

2011

MIGRATION AND FOOD REMITTANCES - A STRATEGY FOR ENSURING HOUSEHOLD FOOD SECURITY IN NORTH-WESTERN GHANA

Vincent Zubedaar Kuuire

Follow this and additional works at: <https://ir.lib.uwo.ca/digitizedtheses>

Recommended Citation

Kuuire, Vincent Zubedaar, "MIGRATION AND FOOD REMITTANCES - A STRATEGY FOR ENSURING HOUSEHOLD FOOD SECURITY IN NORTH-WESTERN GHANA" (2011). *Digitized Theses*. 3412.
<https://ir.lib.uwo.ca/digitizedtheses/3412>

This Thesis is brought to you for free and open access by the Digitized Special Collections at Scholarship@Western. It has been accepted for inclusion in Digitized Theses by an authorized administrator of Scholarship@Western. For more information, please contact wlsadmin@uwo.ca.

MIGRATION AND FOOD REMITTANCES – A STRATEGY FOR ENSURING
HOUSEHOLD FOOD SECURITY IN NORTH-WESTERN GHANA

(Spine Title: Food Remittances and Food Security in Ghana)

(Thesis Format: Monograph)

by

Vincent Zubedaar Kuure

Graduate Program in Geography

2

A thesis submitted in partial fulfilment
of the Requirements for the Degree of
Master of Arts

The School of Graduate and Postdoctoral Studies
The University of Western Ontario
London, Ontario, Canada

© Vincent Z. Kuure 2011

THE UNIVERSITY OF WESTERN ONTARIO
School of Graduate and Postdoctoral Studies

CERTIFICATE OF EXAMINATION

Joint-Supervisor

Dr. Isaac N. Luginaah

Joint-Supervisor

Dr. Godwin Arku

Examiners

Dr. Gordon McBean

Dr. Jamie Baxter

Dr. Teresa Abada

The thesis by

Vincent Zubedaar Kuure

entitled:

Migration and Food Remittances – A Strategy for Ensuring Household Food Security in North-Western Ghana

is accepted in partial fulfillment of the requirements for the degree of
Master of Arts

Date August 26, 2011

Dr. Katrina Moser
Chair of the Thesis Examination Board

Abstract

The history of labour migration between the northern and southern regions of Ghana has been dominated by movement of migrants from the north to work in mining towns, cash crop growing towns and major government administrative cities in the south. Increasing environmental degradation in northern Ghana in recent decades together with adoption of structural adjustment programs in the country has led to a decline in the agricultural sector, causing a further increase in migration away from the area including the Upper West Region (UWR). A declining mining sector has also led to migration away from mining centres. The receiving areas of these migrants are generally Ghana's two biggest cities (Accra and Kumasi) and the fertile agricultural lands of the Brong Ahafo Region (BAR). What was a previously seasonal migratory pattern from the north to the south of Ghana has been replaced by a permanent form. Migrants in the BAR engage in food crop cultivation as their main means of livelihood to support their family that travelled with them and those left in their places of origin. Remittance to dependents in UWR from migrants in BAR is increasingly taking place in the form of food. Focus group discussions (n=3) and in-depth interviews with migrant farmers in the BAR (n=27) and their dependents in the UWR (n=20) reveal a strong dependence on these food remittances. Results from analysis of interviews and focus group discussions indicate food remittance from migrant farmers as important in influencing household coping strategies to food shortages in the UWR.

Keywords: Food Security, Coping Strategies, Food Remittance, Migration, Ghana

Acknowledgements

This thesis would not have been possible without the financial support of my supervisors, Dr. I. Luginaah and Dr. G. Arku, who made it possible for me to under the field work in Ghana. Your patience, constant support, criticisms and suggestions for reshaping countless drafts of this thesis was phenomenal. Thanks for helping me keep my eye on the ball.

Paul Mkandawire, you have been many things to me in the past two years. However, I cannot thank you enough for your invaluable comments and suggestions on various drafts of this work. God bless you. And yes, we will “face the wall” in Ghana some day. Thanks also to Jenna Dixon (Miss JD!) for offering constructive criticism and comments on the final draft of this thesis with your newly acquired Ghanaian lenses.

To you Catherine Oosterban, my journey to Western began with our interaction in the Department of Geography ‘computer room’ at the University of Ghana. I am glad I met you. May this enduring friendship remain as solid as gold in the years to come. Joshua Tobias, words cannot describe how wonderful a person you are and how good you have been to me. You and Melanie your wife, together with her family put a glittering shine on my Canadian experience. I am grateful for everything.

I am thankful to all my past and present lab mates in SSC 1424 and the 2009 group of graduate students. All of you together with several other wonderful people over the past two years helped make my Western and Canadian experience a great one. Thanks for all the memories. Emmanuel Songsore and the rest of the ‘Ghana House’ members (Godfred, Mariama and Maxwell), thanks for your support.

Many thanks to all the farmers who agreed to help out with this research. I am especially grateful to Pastor John and Tasienu for helping me locate and recruit participants at a time when I was in research limbo. Thanks to Emmanuel Suglo and Isaac for showing me all the corners in Techiman and for your wonderful hospitality. To the Tuoyire family, I am grateful for allowing me to stay on your property and I thoroughly enjoyed each one of the Sunday family meals you invited me to whilst I was in Techiman. Derek Touyire my best friend in the field and my 'shadow field assistant' thanks for the numerous rides into the unknown and for the wonderful memories during the 2010 Fifa World Cup. Paschal Dery (a.k.a Mega), you are what everyone wants in a true friend. Apart from our unfortunate motorbike accidents at the tail end of my stay in Wa, every time I spent with you was a delight. Thanks for showing me all the shortcuts to the numerous villages I needed to visit though the rains sometimes turned shortcuts into "long-cuts".

Finally, to all my family, I am glad I can always count on you. Thanks for always looking out for me and for your continuous support. One love!

Lord God, I am grateful for all mercies and grace without which I would not have reached this far.

Table of Contents

CERTIFICATE OF EXAMINATION	ii
Abstract	iii
Acknowledgements	iv
Table of Contents	vi
List of Figures	ix
List of Tables.....	x
List of Plates.....	xi
CHAPTER ONE	1
INTRODUCTION AND CHAPTER OUTLINE.....	1
1.1 Research Background.....	1
1.2 The Research Problem and Objectives.....	4
1.3 Chapter Outline	7
CHAPTER TWO.....	10
LITERATURE REVIEW	10
2.1 Introduction	10
2.2 The Concept of Food Security: from global to household level.....	10
2.3 Some Causes of Food Insecurity	16
2.4 Coping with Food Insecurity	20
2.4.1 Agricultural Production Levels	20
2.4.1 Migration and Changes in Livelihoods Strategies	22
2.5 Explaining Livelihoods and Migrations as a Coping Mechanism.....	24
2.6 Migration Determinants	25
2.7 Explaining Remittances.....	28
2.8 Study area Profile	32
2.8.1 Upper West Region (UWR) Physical Environment and Demographic Characteristics:	33
2.8.2 Brong Ahafo Region (BAR) Physical Environment and Demographic Characteristics	39
2.8.3 A Migration Relationship between BAR and UWR – The Study Context	43

2.9	Summary	51
CHAPTER THREE.....		53
STUDY DESIGN, METHODS AND RATIONALE		53
3.1	Introduction	53
3.2	Research Design and Methodology.....	53
3.3	The Choice of a Case-Study: Qualitative Study.....	55
3.3.1	<i>The Case Study Approach/Methodology</i>	58
3.3.2	<i>Respondent Selection Strategy and Interview Location Selection</i>	63
3.4	In-depth Interviews.....	66
3.5	Focus Group Discussion.....	67
3.6	Other Data Sources.....	69
3.6.1	<i>Field Visits and Field Observations</i>	69
3.7	Data Analysis Techniques	70
3.8	Positional Spaces of Interaction	72
3.9	Summary	74
CHAPTER FOUR.....		75
FINDINGS OF THE STUDY		75
4.1	Introduction	75
4.2	Perceived reasons for migration	76
4.2.1	<i>Migration Push factors: Views from Upper West Region</i>	76
4.2.2	<i>Migration Pull Factors: Views from Brong Ahafo Region</i>	85
4.3	Household decision making by migrating families	89
4.4	Dynamics that shape food Remittance to the UWR.....	91
4.4.1	<i>Obligations of migrant farmers to families back home</i>	91
4.4.2	<i>Expectations of families in Upper West Region</i>	93
4.5	Role of remitted food to recipient households and community.....	94
4.6	Challenges of migrant farmers' food production in the BAR	99
4.6.1	<i>Production constraints</i>	99
4.7	Challenges to remitting	112
4.7.1	<i>Remitting constraints in Brong Ahafo Region</i>	112
4.7.2	<i>Remitting constraints in Upper West Region</i>	114
4.8	Food remittances - periods and coping strategies.....	117

4.9	Connecting the Dots in Household Food Security Status in UWR.....	123
4.10	Summary	126
CHAPTER FIVE.....		127
DISCUSSIONS AND CONCLUSIONS.....		127
5.1	Introduction	127
5.2	Discussion of major issues	127
5.3	Limitations of the Research.....	137
5.4	Conclusions and Recommendations.....	140
	5.4.1: <i>Short-Term Recommendations</i>	141
	5.4.2: <i>Long-Term Recommendations</i>	143
5.5	Contributions of the Research and Direction for Future Research.....	144
References		146
APPENDICES.....		160
Appendix A: Dependents Interview Guide (UWR)		160
Appendix B: Migrants Interview Guide (BAR).....		162
Appendix C: Migrant Focus Group Guide (BAR)		164
Appendix D: The University of Western Ontario Ethics Approval		166
Appendix E: Curriculum Vitae.....		167

List of Figures

Figure 2.1: Average Monthly Rainfall UWR 1991 - 2000	34
Figure 2.3: Soil Map of Upper West and Brong Ahafo Regions.....	38
Figure 2.4: Average Monthly Rainfall BAR 1991-2000	40
Figure 2.5: A Map of Ghana showing intra-regional migration volumes.....	45
Figure 2.6: Production Quantity of Primary Crops BAR and UWR	48
Figure 3.1: Methodological Frame work for study based on Rosenberg and Yates.....	62
Figure 4.1: Determinants of Household Food security status.....	124

List of Tables

Table 4.1: Reasons for Migrating from UWR	77
Table 4.2: Reasons for Migrating to BAR	86
Table 4.3: Challenges faced by migrant farmers	100
Table 4.4 Commonly mentioned crops in interviews	107
Table 4.5 Key coping strategies.....	117
Table 4.6 Remittance periods	118

CHAPTER ONE

INTRODUCTION AND CHAPTER OUTLINE

1.1 Research Background

Poverty, vulnerability of populations in marginal environments, sustainable livelihoods, and coping strategies are important concepts in the global discourse of food security. These concepts are also recognised as essential for the realisation of the Millennium Development Goal (MDG) No. 1. The MDG No. 1 aims at reducing by half the proportion of the world's population suffering from poverty and hunger by the year 2015.

Global discussions of food insecurity has heightened in recent years in the face of global food price hikes and the global economic crisis, which are estimated to have pushed 64 million more people into extreme poverty (MDG Report, 2010). These events are likely to derail the attainment of MDG No. 1 and the little remaining time left for the attainment of this goal further makes it a hard target to reach. Increasing poverty levels and numbers of hungry people in the world, particularly in Sub-Saharan Africa, continues to be an issue of great concern. Attempts at achieving MDG No. 1 has drawn attention to the need to address the problems of vulnerable populations who are likely to get more entrenched in poverty and hunger as the current global food crisis continues to worsen.

Vulnerability among certain populations centres on the notions of uncertainty and insecurity which surround individual or group livelihoods due to changes in the

ecological, economic, social and political environment (Moser, 1996; Watt & Bohle, 1993). Within food insecurity and famine literature, vulnerability has been described as a result of a malfunction of entitlements (Sen, 1981) as well as structural failures and shortage of reactive capabilities (Watts & Bohle, 1993).

Sen (1981) argues that social and economic status of people influence access to food. Those who lack entitlement by virtue of their position may be characterised as vulnerable and are prone to poverty, food insecurity and famine. The imbalance in power relations based on differences in social and economic status among people within populations help create and perpetuate food insecurity and famine.

The crises proneness of the vulnerable, due to entitlement malfunction, is precipitated by the structural properties of the political economy (Watts & Bohle, 1993). Watts and Bohle (1993) contends that vulnerability should be viewed through the lenses of historically and socially specific structures, which have created the situation and may also be responsible for difficulties in adapting to the situation. As such, in the context of food insecurity and famine analysis, attention needs to be given to both natural systems and social structures whose constant interaction produce observed trends of vulnerability. Adger (2006) describes the interaction between the natural systems and the social structures as 'socio-ecological environment' and tags it as being responsible for the build-up of vulnerability.

The interactions within the socio-ecological environment influence the type of coping strategies that are adopted by vulnerable populations facing entitlement challenges in food insecurity circumstances. Vulnerable households living under conditions that

constantly threaten their food security entitlements are known to plan strategically to forestall these risks (Corbett 1988). According to Corbett (1988), coping strategies adopted by households are constantly subjected to changes and modifications based on their success rates and ability to meet desired targets. In doing so, households rely on a range of strategies to obtain the best possible benefit for the good of its members. Diversification within households reduces vulnerability (Eriksen et al., 2005) and increases the chances of achieving food security within the household. As a result, the kinds of coping strategies relied on by households have been recognised as a good proxy for the measurement of food insecurity among households.

During times of hardship and strain on livelihoods, people adopt various coping strategies based on prevailing socio-economic circumstances and the endowments of the natural environment (see Takasaki et al., 2004; Smith et al., 2001; Conroy et al., 2001). The aim of such coping strategies is to engage in livelihood activities that are more secure with the potential of ensuring adequate welfare and upkeep in the face of sudden shocks such as floods, droughts, wars or problems that have emerged gradually overtime such as environmental changes.

Within this context, this research examines the role of food remittances as a coping strategy in mitigating household food shortages within the general context of environmental change, migration and food insecurity in the Upper West Region (UWR) of Ghana. As one of the poorest regions in Ghana and with limited employment alternatives to agriculture, poverty levels are particularly high amongst inhabitants of the region. A changing agro-ecology typified by unpredictable rainfall patterns and

reductions in rainfall amounts also contribute to low agricultural output in the region making it one of the most food insecure regions in Ghana.

Historically, out-migration for most of the inhabitants of this region is an opportunity to get out of poverty and make a living elsewhere and from such places offer support to relatives who remain in the region. Increasingly, migrant support to dependents is now predominantly that of ensuring the achievement of household food security. The persistence of poverty and food insecurity among households of the UWR occurs within the context of a fragile agricultural sector that depends on a degrading agro-ecology necessitating the adoption of migration as a coping strategy.

1.2 The Research Problem and Objectives

The use of coping strategies to ensure food security is gaining more attention especially among populations living on marginal lands whose livelihoods depend on the natural environment (Mworia & Kinyamario, 2008; Eriksen et al., 2005; Campbell, 1999; Reardon et al., 1988). This is particularly important against fears of possible negative impacts of climate change on such vulnerable people, who are already ravished by endemic poverty and also disproportionately suffer from the burden of diseases in the world.

Wide ranging long-term effects brought about by changes in the environment may affect health, livelihoods and poverty as well as food security. The food insecurity and livelihood effects of such changes could be most pronounced among vulnerable populations living on marginal lands. The definition of food security offered by Maxwell

(1996) succinctly captures the notions of the vulnerability of people especially in marginal areas. Maxwell (1996 p. 159) defines the concept of food security as follows:

People are food secure when their food system operates in such a way as to remove the fear that there would not be enough to eat. In particular, food security would be achieved when the poor and vulnerable, particularly women and children who live in marginal areas, have secure access to the food they want.

This definition modelled on the one provided by the World Food Summit has individual entitlement as a significant component. The fear of, or actual experience of food insecurity faced by individuals or households is the result of the structural inadequacies which have created the situation. The desire to ensure livelihood and food security among populations living in marginal areas brings about the adoption of various coping strategies thereby justifying the adoption of the method in its various applications as a proxy for measuring food security.

Degrading lands in the Upper West Region (UWR) and the related decline in agricultural production levels are aggravating already high poverty levels and accelerating out-migration rates from the region to various parts of Ghana, as migrants search for better opportunities. The most favoured destinations for migrants are farming communities in the Brong Ahafo Region (UWR) and Ghana's big city centres, such as Accra and Kumasi, where young unskilled migrants attempt to seek non-existent employment opportunities. The existing situation of underdevelopment and lack of economic opportunities in the UWR has also resulted in the transformation in the type of migration being practiced. What was previously a temporary form of migration has now shifted into a permanent form.

Migrants from the UWR have been settling permanently in BAR since the last two decades and this trend has been marked by migrants' establishment of farms (See Lobnibe, 2010). From BAR, migrants send food remittances to dependents in the UWR. Despite the switch in remittance from cash to predominantly in-kind (food remittances), there is a general lack of knowledge on the extent to which households in the UWR depend on these food remittances in order to meet their food consumption requirements. This study therefore, seeks to find out the extent of dependence by households in the UWR on food remittance sent from the BAR. The knowledge gap that needs to be filled concerns the contribution of food remittance to household food consumption and its effect on the adoption of strategies during food shortages by households in the UWR. Thus, there is the need to understand the role of food remittances in household adaptation strategy choices to combat food shortages, specifically how its absence or presence influence for example eating patterns. As most households in the UWR continue to lose the strong youthful members of their farm workforce to migration, it is important to know and describe the worth of their contribution to household food security through the sending of food remittance.

This research has the following specific objectives:

1. Examine the links between migration and household food security in the UWR of Ghana
2. Explore the role of food remittances in household food security and the dynamics that shape food remittance decisions
3. Investigate constraints encountered by remitters of food and how recipient households in the home region cope with food shortage.

The study addresses the above objectives by documenting coping strategies adopted by households in the UWR as a proxy to understanding the importance of food remittances to households. This was undertaken through the use of the qualitative approach mainly involving the use of interviews and focus group discussions. In addressing objective two, the study focused on strategies used by households in the UWR to feed themselves when food remittances were not received from migrants. It was also to find out whether there were changes in overall food coping strategies and general welfare between times food remittances are received and periods they did not receive food remittances. Objective three primarily was interested in the challenges involved in the process of transmitting food remittances from the BAR to dependents in the UWR.

1.3 Chapter Outline

Four additional chapters make up the rest of this thesis. **Chapter 2** provides a review of literature. This chapter briefly introduces the evolution of the concept of food security over the past several decades and also presents some of the methods that have been used in attempts at measuring food security levels. The chapter then moves on to present the causes of food insecurity and famine. This is undertaken within the broad context of political ecology as the overarching theoretical approach. In this regard, it provides the general causes of food insecurity which span natural, economic and political realms. The chapter touches on mitigation strategies against livelihood and food insecurity situations with a focus on migration and remittances. The chapter concludes with a discussion of the profile of the BAR and UWR involved in this study. This last section emphasises how the interaction of natural and political situations over the years have helped to compound livelihood and food insecurity in the UWR and how the

differences between the two regions create a migration-remittance relations between them.

Chapter 3 reviews the study design and methods used in the data collection and analysis for this thesis. It emphasizes the usefulness and appropriateness of qualitative methods and the chosen design for the purposes of this research. The various methods used in this research – on site observation, focus group discussions, and in-depth interviews – are discussed in turn. The last section of this chapter gives a description of the data analysis techniques used.

Chapter 4 presents the results of data analysis. The presentation of the results in this chapter is based on emerging themes related to the research objectives of this thesis. It presents the reasons for out-migration from the Upper West Region as well as the driving forces behind why migrants in the Brong Ahafo Region send back remittances to their relatives. The coping strategies that are adopted before the arrival of food remittances as well as periods after households have run out of remitted food stocks are also presented. The chapter describes migrant agricultural production challenges in the BAR and also describes existing challenges in the food remittances process in both Upper West and Brong Ahafo Regions.

Chapter 5, the concluding chapter of this thesis situates the empirical findings within current research examining food security, migration, livelihoods and development. It presents the limitations of the research, and points out potential areas for future research. The chapter also outlines significant contributions of the research and suggests areas of potential policy intervention. This research calls for the adoption and consistent

implementation of an agricultural policy that is tailored towards resolving difficulties in agricultural production. The research also calls for intervention steps that would bolster economic growth of the UWR to help increase economic opportunities for locals in other sectors other than agriculture.

LITERATURE REVIEW

This chapter reviews literature on the factors of food insecurity, poverty, and malnutrition and their linkages relating to the above issues. The chapter covers the concept of food security and factors responsible for the eradication of hunger from the UWR in the process. The issues of what constitutes food security are discussed and the general causes of food insecurity are outlined. The chapter then discusses migration as a coping strategy and the importance of investments in migrant deposits or facilities available for the diaspora in their Economic of Labour Migration and Social Networks, through a spatial perspective. The chapter then presents the history of the study locations, including a review of the existing migration research in the region.

1.1 The Concept of Food Insecurity: from global to household level

Food security was a concept articulated in the 1970s and was fundamentally about the countries' capacity to manage food as well as a national strategy (Murray & Smith, 1992). The concept evolved in the 1970s as a result of the increasing food insecurity in the developing countries of the South, which prompted the United Nations World Food Programme (WFP) to launch the concept of food security. The concept has evolved from a narrow focus on food availability to broader aspects of food security, including food access, food utilization (Harris & Delisle, 1997). From the early 1970s, rapid increases in food prices in the global commodity market, combined with a decline in food demand management capacity, led to the potential for severe food shortages in various parts of the world (Murray).

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature on the themes of food security, migration, and remittances and some theories relating to the above issues. The chapter discusses the concept of food security and factors responsible for the evolution of the concept from the 1970s to the present. The tenets of what constitute food security are discussed and the general causes of food insecurity are outlined. The chapter then discusses migration as a coping strategy and the importance of remittances to migrant dependent families outlining how the theories of New Economics of Labour Migration and Social Network theories explain remittances. The chapter then presents the profile of the study locations, indicating reasons for the existing migration-remittance relationship.

2.2 The Concept of Food Security: from global to household level

Food security as a concept emerged in the 1970s and has transformed over the decades to conform to changing trends as well as to fit specific contexts (Maxwell & Smith, 1992). Circumstances in the 1970s engineered the interest and subsequent development of the food security concept. Since then, the concept has shifted from concerns with global food availability to household and individual food access, to vulnerability (Watts & Bohle, 1993). From the early 1970s, rapid increases in food prices in the global food market raised concerns of food demand outstripping supply with the potential to cause large scale hunger and famine in various parts of the world (Maxwell,

1996). This concern with food availability at the global, regional and even national levels shifted with the landmark work by Sen (1981) on access and entitlement. Sen (1981) argued that the mere availability of food does not necessarily guarantee access to food by individuals and that the individual's entitlement is mediated by a complex set of social and economic factors with possibilities of limiting access to food resources for the individual. Factors that limit food access could vary from specific environmental constraints and specific social contexts regarding cultural practices, to the general issues of right-to-food within a broader agenda of rights based development framework being pursued by governments (Mechlem, 2004; Dreze, 2004). Consequently, the individual's ability to utilise available food resources is affected by the interaction of several factors which either enhances or limits access to available food resources. Food availability in regions and nations therefore, does not necessarily make available to the individual the power of consumption required to meet their nutritional requirements for a healthy life.

This shift in the concern with food security from global, regional and national availability of food to individual access to food is summarized in one of the most widely accepted and used definitions of food security offered by the World Food Summit of 1996 (FAO, 2006 p.1). Within a more general context, food security has been defined as:

Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

Most operating definitions of food security for governments and within literature are modelled around the definition provided by the World Food Summit (Quaye, 2008).

Embedded in this broad food security definition are issues of availability, access, utilisation and stability of food supplies (Schmidhuber & Tubiello, 2007). The physical availability of food is mainly influenced by production levels, addressing the overall ability of the agricultural sector to meet the demand for food. For example, continuous reduction in production levels over a period of time, would affect food available at both the household level and on local markets. Access to available food resources is mediated by socio-economic factors. While social factors such as status within a household or traditions may affect individual access, economic affordability issues, such as lack of money, low real incomes and high food prices, may also restrict individual and even household access.

Food utilisation can be viewed as a culmination of the factors of availability and access. This includes issues of food safety and nutrition across the entire food chain and therefore relates closely to health. Stability and consistency in the utilisation of food is what leads to an active and healthy life – which is the main goal – indicated in the World Food Summit definition of food security. Stability relates to the ability to withstand shocks without losing access to resources required for adequate consumption of food (Schmidhuber & Tubiello, 2007).

The absence of the factors of access, affordability, utilisation, stability and consistency creates a situation often referred to as food insecurity. The occurrence of food insecurity can potentially lead to the occurrence of hunger and famine among individuals, households and general populations. It must however be emphasised that hunger and malnutrition are not the same as food insecurity though hunger and malnutrition are potential consequences of food insecurity (Dilley & Boudreau, 2001; Campbell, 1991).

Recurrent and involuntary lack of access to food as a result of food insecurity leads to hunger, which may be described as the uneasy and painful sensation caused by lack of food. Persistent food insecurity at the household, community and national levels could eventually bring about hunger and malnutrition for individuals caught within these boundaries. According to Campbell (1991), the fact that food security or food insecurity can be witnessed from the individual level through to household, community and even to national levels, makes studies at different levels of analysis possible without stretching the definition.

Food insecurity among populations have been measured indirectly using nutritional status indicators such as anthropometric, clinical and biomedical measures, which are generally associated with malnutrition as well as concerns with food availability and food quality. The Radimer/Cornell food security measure has been utilised to measure food insecurity at the individual and household levels using the above parameters (Kendall et al., 1995). This measure indicates food insecurity as a continuum existing from concerns of anxiety and uncertainty about availability of food at the household level to the incidence of extreme hunger and malnutrition at the individual level. Difficulties, however, exist with measures that estimate standardized amount of food required for healthy lives, due to different nutritional requirements among individuals and between age groups.

The dietary diversity and food frequency scores method, has also been used as an estimation of food security. This method tracks the different diets and frequency of consumption of diets by households and operates under the overall notion that 1% increase in dietary diversity corresponds with a 1% increase in consumption per capita.

By attaching nutritional values to obtained scores, estimations could be made with respect to a minimum balanced and sufficient diet calculation based on a given threshold. This then forms the basis of the estimation of food insecurity. This approach has been criticized based on its inability to indicate causes of consumption deterioration between periods (Swindale & Bilinsky, 2006; Ruel, 2003).

Food insecurity has also been measured using the household economy rapid appraisal technique. This involves the establishment of a “food balance” which matches all resources against requirements. The main criticism against this technique is the depth of data required and the technique’s inability to factor in current crisis and future prospects. (SMART Methodology, 2006)

The coping strategy approach to the measurement of food insecurity, has been noted as a good indicator of household food insecurity (Senefelds & Polsky, 2005; Maxwell, 1996; Corbett, 1988). The method estimates three increasing levels of food insecurity based on coping strategies adopted by households and the severity of food insecurity. The first level involves the adoption of certain strategies, such as reduction in current food consumptions levels in terms of diversity and number of meals. It also involves the use of inter-household loans and increase in petty commodity production and seasonal migration in search of jobs. The second stage involves the sale of livestock, credit from money lenders and sale of agricultural tools. The last stage described as the destitution stage, involves distress migration, begging, prostitution and scavenging. This framework is considered to be relatively easy to construct obtaining information from focus groups and interviews. The method is also capable of indicating causes of food insecurity and gives an indication of areas of needed intervention.

The coping strategy framework has direct linkages with poverty, sustainability of livelihoods and food security and accommodates the multiple perspectives on Africa's persistent hunger (Baro & Deubel, 2006). Though it is known to be well placed in the measurement of transitory food insecurity, it is not the best method for estimation of chronic food insecurity. Transitory food insecurity is the outcome of the occurrence of sudden shocks. These shocks could be human-induced such as economic failures and they could also be nature-induced such as floods, droughts and earthquakes amongst others. It could also be a combination of both natural and human-induced factors. The shocks may lead to temporary shortages of food in all or parts of a country. Populations suffering from this form of food insecurity may require food aid. Shocks associated with transitory food insecurity also contribute to the eventual occurrence of chronic food insecurity.

Chronic food insecurity, on the other hand is the persistent inability of households to access adequate food. Chronic food insecurity is structural in nature and is generally the result of inadequate access to resources (Quaye, 2008). Dilley and Boudreau (2001) indicate that "the large numbers of chronically undernourished people in the world today are testimony to the food insecurity of many households" (p.234). This is attributed to the existence of poverty among such populations. A significant proportion of chronically hungry people are found in Sub-Saharan Africa, which is the only region in the world consistently experiencing increasing chronic food insecurity and threats of famine and malnutrition (Clover, 2003; Devereux, 2009). Sub-Saharan Africa's grim chronic food insecurity picture is an indication of the failures in various sectors of the Sub-Saharan African economy, particularly agriculture, which directly affects livelihoods of the predominantly agricultural dependent population.

2.3 Some Causes of Food Insecurity

Such failures as those in Africa populations to rise above food insecurity challenges have prompted Watts and Bohle (1993) to advocate for the adoption of a political ecology framework for looking at issues of food insecurity. This framework argues for historical, structural and environmental interaction to be viewed as being responsible for creating vulnerability among populations, which then exposes them to food insecurity and famine. Whilst historical and environmental factors may have contributed to the emergence of vulnerability, Watts and Bohle (1993) argue that such trends become endemic due to structural failures. Structural failures make it difficult to respond to challenges of poverty and food insecurity faced by vulnerable populations.

The interrelatedness of the causing factors of food insecurity cannot be overemphasised. These factors range from political, historical, economic and environmental influences, to population growth outstripping available resources. Dependence on rain-fed agriculture by households in most countries of the developing world, especially Africa has led to reduction in production levels. This has been observed since the droughts of the 1980s followed by a general decline in rainfall amounts over the last few decades (Sanchez, 2000). According to Rosegrant and Cline (2003), apart from issues of increasing water scarcity that negatively affects food security in developing countries, declining investment in agricultural research and rural infrastructure together with new challenges of climate change and the burden of diseases, also contribute their fair share to the problem.

Tied with the above, in most developing countries is rapid population growth with resultant increase in demand for food. On a broader level, Alexandratos (2005) notes that several countries in the South with rapid population growth rates also have a slow pace in development in general and agricultural improvement in particular. Extended, this observation projects that, such countries would continue to rely on external food sources to meet their food security needs. To a local farmer, however, rapidly growing population directly affects the size of cultivable land available for agricultural cultivation. With fixed land size, the need for land for agricultural purposes is in direct competition with other emerging land use requirements, such as land for housing which have direct implications for livelihoods. Population growth also leads to land fragmentation among farmers especially developing countries in Africa with complex land tenure systems, where fixed land is continuously shared among an increasing number of descendants of common ancestry (Quan, Tan & Toulmin, 2004). Usually extended families with increasing members continue to depend on a fixed piece of land bequeathed to them by their ancestors. This brings about division of the same fixed size of land among eligible members leading to fragmentation of land and its associated negative effects on agricultural cultivation and production levels.

In addition to the above, it has been argued that poverty is at the heart of food unavailability and food insecurity, which is the cause of resultant famines among populations. Despite the growing urban population in the developing world, poverty is largely a rural phenomenon in these regions. As a result of the multidimensional nature of poverty, varied reasons have been assigned for its occurrence, persistence and spatial variation among significant populations of countries in the South. These range from the

issues of access to land and agricultural technology in Latin America (de Janvry & Sadoulet, 2000), – living in remote and mountainous areas, limited transport, power and other infrastructure in China (Jalan & Ravallion, 2000), – to uneven distribution of resources and environmental shocks, in the sub continent of India (Mehta & Shah, 2003). Despite the multidimensional nature of poverty, issues of changing environmental conditions, ethnicity, illiteracy, ill-health and lack of access to resources cut across of all these regions.

Despite the connections between poverty and food insecurity, Webb and Rogers (2003) indicate that the causes of each, as well as their consequences, may vary widely. Africa's food insecurity has been blamed on high poverty levels. The poverty situation in most African countries continues to worsen or, at best, marginally improve. The complex nature of poverty which persists in most parts of Sub-Saharan Africa (SSA) is largely responsible for food insecurity and famine in the region (Shipton, 1990; von Braun et. al., 1999). The persistent poverty in the region is a result of policy, institutional and organisational failures, resource paucity and climate shocks, as well as population pressures. According to Von Braun et al., (1999), flawed policies from the institutions and organisations responsible for their design and implementation has led to negative socioeconomic conditions that prevent households from escaping from poverty, and affecting their ability to produce enough food to sustain their families.

The predominantly agricultural dependent population of SSA is mainly located in rural areas, and the region is described as the least urbanised part of the world. Mwabu and Thorbecke (2004) indicate that poverty reduction efforts among this population must involve strategies targeted at non-farm rural sectors, which are relied on by many. They

indicate that emphasis must however be placed on the agricultural sector in all poverty reduction attempts, as this singular sector remains the highest employer and principal source of income for most rural people in SSA. In this light, there is the need for governmental policies to be designed with an orientation that accommodates the agricultural character of these economies. Governments in African countries must also have the commitment to implement these policies.

Though the agricultural character of SSA indicates women to be dominant in food crop production, there seem to be few attempts at incorporating women in strategies to improve agriculture and poverty alleviation. Incorporating women in such strategies, especially given women's strategic position in households and as food crop producers, is crucial. This step is necessary to prevent the decline of a fragile African agricultural sector, which already lacks support due to historical issues of war, bad governance and the adoption of policies of structural adjustment between the 1980s and 1990s which have together negatively affected agriculture (Easterly, 2005; Konadu-Agyemang, 2000). Otherwise, though the agricultural sector may continue to be the region's highest employer, its dwindling disposition will further pull the already poverty ravaged populations into circumstances of further food insecurity leading to famines and malnutrition amongst its populations.

These factors operate collectively to compound the poverty situation of African households thereby negatively affecting their food security situation. Thus, the vulnerability of African households to political and institutional failures, resource constraints and climate instability, destabilizes long standing livelihoods and locks much of the continent into poverty and food insecurity. As such, food insecurity is the

consequence of the failure of livelihood systems to guarantee access to sufficient food at the household level during times of food shortage (Devereux, 2009), and the inability of such households to withstand shocks due to structural failures (Watts & Bohle, 1993) thereby requiring the modification of livelihoods and adoption of new coping mechanisms. Strategies that have been applied in attempts to cope with food insecurity include, increases in food production levels, changes in livelihoods and migration.

2.4 Coping with Food Insecurity

2.4.1 *Agricultural Production Levels*

For an agricultural dependent population, increases in production levels and/or changes in the livelihood strategies away from the agricultural sector are ways to ensure food security. This can be achieved within the milieu of resources available to individuals to change or improve dependence on agriculture within the general socio-economic and physical environment contexts.

Since the 1970s when the global community accepted to fight hunger and malnutrition (Clover, 2003), global food production has also increased significantly thereby reducing the incidence of hunger and famine in most parts of the world. Khush (1999) indicates that though populations in low-income countries grew by about 80% between 1966 and 1990, global food production more than doubled within the same period. The global increase in agricultural production over this period has generally been attributed to the Green Revolution in Asia, as well as a general improvement in agricultural technology in most parts of the world. According to the United Nations (MDG Report, 2010), for the two decades leading up to the millennium, increases in

income levels, diversification of diets and rapid world population growth rates led to increased global demand for food. These developments were, however, matched by record harvests at the global level. However, the situation is different in Africa where declining agricultural production seems to have been persistent. This declining trend in agricultural production has been observed from the 1970s through to the time of the major famines that hit the continent from the mid-1980s (Devereux, 2000). Africa's status as a significant exporter of agricultural products has reverted to one of a net importer and the continent is also home to the largest proportion of hunger and poverty in the world.

In the last three decades, the hunger situation in Sub-Saharan Africa has continued to worsen with some 800 million people going hungry every year and around 30 million of this number requiring food aid annually (NEPAD, 2003; Clover, 2003). Chronic food insecurity now affects some 28% of the population (Clover, 2003). The worsening hunger situation within the continent is an indication of the precarious food security situation that significant numbers of the African population face. Africa remains the only part of the world with a high proportion of its population engaged in agriculture yet still unable to produce enough food to meet the requirements of its population. Despite this, the agricultural sector continues to be the main-stay of most African economies employing over 60% of people on the continent (Schrieder & Knerr, 2000; NEPAD, 2003). The majority of people engaged in agriculture on the continent are subsistent farmers.

Subsistent farmers are usually small scale farmers due to the farm-sizes on which they farm. They rely on household members for labour and generally depend on hand-held rudimentary tools such as hoes and cutlasses among others for the cultivation of crops on

their land. This category of people and their households are classified among the poorest people on the continent and are known to suffer most from food insecurity.

The precarious food situation within SSA suggests that the United Nations millennium development goal (MDGs) of halving the incidence of poverty and extreme hunger in the world by the year 2015 will be a hard target to reach. Though significant improvements have been made towards the achievement of this goal in most parts of the world, SSA lags behind. The pace of change required to meet the MDGs target in Sub-Saharan Africa is negatively affected by weak microeconomic performances, civil conflicts, vulnerability to natural shocks, diseases and high fertility rates with associated high population growth rates (Sahn & Stifel 2002; UN, 2005). Sub-Saharan Africa has the highest poverty rates in the world and this situation has been further deteriorating, with millions of people falling into deep poverty within the last three decades (MDG Report, 2010). Despite global reduction in poverty levels, the number of people living below the poverty line of less than \$1 a day in SSA doubled between the 1981 and 2001, representing about 313 million people, or a 46% proportion of Africa's population, living below the poverty line in 2001 (Bonfiglioli, 2008). These figures indicate the failure of SSA to embark on necessary production increases to sustain the food security requirements of its population. This suggests the need for adoption of other strategies by populations which may help improve food security through sustainable livelihoods.

2.4.1 Migration and Changes in Livelihoods Strategies

Throughout the world, migration has been an important strategy in the enhancement of the livelihoods of many people (de Haan, 1999). Generally, labour

migration is usually resorted to as a coping strategy by individuals and households as a means of adjusting to economic and environmental constraints in order to obtain better living conditions and welfare (see: Luginaah et al., 2009; Abdul-korah 2007; Schrieder & Knerr 2000; Arango 2000). Stark and Bloom (1985) view migration as a "calculated strategy" which makes it possible for a household to become a "dual-earner" household. Through some form of remittance relationship in this dual-earner household, migrant's earnings in the new destination, directly affect livelihoods and migration behaviours of the members of the other side of the household who remain at the migrant's place of origin. Remittances from migrants could promote better living standards and may also encourage further migration from the region of origin, thereby increasing the rate of out-migration.

Studies across Africa indicate that agricultural labour migration rates are increasing between places of varying agricultural endowments. The lack of economic opportunities and a declining agricultural sector in some areas have made it more attractive for labour migrants to move out of their areas of origin to seek greener pastures elsewhere. Agricultural labour migration may include seasonal migration, which involves a fixed-term movement between origin and destination areas based on the agricultural cycle. It may also be circular in nature, which involves migration followed by a return to the original home area or region (Mendola, 2006). However, some agricultural labour migrants consider their movement as permanent with no intention of returning to settle in their areas of origin due to the lack of opportunities there (Luginaah et al., 2009). This migratory posture taken by agricultural labour migrants is intended to secure their livelihoods as farmers as well as food security needs of themselves and their households.

2.5 Explaining Livelihoods and Migrations as a Coping Mechanism

Poverty, human safety and welfare as well as the desire to ensure sustainable livelihoods are usually the prime motivation for migration from one place to another. The significance of livelihoods has been stressed in the development debate. This is in order to emphasize its potential to influence the level and pace of development through its impact on poverty reduction and environmental management, as well as food security. According to Scoones (1998: p. 5) "a livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living." The means of living is obtained by combining the range of capital resources to which people have access to and control over. These include human, social, financial and natural capital resources based on which livelihood outcomes may be considered sustainable or unsustainable.

Scoones (1998: p. 5) defines a sustainable livelihood as one that "can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, while not undermining the natural resources base." The inability of a livelihood to meet these standards usually leads to a reappraisal of livelihoods. This in turn leads to adaptations in livelihood in continua from agricultural intensification or extensification, livelihood diversification to migration. All these various adaptations including migration may be described as coping strategies. Migration is thus seen as the last resort when agricultural intensification or extensification and livelihood diversification fail to meet desired goals. The need to sustain livelihoods is usually a prime motivation for migration.

2.6 Migration Determinants

Various reasons influence individual's decision to migrate and this is generally context-specific which depends on an interplay of many factors (Mendola, 2006). Population growth is seen as one of the factors that affect the migration decision. Rapid growth in population rates, coupled with insignificant changes in resources could lead to off-setting the population-environment balance, requiring adjustments in adaptations with migration as one of the possibilities for livelihood adaptation. The Malthusian theory of population growth posits that rapidly growing populations would outstrip the carrying capacity of environmental resources to sustain the needs of the population eventually leading to starvation and chaos restoring the balance between populations and resources once again.

This theory does not take into account the effectiveness of technological improvement through innovation in dealing with challenges. In rejection of the Malthusian hypothesis, Ester Boserup indicates that technological improvement has the ability to lead to the discovery of new resources to cope with the demands of a rapidly growing population (Abernethy, 2005). Though the Malthusian theory has been rejected, and rightly so, in the propositions of Ester Boserup, there is a difference in the ability of nations to meet the demands of population growth through technological improvements. Countries in SSA have generally not been able to increase their agricultural productivity in order to meet the demands of larger sections of their populations. Resources such as irrigation facilities and fertilizers among others required for the intensification of agriculture are unavailable due to lack of finances needed for these capital intensive ventures. According to Bilborrow (1992), to consider possible population-environment

links, it is useful to conceptualize a prototype household experiencing the increased population per hectare of land. This scenario coupled with the lack of appropriate innovations to improve productivity could lead to reduction in available land as well as reduction in soil fertility and could act as a push factor in the migration decision process.

According to Reuveny (2007), environmental problems such as extreme weather events, sea level rises, declining freshwater resources and land degradation also play a role in migration. Reuveny is however quick to point out that these problems are in most cases idiosyncratic and localized, affecting people who depend directly on the environment for their livelihoods. Thus, people in less developed societies are particularly at high risk as they depend to a great extent on the environment for their livelihood.

Additionally, they usually have an ineffective voice to demand mitigation measure from governments to bring about positive changes. People in such areas are therefore more likely to migrate away from the affected areas compared to developed societies where organised groups are generally successful at drawing the attention of authorities usually leading to implementation of mitigation efforts. Consequently, with projections of rainfall reductions in Africa, particularly so around the desert fringes (World Development Report, 2010), and with resultant expected reductions in agricultural production (Sanchez, 2000), the vulnerability of the predominantly rain-fed agricultural dependent population is expected to worsen. Populations in these fringes might have to migrate to readjust in order to obtain sustainable livelihoods.

Economic push forces of migration may include high unemployment, economic decline, and underdevelopment, which lock people into poverty. On the other hand, economic pull forces may include, employment opportunities, prosperity, and

development with the potential for enhancement of living conditions and general welfare. Difference in resource availability at various locations based on the above factors influence migration decisions and labour flows between areas. This usually has historical antecedents, occurring at three different levels from coercion, to inducement and to self-initiated migration. "At the broader level of determination [of migration], the onset of labour flows does not arise out of invidious comparisons of economic advantage, but out of a history of prior contact between sending and receiving societies. History is replete with instances in which an absolute wage advantage in economically expanding areas has meant nothing to the population of more isolated regions; when their labour has been required, it has had to be coerced out of them" (Portes & Böröcz, 1989: p. 608). In certain cases the migration linkages between two geographical areas began with forced recruitment from migration sending areas.

With time, economic and political conditions of migration sending areas are moulded to the point where the powerful migration receiving centers become reasonable options for migration destination. This then begins the process of self initiated migration trends between two regions of different economic development or natural endowment levels. Self-initiated migration could be the result of changes in consumption patterns in sending areas following periods of induced migration, to match patterns in migration receiving areas. Migration then occurs as a result of the desire for fulfilment of expectations that otherwise cannot be met in migration sending areas.

Security concerns also influence migration decisions. Moore and Shellman (2006), in a global study of refugees and internally displaced people, indicate that people always migrate in the presence of high-level violence. Socio-political push forces of

migration may include wars and persecution. On the other hand, pull forces include peace, family unification, and the presence of brethren providing a welcoming environment to live.

2.7 Explaining Remittances

Explanations of migration and remittance relationships in this study are inspired by the New Economics of Labour Migration (NELM) and Social Network Theory (SNT). The economic and social underpinnings of these theories makes them well placed to offer explanations given the complex nature of migration decisions which span both economic and social dimensions. The dominance in literature of two theories – NELM and SNT – which are respectively economic and socially grounded, proves their ability to offer explanations on issues within such realms. Their appropriateness in explaining not just remittances decisions, but also determinants of migration, makes them useful in examining both ends of migration and remittances. Taylor (1999) notes that most research on the importance of remittances on migrant sending economies do not usually include a model of what determines migration. Ignoring the determinants of migration paints a defective picture of the reasons for sending back remittances.

Factors that influence migration decisions are generally identified as either push or pull forces. Push forces are those that make it unattractive for people to continue living in their current locations and pull forces are those factors that prospective migrants find attractive in places outside of where they currently reside. These two forces do not only work together to influence the decision to embark on migration. They influence the choice of location to migrate to and also remittance relations that exist between migrants

and dependants. The NELM and SNT theories somewhat capture complexities of all these issues. The two forces are appropriately categorised as the classical perspectives of migration.

Economic considerations are the most important in the NELM views of the determinants of migration, as well as the motivation for remittances. The NELM views the household as an entity that aims at minimizing risks and therefore indulges in the diversification of family income (Stark & Lucas, 1988; Stark & Bloom, 1985; Taylor, 1999). The theory posits that household members enter into a coinsurance contractual agreement where they invest in members to allow them to migrate. In return, the migrants are supposed to pay back this investment and give further financial assistance whenever it is needed.

On the other hand, the social network theory of migration emphasises the social role of remittances in the lives of migrants and recipients. The social network is seen as a form of capital in itself through which information to prospective migrants are passed on for appropriate decisions to be made. The reliability and importance attached to received information from the social network helps to influence the migration decision making process. Within this theory, various motivations for sending remittance may include the fact that migrants have been socialised to see it as the right thing to do. It might also be done as a means of conforming to norms and values of social groups or it could be purely altruistic (Grieco 2004; Cai, 2003). However, Cai (2003) notes that remittances are motivated by a migrant's self-interest. As such, due to the high risks associated with urban unemployment, individual migrants manage to maintain ties with family back at their origin as a form of insurance against risk. Migrants may also have to depend on

family members at home to fend for their children, to take care of their agricultural holdings, and to channel their investments back to the origin. On a whole, whereas the NELM points to the economic dimension as the motivation for remitting, the social network theory however emphasises social roles and inclinations as the underlining reason for remitting by migrants.

A highly debated issue within the migration-remittance relation literature, is the role of remittances in developing the areas of origin of the migrants. According to Taylor (1999), determinants as well as impacts of migration and remittances on development differ by locales. Remittances are recognised as the most positive impact on migrant sending areas. However, the significance of these remittances for development is highly dependent on the migrant remittance behaviour, environmental resource endowment and the socio-economic context in which remittance-receiving areas are located. For example, studies in China and Mexico indicate that migrants do not invest in activities that directly lead to household productivity levels. In Mexico, migrant remittance investments have largely been in housing rather than household production activities (Taylor, 1996). In China, it has been realised that remittances from migrants to poorer areas have led to about a 20% rise in consumption rather than productive activities (Durand et al., 1996).

On the other hand, there have also been empirical studies which have found a positive relationship between migrant remittances and increasing development of the receiving areas. In these instances remittances have acted as a multiplier for development. Black et al. (2003) found that in Ghana migrant returns are used in the development of micro-enterprises. In rural Egypt, it has been found that migrant remittances serve as an important resource for investment in land for agriculture in areas with higher economic

returns than in other areas (Adams, 2002). Studies highlighting the contrasting impacts of remittances are shown in literature from various geographical areas (see Lucas, 2005; Rozelle et al., 1999; Taylor 1999; Taylor & Lopez-Feldman, 2010).

Levitt (1998) indicates that the impact of remittance is also a function of receivers' gender, class, and life-cycle position. For example while families with more assets and savings can afford to use remittances for new income-generating ventures, their less wealthy counterparts cannot afford to do the same. In a similar vein, women who receive remittances from relatives have more liberty to undertake economic ventures compared to those who solely depend on their husbands. Levitt (1998) further notes that the frequency of remittances also influences the extent of impact remittances have. If remittances are regularly sent within short intervals, they have greater impact than when remittances are on longer interval basis.

According to Cai (2003) it is worth noting that migration *per se* is not the ultimate outcome of the family adaptive strategy. The pooling and sharing of generated resources among family members due to their spread out in the labour market is what amounts to the adaptation strategy. The flow of remittance, as the most natural way of income pooling, is clearly consistent with the notion that migration is often a family decision. Though the act of remitting is ultimately an individual decision, family adaptation strategy in the form of migration tends to explain remittances from a household perspective. Significantly, it should be noted that all these empirical studies of the impact of remittances on origin areas have generally focused on monetary remittances. It remains to be known how the phenomenon of in-kind remittance impacts on receiving households

and how that might in turn affect the general development performance and poverty indicators of migrant origin areas.

2.8 Study area Profile

This section gives the profiles of the two regions in which research was conducted for the purposes of this thesis. The section is divided into three parts. The first part describes the Upper West Region (UWR), starting with the physical characteristics of the region regarding its rainfall, soils and other environmental characteristics that potentially affect agricultural activities. It then describes the socio-economic characteristics of the region with respect to employment, economic activities and poverty incidence among others. The second part of the section follows a similar trend as the previous but describes the Brong Ahafo Region (BAR). It starts with the general profile of the region and proceeds to describe the socio-economic profile of the BAR where migrant interviews for this research were conducted.

The final part of the section examines the migration relationship that exists between the two regions, based on some of the issues raised in sub-sections 2.8.1 and 2.8.2. It gives an indication as to why the BAR is, in general, attractive to migrants from the UWR. The section then concludes by indicating how the interplay of influences from the natural environment and previous governmental policies has aided the creation of the current migration-remittance relationship that exists between the two regions.

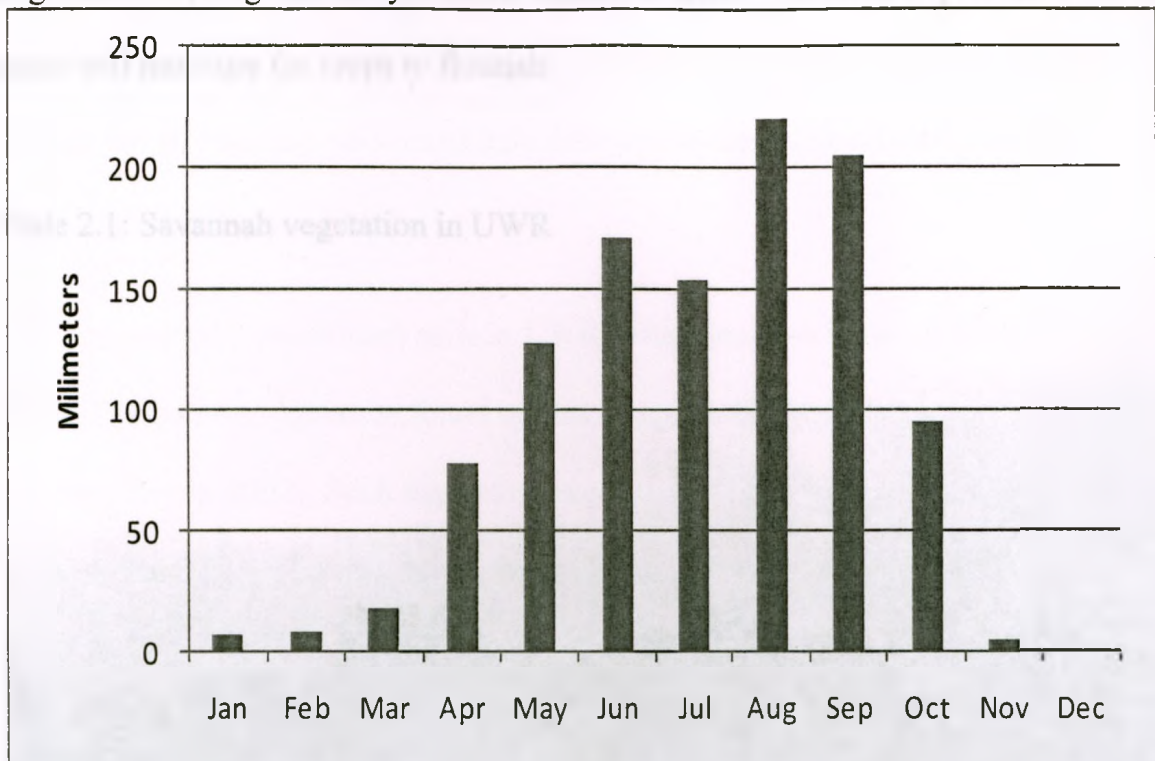
2.8.1 Upper West Region (UWR) Physical Environment and Demographic

Characteristics:

The UWR is located to the North-Western corner of Ghana with a total size of 18,478 km² forming about 12.7% of the proportion of the country. The region shares a boundary with the Upper East Region to the East and the Northern Region to the South. The North and West limits of the region share a boundary with Burkina Faso. The Western boundary of the region which separates it from Burkina Faso, is literally demarcated by the Black Volta which flows from up north in the interior of Burkina Faso.

The region has an annual rainfall average of about 750mm and most of this falls during the rainy season months of June – August as shown in Figure 2.1. The five month rainy season in the area marks the main window when food crop cultivation is generally undertaken. It is estimated that areas located in semi-arid climates, such as the UWR, usually experience a situation where the precipitation totals in six to nine months are less than the evaporation (Nyarko et al., 2010) therefore making it difficult to undertake agriculture in the area. The above description of the UWR rainfall patterns also exist in the Upper East and Northern Regions of the country. Compared to the rest of the country, rainfall and moisture conditions in these three regions located in the north of Ghana are unfavourable for all year rain-fed agricultural activities.

Figure 2.1: Average Monthly Rainfall UWR 1991 - 2000



Source: FAO Country Stats 2011

Two main vegetation types can be identified in Ghana, the Savannah vegetation predominantly located in the Northern parts of the country with a few patches along the south-eastern coastline and the tropical forests located in the South of the country. The vegetation in the UWR is generally of the guinea savannah vegetation type also referred to as the dry savannah. This comprises predominantly grasslands with some shrubs interspersed with short trees generally less than 30m in height (See Plate 2.1). The baobab tree and the shea tree are two significant tree species that characterise the area.

The land is generally bare of grass during the dry season but grass begins to grow again after a few downpours at the start of the rainy season. The seeds of grass species in this savannah vegetation zone are resistant to the annual burning that usually take place. Trees shed their leaves during the long dry season in order to reduce evapo-transpiration rates during the period of searing heat. High evapo-transpiration rates during the dry

season make crop cultivation impossible without irrigation facilities to provide water to increase soil moisture for crops to flourish.

Plate 2.1: Savannah vegetation in UWR



Source: Personal Field 2010

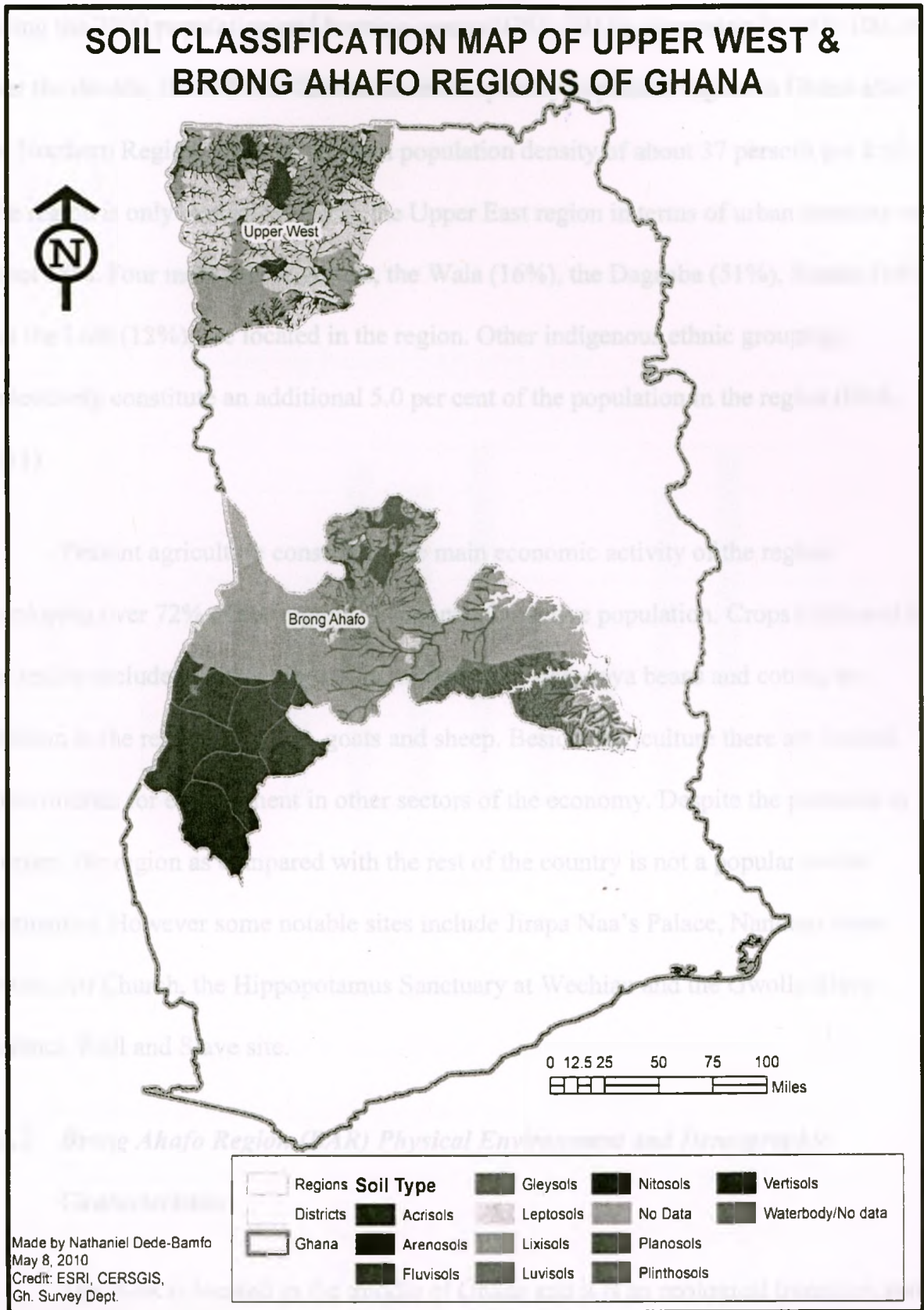
Two main soils types dominate in the UWR as indicated in Figure 2.2. These are the leptosols and the lixisols, with a few patches of vertisols. The leptosols located in the centre of the region and stretched across the region from east to west, are very shallow in nature. This soil type is usually found over areas with hard rock and is also known to be prevalent in areas with unconsolidated gravelly material (Beyer, 2002). Due to their general unconsolidated nature they have little capacity to retain water, are known to contain less nutrients and are generally unsuitable for agricultural purposes. They are generally suited for use as grazing lands but this activity further exposes the already

fragile soils to erosion. Together with the lack of all year vegetative cover, the characteristics of leptosols in the UWR make them easily erodible and the process is facilitated by the long dry seasons usually followed by heavy downpours during the rainy season (Diao & Sarpong, 2007).

The second predominant soils in UWR, which are also found in the BAR, are the Lixisols. The natural vegetation found on this type of soil is usually savannah wooded vegetation (Beyer, 2002). Such vegetation is consistent with what exists in the UWR and also the northern fringes of the BAR whose vegetation is generally considered a transition between the forest and savannah (Boateng, 1959). These soils contain vegetation that supports grazing and has the ability to support annual cropping and perennial crops such as palm, cashew and mango. As noted by Beyer (2002), a difference in vegetation over the same soil type might result in fertility variations among the same soil type. This is due mainly to the amount of litter available to influence soil organic matter and thereby influencing the fertility levels of soil. As such, the BAR which is known to have denser vegetative cover would have more leaf litter for soil organic matter in the lixisols than compared to the UWR with less vegetative cover and therefore have less fertile versions of lixisols.

Vertisols are also present in the UWR and are located on very small patches of land as shown Figure 2.2. This soil type contains predominantly clay minerals with low permeability, poor internal drainage and is known to be slippery when wet (Jones & Wild, 1975). Vertisols are very hard when dry and maybe heavy and sticky when wet making their tillage very difficult. As such these soils remain generally unused in most semi-arid tropical areas (Beyer, 2002) such as the UWR. The soil characteristics of the UWR

Figure 2.2: Soil Map of Upper West and Brong Ahafo Regions



The population of the UWR stands at 677, 763 from the last count of 576,583 during the 2000 population and housing census (GSS, 2011). Increasing by only 100, 000 over the decade, the UWR is the second most sparsely populated region in Ghana after the Northern Region. The region has a population density of about 37 persons per km². The region is only second lowest to the Upper East region in terms of urban dwellers with about 18%. Four main ethnic groups, the Wala (16%), the Dagaaba (51%), Sissala (16%) and the Lobi (12%), are located in the region. Other indigenous ethnic groupings collectively constitute an additional 5.0 per cent of the population in the region (GSS, 2011).

Peasant agriculture constitutes the main economic activity of the region employing over 72% of the region's economically active population. Crops cultivated in the region include maize, guinea corn, millet, yam, rice, soya beans and cotton, in addition to the rearing of cattle, goats and sheep. Besides agriculture there are limited opportunities for employment in other sectors of the economy. Despite the potential in tourism, the region as compared with the rest of the country is not a popular tourist destination. However some notable sites include Jirapa Naa's Palace, Nandom stone Gothic Art Church, the Hippopotamus Sanctuary at Wechiau and the Gwollu Slave Defence Wall and Slave site.

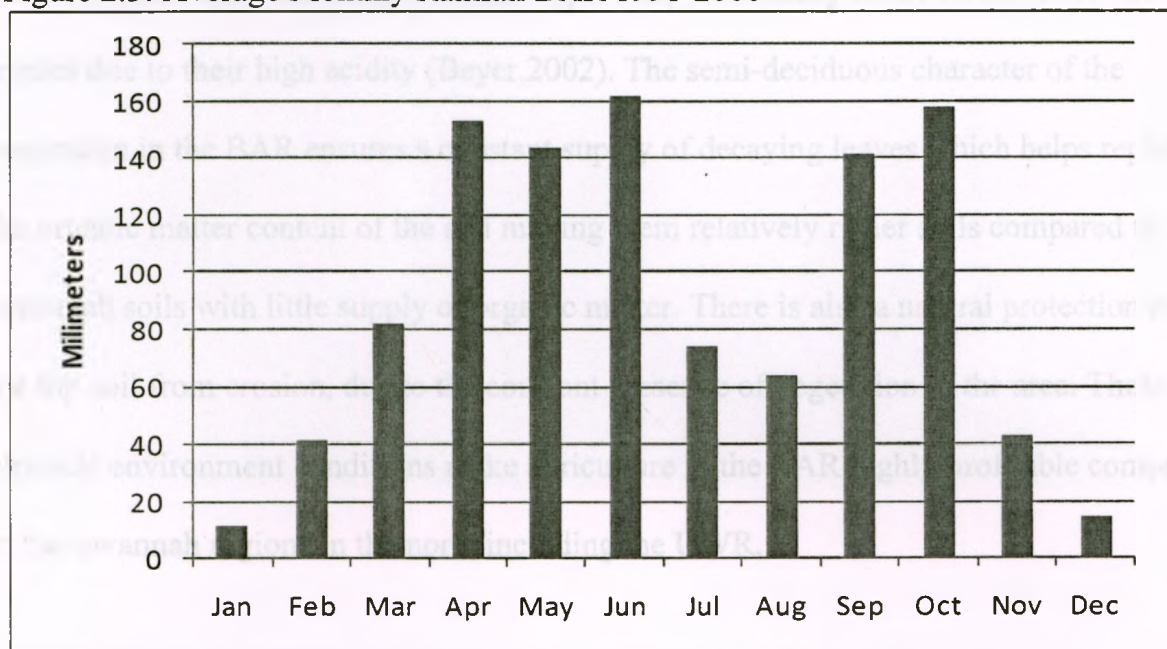
2.8.2 Brong Ahafo Region (BAR) Physical Environment and Demographic

Characteristics

The BAR is located in the middle of Ghana and it is an ecological transition zone between the savannah north and forest south. There are two rainy seasons in the BAR.

The major rainy season occurs between the months of March to June and the minor rainy season occurs between September and November. The annual average rainfall for this part of the country is about 1250mm. A three to four month period usually between November/December and February comes under the influence of the cT air mass, during which period trees briefly shed their leaves taking on their semi-deciduous characteristics. Monthly rainfall figures are lowest around this time, as indicated in the figure below.

Figure 2.3: Average Monthly Rainfall BAR 1991-2000



Source: FAO Country Stats 2011

The vegetation in this region is generally characterised by undergrowths, climbers and tall grasses interspersed with trees of over 30m in height (as can be seen in Plate 2.2). The semi-deciduous forest vegetation in the south of the region are endowed with commercially valuable hard wood tree species such as, mahogany and odum among others, used in construction works and manufacture of furniture. The northern fringe of the region bordering the Northern Region retains the mainly wooded savannah

characteristics vegetation already discussed in section 2.8.1 above (Afikorah-Danquah, 1997).

The soil map (Figure 2.2) indicates other major soil types located in the BAR as well as the lixisols, which have already been discussed in section 2.8.1. Acrisols are the other major soil type in the BAR apart from lixisols. Acrisols when located in tropical environments are characterised by high soil organic matter accumulation and are suitable for cultivation of annual and perennial crops. They are usually under forests cover in the tropics due to their high acidity (Beyer,2002). The semi-deciduous character of the vegetation in the BAR ensures a constant supply of decaying leaves which helps replenish the organic matter content of the soil making them relatively richer soils compared to savannah soils with little supply of organic matter. There is also a natural protection of the top soil from erosion, due to the constant presence of vegetation in the area. These physical environment conditions make agriculture in the BAR highly profitable compared to the savannah regions in the north including the UWR.

Plate 2.2: Lush looking vegetation in the BAR



Source: Personal Field 2010

The BAR current population of the BAR stands at 2.2 million people and it is the fourth most urban region among Ghana's 10 regions. The region covers an area of about 39557 km² with a population density of 58 persons per square kilometre. In terms of ethnicity, the Bono speaking Akan group form over 60% of the region's population. The rest of the population is made up of other Akan speaking tribes, the Guans and other northern ethnicities and it is estimated that the Dagaabas form the highest of number of all these groups (GSS, 2011).

Agriculture and related activities employ the highest proportion of the region's population at around 66%. The region is known for its high productivity in agricultural sector and possesses arguably Ghana's biggest food market at Techiman. Besides its prowess in agriculture, the region also thrives as a major tourist destination, with such features waterfalls at Kintampo, sacred grooves at Buoso and Tanoso, the Bui national park and monkey sanctuaries among several attractions. Due to the presence of these attractions the region offers various forms of opportunities for people most notably in the areas of agriculture, tourism and trade.

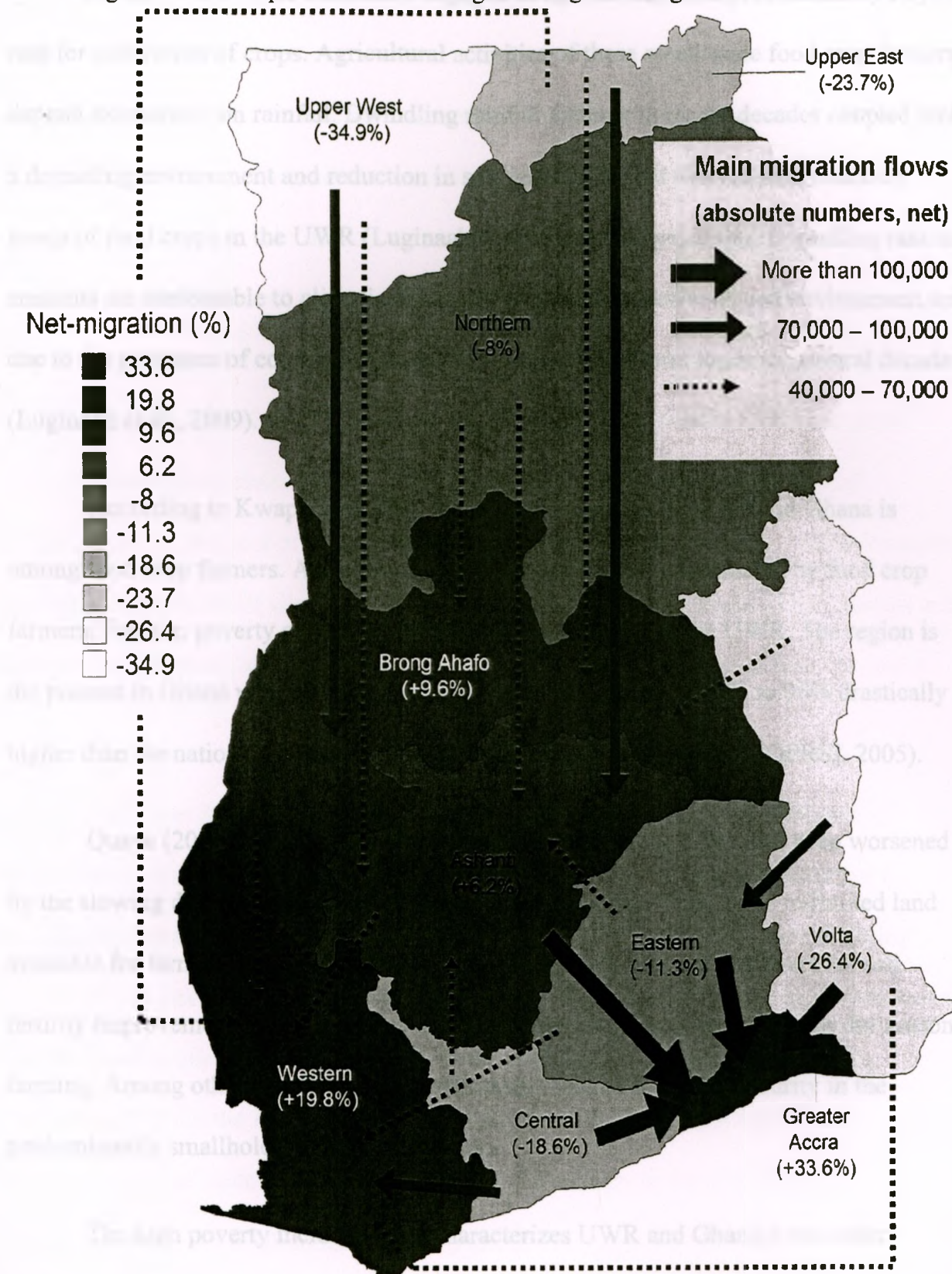
2.8.3 A Migration Relationship between BAR and UWR – The Study Context

The history of labour migration between the north and south of Ghana is routed in the existence of different opportunities between the two areas and further perpetuated by policies of past governments (Songsore, 1983). The mineral endowed and ecologically richer southern Ghana offers more opportunities in agriculture, trade and mining. Disparities in prospects between the northern sector of Ghana and the rest of the country have resulted in migration of people from the north to south to take advantage of existing opportunities. Initially, migrants from the north of Ghana flocked to areas with cash crop production and mining sectors as well as urban trading and administrative towns in the south. In recent times however, a significant number of migrants are moving to areas in the south of the country noted for food crop production. This is occurring mainly as a coping strategy due to environmental changes that have made their livelihoods built around agriculture less secured (Luginaah et al., 2009; van der Geest 2005; Abdul-Korah 2007; Songsore, 1983). This trend is emerging mainly due to the better vegetation conditions of the south conducive for agriculture (van der Geest, et al., 2010). In part, the

declining mining sector in recent decades has also triggered now redundant former miners originally from the north of Ghana to such areas conducive for agriculture (Abdul-Korah, 2007).

A net-migration relation between all the 10 regions in Ghana based on the 2000 population and housing census report indicates the UWR as the region with the highest negative net migration in the country. The figures show the BAR as the biggest beneficiary of the out-migration trend that exist in the UWR (see Figure 2.4). The UWR-BAR migration relation has been attributed to better vegetation, rainfall and other agriculturally conducive conditions that exist in the BAR (van der Geest et al., 2010; Luginaah et al., 2009; Abdul-Korah, 2006; Lobnibe, 2010).

Figure 2.4: A Map of Ghana showing intra-regional migration volumes



Source: Map from van der Geest et al., (2010)

Of the over 64% of Ghanaians engaged in agriculture, most predominantly rely on rain for cultivation of crops. Agricultural activities of these small scale food crop farmers depend extensively on rainfall. Dwindling rainfall patterns in recent decades coupled with a degrading environment and reduction in soil fertility has led to a fall in production levels of food crops in the UWR (Luginaah et al., 2009; Quaye, 2008). Dwindling rainfall amounts are attributable to climatic variability while degraded soils and environment are due to the pressures of constant and repeated cultivation of farm lands for several decades (Luginaah et al., 2009).

According to Kwapong (2009), the highest incidence of poverty in Ghana is among food crop farmers. Agricultural activity in the UWR is dominated by food crop farmers. Further, poverty can be described as being endemic in the UWR. The region is the poorest in Ghana with the incidence of poverty ranging from 76% to 96% drastically higher than the national average figure of 39.5% (Ministry of Finance [GPRS], 2005).

Quaye (2008) indicates that the poverty situation in the UWR has been worsened by the slowing down of growth in the staple crop sub-sector. This is due to limited land available for farm expansion, poor soils, lack of capital to procure fertilizers for soil fertility improvement, non-use of improved varieties and lack of irrigation for dry season farming. Among other outcomes, this has notably resulted in food insecurity in the country, especially in the UWR, where the majority of the population are smallholder farmers. This has led to a predominantly smallholder farmer population.

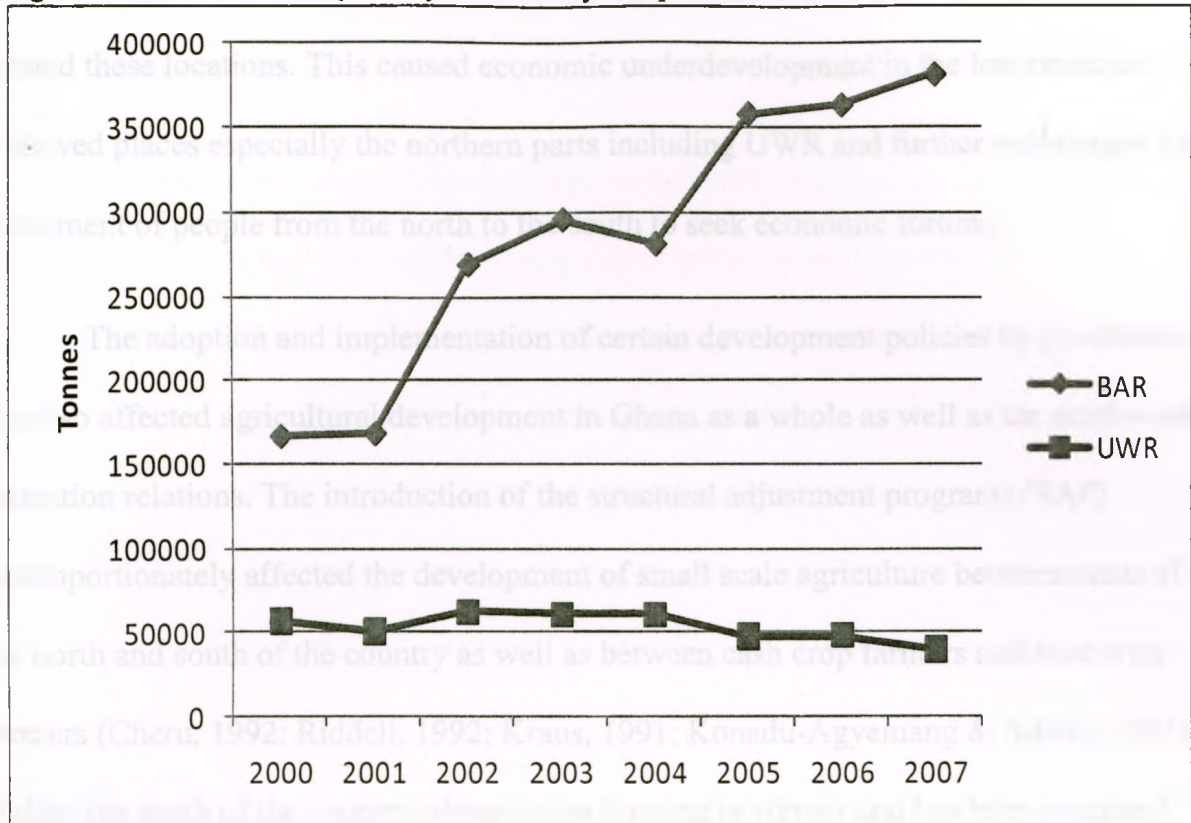
The high poverty incidence that characterizes UWR and Ghana's two other regions in the north has been attributed to a deliberate historical exclusion from trade and the lack of development of both human and natural resources (Aryeetey & McKay, 2004;

ODI & CEPA, 2005). The northern parts of Ghana, including the UWR, were deliberately ignored in development policy formulation by past colonial governments in order to create a labour surplus for the cash crop and mining industries located in the southern sector of the country through direct recruitment (Abdul-Korah 2007; Songsore, 1983). As a result, mining towns such as Tarkwa and Prestea in the Western Region and Obuasi in the Ashanti Region served as migratory attraction for most youth of the UWR during the colonial period and the immediate post-colonial period, even after the abolition of direct recruitment. Besides mining, the emergence of the cocoa and rubber industries in the forest belt and their resultant labour intensive demands also served as sources of employment for the pool of unemployed labour from the north of Ghana. These economic activities in the south of Ghana led to the emergence and development of commercial and administrative towns, also with their own demands for unskilled labour from the north.

The historical roots of the out-migration from the UWR have been well documented (see: Abdul-korah 2007; Songsore 1983). Migration as a livelihood adaptation strategy in the north has also received a fair share of attention (Awumbila & Ardayfio-Schandorf, 2008; Nabila, 1975). However, projections are that increasing economic and environmental pressures and related food insecurity concerns would lead to further out-migration from the region to fertile farming regions in the south of the country, especially the BAR (Songsore & Denkabe, 1995; Luginaah et al., 2009). With favourable natural conditions for agriculture and proximity to the UWR, the BAR is a natural attraction for migrant farmers from the UWR.

In contrast with the UWR, production levels for all food crops in the BAR more than doubled that from the UWR as seen in the Figure 2.5.

Figure 2.5: Production Quantity of Primary Crops BAR and UWR



Source: FAO Country Stats 2011

The amalgamation of past policies and economic fortune led to the concentration of development in the south of the country and thus making that part of the country attractive to people from the north of Ghana. During the colonial times the much touted “golden triangle” was the hub of economic development (Konadu-Agyemang & Adanu, 2003) and still remains Ghana’s most developed locations at present. The “golden triangle” symbolised the booming economic interaction that existed between the Ashanti Region in the middle belt, and the Western and Greater Accra Regions which are located along the coast of Ghana. Rail lines run between the three regions transporting both people and much needed resources between these areas. Based on extraction of gold from the rich fields in the Ashanti Region, the extraction of the gold, cocoa and timber resources in the Western Region and the role of Tema as an important coastal port which

is about 25km from Accra the administrative capital, the economy of Ghana revolved around these locations. This caused economic underdevelopment in the less resource endowed places especially the northern parts including UWR and further encouraged the movement of people from the north to the south to seek economic fortune.

The adoption and implementation of certain development policies by government has also affected agricultural development in Ghana as a whole as well as the north-south migration relations. The introduction of the structural adjustment programs (SAP) disproportionately affected the development of small scale agriculture between areas of the north and south of the country as well as between cash crop farmers and food crop farmers (Cheru, 1992; Riddell, 1992; Kraus, 1991; Konadu-Agyemang & Adanu, 2003). Unlike the south of the country where cocoa farming is vibrant and has been sustained from colonial times to the present, the same cannot be said of the north of the country where no cash crop industry has ever received similar support from colonial times until present (Sutton, 1989). As such with the implementation of the agricultural policy of the SAP geared towards the improvement of the export cash crop sector, cash crop farmers in the south of the country became natural beneficiaries though they form just 18% of the country's farmer population (Cheru, 1992; Konadu-Agyemang & Adanu, 2003).

Trade liberalisation tenets in SAP encourage the integration of African economies into the global economy through the intensification of export crop production (Riddell, 1992). This hurts agriculture in locations with little capacity or natural endowment that can promote an export oriented agricultural sector, such as the case of the UWR. The focus on the cocoa industry in Ghana during the SAP implementation led to low growth

in the domestic food production sector, resulting in the further decline of subsistence agriculture and increased incidence of poverty among food crop producers (Kraus, 1991).

Even before the onset of the SAP and its negative consequences on agriculture, farmers in the north had been on the wrong end of previous government policies that made agriculture livelihoods in that part of the country unsustainable and unattractive. Sutton (1989 p. 641) commenting on agricultural policies in the immediate post independence era of the 1950s to 1970s indicates that “taking subsidies into account, the north invariably lagged behind the south”. As such, the further withdrawal of subsidies during the period of the SAP would have affected farming in the north of Ghana more profoundly than the south. Before the SAP, allocation of resources for the establishment of state farms favoured the south, which led to the development of road infrastructure and other amenities in areas of the south. By result, the government made investment further making the north unattractive. State farms established in the north happened intermittently and collapsed early at onset due to general low government commitment, negatively affecting the overall agricultural development of the north as compared to the south of the country (Sutton, 1989).

The result of the past policies mentioned above has been the general lack of existence of medium scale industries to offer employment opportunities to potential workers in the UWR and the rest of northern Ghana as a whole. This has created high levels of unemployment among the teeming youth in the area, which coupled with the generally low levels of education, has made them unemployable in the few functioning sectors, leading to generally high levels of poverty among the people.

Coupled with the already discussed natural conditions of the UWR and the influence of governmental policy on agriculture in the area, vulnerability to food insecurity (Watts and Bohle, 1993) intensified with the onset of the droughts in the 1980s (Quaye, 2008). Thus, the area's food insecurity has been intensified by increasing environmental degradation and related droughts, which together have impacted negatively on food production throughout the region. This has resulted in a reliance on out-migration mainly by the youth of this area, as a means of adapting in order to secure their food needs (Luginaah et al., 2009). From their new destinations, migrants send back food remittances to their dependents in the UWR. Out-migration is mostly to agricultural resource rich areas such as the BAR known to be one of the most productive agricultural areas in Ghana (van der Geest et al., 2010, 2008, 2003; Abdul-Korah 2007). This research therefore examines the contribution of food remittances to household food consumption and how food remittances affect the adoption of other strategies to cope with food insecurity.

2.9 Summary

This chapter discussed the concept of food security and its associated relevant issues. Some general causes of food insecurity are outlined together with some mechanisms generally adopted to ensure food security. This is laced with commentary particular to Sub-Saharan Africa's unique situation. The chapter discussed livelihood adaptations with emphasis on migration and outlined some theories used in migration and remittances studies. The chapter then concluded with an overview of the food insecurity, environment, migration and remittances linkages in the UWR. It elaborates on how past

government policies and natural environmental conditions affect agriculture, development and food security of the region compared to the rest of Ghana.

STUDY DESIGN, METHODS AND RATIONALE

3.1 Introduction

This paper covers the study design, methods used and the rationale for the study. It starts with a brief description of the qualitative approach with emphasis on case study design, and proceeds with the rationale for the choice of case study design with details of how the design approach is consistent with the objectives of this research. Subsequently, I discuss the specific methods employed in this research design. The research objectives, hypotheses and the significance of the research findings, including the implications for policy and practice, are presented.

3.2 Research Design and Methodology

Qualitative research methods are used to explore and address the unknown in the study. The purpose of qualitative research and the characteristics of its design, including data collection and analysis, are particularly relevant to this research. This section aims to illustrate the possibility of using qualitative research to address the research objectives. As with quantitative research, it is very important to make clear the nature of the research design, the use of the research design, and the implications for the research. The research design is a case study design, which is a type of qualitative research design. The research design is a case study design, which is a type of qualitative research design. The research design is a case study design, which is a type of qualitative research design.

CHAPTER THREE

STUDY DESIGN, METHODS AND RATIONALE

3.1 Introduction

This chapter reviews the study design, methods used and data analysis techniques employed in the thesis. It starts with a brief discussion of the qualitative methodology with emphasis on case study design and proceeds with the rationale for the choice of case study design with details of how this design is appropriately positioned to help achieve the objectives of this research. Subsequently, it discusses the specific methods employed in this case study design: focus groups, interviews, field visits and site observations, and data analysis techniques. A schematic representation of the entire research process is also presented.

3.2 Research Design and Methodology

Qualitative research methods are used as the tool for addressing the objectives of this study. The practice of qualitative research and the application of its diverse techniques does not privilege any particular methodological approach. This therefore allows for the possibility of using multiple theoretical frameworks within the various techniques. As such, qualitative research is very interpretative in nature (Hesse-Bieber & Leavy, 2004; Denzin & Lincoln, 2005). Interpretations are done through the observance of meaningful interactions that are created by the connotations social actors attach to their everyday interaction practices (Hesse-Bieber & Leavy, 2004). Qualitative research

embraces and thrives on this interpretative diversity resulting from the different backgrounds and worldviews that the various researchers and social actors possess.

Silverman (2005) suggests that qualitative methods are suitably placed to help answer questions that require in-depth explanations and description. The study adopts the qualitative approach since it seeks to offer detailed description and also find out how the activities of migrant peasant farmers affect the food security status of their dependents. It seeks to provide an understanding of the relationships between environmental change, agricultural production, food security, migration and coping strategies from the emic perspective (Hancock and Algozzine, 2006).

This study uses a case study approach to investigate the occurrence of food remittances and the intertwined relationships it has with environmental change, migration and food security within households in the UWR. According to Hancock and Algozzine (2006), qualitative case studies are usually richly descriptive with illustrations of key aspects of the case. They may be exploratory rather than confirmatory thus allowing for the understanding of the subject under study from the perspective of the participant. As such qualitative case study designs may comprise of a series of narratives, enriched with illustrative descriptions highlighting themes, without the intention of generalizing study findings. The case study research method allows for the investigation of phenomena within a specific context without attempting to manipulate the events within the context (Hancock & Algozzine, 2006). This *in situ* investigation process allows the complex interconnections between various issues associated with the phenomena under investigation to be identified without tampering with their balance.

The thesis broadly concerns itself with the importance or otherwise of food remittances by migrant farmers to their dependents in ensuring their food security. It seeks to understand how the coping strategy of migration is utilised by individuals and how households of migrants benefit from food remittances. According to Mendola (2006) micro-level studies involving interviews are necessary to bring out important issues on temporary migration such as seasonal migration and circular migration as well as rural to rural migration. As such, a case study design using qualitative in-depth interviews, focus group discussions and field visits is used in an attempt to understand migrant's livelihood practices to explain decisions made by migrant farmers both in the practice of migration and remitting to their dependents.

3.3 The Choice of a Case-Study: Qualitative Study

The choice of a qualitative case study for researching migration and food remittance is significantly influenced by the method's ability to strongly construct and establish the validity and reliability of evidence for phenomena under study, based on the reliance on multiple sources of data for evidence (Yin, 2003). Though it has traditionally been misconceived that case studies are best suited for exploratory research, Yin (2003) indicates that the method can also be used appropriately for descriptive and explanatory investigations. This study is mainly descriptive with overlapping explanatory aspects.

The use of qualitative study design for addressing the objectives of this study is primarily influenced by its strength in obtaining explanations and providing descriptions of phenomena under study within a given context (Hancock & Algozzine, 2006). The decision making process in the practice of migration as a coping strategy is taken after

consideration of several factors involving the individual migrant and usually the family as a unit. Therefore, the decision to migrate or otherwise is suited within a context and this may vary across geographical space based on varying environmental resources and between families, as well as based on family resources (Arango, 2000). In this study, the common context of the changing environmental conditions of agriculture in the UWR (Luginaah et al., 2009; van der Geest, 2008) for the families offers the opportunity for the use of the case study approach without attempting to manipulate factors that could otherwise affect the context.

Shifts in emphasis on food security range in concern, from global and regional availability to emphasis on household and individual access to food (Maxwell, 1996), and also serve as a basis for the selection of case study approach for addressing the objectives of this study. As indicated by Hancock and Algozzine (2006) the approach offers an understanding of a phenomena under study from the perspective of the respondent through the use of interviews and focus groups whilst offering opportunities of triangulation from the use of other sources such as observations and other documentary sources. Patton (1999) indicates that no single method is adequate enough to solve the problems of rival explanations. The use of the multiple methods also allows for the preservation of the significance of context, which is a very necessary component in the case study approach. It makes possible for necessary information regarding a phenomenon under investigation to be obtained with each method compensating for the weakness of the others.

Methods used in undertaking case study designs are pragmatically driven rather than being driven by specific paradigms (Rosenberg & Yates, 2007). This helps avoid any

kind of dogmatism in methods used for researching phenomena that might be inherent in the adoption of particular paradigms. This is particularly important as case study research seeks to retain the context of the case and the associated complexity therein. The importance of retaining context complexity typically leads to the utilization of mixed methods in the collection of data. Research methods are thus adopted and used for their ability to contribute meaningful information to the investigation process.

The case study is a preferred method when investigating present-day activities where relevant behaviours cannot be manipulated. There is the opportunity to interact with social actors involved with the phenomena under investigation. This makes it possible for the “operational links needing to be traced over time” to be done (Yin, 2003: p.6). In this study, operational links in the chain of connections involved in food remittance between the BAR and the UWR are traced. The sending of remittance is traced by interviews with migrants on how food is sent out from their farms in the BAR to their intended destinations in the UWR and interviews are also conducted with dependents on how received food finally makes it to the table for consumption. This is done considering the transportation challenges that exist between the regions (Luginaah et al., 2009).

The adequacy of information required for addressing the questions and objectives in the study also points to the ability of case study design to address the relevant issues investigated. In this study, the overarching research question is how does food remittance contribute to ensuring food security of dependent households? Adequacy of required information is mainly influenced by clear definitions of the “case” and the terminologies therein (Baxter & Jack, 2008).

3.3.1 The Case Study Approach/Methodology

Though case study design has been variously defined, there are several tenets common to most definitions. Firstly, all the various definitions indicate that this approach can be applied in studying an individual, group or community, with its greatest strength being the concurrent use of multiple methods. This naturally makes the design well suited for food security studies which can also be studied at regional, national, community, household and individual levels (Maxwell, 1996). The scope of case study investigations could cover a continuum ranging from studying an individual to a community and an even larger entity (Chaiklin, 2000). The “case” in the case study approach has been defined as “a phenomenon of some sort occurring in a bounded context” and the case is, “in effect, your unit of analysis” (Miles & Huberman, 1994: p.25). The establishment of boundaries for a case is important to ensure the research focuses on only the relevant issues pertinent to the study. This requires the setting up of appropriate boundaries for the case under investigation before hand.

According to Baxter and Jack (2008), boundaries do not simply define the appropriate target population for a given study, but are very important indicators of the breadth and depth of the study. They are also important in determination of key issues under investigation in the study, which helps keep the practical data collection process directly in close connection with the objectives of the study. To facilitate the narrowing of boundaries to ensure that the case under study remains manageable and reasonable in scope (Baxter & Jack, 2006), the criteria of time, place, activity and context were used (Creswell, 2003; Miles & Huberman, 1994).

Time as a tool helps create boundaries for case studies by ensuring that only the periods at which the phenomena occurs are considered important to the study. This must however be done by noting antecedent influences on the phenomena. In this study, the period of time considered to be significant at least six months. Within this period respondents in the BAR should have gone through the processes of acquiring land, cultivating and must have sent food to their dependents at least once. Respondents in the UWR must have also received food remittances within the last six months to the commencement of the study (i.e. June 2010).

Place refers to the geographical situation where the phenomena under investigation occurs. A demarcation of a reasonable extent of geographical space is required due to resource constraints but in line with the achievement of research objectives. In this light, the UWR was selected since households in this region receive food remittances. The BAR was selected for being the highest receiver of UWR migrant food crop farmers in Ghana. Wenchi and Techiman Districts in the BAR were then selected as the target locations for the selection of respondents for the study. The selection of these two locations was influenced by their close proximity to the UWR and also because the two areas have traditionally been the destination of most migrant farmers from the UWR (Abdul-Korah, 2007). It must be stated that selecting the place for this study was not without its problems. While the clustering of migrants in communities within the Wenchi and Techiman Districts made them accessible and easy to organise for focus group discussions (FGDs), it was not the same in the UWR. Targeted respondents in the UWR lived in different communities located far from each other making the

organisation of FGDs unrealistic given time and resource constraints. As such no FGDs were organised in the UWR.

Activity involves the action or the actual occurrence of the phenomena being studied. In this study, activity was considered to be the action of sending food remittances to dependents in the UWR by migrant farmers in the BAR.

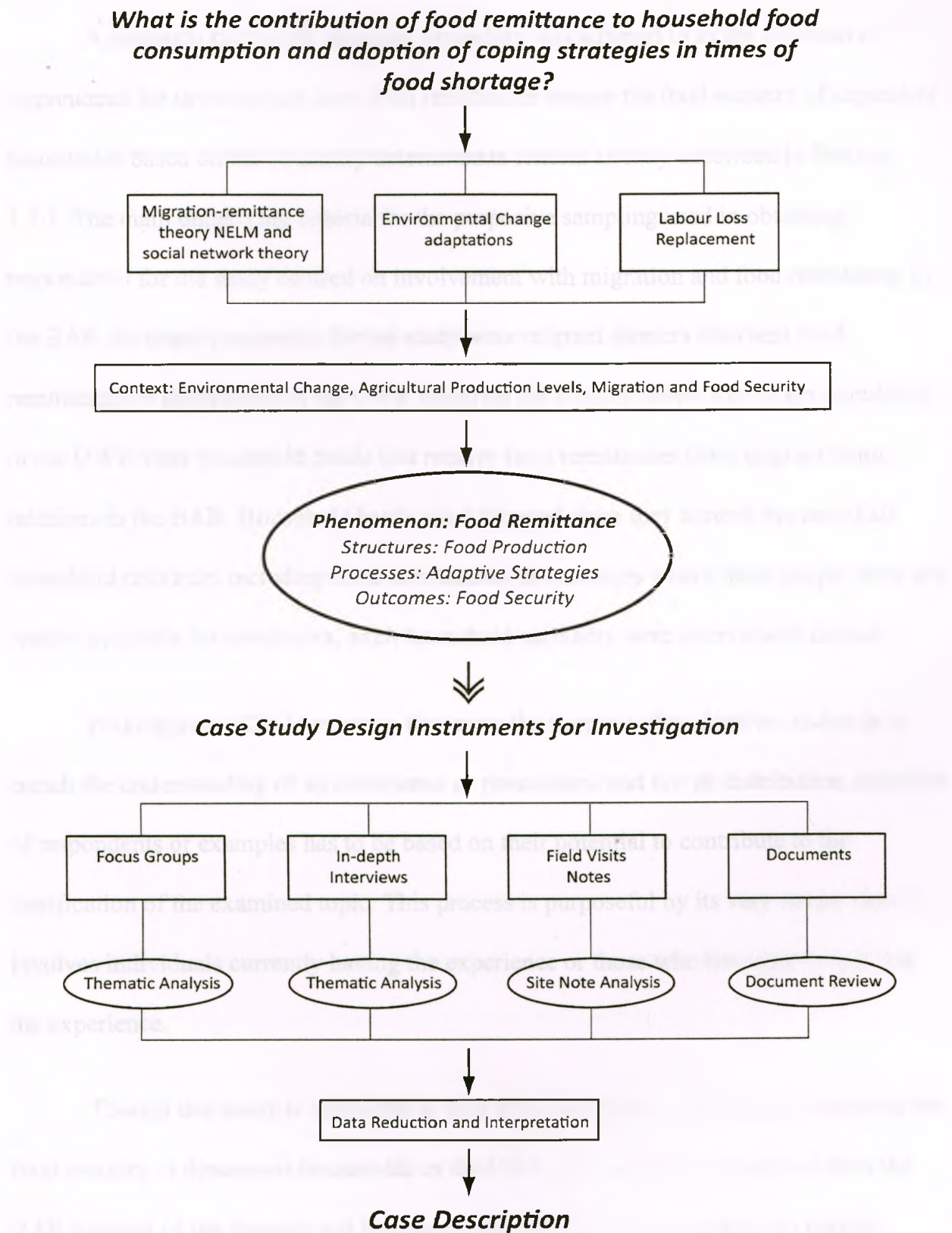
Context includes the complexity of situations that are responsible for, or influential in, the occurrence of the activity under investigation. In this research, context was taken to include, livelihoods adaptation, agricultural practices and production levels, migration and food security.

Due to the careful consideration given to a wide array of ‘boundary-determinants’, the collected data in the case study approach may range from general observations to detailed measurements of phenomena under study. As such, this approach relies on several sources of data in the establishment of research evidence (Yin, 2003). Yin indicates that despite the extensive list of sources for case study data, the most commonly used sources are interviews, direct observations, participant-observation, archival records, documentations and physical artefacts. Yin (2003), notes that none of the sources have complete advantage over the others but they are used in a highly complementary manner.

In view of the above, methods employed in this study included interviews, focus group discussions, field visits and observations as well as the use of documentary sources such as The Ghana 2000 and 2010 Population and Housing Census Reports, Reports of government ministries and departments, FAOSTATS and district assembly websites.

Figure 4.1 provides a schematic representation of the research. It indicates the general case under investigation. The schematic indicates how the study ties the existing general context of the interrelationships between environmental change and agricultural production levels and how the phenomena of migration and food remittances have emerged as a strategy to ensure household food security. The phenomena of interest (i.e. migration and food remittance) occur as a result of both social and physical structures. Structures in this study are all the factors that influence food production. Physical structures in this case represent the physical environmental characteristics such as rainfall, soil and vegetation among others which affect agricultural production. Social structures represent government development policies as well as customs and norms, which surround the practice of agricultural practice. Processes of movement of both people and food occur which produces outcomes where food security is either achieved for the household, or it is not. The schematic also shows the selection of the instrumental case study approach. This is utilized as the specific approach in this research since the study seeks to understand existing relations among issues regarding migration, food remittances and food security. Application of instrumental case study approach in research is relevant when there is the need to understand more than what is obvious to the observer. This is usually done through the use of a particular case delving into all possible areas connecting to the issue under investigation.

Figure 3.1: Methodological Frame work for study based on Rosenberg and Yates (2007)



3.3.2 Respondent Selection Strategy and Interview Location Selection

A thorough purposive sampling procedure was adhered to in the selection of respondents for investigating how food remittances ensure the food security of dependent households based on the boundary determinants criteria already described in Section 3.3.1. The main underlying criteria for the purposive sampling used in obtaining respondents for the study centred on involvement with migration and food remittance. In the BAR the target population for the study were migrant farmers who sent food remittances to dependents in the UWR based on the criteria above. The target population in the UWR were household heads that receive food remittances from migrant family relations in the BAR. Household heads were targeted since they control the use of all household resources including food remittances. In instances where these people were not readily available for interviews, adult household members were interviewed instead.

Polkinghorne (2005) suggests that since the purpose of qualitative studies is to enrich the understanding of an experience or phenomena and not its distribution, selection of respondents or examples has to be based on their potential to contribute to the clarification of the examined topic. This process is purposeful by its very nature since it involves individuals currently having the experience or those who have previously had the experience.

Though this study is interested in how food remittances contribute to ensuring the food security of dependent households in the UWR, the research commenced from the BAR because of the forward and backward links that exist between the two regions within the context of the phenomena of migration and food remittances. It offered the

opportunity for noting the geographical spaces involved in the movement of food remittances between the two regions, recording the peculiar differences that exist in both areas that potentially affect reliability and frequency of sending food remittances.

The target population in the BAR was reached at places of convergence, such as market centres, church premises and at “Hometown Community Groups” meeting locations. These community groups are formed by migrant farmers in some locations in the BAR. Meetings are regularly organized to discuss members’ welfare and those of the relatives and deliberations are held on how they might help their dependents in the UWR. These meetings are generally organised on Sundays and market days when farm work is generally not undertaken. To avoid convenience sampling, respondents in this study came from different communities. Communities selected in the BAR were Nwoase in the Wenchi District and Offuman and Manso in the Techiman District. Respondents were also selected based on their involvement in the activity of food remittance and farming in the BAR and not because they have second hand knowledge of the practice of food remittance.

As the source region for the food remittances, the BAR offered an easy point for the recruitment of prospective respondents in the UWR who receive food remittances. This allowed for possible respondents to be ‘met’ even before commencing work in the UWR. It reduced the potential dilemmas/difficulties involved with having to decide what kind of sampling strategy to adopt in order to capture the targeted population of food remittance receivers. Out-migration is a common phenomenon among communities in the UWR (Abdul-Korah 2007), though there are records that indicate where migrants from UWR region reside in Ghana (GSS, 2000), there are no records of the specific

communities in the UWR where they originate from. Thus, though it would not have been difficult to find households with members who have out-migrated, it would have been difficult to find which households who have families members in the BAR engaged in the sending of food remittances to dependents.

In the BAR, the Techiman and Wenchi Administrative Districts were selected for the purpose of conducting interviews and focus group discussions. The predominantly agricultural villages within these districts receive significant numbers of migrants from the UWR (Abdul-Korah 2007: Lobnibe 2008: GSS 2000) serving as the main basis for choosing the stated districts. Focus group discussions (n=3) and in-depth interviews (IDIs) (n=27) with farmers who remit food from the BAR to the UWR were conducted. In the BAR, interviews were conducted at one of three places, respondent's residence, a market location or church premises. Market places and churches are places of convergence for most farmers when they were not engaged in farming activities and they also serve as venues for the various Hometown Community Groups. Market places were the most visited place for recruitment and interviews in this study. Details of the specific origins of interviewed migrants were taken. Their homes in the UWR were recorded and traced to the UWR where IDIs (n=20) were also undertaken with their dependents.

In the UWR, contacts were made with the prospective respondents using names of community of origins of the respondents from BAR and their respective family names. Upon reaching the specific community of origin of interviewed migrants, directions were sought from the community dwellers to help locate the specific household of interest by using the family names. Household heads or an available adult household member was then interviewed, usually upon a subsequent visit after consent had been acquired and an

appropriate time selected for the conduction of the interview. In the UWR, all interviews were conducted at the residence of the respondents.

3.4 In-depth Interviews

In-depth interviews (IDIs) and focus group discussions were the methods used to solicit responses from the targeted population. In-depth interviewing as a method of data collection may be seen as a means of obtaining knowledge from individual in an interactive manner (Miller & Crabtree, 2004). An interview process is one of a partnership, which is both a communicative and a conversational journey which ensues between the interviewer and the interviewee. Silverman (2005: p. 111) states that “perhaps we all live in what might be called an interview society in which interviews seem central to making sense of our lives”. This description of interviews denotes the importance of our everyday human interactions and its importance in the creation of knowledge about the environment, people, places and events for our daily use.

Though usually considered as a weakness of the interview method of data collection, the homogenous nature of the gathered data from the sole perspective of the interviewee was one of the reasons for selecting this method. This way overlapping and concurrence of issues within the various interviews help give credence to the characteristics of the phenomena under investigation. Besides, household food security practices may vary between households due to difference in socio-economic characteristics of the households and this difference needs to be recognised. This method offers the opportunity to delve deeply into issues such as difficulties involved in sending

and receiving food remittances, the extent to which different households rely on food remittances and their importance in ensuring their household food security among others.

All interviews for this study were conducted between June and August of 2010. Interviews in the BAR were conducted in selected the communities of Nwoase, Offuman and Manso. In the UWR interviews were conducted with the heads of food remittance receiving households or adult household members across four districts (Wa West, Jirapa, Lawra and Nadowli Districts).

Interviews in the research were conducted in Dagaare, the language of all interviewed migrant farmers and their dependents. As such, the researcher's knowledge of the culture of the people and fluency in Dagaare as a native speaker, was usually a good starting point to get talking with prospective respondents to develop a good conversational relationship before the commencement of interviews. Generally, for respondents in the BAR, shared native language between researcher and interviewees was good enough for them to feel comfortable to grant interviews. This was the result of the fact that these migrants live in a different cultural setting other than their native culture and thus people who share their origin are readily accepted as part of them in what might be referred to as a foreign land.

3.5 Focus Group Discussion

The focus group discussion has been characterized as "somewhere between a meeting and a conversation" (Agar & MacDonald, 1995 p.80) where issues for discussion receive contribution from all group members of similar status in society. This minimizes the production of a homogenous text of discourse otherwise obtained from the individual

interviewing data collection method. Group members compare their views with other members of the group and challenge each other where necessary. There was a general similarity in the socio-economic background of respondents in this study. Most participants had no education with a few having previously received some form of basic education. The similar socio-economic background of recruited focus group respondents was to facilitate comparisons, an easy relating of experiences among peers (Kidd & Parshall, 2000), and forming of the community's image of the subject under investigation. A well moderated focus group epitomises the views of a community appropriately described as a "thinking society" which reveals structures and processes around a subject in conversational and argumentative manner (Kidd & Parshall, 2000). Thus, care was taken not to allow the dominance of a single individual in the group since this potentially would not reflect the true feelings and beliefs of all the members in the focus group forming a rather distorted community image of the subject under study based on views of the dominant individual. To prevent this, moderation of the FGDs were carefully done with a strong commitment to constantly seeking the personal perspectives of all FGD members on issues especially quieter members of the group..

The three focus groups used in this study were conducted in three communities. Two focus groups made up of seven (7) and eight (8) members were conducted in Offuman and Manso respectively both in the Techiman district of BAR. Another FGD made up of seven (7) members was also conducted at Nwoase in the Wenchi district. All FGDs were conducted on three separate Sundays, as this day and market days (Thursdays) are the times when farmers are usually not working actively on their farms and found around accessible communities where they could be researched by the

researcher. Initial contacts for these focus groups were made with prospective respondents and details of the study were explained to them to obtain their consent to participate in the actual focus group, which was to take place on a later date, with the venue and time agreed by participants. At the end of both individual interviews and focus groups, recorded interviews were played back for respondents to listen. In one instance, an interviewee requested to be re-recorded for him to set the facts straight on a particular question.

3.6 Other Data Sources

3.6.1 Field Visits and Field Observations

Observations are an important source of primary data in community studies providing supplementary information and clarifications on participant interviews (Polkinghorne, 2005). Observational data range from facial expression, clothing, vocal tones and gestures of interviewees to the general physical characteristics of the environment within which interviewees live. Relevant observations are those that would contribute to understanding and clarification of issues under study.

Field observations were used to help shed more light on the second and third objectives of this thesis and to help offer rich context. This was done by documenting the road conditions, general living conditions and environments of respondents among others through to the physical observation of the geographical spaces. During field visitations for the purposes of setting up appointments for interviews, observations of general environments were noted. Observations were also carried out and memos kept during random field visitations undertaken solely for the purpose. These observations were

intended to help for easy comprehension and appreciation of the living conditions of respondents so as to put responses received in interviews to the issues under investigation in the appropriate perspective. This way of undertaking a qualitative study is not a novelty from this project as its uses are noted by Silverman (2005) to be fundamental in qualitative research. The observational method of research matches qualitative studies and it is a desired method to understand another culture or sub-culture (Silverman 2005). Field visit observation notes were used for the purposes of illustrating issues relating to the phenomena under investigation.

3.7 Data Analysis Techniques

Recorded interviews were transcribed from Dagaare to English by the researcher, after which transcripts were all read and edited. QSR software for qualitative data analysis (NVivo) was used primarily as an organisational tool for coding transcribed interviews. Organisation of codes based on themes from IDIs and FGDs started during the transcript editing process. During the hardcopy editing of transcripts, emerging themes were noted on margins of the transcriptions and subsequently compiled after editing. This is in line with open-coding techniques. The open coding process deals with the assignment of ideas as they emerge, to text beside sentences (Crang, 2005). Notes and commentary were kept for these initial emic perspectives obtained from transcripts as theoretical concepts for enhancement of the coding process and the later development of ideas (Baxter & Eyles, 1997; Crang, 2005). For example, notes and commentary kept for all references to participant perspectives about “environmental change” indicated the specific notion that was being portrayed (i.e. rainfall, vegetation, soils). This method later

allowed for the assignment of all major ideas to specific codes thereby reducing the data to a manageable size.

After transcripts together with all voice recordings were uploaded into NVivo, themes compiled from emic perspective and theoretical concepts, served as the basis for the initial coding and organisation of themes in NVivo. To ensure that the actual meaning of participant views was not lost, relevant portions of recorded interviews were coded along text transcribed codes. This allowed for constant play back to ensure that original meaning and context of the interviews was not lost.

Initial emerging themes were coded under “coping strategies”, “migration and remittance”, “environmental change” and “agricultural production challenges” which served as parent nodes in NVivo. Nodes enable the documentation of related information in one place to facilitate the observance of patterns and generation of ideas. Interviews and FGDs from the BAR and the UWR interviews were all coded in separate clusters. With the emergence of distinct categories based on reading of transcripts, the codes were then refined through merging similar themes into various branch nodes. Themes of salience were determined by the prominence of various issues within the coded texts. Sandelowski (2001), cautions against the dubious use of numbers which may result from acontextual, misleading, verbal or over counting with dire implications for interpretations based on the use of such numbers. To avoid issues of questionable use of numbers and the subsequent anomalies that result in the representation of data based on such counts, there was constant reference to reasonable portions of transcripts which potentially influence meaning. These portions of transcripts were re-read to ensure that meanings were not

forced. This often led to further subdivision of themes based on properties initially not considered. Crang (2005) refers to this process as axial coding.

Field observation notes regarding road conditions in UWR and BAR facilitated the researcher's understanding of issues particularly surrounding remittance challenges. Pictures of crops and notes on stunted looking crops also broadened the researcher's understating of crop production challenges in the UWR. The general outlook of similar crops sighted on farms in the BAR during field observation was the opposite of what existed in the UWR.

Emerging themes from the coding gave indications of household receiving patterns of food remittances, remittance challenges, how extensively they rely on food remittances within a year as well as difficulties of getting food remittances to their desired destinations.

3.8 Positional Spaces of Interaction

Two main issues affected the space of interaction between the researcher and respondents. These were culture and ethnicity on one hand and the geographical location of one's upbringing. Prior to the commencement of field work for this thesis, it was expected that culture and ethnicity would play an important part in the interaction with participants. However, it was uncertain the extent to which this factor would be influential. It was thought ethnicity and culture would be influential because the researcher comes from the same ethnicity and cultural background as the targeted population in this research. It was expected that this would help establish a quick rapport between respondents and researcher. This expectation was not far from the experiences

encountered from the field during respondent interactions. Some respondents relied on clan and ancestry history in finding shared positionality with the researcher. In both UWR and BAR, the disclosure of hometown, clan and ancestry lineage to some respondents earned the researcher names such as “brother”, “clan-mate” and “play-mate” among others. This resulted in the researcher to be viewed as an insider by respondents.

However, the researcher’s “city-upbringing”, was taken by most respondents to mean a person who has views and understanding of issues (particularly customs) somewhat different from theirs. The researcher haven only lived a few years in the UWR, some respondents drew distinctions between the cultural views of someone bred in the region and someone whom some respondents referred to as a “city-child”. Conversations before the interviews indicated to me that respondents generally believe that the different exposure of the “city-child” makes it very difficult for such people to accept certain norms and practices of the Dagaaba ethnic group. To justify their position of lack of understanding of customs or the lack of knowledge of the customs, some respondents elaborated on certain practices such as land ownership and family ties in the UWR in very great detail to the researcher. Respondents hoped that this would give the researcher a holistic understanding of the issues that were being said in the interviews in their appropriate contexts.

Culture and ethnicity in this research was influential in the sense that it facilitated interaction and easily broke down any barriers to interaction. The supposed limited knowledge of the research on customary issues and the great pains at which respondents clarified various issues helped to offer depth to the research. It must however be stated

that in certain cases, elaboration of customary issues by certain respondents was not very useful in any particular way in respect of the topic under investigation.

3.9 Summary

This chapter described the study design and the methods utilised in obtaining the results of this study. Specifically, this study adopted the qualitative case study methodology. The chapter provided the logic of the qualitative methods and qualitative case design, in that they work particularly well in addressing the objectives of this study. The multiple methods as well as the ability to look at phenomena at various scales of analysis were cited as some of the reasons for the choice of the qualitative case study approach. The chapter discussed details of participant selection and how interviews, FGDs and field observations were used in the study to gather data for the study. Data analysis techniques utilised also describes how themes presented in the results of this work were obtained. The chapter concludes with how the positional space of interaction between researcher and respondents in this research was affected by ethnicity and geographical location of up-bringing.

CHAPTER FOUR

FINDINGS OF THE STUDY

4.1 Introduction

This chapter presents the results of the study. It seeks to address the objectives of the study which are to:

1. Examine the links between migration and household food security in the UWR of Ghana
2. Explore the role of food remittances in household food security and the dynamics that shape food remittance decisions
3. Investigate constraints encountered by remitters of food and how recipient households in the home region cope with food shortage.

The findings from FGDs and IDIs are organised into key themes: perceived reasons for migration, household migration decision-making processes, dynamics that shape food remittances to the UWR, challenges of migrant farmers' food production in the BAR, challenges to sending food remittance to UWR and how food recipient households cope during times of food shortages. Under each theme, sub-themes are provided with quotations used to help contextualized the findings. The participants' sex (M = Male, F = Female), age and pseudonyms are provided at the end of each quotation. Respondents' quotations were selected in order to ensure not only 'representativeness' but also vividness in reporting of themes (Seale & Silverman, 1997). To facilitate the reporting of results, summary tables of the responses are provided for the themes that emerged (Morgan, 1993).

4.2 Perceived reasons for migration

Migration to the south of Ghana is a widespread phenomenon in UWR with a long history. The popularity of out-migration in the area is reflected in the wide range of local names that it attracts, reflecting the deep-seeded meanings that this phenomenon generally invokes. For example, participants referred to migration as *the bush*, *Jong* or *Kumasi*. Participants said that *the bush* generally refers to a situation where one embarks on an adventure to a distant and unfamiliar place in desperate search for a livelihood. However, both *Kumasi* and *Jong* are more popular synonyms for migration. While *Kumasi* is associated with people who migrate from the UWR to more developed and economically vibrant areas of southern Ghana on both temporal and permanent basis, *Jong* specifically refers to travelling to far-off places to undertake farming activities especially in the south of Ghana. The main reasons stated by participants for migrating generally resonated with the notions of survival as implied by the above local names.

4.2.1 Migration Push factors: Views from Upper West Region

Overall, a wide range of reasons were given for migration from the UWR although participants differed in their perceived relative emphasis (see Table 4.1).

Table 4.1: Reasons for Migrating from UWR

	Mentions in IDI (n=20)	
	Participants	Mentions
Changing environmental conditions	19 (95%)	32
Single farming season	20 (100%)	36
Low rainfall amounts	18 (90%)	59
Unreliable rainfall pattern	20 (100%)	61
Low soil fertility	17 (85%)	39
Low agricultural out put	18 (90%)	40
High poverty	18 (90%)	29
Increasing feeding requirement	14 (70%)	22
Lack of irrigation	13 (65%)	21
Lack of alternative employment opportunities	13 (65%)	18
Rite of passage	13 (65%)	26

In general, respondents alluded to changing environment conditions, including unreliable and declining rainfall levels as the major reason for a persistent migration of residents of UWR to BAR to undertake farming activities. This worsening environmental condition has resulted in low farm yields for farmers in the region.

Specifically, participants felt that they were disadvantaged by geography in that changes in the rainfall patterns over the years have worsened the plight of their region. The participants in UWR alluded that the relative abundance and reliability of rainfall in BAR gave that area an advantage of having to cultivate in at least two farming seasons in

a calendar year as opposed to a single growing season in UWR. These views were underscored by a former male migrant farmer:

Even in our best year we can only grow once these days. When the rain comes in this area, it is sporadic and much less. Sometimes you can't even know whether it will actually come. So you can't blame them when they leave their families to farm in far-off places (Iddi, 72, M).

The problem of declining rainfall levels is complicated by unreliable and unpredictable nature of the rainfall patterns over the past several years. In UWR, the growing season typically begins in April and ends in August, with crops maturing around October. However, years of worsening environmental conditions have gradually changed the growing season in the region. Presently, the rains either start or end too early or too late without any distinct pattern. The two quotes below point to the increasing fickleness of rainfall, which accounted for apparent continuing sense of hopelessness in farming in the area:

This year [2010] and last year for example, people lost their seeds because the rains did not come on time. People spent lots of money buying seed which was simply lost because the rains didn't come. It is risky to grow any staple foods (Zanah, 55, M).

These days you're never sure when the rains are going to come...when it does come it's either too late or too little to do any meaningful farming (Yamin, 49, M).

Recounting the events surrounding unpredictable rainfall in the area a few years ago, another farmer states:

About three years ago the rains fooled everyone. Starting on time, everyone sowed but within a few weeks the rains never came

again....by the time it came again. It was very late for everyone to plant (Fatchu, 51, M).

Not only did respondents bemoan the uncertain timing of rainfall, they also indicate that overall, the rainfall amounts have been declining in the recent decades as evident in drying up of river valleys, streams, receding water tables and disappearance of marshlands which were previously major source of water for rice cultivation:

It no longer rains like it used to. Some years ago the little river down here was difficult to cross by this time of the year (August). Now you can even see the river bed (Fafari, 56, M).

Similarly, another participant expressed his opinion on the theme of declining rainfall as a challenge facing agriculture in the UWR as follows:

Some years ago because there was enough rainfall, the land area in the valley where we farm rice was quite big. If I take you there now I can show where the limits of the rice farms were. These days we have to farm only close to the river at the portions that are still marshy enough (Eric, 61, M).

The participants drew linkages between changing rainfall patterns and declining soil fertility, which they argued was an important factor that compounded the problem of farming in UWR:

...having enough rainfall does not completely solve our problems in this area. In fact there is an equally big problem....lack of fertile land. All the good quality farmland is now gone. Back then one small farm could produce more than what a family needed for a year. Times have really changed...(Mbomba, 52, M)

Declining soil fertility in the area and its associated problems was a frequently talked about issue by respondents. Reportedly, low soil fertility in the area makes it nearly impossible for people to feed their families. In view of this a participant argued that, “the soil is no longer fertile and you know that if the soil is not fertile, you cannot get anything from it” (Iddi 72, M). Similarly, another respondent surmised that “we have to look elsewhere because there is nothing in the soil for us....so how are we going to keep depending on this land?” (Baba, 24, M). In general, participants had various ways of highlighting the problem of soil fertility and how it affected the food situation in the area, including:

- “the land no longer has fertility”
- “the land is no long strong”
- “the land is not good”
- “there is nothing in the land now”
- “the land is dying”

Underlying much of these descriptions is the perceived lack of alternative economic opportunities in the region and hence the residents’ decision to migrate. Overall, they also described the changes by making subjective judgement about production levels. There was a general consensus that farm yield levels in the UWR have been dwindling over the years. Farmers demonstrated the deteriorating nature of the land productivity by comparing relative production levels between several decades ago and production levels from the same pieces of land in the present. One farmer puts it this way.

Those times when my father was still a young man their lands were more fertile than what we have now. Now when you farm and don’t pamper the crop with fertilizer most of it would not do

well. The food we get from the farm now is not as much as it used to be (Ibrahim, 70+ M).

According to accounts of study participants, a number of factors were responsible for the rapidly declining soil fertility of their lands. For example, it was disclosed that as land acquired through a patrilineal system of inheritance, it is generally divided among a large number of kinsmen following an elder's death. In cases where a man has more than one wife, the available land is divided proportionately among the wives based on the number of children they have with the oldest male child usually entrusted with the management of the land. Such small land parcels lead to overuse of farmland because it makes improved farm practices such as crop rotation become difficult thereby necessitating the use of fertilizers. Repeated annual cropping of farmlands without allowing for regeneration of fertility through fallowing was therefore identified by some respondents as an important cause of the declining soil fertility in the area:.

We have been farming the same pieces of land since I was born because there is no other [land] to rely on. You see, every family in this area inherent land from their great grandfather....there are no new lands anywhere for someone to go lay claim to (Jonas, 43, M).

Constant cultivation in certain cases is the result of increasing fragmentation of land as farmland is shared between siblings over a few generations thereby restricting them to smaller specific portions of land. Another respondent who shares the above opinion had the following to say:

The farm my late father left for us is divided up among the 5 of us in the family. We still have the land but because the pieces are too

small they have been overused and are no longer fertile (Ishak, 25, M).

It also emerged from accounts of interviews that the relatively large sizes of many households in the area further contributed to food shortages at the household level. Participants clarified that kin relations in Dagaaba community are structured around the extended family system which used to be 'beneficial sources of farm labour in those good old days' but now place pressure on households in the face of acute household food shortage. Participant related to these concerns by indicating how household size is directly linked to both household food requirement and migration within the particular context of UWR:

When you have two sons you just need two pieces of yam. But when you have seven, you find yourself needing seven pieces and if you don't have it, you have to go find it (Fatchu, 51, M)

Participants lamented about their predicament and yearned for the clichéd good old days. These nostalgic reactions related to the view that it was previously relatively easy to make a living from the land compared to present circumstances which they describe as harsh and unbearable. An elderly man recounted this nostalgia as follows:

Farming used to be the lifeblood of this area but not anymore especially so if you don't apply fertilizer or compost manure. If you can't buy fertilizer, no matter how hard you work the land it is all going to be in vane! You won't get anything (Adamu, 82, M).

Declining crop yields also mean that there was little or no surplus farm produce to be sold. Participants were therefore able to more directly connect the decline in

agriculture in the area over the years with the considerably alarming high levels of poverty. Within this context, it was also suggested that the high poverty levels in the region have fuelled the youth to move to other locations. Indeed, migration had become a particularly attractive venture among the youth to generate income to support their families, prepare for marriage as well as acquire assets such as bicycles which increase their status within the community alongside using such resources. Bicycles are a popular means of transportation in UWR and some youth reportedly earned some cash income for using their bicycles to transport merchandize for sale in markets.

I went to BAR because I also wanted to make enough money to cater for my parents and also buy bicycle for myself. All my friends who went there had bicycles and they told me if I also went there and worked hard I could buy one (Baba, 24, M).

From the above quote, it is clear that the desire to migrate from the UWR was also linked to other reasons not directly related to the question of farming particularly among young adults. One such reason cited by a small number of the participants indicated that migrating amounted to 'coming of age'. This view was also indicated in accounts from elderly members who indicated that youth were inspired to move from the tutelage of their fathers to distant places under the influence of others:

Many youth are migrating now compared to the past. They want to go somewhere where they would be free from parental control. They just want to go there, find some money and enjoy themselves (Edward, 45, M).

However, many participants argued that while this observation was not necessarily incorrect, the dire need for food was the major reason why young people in

the UWR were pushed into migration. These views were echoed by a respondent who alluded to the overriding influence of the food factor while acknowledging the role of peer pressure:

Not all youth migrate simply because others have done so.....Often they migrate to acquire wealth, to feed their families in the UWR and even put up buildings. This is putting added pressure on people to follow suit (Alice, 49, F).

Although it was indicated that seasonal migration was the most common pattern of migration it was also reported that permanent migration was also on the rise. This trend was linked to a growing view that hardships associated with agriculture were unlikely to be resolved in the short-term especially in view of persistent reluctance on the part of government to step in to provide alternative farming strategies such as irrigation or other cash earning opportunities. Against this backdrop a respondent poignantly stated that “it is not difficult to see why people should migrate permanently when there seems to be no hope here” (Edward, 45, M).

The view of government policy neglect sparked intense emotions in most of the in-depth interviews. Participants thought the government had ignored their needs for a long time, greatly contributing to the collapse of farming in UWR. Thus, while participants acknowledged that expanding household sizes and loss of soil fertility undermined household food systems in the area, they also strongly argued that government was greatly to blame. This view was poignantly expressed by respondents from communities in the north-most part of UWR near the border with Burkina Faso. Participants from this area especially wondered why they continued to face meagre crop

yields compared to their counterparts from immediately across the border in Burkina Faso with whom they shared similar rainfall pattern and soil conditions. In general, participants explained this apparent irony by pointing to the fact that farmers in Burkina Faso received various forms of government support on a regular basis, including subsidized fertilizer, seed and better access to irrigation facilities and extension services. The perceived neglect by government was encapsulated by two respondents who bemoaned this tendency:

If government gave us fertilizer there would be much less migration from here. Because people are too poor they go to BAR where the land is still fairly good even without fertilizer its good for cultivation (Baloroo, 51, M)

Politicians are not at all concerned with the welfare of people in UWR. You will only see them when they are looking for votes (during elections). When they get in power they stay in Accra...(Dabuo, 49, M)

The lack of appropriate technologies such as irrigation dams was also alluded to as contributing to their inability to produce better yields. A respondent vividly explained how the government had failed the communities in the area and contribute to the problem of migration by stating that “if the government simply built a dam, people would be able to feed their family without having to move and farm in distant areas” (Dabuo, 49, M).

4.2.2 Migration Pull Factors: Views from Brong Ahafo Region

So far, this chapter has described the factors that are pushing people away from the UWR. It turns now to consider factors that pull residents to BAR. Like UWR, a wide range of reasons were given by the participants in this region to explain why the area has

become a “hot spot” for most migrants. Many of the reasons cited by interviewees and FGD participants in this region reinforced those described in section 4.2.1. (Table 4.2)

Table 4.2: Reasons for Migrating to BAR

Reason	Mentions in FGD (n=22)		Mentions in IDI (n=27)	
	Participants	Mentions	Participants	Mentions
Favourable rainfall	22 (100%)	55	27 (100%)	64
More than one growing season	22(100%)	41	27 (100%)	53
More fertile land	20 (90%)	36	27 (100%)	39
More agriculture land	13 (59%)	20	11 (40%)	22
Agriculture extension support	9 (40%)	13	6 (22%)	10

Participants in this area confirmed the view that the rainfall pattern was more conducive to farming in BAR and this was one of the major reason the area had become more attractive to migrant farmers. It emerged from FGDs in the BAR, that even though the area is generally facing a declining trend in the rainfall over the years, the situation is much better in this region than in UWR. In support of this perspective, a participant in the region who had been renting out part of his land to visiting farmers proudly remarked:

The rains still come all year round. We usually have enough water to cultivate (plantain, cassava and cocoyam) and feed our children. The notion that farmers in other places are struggling because of rains is still not very common here (FGD, Nwoase).

On the same issue of rainfall adequacy, all participants indicated that they were in much privileged farming positions compared to people located in the UWR. For example, a respondent in an in-depth interview proudly indicated that, "...rains are not a problem at all in this place. We those farming here are blessed. The droughts up there in the UWR are rarely experienced here so we usually farm everything we want" (Sumana, 49, M).

In addition, farmers also indicated that unlike other areas the soil was more fertile in this area. As stated by a resident "we grow without fertilizer for as many years as you want" (Dari, 30, M).

Equally, cultivation of virgin lands is not strange to the BAR. Traditionally, the slash and burn and shifting cultivation methods of farming have been practiced for several generations in the area. Farmers who practice this system tend to move from one plot of land to another after a few years of cultivation in order to allow the soil to regain its fertility. This system of farming is however increasingly becoming less practiced in recent times due to high demands for land, especially by migrant farmers.

The suitability of the agro-ecology in BAR for the cultivation of various crops is also cited by participants as another major reason why people move to the BAR to establish their farms. As indicated in Chapter 2, this area lies between the high forest in the south of Ghana and the plain savannahs in the north and is conducive for the growth of crops known to grow predominantly in either places. The apparent conducive environment has enable people to grow a variety of crops, as described by this respondent, who migrated to the region in 2005: "Over here I am able to cultivate crops

like millet, groundnuts, maize and yams here. These are the crops we eat in the UWR. I also grow some plantain and cassava” (Zakari, 42, M).

Crops such as plantain, cocoyam, palm nuts and cassava are the staple foods in the southern parts of Ghana and they are therefore widely cultivated in those areas. The staple food of most parts of northern Ghana including the UWR where migrants originate from are mainly maize and millet based foods. Yam cultivation also known to be the expertise of northern Ghanaian people is another staple, like millet and maize grows well in the BAR. It is therefore not surprising that farmers feel attracted to stay in the BAR where they can grow a variety of crops. These findings are consistent with that of Lobnibe (2010) who argues that the emergence of yam market (a predominantly northern crop) is the result of northern migrants taking advantage of favourable environmental conditions to produce the crop in large quantities for sale.

In further comparison of the ability to grow more crops in the BAR relative to UWR, a respondent retorted that “up there [UWR], you can’t grow cassava, yet these days, everyone eats cassava” (Mathias, 48, M). Cassava can relatively easily be processed into one of the most popular foods in Ghana called *gari*. *Gari* is prepared by grating cassava into tiny pieces and dry fried in large metallic pans under medium to high temperatures. Cassava may also be prepared into other foods such *Kokonte* (nick named locally as “*face the wall*”), which are commonly eaten by people of low-income status. Both *gari* and *kokonte* are less bulky and easy to transport.

Relative to the UWR, agricultural extension services are more readily available in the BAR. Although this was generally considered as a secondary issue, farmers indicated

this as an added incentive to settle and establish farms in the BAR. Respondents in one of the FDGs alluded to the fact that regular visits by officials from both government and NGO agriculture staff to advise people on better farming methods, soil conservation techniques, and provide information on access to credit and farm inputs was one of the most important advantages they enjoyed as migrant farmers. This was vividly captured by a respondent who drew a contrast with the situation in UWR:

Before I came here from the UWR, I had never seen an agricultural extension officer in my life. Here, they are close by and ready to help if you seek assistance (FGD, Offuman).

Respondents intimated the relative abundance of agriculture extension services in the BAR is probably because of the vast potential for agriculture in the area. It was especially stated that the production of cocoa in BAR may account for increased presence of agricultural extension services presences in the BAR relative to other areas. Such observations are particularly worth noting as cocoa is a significant contributor to the Ghanaian economy.

4.3 Household decision making by migrating families

It emerged from the discussions that the manner in which decisions to migrate were made at household level, which helped in clarifying the actual food security situation of households and the motives for migration. It was apparent from the interviews that in many instances, decisions as to who should migrate were deliberative although in some cases youth migrated without proper family consent. Participants reported that households typically consulted both their immediate family and extended

family members and relatives. Typically, individuals with decisive influence on migration included household heads and family elders, but with the consent of intended migrants. This was highlighted by a young migrant who has been involved in farming in the BAR for the past 5 years:

Before I left UWR I sat down with my family and discussed my intentions. We agreed that there is not enough farm land for all of us. My uncle raised some money to meet my transport costs and my food and living expenses here (Inusah, 27, M).

The consideration of migration at the level of family household suggests that quite frequently family members will contribute financially to support the migrant's travels and initial settlement expenses. As illustrated in the following two quotes, the migrants generally value the support they receive from their family members for initial settlement at destination point:

After we deliberated on the issues and decided that it was appropriate for me to move here [BAR], they did not only give me their blessings, they also gave me some small money to help me start a life here. That money formed part of my initial payment for the land I leased [Abdullah, 31, M].

If you ignore them [family members] and you want to come here, where will you get the money to start life here? You only get their support when you respect them by involving everyone. You need their support [Karim, 34, M].

In light of this, migrants recognise that it was in their own ultimate interest to engage all responsible members of the family in the migration decision-making process. Because the decision-making process involved major stakeholders in the household, decisions always took into account the appropriateness of who stays and who leaves.

Decisions about who stays or leaves were generally made based on age. Older people were generally encouraged to stay behind to keep family and cultural traditions by passing on their knowledge to children. As such, there seemed to be an indirect encouragement for younger people to migrate, though respondents did not explicitly state that this was the case.

Although respondents also gave the sense that migration decisions were made collectively by household members, it emerged from the interviews that young people are increasingly taking such decision without necessarily consulting other family members. Some of the participants argued that the food situation had degenerated so badly that any remedial measures by young people were generally welcome even where that meant unilaterally deciding to migrate. This was especially so, given that the young people simply slipped into *pito* [local drink] drinking if they stayed back. But these views also underscore the widespread acceptance of the notion of migration to BAR.

4.4 Dynamics that shape food Remittance to the UWR

4.4.1 *Obligations of migrant farmers to families back home*

A recurrent reason in the interviews with respondents with respect to the reasons for food remittance revolved around familial responsibility. Migrants who relocated to BAR to farm generally indicated that dependents left behind in the UWR look to them for support in general and food remittance in particular. In response to a question as to why they remit, one participant responded:

I am supposed to send food because there is no food there. If we all remain there, we would not be able to help each other..... I have come to the BAR to farm so I have to send back food. I

don't get anything from them but I have send them the food. So whether they have food or not I still have to send them food (Bayirga, 36, M).

Respondents expressed the notion that a sense of familial responsibility mainly motivated remittances in various ways. These findings are similar to Schrieder and Knerr (2000) who found in Cameroon that motivation to remit among young urban migrants was not linked to hopes of gaining some direct benefit from their dependents. Migrants in this study felt greatly compelled to send food items regardless of their living circumstances in the BAR. This is exemplified by the following quote:

No matter what I still have to send something... otherwise it would have been pointless to come here in the first place (Zakari, 42, M).

The above quote underscores a widely held view that migrants were generally acutely aware of their expected responsibility even though they were geographically remote from their families. However, participants were quick to point out that food remittance to family members and elders did not "typically amount to compensation". It was rather indicated that while at one level it is a sign of appreciation, more importantly it is a sign of responsibility given the vulnerable food situation their kinsmen find themselves back home:

They would starve without the food I send. What is the point of me having the luxury of all this food here when my own family who made it possible to leave UWR are starving? I regularly send them food so they don't go to bed hungry (George, 40, M).

However, many participants argued that while the financial and logistical support that families provided to allow for successful migration of their members was certainly

appreciated, the act of sending back food did not amount entirely to compensation for the gesture. It was revealed that households normally sponsored family members believed to have a profound sense of familial commitment. As such, migration decisions “naturally came with a personal duty to send back food”. In further clarifying this issue, a participant alluded to the vulnerable state of many women, children and the elderly in his home village as the main reasons why he is particularly compelled to send back food on a regular basis. This was more common among respondents who left behind wives, children and grandparents as indicated by a young respondent who said he was planning to send more food in the future to the wife and children of his two elder brothers who had died:

Now the house is full of women. Two of them are elderly widows and the other two and their children...so I have to send food to take care of them (Abu, 26, M).

4.4.2 Expectations of families in Upper West Region

In a variety of ways households of migrant family members thought that they were entitled to food remittances. This claim was made in the context of the practice that migration decisions were typically not individual decisions but strategic choices made by the wider family. However, these choices were also linked to intra-household division of labour, a view that was supported by a participant who argued that though he was not a migrant farmer did not necessarily mean that he was not contributing to the overall functioning of his family:

I take care of the home and the elderly people in the family...we all cannot leave, so whilst others migrate, others should remain

behind to preserve our tradition. Everybody is contributing something toward the wellbeing of the area (Sala, 46, M).

A respondent also reported that those who remained behind had the responsibility of preserving traditional cultural values, a duty that was linked to safeguarding local farming knowledge which he said was perceived to be under increasing threat from both declining agriculture in the area and deepening migration:

Without the yam and maize my son sends me I am not sure how I would have survived over the years. Even though he lives far away he is the one who makes our house a home (Clement, 50, M).

However, the compulsion to send food was also linked to the division of labour both within the immediate family and the wider kinship back at home. For example, some elderly respondents in the UWR suggested that they were entitled to food remittances sent by migrants as they have stayed back home to take care of remaining family members. Reportedly, those who stay home typically performed a very crucial role of providing for the day-to-day needs of family members such as raising children and caring for the ill.

4.5 Role of remitted food to recipient households and community

Although respondents felt somewhat being perturbed for increasing reliance on staple foods grown outside their own home turf, they nonetheless expressed overwhelming gratitude for remitted food. With the exception of two relatively well-off participants who stated that they exclusively relied on food bought from the market or own farm, nearly all respondents acknowledged that food sent back to them by migrant family members was indispensable for everyday survival. Participants explained that this

was mainly because the period between June and August when most of the food remittances were sent and received, coincide with the time when the food was most needed in UWR. In UWR this period was generally referred to as the “hunger period”. Many respondents indicated that during these months whatever food supplies that still remained from the previous remittance run very low causing a lot of panic among those who have not yet received their food transfers.

In highlighting the importance of these transfers participants stated that even the little farming such as backyard vegetables that was still being done in the area was in fact possible because people received food from migrants and a participant emphasized: ‘otherwise where would people get the energy?’. Another respondent retorted that even little children know that people in the area ‘still breathe’ because of food remittances: “if I counted the number of people who ate yam from BAR food for lunch today the answer would probably be nine out of every ten” (Joachim, 35, M).

The significance of remitted food was also revealed by examining how people generally coped with instances of acute food shortage due to non-remittances. Responses indicated that food remittances had a major influence not only on the amount of food consumed but also on the frequency and type of food eaten. For example, participants indicated reducing the daily food budgets by skipping of meals or reducing the actual amounts consumed by adults so that children can have enough to eat:

Grownups eat three times a day but only when we have enough. Otherwise when we see that stocks start to run low ahead of expected remittances we eat once a day or sometimes even go to bed without food. It is the children who are the greatest concern (Clement, 50, M).

The notion of 'going to bed hungry' is a common terminology used by respondents to metaphorically describe the situation of abstaining from eating food due to shortages within the household.

For others, the importance of remittance transcended mere physiological function of food to include aspects that form the social fabric of the area. It was argued that remittances were an important source of food for weddings. In trying to underscore the multifaceted role of food and how life in the area had generally become overly dependent on food remittances a participant rather teasingly remarked that "even pastors these days put weddings ceremonies on hold until food remittance arrived" (Baloroo, 51, M).

The Christmas season also emerged as important time when food remittance carried special importance. UWR being a predominantly Catholic area, it was reported that the majority of people viewed Christmas as an important event in their religious calendar: "when it is a festive period you cannot leave them with nothing. You have to send them something to also celebrate the season" (Mbomba, 52, M).

Other respondents were nonetheless more forthright about the significance of this food. For example, some judged the importance of remitted food in terms of its ability to "keep the children in school". In a humorous way, one participants stated that by neglecting agriculture in the area the government did not fully realize that it also "intending to kill" education because "how would children have concentrated in class if it was not because of remitted food?" (Isaah, 41, M). However, on a more serious note, one

respondent charged that it was “inconceivable” or “abominable” for children to go to school on empty stomach.

In addition, some respondents stated that food remittance had other less noticeable roles, but equally important in the area. For example, it was argued that periodic food flows from relatives in BAR symbolized the continuation of kin relationships with their migrants who are geographically disconnected from them. In addition to reasserting blood ties with wider family members, such as wives left behind also gauged their husbands’ affection from the regularity and amount of food flows they received as underscored by a woman who said that receiving food relived ‘fond memories’ of her husband. Yet other women further stated that food from husbands was also used to grease relations with in-laws and in some cases strengthen their marriages:

When my husband sends food I don’t forget my in-laws. A wise married woman knows the importance of cordial relations with in-laws... When pregnant everyone turns to their in-laws. Even when your own husband wants to divorce you first run to your in-laws to intercede. After all, if my husband hears that I shared the little he sent me with his own sister or mother next time he will send me more (Elizabeth, 45, F).

Account of women in interviews further pointed to the role of remitted food in various reproductive functions. It was felt that remitted food was particularly important for women. They argued that the food they received from husbands was vital for proper care of children in the home. This issue was raised particularly in relation to infant feeding. In agreement an elderly woman surmised:

Hungry women don’t have enough breast milk to feed their children. We owe our existence to sons of this land who labour in the *bush* day and night to feed us and make sure that newborns don’t die (Justina, 70, F).

Bound up with the question of child breastfeeding was the notion of the general nutrition status of children in the area. Although many participants especially women expressed concern about the lack of nutrient rich foods to feed young children they were quick to indicate that the situation would have been terrible without food remittances. A woman emphasised:

All children need is enough food. If there is no food in the house there is certainly no peace. In these large families of ours, hungry children do not just get cranky but they also so easily pick up quarrels with each other... In this village it is easy to tell if a woman had just received a food parcel from her husband by looking at the faces of her children (Dedekemi, 37, F).

The question of nutritional security of young children in the area drew a lot of concern. It was reported that cropping seasons far away in BAR could be more or less directly linked to the appearance of malnutrition in children in the area. They argued that even a stranger would deduce as to whether it was harvest time in BAR' by simply paying attention to the general "physical demeanour of young children in our area". It was reported that although not completely widespread there was nonetheless increased number of children especially from extremely poor homes who presented visible signs of scaly skin and hair frailty at periods when remittances are generally at their lowest levels.

The question of poor children nutrition in the area generally generated a lot of emotional outpouring during the interviews. Although concerns were also raised about the deleterious effect of food insufficiency on adults especially the very old and pregnant women, there was particular anxiety about the situation of children. This led to finger pointing in terms of allegations that some people undertook activities that directly undermined food availability in households. This point was particularly raised in relation

to the practice of brewing *pito* especially during times when food is also needed most in the homes. *Pito* is a locally brewed alcoholic drink that uses considerable amounts of maize or millet and was allegedly sold by poorer households who also tended to need food for their children the most. Although some respondents clarified that this was largely due to the need for cash to meet other domestic needs, others condemned the practice because it put children at risk of hunger.

4.6 Challenges of migrant farmers' food production in the BAR

4.6.1: Production constraints

Though migration to BAR was generally motivated by prospects of more superior farm yields participants reported farming in this area was not without challenges. A number of problems were therefore reported which undermine their efforts on the farm, including limited access to land, inadequate financial capital, lack of food storage facilities, and labour constraints (Table 4.3).

Table 4.3: Challenges faced by migrant farmers

Production Challenges in BAR	Mentions in FGD (n=22)		Mentions in IDI (n=27)	
	Participants	Mentions	Participants	Mentions
Land rights and land rites	22 (100%)	46	27 (100%)	36
Poor adherence to tenancy agreements by landlords	21 (95%)	36	23 (85%)	41
Inadequate start-up capital among tenants	13 (59%)	19	17 (63%)	25
Exorbitant land rents	22 (100%)	35	26 (96%)	32
Cost of living among migrant tenants	11 (50%)	14	15 (55%)	18
Shortage/high cost of farm labour	15 (68%)	28	19 (73%)	27

Obtaining Land for Farming in BAR

The difficulties involved in obtaining land for cultivation emerged as one of the key and most frustrating factors impeding migrant farming activities in the area. Access to land was reportedly fraught with various practices and informal regulations.

Particularly, what seem too irksome for most migrant farmers related to seemingly endless intricacies pertaining to contractual details that needed to be satisfied before access to land would be granted by the owners.

According to respondents, by custom chiefs own the land in the area though in rare cases some individual families also own land. On arrival farmers identify landowners

through existing social ties from whom to lease lands. Although landowners demanded compensation for use of their land participants also reported that this was only part of the process of gaining land access. Participants especially complained about delays resulting from the practice that leased land cannot change hands until certain traditional rights were performed. These rituals usually included the use of schnapps and palm wine as libation intended to “obtain permission and pacify the gods of the land” as well as “bring good luck to the farmers” in terms of increased crop yields. The role of village elders and kinsmen in these rituals is paramount, as they are believed to have closer ancestral ties to the land. This created considerable delay especially in a situation where kinsmen lived in distant places or had travelled to far-off destinations.

Apart from the pouring of libation, it was not clear to migrant farmers what other rituals were performed on the land since the supposed rites were performed in their absence. It was only after the performance of these rituals that migrant farmers are granted access to land to begin their farming activities. The agonies of migrant farmers over these delays were highlighted by a young man who narrated his experience within the first three months of his arrival in the BAR. On arrival, he paid for a plot of land but had to endure a three months wait as he had not officially been granted access. He indicates that he got frustrated because of fears he was going to plant late:

I thought after paying I'll start farming but I was told to wait. I did not come here to stay idle. All I need is the land and I don't care much about whatever rituals they do here. I am more concerned about my starving children back home (Kanda, 32, M).

Typically leases for obtained land were subject to renewal on a yearly basis but the intent to renew had to be indicated before-hand. According to respondents, the system of yearly land tenure renewal primarily served economic interests of land owners and was potentially exploitative as described by one farmer:

They know we will need it for more than a year but they won't allow you to have it for several yearsso when you go to see them again about your interest in the land, they can charge you more (Ameen, 42, M).

Some migrant farmers however entered into agreements lasting several years. Medium to long-term agreements were reportedly more preferred. Respondents indicated that an agreement between 3 to 5 years with clearly delineated terms was ideal. Farmers indicated that the terms of payment varied, with some landowners demanding a full payment upfront with others preferring instalments. However, even this apparently straightforward arrangement was not without problems. Respondents indicated increased instances of deliberate violation of contracts by landowners. Participants indicated that many landlords backtracked on the lease agreements and demanded increases in land rent. A participant with first-hand experience recounted his ordeal:

After my landlord saw that my crop was doing very well he came to me and asked for additional rent. But when I tried to remind him about the contract he threatened to evict me from the farm. I had no choice (Issakaque, 40, M).

Payment for Leased Lands

Participants also indicated that payments for land leases took different forms and varied with duration of tenure. Generally, two major forms of payment were available to

migrant farmers. They could make cash payment or negotiate sharecropping deal to give the landowners a certain portion of farm produced after harvest. Some respondents indicated that in some rare cases they have made payments to landowners using a combination of cash and in kind. This was reportedly a more reliable arrangement especially among farmers whose yields fell below expectation or whose produce could not fetch anticipated market prices. The farmers considered the flexibility afforded by the cash-kind option as a gesture of kindness from the landowners:

When I first came I paid cash for the land I farmed on but after my first year of farming I did not get enough money to pay the landowner for the following year. I pleaded with him and paid cash and 2 bags of maize after harvest. If he [the landowner] was not a good man he would have taken back his land (Baba, 44, M).

Although some landlords were generous, many respondents also reported various negative experiences especially when they defaulted land rents. A respondent said that in extreme cases the consequences could be “disastrous as he can have you arrested”. Fully aware of the responsibilities to their families back home and the consequences such migrant farmers generally found themselves pressured them into complying with the demands of landowners.

In addition, land prices were also generally considered to be too high although the actual rent charged varied between localities within the region. For example, respondents in the Manso and Nwoase areas indicated paying anywhere between GH¢30 to GH¢50 per acre for a full year of cultivation and GH¢15 to GH¢30 per acre for half year cultivation while those in Offuman area which is located close to the state land rented for between GH¢60 per acre to about GH¢70 per acre per year. Since the BAR has two

farming seasons within a year, half prices of between GH¢30 per acre and GH¢35 per acre are typically charged if farmers are interested in farming for only one of the two rainfall seasons in a year. It was, however, unclear as to what accounted for such large price discrepancy in land rents between different locations. However, some participants pointed to presence of the agricultural extension service station nearby as an important cause of higher rentals in the Offuman area.

Respondents indicated that in certain cases they are given the option of paying cash for land or farm produce for land systems of lease payment. However, relatively recent migrants who had been tenants for only few years indicated that, as newcomers, they did not have the kind of money required to make cash rental payment an option, making share cropping their preferred arrangement. One respondent who had rented land for the past three years made the following observation in relation to this view:

When you have just recently come from home, there is very little money for you to give to the land owner and use the land. We usually agree to give them part of our produce after we have cultivated on the land (Atta, 44, M).

Many farmers' preference for sharecropping was also linked to the idea of sharing the risk with the landowner in the event of low crop yield or poor commodity prices on the market as observed by a farmer:

When there is too much food on the [Techiman] market, the produce are sold at very low prices. Therefore you can't get enough money for all the things you want to do (George 40, M).

The BAR like many Akan speaking areas of Ghana have a long history of the *abunu* and *abusa* sharecropping systems as non-cash payment arrangement for leased land. By this tradition, tenants typically give half and one-third, respectively, of farm produce to landowners. However, respondents indicated actual terms of trade governing land rents in the area had generally greatly changed over the years to the current arrangement of relatively fixed amounts of produce irrespective of yield. Some farmers tended to see the new arrangement as relatively favourable, as indicated by a farmer who argued that for any hard-working migrant this was probably the best deal:

I pay 7 bags of maize every year for the 3 farms I work. I pay 1 bag for one of the land, 2 bags for the second and 4 bags for the last farm.....I think it's better than sharing my produce equally with him because I usually end up with fair amount left to myself (Mathias, 48, M).

In response to the above views, it was not surprising that landowners are beginning to move away from in-kind payment.

Lease Charges and Cultivated Crops

Another important challenge was that land rentals generally varied with the kind of food crop being cultivated. Crops that were perceived as having a high-value attracted higher land rents. A respondent who indicated he mainly cultivated yam pointed out that “when negotiating for the land they [landlords] compare us [yam farmers] with those who cultivate more exotic food stuffs such as garden eggs” (Joshua, 35, M). These views were supported by tomato farmer who, while acknowledging that he farmed mainly for sale,

also lamented that landowners did not take into account the inherent risks associated with perishable crops:

You see, sometimes we make losses because we have to sell quickly we tend to reduce the price so we can still get something small [money] before the tomatoes get rotten. Otherwise how will you pay for the land? (Sumana, 49, M).

Although the majority of respondents indicated that they cultivated more than one crop none of the migrant farmers indicated cultivating cash crops such as cocoa, cashew, mangoes and pineapples, though their area of operation is a well known belt for the cultivation of these commercial crops (see Table 4.4). Those who indicated some level of commercial farming reportedly focussed on more lucrative food crops such as yams, tomatoes, and garden eggs. These generally tend to be migrant farmers who had lived in BAR for more than five years. Higher land rent associated with the cultivation of such crops was indicated as the reason for their general non-cultivation by recent and less permanent migrant farmers. As such, only more seasoned migrants who had accumulated reasonable amount of capital from several years of work ventured into the cultivation of such crops.

Table 4.4 Commonly mentioned crops in interviews

Crops Grown in BAR	Crops mentioned as remitted food	Mentions in FGD (n=22)		Mentions in IDI (n=27)	
		Participants	Mentions	Participants	Mentions
Maize	Maize	22 (100%)	89	27 (100%)	73
Millet	<i>Konkote</i> (cassava powder)	22 (100%)	34	25 (93%)	31
Yams	<i>Gari</i> (processed cassava)	17 (77%)	30	21 (77%)	27
Cassava	Beans	16 (72%)	22	8 (30%)	13
Tomatoes	Yams	9 (41%)	16	7 (26%)	18
Cocoyam	Cocoyam	6 (27%)	11	3 (11%)	9
Garden eggs					
Plantain					
Groundnuts					
Beans					

Also, the low involvement of cash crops among migrant farmers was reportedly influenced by the fact that most of these migrants are subsistence farmers whose main concern is survival. This is evident in the kinds of crops that dominate their agricultural activities when they start cultivation in the BAR. Farmers only gradually move on to cultivate the above mentioned commercially lucrative food crops after some time:

I had small farm of yam when I first came....yam is the crop that I now farm the most and little maize as well during the minor season. But when I initially arrived here I did not cultivate this much yam (Ali, 45, M).

All respondents in the BAR indicate they sell some of the produce at the end of every year. The sale of their products demonstrated the need for cash as it is the primary

source of income for migrants in the BAR. The money from the sale of crops is used to reinvest in the farms, remittances, health needs, personal up keep and most importantly payment for continual use of leased land.

Migrants also faced other indirect costs such as living expenses in the BAR particularly as they needed to pay the rent or buy food and they usually met these outlays by selling part of the harvest they produced as confirmed by a respondent who said that “there are times you know selling the food means sending less home”. The tensions ushered in by the desire to keep family food supplies flowing and also meeting their own welfare needs away from familial support were reportedly frustrating.

To that effect respondents indicated lack of money was yet another major reason for their inability to increase crop yields. The amount of land that could be acquired and used by migrant farmers for agricultural purposes depended on their ability to pay for the land. The ability of farmers to pay for the desired amount of land usually varied depending on a number of factors such as the duration of stay in BAR and economic status of the family. In one FGD it was reported that recent migrants were reportedly most disadvantaged in this regard although some arrived with sufficient start-up capital to lease enough land and pay for other expenses.

In fact respondents also indicated that their ability to cultivate variety of crops was hindered by special lease charges in a context where the rent paid by the tenant varied depending on the crop grown. For example, land for the cultivation of yams, tomatoes and garden eggs attracted the highest rentals given that these food crops were generally considered as high-value.

The landowners compare us [*yam farmers*] to those who cultivate tomatoes and garden eggs.....what they charge us for every acre is usually high.....about GH70. But sometimes we don't get enough money from these crops because of glut during the harvesting period.....so those who cannot afford the cost have to keep farming the maize and cassava (Sumana, 49, M).

According to respondents this also affected their ability to retain income for other purposes apart from using it to expand their farms. Reportedly, farmers generally faced ridiculously low prices on the market.

The market is good for us early part of the harvesting season and also when the harvesting season has been over for some time.....this is because at the peak of the harvesting season there is so much on the market and so you won't get good prices for your produce (Joshua, 35, M).

This might explain why farmers usually concentrate on the cultivation of a lot of non-perishable goods especially maize so they can keep that for sale during non-harvesting times of the year. Besides this, maize forms part of the stable diet of the people of the UWR and might therefore also explain farmers' concentration on the cultivation of that crop.

Labour constraints

Migrant farmers in the BAR indicated that cultivation in BAR requires a lot of manual labour. One of the main reasons put forward by informants for high farm labour requirement in this area was that while frequent rains in the BAR were certainly a 'blessing', this rainfall pattern also proved to be challenging because it meant that weeds grew relatively fast. This necessitated constant weeding, as illustrated by a respondent

who contrasted the situation to UWR: “Here [BAR] if you don’t clear the weeds, they would take over the farm” (Karim, 34,M).

The constant need for weeding tremendously increases demand for farm labour. Respondents in the BAR generally pointed to their growing reliance on young men whom they hired as farm labour. Locally, young men hired as farm labour are referred to as “by-day-boys”; this labour is mobilized in the form of work parties ranging from 2 to 10 people. By-day-boys were typically seasonal migrants and respondents indicate that a significant number of those who worked in this area come from the UWR and Northern Region. Additionally, this kind of labour was essential for clearing of land in preparation for the farming season. Farmers indicated that because the charges for the weeding are high they could only engage them at the start of the farming season. A respondent indicated that due to the dire need of labour “the by-day-boys have started charging very high prices....they also want money to go back to visit their families back home [migrants’ home origin]” (Inusah, 27, M). The amount usually charged for the services of “by-day-boys” is always negotiated and this negotiated price depends on farm size, extent of weed growth and coverage and the number of “by-day-boys” in a group.

Respondents also indicated that labour shortage was compounded by the fact that many migrant farmers had left their families behind, which would otherwise form an important source of farm labour. Thus, being away from family labour meant that they increasingly relied on hired labour a position that many migrant labourers reportedly affected their productivity as narrated by respondent who migrated without his wife and children:

I came here alone and so I always work alone.....my family is far from here. If I was with them, we would help each other out and if I was at home [UWR] I will not farm alone because my siblings would help. It is hard for me to work alone but this is where I got a good land (Mathias, 48, M).

Harvest and Storage Facilities

This theme was mostly reported by migrants who grew perishables produce such as tomatoes and garden eggs. Though this theme emerged in the interviews most farmers did not consider it as a significant problem. Farmers seem to accept the unavailability of storage facilities for their farm produce as part of their annual troubles. Farmers rely on traditional methods to store their harvested produce. Harvested yams and maize are usually stored under thatched sheds built for the purpose. This exposes them to the elements of the weather as well as pests, which could lead to loss of products.

The lack of storage facilities usually drives farmers to sell off goods quickly after harvest. They indicate that during periods of glut they are unable to negotiate good prices for their goods. Farmers who cultivate tomatoes and yams in particular indicate they sometimes have to sell the produce at very low prices because the market women usually purchase them from their farms and cart them away. Tractors and other rickety wooden-bucket trucks contracted by market women usually haul foods such as yam, tomatoes and garden eggs from farms to market places. In line with this a respondent had the following comments:

The women who come here to buy the tomatoes complain that the truck owners charge them a lot of money because the roads here are bad. They [market women] say that if we don't reduce the prices they would make losses (Bayirga, 36).

Respondents who indicated they cultivate perishable goods indicated some form of exploitative relationship between them and market women with them coming out on the losing side. A respondent described how his goods were sold after harvest:

When they come here we don't usually measure the amount of tomatoes. They look at the heap and tell us how much they are going to buy and then we bargain with them.....but when they go back they put them in cartons and sell at very expensive prices to other market women who sell them in Accra, Kumasi and other places (Dari, 30, M).

4.7 Challenges to remitting

Food remittance to UWR can sometimes get disrupted due mainly to transportation challenges and also constraints faced by migrants in BAR such as, inability to produce enough crops making it difficult for them to send the needed food supplies. The fact that households in the UWR heavily relied on food produced in geographically remote areas outside of their control increase anxiety levels in times of food shortages. This demonstrates the high levels of vulnerability of UWR households to shortages of food supplies from the BAR.

4.7.1: Remitting constraints in Brong Ahafo Region

The cost of transporting food to destination

Several dynamics are involved in the transportation of food out of the BAR to their intended destinations in the UWR with cost being the most significant influence. This fact is significant right through the transportation of the food from the farms to

major centres, up to where the food will be hauled to the UWR. Principally influenced by cost, these dynamics are affected by factors such as distance of farms from major towns or market centres and the quantity of food to be transported.

Cost is the most influential factor in the food remittance process. Respondents indicated that distance and generally poor nature of roads are to blame for high cost of sending food remittance. Techiman is the main transport node from which food remittance are sent from BAR, to recipients in the UWR. Respondents indicated that varying amounts of charges are applied for transporting food from their farms to this major market town. Those who are fortunate have their farms located along a transport route connecting to Techiman indicated that they pay between GH ¢3 and GH¢5 per 100kg bag of maize to be transported. On the other hand, respondents who have to transit with their food before reaching Techiman indicated they pay between GH ¢5 and GH ¢10 per each 100kg bag of maize.

From Techiman, charges to all parts of UWR are uniform. Farmers indicated that the amount charged for the transportation of each bag of maize is usually the same as the charge levied a human commuter. This ranges between GH ¢10 and GH ¢15 depending on the form of transport being used. This charge does not include a fee of GH¢10 charged by the young men who load up the vehicles or buses. The same fee is charged at the point where the food is offloaded in the UWR:

Those who load them up charge GH¢10 for their work. There is also a fee charged by those who offload it when the food gets home. So you have to add that amount of money for the offloading at home too because the people you're sending the food to cannot afford it (Adam, 38, M).

However the loading of bags of maize onto the trucks is not done before a market toll of GH¢1 charged by the market operators has been paid.

Even in the market we have to pay for council tickets otherwise we are not allowed to get our food out of the market. That is GH¢1. It is only after this ticket that you know your food is now heading home [Karim, 34, M].

Further fees might also be incurred depending on the location of one's household relative to a major road or a major town where the food is initially offloaded in the UWR.

When the food gets there and your house is not close by, they might have to get some pushing trucks to convey it home for you and you have to pay for that as well (Amin, 57, M).

Overall, the average cost of sending food remittances from the BAR to UWR is around GH¢45-60. A respondent in an FGD had the following concluding remarks regarding the cost dynamics involved in sending food remittances to UWR:

So if we access how much it cost to send home one bag of maize it is a lot of money. If I want to send home one bag of maize and I take two bags to the market, the one I sell is usually not enough to pay for all the fares and charges attached to the sending of one bag of maize. So before I can send a bag of maize home I have to sell about 2 bags just to send one bag home (FGD, Manso).

4.7.2: Remitting constraints in Upper West Region

This section presents some of the key challenges dependents in the UWR reported with respect to receiving remitted foodstuffs to their households. The most significant issues had to do with food transportation to their homes and some of the strategies used to cope with this challenge.

Transiting from major points and transport to homes

In most instances respondents indicated that remitted food from relatives in the BAR was usually delivered at a major lorry station close to their village or the nearest house on a major road close to their homes. These foods then have to be transported from these points to the final destinations. Commonly used methods of transport such as the use of bicycles and motorbikes as well as head portage were usually employed in getting the food to the desired final location. The use of bicycles is most common. Most households in the UWR have access to bicycles and these generally are owned by household members who have previously travelled to work outside of the region and purchased it on their return. In some cases, family members living elsewhere purchase these bicycles for the use of their households. One farmer indicated that when the remitted food is “usually left on the hill (at the market place)...we use a bicycle to convey it home or sometimes the women go to carry on their heads home” (Eric, 61, M). Motorbikes are owned primarily by the elite class of people, such as community health workers. Households that require the use of motorbikes would have to beg from owners.

Women in particular play a very important role in transporting food to the final destinations in UWR. Distances from where the food first arrives at in the UWR can be several miles away from the homes of the recipients as indicated by this respondent who describes how remitted food gets to the home:

When the food arrives I usually send about 3 or 4 people to go and split the food up into portions and carry it on their heads home. I send the women or children to go to do that. It's about 5miles from here to Nandom where the food usually arrives (Issakaque, 40, M).

The women who undertake these activities are mainly members of households where the food is being transported to. As such, no form of payment is ever made for their services. The performance of such tasks is seen as part of their roles encompassing their general contribution to the upkeep of the household.

It is significant to note that social networks are important in ensuring that remitted food reach their final destination. For example one respondent describes how this works:

...at the moment I know a lot of people, they can give the food to those people and tell them to bring it to me. So when the person brings it he/she can send someone to inform me about the arrival (Clement, 50, M).

Reports of interviews also indicated that while the use of social networks are responsible for getting the food from the BAR to UWR, some respondents indicated that the use of mobile telephones in recent times have further facilitated the process of retrieving the food from the people through whom it was sent. In this regard, a respondent had the following to say:

These days when the car is coming [*with the food*], they call on the phone to tell me they have sent food for me to help with the family, I usually get whatever has been sent the following day if the person arrives with the food and calls me. But if the person gets here with the food in the night, they usually inform me and call me to wait till the next day or even 2days before I go and collect the items (Kanda, 32, M).

4.8 Food remittances - periods and coping strategies

In view of the challenges reported above this section examines strategies that families generally employed in order to cope with household food shortages or instances of unplanned disruptions in the supply flow (Table 4.5).

Table 4.5 Key coping strategies

Coping Strategy	Mentions in IDI (n=20)	
	Participants	Mentions
Purchasing food from local market	13 (65%)	29
Rearing of livestock	20 (100%)	32
Collecting and selling firewood	16 (80%)	24
Picking fruits from the surrounding community	18 (90%)	30
Brewing <i>pito</i>	14 (70%)	37
Borrowing	20 (100%)	41

The period indicated by respondents as the months of when food remittance is most required is between June and August. These calendar months were reportedly the most critical time as food is severely in short supply. Table 4.6 summarizes the responses from respondents in both BAR and UWR relating to the timing of food flows. The table is based on the number periods that respondents from the IDIs indicated they remitted or received food.

Table 4.6: Remittance periods

Periods	No. respondents remitted food BAR (n=27)	No. respondents received food UWR (n=20)
June – August	27 (100%)	20 (100%)
Dec. and Jan.	12 (44%)	9 (45%)
March and April	8 (30%)	6 (30%)
Any other time	3 (11%)	5 (25%)

In response to food shortages some participants talked about the possibility of buying from the market but they also complained that the food in UWR during the extreme hunger period was particularly pricy. A woman whose son also migrated to farm related to this view:

There is usually food on the market but you must have to sell livestock to buy the food because the prices are really high (Petra, 49, F).

When asked where the foodstuffs which were being sold on the market came from respondents indicated that this food came from distant areas in some cases from places as far off as Southern part of Ghana. Respondents complained that traders, knowing about the persistence of the food problem in the area, took advantage of the people by charging very high prices. Although it was not explicitly indicated, it was apparent that migrating to farm elsewhere was also seen as a response to these unscrupulous private traders. Other blamed the government for not protecting them against these businessmen. Again, participants talked about government neglect even in putting in place apparently simple

measures such as a price ceiling on essential foodstuffs such as yam or maize in order to prevent exploitation of poor families from private traders. However, some argued that such market-based manoeuvres do not necessarily constitute a lasting solution to the food problem in the area.

It emerged from the interviews that households during lean periods depended significantly on the ingenuity of women to bring food to the table. Some strategies women typically engaged themselves in include, sale of firewood, picking and processing of wild fruits such as *dawadawa* prepared into a spice for cooking as well as shea nuts prepared into shea butter. In this light it was indicated that “.....for some households, it is what the women do this season that will bring food to the table, like the shea nuts you see here being prepared [pointing to his wife” (Fafari, 56, M) (see plate 5.1). The sale of these items brings women income that is then relied on by the household to purchase food. Though women have traditionally been undertaking these activities for several years, reliance on these activities as part of households food provisioning is increasing.

Plate 4.1: Woman preparing shea nuts to be processed into shea butter



Source: *Personal field work (2010)*

Although some participants indicated that some level of subsistence farming was still taking place in the area which was used as fall back while waiting for food remittances, others argued that the extent and impact of whatever farming is done in the area was extremely limited. However, most respondents indicated they undertook the rearing of animals on a free range system and relied on these during times food remittances are not forthcoming. Respondents in the UWR depend heavily on their livestock usually for sale in order to buy food from local markets for their households.

Thank God I have a lot of animals that I rear. I have goats, sheep, fowls, guinea fowls and pigs as well. I don't always have to rely on my brother [*to send me food*]. If things are hard for him and he

cannot send me food I sell the animals to buy food (Zanah, 55, M).

Some participants illustrated how the sale of livestock is directly related to the need for survival. The money made from the sale of such livestock as goats and sheep and even fowls goes into the buying of food on the local market. It was clear from interviews that animals were never sold unless there was a pressing need for the purposes of purchasing food on the local market to meet household food needs:

....well when the food does not come, we have to fall on the animals we rear.....I take the animal to the market to sell them and buy food for the household. We then wait to get something [*food*] from BAR (Ibrahim, 70+ M).

Respondents indicated how the rearing of animals come in handy for sale to purchase food due to the lack of other forms of employment opportunities from where money can be earned to buy food for household consumption during times of need.

No I don't do any other work. Here when it's difficult and you have something that can be sold or an animal that you have been rearing, you can sell that and buy the food. If you don't have anything then you have to lament to your relative in Techiman to send you help if things are well with him (Jonas, 43, M).

A popular income generating activity undertaken by women in response to food shortage is the brewing of *pito*. *Pito* is a locally brewed alcohol whose preparation involves the use of millet or maize. Even though it was reported that women earned revenue from this brew, the brewing and selling of *pito* generated a lot of controversy during interviews as some participants were concerned that its production directly competed with food needs of the area because it uses considerable amount of maize and

millet. In addition the drink was associated with various forms of antisocial behaviour especially among youth, which allegedly distracted them from migrating to other areas to grow food for their families.

It was reported that the dire circumstances of people in the area especially during food shortage periods had also created scope to vibrant informal money lending by wealthy individuals. While some people in the area were known to be chronic money borrowers because of *pito*, it was reported that such sources of credit were vital for families who found themselves without anything to eat. However, participants also reported that borrowing money even from other people, including well-known money lenders in order to put food on the table apparently propelled vulnerable families into further problems as recounted by a respondent who indicated that borrowing usually comes with strings:

Once you borrow from someone and the person calls for manual labourers to help on his farm or with some work, you cannot refuse to go.....otherwise you would be considered ungrateful for the kind gesture you have received (Robert, 44, M).

Such circumstance can be considered exploitative. The application of one's energy in such solicited manual labour is usually not paid for. That means that productive time is spent doing another person's farm leaving one's own problems at home. This leaves the borrower with the double agony of having to go back and do their own productive work and still pay their lenders the amounts owed.

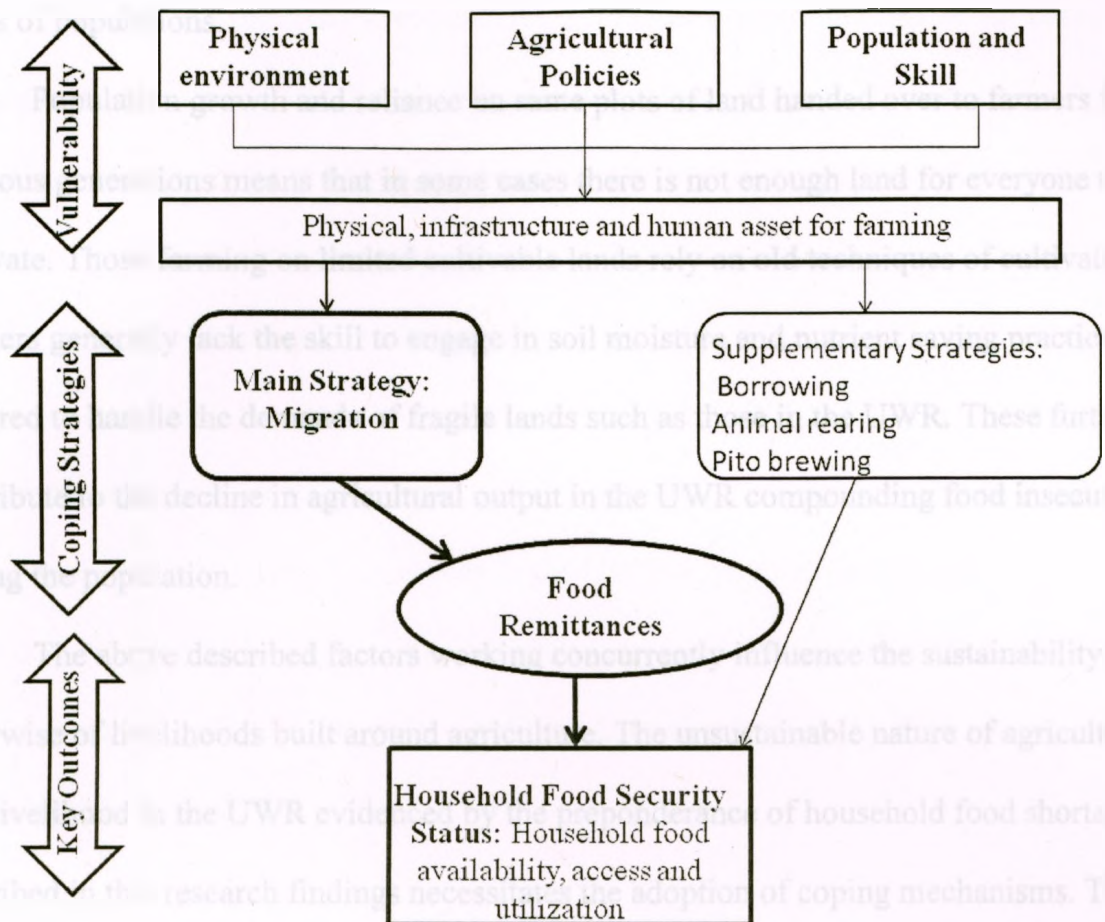
This was confirmed by a respondent who had borrowed money to pay school fees for her children:

Well, that is the situation.....there are always some times that I am so hard-up and can't do anything and I have to borrow from people and some even refuse to lend me the money. But even with that I still have to manage and try to pay the fees. I even still have some debts to pay at the technical school here and also at the junior secondary school but there is no money for me to pay since I farm and I don't get any money from it I keep borrowing (Edward, 45, M).

4.9 Connecting the Dots in Household Food Security Status in UWR

Figure 4.1 gives a general representation of issues identified in this research and indicates the various connections which ultimately influence household food security status. The vulnerable state of households in the UWR is influenced by factors mainly around the natural environment, government policies towards agriculture in the area as well as population growth and the general skill of this population to adopt cultivation practices which improve yield.

Figure 4.1: Determinants of Household Food security status



As strongly underscored by views in this research, unfavourable physical environmental factors of climate and edaphic conditions of the UWR significantly influence agricultural production. These factors limit farmer's ability to maximise production to guarantee the food security of their dependents. These factors are not helped by the seeming general neglect in policy for the development of agriculture in the region. As indicated by the results of this study, government not making available such agricultural necessities such as irrigation facilities, fertilizers and extension services further worsen the poverty stricken plight of farmers in such marginal agricultural areas.

Non-existence of opportunities in other sectors deepens food insecurity and vulnerability levels of populations.

Population growth and reliance on same plots of land handed over to farmers from previous generations means that in some cases there is not enough land for everyone to cultivate. Those farming on limited cultivable lands rely on old techniques of cultivation. Farmers generally lack the skill to engage in soil moisture and nutrient saving practices required to handle the demands of fragile lands such as those in the UWR. These further contribute to the decline in agricultural output in the UWR compounding food insecurity among the population.

The above described factors working concurrently influence the sustainability or otherwise of livelihoods built around agriculture. The unsustainable nature of agriculture as a livelihood in the UWR evidenced by the preponderance of household food shortages described in this research findings necessitates the adoption of coping mechanisms. These coping mechanisms aim to bridge the food deficit gap experienced by households. The prime coping strategy employed by most is food remittance obtained from migrant relatives in the BAR. This strategy proves to be the livewire of most households despite the various challenges of production and remittance that bedevil the process. In the absence of food remittances, attempts at meeting food requirements is through such other strategies as borrowing, sale of livestock and reliance on women's work such as the brewing of *pito* for sale. All these activities contribute to determining the food security status of households.

4.10 Summary

The results of the study presented in this chapter opened with perceived reasons for migration from the UWR. It then followed with perceived reasons for sending remittance from the BAR to UWR and described the how this might be influenced by the migration decision-making process. The chapter then delves into challenges faced by migrant farmers in their agricultural activities in the BAR. This was followed with the challenges to sending food remittances from the BAR to UWR and proceeds to describe how food remittances are an important part of household food consumption in UWR. The coping strategies adopted by households in the UWR in times of food shortages are described. The concluding part of this chapter presents framework which connects the various issues identified in the study describing how all influence the food security status of households in the UWR.

CHAPTER FIVE

DISCUSSIONS AND CONCLUSIONS

5.1 Introduction

This final part of the thesis is presented in three sessions. The first is a discussion of the results of the study within the context of current literature. It runs through the key findings of the study around reasons for migration, reasons for sending remittances, coping strategies adopted within food insecurity situations and food production and remitting challenges. The next section outlines the limitations of the study. Conclusions and recommendations for possible intervention are then presented. These centre on the need for government to create an enabling environment for the diversification of livelihoods as well as the need for improvement in the agricultural sector. The thesis then concludes with contributions of this research and suggests directions for future research.

5.2 Discussion of major issues

The migration behaviour of the Upper West Region continues to be oriented in the southern direction. From a political ecology perspective, constraints in agricultural production including, unfavourable climate, poor soil fertility, and previous economic and development policies have helped shape, sustain and even intensify the migration trend that exists between the north and south of Ghana. Within the political ecology framework, Watts and Bohle (1993) indicate that such structural inadequacies and malfunctions increase the risks of food insecurity and famine for people living in marginal areas as well as vulnerable people. The degrading marginal agro-ecology of the UWR coupled with the

lack of alternative economic opportunities to agriculture are push factors increasing out-migration rates from the region.

Populations in marginal areas such as the dry savannah environment of the UWR are likely to migrate in search of better opportunities. Such populations are faced with constant environmental constraints of drought and unreliable rainfall which act as disincentive for continued habitation. The pressure to migrate becomes particularly important when constraints directly affect livelihoods, especially among populations that depend on the natural environment for survival. Prolonged changes in climatic conditions, which make it difficult for households to mediate poor conditions of living, can lead to massive livelihood changes and adaptations including migration (Raleigh & Urdal, 2007).

The initial adoption of seasonal migration and later shift to more permanent migration involving the establishment of farms in the BAR is a response to the gradual changes in environmental conditions which make farming unprofitable in the three northern regions of Ghana including the UWR. This study indicates that unreliable rainfall patterns coupled with general poor soil conditions make livelihoods built around agriculture anything but dependable. Dwindling rainfall over the years and the degrading of the farming environment and resultant decreases in household agricultural output reduce the attractiveness of agriculture as a form of livelihood among respondents in the UWR. The existence of better agro-ecological conditions in other regions acts as a pull factor for farmers from the marginal agro-ecological environment of the UWR.

As a result of the lack of non-farm economic opportunities, unfavourable natural environmental conditions and government failure to implement livelihood improvement

strategies in the UWR over the years, poverty continues to be entrenched among the predominantly farming population. This situation increases vulnerability levels of farmers deepening poverty levels and food insecurity (Watts & Bohle, 1993). Already boxed within a geographical area endemic with higher levels of poverty and less economic opportunities compared to most parts of the country, migration to other regions with contrary economic profile and prospects has a luring effect which facilitates the decision of permanent migration. The period between October and May is one characterised by farmers' underemployment as this marks the off-farming period. This period in the UWR over the years has been marked with out-migration over several decades due to the lack of opportunities and farmers' low employability levels (Abdul-Korah, 2011). Low levels of education and related low levels of employable skills, as well as a lack of opportunity in other sectors other than agriculture, further makes it nearly impossible for farmers of the area to make a living outside of agriculture and other unskilled labour service sectors. This in turn creates frustration and encourages destructive personal habits such as the consumption of *pito* and *akpeteshie* (a locally brewed gin) which further compounds the poverty situation and increases health risks in the area (Luginaah, 2008; Tobias, 2010).

Migration from marginal and poverty endemic areas is viewed as an option to staying out of poverty by taking advantage of perceived opportunities in the destination areas (Kothari, 2002). Results from this study indicate that the migrant population from UWR still remain predominantly food crop farmers in their new locations in the BAR. However, despite a physical movement from UWR to the more economically endowed BAR, migrants continue to be predominantly employed in food crop farming, whose practitioners are categorised as the most poverty stricken section of Ghana's population

(Kwapong, 2009). This predominantly makes the migration from the UWR to the BAR a transmission of poverty between geographical locations instead of representing any actual movement out of the poverty bracket. Other studies that have examined the migration behaviours of populations from marginal lands indicate changes in the livelihoods of migrants, from agriculture to other sectors usually occur in their new destinations (Gary, 2009). The absence of a shift in livelihood behaviours within this study might be attributed to low skill levels and the lack of resources to engage in more lucrative new opportunities due to higher capital requirements. This observed trend might also be influenced by persistent cultural traditions. Persistence of cultural behaviours in destination areas in terms of a continuation of agricultural practices has been previously observed in rural-urban migration (Mougeot, 2000). As such, migrants tend to continue to do what they know best, which in this case is food crop farming.

The lack of government support and a general dysfunctional agricultural policy, has contributed to the underdevelopment in the agricultural sector thereby encouraging the south-bound migration trend. In northern Ghana, a consistent implementation of a comprehensive agricultural policy has been lacking from colonial times, after independence, and into the present era (Sutton, 1989). This is in contrast with, for example, Burkina Faso, which has similar or even worse climate conditions for agriculture as compared to the three northern most regions of Ghana. However, due to a long-standing and consistent agricultural policy, Burkina Faso has in recent years become an exporter of fresh vegetables to Ghana including such items as, onions and tomatoes. Burkina Faso is succeeding in an area where Ghana is failing. This is due to a staunch commitment by the Burkina Faso government to the development of agriculture.

Implementation of an agricultural policy over several decades by government, investing in the establishment of irrigation dams and technical agricultural support to farmers, has led to increased crop production by smallholder farmers even in Burkina Faso's semi-arid environment (Freidberg, 2003).

The trend of out-migration from the UWR to the BAR is explained not only by the attraction to its conducive environment and the existence of diverse, but also the proximity of the BAR to the UWR making it a default location of choice. BAR is the region closest to the UWR that has climatic conditions suited year round cultivation. Years of neglect of major roads linking the UWR to all adjoining regions made commuting to and from the region difficult and risky. These deplorable road conditions as well as the initial practice of seasonal migration for short periods historically discouraged travel to more distant regions, despite their similar climatic conditions and suitability for all year cultivation of crops.

In addition to proximity, the relatively sparse population in rural areas in BAR coupled with favourable vegetation makes it attractive to UWR migrants (van der Geest et al., 2010). Besides the nature of the vegetation and climate suitability for all year cultivation of various crops including those traditionally cultivated in the UWR, soil fertility levels are much higher in the BAR than the UWR. This combination of factors helps explain why the BAR is the single highest recipient of UWR migrants in Ghana (see Figure 2.4).

Cash remittances have previously been the dominant focus of studies that discuss the migration-development nexus. This research focused on in-kind remittances in the

form of food rather than cash remittances. Some studies have indicated that migration leads to benefits to source regions of the migrants (see Taylor, 2006; De Haas, 2006). Cash remittances to origin areas have led to investment in farm expansions (De Haas, 2006; Adams, 2002) and also resulted in the emergence of small retail businesses in certain cases (Black et al., 2003). Evidence from this study indicates that food remittances have led to the freeing up of funds for use in other household expenditures especially for education and health purposes. The remitted food eases pressure on the household food budget, thus freeing up cash for other equally demanding household needs. Households are therefore able to have more disposable income which they invest in education and other non-food related budget items, during times food remittances have been received. However, investment in other areas of family expenditure does not directly come from the sale food of remittances. The indirect benefit of food remittances, which alleviate overall budget pressures and leads to alternative family investments, differs from the direct cash remittances, which is exclusively used to invest in education, farms, small scale retail business and other areas of livelihood among others as noted in other studies (see Adams, 2002; Black et al., 2003; de Haas, 2006).

The value of remittance as an integral part of household coping strategies cannot be overestimated. The significance of remittance to the development of origin areas in the migration literature usually cites investments in family upkeep as well as investment in economic projects as reasons motivating the sending of remittances. Reasons for remitting in the migration-remittance relation discussions have also viewed the process principally as a livelihood adaptation or coping strategy or fulfilment of contractual commitment (Gary, 2009; Stark & Bloom, 1985). In addition to the aforementioned

reasons, the desire to ensure continuity in culture and family traditional rituals came out prominently in this research. Stark and Bloom (1985) suggest that the hope for future benefits, such as inheritance may act as motivation for the sending of remittances. Reasons for remitting found in this study were not attributed to hope for future benefits such as inheritance. Land remains the most inheritable property in the UWR and the lack of interest in this item of possible future inheritance is likely because migrants consider lands in the UWR unproductive and do not regard them as assets that can be relied on for future sustainable livelihoods.

Also, though migrants acknowledged that they relied on relatives to perform duties on their behalf such as caring for their children, they did not cite such activities of relatives as reasons for sending back remittances. This is perhaps due to cultural and socialisation practices in which children are viewed as belonging equally to extended families and as such are the responsibility of every family member, not just individuals or nuclear families. The findings of this study indicate migration as a family food security diversification strategy, and reasons for sending remittance are explained by a complex interplay of both social and economic considerations. Migrant remitters are interested in the welfare of dependents and based on their socialisation are expected to contribute their quota to the upkeep of families. Migrants do not view remittance as a direct pay back for any specific work done or responsibility performed on their behalf but rather as their contribution to the general welfare and sustenance of their families.

The central role of food remittances in the attempts at ensuring household food security in UWR cannot be overstated. The coping strategies that are employed before the receipt of food remittances and periods after households have run out of received food

provide an evocative commentary on the high levels of poverty and food insecurity as well as the insecure livelihoods that exist among farmers in the UWR. Using the categorizations within the coping strategy technique as a means of measuring food insecurity as presented in section 2.2 (Senefelds & Polsky, 2005; Maxwell, 1995; Corbett, 1988), households in the UWR could be described as straddling between the second and third stages in the coping strategy food insecurity measurement hierarchy. The third level described as a stage of destitution represents a state when households undertake desperate measures such as distress migration and scavenging among others in order to meet food needs.

Strategies such as borrowing and sale of livestock are adopted in the second stage of coping strategy mechanism of measuring food security in attempts at meeting household food needs. Evidence from this study indicates a significant reliance of households on the sale of livestock, borrowing and undertaking of migration as a means out of their poverty and food insecurity situation. It is important to note that environmental considerations were primarily cited as reason for out-migration from the UWR, which falls along the lines of distress migration at the destitution stage.

The destitution stage in the coping strategy food insecurity measure involves mass migrations. Albeit, though this has not set off in the UWR as of yet, it, seems to be looming. This is evidenced by the over 52% of UWR natives currently residing outside the region especially in the BAR (GSS, 2011). According to Raleigh et al., (2008), when severe climate changes stop the ability of communities or households to cope with associated hardships, massive livelihood changes or distress migration occurs. The current situation in the UWR reveals that changes in the agro-ecology over the years has

affected livelihoods and food security and triggered a permanent out-migration trend increasingly culminating in the establishment of farms in the BAR. This out-migration trend, in search of better environmental conditions to support their livelihoods, is appropriately described as distress migration. Migrants' attempts at mitigating circumstances by moving to BAR are also confronted with the new challenges existing in the area, the most fundamental of which is acquiring land.

Rural areas, which are known for rich agricultural endowment such as in the BAR, are becoming target locations for investment by wealthy commercial farmers. This is resulting in the emergence of new land market dynamics in such areas as the BAR. The existence of these commercial farmers along with migrant farmers has implications for long term survival. Commercial farmers' ability to pay cash for land in the BAR is gradually pushing aside the traditional non-cash tenure arrangements that have existed for centuries. This could eventually lead to the marginalisation of poor subsistence farmers who are unable to meet the cash demands of landowners and may therefore have to change livelihoods. This could then further plunge already vulnerable migrant farmers into extreme poverty, livelihood insecurity and food insecurity.

The absence of storage facilities for bulk storage of harvested produce is another significant challenge facing small scale agriculture in Ghana. Post harvest losses are significantly high among Ghanaian small scale farmers and remain a big challenge to agriculture in the country. It is estimated that 37% of maize and 35% of cassava produced annually is lost due to the lack of storage facilities and inadequacy of current traditional preservation techniques. To minimize these losses, farmers are compelled to dispose of their harvested produce in their raw form at low prices. In Ghana, for every 5% damage in

grain leads to a corresponding 1% reduction in price (World Bank, 2010). Such loss has substantial effects on household livelihoods. Harvest of cereal crops such as maize in Ghana and other SSA countries are done at physiological maturity when crops still have an estimated 20-30% moisture content. At this stage, harvested produce are highly susceptible to pest infestation thereby increasing post-harvest losses of smallholder producers. The lack of a processing sector that can transform farm produce into non-perishable goods further compounds this problem. In addition, deplorable road conditions linking farming communities to markets and city centres limit accessibility to harvested food also increasing post harvest losses. These issues leave farmers at the mercy of shrewd traders who rip them off by purchasing produce at very low prices and reselling at much higher prices in city centres across Ghana.

In the midst of outlined challenges including a lack of storage facilities, land tenure problems, transportation difficulties and the lack of technical support for migrant farmers in the BAR, it is not difficult to see the problems that inundate the sustainability of food remittances. The operation of migration and food remittances under current conditions cannot lead to significant improvement in food consumption of households in the UWR to the extent where they would no longer require the various adaptive strategies they currently employ.

Despite challenges to the sustainability of food remittances to the UWR, it is evident that people will continue to migrate to the BAR in their efforts at ensuring household food security in the UWR. An increasing trend in this phenomenon will pose to be a further development challenge to the UWR as the development gap between the region and the rest of the country may continue to increase. Aside the loss of a productive

labour force and the associated economic development related challenges that are found to be associated with this (Nabila, 1975; Songsore, 1983; Abdul-Korah, 2006, 2011; van der Geest et al., 2010; Lobnibe, 2010; Luginaah, 2009), the character of the UWR migration could have a direct effect on its fundamental culture, vibrancy, growth and sustenance of the region's identity. The increasing absence of the youth in the region in order to learn the traditions and practices of their culture from ailing and dying old folks could potentially lead to the complete loss of valuable traditional knowledge and cultural practices.

5.3 Limitations of the Research

The target population of this research was migrant farmers who live in the BAR and household heads of families in the UWR who receive food remittances. A major limitation of this research concerns gender and the participation of female respondents in this study. Only six female household head in the UWR were interviewed during the course of this research. The limited female respondents in this research are due to patriarchal entrenchment and role assignment within the society which gives men privileged access to the means of agricultural production. This however has not suppressed women's economic influence within households in the UWR. Abdul-Korah (2011), notes that with the decline of agriculture in the UWR, women's influence on households have increased over the years due to their involvement in other economic activities such as *pito* brewing and engagement in petty trading.

Respondent migrant farmers recruited in this research had to be people who have migrated to the BAR from the UWR and their engagement in land tenure arrangement to

obtain land for the purposes of farming was a major criterion for selection. Only those who possessed land by virtue of these arrangements were eligible to participate in the research since this group of people are well placed to give personal accounts regarding the details of farming in the BAR and the related tenure intricacies. It turned out that women on their own did not enter into land tenure arrangements to obtain land for farming. The fact that women predominantly joined their husbands in migration destinations (Abdul-Korah, 2011; Lobnibe, 2008) also further explains why they were not involved in tenure arrangements to obtain land. However, women traders (from various regions including the UWR) contract men to enter into land tenure arrangements on their behalf. The men who undertake this on behalf of these women traders are paid wages for their services. The traders own all produce obtained from the land and are responsible for making available the required land rent charges to be paid to landowners. Waged labour is employed to undertake all farming activities with a man acting as a caretaker of the farm. Women engaged in this practice were not interviewed because they do not send food remittances to UWR, which was a critical criterion for respondent selection for the purposes of achieving the objectives of this study. The overall limited female participation in the research potentially masks the role of women in agriculture and food security in the UWR.

Reaching the target population in both regions was a big challenge in this research. In the BAR, potential research participants lived in far off villages which were poorly serviced by commercial mini vans popularly called *trotro*. Some villages in the BAR are known for their high UWR migrant settler populations. As such, those had to be

targeted for the purposes of participant recruitment. Weekly market days and Sundays served as the best times to reach such locations.

Similar problems of accessibility exist in the UWR. However, unlike the BAR, there was a general lack of *trotros* commuting directly to most villages of respondents. Motor bicycles were the primary mode of transport in order to reach respondents. In instances of heavy rainfall, respondents could not be reached either because footpaths leading to such locations were rendered dangerous to ply on or water levels in streams had risen making it dangerous to cross on a motor bicycle. Due to this the target respondents of 27 in the UWR was reduced to 20. The accessibility challenges faced in this research limited recruitment of other participants who potentially could contribute to the depth of this research.

Though interviews in this research were conducted in Dagaare, education and culture played a part in creating varying positional spaces of interaction with the respondents in this study (Mullings, 1999). The insider-outsider perspectives were vividly displayed along lines of education and culture. The significance of cultural perceptions and the interactions therein influencing the data collection and interpretation cannot be overemphasized. Being a researcher from the UWR speaking the same language and sharing the same culture with respondents created a constantly shifting insider/outsider boundary epitomized by the view that “no individual can consistently remain an insider and few ever remain complete outsiders” (Mullings, 1999 p.340).

A common language and culture made for easy access to participants who in most cases freely expressed their views in a free flowing conversational manner free of tension.

This made it possible to delve into all issues of interest that surround the subject under investigation. In certain cases however, the researcher's supposed knowledge of culture and issues about the investigated subject matter resulted in cases where respondents assumed answers to questions being asked them should be of common knowledge to anyone from that background. In such instances it had to be clarified that respondents' personal opinion was required. The higher educational level of the researcher relative to respondents created a situation where respondents sometimes view the researcher as an outsider limiting the interaction process.

5.4 Conclusions and Recommendations

Undeniably agriculture in the UWR requires immediate attention to increase output and better the livelihood conditions of the over 80% of the region's population relying on this sector. This requires government commitment to the development and consistent implementation of a comprehensive agricultural policy. There is the need to shift from crisis fighting mentality to adoption of a policy that enhances general development and agricultural improvement in particular. Such a policy should have at its core restoring the degrading environment of the region through encouragement of tree planting and ending of annual bush burning rituals common in the area. It should aim to tackle the overall development of the UWR from a holistic perspective and should have short and long term targets that aim to improve food security, reduce poverty and enhance the overall development of the region.

From the analysis of conditions and challenges facing the food remittance process, food remittances cannot be solely relied on by households to bring about improvement in

food security. In most cases despite the constant receipt of food remittances, households still have to rely on other coping strategies such as reduction in portions of meal intake, sale of livestock and borrowing among others which are indications of food insecurity. Commitment to the implementation of long term and short term policies are required to improve the food security situation of households in the UWR.

5.4.1: Short-Term Recommendations.

In the short term, government needs to provide transportation networks in communities in the BAR where food production takes place, to link such major towns in the BAR. This would reduce the stress in food transportation and minimise extortion by transport operators between the two regions. This would also reduce the rate of exploitation farmers face in their dealings with market women who purchase their goods. These actions would reduce the forced tendency of rapidly disposing off harvested goods cheaply to market women and remove the current business exploitative behaviours adopted by market women towards the farmers. Improvement of transportation links within the UWR is also required to further facilitate the food remittance process.

With current circumstances of low agricultural productivity and limited opportunities in other sectors in the UWR, the trend of out migration is set to continue. Irrigation dams and ground water exploitation facilities should be made available to farmers in the region to provide opportunities for dry-season agriculture. With these facilities, the practice of horticulture should be encouraged as this could help secure

household food requirements in the dry season, put money in the pockets of farmers and reduce out-migration from the region.

Overall, farming techniques for crop cultivation among the smallholder farmer population largely remain unchanged over several decades. Farmers still rely on age old methods and tools in plying their trade. This area of agriculture requires immediate intervention. Consequently, extensive education on modern methods of cultivation without necessarily transitioning to large scale mechanised farming, is required for small scale farmers. These techniques should emphasise soil water and nutrient retention best practices. Government and other stakeholders should invest in training of farmers on ways of improvement of traditional methods of rearing animals and poultry. To further this course, government should invest in fighting diseases that infect these animals which has become an accepted reality among farmers. As much as the immediate commence of these steps are required, appropriate plans for their survival and continuation for long period should also be mapped out.

Fears of post harvest losses by farmers in the BAR open them up for exploitation by traders. Cheap and cost effective ways of storing food for long periods need to be developed and made available to farmers. To help reduce post harvest losses government should engage in purchase of harvested produce during periods of glut production and store such food in cereal banks. This food can then be released onto markets during periods of shortage to prevent exploitation of poor households by businessmen and women.

5.4.2: Long-Term Recommendations.

Besides the above short term measures, long term policy actions which affect the general state of development in the region are required to reduce poverty and increase food security in the UWR. The lack of opportunities in other sectors other than agriculture makes the UWR unattractive to retain its youthful population and contribute to the development of the region. Government and stakeholder commitment is required to develop the tourism and indigenous arts and craft industries in the UWR. Economic opportunities in other sectors of the economy which allows households to diversify their activities would help make household incomes robust and less susceptible to changes in the environment which lead to aggravating the food insecurity situation in the UWR.

Also in the long term, there is the need for investment in medium size preservation industries near farming communities which can turn raw products into finished goods. Government investment in other infrastructure such as the development of link roads to major food crop producing points in the interior of the country has very significant long term development implications. It would not only increase market accessibility and reduce post harvest losses. Such infrastructure also has a multiplier effect in the emergence and growth of other business which will help in overall poverty reduction and improvement in welfare.

The high poverty status of most farmers makes nearly impossible for them to access help for farm expansion through mainstream financial institutions. Farmers in both UWR and BAR should be organised into groups through which they can access capital and loans for expansion. This would enable farmers to invest in farm inputs such as fertilizers and pesticides among others as well as encourage farm expansion.

The state of agriculture in the UWR and the rest of the country as a whole requires government to take up a pivotal role in moderating and pointing the direction for agricultural development. This step is necessary since the sector contributes to over 50% of GDP and employs about 60% of the country's population. It is also important to government's own poverty alleviation agenda since the sector employs a significant number of people.

5.5 Contributions of the Research and Direction for Future Research

Primarily it is hoped that this study contributes to policy by drawing attention to how an inefficient development and agricultural policy has, over numerous years, contributed to the incidence of poverty and food insecurity. The challenges identified in this study that forestall sustainable livelihood in agriculture require local and national government attention. Policy interventions that seek to bring about improvements should rely on the knowledge gathered from this research as a starting point in filling in the gaps of what actions require undertaking.

The research also makes a case for the use of in-kind remittances as a reasonable proxy in the determination of the importance of migration to areas of origin. Overly relying on cash remittances does not paint a complete picture of survival strategy options available to dependents of migrants and ignoring it in studies masks the realities of coping. In-kind remittances are particularly important as this might be recognised as a form of aid to needy and vulnerable populations. The direct impact of in-kind remittances require further exploration as their ripple effects might be more difficult to perceive given their inherent nature compared to cash remittances.

Theoretically, it is hoped that this research contributes to expatiating how the interplay of historical and natural circumstances contribute to development patterns in general, and food insecurity in particular. In kind remittance such as food remittance as the focus of studies in migration-remittance relations are few in the literature and therefore has not emerged as a pivotal issue in the migration-development debate with respect to migration benefits to the area of origin. Rural-rural linkages have received little attention compared to rural-urban linkages and so this further contributes to the scant literature on rural-rural linkages. Findings from this and similar studies in the future would contribute to theorizing on development and livelihood sustainability from a rural-rural perspective.

References

- Abdul-Korah, G. B. (2007). 'Where is not home?': Dagaaba migrants in the Brong Ahafo Region, 1980 to the present. *African Affairs*, 106(422), 71-94.
doi:10.1093/afraf/adl023
- Abdul-Korah, G. B. (2011). Now If You Have Only Sons You Are Dead': Migration, Gender, and Family Economy in Twentieth Century Northwestern Ghana. *Journal of Asian and African Studies* 1-14
- Abernethy, V. D. (2005). Ester boserup and agricultural development. *Society*, 42(5), 55.
- Adams, R. H. (2002). Nonfarm income, inequality, and land in rural Egypt. *Economic Development and Cultural Change*, 50(2), 339-363.
- Adger, W. N. (2006). Vulnerability. *Global Environmental Change*, 16(3), 268-281.
- Adjei-Nsiah, S., Leeuwis, C., Giller, K. E., Sakyi-Dawson, O., Cobbina, J., Kuyper, T. W. (2004). Land tenure and differential soil fertility management practices among native and migrant farmers in wenchi, Ghana: Implications for interdisciplinary action research. *Njas-Wageningen Journal of Life Sciences*, 52(3-4), 331-348.
- Afikorah-Danquah, S. (1997). Local resource management in the forest-savanna transition zone - the case of Wenchi District, Ghana. *Ids Bulletin-Institute of Development Studies*, 28(4), 36-+.
- Agar, M., & MacDonald, J. (1995). Focus groups and ethnography. *Human Organisation* 54(1), 78-86
- Alexandratos, N. (2005). Countries with rapid population growth and resource constraints: Issues of food, agriculture, and development. *Population and Development Review*, 31(2), pp. 237-258.
- Amanor, K. S., & Pabi, O. (2007). Space, time, rhetoric and agricultural change in the transition zone of Ghana. *Human Ecology*, 35(1), 51-67.
- Arango, J. (2000). Explaining migration: A critical view. *International Social Science Journal*, 52(165), 283-296.
- Aryeetey E. & McKay A (2004). Operationalizing Pro-Poor Growth: Ghana Case Study. Department for International Development and World Bank, London, UK.
- Atkins, P. J., & Bowler, I. R. (2001). *Food in society :Economy, culture, geography*. London: Hodder Arnold.

- Awumbila, M., & Ardayfio-Schandorf, E. (2008). Gendered Poverty, Migration and Livelihood Strategies of Female Porters in Accra, Ghana. *Norwegian Journal of Geography*, 62(3)
- Baro, M., & Deubel, T. F. (2006). Persistent hunger: Perspectives on vulnerability, famine, and food security in Sub-Saharan Africa. *Annual Review of Anthropology*, 35, 521-538.
- Barrett, C. (2000). Famine in Africa: Causes, responses, and prevention. *Agricultural Economics*, 23(1), 91-92.
- Baxter, J., & Eyles, J. (1997). Evaluating qualitative research in social geography: Establishing 'rigour' in interview analysis. *Transactions of the Institute of British Geographers*, 22(4), pp. 505-525.
- Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, 13, 544.
- Beyer, L. (2002). Social geography and sustainability of cultivation. In Krishna, K. R. (Ed). *Soil fertility and crop production*. Enfield, N.H.: Science Publishers.
- Bilsborrow, R. E., & Ogendo, H. W. O. O. (1992). Population-driven changes in land-use in developing-countries. *Ambio*, 21(1), 37-45.
- Black R., King R. & Tiemoko R. (2003). Migration, return and small enterprise development in Ghana: a route out of poverty? *International Workshop on Migration and Poverty in West Africa March 13-14, 2003. University of Sussex March 2003*
- Boateng, E.A. (1959). *A geography of Ghana*. Cambridge, U.K. Cambridge University Press,
- Bonfiglioli, A. (2008). Financial integration, productivity and capital accumulation. *Journal of International Economics*, 76(2), 337-355.
- von Braun, J., Tesfaye Teklu, Webb, P., & International Food Policy Research Institute. (1999; 1998). *Famine in Africa :Causes, responses, and prevention*. Baltimore, Md.: Johns Hopkins University Press.
- de Brauw, A. (2010). Seasonal migration and agricultural production in Vietnam. *Journal of Development Studies*, 46(1), 114-139.
- Cai, Q. (2003). Migrant remittances and family ties: A case study in China. *International Journal of Population Geography*, 9(6), 471-483.

- Campbell, C. C. (1991). Food insecurity - a nutritional outcome or a predictor variable. *Journal of Nutrition*, 121(3), 408-415.
- Campbell, D. J. (1999). Response to drought among farmers and herders in southern Kajiado District, Kenya: A comparison of 1972-1976 and 1994-1995. *Human Ecology*, 27(3), pp. 377-416.
- Campbell, E. K. (2010). The role of remittances in Botswana: Does internal migration really reward sending families? *Population Space and Place*, 16(2), 151-164.
- Chaiklin, H. (2000). Doing case study research. *American Journal of Dance Therapy*, 22(1), 47-59.
- Cheru, F. (1992). Structural adjustment, primary resource trade and sustainable development in Sub-Saharan Africa. *World Development*, 20(4), 497-512.
- Clover J. (2003). Food Security in Sub-Saharan Africa. *African Security Review* 12.1 145-154
- Conroy, C., Iyengar, S., Lobo, V., & Rao, G.B. (2001). Household Livelihood and Coping Strategies in Semi-arid India: Adapting to Long-term Changes". Research Project Report, Society for Promotion of Wastelands Development.
- Corbett, J. (1988). Famine and household coping strategies. *World Development*, 16(9), 1099-1112.
- Crabtree, B. F., & Miller, W. L. (1999). *Doing qualitative research* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Crang, P. (2005). Analysing qualitative Materials. In R. Flowerdew and D. Martins (Eds.) *Methods in human geography: A guide to doing a research project*, Second Edition. Essex, England: Pearson Educational Ltd.
- Creswell, J. W. (2003). *Research design :Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, Calif.: Sage Publications.
- Denzin, N. K., & Lincoln, Y. S. (2005). *The SAGE handbook of qualitative research* (3rd ed.). Thousand Oaks: Sage Publications.
- Devereux, S. (2000). Famine in Africa: Causes, responses, and prevention. *Food Policy*, 25(2), 225-229.
- Devereux, S. (2009). Why does famine persist in Africa? *Food Security* 1(1), 25-35.
- Diao, X., Hazell, P., & Thurlow, J. (2010). The role of agriculture in African development. *World Development*, 38(10), 1375-1383.

- Diao, X., & Sarpong, P. (2007) Cost Implications of Agricultural Land Degradation in Ghana an Economy-wide, Multimarket model Assessment. Background Paper No. GSSP 0003 Ghana Strategy Support Program (GSSP)
- Dilley, M., & Boudreau, T. E. (2001). Coming to terms with vulnerability: A critique of the food security definition. *Food Policy*, 26(3), 229-247.
- Donkor, K. (1997). *Structural adjustment and mass poverty in Ghana*. Aldershot: Ashgate.
- Drakakis-Smith, D. W. (1994). Food systems and the poor in Harare under conditions of structural adjustment. *Geografiska Annaler. Series B, Human Geography*, 76(1), pp. 3-20.
- Drèze, J. (2004). Democracy and right to food. *Economic and Political Weekly*, 39(17), pp. 1723-1731.
- Durand, J., Kandel, W., Parrado, E. A., & Massey, D. S. (1996). International migration and development in Mexican communities. *Demography*, 33(2), 249-264.
- Easterly, W. (2005). What did structural adjustment adjust? the association of policies and growth with repeated IMF and world bank adjustment loans. *Journal of Development Economics*, 76(1), 1-22.
- Easterly, W. (2009). How the millennium development goals are unfair to Africa. *World Development*, 37(1), 26-35.
- Ellis, F. (1998). Household strategies and rural livelihood diversification. *Journal of Development Studies*, 35(1), 1-38.
- Eriksen, S. H., Brown, K., & Kelly, P. M. (2005). The dynamics of vulnerability: Locating coping strategies in Kenya and Tanzania. *The Geographical Journal*, 171(4), pp. 287-305.
- Ezra, M. (2001). Demographic responses to environmental stress in the drought- and famine-prone areas of northern Ethiopia. *International Journal of Population Geography*, 7(4), 259-279.
- Food and Agriculture Organisation (FAO) (2006). Policy Brief. *pb_02.pdf (application/pdf object)* Retrieved 7/19/2011, 2011, from ftp://ftp.fao.org/es/ESA/policybriefs/pb_02.pdf
- Freidberg, S. (2003). French beans for the masses: A modern historical geography of food in burkina faso. *Journal of Historical Geography*, 29(3), 445-463.

- van der Geest Kees (2008). North-South migration in Ghana: What role for the environment? *Environment, Forced Migration & Social Vulnerability. International Conference 9-11 October 2008*
- van der Geest, K. (2011). North-south migration in Ghana: What role for the environment? *International Migration*, 49, e69-e94.
- van der Geest, K. (2003). Rural migration and livelihood security in Ghana. Paper presented at the International Workshop on Migration and Poverty in West Africa, University of Sussex, March 13 – 14.
- van der Geest, K. (2010). Local perceptions-of migration from north-west Ghana. *Africa*, 80(4), 595-619.
- van der Geest, K., Vrieling, A., & Dietz, T. (2010). Migration and environment in Ghana: A cross-district analysis of human mobility and vegetation dynamics. *Environment & Urbanization*, 22(1), 107-123.
- Ghana Poverty Reduction Strategy, GPRS (2005). Ministry of Finance and Economic Development, Government of Ghana.
- Ghana Statistical Service GSS (2000). Housing and population census report of Ghana.
- Ghana Statistical Service GSS (2011). Housing and population census report of Ghana.
- Glasser, B. & Strauss, A. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*, Chicago: Aldine Publishing Company.
- Gough, K. V., & Yankson, P. W. K. (2000). Land markets in african cities: The case of peri-urban accra, ghana. *Urban Studies*, 37(13), 2485-2500.
- Gray, C. (2009). Rural out-migration and smallholder agriculture in the southern Ecuadorian Andes. *Population and Environment*, 30(4-5), 193-217.
- Gray, C. L. (2009). Environment, land, and rural out-migration in the southern Ecuadorian Andes. *World Development*, 37(2), 457-468.
- Grieco, E. (2004). Will Migrant Remittances Continue Through Time? A New Answer to an Old Question. *International Journal on Multicultural Societies*, Vol. 6, No. 2, 2004:243- 252
- de Haan, A. (1999). Livelihoods and poverty: The role of migration - A critical review of the migration literature. *Journal of Development Studies*, 36(2), 1-47.

- de Haan, A., Brock, K., & Coulibaly, N. (2002). Migration, livelihoods and institutions: Contrasting patterns of migration in Mali. *Journal of Development Studies*, 38(5), 37-+.
- de Haas, H. (2006). Migration, remittances and regional development in southern morocco. *Geoforum*, 37(4), 565-580.
- de Haas, H., & Fokkenia, T. (2010). Intra-household conflicts in migration decisionmaking: Return and pendulum migration in morocco. *Population and Development Review*, 36(3), 541-+.
- Hancock, D. R., & Algozzine, R. (2006). *Doing case study research :A practical guide for beginning researchers*. New York: Teachers College Press.
- Hear, N. V. (1984). 'By-day' boys and dariga men: Casual labour versus agrarian capital in northern ghana. *Review of African Political Economy*, (31, Capital vs. Labour in West Africa), pp. 44-56.
- Hesse-Biber, S. N., & Leavy, P. (2004). *Approaches to qualitative research :A reader on theory and practice*. New York, NY: Oxford University Press.
- Jalan, J., & Ravallion, M. (2000). Is transient poverty different? evidence for rural china. *Journal of Development Studies*, 36(6), 82.
- de Janvry, A., & Sadoulet, E. (2002). World poverty and the role of agricultural technology: Direct and indirect effects. *Journal of Development Studies*, 38(4), 1-26.
- Kazianga H., de Walque, D. & Alderman. H. (2009) Educational and Health Impacts of Two School Feeding Schemes Evidence from a Randomized Trial in Rural Burkina Faso. *Policy Research Working Paper 4976* The World Bank Development Research Group
- Kendall, A., Olson, C. M., & Frongillo, E. A. (1995). Validation of the Radimer/cornell measures of hunger and food insecurity. *Journal of Nutrition*, 125(11), 2793-2801.
- Khush, G. S. (1999). Green revolution: Preparing for the 21st century. *Genome*, 42(4), 646-655.
- Kidd, P. S., & Parshall, M. B. (2000). Getting the focus and the group: Enhancing analytical rigor in focus group research. *Qualitative Health Research*, 10(3), 293-308.
- Konadu-Agyemang, K. (2000). The best of times and the worst of times: Structural adjustment programs and uneven development in Africa: The case of Ghana. *Professional Geographer*, 52(3), 469-483.

- Konadu-Agyemang, K., & Adanu, S. (2003). The changing geography of export trade in Ghana under structural adjustment programs: some socio-economic spatial implications. *The Professional Geographer* 55(4), 513-527.
- Konseiga, A. (2007). Household migration decisions as survival strategy: The case of Burkina Faso. *Journal of African Economies*, 16(2), 198-233.
- Kothari, U. (2002). Migration And Chronic Poverty. Institute for Development Policy and Management, University of Manchester. Working Paper No 16 Chronic Poverty Research Center.
- Kraus, J. (1991). The struggle over structural adjustment in Ghana. *Africa Today*, 38(4), 19-37.
- Kwapong, O. (2009), The Poor and Land: A Situational Analysis of Access To Land by Poor Land Users in Ghana. *Journal of Rural and Community Development* 4, 1 (2009) 51-66
- Lentz, C. (2000). Of hunters, goats and earth-shrines: Settlement histories and the politics of oral tradition in northern Ghana. *History in Africa*, 27, pp. 193-214.
- Lentz, C. (2010). Land inalienable? historical and current debates on land transfers in northern Ghana. *Africa*, 80(1), 56-80.
- Levitt, P. (1998). Social remittances: Migration driven local-level forms of cultural diffusion. *International Migration Review*, 32(4), 926-948.
- Lobnibe, I. (2008). Between aspirations and realities: Northern Ghanaian migrant women and the dilemma of household (re)production in southern Ghana. *Africa Today*, 55(2), 53-74.
- Lobnibe, I. (2010) Of Jong Migrants and Jongsecans: understanding contemporary rural out-migration from Northwest Ghana. *Journal of Dagaare Studies* 7.10 1-21
- Lucas, R. E. B. (2005). *International migration and economic development : Lessons from low-income countries*. Cheltenham, UK ; Northampton, MA: Edward Elgar Pub.
- Luginaah, I. (2008). Local gin (akpeteshie) and HIV/AIDS in the Upper West Region of Ghana: The need for preventive health policy. *Health and Place*, 14(4), 806-816.
- Luginaah, I. N. & Yanful, E. K. (2009). *Environment and health in Sub-Saharan Africa: Managing an emerging crisis*. Dordrecht: Springer Netherlands.

- Luginaah, I., & Dakubo, C. (2003). Consumption and impacts of local brewed alcohol (akpeteshie) in the upper west region of Ghana: A public health tragedy. *Social Science and Medicine*, 57(9), 1747-1760.
- Luginaah, I., Weis, T., Galaa, S., Nkrumah, M.K., Benzer-Ker, R., & Bagah, D. (2009). Environment, Migration and Food Security in the Upper West of Ghana." In Luginaah, Isaac N., Ernest K. Yanful. *Environment and Health in Sub-Saharan Africa: Managing an Emerging Crisis*. Dordrecht: Springer Netherlands, 2009.
- Maxwell S. & Smith M. (1992). Part I – Household Food Security: A Conceptual Review. Institute of Development Studies, University of Sussex.
- Maxwell, D. G. (1996). Measuring food insecurity: The frequency and severity of "coping strategies". *Food Policy*, 21(3), 291-303.
- Maxwell, D., Ahiadeke, C., Levin, C., Armar-Klemesu, M., Zakariah, S., & Lamptey, G. M. (1999). Alternative food-security indicators: Revisiting the frequency and severity of 'coping strategies'. *Food Policy*, 24(4), 411-429.
- Maxwell, D., Caldwell, R., & Langworthy, M. (2008). Measuring food insecurity: Can an indicator based on localized coping behaviours be used to compare across contexts? *Food Policy*, 33(6), 533-540.
- Maxwell, D., Caldwell, R. & Langworthy, M. (2008). Measuring Food Insecurity: Can an Indicator Based on Localized Coping Behaviours be used to Compare Across Contexts? *Food Policy* 33(6) 533-40.
- Maxwell, S. (1996). Food security: A post-modern perspective. *Food Policy*, 21(2), 155-170.
- Maykut, P. S. & Morehouse, R. (1994). *Beginning qualitative research*. London ;; Washington, D.C.: Falmer Press.
- Mechlem, K. (2004). Food security and the right to food in the discourse of the united nations. *European Law Journal*, 10(5), 631-648.
- Mehta, A. K. & Shah A. (2003). Chronic Poverty in India: Incidence, Causes and Policies. *World Development* 31.3, 491–511.
- Mendola, M. (2006). Rural out-migration and economic development at origin What do we know? Sussex Migration Working Paper No 40. Sussex Centre for Migration Research.
- Mertz, O., Mbow, C., Reenberg, A., & Diouf, A. (2009). Farmers' perceptions of climate change and agricultural adaptation strategies in rural Sahel. *Environmental Management*, 43(5), 804-816.

- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded source book* (2nd ed.). Thousand Oaks, CA: Sage.
- Miller L. William & Crabtree F. Benjamin (2004) Depth Interviewing. In Hesse-Biber, N. Sharlene & Leavy Patricia (Eds.), *Approaches to Qualitative Research: A Reader on Theory and Practices* (pp. 185 – 202). Oxford University Press
- Moore, W. H., & Shellman, S. M. (2006). Refugee or internally displaced person? to where should one flee? *Comparative Political Studies*, 39(5), 599-622.
- Morgan, D. L. (1993) Qualitative content analysis: a guide to paths not taken. *Qualitative Health Research* 3, 112-121.
- Morton, J. F. (2007). The impact of climate change on smallholder and subsistence agriculture. *Proceedings of the National Academy of Sciences of the United States of America*, 104(50), 19680-19685.
- Moser, C. (1996). *Confronting Crisis: A Comparative Study of Household Response to Poverty and Vulnerability in Four Poor Urban Communities*. Environmentally Sustainable Development Studies and Monograph Series, No. 20 Washington, DC: World Bank.
- Mougeot, L.A. (2000). Urban agriculture: definition, presence, potentials and risks, and policy challenges. Cities Feeding People Series Report 31 IDRC. *117785.pdf (application/pdf object)* Retrieved 7/19/2011, 2011, from <http://idl-bnc.idrc.ca/dspace/bitstream/10625/26429/12/117785.pdf>
- Mullings, B. (1999). Insider or outsider, both or neither: Some dilemmas of interviewing in a cross-cultural setting. *Geoforum*, 30(4), 337-350.
- Mwabu, G., & Thorbecke, E. (2004). Rural development, growth and poverty in Africa. *Journal of African Economies*, 13, 16-65.
- Mworia, J.K. & Kinyamario, J.I. (2008). Traditional Strategies used by Pastoralists to Cope with la Nina Induced Drought in Kajiado, Kenya. *African Journal of Environmental Science and Technology* 2.1 010-014.
- Nabila, J. S. (1975). Rural Migration and its Implications for Rural Development in Ghana, In C.K. Brown (ed) *Rural Development in Ghana*. Accra: Ghana Universities Press, 75-89
- New Partnership for Africa's Development (NEPAD). Comprehensive Africa Agriculture Development Programme (CAADP). July 2003
- Nord, M., & Radimer, K. (2005). Measuring frequent or chronic food insecurity in household surveys. *Faseb Journal*, 19(5), A1023-A1023.

- Nyarko, B. K., Essumang, D. K., Eghan, M. J., Reichert, B., Giesen, V. D., & Vlek, P. (2010). Use of isotopes to study floodplain wetland and river flow interaction in the White Volta river basin, Ghana. *Isotopes in Environmental & Health Studies*, 46(1), 91-106.
- ODI/CEPA (2005). Overseas Development Institute (ODI) & Center for Policy Analysis (CEPA) 2005. Economic Growth in Northern Ghana Revised Report for DfID, Accra, Ghana
- Parry, M., Rosenzweig, C., & Livermore, M. (2005). Climate change, and risk global food supply of hunger. *Philosophical Transactions of the Royal Society B-Biological Sciences*, 360(1463), 2125-2138.
- Patton, M. Q., & Patton, M. Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). Newbury Park, Calif.: Sage Publications.
- Polkinghorne, D. E. (2005). Language and meaning: Data collection in qualitative research. *Journal of Counseling Psychology*, 52(2), 137-145.
- Portes, A., & Borocz, J. (1989). Contemporary immigration - theoretical perspectives on its determinants and modes of incorporation. *International Migration Review*, 23(3), 606-630.
- Quan J., Tan, F.S. & Toulmin C. (2004) (eds). Land in Africa Market Asset or Secure Livelihood? Proceedings and Summary of Conclusions from the Land in Africa Conference held in London November 8-9, 2004
- Quaye, W. (2008). Food security situation in northern Ghana, coping strategies and related constraints. *African Journal of Agricultural Research*, 3(5), 334-342.
- Raleigh C., Jordan L. & Salehyan. I. (2008). Assessing the Impact of Climate Change on Migration and Conflict. Social Development Department The World Bank
- Raleigh, C., & Urdal, H. (2007). Climate change, environmental degradation and armed conflict. *Political Geography*, 26(6), 674-694.
- Ramakrishna G. & Demeke A. (2002). An Empirical Analysis of food Insecurity in Ethiopia: The Case of North Wello. *African Development*, Vol.XXVII, Nos. 1&2, 2002. 127-143
- Reardon, T., Matlon, P., & Delgado, C. (1988). Coping with household-level food insecurity in drought-affected areas of Burkina Faso. *World Development*, 16(9), 1065-1074.
- Reuveny, R. (2007). Climate change-induced migration and violent conflict. *Political Geography*, 26(6), 656-673.

- Riddell, J. B. (1992). Things fall apart again: Structural adjustment programmes in Sub-Saharan Africa. *The Journal of Modern African Studies*, 30(1), pp. 53-68.
- Rimmer, D. (1998). Structural adjustment and mass poverty in Ghana. *Journal of Modern African Studies*, 36(3), 537-538.
- Roe, T. L. (2000). Famine in Africa: Causes, responses, and prevention. *European Review of Agricultural Economics*, 27(2), 256-258.
- Rosegrant, M. W., & Cline, S. A. (2003). Global food security: Challenges and policies. *Science*, 302(5652), pp. 1917-1919.
- Rosenberg, J. P., & Yates, P. M. (2007). Schematic representation of case study research designs. *Journal of Advanced Nursing*, 60(4), 447-452.
- Rozelle, S., Taylor, J. E., & de Brauw, A. (1999). Migration, remittances, and agricultural productivity in china. *American Economic Review*, 89(2), 287-291.
- Ruel, M. T. (2003). Operationalizing dietary diversity: A review of measurement issues and research priorities. *The Journal of Nutrition*, 133(11), 3911S-3926S.
- Sahn, D. E., & Stifel, D. C. (2003). Progress toward the millennium development goals in Africa. *World Development*, 31(1), 23-52.
- Sanchez, P. A. (2000). Linking climate change research with food security and poverty reduction in the tropics. *Agriculture Ecosystems & Environment*, 82(1-3), 371-383.
- Sandelowski, M. (2001). Real qualitative researchers do not count: The use of numbers in qualitative research. *Research in Nursing & Health*, 24(3), 230-240.
- Schmidhuber, J., & Tubiello, F. N. (2007). Global food security under climate change. *Proceedings of the National Academy of Sciences of the United States of America*, 104(50), 19703-19708.
- Schrieder, G., & Knerr, B. (2000). Labour migration as a social security mechanism for smallholder households in Sub-Saharan Africa: The case of Cameroon. *Oxford Development Studies*, 28(2), 223-236.
- Scoones, I. (1998). Sustainable Rural Livelihoods: A Framework for Analysis. IDS Working Paper 72, 1998
- Seale, C. (2004). *Qualitative research practice*. London; Thousand Oaks, Calif.: Sage.
- Seale, C., & Silverman, D. (1997). Ensuring rigour in qualitative research. *The European Journal of Public Health*, 7(4), 379-384.

- Seidman, I. (2006). *Interviewing as qualitative research :A guide for researchers in education and the social sciences* (3rd ed.). New York: Teachers College Press.
- Sen, A. (1981). *Poverty and Famines. An Essay on Entitlement and Deprivation*. Oxford University Press
- Senefeld, S. & Polsky, K. (2005). Chronically Ill Households, Food Security, and Coping Strategies in Rural Zimbabwe. In Gillespie, Stuart, ed. 2006. *AIDS, poverty, and hunger: Challenges and responses*. Highlights of the International Conference on HIV/AIDS and Food and Nutrition Security, Durban, South Africa, April 14–16, 2005. Washington, D.C.: International Food Policy Research Institute.
- Shipton, P. (1990). African famines and food security: Anthropological perspectives. *Annual Review of Anthropology*, 19, pp. 353-394.
- Silverman, D. (2005). *Doing qualitative research :A practical handbook* (2nd ed.). London: Sage.
- Skeldon, R. (2009), Of Skilled Migration, Brain Drains and Policy Responses. *International Migration*, 47(4), 3–29.
- Skeldon, R. (2008), International Migration as a Tool in Development Policy: A Passing Phase?. *Population and Development Review*, 34(1), 1–18.
- Standard Monitoring and Assessment of Relief and Transitions (SMART) Methodology (2006). *Measuring mortality, nutritional status, and food security in crisis situations: SMART methodology, version 1, April 2006*
[http://www.smartindicators.org/SMART_Methodology_08-07-2006.pdf]
- Smith, D. R., Gordon, A., Meadows, K., & Zwick, K. (2001). Livelihood diversification in Uganda: Patterns and determinants of change across two rural districts. *Food Policy*, 26(4), 421-435.
- Songsore J. (1983): *Intraregional and Interregional Labour Migration in Historical Perspectives: The Case of Northern Ghana*. Port Harcourt, Nigeria: University of Port Harcourt Press.
- Songsore, J. & Denkabe, A. (1995), *Challenging Rural Poverty in Northern Ghana: The case of the Upper West region* (Universitetet I Trondheim, Trondheim, 1995).
- Sporton, D., Thomas, D. S. G., & Morrison, J. (1999). Outcomes of social and environmental change in the Kalahari of Botswana: The role of migration. *Journal of Southern African Studies*, 25(3), 441-459.

- Staatz, J. M., Dagostino, V. C., & Sundberg, S. (1990). Measuring food security in Africa - conceptual, empirical, and policy issues. *American Journal of Agricultural Economics*, 72(5), 1311-1317.
- Stark, O., & Bloom, D. E. (1985). The new economics of labour migration. *American Economic Review*, 75(2), 173-178.
- Stark, O., & Lucas, R. E. B. (1988). Migration, remittances, and the family. *Economic Development and Cultural Change*, 36(3), 465-481.
- Sutton, I. (1989). Colonial agricultural policy: The non-development of the northern territories of the gold coast. *The International Journal of African Historical Studies*, 22(4), pp. 637-669.
- Swindale, A., & Bilinsky, P. (2006). Development of a universally applicable household food insecurity measurement tool: Process, current status, and outstanding issues. *Journal of Nutrition*, 136(5), 1449-1452.
- Tadesse, T., Haile, M., Senay, G., Wardlow, B. D., & Knutson, C. L. (2008). The need for integration of drought monitoring tools for proactive food security management in sub-saharan africa. *Natural Resources Forum*, 32(4), 265-279.
- Takasaki, Y., Barham, B. L., & Coomes, O. T. (2004). Risk coping strategies in tropical forests: Floods, illnesses, and resource extraction. *Environment and Development Economics*, 9(2), 203-224.
- Taylor, J. E. (1999). The new economics of labour migration and the role of remittances in the migration process. *International Migration*, 37(1), 63-88.
- Taylor, J. E., & Lopez-Feldman, A. (2010). Does migration make rural households more productive? evidence from Mexico. *Journal of Development Studies*, 46(1), 68-90.
- Tobias, J. (2010). Embodied political ecologies of health: a case study of alcohol and infectious diseases in the Upper West Region of Ghana. Unpublished Masters Dissertation. University of Western Ontario
- United Nations Millennium Development Goals (MDG) Report (2010). *MDG report 2010 en r15 -low res 20100615 -.pdf (application/pdf object)* Retrieved 7/19/2011, 2011, from [http://www.un.org/millenniumgoals/pdf/MDG Report 2010 En r15 -low res 20100615 -.pdf#page=13](http://www.un.org/millenniumgoals/pdf/MDG%20Report%202010%20En%20r15%20-low%20res%20100615%20-.pdf#page=13)
- de Waal, A. (2000). Famine in Africa: Causes, responses, and prevention. *Disasters*, 24(1), 80-81.
- Wardell, D. A., Reenberg, A., & Tettrup, C. (2003). Historical footprints in contemporary land use systems: Forest cover changes in savannah woodlands in the Sudano-

- Sahelian zone. *Global Environmental Change-Human and Policy Dimensions*, 13(4), 235-254.
- Watts, M. J. (2001). Famine in Africa: Causes, responses and prevention. *Journal of Modern African Studies*, 39(1), 163-165.
- Watts, M., & Bohle, H. (1993). The space of vulnerability: The causal structure of hunger and famine. *Progress in Human Geography*, 17(1), 43-67.
- Webb P. & Rogers , B. (2003) Addressing the “In” in Food Insecurity. *Occasional Paper No. 1*. (2003) USAID Office of Food for Peace.
- Webb, P., Coates, J., Frongillo, E. A., & Rogers, B. L., (2006). Measuring household food insecurity: Why it's so important and yet so difficult to Do. *The Journal of Nutrition*, 136(5), 1404S-1408S.
- Whitehead, A. (2002). Tracking livelihood change: Theoretical, methodological and empirical perspectives from north-east Ghana. *Journal of Southern African Studies*, 28(3), 575-598.
- Whitehead, A. (2006). Persistent poverty in north east Ghana. *Journal of Development Studies*, 42(2), 278-300.
- Wolfe W. S. & Frongillo E. A. (2001). Building household food-security measurement tools from the ground up. *Food and Nutrition Bulletin*, vol. 22, The United Nations University.
- World Bank World Development Report(2010). *WDR10-full-text.pdf (application/pdf object)* Retrieved 7/19/2011, 2011, from <http://siteresources.worldbank.org/INTWDR2010/Resources/5287678-1226014527953/WDR10-Full-Text.pdf>
- Yin, R. K. (2003). *Case study research : Design and methods* (3rd ed.). Thousand Oaks, Calif.: Sage Publications.

APPENDICES

Appendix A: Dependents Interview Guide (UWR)

Basic Information

Name

Age

Sex

Level of Education

Location

Agricultural Activities and Livelihood Strategies in the UWR

How did you and you household come by the land you currently farm on?

What are the arrangements within the household for accessing land?

What crops do you cultivate?

What is the size of your farm?

Can you estimate the quantity of your annual harvest?

Can you compare farming here in the BAR to farming in the UWR?

What agricultural services are available to you and how do you acquire these services?

Give an assessment on the adequacy of these services to your farming activities

What are the challenges if any that you face in your agricultural activities?

Are you involved in other economic activities and why or why not?

Does anybody in your household undertake other economic activities?

Do you belong to any networks or associations?

What are some of the activities the group involves in?

Is their work or activities beneficial to your farming activities?

Household Access to food

How many people live in your household?

What are the most common foods consumed by your household?

What crops are typically cultivated in this area?

What crops do you cultivate and why?

How is the decision about what to eat and when made in the household?

Do you think male and female household members are treated the same way when it comes to food? Why?

Consumption Coping Strategies

Are there ever instances where there is food shortage in your household?

Which times does your household typically have food shortages?

What do you do when there is less or no food to eat in the household?

What informed your choice of these options?

How often do you vary these options you have indicated?

What considerations would you say are the most significant influence in your food choice and why?

Do you readily get help when you run out of food?

What are the kinds of help you get?

Who gives you this help?

Why do they help you?

Migration and Remittances

In your opinion why do people migrate from UWR?

Why did your relative choose to go to the BAR?

Can you describe how food remittances are sent to your household here in the UWR?

What challenges do you face in getting remitted food to your household?

What times do you typically receive food remittances and why those times?

Is there ever any type of communication between migrants and dependents on when and how to send food remittances?

Appendix B: Migrants Interview Guide (BAR)

Basic Information

Name

Age

Sex

Level of Education

Current location of residence

Time in current location

Hometown

Livelihood Strategies and Access to Agricultural Resources

How long have you been farming in the BAR?

Why did you migrate to the BAR?

Why did you come to the BAR and not any other place?

How did you come by the land you currently farm on?

What is the size of land you farm on?

Are there any special arrangements for the acquisition of land?

What are the terms of reference for the use of these lands?

How do you assess these arrangements?

Is there anything you wish was different about these arrangements?

How will you compare farming here in the BAR to farming in the UWR?

What is the quantity of food you harvest every year?

What agricultural services are available to you and how do you acquire these services?

Give an assessment on the adequacy of these services to your farming activities

What are the challenges if any that you face in your agricultural activities here in the BAR?

Are there some other economic activities within this area that you would want to involve in and why?

Are there any forms of networks or associations that you belong to?

What are some of the activities the group involves in?

Is their work or activities beneficial to your farming activities?

Household Access to food

What crops are typically cultivated in this area?

What crops do you cultivate and why?

What are the most common foods consumed by your household?

What are some of the most commonly eaten foods in this area?

Do you think male and female household members are treated the same way when it comes to food? Why?

Are there ever instances where there is no food in your household?

What do you do when there is less or no food to eat in the household?

What informed your choice of these options?

What considerations would you say is the most significant influence in your food choice and why?

Food Remittances

Why do you send food remittances to the UWR?

Can you describe how you send food remittances the UWR?

What times do you typically send food remittances and why those times?

Is there ever any type of communication between you and dependents in the UWR on when and how to send food remittances?

What challenges do you face in sending food remittances?

Conclusion/Looking Forward

Are there ever instances where there is no food in your household?

What do you do when there is less or no food to eat in the household?

What informed your choice of these options?

How often do you send food remittances to the UWR?

What considerations would you say is the most significant influence in your food choice and why?

Food Remittances

Why do you send remittances to the UWR?

Appendix C: Migrant Focus Group Guide (BAR)

Livelihood Strategies and Access to Agricultural Resources in BAR

Why do people migrate from UWR to the BAR?

How does a person come by land for farming in this area?

Are there any special arrangements for the acquisition of land?

What are the terms of reference for the use of these lands?

How do you assess these arrangements?

Is there anything you wish was different about these arrangements?

What agricultural services are available to you and how do you acquire these services?

Describe the challenges if any faced by migrant farmers in their agricultural activities

Are there some other economic activities within this area that you would want to involve in and why?

Access to food

What crops are typically cultivated in this area?

Which crops do migrants typically cultivate and why?

What are some of the most commonly eaten foods in this area?

Do you think male and female household members are treated the same way when it comes to food? Why?

Consumption Coping Strategies

Are there ever instances where there is no food in your household?

What do you do when there is less or no food to eat in the household?

What informed your choice of these options?

How often do you vary these options you have indicated?

What considerations would you say is the most significant influence in your food choice and why?

Food Remittances

Why do you send remittances to the UWR?

Describe how food remittances are sent to the UWR?

Describe what can be considered as the main challenges in sending food remittances to UWR

What times do you typically send food remittances and why those times?



Appendix D: The University of Western Ontario Ethics Approval



Office of Research Ethics

The University of Western Ontario
 Room 4180 Support Services Building, London, ON, Canada N6A 5C1
 Telephone: (519) 661-3036 Fax: (519) 850-2466 Email: ethics@uwo.ca
 Website: www.uwo.ca/research/ethics

Use of Human Subjects - Ethics Approval Notice

Principal Investigator: Dr. I.N. Luginaah

Review Number: 16939S

Review Level: Full Board

Review Date: March 05, 2010

Approved Local # of Participants: 0

Protocol Title: Food Security Situation of Migrant and local Farmers in the Brong Ahafo Region of Ghana

Department and Institution: Geography, University of Western Ontario

Sponsor:

Ethics Approval Date: March 24, 2010

Expiry Date: August 31, 2010

Documents Reviewed and Approved: UWO Protocol, Letter of Information and Consent (Focus Group), Letter of Information and Consent (Interview).

Documents Received for Information:

This is to notify you that The University of Western Ontario Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the applicable laws and regulations of Ontario has granted approval to the above named research study on the approval date noted above.

This approval shall remain valid until the expiry date noted above assuming timely and acceptable responses to the NMREB's periodic requests for surveillance and monitoring information. If you require an updated approval notice prior to that time you must request it using the UWO Updated Approval Request Form.

During the course of the research, no deviations from, or changes to, the study or consent form may be initiated without prior written approval from the NMREB except when necessary to eliminate immediate hazards to the subject or when the change(s) involve only logistical or administrative aspects of the study (e.g. change of monitor, telephone number). Expedited review of minor change(s) in ongoing studies will be considered. Subjects must receive a copy of the signed information/consent documentation.

Investigators must promptly also report to the NMREB:

- changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
- all adverse and unexpected experiences or events that are both serious and unexpected;
- new information that may adversely affect the safety of the subjects or the conduct of the study.

If these changes/adverse events require a change to the information/consent documentation, and/or recruitment advertisement, the newly revised information/consent documentation, and/or advertisement, must be submitted to this office for approval.

Members of the NMREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the NMREB.

Chair of NMREB: Dr. Jerry Paquette
 FDA Ref. #: IRB 0000941

Ethics Officer to Contact for Further Information

<input checked="" type="checkbox"/> Grace Kelly (grace.kelly@uwo.ca)	<input type="checkbox"/> Janice Sutherland (jsuther@uwo.ca)	<input type="checkbox"/> Elizabeth Wambolt (ewambolt@uwo.ca)	<input type="checkbox"/> Denise Grafton (dgrafton@uwo.ca)
---	--	---	--

This is an official document. Please retain the original in your files.

cc: ORE File