they can tell you to go home. Imagine what*

*work I can engage in at age fifty five years when I should be preparing for pension. It is like everybody and even the government institutions and policies are all working against us.*

Although such a situation may be far between it is not isolated, it brings to light challenges associated with livelihood construction in an environment where institutions do not function properly to aid the vulnerable. The transition of a household from one form of resource use to the other is to spread risks and reduce vulnerability. Therefore if supporting structures do not play their roles as should be the case, livelihoods construction will not show the resilience needed to withstand changes in access thereby pushing households deeper into poverty. Other NFI activities mentioned by males included working as labourers in the numerous block factories which had sprung up as a result of residential and industrial construction activities going on in the municipality.

On the other hand females normally used their basic home making skills to engage in alternative NFI generating livelihood activities including petty trading on table tops and selling cooked food of all kinds, with these activities, one does not actually need to go through any special training to start business. Other activities some households ventured into included selling locally brewed alcoholic beverage (akpeteshie). Bryceson (2002) had noted that because the capital needed to start petty trading was low, it had become popular among women as a source of income, thus gradually substituting agricultural income diversification for the much needed cash earning which they lacked from their farms. There were some respondents who together with their spouses undertook farming as a major income earning activity but their spouses had some form of non-farm activity for secondary income. Table 5.13 shows the non-farm activities that respondents undertook in the study communities.

Table 5.13: Non-farm activities of respondents (study communities)

Household non-farm activity	Frequency of response	Percentage
Petty trading	9	18
Cooked food Vendoring	4	8
Processing and trading in farm produce	3	6
Formal sector workers	2	4
Others	11	22
None	21	42
<b>Total</b>	<b>50</b>	<b>100</b>

Source: author's field survey (June 2013)

More than half of the respondent households were engaged in non-agricultural income earning activities as a secondary source of income. On the other hand respondents in the control communities engaged in non-farm activities as their main occupations. The table below shows the delineations. As Bryceson (1993) asserts, a declining food sufficiency and a reduction of household income from farming begins with the unavailability of land for the youth to engage in agricultural activities, these youth move to the non-agricultural sector to seek employment. Thus a gradual process of deagrarianization begins. There is a general reorientation with regards to occupational adjustment, social identification and possibly relocation of some farmer household members away from the rural communities.

Table 5.14: Main occupation of respondents (control communities)

Household non-farm activity	Frequency of response	Percentage
Petty trading	5	23.8
Cooked food Vendoring	1	4.8
Sand winning	1	4.8
others	14	66.6
<b>Total</b>	<b>21</b>	<b>100</b>

Source: author's field survey (June 2013)

#### **5.8.4 Formal education and migration as possible avenues for livelihood enhancement**

Ellis (1998) in his writing on household strategies in rural diversification noted that, migration is one of the most important ways of diversifying. De Haan and Rogaly (2002) agree with him in their collection on labour mobility in a rural society that, it is even much more common as a livelihood strategy than is often suggested even among the poor. However, Kothari (2002) notes that it may not be an option for the poorest because of structural hindrances including low level of education.

Other researchers have found that in Ghana, farmers now prefer giving their children formal education in order to give them higher human asset since the quantity of land for farming is dwindling in several farming communities due not only to urbanization but also land fragmentation (Oduro 2010, Dzadze et al 2012; Ampadu, 2013). So it was with farmers in the study communities in Ga West, however their children do not excel as most of the time they end their formal education after completing their first cycle basic education. Besides one family head who proudly mentioned that all his children continued to second cycle institutions, all other

family heads, commenting on their children's education said that they learnt vocations and did petty trading after completing the basic school. As to why their children could not continue to second cycle and tertiary institutions, they blamed it on poor quality of education in the countryside as one of the causes and their (parents) inability to earn enough from their farms to pay school fees in private second cycle schools which were ready to admit their children in spite of their poor grades.

Some respondents with older children who had completed basic school and could not continue due to the above reasons had sent the males to stay with relatives outside the study communities to be apprenticed as carpenters, masons, or welders. The females normally engaged in apprenticeship trainings as seamstresses and hairdressers. After completing their apprenticeship only few came back to the communities because they could not ply their trades there. The process of migration normally started like this for most of the respondents' household members. There was no conscious effort on the part of any household head or spouse or older children to migrate except for one female respondent whose husband had migrated to Kade in the Eastern Region to undertake brewing of *akpeteshie*. He came back home at the end of each month both to sell his drink and to see his family before going again for another month.

Apart from this household, the other respondents whose children had migrated started off in the fashion described above. These people become absentee members of their families of orientation because after their vocational training they also marry and start their own households. Others also got married to husbands outside of the communities so they were taken away by their husbands to the urban areas. The "migration" destinations were within the Accra Metropolitan

Area for the indigenes and the Volta Region and nearby urban communities near Amasaman for the migrant community members. Because there was no conscious effort to migrate, remittances to the study communities were low and some households rather sent money to these apprentice household members who stayed in the urban areas with relatives. Families who had the benefit of remittances got amounts ranging between fifty Ghana cedis and one hundred Ghana cedis in every three or four months from their married children. Some of this amount was used for medications, for daily food needs and to purchase some agricultural input. The remittance these households (24% of respondents or 12 household heads) got was not a critical part of their budget and according to them they could easily do without those amounts except for the amount spent on medication by two household heads. From some household interviewees;

*It is just nice to know that you have a child who thinks about you but the relationship is more reciprocal, when they are in need, they also send messages to us for assistance. When your children move away to create their own households you do not worry them with your problems, because there are more problems financially in the cities and big towns than here.*

The livelihood outcome of migration is dependent on a number of issues; how much is remitted within what period of time and the uses of the remittance amount. The level of remittance varies based on whether the migrant involved is a skilled or unskilled labour and whether migration is international or domestic. In a survey conducted by De Haan (2002) as cited by Waddington (2003) in Ethiopia and Bangladesh, it was reported that only about two percent of households surveyed in Ethiopia received remittances from migrants whereas in the Bangladeshi case an unstated majority did. Further research by Black et al (2003), indicate that poorer migrants tend to remit a higher proportion of their income than their richer counterparts do. Two propositions came to the fore; that the geographical dispersion of household members serves to diversify

sources of income to reduce risk and secondly at different times during the period of migration, both household and migrants co-insure each other. The later finding confirms that migrants do not always remit but they are also remitted sometimes depending on the conditions under which they find themselves.

Secondly, from responses elicited from household heads in the study communities, it can be inferred that international migration is very low amongst households in Ga West, hence reliance on remittance as a livelihood diversification strategy is also low. This finding again falls in line with what Reardon et al (2006) found in their study on household income diversification into rural non-farm activities. They reiterate that evidence available indicate that earning from rural non-farm income exceed that of migration even in areas like Mexico and Central America where there is heavy out migration. Then again in Nicaragua which has a reputation of heavy reliance on remittance to rural families only 10% of households have migrant members.

## **5.9 Conclusion**

Livelihood generation and its outcomes are ongoing processes involving several resources which can be accessible and utilized constructively to achieve resiliency and security. Farmer households in the Ga West Municipal study communities categorized their assets needs in order of importance. As families in crop production, agricultural land was the first and foremost mentioned by each and every one of the respondent households. Thereafter other resources mentioned depended on the geographical location of the households. Those engaged in dry season farming along water bodies then mentioned water pumps and accessories, whilst those who did not engage in dry season farming mentioned tractors as important to them. Unlike the

scarcity of hired labour which impacted negatively on farmer households as a result of migration to other areas of the rural economy, the impact of the scarcity of some forest products like trees was not much felt by farm families.

As population trends changed, and Ga West experienced gradual urbanization, there was lack of planning by the Municipal Assembly and land owners to incorporate land use planning in the development programme of the municipality. This was manifested by the inability of farmers to access arable land for agriculture which was their core livelihood activity. It became necessary for farmer households to adapt and diversify their income portfolios to prevent them from falling into poverty. From the study however farmers could only diversify into non-farm income generation activities. On-farm diversification was only possible for few households who were prepared to move further away from their homestead to other more rural communities to access more land for intensification.

Although, households had access to credit facilities from trading partners who bought their farm produce, none of these farmer households mentioned credit as a resource needed to undertake farming. In the face of imminent agricultural land loss by the older farming generation, farmers felt that credit should be channelled into other income activities other than farming because the youth had also developed an aversion for farming activities. Hence, in the control communities, all respondents were involved in farming as a secondary livelihood activity because land was simply not available for their use. However, unlike respondents in the study communities these respondents did not move away to access land outside their communities.

## CHAPTER SIX

### BUILDING BRIDGES: ENGAGING ACTORS AND FORMING LINKAGES IN LIVELIHOOD CONSTRUCTION

#### **6.1 Introduction**

Institutions, organization and structures are crucial in livelihood construction; the intermediating role they play culminates into a livelihood that is less vulnerable and resilient or one that is unable to cope with trends, stresses and shocks. These operate at the household, community and governmental levels influencing access to livelihood resources and subsequently determining the composition of the strategy portfolio. In livelihood formation the roles that various actors are supposed to perform as against what they actually do is important because it determines the final outcome of livelihood choices (Scoones, 1998).

Institutions are regularised practices or patterns of behaviour which are governed by the norms of society and may be formal or informal. They are also dynamic and form a process of social negotiations termed “the rules of the game” by Scoones (1998) and is distinguished from organization which is also referred to as “the players” by North (1990). Davis summarizes it as follows “institutions are the social cement which link stakeholders to access to resources of different kinds, to the means of exercising power and so define the gateway through which they pass on their route to positive or negative livelihood adaptation” (Davis 1997:24).

This chapter analyses how specific actors at all levels have engaged the relevant institutions in the context of this study. It further discusses whether linkages exist or have been formed to

transform livelihoods as changes occur in access to farming resources as a planned way of offsetting the negativities associated with the phenomenon of urbanization. Specifically it looks at roles that all these actors' viz local government, Ministry of Food and Agriculture, Rural Enterprise Programme, NGOs, Community leadership and the households have cumulatively played to enable or disable households' adaptability for better livelihood outcomes.

## **6.2 Local Government**

According to Scoones (1998), structures, institutions and processes can enable or foster better choices if they function properly. They can facilitate mobility, increase access and reduce risk and transaction cost associated with venturing into a new livelihood area. The Ga West Municipal Assembly (GWMA) as a local government agency has a mandate to lead in the economic development in their area of jurisdiction. It is mandated to create the necessary environment where citizens and residents can formulate and carry out activities which will enhance their livelihoods and reduce poverty. The GWMA has played a fundamental role in the present situation in which farm families now have limited access to land as a basic resource for livelihood construction and the subsequent changes associated with it.

Sand winning as a livelihood activity in the municipality is undertaken by going through some laid down procedures described earlier. During registration by the contractor with the municipal assembly, a fee is charged purposely for reclamation of the said area where the sand would be mined in the event that the contractor refused to reclaim the land. The onus is then on the assembly to monitor the activities of the sand winners by whatever means available to make sure they leave the top soil for that purpose and spread it after winning the sand. Whilst some

contractors do so others contravene it. As to why this whole exercise of reclamation could be undertaken by the assembly to enable the farmers reuse the land, the Municipal Planning Officer said;

*That the assembly took the reclamation fee alright but could not fulfil that responsibility when the contractors renege because that money formed part of the general revenue mobilization efforts of the assembly. Hence the money, together with all other revenue accruing to the assembly went into a central pool and isolating it for that purpose was difficult. Secondly, the contractors more often than not did not pay for the correct acreage of land mined, they under declared the total land area they negotiated for and paid less fees. Efforts to have them do the right thing proved futile because monitoring was difficult. They had site plans of the area meant for the sand winning provided by the land owners but even collaboration with the police could not help because they (monitoring team) could not read and interpret the site plans the contractors had. Often times they paid for one site and worked in several locations with that single plan and those who monitored could not detect this fraudulent behaviour because of their inability to understand the site plan.*

At the time of data collection, the GWMA did not have any plans of undertaking any reclamation work because the top soil may even not be available for spreading. The land itself was more often given out for building purposes after winning the sand. Respondents affirmed that sand winners often came back for the top soil after they realised that it was still heaped at their various sites and had not been spread. In the words of the Municipal Planning Officer (MPO), the Assembly declared four years ago (2009) that;

*There was no more sand to be mined in the Ga Municipality so we stopped issuing permits but we are told that sand winning is still going on. Land owners are still giving out land to sand winners and we cannot stop them because they also need that money to live. The money from*

*sand winning is huge but only few people benefit because only few people have the right to sell the land.*

In analysing outcomes of livelihoods, certain types of issue are important to help ascertain how some groups of people who are failing to achieve their livelihood aspirations can be supported. Important among them are whether the people are aware of their rights (political, human, social and economic) and whether they have any access to means of ensuring that these rights are met, what sources of information are open to the people and the quality of that information (DFID 1999). Farmer households who were negatively affected by this sand winning phenomenon were not involved in any of the processes of securing permit for sand winning. For that reason they did not know how the system worked and did not also know that the Municipal Assembly charged contractors purposely for reclamation. Therefore they could not exercise their agency to pressurize the assembly to undertake that mandate. This could also be attributed to the low level of education amongst the respondent households resulting in their unwillingness to engage the formal sector.

Responses elicited from farmer households affected by sand winning in the study communities showed that they did not have any information on whose responsibility it was to reclaim the land for reuse. Whilst some thought it was the responsibility of the contractors who purchased the land, others felt it was the land owners because they received payment for the land. But a few well informed ones knew it was between the assembly and the sand contractors. Lack of information on such an important activity pertaining to livelihoods of families led to their being disenfranchised and their inability to successfully follow a livelihood path in agriculture. The household heads who participated in the study accepted that changing trends in population

growth was inevitable and could trigger such occurrences as sand winning and construction of houses as a result of urbanization. However having a structure like the GWMA around which all stakeholders revolved, and having well established norms and institutions acknowledged by all and properly monitored would have solved their problems. Some thought that;

*It is late because policy makers have come and gone without doing anything concrete about this phenomenon, and now they have lost all.*

Respondents admitted that the GWMA has various structures which if employed properly would have resulted in improved livelihood for all. They advocated for agricultural land use planning in the municipality to enable those who intend to continue agricultural activities have land for the purpose whilst not neglecting the needs of other people who might want land for other purposes. Government land acquisition should not only be for housing purposes for “big people” in government citing the Ofankor acquisition case earlier alluded to as an example but also for indigenous farmers who do not have usufruct right to the land they cultivate but have to make a living. Those who have usufruct right by virtue of their family ties should also be protected from the greediness of family heads who for the love of money do not think about posterity and what

*They would eat in the future but think only about today. Industries have sprung up in Amasaman and the big towns and we are happy about the infrastructural development because as estate developers come to our communities light and piped water might be nearer us but that cannot be done to the detriment of our livelihoods (Key informant interviewee, Ahansowudie).*

Eventually such unplanned urbanization process which deprives agriculture of prime land and also deprives households of their livelihoods increases the unemployment rate. Naab, Dinye and

Kasanga (2013) call for proper land use planning to include designation of sensitive land resource and areas, protection of green fields, preservation of prime agricultural land and discouraging excessive urban sprawl.

In response to the lamentations from the households, the Assembly undertook an alternative livelihood project called Community Based Rural Development Project (CBRDP) with funding from the World Bank. It was for a period of three years and ended in 2008. Beneficiaries benefitted from training in beekeeping, grass cutter and snail rearing and others. There was no provision for monitoring so the MPO did not have any information on how beneficiaries' livelihoods had been impacted by the said project. Thus government efforts towards facilitating the efforts of households to construct meaningful and resilient livelihoods in the face of vulnerabilities were limited and piecemeal. Neither did they reach the intended beneficiaries nor were monitored for impact as noted by a key informant.

*Government projects involving free or subsidized items or disbursing government loans are discriminatory and people who do not normally need it are those who benefit because they are the influential people in our society.*

Because the Assembly declared that there was no sand to be mined in the municipality, those who were winning sand were doing so illegally and were not paying any revenue or reclamation fee. This declaration needed to be reviewed so that new by-laws could be instituted to manage the little land resources left as some households still thought that;

*there was hope if people in authority would do what was expected of them.*

### 6.3 Ministry of Food and Agriculture

The Ministry of Food and Agriculture (MOFA) is the lead governmental agency responsible for developing and executing policies and strategies for the agriculture sector. By means of a sector-wide approach, the ministry's plans and programmes are developed, coordinated and implemented through policy and strategy frameworks. The ministry has a vision to modernize agriculture which will culminate in reduced poverty by promoting sustainable agriculture through research and technology development, effective extension and other support services to farmers for improved livelihood (MOFA/GoG, 2013).

At the municipal level the ministry operates as the Municipal Agricultural Development Unit (MADU). As a body in charge of agricultural activities in the municipality, they carry out various functions which pertain to livelihood construction with the aim of reducing poverty. Research findings from research institutions are disseminated through their activities in the communities in which their AEAs work. Agricultural activities, according to the Ministry of Agriculture's key informant does not only involve cultivation of crops but aqua culture, rearing of small ruminants, poultry, rabbit rearing and other related activities. However the AEAs are not able to incorporate these into their extension activities due mainly to lack of funds from the ministry to enable them move out into the communities to work with farmers. They collaborated with the Assembly to undertake the CBRDP but they were not resourced to do continuous monitoring of beneficiaries and to replicate it for other interested households in the municipality. This key informant from the MADU believed that;

*Once the Rural Enterprise Program has now come to start operations in the municipality we can effectively collaborate with them to assist farmer households who are interested in having an*

*alternative source of livelihood apart from farming do so. We can assist with formation of farmer groups, sensitize them and then link them up with the program. The REP is a more permanent establishment and we believe with their presence we can give the farmers meaningful training to improve their standard of living.*

In the absence of direct funding from government through the sector ministry, the Municipal Agricultural Development Unit has relied on Non Governmental Organizations (NGOs) and the GWMA to assist them deliver their mandate to farmers in the municipality. The Municipal Development Officer mentioned that the department worked with Action Aid Ghana, an International NGO to reclaim some land destroyed by sand winners for reuse by farmers, they could not however cover the whole municipality. Concerning its success Adjei (2012) in his study on Action Aid's land reclamation exercise concluded that it was generally successful but that most of the land was used for housing purposes after sand winning. This corroborates what this study found that sand winning more often started the process of loss of agricultural land because after the sand had been mined land owners then demarcated it into building plots for sale, making double profit from the same piece of land.

#### **6.4 Rural Enterprise Programme**

The Rural Enterprise Programme (REP) was a poverty reduction initiative by the government of Ghana and funded by International Fund for Agricultural Development (IFAD), and the African Development Bank (AfDB) which started in 1995. Its implementation was in 66 districts in two phases called the REP I and II. After a successful evaluation in 2011 which confirmed the relevance, efficiency and effectiveness of the model in reducing poverty, the government of

Ghana has decided to convert the experience into a nation-wide programme known as the Rural Enterprises Programme to cover one hundred and sixty one districts and municipalities from 2012 to 2020. The aim of which is to improve livelihood and income of rural poor micro and small enterprises. (REP, 2013).

It was from the recent expansion that the Ga West Municipality benefitted. The REP has its offices set up in Amasaman the municipal capital in March 2013. In an interview, the head of the centre mentioned that they work through groups which have between twenty five (25) and thirty (30) persons. Their trainings are in two categories, management training and technical training and participants are to pay a token as participation fee but the cost of the training is borne by the programme. Technical trainings are in bee-keeping, grass cutter and snail rearing, soap making, confectionery and catering, agro processing among others. Since the office was opened in the municipality they have trained four groups, two in gari processing, one in pineapple processing and the last one in bee-keeping. According to her, group formation was a daunting task for them especially in the more urban communities. In her words:

*The bee-keeping training was meant for the youth of Amasaman but it was difficult to get the required number of trainees. Because these young men got money every day from sand winning they were reluctant to come and spend a few days learning to keep bees so it was taken to a more rural community where it was gladly embraced and the group was formed for training.*

After completing the training, one has to start a business and later the REP could offer loans to beneficiaries if they so desired. The collaborative efforts among the departments mentioned above are not as strong as the Assistant Business Advisor would want it to be. She mentioned that;

*It is so far limited to asking for information on possible communities to work in and organize training for.*

However the respondents from the study communities would want it to go further than that. They envisage MADU as an organization responsible for assisting farmers in agricultural livelihood construction. Therefore if agriculture is no longer able to meet their expectation as a key livelihood activity AEAs should be able to give them an alternative. The presence of REP presents an opportunity for these AEAs to meet the expectation of the farmers because they have the funds and are ready to offer training in alternative livelihood activities which the farmers have mentioned they would be interested in.

## **6.5 Non Governmental Organizations**

Non Governmental Organizations (NGOs) have played a significant role in the poverty reduction landscape of Ghana (Porter, 2003). NGOs' activities, according to Banks and Hulme (2012) have been advocated as a means to bridge the gap between existing government provisions and citizens' needs. They articulate that where the state cannot provide adequate goods, services and or enabling environment for families to secure livelihoods, alternative channels are found in the activities of NGOs who perfectly fit this gap. State failures have created a favourable environment for NGOs to operate.

NGO activities in the area of livelihood construction have been minimal in Ga West. Two organizations, Action Aid Ghana and ADRA-Ghana were the ones mentioned by both households and officials in the municipality as having engaged in livelihood activities. Action Aid's project was aimed at reclaiming lost land for reuse by farmer households and ADRA-

Ghana's project was towards food security of beneficiary households. As normal with activities of NGOs, these projects ended in 2008 and 2006 respectively. During the implementation stages of these projects some project clients and communities reported having benefitted from them. Their impact however after the years of implementation cannot be felt or seen. In the case of Action Aid's reclamation, a study alluded to earlier by Adjei (2010) mentioned that it was successful but then the reclaimed land were later used for housing purposes thereby negating the objective of increasing farmland to increase food security. In the case of ADRA-Ghana, client communities mentioned that only land owning families could participate because the project involved establishment of perennial woody species for processing into charcoal as one of the many interventions. Some households which benefitted from this intervention have not reaped the full benefit because their tree crops have also been destroyed by sand winners as they (plantation owners) are not the final authorities when it comes to disposal of the land on which some of them established these trees. By and large, sustainability of NGO activities in livelihood construction in the municipality have not been overtly impactful on livelihood construction and hence poverty reduction.

## **6.6 Community engagement in sand winning, policing and monitoring**

Whilst this study is not about land, the loss of arable land as a result of urbanization in the study communities is the main driving factor which culminated in lack of access to other farm resources already discussed above. Use of credit facilities, tractors and agricultural extension services and use of labourers were all dependent on the continuous availability of land for farming activities. In the study communities, 23 (46%) and 16 (32%) respondent households lost their farmlands to sand winning and housing development respectively. Also, all 21 respondent

households in the control communities lost their land or could not access arable land near their communities. Household heads were right in expecting that authorities should have involved them in decisions which pertained to sand winning.

First, the lessees expected the lessors to inform them about their intention to give out the land and to give them some time to enable them harvest their crop and get access to alternative pieces of land for cultivation before the sand winners came in. However more often than not they were never informed, all they saw was someone coming to survey the land.

*If you are lucky they will talk of compensating you but that is not done in full although they are the same people who negotiate the price of the crops and decide how much they will pay you. You can imagine this same contractor coming back to ask for your vote to represent you in parliament, it's laughable but that is what happens here, if you dare vote for such a candidate surely he can even sell us, the people to make money, how can such an MP protect our interest?*

Whilst farmers could not stop the land owners from doing what they wished with their land, they expected a more coordinated sand winning process where they would monitor the activities of the winners. As people with a direct interest they claimed they could have done it better than the other stakeholder. Nonetheless, if the Assembly and all the organizations and individuals involved in issuing permits had monitored existing procedures for acquiring land for development, they were sure the land situation would have been better managed.

## **6.7 Conclusions**

Linking up with stakeholders is fundamental in formulating a resilient livelihood because livelihood construction involves not only the households concerned. Relevance is also attached to all aspects of the process which requires that information flows through the right channels and

at the right time. The sand winning contractors took advantage of a de-link and lack of information among all stakeholders involved, viz the Municipal Assembly, the Environmental Protection Agency and community leadership to abuse the use of the permit and site plan they possessed. They used one permit and site plan severally and deceitfully, implying that they might have evaded tax at certain point in time. This could account for one of the reasons why the Municipal Assembly could not mobilize enough funds to reclaim the land although the Municipal Planning Officer confirmed that they charged reclamation fee.

The practice of seeking donor support for pilot projects which are not replicated must be curtailed. The three year CBRDP which was funded by the World Bank and implemented by the Municipal Assembly was in a good direction. This could not be continued to assist all households which were interested in diversifying their income portfolios to include such non-farm activities because of the fixed term implementation period. Due to lack of funds for continuity, expectant prospective households who were waiting for their turn to benefit were therefore left out.

Finally, the piecemeal approach by NGOs in trying to alleviate or find solutions to pertinent issues confronting households in their areas of jurisdiction must be reconsidered. The relevant Ministries, Departments and Agencies (MDAs) should be part of the planning process and not the implementation alone so that their programmes and projects can fit into the general national agenda and policy.

## CHAPTER SEVEN

### CONCLUSIONS AND RECOMMENDATIONS

#### **7.1 Introduction**

This final chapter presents the main summary and conclusions drawn from the study. The first part outlines the research questions formulated in chapter one with its main findings. The final part outlines recommendations for policy makers and other stakeholders involved in creating the enabling environment for farmer households in Ga West. This is to help households construct meaningful and resilient livelihoods in the face of dwindling land resources for farming as a result of the process of urbanization. This study has looked at livelihood of farmer households in Ga West Municipality and how their livelihoods have been impacted in the last decade by the creation of land markets as a result of urban sprawl.

It also looked at how families have been able to adapt to the changes which emanated from the process of land loss and what livelihood activities they undertook to reduce their vulnerabilities in view of changing trends. Finally it looked at the role of institutions and structures of the Municipal Assembly and other stakeholders and how their operations have impacted on the livelihood construction activities of smallholder farmer households in the municipality. The chapter also sums up the findings and makes recommendations for the way forward in assisting farm families make informed decisions on how they can be assisted to increase their livelihood portfolios to reduce vulnerability.

The first research objective examines the factors related to urbanization that influence changing access to farm resources and their effect on livelihood patterns of farmers in Ga West Municipality. The research question was:

*What are the factors associated with urbanization that have affected access to resources for livelihood activities in Ga West?*

In the study communities of Ga West, land administration is vested in the family heads who by custom are responsible to the family members. In practise, however, they do not confer with them on matters relating to this collective property. Individuals who owned land either purchased it or had it bequeathed to them upon the death of the original owner who could be a father. Real estate companies and other commercial entities have also purchased substantial portions of land which were hitherto used for farming and are developing them into housing unit. This commoditization of land, has resulted in a reduction in the prime resource for farming for a mostly agrarian population. However households which still want to construct their livelihood in agriculture are gravitating toward perennial water points in the municipality to access farm land. Others are moving further away from the periphery into the more remote areas. Thus geographical location and proximity to water are major enabling factors in access to land but environmental regulations are disregarded in the process. This alternative cannot be termed sustainable because it “undermines the natural resource base upon which it is formed” (Scoones, 1998; DFID, 1999; Ellis, 2000).

Furthermore, the verbal agreement between land lessors and lessee fuel conflicts among family members when greedy family heads want to enjoy the benefits of leasing out family land alone. More often these conflicts are to the detriment of the lessee farmers who may end up losing a

whole farming season because of dispute resolution. In addition land owners are not held responsible for any damage caused to crops of lessee farmers when they give out land to sand winning contractors. In the process of mining the sand, these contractors destroy crops without paying full compensation because the verbal agreement does not bind them to any code of conduct in the event of a transfer of right of usage at any given time. This behaviour has been a cause of the loss in access to farmland and a precursor to a loss of livelihood in farming.

Additionally, development of housing units as a result of urbanization was another factor. Just when the sand winners finished mining and depleting the land of sand, there were individuals and companies ready to offer higher monetary value than the owners got from farmers on *adode*. Once buyers were ready to take the land there was no incentive on the part of any of the stakeholders to reclaim the land for farming again. Consequently, land is transferred on the land market to mostly outsiders. In a process like this, some members of the indigenous population gain whilst others loose out (Kasanga et al 1996).

The rippling effect of the loss or reduced access to agricultural land is that other factors of production including labour, tractor usage and demand for extension services are affected accordingly. The scarcity of hired labour and tractor services culminated in increased use of agro-chemicals as substitute in the study communities. In the absence of extension agents the untutored agro-chemical sellers took their place to disseminate information on the use of their products to farmers as a way of boosting their market. Drudgery was increased among the farmers who initially used tractor services but had to stop due to small land size. In both cases the health status of respondent households was negatively affected because of the wrong use of

these agro-chemicals and the physical fatigue they constantly underwent in weeding. Family labour was also limited to labour from husband and wife because household heads preferred that their children attain formal education to helping them on their farms. The cumulative effect is a phenomenon which is gradually leading to deagrarianization because the youth are also exhibiting aversion to livelihood in agriculture. This, Bryceson (2002) attributes to a global process started by the industrial revolution but has been characterized by geographical unevenness across nation states so that some areas experience it earlier than others.

Contrary to what is found in the literature that credit is necessary to break the vicious cycle of poverty in smallholder agriculture (Oruonyo and Musa 2012), that alone is not the panacea to poverty reduction but equally important are other resources needed in a particular livelihood context. The non-use of credit facility by farmer households in Ga West was found not to have affected their farming negatively. Although there was no access to formal credit, farmers had access to informal forms of credit especially from their buyers. They could have used that social capital to access loans of whatever amount for their operation but they preferred not to. They would have preferred loans for other alternative income generating activities and not farming because investing in agriculture and for that reason land, was found to be riskier and more expensive in the face of imminent land loss. In cataloguing their resources therefore none of them mentioned credit as a resource used in the past or present.

The second objective was centred on assessing the combination of resources and strategies that affected households adopted to construct their livelihood. The question posed was: *How have farmers in Ga West Municipal managed to survive the changes in access to farming resources.*

In fashioning out adaptive strategies to reduce vulnerabilities in household livelihood construction, migration and receipts from remittances did not appear to be a critical path that most households took. Although members of some households migrated, the intention was not to diversify income portfolio so that migrants would send remittances back home but it was mainly to increase their human capital through some sort of training for future use. As migrants gradually gained employable skills they were reluctant to return to their home communities and to farming. With the passage of time, they constituted their own households through marriages, gaining their own families of procreation, thereafter, their families of orientation stopped depending on them.

Diversification or the adaptive strategies were two pronged: on-farm and non-farm diversification. In the on-farm strategy households which engaged in ‘security’ farming planted a fast growing leafy green *ademe*. With Akotoshie, being an Ewe migrant community, the cultivation of this particular vegetable was not only meant to be sold for the necessary cash but also served as staple vegetable in their diet, thus playing dual roles. Since it was harvested within four weeks, it served more like a monthly income for those households. Some households also introduced the cultivation of high value export crops. This yielded positive results, hence they used smaller quantity of land for crops like marrow, sweet potato, groundnut and chilli peppers than they used before for cassava and maize. This undoubtedly increased their earnings and enhanced their livelihoods. Then again the rearing of small ruminants and poultry was another diversification activity undertaken by households in the study communities. The AEAs also recognised it as a viable livelihood construction activity and were prepared to assist all interested households. They had taken a step further by training some interested households in aquaculture

as well. However some beneficiary households could not sustain their fish farms because of the activities of some unscrupulous thieves who harvested the fish before the owners did, making them operate at a loss.

Some non-farm diversification activities farmers adopted to increase their income levels were numerous. Due to their low level of education the formal sector was not open to them. Artisanal skills like masonry, carpentry and others were not common among respondents therefore the men used their unskilled manual labour as the most readily available option. Some of these income earning activities were stone quarrying, sale of lottery tickets, block factory hands and operating milling machines. The youth in some of these households concentrated on working with the sand winning contractors and at construction sites. Illegal use of motor cycles (*okada*) as public means of transport was also common.

Off-farm activities were not readily available due to the core issue of scarcity of agricultural land prevailing in the study area of Ga West. Hence the women used their housekeeping skills to engage in selling of cooked food and local alcoholic beverages. Of the 50 household heads interviewed, 21 did not engage in any secondary income activity to increase their earnings to cushion them from any agricultural shock in the future. The implication was that, all things being equal, these households would be pushed into further poverty if present conditions continued to prevail.

The final objective was on the *role of local government and other institutions in assisting families adapt and survive.*

In Ga West the trend of events called for concerted efforts and linkages among state institutions to assist families. From the estimations of families whose livelihoods were negatively affected, the Municipal Assembly could not fulfil its role of reclaiming the land for their reuse. Hence the government represented by the assembly had failed them. The general consensus among affected households was that the assembly was more interested in the revenue accrued to it through the sand winning than on strengthening the capacities of households to withstand changing trends in livelihood formulation.

The recently established Rural Enterprise Programme (REP) in March 2013 was seen as timely because the AEAs had already started linking up some farmers to be trained in food processing to add value to their products. This would go a long way to enhance their income and livelihood. Others were going through the process of registration for training in relevant alternative livelihood activities of their choice.

The impact of NGO activities was not felt much by households which did not benefit directly from their activities. Time had also eroded the benefits and impact which came directly as a result of their interventions in Ga West Municipality. This was because projects were targeted and had fixed life span due to limited financial commitment of donors. Beneficiaries also thought the duration of the projects were short, four to five years. Other projects also had requirements which excluded certain vulnerable groups like the landless, thereby limiting the benefit to the selected few who were privileged by virtue of their social status. In addition, planning to avert

the consequences associated with trends in population changes which triggered the change in land use pattern and its subsequent outcome on livelihoods were seen to be beyond the mandate of NGOs.

## **7.2 Conclusions**

The ILO (2008) asserts that most people who work the land are small scale family farmers whose aim is to reduce vulnerability through the adoption of strategies that respond to the particular blend of assets at their disposal. Hence, it is necessary to create the needed social, economic and political environment for them to achieve decent livelihood. This environment can only be created when the necessary institutions and structures are properly employed and monitored for results.

The MOFA represented by the AEAs was supposed to be constantly engaging the farmers and therefore expected to be better informed about the challenges of accessing arable land and to institute measures together with relevant stakeholders to curb it. Unlike officials from the MA, these AEAs were constantly in touch with farmers and witnessed the process of farmland depletion. Respondents who had ever benefitted from the services of these AEAs expected them to be more proactive towards their plight of gradual loss of livelihood from agriculture. The phenomenon of peri-urbanization and subsequently, urbanization and their attendant challenges of loss of agricultural livelihood are not new. As noted by Bryceson (2002) above they need to be planned for so that adequate provision can be made to cushion the affected households to reduce their vulnerability to poverty.

In a study by Dei (1998) in South Eastern Ghana, he found out that in times of crisis in which citizens' livelihood are negatively affected, community leadership and governmental agencies can take advantage of their leadership positions to help allocate much needed but scarce resources to alleviate economic and environmental hardships. This situation is very much in contrast with what pertained in the study communities in Ga West. The leaders in the communities, the municipal assembly and other stakeholders literally looked on whilst smallholder farm families gradually lost their livelihoods in farming. The effort expended by these stakeholders was not enough to make any significant difference in the livelihood construction activities of the affected families.

This study confirms several others that those who till the land most often do not own the land. Because these people are often faced with land loss due to insecure tenure and several other factors, they are reluctant to invest in land improvement to increase the economic returns accrued from improved agricultural practices to enhance their livelihood status (Raikes 2000; Bryceson 200; Ellis 2005; Riggs 2006, Ampadu 2012).

Unlike the past where respondents mentioned that landowners actually looked out for and approached farmers to lease out land to them for agricultural purposes, the present commoditization of agricultural land has changed this trend. The present pattern is the opposite where land owners and custodians of land are rather forcefully taking away the land they have leased out to farmers without any recourse to due process of waiting for the end of the lease or *adode* period. In the process the farmers' crops and source of livelihood are destroyed.

### **7.3 Recommendations**

Recommendations for this study are multiple in nature; the central government level, municipal assembly level, the NGO arena and finally, the household level.

#### **Central Government**

Apart from land tenure reforms which are ongoing in the land Administration Projects (LAP) serious land use planning needs to be done by the relevant governmental institutions. There is a need to incorporate into central and local government land management policies and programmes, preservation and the use of fertile agricultural land for farming. Also, curtailment of the use of arable land for infrastructural development in all outlying peri-urban communities in which the mainstay of the population is agriculture. This would ensure that older population who think they are beyond retraining for other livelihood activities can continue to farm. More so the youth who are still interested in farming would also have access to land for the purpose.

As changes occur in the population and economic structure, attendant trends in urbanization are likely to also take place, therefore excess labour from agriculture as a result of these changes should be provided for in government planning. This would help absorb the excess or redundant labour to other sectors of the economy so that rural labour which more often is unskilled due to low level of education is properly engaged to reduce rural poverty. Urbanization in the developed economies have always gone hand in hand with industrialization and this need not be different in Ghana if serious planning projected into the future is properly done. As a long term measure, educational standards in the rural areas should be upgraded to build the human assets of

these people so that they can be able to obtain well remunerated jobs with their skills. This would help diversify the income portfolios of the farm family towards resilient livelihoods.

### **Municipal Assembly**

The prospects of making a livelihood through agriculture is still possible because, while land can still be found in the more remote and rural areas, there also exist an office for agricultural development. The AEAs are therefore expected to continue their activities of extending extension services to those who need it to reduce the abusive use of agro-chemicals. It will also help to inculcate into farmers the need for accuracy and appropriateness to reduce health hazards associated with wrongful use. This activity can be funded through the Department of Agriculture's allocation from the consolidated fund from the Municipal Assembly. Zoundi and Hitimana (n.d.) call for the creation of political and institutional environment to support services in Research and Development (R&D) for smallholders to be able to respond to the growing demand for food for the growing urban populations of West Africa.

In this regard the MADU at the municipal level, must empower AEAs by targeted retraining and introducing innovative methods like the use of hydroponics to older farmers who lack access to land but are still interested in pursuing a livelihood in agriculture. The above can be done with the concerted efforts of the newly opened REP under the leadership of the MA by bringing together all stakeholders in poverty reduction intervention. Other livelihood construction activities for the young ones who now have an aversion to farming but are not highly educated to seek off-farm employment in the formal sectors of the economy must be introduced. The REP and MADU are both under the assembly because they are part of the decentralised agencies from

the Ministry of Trade and Industry and Ministry of Agriculture respectively operating in the municipality. The onus lies on the planning office of the Municipal Assembly to coordinate their activities appropriately to fit into the livelihood aspirations of residents especially farmers. The concept of decentralization should be properly harnessed by the MA through a multi-stakeholder consultation to be able to achieve the above.

Although the MA has stopped issuing permit for sand winning in the municipality it is still ongoing as mentioned by participants in the FGDs who termed this “*ostrich*” attitude of burying their head in the sand and pretending that sand winning has stopped in the municipality. This does not augur well for residents and farmers alike. A task force comprising land owners, community leaders, MA representatives and sand winning contractors can draw up modalities for sand winning to be monitored mainly by all in order to benefit all and not deprive others.

### **Non-Governmental Organizations**

There is a need for advocacy groups which can liaise between the assembly and households in the municipality. This would ensure that citizens are aware of their rights and can make demands at the right places for appropriate policies and programmes to be formulated on their behalf. This would go a long way to guarantee that government officials are up to their task of taking the right decisions to benefit all citizens along the length of the social strata and not only the influential few. In the long run, citizens in Ga West must be sensitized to demand that the local government structure work to their benefit. That their representatives (assemblymen and women) ensure that the people are part of the governance structure and that they form part of the decision making processes which in the long run affect their livelihood and their very existence.

## **Households**

Furthermore, farm families at the household level can be empowered to build up financial assets through simple microfinance methodologies which preclude excessive documentations like Rotating Savings and Credit Associations (ROSCAs) and Accumulating Savings and Credit Associations (ASCAs). This works on mutual trust among few people who know each other and live within a locality. In the long term however, there is the need to re-orient the Ghanaian through serious behaviour change communication activities (BCC) that loans contracted from government programmes or formal financial institutions are payable. This would help reduce the loan default rate which is one of the main factors which excludes small scale rural poor farmers from the financial system.

Finally there should be continuous sensitization on the need for young unskilled persons to avail themselves for training in long term livelihood activities. This would help reduce vulnerability to trends which would affect livelihood construction negatively and aid the provision of a safety net for households at the fringes of the poverty line from dropping into chronic poverty.

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APPENDICES

Appendix 1a

UNIVERSITY OF GHANA

INSTITUTE OF STATISTICAL SOCIAL AND ECONOMIC RESEARCH (ISSER)

MPHIL DEVELOPMENT STUDIES 2012/2013

CHANGING FAMILY RESOURCES AND LIVELIHOOD DYNAMICS: EXPERIENCES OF FARM FAMILIES IN GA WEST MUNICIPALITY

FARMER HOUSEHOLD HEADS INTERVIEW SCHEDULE

EVELYN COFIE

Section 1: Identification and Demographic information

Region:

District:

locality:

Interviewer:

Date:

Household roster

Name of interviewer	Age	sex	r/ship to hhh	Marital status	Highest education	Migrant /indigene	Main occupation	Other occupation
HHH								

SECTION 2: CHANGES IN ACCESS TO LIVELIHOOD RESOURCES

List the resources you had in the past to undertake farming and other livelihood activities

Land (1)..... Water bodies(2)..... Trees(3) ..... Labour(4).....

Tractors (5)..... others specify (6) .....

List the resources you now have to undertake farming and other livelihood activities

Land (1)..... Water bodies(2)..... Trees(3) ..... Labour(4).....

Tractors (5)..... others specify (6) .....

Which resources are no longer available to you

.....  
 .....

Rank in order of importance the resources now available for your family use

.....  
 .....

LAND

Who owns land in this community. Please circle the answer

Chief (1) family head (2) individuals (3) private companies (4) state (5) others (6)

Where do people normally obtain land.....

How does one acquire land from the above listed persons /groups

Chief	
Family head	
Individuals	
Private companies	
State	
Others	

How many different/separate plots did you have.....

Plot	Quantity	Year acquired	Acquisition Type (leasehold etc)	Usage	Estimated value /acre

Which kind of land documents do you have to cover the above pieces of land.....

Has the mode of land acquisition changed? Yes..... No.....

If yes, how do you acquire land presently.....

Chief	
Family head	
Individuals	
Private companies	
State	
Others	

What do you think brought about the changes in the mode of land acquisition

.....  
 .....  
 .....

What is the effect of the present mode of acquisition on livelihood activities

.....  
 .....  
 .....

In view of the above change, how many different/separate plots do you have now

Plot	Quantity	Year acquired	Acquisition Type (leasehold etc)	Usage	Estimated value /acre

What brought about the change in the size of land you now cultivate

.....  
.....

### LABOUR

Did you hire labourers in the past to assist on your farm? Yes ..... No .....

If yes how many .....

What activities did they undertake on your farm .....

.....  
.....

Did you use household labour as well ? Yes ..... No.....

If yes how many household members helped you in the past on the farm .....

If you are still farming do you still hire labourers to assist you on the farm? Yes ..... No .....

If yes how many .....

Do you still use household labour, Yes (.....) No (.....)

If yes how many household members still help with farm work .....

Are there any changes in the use of hired labour ? Yes ..... No .....

If yes, what are these changes

Availability .....

.....

Affordability.....

.....

.....

What do you think accounts for these changes?

.....

.....

.....

Are there any changes in the use of family labour?

Availability

.....

.....

Affordability

.....

.....

What do you think account for these changes

What is the effect of the above changes in respect of labour to your livelihood activities

MECHANIZATION

Did you use tractor services or any mechanical equipment on your farm in the past?

Yes ..... No.....

If yes, which type .....

for what activities .....

How did you get access to the services

Own machine (1) private individual (2) government scheme (3) other (4) name them.....

Do you still use any of the above machines ? Yes ..... No.....

If yes for what activities .....

If no, why don't you use it.....

what account for the changes in use

what is the effect of non-use on your farming activities if any

what prices are/were associated with the equipment

Type of equipment	Past charges if any	Present charges if any

EXTENSION SERVICES

Were you ever visited by an extension agent in the past? Yes ..... No.....

If yes how often in a month 1-2 times (1) 3-4 times (2) 5-6 times (3) others specify ..

Which technologies did they transfer to you?

List them

a

b

If you are still farming, do they still visit you, yes ..... No .....

If they do how often .....

Do you still practise the technology/skill they transferred to you? Yes ..... No.....

If no why

.....  
 .....

In the light of all the changes discussed what innovations or new methods have you introduced into your farming activities if it is still a part of your livelihood? List them

a

c

b

d

FINANCE

Did you use any form of credit in the past on farming and other livelihood activities

Yes ..... No .....

Do you use any form of credit now in farming

Source of funds and cost of funds

Source of funds in the past	Cost	Source of funds at present	Cost
Family members		Family members	
Money lenders		Money lenders	
Commercial banks		Commercial banks	
Government scheme		Government scheme	
NGOs		NGOs	
Others			

Were there occasions where you had to sell any asset for money. Yes ..... no.....

What items did you sell .....

Were you able to replace those items

SECTION 3: RESPONSE OF HOUSEHOLD TO CHANGES IN ACCESS TO LIVELIHOOD RESOURCES

If you are no longer a farmer which activities do you and other members of the household engage in to take care of you and your families' needs? List them

Status	Activity 1	Activity 2
HHH		
spouse		

Have any members of the household migrated yes ..... No .....

To where .....

How regular do they send money or other items back home/month.....

What is the average amount per month .....

Uses of remittance amount

Uses	amount	% of remittance

SESSION4: LINKAGES WITH EXTERNAL AGENCIES

Is there any way any organization is helping people like you in the community with any livelihood activity

Organization	Name	Activity type	Year started	Impact of activity (if any)
Local/central govt				
NGO				
Church				
Community Association				

From the above discussion, what recommendations do you have for policy makers in the following areas

Livelihood construction.....  
 .....  
 .....  
 Agricultural land use planning  
 .....  
 .....

Appendix 1b

UNIVERSITY OF GHANA  
 INSTITUTE OF STATISTICAL SOCIAL AND ECONOMIC RESEARCH (ISSER)  
 MPHIL DEVELOPMENT STUDIES 2012/2013  
 CHANGING FAMILY RESOURCES AND LIVELIHOOD DYNAMICS: EXPERIENCES OF FARM FAMILIES IN GA WEST MUNICIPALITY  
 INDEPTH INTERVIEW GUIDE  
 EVELYN COFIE  
 SESSION 1: BACKGROUND INFORMATION

Name of Department  
 Name of Official / clan head  
 Title of Office  
 number of years in that position

## SESSION 2: CHANGES IN ACCESS TO LIVELIHOOD RESOURCES

What are some of the livelihood activities in this municipality

What resources do people have at their disposal to carry out these activities

What are some of the major problems facing communities/people as they engage in farming as a livelihood activity?

Have there been any changes in access to resources for farmers

What are the contributing factors to these changes

Since when did you notice these changes

How did they come to the notice of your office?

What is the effect on peoples' livelihood

## SESSION 3: RESPONSE OF HOUSEHOLDS TO CHANGES IN ASSETS

How have people addressed these changes in relation to lack of access (land, labour, extension services, use of tractors and cash)

How are you (office) dealing with these observed changes, what are the positive and negative aspects of it.

What are some specific activities that your department has towards livelihood construction of people who may need these services? Eg skills development

What has been the effect or impact of these activities if any

## SESSION 4: LINKAGES WITH OTHER ENTITIES

Sand winning as a livelihood activity for others is affecting farmers negatively, does the Assembly / community have any by-laws (explain the by-law)

How is it implemented (explain stage by stage the implementation process and those involved in monitoring

What challenges have you encountered in implementation

What successes have you chalked

What linkages have you formed with other departments involved eg Town &Country Planning, Ministries of Agriculture & Environment etc (to question 21)

Extension services are becoming redundant because of loss of farm land, what expertise does the department have to re-train farmers towards other methods of farming which do not require excessive use of land.

Does MOFA have linkages with any organization working in the municipality / communities in livelihood construction activities with farmers or others?

What activities are the organization(s) engaged in and what is the nature of the linkages formed

What policy measures would you recommend to all the issues discussed above viz, land, agricultural technology, extension, credit, labour redundancy

Recommendations or suggestions on the way forward for effective livelihood construction by farm families in the municipality

THANK YOU

Appendix 1c

UNIVERSITY OF GHANA  
INSTITUTE OF STATISTICAL SOCIAL AND ECONOMIC RESEARCH (ISSER)  
MPHIL DEVELOPMENT STUDIES 2012/2013  
CHANGING FAMILY RESOURCES AND LIVELIHOOD DYNAMICS: EXPERIENCES OF  
FARM FAMILIES IN GA WEST MUNICIPALITY  
YOUTH FOCUS GROUP INTERVIEW GUIDE  
SESSION 1: BACKGROUND INFORMATION

Name of community

Composition of group: # of Males ..... # of females.....

What is the main occupation of young people in this community

What is the main occupation of older people in this community

What was their main activity (if respondent do not mention farming

What changes have occurred in livelihood activities from the time of your parents to present.

SESSION 2: CHANGES IN ACCESS TO LIVELIHOOD RESOURCES

What are the constraints to farming in this community if any

Constraints to access to land

Constraints to access to labour

Constraints to access to technology

Constraints to access to credit

What activities do people now engage in to earn a living in this community

What are the constraints to these activities listed in 11

What is the contribution (if any) of the actors below in aggravating the situation

Opinion leaders

Youth

Local government authority

SESSION 3: RESPONSE OF HOUSEHOLDS TO CHANGES IN ACCESS

What are the strategies that have been adopted by the under listed people in response to the changes above

Opinion leaders

Youth

Local government authority

What has facilitated the strategies

SECTION 4: LINKAGES OR INTERVENTIONS

Are there any organizations working with people affected by changes discussed above in your community

If yes which group of people are benefiting from the program and who are not

Are there any particular reasons why only sections of the affected are benefiting

What regulatory or monitoring mechanism will you like to see in place to monitor resource use for livelihood

What suggestions do you have for improving agriculture or other livelihood activities in this community

Appendix 2a

Change in quantity of land cultivated (in acres) by farmer households (research communities)  
Ahansowudie

HH ID	Previous quantity	Present quantity
HH 1	0	6
HH2	4	2
HH3	0.6	1
HH4	1	4
HH5	2	1.5
HH6	3.5	1
HH7	2	0.5
HH8	2	2
HH9	2	1
HH 10	10	6
HH11	4	2
HH 12	2.1	4.2
<b>Total</b>	<b>33.2</b>	<b>31.2</b>

Precious quantity of land cultivated 33.2 acres  
 Present quantity of land cultivated 31.2 acres  
 Percentage change in quantity  $31.2/33.2 * 100 = 93.9$   
**Percentage reduction in quantity cultivated 100% - 93.9 = 6.1%**

Appendix 2b Change in quantity of land cultivated (in acres) by farmer households in research communities

Akotoshie

Household ID	Previous quantity	Present quantity
HH 1	3	1
HH 2	1	1
HH3	3	1
HH 4	1	1
HH 5	0.3	0.3
HH 6	0.5	0.5
HH7	0.5	0.5
HH 8	0.7	0.7
HH 9	0.4	0.4
HH 10	0.3	0.4
HH11	0.5	0.5
HH12	0.5	0.25
HH13	2	2
HH 14	0.5	0.3
HH 15	0.5	1
HH 16	0.2	1
HH 17	0.2	1
HH 18	0.3	1
HH 19	0.2	0.5
HH 20	0.5	0.5
HH 21	3	3
HH 22	0.3	0.3

HH 23	2	2
HH 24	2	2
HH 25	6	6
HH 26	1	1
HH 27	0.2	0.2
HH 28	0.25	0.2
HH 29	0.25	0.25
HH 30	6	2.5
HH 31	5	2
HH 32	3	1.5
HH 33	1.5	1
<b>Total</b>	<b>46.6</b>	<b>36.8</b>

Previous quantity of land cultivated 46.6acres  
 Present quantity of land cultivated 36.8 acres  
 Percentage change in quantity cultivated  $36.8/46.6*100 = 78.9\%$   
**Percentage reduction in quantity cultivated  $100\% - 78.9 = 21.1\%$**

Appendix 2c Change in quantity of land cultivated (in acres) by farmer households in research communities

Dedeiman

HH ID	Previous quantity	Present quantity
HH 1	2	2
HH 2	3	5
HH 3	0.5	0.25
HH 4	1.5	1.5
HH 5	1	0.25
<b>Total</b>	<b>8</b>	<b>9</b>

Previous quantity of land cultivated 8 acres

Present quantity of land cultivated 9 acres

Percentage change in quantity cultivated  $9/8 * 100 = 112.5\%$

**Percentage increase in quantity cultivated 112.5%-100% = 12.5%**

Appendix 2d

Change in quantity of land cultivated (in acres) by farmer households in control communities

Ardeyman

Household ID	Previous quantity	Present quantity
HH 1	3	0.5
HH 2	2	0
HH 3	0.5	0.1
HH 4	7	3
HH 5	10	6
HH 6	5	1.5
HH 7	3	0
HH 8	4	1
HH 9	1	1
HH 10	3	2
HH11	3	0.5
HH 12	2	1
HH 13	4	0
HH 14	2	0
HH15	3	0.5
<b>Total</b>	<b>52.5</b>	<b>17.1</b>

Previous quantity of land cultivated 52.5 acres  
 Present quantity of land cultivated 17.1 acres  
 Percentage change in quantity cultivated  $17.1/52.5*100 = 32.5\%$   
**Percentage reduction in quantity cultivated  $100\% - 32.5\% = 67.5\%$**

Appendix 2e Change in quantity of land cultivated (in acres) by farmer households in control communities

Avorkope

Household ID	Previous quantity	Present quantity
HH1	4	2.5
HH2	3	0
HH 3	7	0
HH4	4	0
HH 5	1	0
HH 6	2	0
<b>TOTAL</b>	<b>21</b>	<b>2.5</b>

Previous quantity of land cultivated 21 acres  
 Present quantity of land cultivated 2.5 acres  
 Percentage change in quantity cultivated  $2.5/21*100 = 11.9$   
**Percentage reduction in quantity cultivated 100% - 11.9% = 88.1 %**

Appendix 3a

Calculation of access level for resources (study communities) Ahansowudie

Variable	Previous # of households with access	Access (percentage access level)	Present # of households with access	Access level (percentage access level)
Land	11	92	12	100
Labour	11	92	10	83
Trees	10	83	2	17
Water	11	92	10	83
Technology	3.5	29	3.5	29

Note: Access level for technology is the average access level for extension services and tractor usage

Appendix 3b

Calculation of access level for resources (study communities) Akotoshie

Variable	Previous # of households with access	Access (percentage access level)	Present # of households with access	Access level (percentage access level)
Land	33	100	33	100
Labour	26	79	9	27
Trees	31	94	4	12
Water	26	78	11	33
Technology	19	57	4.5	15

Appendix 3c

Calculation of access level for resources (study communities) Dedeiman

Variable	Previous # of households with access	Access (percentage access level)	Present # of households with access	Access level (percentage access level)
Land	5	100	5	100
Labour	3	60	3	60
Trees	4	80	0	0
Water	5	100	2	40
Technology	1.5	30	1	20

Appendix 3d

Calculation of access level for resources (control communities)

Ardeyman

Variable	Previous # of households with access	Access (percentage access level)	Present # of households with access	Access level (percentage access level)
Land	15	100	10	67
Labour	15	100	1	7
Trees	10	67	1	7
Water	0	0	0	0
Technology	4	27	0	0

Appendix 3e

Calculation of access level for resources (control communities)

Avorkope

Variable	Previous # of households with access	Access (percentage access level)	Present # of households with access	Access level (percentage access level)
Land	6	100	1	17
Labour	6	100		17
Trees	3	50	1	17
Water	1	17	0	0
Technology	4	67	1	17