

**PERCEIVED IMPACT OF RURAL-URBAN MIGRATION ON AGRICULTURAL
PRODUCTIVITY IN NANUMBA SOUTH DISTRICT OF NORTHERN REGION**

BY

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



**DEPARTMENT OF AGRICULTURAL EXTENSION, COLLEGE OF
AGRICULTURE AND CONSUMER SCIENCES, UNIVERSITY OF GHANA,
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JULY, 2013

DECLARATION

I, Wuni Baba Mahama, do hereby declare that with the exception of references to other people's work, other work herein submitted is entirely the product of my own research under supervision and has not been presented for any other degree elsewhere.

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DEDICATION

This dissertation is dedicated to my lovely wife, Antamatu Mohammed together with her children; Wuni Mambora Rufayatu, Wuni Abdul-Shakur Mansignaam, Wuni Wuniyam Fahinta and Wuni Daliri Fawzan who gave me the courage and support to pursue this course of study.



ACKNOWLEDGEMENTS

My appreciation goes to my supervisors, Dr. Jonathan N. Anaglo and Dr. Owuraku Sakyi-Dawson for their advice and support towards the progress of this research study. Heaven knows your valuable contribution to the success of this work.

I also express my sincere gratitude to the other senior members in the department who criticized this work constructively during the department's seminar presentation.

I wish to thank Mr. M. J. Y. Tampuri for allowing me to use his office printer to print this piece of work from the draft to the final copy.

I also wish to express my sincere gratitude to the research assistants who helped in collecting data for this project and the respondents whose invaluable information contributed to the success of this project.



Finally and not the least I say to my course mates from whom I sought assistance especially Natia James during the process of data analysis, God bless you all.

ABSTRACT

This study examined perceptions of sending communities' members with regards to causes of out-migration and its effect on agriculture from the perceptions of the non-migrants left behind in migrant sending communities in the Nanumba South District in the Northern Region, Ghana. Many studies in Ghana have focused on the causes and consequences of rural-urban migration in the destination communities without considering how the phenomenon affects the lives of the non-migrants left at the places of origin and their economic activities of which agriculture is the major activity. The framework for analysis of causes of rural-urban migration was the push and pull and the New Economics of Labour Migration (NELM) (migration as a risk aversion strategy) theories whilst the livelihood strategies and outcomes framework was used to analyse the effects. The research design that was adopted for the study was comparative case study. The sample size was made up of 400 farmers within the Nanumba South District, selected through multistage sampling procedure. The first stage involved clustering the district into two, namely 'Overseas' and 'Mainland' areas. 'Mainland' represented a high migration area whilst the 'Overseas' area is considered low migration area. The second stage involved purposeful selection of 8 communities representing the ethnic diversity of the district. The third stage involved random sampling of households in each of the selected communities. The data analysis is a case study comparing communities with low and high levels of out-migration. Aspects considered are, members' perception of causes of rural-urban migration and impact of rural-urban migration on agricultural labour availability, land accessibility and availability and agricultural performance. The study found that all the three theoretical causes of out-migration were perceived to cause out-migration in the district. The pull factors however were stronger followed by the push factors and finally migration as a risk aversion strategy. The impact of out-migration on agriculture included decreased household sources of agricultural labour in both low and high migration communities resulting in high level use of hired labour for farm activities. It is concluded that out-migration affects agricultural productivity negatively resulting in lower farm incomes and food. As a result the livelihoods have been less sustainable in high migration areas. The findings suggest that rural-urban migration is underlined by pull, push and risk aversion factors and that out-migration has negative implications for agricultural productivity and livelihoods in the study area. The study recommends that efforts should continue to increase income growth, and development of social amenities in the area.

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ABBREVIATIONS

DADU	District Agricultural Development Unit
GSS	Ghana Statistical Service
IFAD	International Fund for Agricultural Development
IOM	International Organization for Migration
MoFA	Ministry of Food and Agriculture
NELM	New Economics of Labour Migration
NSD	Nanumba South District Assembly
SADA	Savannah Accelerated Development Authority
SSA	Sub-Saharan Africa
SPSS	Statistical Package for Social Sciences

CHAPTER ONE: BACKGROUND

1.0 Introduction

This chapter introduces us to the background to migration, effects of migration, research questions, objectives, hypothesis, significance of the study and organization of chapters and other pertinent issues related to the study.

1.1 Background to Migration

Unlike mortality and fertility, internal migration does not affect the entire population size of a country. But it has a very important role in redistributing the population size between rural and urban areas and between rural areas of low potential and those of higher agricultural potential. One of the most noteworthy demographic phenomena faced by many developing countries in the world is the shortage of skilled labour and food security, and conversely the rapid population growth in the urban centres, which is largely caused by the prevalence of rural-urban migration (Agesa & Kim, 2001). According to Justina (2007), migration is a wide spread phenomenon, that any study made on an urban centre in Sub-Saharan Africa (SSA) of which Ghana is part, will ever, deal largely with a population that was not born in the place. Bahns (2005) contends that about half of the population in the world lives in cities and urban areas and the population are hypothesized to be around 1 million every year. Most of these have migrated from other parts of the country particularly from the rural areas. The rate of current urban population growth has reached up to 6% in many African countries including Ghana (Accra), Nigeria (Lagos), and Kenya (Nairobi), (Dao, 2002). Migratory movements have multiplied greatly in recent years, because of improved transport, communications, and expansion in urban informal sector employment in most SSA countries (Chant & Radcliff, 1992).

Migration is particularly important in Ghana because of long tradition of population mobility and particularly high rates of rural–urban migration. Caldwell (1969) argued in his study of migration that moving from rural areas to towns has been an important part of farm household livelihood strategy for decades. He observed that to many Ghanaians, urban life represents new employment opportunities, the possibility of working indoors, modernity and being less tied to family duties, which is different from working mainly on farms, coupled with enormous family responsibilities. Northern Ghana has long been characterized by outmigration. Rural households in these communities send out internal migrants for prolonged periods, primarily to the large urban centres in the south (Wouterse, 2010). Recently a new dominant north-south migration stream has emerged involving that of females moving independently of their families to urban centres such as Accra and Kumasi (Awumbila and Ardayfio-Schandorf, 2008).

In SSA, most social roles and status (attributed to gender and age, opportunities and constraints such as access to resources and the opportunity to migrate) are socially embedded. Internal migration is attracting increasing attention among researchers, academics, development practitioners, and policy makers, many of whom attribute the growth of rural–urban migration in particular to increasing unemployment and rural poverty in developing countries (Anarfi et al., 2001; Chant, 2002; Zhao, 2003). Afshar (2003) contended that, the inadequacy of incomes, lack of gainful employment, coupled with poverty in the rural areas, have pushed people out of their villages in search of better sources of livelihoods in the urban areas. According to Bryceson et al. (2000), most of these migrants do not possess relevant skills or education that would enable them secure employment in the formal sector in urban places.

1.2 Effects of out-migration on agriculture

The consensus in the literature about the relationship between migration and agricultural development remains thin. A study conducted by Aworemi, Abdul-Azeez & Opoola (2011) in Nigeria shows that rural-urban migration is a double-edged problem affecting the rural community as well as the urban destinations. They content that rural community is affected because the youths and adults that are supposed to remain in the community and contribute to the development of agriculture in particular and the community in general leave the rural areas for other destinations. The 'lost labour' of able-bodied (migrated) men and women is ascribed a key role in the process of agricultural decline. Interestingly, internal migration is associated with rural and agricultural stagnation or even decline (Regmi and Tisdell, 2002). This has serious implications for agricultural production since most of the work which would have been done by the youths is now left for the aged to do (Angba, 2003). De Haan (1999) suggests that migration does not usually lead to radical transformation of rural agriculture but that it often occupies a central part in the maintenance of rural people's livelihoods.

While migrants are away, households have less labour to allocate to local production activities. If a migrant household's marginal product on the farm is positive, crop production will fall when the household sends out a migrant(s). Taylor et al. (2003) noted that the adverse effect of loss of labour may be high since migrants tend to be younger and better educated than the average rural labourer. Rozelle et al. (1999) report a significant and negative effect of loss of labour on yields. Also, De Brauw and Rozelle (2003) found that the loss of household labour from migration negatively affects household crop income.

In spite of the fact that out-migration results in loss of agricultural labour which subsequently affects productivity and level of farm income, some scholars have argued that

out-migration has positive effects on agriculture. For instance, (Taylor et al., 2003) have argued that loss in yield due to the reduction in available labour may be compensated for (partially) by remittances from the migrant(s), which are used to purchase additional inputs or rent substitutes for labour in cropping. It is possible that, initially the migrants cannot send remittances until they are well settled. However, De Haas (2001) contended that, in the long run, and after an adjustment process, this agricultural decline has often been reversed through agricultural investments made possible by the inflow of remittances. De Brauw and Rozelle (2003) also provide evidence that the remittances sent home by migrants partially compensate for this lost-labour effect, contributing to household incomes directly and also indirectly by stimulating crop production. IFAD (2007) hypothesized that migration is likely to generate a positive income effect on the sending households, raising the household's ability to access important nutritional inputs like food among others. Furthermore, Fasoranti (2009) in his study on perceptions of rural-urban migration in selected rural communities in Ondo State, Nigeria found that over 80% of the respondent agreed or strongly agreed that the movement of a member of the family to an urban location frees more land space for farming in the rural areas. This eventually may lead to increased cultivation and subsequently increased productivity.

In a nut shell, this apparent contradiction in the literature can be partly resolved by the understanding that migration impacts are not the same for different areas across time and space. There are indications that the initial effect of migration on agricultural productivity might indeed have been negative, because of an acute lack of family labour but may subsequently improve if remittances flow from migrants and are invested in agriculture. After reviewing a number of cases in Asia, Deshingkar (2004) concluded that, a loss of labour through migration may or may not reduce agricultural production, remittance may or

may not increase access to assets by alleviating credit constraint: this in turn may or may not increase agricultural production and household incomes.

1.3 The research problem

The Nanumba South District has experienced substantial out-migration of its labour force since the 1981 when the conflict between the Konkombas on one hand and the Nanumbas on the other first occurred (NSDA Profile, 2005). This tribal conflict which resurfaced in 1994 and 1995 led to mass movement of people from the district into the urban areas especially Accra to explore other opportunities. This mass migration of labour force from the area which is predominantly agricultural is perceived to be the cause of labour shortage for agriculture. This together with poor and declining soil fertility and erratic rainfall pattern continue to intensify migration in the district.

The conflict situation has left the study area deprived of basic social amenities and services together with infrastructure that would make a place attractive to live in. This gives a disincentive for people to be attracted to the area. There are few or no other opportunities for livelihood activities apart from farming and a few formal sector employments. The mass migration of the labour force from agriculture and the declining soil fertility together threaten agricultural sustainability in the study area. The out-migration of the agricultural labour force has therefore affected agricultural performance and productivity which subsequently brought about food insecurity and low farm incomes.

Rural-urban migration has been a challenging issue for policy makers and or governments especially in developing countries. The impact of out-migration on rural livelihoods is a moot case. Out-migration may result in drastic decrease in the labour which in turn reduces total cropped area and quality of work giving rise to reduced food production and reduced household wealth leading to increased vulnerability in many rural areas which may, brings

about food insecurity. The impact of rural-urban migration may result in the speedy decline of the rural economy that leads to persistent poverty and food insecurity (Mini, 2000). This arises owing to disproportionate exodus of the youth from the rural areas leaving only aged members and children to constitute the labour force. In Ghana, just as in other parts of the developing world, lack of employment opportunities, pervasive poverty, and the unavailability of basic services and infrastructure are some of the reasons for the upward trend in rural-urban migration. Some scholars attribute the rapid increase of rural-urban migration in particular, to increasing unemployment and rural poverty, inadequate arable land etc. in developing countries (Anarfi et al., 2001; Chant, 2002; and Zhao, 2003).

Agriculture in most African countries including Ghana is still labour intensive, however, some rural farm people have abandon farming and other related agricultural employment and leave for the cities. Out-migration of the youth from the rural areas to urban areas may bring about poor performance in the agricultural sector in the rural areas since agriculture is labour intensive in the developing world.

The driving force behind this out-migration is improved social amenities among others in the cities. In other words, “push and pull factors” have accounted for migration from the rural areas. For example, in areas where there are no communication infrastructure and access to financial institutions, the investment options for receiving families are very limited. On the other hand, areas with good road and transport networks, with positive conditions for agriculture, and that offer local non-farm employment opportunities are much more conducive to attract investment and employment generation (Tacoli, 2002). According to Braunvan (2004) people tend to be pulled to the areas of prosperity and pushed from areas of decline. Migrants are usually concerned with the benefits they hope to gain by moving and usually give less thought to the problems that they will incur as a result of the

process. In this case the pull factor may be at work. Rural-urban migration may be a livelihood diversification strategy diversifying the portfolio of the rural farm people as insurance against risk regarding their livelihoods.

Considering that the conflict in the Nanumba area has subsided, and yet out-migration continues, it is important to understand people's perception of causes of out-migration. This study therefore seeks to find out the community members perception of causes of out-migration for the study area and its impact on agriculture and rural livelihoods in the Nanumba South District. The Nanumba South District is chosen for this study because it is purely agrarian with yam as the predominant crop but is characterized by rapid out-migration especially of the youth.

1.4 Main Research Question

What are the perceived causes of out-migration and its impact on agricultural productivity in the Nanumba South District?

1.5 Specific Research questions

1. What are the factors that influence out-migration in Nanumba South District into the urban areas?
2. What is the relationship between out-migration and agricultural labour availability in rural areas of the Nanumba South District?
3. What is the relationship between out-migration and agricultural land accessibility and availability in the Nanumba South District?
4. What is the relationship between out-migration and agriculture performance in the Nanumba South District?

1.6 Main research objective

To examine the perceived causes and impact of rural-urban migration on agricultural productivity from the perception of the non-migrant farmers left behind in the Nanumba South District.

1.7 Objectives

1. To identify community members perception of causes of out-migration.
2. To determine the effects of out- migration on agricultural labour availability.
3. To examine the effects of out- migration on accessibility of agricultural land.
4. To assess the influence of out-migration on level of farm income.
5. To examine the effect of out-migration on food availability (security).

1.8 Definition of terms and their indicators

1. Out-migration- refers to movement of people from the study area either temporally or permanently to settle in other places.
2. Agricultural labour availability- refers to the work force engaged in agriculture. This is indicated by labour increase or reduction in the district.
3. Agricultural land accessibility- refers to the means by which farmers in the Nanumba South District acquire land for farming. It is indicated by the system of land ownership.
4. Agricultural land availability- refers to adequacy or inadequacy of arable land in the area resulting from out-migration. It is indicated by land availability or unavailability of arable land resulting from out-migration of household members.
5. Agricultural performance- refers to how well or otherwise agriculture is doing in the area. This is indicated by increased time spent in carrying out a specific farm activity, level of farm income and level of agricultural productivity.
6. Food availability- refers to the physical presence of harvested food stuff all year round. It is indicated by adequacy or shortage of food in the area.

7. Farm income- refers to income realized by farmers from the sales of farm produce including animals.

1.9 Justification and significance of the study

In view of the strategic role agricultural productivity plays in bringing about development in the rural areas by way of food security and poverty reduction, attempts to hold back the labour force in the rural areas is important. The results of this study will suggest to policy makers as to how to tackle the issue of rural urban migration of the youth and make agriculture very attractive to them. This would help bring about food security and poverty alleviation as farmers will sell surpluses to meet other social needs including their children education if the youth are engaged in agricultural production. This study will contribute enormously to the current debate on the rural to urban drift.

Findings based on empirical evidence could provide insights to policy makers on the appropriate choice of rural development strategies, which could make the rural areas attractive and offer the same opportunities to the youth out-migrants in the cities. This would make them stay back in their rural communities thus reducing the incidence of rural-urban migration with its associated problems such as food insecurity and rural poverty because of low productivity as a result of labour shortage. Results of the study could also be used as a guide for further research.

1.10 Organization of the study

This chapter presents the structure of the thesis. The thesis is structured in six chapters. The beginning is the general introduction to the study. This focuses on the background of the study, statement of the research problem, objectives of the study and the purpose of the study. The second chapter deals with the operational definitions of some key concepts and

conceptual frame work for the study, literature review, where relevant literature on the study concepts are discussed. In this chapter documented research findings on migration and agricultural production issues are discussed.

In chapter three the methodology used for the study is discussed showing the research method employed and the techniques used in collecting the data and also analyzing it. Chapter four presents the results of the study in the context of the research objectives whilst chapter five deals with the discussion of the research findings in chapter four in line with the research questions. The final chapter which is chapter six gives the summary and review of the research (study), conclusion and recommendation.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

This chapter starts by presenting some definitions and conceptualizations of terminologies. An exact understanding of these terminologies is important in explaining the relationship between migration and agricultural performance or productivity of rural people. The chapter also reviews literature on migration and how it affects agriculture. The literature reviewed mainly aims at getting some theoretical and empirical evidence of why households diversify their livelihood strategies in Sub-Saharan Africa especially through migration and an understanding of migration and how it affects agricultural production in Sub-Saharan Africa and the resultant consequences.

2.1 Conceptualization of key terminologies

This section defines and/or conceptualizes the key terminologies at the heart of the current study: rural areas; livelihood; factors affecting migration and impact of migration on agriculture. Getting together the different perspectives/conceptualizations is of importance particularly in explaining the success or failure to improve the well-being of the respondents.

What are rural areas?

Definition of rural areas varies depending on who is defining them and specific country situations. Its meaning differs significantly between developed countries, countries in transition, and those in the developing world. Nwanze (2000) defined rural areas as areas with population thresholds of between 5,000 and 10,000, who are primarily dependent on agriculture and/or natural resources for their livelihoods. This definition cannot be fully applied to the Ghanaian situation since some people in some urban areas also solely depend on agriculture for their livelihoods. In Ghana however, a population threshold of 5,000 is

commonly used to classify settlements as urban. Those settlements with a population size less than 5,000 are designated rural (GSS, 2000).

Other definitions have included other qualitative and quantitative characteristics. For example, SARDF (1997) see rural areas as those with sparse populations who are dependent on natural resources, USDA (2005) describe them as areas comprising of open country and settlements with fewer than 2,500 residents; whereas compared to urban areas, rural areas are inhabited by people owning more 'rural-specific' assets such as farmland, livestock, and irrigation per person than urban people (IFAD, 2001). The conditions of rural people can profoundly affect agricultural production and productivity, denying them opportunities to reduce their poverty or improve their living conditions.

The major descriptions shared by the definitions above comprise remoteness, low population densities and high dependence on agriculture and/or natural resources for livelihoods. Due to these characteristics people living in rural areas, particularly those in developing countries such as Ghana, tend to own fewer assets.

What is livelihood?

To the lay man the term livelihood describes "making a living". The term is well accepted as humans naturally develop and put into operation strategies to ensure their survival. A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stress and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base (Chambers & Conway, 1991).

2.2 Theoretical perspectives

A theoretical overview of migration

Although few scholars would deny the direct contribution of migration to the livelihoods and survival of families left behind, the extent to which migration and remittances can bring about sustained human development and economic growth in migrant-sending areas and countries is quite a different question (De Haas, 2007). This issue has been the subject of heated debate over the past four decades, and it is possible to distinguish four periods in the post-Second World War thinking on migration and development. While “developmentalist” optimism dominated in the 1950s and 1960s, large-scale pessimism prevailed in the 1970s and 1980s. This changed with the emergence of more nuanced views in the 1990s and the current rediscovery of remittances, and the simultaneous resurgence of optimism on migration and development in recent years (De Haas, 2007).

Developmentalists and neoclassical views

The Developmentalists assume that, through a policy of large-scale capital transfer and industrialization, poor countries would have attained rapid economic development and modernization in the 1950s and 1960s. This same period, saw large-scale labour migration from developing to developed countries. Amidst these expectations of the “dawning of a new era” many developing countries became involved in the migration process (Papademetriou, 1985). Migration being viewed as one of the major vehicles on which national development would occur, many governments of developing countries started actively encouraging their citizenry to participate.

Developmentalist “migration optimists” were inclined to think that migration leads to a North-South transfer of investment capital and accelerates the exposure of traditional communities to liberal, rational and democratic ideas, modern knowledge and education

(De Haas, 2007). He further contends that, (return) migrants are perceived as important agents of change, innovators and investors. The general expectation was that the flow of remittances as well as the experience, skills and knowledge that migrants would acquire abroad before returning would be brought to bear on their economies. Return migrants were expected to invest large sums of money in enterprises in the country of origin. Interestingly however, this positive view of migration has recently experienced a new beginning.

Migration is also positively viewed by neo-classical economist though this theory does not include remittances (Taylor, 1999). The neoclassical economic theories were first founded on principles of individual optimizing behaviour (Sjaastad 1962; Todaro, 1969). These traditional micro-economic models treat migration as an economic phenomenon in which the migrant considers the costs and benefits from current and future employment opportunities. Neoclassical economic theory also suggests that internal migration occurs relative to the global supply and demand for labour (Zaslavskaja & Liaschenko, 1976). In other words, the author posits that rural-urban migration will occur as long as the urban expected wage exceeds the rural wage (Todaro, 1969). The author's "expected incomes" model of migration, therefore, suggests that "expected rather than actual earnings" drives the perception to migrate. Todaro's (1969) theory presents an economist's view about the motive of migrants. Neoclassical advocates of the theoretical model of fair growth recognize migration as a process that contributes to the optimal allocation of production factors for the benefit of all, in which the process of factor price equalization will lead to the stoppage of migration since wage levels are equal at both the origin and destination.

From this perspective, the re-allocation of labour from rural, agricultural areas to urban, industrial sectors is considered as an essential requirement for economic growth which forms part of the whole development process (Todaro, 1969). The free movement of labour

is eventually expected to lead to the increasing scarcity of labour, which will then lead to a higher marginal productivity of labour and increasing wage levels in migrant-sending societies. While this happens, capital flows will be expected to flow in exactly the reverse direction as labour migration. The developmental role of migration is entirely realized through this process of factor price equalization in the neoclassical world. Until recently, this neoclassical view of migration and development was dominant in international financial institutions. For instance, the “Policies toward migration” section of the *Globalization, Growth, and Poverty* report of the World Bank (2002) saw the benefits of migration for receiving countries uniquely in terms of factor price equalization, and did not talk about remittances at all. This is in contravention with Ratha’s (2003) chapter entitled “Workers’ remittances: An important and stable source of external development finance” in the World Bank’s *Global Development Finance* only one year later, and which played a major role in the sudden resurgence in the interest for remittances.

Historical structural and dependency views

The 1973 oil crisis heralded a period of worldwide economic downturn, industrial restructuring and increasing unemployment (De Haas, 2007). It was also thought that the great age of international migration had ended. This more or less coincided with a turning point in thinking on migration and development. De Haas (2007) further stated that , as of the late 1960s, optimistic views on migration and development in sending areas were increasingly challenged due to the combined influence of a paradigm shift in social sciences toward historical or structuralist views and an increasing number of empirical studies that often did not support optimistic views on migration and development. An increasing number of academic studies seemed to support the hypothesis that migration sustains or even reinforces problems of underdevelopment instead of the reverse. These “migration pessimists” have argued that migration causes withdrawal of human capital from traditional

economies which leads to the break of traditional, stable village communities and their economies. This would then lead to the development of passive, non-productive and remittance-dependent communities (De Haas, 2007). Besides, the massive departure of young, able-bodied men and women from rural areas (Lewis, 1986) is typically blamed for causing a critical shortage of agricultural and other labour, depriving areas of their most valuable work force. This is because it is generally not the poorest that migrate the most, migration and remittances were also believed to increase inequality in communities of origin (Lipton, 1980).

Migration pessimists have also argued that remittances were mainly spent on conspicuous consumption and “consumptive” investments (such as houses), and rarely invested in productive enterprises (De Haas, 2007). The use of migrant remittances for productive investments in the migration and development debate is cynical. Apart from deteriorating local economies and increasing dependency in the sending areas, increased consumption and land purchases by migrants were also reported to aggravate inflationary pressures (Russell, 1992) and high prices of land (Rubenstein, 1992).

Also, in respect of socio-cultural, the effects of migration and remittances were increasingly seen as detrimental. Migrants’ exposure to wealth was assumed to have brought about change in rural tastes (Lipton, 1980) that would increase the demands for imported urban or foreign produced goods and food. Hayes (1991) cited by De Haas (2007) contends that this would further reinforce the cycle of increasing dependency. Migration has often been held responsible for the socio-cultural decay in migrant-sending communities.

Moreover, as a result of capitalist penetration, migration was perceived as having broken traditional peasant societies by undermining their economies and uprooting their populations (Massey et al., 1993). In particular, the dependency school of thought about

development saw capitalist infiltration and its associated phenomena such as migration not only as detrimental to the economies of underdeveloped countries, but also as the very *causes* of the “development of underdevelopment” (Frank, 1966). In a process known as cumulative causation (Myrdal, 1957) increasing prosperity in the economic core areas of the Western world was causally linked to the draining of capital and labour from peripheral areas. In fact, these approaches turned the argument of neoclassical and developmentalist approaches upside down: migration does not decrease, but instead reinforces spatial and interpersonal disparities in development. Although these pessimistic views have been increasingly contested in recent years, they have remained prevalent in some recent studies.

New economics of labour migration and livelihood approaches

The New Economics of Labour Migration (NELM) emerged in the 1980s and 1990s, mainly within the American research context as a response to developmentalist and neoclassical theories (the migration optimists) and structuralist theory (the migration pessimists). These approaches seemed too stiff and determinist to deal with the complex realities of the migration and development interactions. Offering a much more suitable view of migration and development, the NELM links causes and consequences of migration more clearly. This theory creates the room for both positive and negative development responses. Stark (1978 and 1991), in particular, placed the behaviour of individual migrants within a wider societal context and considering the household rather than the individual as the most appropriate decision-making unit (Taylor, 1999).

This new approach views migration as the risk-sharing behaviour of households. Individuals better than households seem able to diversify resources such as labour in order to minimize income risks (Stark and Levhari, 1982). According to the proponents of the household strategy approach, people act collectively not only to maximize expected income, but also

to minimize risks for the members of the kinship unit (Skeldon, 1997; Meagher, 2001). This happens by diversifying household sources of livelihood (Stark, 1991 and Whitehead, 1981). This approach therefore suggests that migration decisions are not made by isolated individuals, but rather, by families or households (Krantz, 2001). Households or families are seen as the principal agents in the decision-making (Gadzar, 2003). Tacoli (2002) argues that migration is undertaken as part of a family strategy for sustenance, and risk diversification rather than an individual decision in the developing nations. This approach integrates motives other than individual income maximization that is central to migration decision making. Lucas and Stark (1985) argue that migration is considered as a household strategy in reaction to income risks since migrant remittances serve as income insurance for households of origin. This can theoretically explain why people migrate even in the absence of substantial income differentials.

In addition to its contribution to more stable and secure household livelihoods, NELM scholars argue that migration plays a vital role in providing a potential source of investment capital, which is especially important in the context of the imperfect credit (capital) and risk (insurance) markets that prevail in most developing countries. Such markets are often weakly developed and inaccessible to non-elite groups. Hence, migration can be considered as a livelihood strategy to overcome various market constraints. This will enable households to invest in productive activities and improve their livelihoods. For instance, recent studies conducted in Burkina Faso (Hampshire, 2002; Wouterse 2006) and Morocco (De Haas, 2006) suggest that internal and international migration within the African continent should primarily be seen as a means to enhance livelihood security through income diversification because the welfare gains, if any, are relatively small. This went along with fundamental criticism on the weak methodological foundations, poor analytical quality or empiricist character of much prior research, which often failed to take into account the complex, often

indirect, positive impacts of migration and remittances on migrant-sending communities as a whole, including non-migrant households (Taylor et al., 1996). NELM has striking—though as yet unobserved—conceptual parallels with the *livelihood approaches* that evolved as of the late 1970s among geographers, anthropologists and sociologists conducting micro-research in developing countries. On the basis of their research, they argued that poor people cannot be seen only as passive victims of global capitalist forces (as neo-Marxist and dependency approaches tended to do), but also as trying to actively improve their livelihoods within the constraining conditions in which they live (Lieten and Nieuwenhuys, 1989). This view points to the fundamental role of human agency. From this perspective, migration is seen as one of the main elements of strategies to diversify, secure and improve livelihoods.

2.3 Conceptual framework

Migration can be considered as a significant feature of livelihoods in developing countries in pursuit of better living. Fundamental to the understanding of rural-urban migration flow are the traditional push-pull factors. “Push factor” refers to circumstances at home that repel the migrants to leave home. Examples include famine, drought, low agricultural productivity, unemployment etc. Whilst “pull factor” refers to those conditions found elsewhere (abroad) that attract migrants. There are many factors that cause voluntary rural-urban migration, such as urban job opportunities, housing conditions, better income opportunities etc (Kinuthia, 2003 and Yeboah, 2008). There is no doubt that, apart from these factors, urban areas also offer a chance to enjoy a better lifestyle. The provision of services such as electricity, pipe borne water, and public services make urban areas attractive. Another drive for migration is that migration is used as strategy for risk aversion in times of bad weather and poor harvest. While the motives for rural movement are important in themselves, the means of movement are also of importance. Improvements in

transport systems and increasing awareness of the urban areas through media, social networks, together with improved educational standards are equally important factors to be taken into account when dealing with rural-urban migration as a phenomenon. Rural inhabitants see and hear success stories about people that leave their communities for the cities. This acts as incentive for more out-migration from the rural areas. Therefore, rather than targeting the migration itself, it is preferable to focus on the causative factors and its consequences.

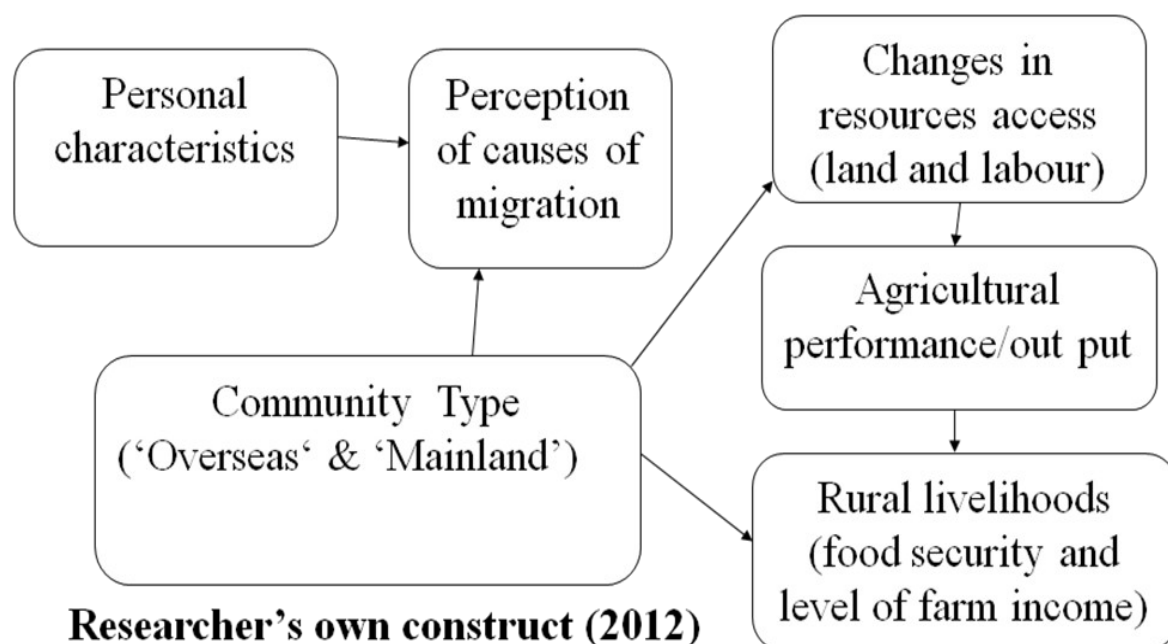
Historically, in the migration literature, pull factors have predominated urban environment, providing better employment and income opportunities. Recently, it seems that push factors seem to be increasingly powerful. Increased rural-urban migration certainly makes the rural areas depopulated and this affects the rural economy in general and agriculture in particular, which is the main economic activity in those areas. Migration from the rural areas causes changes in resources (labour and land resources) in the rural areas as contained in Figure 1. The changes in the rural resources will intend affect agricultural performance and this affects the livelihoods of the rural folk. The level of out-migration in a particular community also has direct impact on agricultural performance of that community. The resultant impacts on the rural areas are perceived to be poverty and hardship because of low agricultural production, shortage of agricultural labour and food security. These will have negative consequences on the well-being of the rural folk. Migration may also affect the livelihoods of people in places of origin through remittance from migrants. Where remittances are flowing, the people's livelihoods are likely to improve and vice versa (see Figure 1).

Apart from the traditional push-pull factors, which have been known to motivate migration in the past, migration is now seen as a risk-sharing behaviour among farm families or

households. Individuals and households seem to diversify their resources, such as labour in the form of human capital, in order to reduce income risks (Stark & Levhari, 1982). The basic supposition is that people, households, and families do act not only to make best use of income but also to decrease and spread risks. Internal and international migration is perceived as a household response to income risk, as migrant remittances provide income insurance for households of origin. This risk-spreading motive can even explain the incidence of migration even in the absence of (expected) wage differentials.

Rural-urban migration is therefore perceived to bring some changes in the household and community resources available. Due to rural-urban migration, changes in household income through remittances, changes in availability of labour and changes in availability of land are expected to occur. The perceived changes in the household and community resources resulting from rural-urban migration would affect agricultural performance, agricultural productivity, farm income, food security, and expenditure on other household needs in the sending areas as can be seen in Figure 1.

Figure 1 Conceptual framework



2.4 Types and Trends in Global Migration

The literature reveals that there are four types of internal migration, viz, rural-urban, urban-urban, rural-rural, and urban-rural migration. The most important form of internal migration evident from the discussion is rural-urban migration (IOM, 2002; Sander, 2003). However, recently, more attention has also been paid to the other migration streams (Dao, 2002; Anh, 2003). Often, all these four types of migration patterns are present in a country, and can sometimes be observed within the same locality. Almost, all these types of migration patterns are undertaken mostly by men. There are, however, an increasing number of women also participating in migration (IOM, 2005).

The pattern of migration that occurs in a country is usually indicative of its socio-economic situation, and can, therefore, be seen as a very important phenomenon for development (Zachariah & Conde, 1981). These include urbanization and manufacturing in Asia, more circulation within urban areas in Latin America, and increased occupational diversification and mobility in response to macroeconomic reforms in sub-Saharan Africa (Gugler, 2002; Yang, 2004). However, this study is more concerned with rural-urban migration.

Rural-Urban Migration

Rural-urban migration is the movement of people from the countryside to the city. It can either be voluntary or forced. In most developing countries, especially in Sub Saharan Africa, a shift from subsistence to cash crop production or manufacturing has resulted in the temporary or permanent exodus of men, and sometimes women, from rural communities to urban areas in search of wage employment opportunities (Deshingkar & Grimm, 2005). Much of this migration is relatively long-distance to the larger cities and manufacturing centres (Zhao, 2003). However, there are also smaller moves, typically undertaken by poorer people, to smaller towns where they work as labourers, small traders and/or artisans

(Dao, 2002). Rural-urban migration was once regarded as a natural process of economic development, whereby the surplus labour released from the rural sector was needed for urban industrial growth (Todaro, 1969; Weeks, 1989). However, in more recent times, the perspective on rural-urban migration has undergone a sharp reversal (Deshingkar & Grimm, 2005).

Rural-urban migration has come to be viewed by some policymakers and urban planners as having a negative effect on the development of cities in many countries by creating slum areas and increasing the crime rate (Gazdar, 2003; Yang, 2004). As a result, the current policy climate in several countries continues to curtail this important route to poverty reduction and economic development, through regulations on population movements and limitations on informal sector activities (Harteveld, 2004). Rural-urban migration is the most popular type of migration in developing countries, including Ghana. However, the other types of migration also exist, even though on a smaller scale. Figures from the Ghana Statistical Service (GSS, 2000) indicate that about 35% of migratory movements within the country are rural-urban, followed by 18% seasonal migration, 14% rural-rural and 23% urban-urban migration.

In South-East and East Asia, urbanization and expansion of manufacturing, especially for export, have led to massive increases in both short and long term migration (Yang, 2004). However, contrary to the situation in SSA, most of the rural-urban migrants in South-East and East Asia are women who work in the garment factories in the cities (Hugo, 2003). In Bangladesh, two-thirds of all migration is from rural to urban areas, and is increasing rapidly (Afshar, 2003). Zhao (2003) argues that a number of changes have occurred concurrently in China, thereby creating more internal movement of people. According to the author, China is a special case where economic policy, such as market liberalization, the

lifting of employment and movement controls, and the spread of export-oriented manufacturing, has resulted in an exceptional increase in population movement. According to Yang (2004), the Chinese situation has been greatly aided by relatively good road networks, communication technology and export market links that have emerged in China and other Asian countries, which has opened up their economies.

In India where rural-rural movements from poor areas to rich areas have been the dominant form of migration, there has been a sharp increase in rural-urban migration in recent years as more young men travel to urban centres to work in construction and urban services within the expanding informal sector (Hugo, 2003). For example, studies in areas of Bihar that have experienced a doubling of out-migration rates since the 1970s, show that migration is now mainly to urban areas and not to the traditional destinations in irrigated Punjab where work availability has declined (ibid:71).

2.5 The Ghana migration literature

Introduction

Even though migration is very common in Ghana, it has attracted a modest number of economic analytical studies. This dearth of economic migration studies is apparently due to the fact, that over the years, there has been a general lack of detailed migration data. Some notable attempts have, nevertheless, been made to capture the main patterns and rationale for migration in Ghana.

Whilst most of these studies are descriptive, they often present cross-tabulated survey statistics and other information that offer valuable insights into the reasons, extent and patterns of migration (see, for example, Caldwell, 1968 and 1969; Tutu, 1995; and Gbortsu, 1995). Thus, for instance, according to the literature, the reasons for migrating include job search, schooling, marriage, and other family-related considerations (Caldwell, 1969; Tutu,

1995; and GSS, 2000). Litchfield and Waddington (2003) have employed multivariate analyses (using census or survey data) to investigate issues relating to migration determinants and the welfare impact of migratory movements. This section aims to present a broad overview of studies on Ghana's migration. The review will cover three main areas namely, migration patterns, the determinants of migration, and the impact of migration. Apart from highlighting key results of the Ghana migration literature, the discussion will bring to the fore some limitations and knowledge gaps.

Patterns of migration in Ghana

Migration in Ghana in the early twentieth century was mainly in the form of rural-to-rural movements, as people migrated to work on cocoa farms and gold mines on a seasonal or semi-permanent basis (Brydon, 1992). Whereas permanent migration has assumed increased importance over the past four decades, data constraints have considerably limited the available information on the magnitudes and patterns of temporary and seasonal migration. According to GSS (2000), 52% of Ghana's adult population is migrants, with the corresponding percentages for men and women being roughly the same (51.4 and 52.2, respectively). In view of the fact that these figures do not include temporary and seasonal migration, population mobility in Ghana is quite high. Regarding the occurrence of temporary and seasonal migration in Ghana, these are mainly associated with agricultural activity. More than three decades ago, Beals and Menezes (1970) observed that temporary migration is the major form of labour mobility in Ghana.

Whilst the increase in manufacturing and other non-farm activities may have contributed to an increase in permanent migration, there is no reason to doubt the importance of temporary migration, even if it is not the most dominant form of migration in Ghana presently. A significant component of temporary migration is seasonal migration, which often results

from the different farming calendars between northern and southern Ghana. The north-south migration is justified by the seasonal difference between the north and the south. The slack season in the north is the busiest season in the south. Therefore migrants tend to move to the southern regions of Ghana to work on their cocoa and coffee farms as a livelihood diversification. Short-term movement from [savannah] to forest was thus a natural adaptation, particularly because the kinds of work required in the cocoa and coffee regions, harvest [labour] and the clearing of new plantations, lent themselves to seasonal or casual performance” (Berg, 1965).

According to Tutu (1995), the major forms of migration (on the basis of the 1991 Migration Research Study) are rural-rural, rural-urban, and urban-rural, in that order. Tutu also identifies the dominant Regions of destination as the Greater Accra, Ashanti, and Western Regions; of the ten Regions, the Upper East was the least attractive destination. Using data from the fourth wave of the Ghana Living Standards Survey (GLSS), however, GSS (2000) computed the percentage shares of migration flows for 1998/99 as follows: urban-rural (35%), rural-rural (32%), urban-urban (23%), and rural-urban (10%).

Patterns and trends of migration from northern Ghana

In pre-colonial times there seems to have been little migration from present-day northern Ghana to the South. Cleveland (1991) describes human mobility in this era as “a tradition of local migration by many and long-distance migration by a minority of warriors and traders.” People migrated over shorter distances in search of fertile lands and to escape conflict and slave raiders. In the eighteenth and nineteenth centuries, large-scale voluntary migration was impeded by conflict and insecurity resulting from the wars between the Ashanti, the Gonja and the Dagomba and the related activities of slave raiders. The Northern Territories of the Gold Coast (now northern Ghana) were colonized by the British

at the turn of the century. The first decades of colonial rule were the time of forced migration through labour recruitment. This period lasted about two decades, from 1906 to 1927 (Lentz, 2006). The colonial government recruited labourers for the mines and for railway and road construction in southern Ghana. Voluntary migration started not long after the first forced migrants had returned from southern Ghana. Most of the early voluntary migrants were attracted by good labour opportunities in the booming cocoa sector. Therefore, it can be argued that population growth declined in northern Ghana, while it increased in southern Ghana, due to increasing North-South migration. This is the case between the 1910 and 1960 censuses and in the last inter-censal period (1984–2000). Increasing population growth in northern Ghana is an indication of reduced North-South migration and / or increased return migration. This was the case in the 1970s and early 1980s, a time of widespread economic crisis, political instability and high food prices in the South. The trend in annual population growth for northern Ghana therefore indicates that migration gradually increased during the course of the twentieth century with a temporary decline in the 1970s and 1980s. Historical migration data confirm this trend. Ghanaian censuses since 1931 provide information on people's birthplaces. People who were born in northern Ghana and enumerated in southern Ghana are considered to be migrants. Out-migration from northern Ghana gradually increased, although there was a temporary decline in the 1970–1984 inter-censal periods. After that, migration propensities increased sharply in the last inter-censal period (1984–2000).

Evidence of North-South migration shows that the densely populated northeast is a principal source area of migrants, but the Upper West region has the highest out-migration rate: 26.9 per cent of the people born in that region were living in the South. The figure for the Upper East region is 22.2 per cent and for the northern region it is 13.0 percent (GSS, 2005). The

food crop producing middle belt, the cocoa frontier in the Southwest, and the cities of Kumasi and Accra are prime destination areas of migrants from the North.

Determinants of migration in Ghana

The Ghana migration literature's evidence on migration determinants may be grouped into community/household characteristics and individual attributes. As is common in the general migration literature, many of the studies on Ghana's migration focus on rural-urban migration. As a result, the migration determinants identified are often mainly applicable to migration from rural-urban localities. The major community and household characteristics mentioned in the literature include distance from potential destination, the economic condition of the destination locality, the welfare status of the sending household or community, and the presence of kinship or friends in the destination locality. The trend in family migration indicates that people are moving to cities on a permanent basis. Literature on determinants of rural-urban migration, with the exception of few, suggest that individual or household characteristics are the motivating factors for migration (Khan and Shahnaz, 2000); Kalim and Samina (2003); Oda (2005); Memon (2005). One of the key results of the study by Beals et al., (1967) is the negative impact of distance on migration rates.

Using data from the 1960 population census, Beals et al. (1967) found statistically significant evidence in support of distance as a strong deterrent to interregional migration in Ghana. In a study of rural-urban migration using survey data, Caldwell (1968) also found evidence in support of the negative effect of distance on migration. According to Caldwell, for all persons aged more than 20 years, there was a clear inverse association between the tendency to migrate to the towns and the distance from the nearest large locality. It is important to note that Caldwell found this result to be statistically significant for both men and women. As suggested by Beals et al. (1967), the negative effect of distance might be

correlated to information costs, as well as important cultural and social differences between localities. Empirical analyses of Ghana's migration experience lend credence to the common view that economic considerations are crucial to migration decisions. They also observed a tendency for migrants to move to regions with high wages, and noted that high wage levels in the destination region contributed highly to the propensity to migrate. Data from the 1991 Ghana Migration Survey suggest that job-related reasons play a major role in migration decisions (Tutu, 1995). Thus, on the whole, the evidence suggests that favourable economic conditions in potential destination localities act as key determinants of the propensity to migrate in Ghana.

Migration studies in Ghana suggest that the welfare level in the sending community (or household) exerts an effect on migration. In their studies, Beals et al. (1967) found a negative effect of origin locality's income on migration. Notably, when urbanization was included in the migration equation, this effect (of origin locality's income) was stronger than that of the destination locality's income level. Caldwell (1968), found a higher propensity to migrate to the towns with better-off rural households. Whilst the results of Beals et al. (1967) and Caldwell (1968) appear to vary, it could be that they both are in point of fact capturing different effects on migration. The result of the former is a reflection of the tendency for people to want to stay in an area if favourable economic conditions prevail the latter result shows, that for any community characterized by unfavourable conditions, members of richer households are generally better able to embark on migration. It is worth noting also, that apart from the fact that the two studies used different datasets, Caldwell was only reporting an association, whereas Beals et al. (1967) carried out a regression analysis. These results nevertheless highlight the complex nature of migration determinants and outcomes. The importance of networks in migration decisions has been acknowledged (Lucas, 1997) and for Ghana, this factor appears to be crucial in most

migration decisions (Tutu, 1995). This is because the establishment of networks often results in the reduction of migration costs. On the basis of data from the Ghana 1991 Migration Survey, Tutu reports that for persons intending to migrate, 76 percent had friends or relatives residing in the destination locality.

In the context of rural-to-urban migration, Caldwell (1968) also found a very strong statistically significant association between the presence of rural household members in the destination locality and the likelihood of other members visiting (or migrating to) the town. As observed by Tutu (1995) the role of access to destination-based kinship and other networks in migration decisions is closely linked to the cost-reducing effect of such access. A dynamic element has further been associated with the role of destination-based networks of relatives and friends. In his study of rural-to-urban migration in Ghana, Caldwell (1969) observes that by increasing the population of rural residents' relatives and friends in urban centres, rural-to-urban migration can be self reinforcing. Whilst the propensity for migration is higher amongst males than amongst females, especially over longer distances migrants in Ghana are dominated by young persons (Tutu, 1995) as predicted by the human capital theory.

The evidence of Ghana's migration studies relating to the effects (on the tendency to migrate) of marital status and the number of dependents are, however, somewhat tentative. Tutu (1995) observes that the unmarried are more likely to migrate, but Caldwell's (1968) evidence for this was not very strong. Again, in respect of the number of dependents, the former reports a negative effect on migratory movements, whilst the latter was very cautious on this. Caldwell however, found a positive relationship between number of siblings and rural-to-urban migration. In the context of rural-to-urban migration, Caldwell further suggests there is often strong pressure on persons of low birth rank (that is, older

siblings) to stay at home, and – in the case of persons who have migrated – to return home. According to Caldwell, this tendency is due to the fact that the most senior siblings are often required by social norms to shoulder certain responsibilities, such as, looking after aged or ailing parents, and managing the family farm. With regard to the impact of education on the propensity to migrate, the Ghana studies are not unanimous on the direction of influence.

In their econometric investigation of interregional migration in Ghana, Beals et al. (1967) found a negative effect of education on migration. This result was contrary to what had been hypothesized, and the authors acknowledged that they “simply do not know what underlies the observed inconsistency”. Caldwell (1968) on the other hand, found a statistically significant positive association between education and the propensity for rural-to-urban migration. According to the 1991 Migration Research Study, however, a higher percentage of migrants have no formal education, compared to non-migrants (Gbortsu, 1995). Data reported by Gbortsu further suggests that it is only with respect to university education, that the proportion of migrants with education exceeds that of non-migrants. Clearly, the education-migration interplay appears to be complex. This complexity may be attributed to the potential for considerable correlation between any pair of education, incomes, and migration. The incorporation of a correction for selectivity bias is a key aspect of a recent econometric migration study by Tsegai (2005). In investigating the determinants of the migration decision, Tsegai places particular prominence on the role of migration income in influencing the decision. In view of the fact that migrants may be non-randomly selected from the population, the study employs Heckman’s two-step procedure for selectivity correction.

A major result of the study is the evidence found for expected income gains in influencing migration decisions. Other factors found to influence the migration decision include previous migration experience of the household head and/or spouse, household size, education, social capital, ethnic networks, having irrigated fields and off-farm activities. Since the study's geographical focus was very localized, its findings cannot be generalized for the entire country. Notwithstanding this limitation, the study's results and more importantly the methodology constitute a valuable addition to the Ghana migration literature. The literature reviewed in this sub-section suggests that studies on Ghana's migration determinants are dominated by the use of descriptive statistics. Whilst the usefulness of such methods can hardly be ignored, it is appropriate to emphasize that an increased use of alternative and more rigorous approaches to the analysis of migration data can be insightful and complementary.

2.6 Migration and agriculture

Approximately, 75% of the world population lives in rural areas and are dependent on agricultural activities to survive (IFAD, 2007). Although, they are often very context-specific common causes of poverty and food insecurity in rural communities include natural disasters (drought and flooding etc), civil conflict and structural inequalities. Such phenomena limit these populations' access to resources and opportunities to secure a sustainable livelihood. When local solutions are scarce or non-existent, poor families living in rural areas will often resort to 'sending' a family member to a nearby urban centre or abroad in search of remunerated work.

The consensus in the literature about the relationship between migration and rural development remains thin. The evidence suggests that migration does not usually lead to radical transformation of rural agriculture but that it often occupies a central part in the maintenance of rural people's livelihoods (De Haan, 1999). It has been commonly argued in

the migration literature that both internal and international migration have contributed to decline in agriculture and a general disaffection with small-scale peasantry.

A study conducted by Aworemi, Abdul-Azeez & Opoola (2011) in Nigeria show that rural-urban migration is a double-edge problem affecting the rural community as well as the urban destinations. They contend that rural community is affected because the youths and adults that are supposed to remain in the community and contribute to the development of agriculture in particular and the community in general leave the rural areas for other destinations. They move to urban centres in search of non-existent greener pasture and abandon the farming activities which they believe cannot earn them what they will get in the urban areas. Subsequently, this tends to reduce agricultural production and food availability in the sending communities. The 'lost labour' of able-bodied (migrated) men and women is ascribed a key role in the process of agricultural decline. Interestingly, internal migration is associated more often with rural and agricultural stagnation or even decline (Regmi and Tisdell, 2002; De Haas, 1998) than with international migration to wealthy countries, where much higher remittances enable households to substitute the lost labour and to actually invest in agriculture and other sectors. The mass exodus of the rural work force is supposed to have led to agricultural decline or even abandonment of agriculture (De Mas, 1990; Ferry and Toutain, 1990; Kerbout, 1990).

This has serious implications for agricultural production since most of the work which would have been done by the youths is now left for the aged to do (Angba, 2003). While migrants are away, households have less labour to allocate to local production activities. If a migrant household's marginal product on the farm is positive, crop production will fall when the household sends out a migrant(s). Taylor et al. (2003) note that the adverse effect of loss of labour may be high since migrants tend to be younger and better educated than the average rural labourer. Rozelle et al. (1999) report a significant and negative effect of loss

of labour on yields, but the same authors (Taylor et al., 2003) using the household farm survey data collected by Rozelle in another paper found out that although loss of labour to migration has a negative effect on household cropping income, the overall effect of migration on crop yields is positive. The loss in yield due to the reduction in available labour may be compensated for (partially) by remittances from the migrant(s) (Taylor et al., 2003; Rozelle et al., 1999), which are used to purchase additional inputs or rent substitutes for labour in cropping. Instead of investing, it has been argued that migrant households tend to withdraw partially or entirely from agriculture. This is because the remittances sent by migrants pushes the migrant household to a higher economic level where they can engage in other economic ventures leaving primary production. Return migrants who do invest in agriculture often do so, not out of rational economic motives, but because of their strong emotional attachment towards agriculture. It would therefore concern a “ritual” (De Mas, 1990) or “sentimental” (Bencherifa, 1991) agriculture, in which the migrant practices a kind of “hobby farming” (Bencherifa and Popp, 2000).

However, this pessimistic perspective is fundamentally challenged by an increasing number of empirical studies showing that remittances have played a key role in facilitating agricultural investments. Bonnet and Bossard (1973) observed in the early 1970s, that remittances had made intensification of agriculture possible in the Sous region. In other migrant-sending regions, too, migrants play an important and innovative role in the development of subsistence and commercial agriculture through the purchase of land, modern agricultural equipment, such as tractors and water pumps, the introduction of new crops and techniques and the establishment of new farms. Migrants show a particular preference for investments in the development of new irrigated agriculture (Bencherifa, 1993; Bencherifa and Popp, 2000; De Haas, 2001; Popp, 1999). Pascon (1985) observed

that investments by international migrants in wells and water pumps have mitigated the effects of the severe drought occurring in the mid-1970s.

This apparent contradiction in the literature can be partly resolved by the understanding that migration impacts are not the same for different areas across time and space. There are indications that the initial effect of migration on agricultural productivity might indeed have been negative, because of an acute lack of family labour. This is possible because, initially the migrants cannot send remittances until they are well settled. However, in the long run, and after an adjustment process, this agricultural decline has often been reversed through agricultural investments made possible by the inflow of remittances (De Haas, 2001). While current migrant households sometimes de-intensify agriculture, return migrants can play an innovative and production-increasing role in agriculture (Bencherifa, 1996; Bencherifa and Popp, 1990).

This exemplifies the importance of inter-temporal dimensions in the assessment of migration impacts. A focus on short-term effects of international migration might therefore partly explain the excessively pessimistic conclusions of earlier research. A further essential weakness of the 'lost labour hypothesis' is, however that, its ignorance of the possibility that the migrants' labour (if it creates complete shortages at all) can be substituted by remittance they send to the place of origin. It seems that, after a period of decline and change from subsistence, labour-intensive towards more capital-intensive forms of agriculture, such substitution is indeed occurring in several migrant-sending regions.

It should be emphasized, however, that migration does not automatically lead to agricultural development or other investments and, in fact, the long-term impact of migration on agricultural development in Morocco is characterized by a high degree of spatial differentiation. Drawing on Bencherifa's (1991) seminal work, it can be hypothesized that

the following patterns: regions where arable land is relatively abundant and plot sizes large, where irrigation water is available in sufficient quantities and which are located near to roads and other public infrastructures, often attract the investments of international migrants and in fact of entrepreneurs in general. Where water availability is uncertain or costly and other decisive factors obstruct agricultural production and family life such as uncertain land property rights, complex collective regulations concerning maintenance and water distribution, extremely small plot sizes migrants tend to be far less inclined to invest in agriculture or might even partially withdraw from that sector (Bencherifa and Popp, 2000; De Haas, 2001).

It is common for migrants originating from ecologically marginal areas (e.g., semi-arid mountains or certain oases) to allocate agricultural investments in more favourable environments, such as more fertile coastal or alluvial plains. Farmers prefer to localize new investments in desert areas outside the traditional oases, where land is abundantly available in contrast to the microscopic land tenure systems in the old oases, and where constraints arising from the complex and inflexible collective regulations concerning water distribution and maintenance of the agricultural infrastructure do not play a role (Bencherifa, 1991, De Haas, 2003). Besides geographical and ecological factors, the availability of public services and infrastructure (e.g., paved roads, electricity, drinking water, schools) appear to be highly important factors determining the attraction of rural regions for investments in general (Popp, 1999). Isolation and the absence of basic public amenities – to which migrants in particular have become accustomed – are major obstacles to resettlement and investments in the region of origin. Where this is the case, migrants appear to prefer settling in nearby urban centres (Bencherifa and Popp, 2000).

Finally, it is important to differentiate between the impacts of internal and international migration. There is evidence that, especially in areas where irrigation is relatively costly or labour-intensive, internal migration is associated with agricultural stagnation or decline (Bencherifa, 1996; De Haas, 1998). The relatively low incomes of internal migrants often do not allow for lost labour substitution. In arid and semi-arid areas where irrigation water is accessible only through pumping, such as in several oases, internal and non-migrant households can even be forced to withdraw from agriculture if they cannot afford to invest in digging wells and buying water pumps. It is internal migration, therefore, rather than international migration, that seems to be associated with a retreat from agriculture through the decreased availability of family labour and poverty (De Haas, 1998; 2003).

2.7 Summary

This chapter dealt with the definition of conceptual terminologies, the conceptual framework for the study and review of relevant literature on migration in Ghana and elsewhere. The migration theories discussed in this chapter originated from a variety of disciplines. Different disciplines approach migration in different ways. A major criticism applicable to most migration theories is that no single theory can completely explain all migration phenomena.

The above migration theories considered the social, economic and other features of the migrants based on the western experiences. Regardless of this, the theories noted were used as a basic theoretical frame work for this research and will be evaluated based on empirical interpretation whether or not the western model of migration is applicable for this research.

CHAPTER THREE: METHODOLOGY

3.0 Introduction

This chapter deals with description of the study area and the methodology used in the study. The areas dealt with in this chapter include description of the research design, location and description of the study area, study population, sampling techniques/sample size used, development of data collection instruments and methods used for data collection. The chapter also describes the administration of the questionnaires during the pre-test stage, final questionnaire development, data collection and precautions taken in the field during the data collection process.

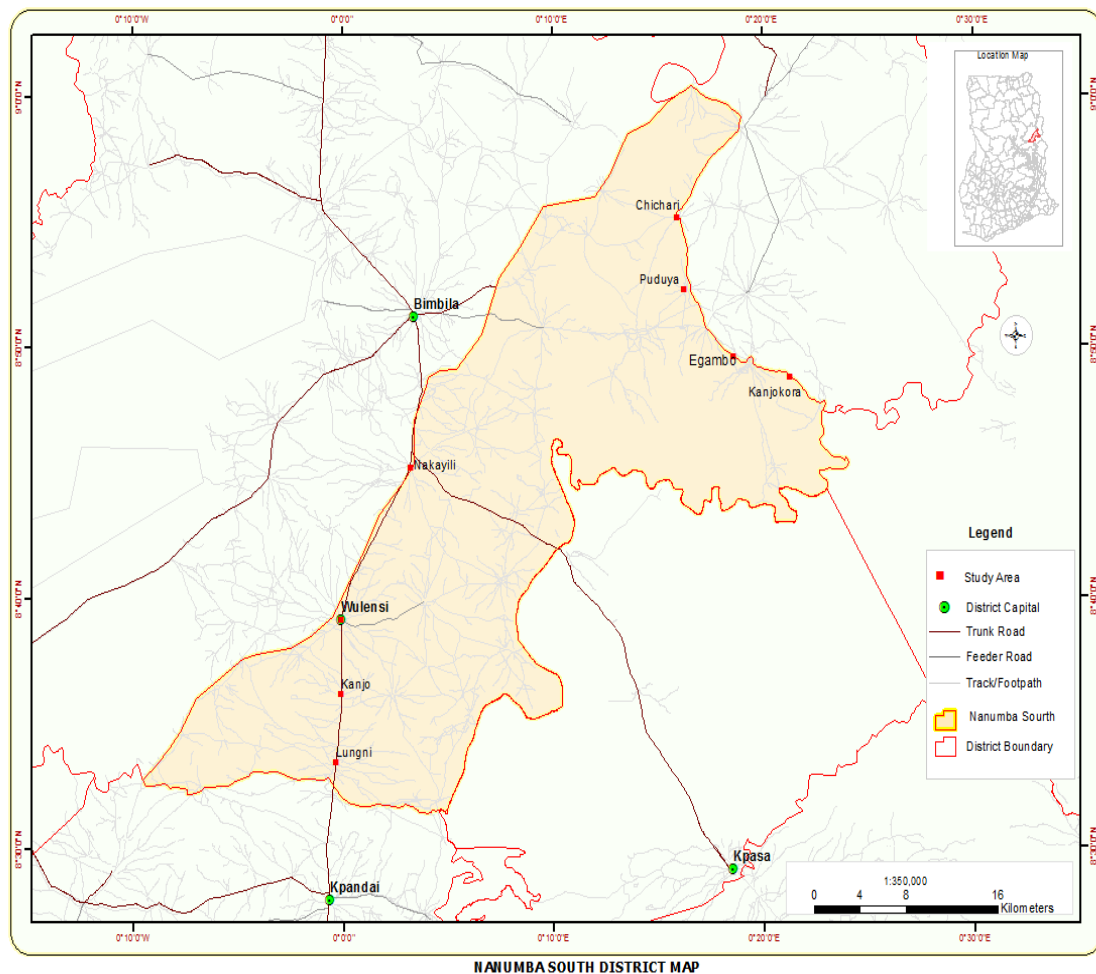
3.1 Description of the study area

Location

Nanumba South District (Figure 1) was carved out of the former Nanumba District as one of the twenty eight (28) newly created districts in 2004 and was inaugurated on the 27th August 2004. On the globe, it is located between Latitude 8.5° N & 9.0° N and Longitude 0.5°E & 0.5°W of the Greenwich Meridian, which more or less divides the district into two parts (NSD, 2005).

The district is found in the eastern corridor of the Northern Region of Ghana and shares boundaries with:

- Zabzugu Tatale District and the Republic of Togo to the east;
- East Gonja to the west;
- Nkwanta District of the Volta Region to the south-east;
- Nanumba North District to the North; and
- Kpandai District to the south west.

Figure 2 Nanumba South District Map

(Source: CERSGIS, 2013)

The exact size of the land area of the district is not clear. However, considering the proportion of the Nanumba South as far as the former Nanumba District (3,220 sq km), is concerned the land area for Nanumba South is about two fifths, therefore, it is assumed the land area for Nanumba South is around 1,300 km² (NSD, 2005).

Climate

The Nanumba South District lies in the Tropical continental climatic zone. As a result, day temperatures are fairly high ranging between 29°C and 41°C and occasionally reading 45°C (NSD, 2005). Like any other part of the West African sub-region, the district is under the influence of the wet South-West monsoon winds and the dry North-East trade winds. The

district experiences single maximum rainfall regime throughout the year: most of it falls within six months (May – October) leaving the other half of the year dry. Maximum rainfall is recorded in September with its accompanied windstorms. During this period streams and rivers over flow their banks and a lot of surface run-off. As a result some parts of the district are cut off from the main land.

The result of this type of rainfall pattern is that there is a single cropping season and the farmers in the district run rain-fed agriculture. Unfortunately, the district does not have its own precipitation record system, however the data collected by the former Nanumba District shows that the annual precipitation is erratic, averaging 1,363 mm (NSD, 2005) and farmers get poor harvests in times of little rainfall.

Vegetation and drainage

The vegetation type found in the district is the Guinea-Savannah with tall grass (particularly elephant grass) interspersed with draught and fire resistant trees. Some of the tree species are the shea, dawadawa, a few baobab, etc. There are streams and rivers as well as man-made dams and dugout drains in the district. The two main rivers that run through the district include the Daka, which spans 145km of the western border of the district with East Gonja and the Oti River, which meanders north south across the eastern part of the district with a total of 85 km within the district with their tributaries occasionally breaking into series of pools during the long dry season (NSD, 2005). The Oti River divides the district into two and the over bank is popularly called ‘Overseas’. The ‘Overseas’ area of the district becomes inaccessible during the peak of the raining season. Even during the dry season, the place is only accessible through Abzug District by land. Apart from that it is accessible to all other areas by canoe.

Soils

Soils are characteristically heavy and dark coloured. By Soil Research Institute and Council for Scientific and Industrial Research (SRI/CSIR) classifications, the types of soils found in the district are the savannah ochrosols, savannah glycols and ground water laterite (NSD, 2005). The savannah glycols are of alluvial-colluvial origins found along major rivers and drainage courses and are located mid-south through to the north. They are medium size textured moderately well drained soils suitable for wide range of crops such as cereals, roots and tubers and legumes generally. The Savannah ochrosols are well-drained soils with the surface being loamy sand or sand textured material with good water retention. These soils are found to the east (beyond the Oti River) and the southwest of the district. Ground water laterites are shallow sandy or loamy soils composed of rock fragment found on summit of upland areas; they are suitable for forestry and conservation programmes.

District economy

The economy is basically agrarian and other economic areas, such as manufacturing industries and services, are underdeveloped, although they exist in a small scale to serve only the local population.

The major economic activity in the district is however agriculture (farming). The soil is good for the cultivation of a variety of crops, such as tubers (Yams and Cassava), Cereals (Maize, Guinea corn, Rice) and Legumes (Beans, Groundnuts, Tiger nuts, ‘‘Bambara beans’’).

Table 1 below shows average yield as well as food balances between production and consumption of major crops in 2012. According to the data, it is clear that yam, groundnuts, maize and cassava are produced in the district to feed other areas in the country.

Intermediaries for the urban markets (Accra and Kumasi) come to buy mainly yams throughout the year by big trucks, and this contributes positively to the economy at the household level as well as the district level. However, road condition does not allow big trucks to directly access inland communities, and this hampers some farmers to increase their income. In spite of all the endowments of the district with good soils and suitable vegetation as well as climate for agriculture, the district is faced with high out migration of the youth to cities and towns.

Table 1: Yield and Food Balance by Crop in 2012

CROP	Biological Production (mt)	Economic Production (mt)	Population	Per capita	Total Consumption (mt)	Food balance (-/+ (mt))
Maize	17,491.40	16,616.83	93464	45	42058.8	-25,441.97
Rice	1669.4	1,619.32	93464	18.5	17290.84	-15,671.52
Sorghum	38408.7	36,488.27	93464	20	18692.8	17,795.47
Millet	405	392.85	93464	20	18692.8	-18,299.95
Cassava	2008480.5	1,405,936.35	93464	154	143934.56	1,262,001.79
Yam	2755874	1,653,524.40	93464	43	40189.52	1,613,334.88
Groundnuts	857	805.58	93464	22	20562.08	-19,756.50
Cowpea	5581.5	5,190.80	93464	2.5	2336.6	2,854.20
Soya bean	19650.4	19,257.39	93464	0.8	747.712	18,509.68

NB:

Biological Production= Total Crop Production (metric tons)

Economic Production=Food Available for Economic or Domestic Purposes=BP Less Post Harvest Losses of a Particular Crop

Total Consumption=Total Food Consumed by the Population of the District (Per Capita by District Population)/1000

Source: MoFA, Nanumba South District, 2012

3.2 The description of the research design

In order to achieve the set objectives of the study, a descriptive research design was used. Kerlinger (1986) defined a research design as a plan, structure and strategy of investigation

so conceived as to collect data and obtain answers to research questions or problems (as cited in Lolig, 2005). Data obtained from descriptive research may be expressed qualitatively in verbal terms and quantitatively in mathematical terms. The quantitative method was used and this sought to establish the relationships between variables used in the study.

In line with the above, a cross-sectional research design (Creswell, 2003) was adopted, whereby data was collected at one point and time. In this type of research study, either the entire population or a subset thereof is selected, and from these individuals, data are collected to help answer research questions of interest. It is called cross-sectional because the information about the subjects collected represents what pertains one point in time (Chris and George, 2004). This study used the term cross-sectional study to refer to this particular research design and the term questionnaire to refer to the data collection form that was used to ask questions of research participants. The choice of this method was partly necessary by its ability to meet the objectives of the study, and due to constraints in terms of time and finance.

3.3 Population of the study

According to Bell, (2005) the population of a study refers to the entire group of individuals selected for the study. For this study the population comprised of farmers in the Nanumba South District. From the 2000 population census about 85% of the district population was engaged in agriculture. With all things being the same, 85% of the projected population which is 82,243 is considered to be in agriculture as well.

3.4 Sampling technique and sample size used

The study requires a focus on a targeted sample of yam farmers from the area. The probability sampling method was used to determine the sample population for the study. A

sample is defined as a subset of the portion of the total population and it must always be considered as an approximation of the whole itself (Sarantakos, 2005). There are different ways or techniques involved in the selection of a sample for any study. A sampling technique therefore refers to the author's method of appropriately selecting the type, size and representatives of the sample. The first stage involved using the cluster sampling procedure to divide the district into two clusters 'Overseas' (areas across the Black Volta which divides the district) and 'Mainland' (areas from the district capital before the Black Volta). The two clusters were further grouped into two i.e. Nanumba communities and Konkomba communities (since both tribes live in 'Overseas' and 'Mainland') purposively to give a fair representation of the major ethnic groups in the area. The difference between the two clusters is that 'Mainland' is accessible all year round but the 'Overseas' is only accessible some parts of the year when the tides are low but even with that one will still have to cross there by canoe. Another difference between the two clusters is that, whilst almost all the communities 'Mainland' have either light or pipe borne water and bore holes, all the communities 'Overseas' have none.

It is based on the characteristics stated above that the clustering was done. From each of these clusters, two Nanumba and two Konkomba communities were purposively selected to ensure that the two major tribes were fairly represented. In all eight communities were sampled for the study. From these selected communities, simple random sampling was used to select the individual respondents for the study. Simple Random Sampling method is conducted where each member of a population has an equal opportunity to become part of the sample. As all members of the population have an equal chance of becoming a research participant, this is said to be a fair sampling procedure. In order to conduct this sampling strategy, a list of farmers registered with the Ministry of Food and Agriculture (MoFA) from the selected communities was obtained. Each farmer was assigned a unique number.

These numbers were placed in bowls and mixed thoroughly. The investigator then picked the number tags from the bowl until the required sample size was obtained. This was done separately for each community. In case of non – appearance of selected respondents, replacements were done on a random basis. According to Neuman (2000), random sample drawing does not only help to depict the target population with sufficient accuracy but also enables the researcher to establish a statistical relationship between the sample and the population.

As stated above, there are a total number of about 96,757 farmers in the Nanumba South District (NSDA Profile, 2005). The mathematical formula by Miller and Brewer (2003) was used to determine the sample size for this research. The formula is as follows:

$$n = \frac{N}{1 + N(\alpha)^2}$$

- Where ‘N’ = sampling frame,
- ‘n’ = sample size, and
- ‘α’ = confidence interval.

The confidence interval chosen for this study is 95% and the margin of error is (5%) because the study deals with human beings as subjects whose correctness of information is subject to biases unlike the physical sciences where certainty is of high degree. By the formula, N= 96,757 and $\alpha = (0.05)^2$

Therefore
$$n = \frac{96,757}{1 + 96,757(0.05)^2}$$

$$n = \frac{96,757}{1 + 241.895} \text{ therefore } n = 399.995 \text{ (400).}$$

The result derived from the formula above gave a sample size of 400 farmers given the confidence level and margin of error as stated above. Therefore, 400 farmers were sampled and used for the study in the district. The respondents were proportionately selected based on the number of farmers per community as indicated in Table 2 below.

Table 2: Sampling Frame

Overseas	Number of Farmers	Sample Size	Mainland	Number of Farmers	Sample Size
Wulensi	738	90 (45.0%)	Chichagi	475	68(34.00%)
Nakpayili	320	39(19.5%)	Pudua	493	70(35.00%)
Lungni	371	45 (22.6%)	Kanjokura	241	34 (17.10%)
Kanjo	211	26(12.9%)	Egambo	198	28 (14.10%)
Total	1,640	200 (100%)		1,407	200 (100%)

3.5 Development of data collection instruments

Instruments for data collection included structured questionnaires comprising both open ended and closed ended questions. These are intended to collect information from respondents that will be useful in answering the research questions.

Table 3: Data collection

Objective	Issue	Information Required	Source	Data collection instruments
Examine factors that motivate the youth to migrate to the urban areas	Factors accounting for migration	<p><u>Neo-classical Explaining Out-migration</u></p> <p><u>Push factors:</u></p> <ul style="list-style-type: none"> • Famine, • Conflict, • Poor living conditions such as housing, education and Health care • Low Agricultural productivity • Unemployment <p><u>Pull factors:</u></p> <ul style="list-style-type: none"> • Employment opportunity • Higher incomes • Better healthcare and education • Urban facilities and Way of life <p><u>New Economics Of Labour Migration</u></p> <p><u>Migration as insurance against risk:</u></p> <ul style="list-style-type: none"> • Migration as household's income portfolio diversification • Migration as strategy for increasing household income • Migration as strategy for overcoming constraints on economic and investments in places of origin 	Migrant/ Non-migrant farmers	Questionnaires
To find out the effects of youth migration on agricultural labour availability in the study area.	Agricultural labour availability	<ul style="list-style-type: none"> • Changes in availability and access to farm labour 	Migrants/Non-migrants farmers	Questionnaires

To examine the effects of out-migration on accessibility of agricultural land in the study area.	Land availability	<ul style="list-style-type: none"> • Access to/land availability for farming • Changes/differences in land use 	Migrants/Non-migrants farmers	Questionnaires
To assess the influence of out-migration on agriculture and livelihoods.	Changes / differences in livelihoods	<p>Perceived impact of rural-urban migration:</p> <ul style="list-style-type: none"> • Changes in agricultural activities • Changes in agricultural productivity • Changes in farm income • Changes in food security • Changes in expenditure on other household needs • Changes in the indirect, community-wide impacts of migration 	Migrants/Non-migrants farmers	Questionnaires

3.6 Method of data collection

Survey design was adopted and questionnaires were used mainly in the study for data collection. A survey involves a large population in which everyone is potentially a source of data and each person is entitled to similar standard questions. Burton (2005), describes survey as ways of producing information to describe and predict attitudes, opinions, values and behaviours based on what people say or see and what is contained in records about them. Surveys are basically used for systematic structured set of data, which may be obtained through observations, the use of questionnaires and interview schedules. Observations enable the researcher to get first hand information on the objects of study particularly in the natural setting. Questionnaires on the other hand enable the researcher to gather detailed information from a number of individuals within a specific area. Of the many functions of survey, one is to help describe the unit of analysis. Survey also helps to prevent creation of variation among the unit of analysis since it makes use of naturally occurring variations already existing among the units.

In spite of the good attributes of surveys as an important tool for social science research, De Vaus (1990) observed the following flaws about them:

- a) Survey cannot adequately establish cause and effect relationship between variables.
- b) Surveys look at just particular aspects of peoples' beliefs and actions.
- c) They assume that human beliefs and actions are caused by external forces and relegate the role of human consciousness to the background.

Primary data was collected using structured questionnaires (Appendix A). These were designed in such a way as to enable collected information capable of answering the primary questions. The questions aimed at finding out about the perceived impact of rural-urban migration on agricultural production from the perception of the non-migrant farmers left in

the study area. Agriculture in this study refers mainly to yam production and productivity. To answer these questions, the structured questionnaires were designed to collect information on the socio-economic characteristics of the respondents, perceived causes of rural-urban migration, perceived impact of migration on agricultural labour availability, perceived land accessibility and availability and the perceived impact of out-migration on agriculture/rural livelihoods.

Secondary data on the state of agriculture in the study area was obtained from DADU (MoFA). Other relevant information was gathered from existing literature from books, both published and unpublished, the internet and other sources.

3.7 Unit of analysis

Babbie (2005) defined units of analysis as ‘what and whom’ being studied in social science research, the most typical units of analysis are individual people. They usually are also the units of observation. Units of analysis then are those things the researcher examines in order to create summary descriptions of all such units and to explain differences among them. It is a component of the population of the study which is concerned with defining the ‘case’. The ‘case’ really is or the basic unit whose properties the researcher chooses to measure and analyse. Without this the researcher will have no bounded system and will be tempted to collect everything that randomly may have bearing on the issue. Common unit of analysis in social science research include individuals, social groups, social interactions and social artefacts. The main unit of analysis of this study is therefore farmers in the Nanumba South District.

3.8 Data analysis

Data obtained was analyzed quantitatively using Statistical Package for Social Science (SPSS version 16) software. Data analysis involved descriptive and inferential statistics. The data was then presented as frequency distributions and percentages. Also, some were presented in the form of tables.

3.9 Summary

This chapter outlines the description of the research design used for the study. The survey design was employed, using the quantitative method. The population of the study constituted farmers with a sample of 400. Data was collected over a period of four weeks and analyzed by the use of SPSS.

CHAPTER FOUR: RESULTS

4.0 Introduction

This chapter presents the empirical results of the study. It explores the perceptions of respondents on the impact of migration at the community and household levels in ‘Overseas’ and ‘Mainland’ communities. First, it presents a description of the socio-economic background of respondents from both in the ‘Overseas’ and ‘Mainland’ areas. Secondly, it examines the impacts of out-migration on agricultural labour availability, land accessibility and availability, agricultural performance and productivity.

4.1 Socio-demographic characteristics of respondents

The socio-demographic features/characteristics examined include age, sex, educational status, main employment type, secondary employment type, marital status and number of children. The distributions of respondents in communities in the ‘Overseas’ and ‘Mainland’ are examined in this sub-section.

Age of respondents

Table 3 shows that while the majority (44%) of the respondents is in the age group of 31-40 years in the ‘Overseas’ communities, the majority of the respondents in the ‘Mainland’ areas are in the age group of above 40 years. The chi-square analysis indicates that the age of respondents from the ‘Overseas’ communities is statistically significantly lower ($\chi^2 = 6.251$, $df = 2$, $p\text{-value} = 0.044$) than the age of respondents from the ‘Mainland’ communities. It can therefore be concluded that the sample from the ‘Mainland’ communities have more people with older age than the ‘Overseas’ communities.

Table 4: Socio-demographic features of the respondents

Variable		Community Type				Total		χ^2 test
		‘Overseas’ n =200		‘Mainland’ n = 200				
		Freq.	%	Freq.	%	Freq.	%	
Age	Below 30	28	14.0	40	20.0	68	17.0	$\chi^2 = 6.251$ df=2 p =0.044 significant
	31-40	84	42.0	95	47.5	179	44.8	
	Above 40	88	44.0	65	32.5	153	38.3	
Sex	Male	135	67.5	159	79.5	294	73.5	$\chi^2=6.790$ df=1 P=0.009 Significant
	Female	65	32.5	41	20.5	106	26.5	
Education- nal status	Not educated	144	72.0	105	52.5	249	62.3	$\chi^2= 20.547$ df=4 P=0.000 significant
	Basic education	19	9.5	26	13.0	45	11.3	
	Seconda- ry level	27	13.5	38	19.0	65	16.3	
	Post secondary & over	10	5.0	31	15.5	41	10.3	
Main employ- ment type	Farming	185	92.5	37	18.5	222	55.5	$\chi^2= 2.426$ df=3 P=0.000 Significant
	Petty trading	15	7.5	163	81.5	178	44.5	
Seconda- ry Employ- ment type	No sec. Employ- ment	174	87.0	146	73.0	320	80.0	$\chi^2 = 13.324$ df=3 p=0.004 significant
	Farming	17	8.5	37	18.5	54	13.5	
	Petty trading	9	4.5	17	6.0	26	6.5	
Marital status	Single	12	6.0	30	2.5	42	10.5	$\chi^2= 8.610$ df=1 P=0.005 Significant
	Married	188	94.0	170	15	358	89.5	
Number of children	0-5	86	43.0	124	85	210	52.5	$\chi^2= 33.736$ df=3 p=0.000 significant
	6-10	87	43.5	51	62	138	34.5	
	More than 10	27	13.5	25	21.5	52	13.0	

Source: Field survey, 2012.

Sex of respondents

Table 4 shows the distribution of sex of respondents in the ‘Overseas’ and ‘Mainland’ communities. The results show that majority of the respondents in both type communities are males. However, there are significantly more males (79.5%) in the ‘Mainland’ communities than in the ‘Overseas’ communities. Conversely, the results show that there are more females (32.5%) in the ‘Overseas’ communities than in the ‘Mainland’ communities where the percentage of females is only 20.5%. The chi-square results indicate that there is a significant difference among the sex of respondents from the ‘Overseas’ and ‘Mainland’ ($\chi^2 = 6.790$, $df = 1$, $p\text{-value} = 0.009$).

Educational Status of Respondents

The educational status of the respondents was also explored. It was found out that, there are significantly more uneducated people (people without some level of education) 72% in the ‘Overseas’ than in the ‘Mainland’ ($\chi^2 = 2.426$, $df = 4$, $p\text{-value} = 0.000$).

Main Employment type of respondents

Majority of respondents from both ‘Overseas’ and ‘Mainland’ are farmers. However, there are more farmers in the ‘Overseas’ than in the ‘Mainland’ area. The chi-square results show that there was a significant difference in the respondents’ main employment type among the ‘Overseas’ and ‘Mainland’ areas. The main employment type of respondents in the ‘Overseas’ was largely farming (92%) as compared to 18.5% in the respondents from the ‘Mainland’ ($\chi^2 = 2.426$, $df = 3$, $p\text{-value} = 0.000$).

Secondary employments of respondents

The study also explored to find out whether apart from farming, the respondents also did something else for their livelihood. The results show that majority (87% and 73%

respectively) from both 'Overseas' and 'Mainland' did not have secondary employment. However, there are significantly more people with secondary employment in the 'Mainland' than in the 'Overseas'. The chi-square results indicate that there is a significant difference ($\chi^2 = 13.324$, $df = 3$, $p\text{-value} = 0.004$) in terms of secondary employment in the 'Mainland' than in the 'Overseas'.

Marital status of respondents

In terms of marital status, the study found that majority (94.0% and 85.0%) from the 'Overseas' and 'Mainland' respectively are married. There are also more unmarried (singles) in the 'Mainland' than in the 'Overseas' area. The chi-square results indicate that the proportion of married people in the 'Overseas' area is significant. Conversely, the proportion of singles (unmarried people) is significantly higher in the 'Mainland' area than in the 'Overseas' area ($\chi^2 = 6.610$, $df = 1$, $p = 0.005$). This situation may be as a result of little education or no formal education for majority of respondents from the 'Overseas' area, hence early marriage.

Number of children of respondents

Table 4 shows that a few of respondents in the 'Overseas' (43.0%) have fewer children (0-5 children) as compared to 62.0% of respondents in the 'Mainland'. Also, the results indicate that 57.0% of the respondents in the 'Overseas' area have between 6 to 10 children compared with 38.0% of respondents in the 'Mainland' area. The chi-square results indicate that there is a significant difference in the number of children per individual in the 'Overseas' than in the 'Mainland' ($\chi^2 = 33.736$, $df = 3$, $p\text{-value} = 0.000$). The reason why the respondents in 'Overseas' have significantly higher number of children than respondents in 'Mainland' may be as a result of high illiteracy level, early marriage and polygamy or multiple wives.

4.2 Number of migrants from households

In Table 5 below, majority (99.0%) of respondents from ‘Overseas’ have 0 or up to 3 migrant situation in their households. However, in the ‘Mainland’, 48% of the households have between 1 and 7 migrants from their households. The difference is significant at $\chi^2 = 33.7$, $df = 3$, p -value = 0.000. This confirms the perception of the high and low migrant situation in the two types of communities.

Table 5 Number of migrants

Number of migrants	Community Type				Total	
	‘Overseas’ n=200		‘Mainland’ n = 200			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	95	47.5	116	58.0	211	52.8
1-3	103	51.5	59	29.5	162	40.5
4-6	2	1.0	21	10.5	23	6.0
7+	0	0.0	4	2.0	4	1.0
Total	200	100	200	100	400	100

$\chi^2 = 33.736$, $df = 3$, and p value = 0.000 (significant)

Source: Field survey, 2012.

4.3 Migrant employment status

Table 6 shows the migrant employment situation in areas of destination from the study area. The results indicate that many more migrants from ‘Overseas’ are employed than the migrants from ‘Mainland’. The employment status of the migrants is not significantly different at $\chi^2 = 2.676$, $df = 2$, p -value=0.262 for migrants from both ‘Overseas’ and ‘Mainland’. This therefore means that the types of jobs the migrants from the two types of communities do are not statistically significantly different.

Table 6 Migrant employment status

	Response	Community Type			
		“Overseas” n =200		“Mainland” n = 200	
		Frequency	Percent	Frequency	Percent
Whether migrant is working or not	None	103	51.5	119	59.5
	Yes	41	20.5	36	18.0
	No	56	28.0	45	22.5
	Total	200	100.0	200	100.0

$\chi^2 = 2.676$, $df = 2$, and p value = **0.262 (not significant)**

Source: Field survey, 2012.

4.4 Migrant employment type

Of the migrants employed in their destinations only a few of them work in the formal sector (e.g. teaching) whilst majority (98.0%) are employed in the informal sector. The chi-square results of the migrants employment type indicates that there is no significant difference ($\chi^2 = 0.683$, $df = 3$, p -value = 0.877) between the two types of communities (‘Overseas’ and ‘Mainland’).

Table 7 Migrant employment type

Migrant employment type	Community Type				Total	
	“Overseas” n =200		“Mainland” n = 200			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Teaching	4	2.0	4	2.0	8	2.0
Farming	31	15.5	28	14.0	59	14.8
petty trading	4	2.0	2	1.0	6	1.5
Others	2	1.0	1	0.5	3	0.75
Not employed	159	79.5	165	83.0	324	81.0
Total	200	100.0	200	100.0	400	100.0

$\chi^2 = 0.683$, $df = 3$, and p value = **0.877 (not significant)**

Source: Field survey, 2012.

4.5 Migration experience of respondents

Respondents' migration experience was also explored and the results shown in Table 8. The results indicate that few respondents from both 'Overseas' and 'Mainland' have ever migrated. However, the rate of migration from the 'Mainland' is significantly higher and different from 'Overseas' ($\chi^2 = 11.724$, $df=1$, $p\text{-value} = 0.001$).

Table 8 Respondents migration experience

Respondents' migration experience	"Overseas" n =200		"Mainland" n = 200	
	Frequency	Percent	Frequency	Percent
Yes	25	12.5	52	26.0
No	175	87.5	148	74.0
Total	200	100.0	200	100.0

$\chi^2 = 11.724$, $df - 1$ and $p\text{ value} = 0.001$ (significant)

Source: Field survey, 2012.

4.6 Perception of causes of rural-urban migration

Push factors

The push factors perceived to cause rural-urban migration in the study area includes famine, conflict, poor health service, poor educational service, bad quality of housing, poor crop yield and unemployment. Based on the percentages shown in Table 8, the most important push factors in ranked order are conflict (80.0%), poor educational service (49.0%) and poor crop yield (40.0%). The respondents of both 'Overseas' and 'Mainland' however vary in the perception of social amenities (health services and educational service), with those from 'Mainland' indicating absence of or poor quality of the above as reasons for out-migration.

Table 9 Perception of push factors motivating migration

Perception of factors motivating migration	Community Type				Total		χ^2 test
	"Overseas" n =200		"Mainland" n = 200		N	Percent	
	N	Percent	N	Percent			
Famine	54	27.0	49	24.5	103	26.0	$\chi^2 = 0.327$ df=1 p=0.648
Conflict	158	79.0	163	81.5	320	80.0	$\chi^2 = 0.394$ df=1 p=0.616
poor health services	80	40.0	58	29.0	138	35.0	$\chi^2 = 5.355$ df=1 p=0.027 (sig)
poor educational services	120	60.0	75	37.5	195	49.0	$\chi^2 = 20.263$ df=1 p=0.000 (sig)
bad quality of housing	24	12.0	18	9.0	42	11.0	$\chi^2 = 0.958$ df=1 p=0.415
poor crop yield	130	65.0	128	64.0	158	40.0	$\chi^2 = 0.044$ df=1 p=0.917
Unemployment	172	86.0	176	88.0	148	37.0	$\chi^2 = 0.354$ df=1 p=0.656

Source: Field survey, 2012. *Multiple responses possible

The Chi-square results indicate that there were significant ($p < 0.05$) differences, in the following push factors; poor health facilities and poor educational facilities in both 'Overseas' and 'Mainland'. The rest of the push factors however, indicate that there is no significant ($p > 0.05$) difference among the two migration areas.

Pull factors

The factors perceived to attract rural migrants to the cities include the following;

- More job opportunities
- Better health services
- Better educational service
- Urban facilities and way of life

Table 10 Perception of pull factors motivating migration

Perception of factors motivating migration	Community Type				Total		χ^2 test
	"Overseas" n =200		"Mainland" n = 200		N	Percent	
	N	Percent	N	Percent			
More job opportunities	197	98.5	52	26.0	249	62.3	$\chi^2= 2.237$ df=1 p=0.000 (sig)
Better health services	99	49.5	96	48.0	195	48.8	$\chi^2= 0.090$ df=1 p=0.841
Better education services	125	62.5	115	57.5	240	60.0	$\chi^2= 1.042$ df=1 p=0.358
Urban facilities and way of life	128	64.0	97	48.5	225	56.3	$\chi^2= 9.736$ df=1 p=0.002 (sig)

Source: Field survey, 2012. *Multiple responses possible

In ranked order, the critical pull factors are many job opportunities (62.3%), Better educational service (60.0%), Urban facilities and way of life (56.3%) and better health services (48.8%). The chi-square results indicate that there is a significant difference in terms of 'More job opportunities' for 'Overseas' and 'Mainland' ($\chi^2= 2.237$, df =1 and p=0.000). However, the difference is more significant in 'Overseas' than it is in 'Mainland'. Urban facilities and way of life also show a significant difference in favour of the 'Overseas' than for 'Mainland' ($\chi^2= 9.736$, df = 1 and p =0.002). The rest were however not significantly different for the two areas.

Migration as insurance against risk

Theory has it that apart from the push and pull factors, migration is also undertaken as risk aversion strategy of individuals and households. The factors perceived to cause out-migration here are listed below:

- To overcome the constraints on economic and investments in rural areas
- To increase their income and
- To increase their sources of income

Table 11 Perception of risk factors motivating migration

Perception factors motivating migration	Community Type				Total		χ^2 test
	"Overseas" n =200		"Mainland" n = 200		N	Percent	
	N	Percent	N	Percent			
To increase their sources of income	77	38.5	97	48.5	174	43.5	$\chi^2=3.672$ df=1 p=0.055
To increase their income	94	47.0	121	60.5	215	53.8	$\chi^2=6.798$ df=1 p=0.009 (significant)
To overcome constraints on economic and investments in rural areas	148	74.0	61	30.5	209	52.3	$\chi^2= 15.844$ df=1 p=0.000 (significant)

Source: Field survey, 2012. *Multiple responses possible

The results when ranked in order of their strength or importance, 'to increase their income' comes first with 53.8% followed by 'to overcome constraints on economic and investments in rural areas' (52.3) and then 'to increase their sources of income' (43.5%).

'To overcome constraints on economic and investments in rural areas' showed significant different of $\chi^2= 15.844$, df=1 and p=0.000 in the 'Overseas' as compared with the 'Mainland'. The migration as insurance against risk factor of 'to increase the volume of income however showed significant difference ($\chi^2= 6.798$ df=1 p=0.009) in favour of the communities in 'Mainland'. The rest did not show any significant difference. The details are shown in Table 11 above.

It can be concluded from above that, among the three factors perceived to be responsible for migration, pull factors are the most important one in the study area. This is followed by the push factors and then the insurance against risk in order of importance as can be seen from above.

4.7 Perceived effects of out-migration on agricultural labour availability

Sources of agricultural labour

Agricultural labour sources to respondents in the study area were explored and their results presented in Table 12 below. The sources explored were family labour only, hired labour only and the combination of the two.

Table 22 Sources of agricultural labour

Sources of labour	Community Type				Total	
	‘Overseas’ n =200		‘Mainland’ n = 200			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Family labour only	49	24.5	35	17.5	84	21.0
Hired labour only	67	33.5	34	17.0	101	25.0
Both family and hired labour	84	42.0	131	65.5	215	54.0
Total	200	100	200	100	400	100

$\chi^2 = 23.390$, $df = 2$, and p value = 0.000 (significant)

Source: Field survey, 2012.

The results in Table 12 indicate that 66.5% and 83.5% of respondents from both ‘Overseas’ and ‘Mainland’ respectively used family labour and or the combination of the two where as 75.5% and 82.5% used hired labour only or the combination of the two. However, the exclusive use of hired labour suggests a relatively higher availability of labour in ‘Overseas’. The difference in the use of the different sources of agricultural labour is highly significant ($\chi^2 = 23.390$, $df = 2$ and p -value = 0.000) for both ‘Overseas’ and ‘Mainland’.

Labour constraint and how it was solved

Table 13 presents the results on whether the respondents encountered labour constraints in carrying out their agricultural activities and how they were able to manage the constraints.

The results in Table 13 show that most (51.6%) of the respondents who faced labour constraints were able to overcome the situation by hiring labour to assist in their farm operations. The difference in how the labour constraints were solved is statistically significant ($\chi^2 = 19.401$, $df = 4$ and p value = 0.001) between the ‘Overseas’ and ‘Mainland’. However, the difference is more significant in ‘Mainland’ than in ‘Overseas’.

Table 13 Labour constraints and how it was solved

Labour constraints	Community Type				Total	
	‘Overseas’		‘Mainland’			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Hiring labour	69	46.0	77	57.9	146	51.6
By working with others	17	11.3	17	12.8	34	12.0
With the help of children	18	12.0	5	3.8	23	8.1
With the help of extended family	18	12.0	26	19.5	44	15.5
Reducing acreage cultivated	28	18.7	8	6.0	36	12.7
Total	150	100	133	100	283	100

$\chi^2 = 19.401$, $df = 4$ and p value = 0.001 (significant) Source: Field survey, 2012.

Use of hired labour

The study results in Table 14 indicate that ploughing the fields and weeding the farms are the major farm operations that are labour intensive and therefore done by employing additional hands. The two different (‘Overseas’ and ‘Mainland’) communities were unanimous on this. Their perception on the use of hired labour for transportation of farm produce vary with ‘Mainland’ using more (42.5%) hired labour for transportation of farm produce than ‘Overseas’. The level of significance for the two types of communities in

terms of hiring of labour for transportation is $\chi^2 = 4.267$, $df = 1$ and $p\text{-value} = 0.051$. The difference in this respect could be as a result of different farming systems used by the two types of communities and/or distances to the farms.

Table 14 Use of hired labour

Use of hired labour	Community Type				Total		χ^2 test
	‘Overseas’ n =200		‘Mainland’ n = 200				
	N	Percent	N	Percent	N	Percent	
Ploughing	132	66.0	144	72.0	276	69.0	$\chi^2 = 1.682$ $df=1$ $p=0.234$
Weeding	136	68.0	141	70.5	277	69.3	$\chi^2 = 0.294$ $df=1$ $p=0.665$
Harvesting	34	17.0	56	28.0	90	22.5	$\chi^2 = 6.939$ $df=1$ $p=0.012$ (sig)
Staking	16	8.0	22	11.0	38	9.5	$\chi^2 = 1.047$ $df=1$ $p=0.394$
Transporting	65	32.5	85	42.5	150	37.5	$\chi^2 = 4.267$ $df=1$ $p=0.050$

Source: Field survey, 2012.

Impact of getting labour at the right time on production

Table 15 presents the results of impact of timely acquisition of labour on production. The results indicate that 45% and 61.5% respectively from both ‘Overseas’ and ‘Mainland’ got labour at the right time for their agricultural activities. The impact of timely acquisition of labour positively affects agricultural production. The results indicate that 84.4% and 80.0% respectively for both ‘Overseas’ and ‘Mainland’ agreed that timely acquisition of labour increased their yield.

The study results show that there is no significant difference ($\chi^2= 1.904$, $df = 2$ and p -value = 0.386) between the perception of respondents from ‘Overseas’ and ‘Mainland’ in this respect.

Table 15 Impact of getting labour at the right time on production

Impact of getting labour at the right time on production	Community Type				Total		χ^2
	“Overseas” n =200		“Mainland” n = 200				
	Freq.	Perc.	Freq.	Perc.	Freq.	Perc	
Yield increase	76	84.4	98	80.0	174	81.3	$\chi^2= 1.904$, df 2 and p value = 0.386
Has no impact	14	16.0	23	18.6	37	17.2	
I do not know	0	0.0	2	1.6	2	0.93	
Total	90	100.4	123	100.2	213	100	

Source: Field survey, 2012.

Respondents’ evaluation of labour availability

From Table 16, the results indicate that the respondents’ perception of labour availability is not different for both the ‘Overseas’ and ‘Mainland’. The results indicate that 71.0% and 78.0% of the respondents respectively from ‘Overseas’ and ‘Mainland’ indicated that migration has caused decreased labour availability in the study area.

Table 16 Evaluation of labour availability

Evaluation of labour availability	Community Type				Total	
	“Overseas” n =200		“Mainland” n = 200			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Increased	32	16.0	31	15.5	63	15.7
Decreased	142	71.0	156	78.0	298	74.5
No change	26	13.0	13	6.5	39	9.7
Total	200	100	200	100	400	100

$\chi^2 = 5.007$, $df = 2$ p value = 0.082 Source: Field survey, 2012.

There was no significant difference ($\chi^2 = 5.002$, $df = 2$ and $p = 0.082$) between the perception of both ‘Overseas’ and ‘Mainland’ about the impact of migration on labour

availability. However, the perception of decreased labour is higher for the ‘Mainland’ than ‘Overseas’.

Reasons for evaluation of labour

The reasons for labour shortage per the evaluation of the respondents are presented in Table 17. Among the reasons stated, out-migration is the most important. From both ‘Overseas’ and ‘Mainland’ 56.0% and 43.5% respectively indicated out-migration as the main reason for labour shortage in the area.

Table 17 Reasons for labour shortage

Reasons for Labour Shortage	Community Type				Total	
	‘Overseas’ n =200		‘Mainland’ n = 200			
	Freq.	Percent	Freq.	Percent	Freq.	Percent
No reason stated	24	12.0	12	6.0	36	9.0
In-migration	7	3.5	10	5.0	17	4.0
out-migration	112	56.0	87	43.5	199	49.7
High labour wage	10	5.0	11	5.5	21	5.0
Education	11	5.5	7	3.5	18	4.5
Changes in the rainfall pattern	10	5.0	5	2.5	15	3.7
Other opportunities	11	5.5	56	28.0	67	16.7
Poverty	15	7.5	12	6.0	27	6.7
Total	200	100	200	100	400	

$\chi^2 = 40.831$, $df = 7$ and p value = 0.000 (significant)

Source: Field survey, 2012. *Multiple responses possible

Respondents from both ‘Overseas’ and ‘Mainland’ attribute shortages of labour to out-migration. However, there was significant difference ($\chi^2 = 40.831$, $df = 7$ and $p = 0.000$) in ‘Overseas’ than ‘Mainland’.

4.8 Effects of out-migration on farmland

Accessibility to farmland

On the issue of access to farm land in ‘Overseas’ and ‘Mainland’, majority of the respondents forming 88% and 72% indicated they owned the land individually. According to them they have shared the family land so as to avoid any conflict as to who should farm where as a result of population pressure. To determine the significance level of accessibility to farmland for the two areas, the data was cross tabulated and chi-square test run on them. The finding shows that how farm land is acquired is statistically significantly different in ‘Overseas’ than in ‘Mainland’ ($\chi^2 = 16.738$, $df = 2$ and p value = 0.000). The finding therefore indicates that many more respondents in ‘Overseas’ owned land individually than the respondents in ‘Mainland’. This indicates that more respondents in ‘Overseas’ compared with ‘Mainland’ have access to farm land.

Table 18 Access to land for farming

Access to Land for Farming	Community Type				Total	
	‘Overseas’ n = 200		‘Mainland’ n = 200			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Individual ownership	176	88.0	144	72.0	320	80.0
Communal ownership	24	12.0	54	27.0	78	19.5
Lease	0	0.0	2	1.0	2	0.5
Total	200	100	200	100	400	100

$\chi^2 = 16.738$, $df = 2$ and p value = 0.000 (significant)

Source: Field survey, 2012.

Impact of migration on availability of farmland

Another indicator of effect of out-migration is availability of farmland. The results in Table 19 indicate that out-migration makes farm land more available to the non-migrants from the perception of the respondents. More respondents indicated farmland availability resulting from out-migration in ‘Mainland’ (74.5%) than in ‘Overseas’ (51.5%) at $\chi^2 = 22.694$, $df = 1$ and p value = 0.000.

Table 19 Impact of migration on availability of farmland

Impact of migration on availability of farmland	Community Type				Total	
	‘Overseas’ n =200		‘Mainland’ n = 200			
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Yes	103	51.5	149	74.5	252	63.0
No	97	48.5	51	25.5	148	37.0
Total	200	100	200	100	400	100

$\chi^2 = 22.694$, $df = 1$, p value = **0.000 (significant)** Source: Field survey, 2012.

This indicates that there is higher perception that out-migration frees farmlands for the non-migrants in the communities to use. Together with the findings on accessibility, the deduction is that whilst ‘Mainland’ is associated with lower individual ownership of land, it however provides opportunity for enhanced access to communal ownership of land.

4.9 Out-migration and agricultural productivity in the study area

Effect of Migration on Agricultural Performance

Agricultural performance is measured by the following; (i) changes in time taken for undertaking specific farm related activities, (ii) changes in income from farming, (iii) changes in availability of labour, and (iv) changes in agricultural productivity. These measures are indicated by decreased time spent in farming, decreased farm incomes, labour shortages and low agricultural productivity in the study area. Table 20 presents the respondents perceptions on whether migration affects agricultural performance in the study area. The results indicate that 78.0% and 80.5% of respondents from both ‘Overseas’ and ‘Mainland’ respectively indicated that out-migration affects agricultural performance with no significant difference between the two types of communities ($\chi^2 = 0.380$, $df = 1$ and p value = 0.622) indicating that they have almost the same perception of the effects of migration on agricultural performance.

Table 20 Impact of migration on agricultural performance

Does out-migration affect agricultural performance?	Community Type				Total	
	"Overseas" n = 200		"Mainland" n = 200			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Yes	156	78.0	161	80.5	317	79.2
No	44	22.0	39	19.5	83	20.7
Total	200	100	200	100	400	100

$\chi^2 = 0.380$, $df = 1$ and p value = 0.622 Source: Field survey, 2012.

Farmers' perception of the ways in which out-migration affects agricultural performance is shown in Table 21. Of the percentage of respondents who indicated that migration affects agricultural performance from both 'Overseas' and 'Mainland', 67.0% indicated it decreased farm incomes, 63.8% agreed it causes labour shortage whilst 58.8% said it causes low agricultural productivity.

The results from Table 21 show that the perception of the respondents from both 'Overseas' and 'Mainland' on the ways migration affects agricultural performance is the same or similar. There is therefore no significant difference in the perception of respondents from the two types of communities ($\chi^2 = 0.380$, $df = 1$ and p value = 0.622) regarding the ways out-migration affects agricultural performance at the community level.

The ways indicated are (i) changes in time taken for undertaking specific farm related activities, (ii) income from farming, (iii) availability of labour, and (iv) agricultural productivity. Among these there was statistically significant difference between 'Overseas' and 'Mainland' in the case of changes in time taken for undertaking specific farm related activities.

Table 21 Perception of ways in which out-migration affects agricultural performance

Ways migration affect Agriculture	Community Type				Total		χ^2 test
	"Overseas" n =200		"Mainland" n = 200				
	N	%	N	%	N	%	
Decreased time spent on farming	13	6.5	3	1.5	16	4.0	$\chi^2=6.510$ df=1 P=0.019 (sig.)
Decreased income from farming	130	65.0	138	69.0	268	67.0	$\chi^2=0.724$ df=1 p=0.396
Labour shortage	131	65.5	124	62.0	155	38.8	$\chi^2=0.694$ df=1 p=0.466
Lower agricultural productivity	122	61.0	113	56.5	235	58.8	$\chi^2=0.836$ df=1 p=0.417

Source: Field survey, 2012.*Multiple responses possible

The implication of Table 21 is that farmers in 'Mainland' spend more time undertaking specific farm activities on the farm. Further in the area though not significantly different, less number of respondents in the 'Mainland' are experiencing income increases.

4.10 Perceived effects of migration on food availability and level of farm incomes

Effects of out-migration on food security

The study also explored the food situation in the area. Food security is crudely measured in terms of availability and time span food is available from the perception of the respondents and the results are presented in Table 22. Majority of the respondents (99.0% and (93.5%) respectively from both 'Overseas' and 'Mainland' indicate food is available all year round in the market for sale. However, the number of respondents who perceived that food is available in the market all year round is statistically significantly higher in 'Overseas' than in 'Mainland' ($\chi^2= 8.381$, df = 1 and p= 0.006). Table 22 shows that there is food availability in the two different communities but more food is available in 'Overseas' than in 'Mainland'.

Table 22 Food security

Food security	Community Type				Total		χ^2 test
	"Overseas" n =200		"Mainland" n = 200				
	Freq.	Percent	Freq.	Percent	Freq.	Percent	
Is food available all year round in the market?	198	99.0	187	93.5	385	96.3	$\chi^2=8.381$ df=1, P=0.006 (significant)
How long does harvested food last?							
1-3 months	32	16.0	34	17.0	66	16.5	$\chi^2=8.961$ df=3 P=0.030 (significant)
4-6 months	52	26.0	45	22.5	97	24.3	
7-8 months	38	19.0	62	31.0	100	25.0	
8-12 months	78	39.0	59	29.5	137	34.3	
Total	200	100	200	100	400	100	

Source: Field survey, 2012.

The study further sought to examine how long food is available to the respondents after harvest as an indicator for food security. It was found that majority (61.0% and 70.5%) of the respondents from the 'Overseas' and 'Mainland' communities respectively did not have food supply the whole year round from their own produce ($\chi^2=8.961$, df = 3 and p = 0.030). This shows that there is statistically significant higher food security in the 'Mainland' communities (70.5%) than in the 'Overseas' communities (61.0%).

Impact of out-migration on farm incomes

The results in Table 23 indicate that the perception of majority (68.0% and 78.5) of respondents is negative with respect to the impact of migration on farm incomes even though there is no statistically significant difference between the two types of communities -'Overseas' and 'Mainland'- ($\chi^2= 4.712$, df = 2 and p value = 0.095). Out-migration results in decreased farm incomes as a result of low agricultural productivity and the general poor performance of agriculture in the area.

Table 23 Impact of out-migration on farm incomes

Out-migration and farm incomes	Community Type				Total	
	“Overseas” n =200		“Mainland” n = 200			
	Freq.	Perc.	Freq.	Perc.	Freq	Perc.
Perception of whether out-migration affected farm income	136	68.0	157	78.5	293	73
How out-migration has affected farm incomes						
Increased farm incomes as a result of high productivity	15	11.0	20	13.5	35	12.3
Decreased farm incomes as a result of low productivity	121	89.0	123	83.1	244	85.9
Farm income remain unchanged	0	0.0	5	3.4	5	1.7
Total	136	100	148	100	284	100

$\chi^2 = 4.712$, $df = 2$ and p value = 0.095

Source: Field survey, 2012.

4.11 Summary

In a nut shell, this chapter outlined the perceived causes of rural out-migration such as the pus-pull factors and migration as a risk aversion strategy adopted by rural farm households. It also captured the perceived impact of out-migration from rural areas on agriculture from the perspectives of the rural non-migrants left behind.

CHAPTER FIVE: DISCUSSION OF RESULTS

5.0 Introduction

This chapter presents the discussion of the findings of this study. The findings are systematically discussed along with the research questions of the study and supported with empirical evidence from similar studies where necessary. Out-migration of youth from the study area is likely to bring about labour shortages for agriculture. This may result in low agricultural productivity which may affect the livelihood of the non-migrants left behind after migration has occurred in terms of food insecurity and low farm incomes. The study therefore sought to address the following from the perception of the non-migrants left in the study area. The research questions are as follows;

1. What are the factors that influence out-migration in Nanumba South District?
2. What is the relationship between out-migration and agricultural labour availability in rural areas of the Nanumba South District?
3. What is the relationship between out-migration and agricultural land accessibility or availability in the Nanumba South District?
4. What is the relationship between out-migration and agriculture performance in the Nanumba South District?

5.1 The factors that influence out-migration

Based on perception of respondent farmers for push factors, pull factors and migration as a strategy for risk aversion are all important factors influencing out-migration in the Nanumba South District. The most important push factors perceived by the respondents are conflicts (80%), poor educational services (49%) and poor crop yields (40%). Conflicts and poor crop yield are equally critical push factors in both 'Overseas' and 'Mainland'. Conflict is

ranked high because of the inter-tribal conflict that occurred between the Konkombas on one side and the Nanumba on the other side in 1981. These inter-tribal conflicts resurfaced its ugly head in 1994 and 1995 as well in the area compelling many people to flee the area for fear of its recurrence. Similarly, the Norwegian Refugee Council (2003) reported that conflict between Azerbaijan and Armenia over Nagorno-Karabakh since 1988 was responsible for internal migration in the area.

However, the push factor of poor educational services is considered more critical in 'Overseas'. Poor educational services were ranked second to conflict but this situation has to do with the conflict in the area. As a result of the series of tribal conflicts in the area, most schools were closed down as it did not spare the lives of teachers who found themselves especially in the remote communities in the study area. As a result many schools were closed down as teachers declined postings to most parts of the district. This situation has left most parts of the Nanumba South District under developed in terms of educational infrastructure as well as services and other social amenities. As a result of this situation indigenes who can afford to provide better and quality education for their wards or for themselves migrated to some other areas to do so for themselves.

Most studies on migration consider the "push and pull" theoretical framework developed by Lee in 1966 as one of the major theoretical underpinnings for rural-urban migration (Yeboah, 2008). The theory indicates that 'push' factors existing at the point of origin act as catalysts which prompt the decision to emigrate. The push factors include, poverty, lack of adequate infrastructure in rural areas, parental neglect, breakdown of family structures, lack of education and employment opportunities, low family incomes, peer influence and debilitating socio-cultural practices. Push factors are associated with the conditions in the place/area of origin of migrants and seem to be more important in the developing world

than the “pull” factors associated with destination. War, drought, pest invasion, flooding and other catastrophes could force people to migrate. In rural areas land degradation and deforestation are directly correlated with their productivity and life condition. When they are not in a position to sustain their life through agriculture, where it is highly affected by environmental conditions, then they would prefer to migrate to urban areas and engage in non-farm activities (Dereje, 2002; Kinfte, 2003).

Moreover, a study conducted in Ethiopia by Ezra (2001) and Tesfaye (2007) show that rural out-migration in northern Ethiopia has been a response to “push” factors rather than response to “pull” factors from urban areas. This also agrees with Ray (2004) who found in his study on the effects of labour migration on agriculture production in Mahottari District that small land holdings, decreasing production, low wage rate, limited employment opportunities in the rural areas were the main reasons for out-migration. On the other hand, the ‘pull’ factors’ include the perceived availability of jobs and other opportunities at the destination, better infrastructure/social services and food and freedom from family pressure (Opare, 2003; Kese, 2004; Awumbila, 2007; Berg, 2007; Kwankye et al., 2007). This means that migration can only occur if the reason to live elsewhere (the push) can be solved by the corresponding pull factors at a particular destination (Muñiz-Solari et al., 2010 and Solem et al., Eds 2011). Some scholars have argued that the urban environment provides better employment and income opportunities, and social amenities such as electricity, piped water supply and other public services to make them attractive to rural migrants. Worku (2006) contends that people who are better off financially could migrate to get a better social infrastructure (education, health), urban amenities, and culture and life style etc.

It has been established that African migrations especially from rural to urban areas do not have the same effect for industrialization and economic development as migration has done

elsewhere especially in Europe and North America (Kinuthia, 2003). Kinuthia (2003) argues that classic “push factors” from the rural areas, such as lack of jobs; famine especially in pastoralist areas; drought; various kinds of poverty and landlessness, have been known to “push” people out of their rural homes in search of better opportunities elsewhere, particularly in the urban areas. The “pull” factors in the urban areas have been the hope to find a job, increase one’s income, educational opportunities, in search of better services and generally to improve one’s economic wellbeing.

The critical pull factors operating in the area studied are the following (i) the attraction of more job opportunities, (ii) the attraction of better educational services, and (iii) urban facilities and way of life. These attractions of job opportunities are higher in ‘Mainland’ than in ‘Overseas’. However, the attraction of better educational services and urban facilities and way of life is stronger in ‘Overseas’. The conflicts in the study area coupled with declining soil fertility, poor crop yields and lack of social amenities have compelled some of the inhabitants to leave the area for other places where they will get the opportunities to work in various capacities. This agrees with the findings of Adepoju (2005 cited in Kwankye, 2011), Ghana Statistical Service (2007), Awumbila (2007) and Kwankye et al., (2007) who pointed to the fact that the north-south migration is due to the north-south development dichotomy.

In sum, the Lee’s push and pull theory has affirmed the economic dimension of migration alluded to by the authors above. What is obvious is that economic reasons are the key catalysts for emigration the world over. The “survival strategy approach” put forward by Stark (1984) and “household strategy approach” by Chant (1998) further explains the economic basis of migration. The survival strategy asserts that the migration of labour from rural areas is vital for the persistent existence of urban capitalism. Stark (1984) asserts that

rural families use rural-urban migration as a wealth accumulation strategy through remittances received from the migrants. The critical migration as insurance against risk factors which explains out-migration from the study area in descending order are (i) to seek opportunities to take advantage as to overcome constraints on economic and investments in their areas, (ii) to seek opportunities to increase the volume of income, and (iii) to seek opportunities to diversify their sources of income.

The study also found that migrants did not only leave the area because of the “push – pull” factors and the differential urban and rural wage, but some migrate as insurance against risk of crop failure among others. There are also usually some positive effects of migration in areas of origin. One of such positive effects is remittances which migrants send home. Hence, migration of a household member is used as a means of income diversification against risks (Lall et. al., 2006). This agrees with the New Economics of Labour Migration (NELM) model which suggests that an optimizing, risk-averse small-farmer family confronted with a subjectively risk-increasing situation manages to control the risk through diversification of its income portfolio via the placing of its best-suited member in the urban sector, which is independent from agricultural production (Stark and Levhari, 1982). The new economics of labour migration models migration as risk-sharing behaviour of families or households. Better than individuals, households seem able to diversify their resources, such as labour, in order to minimize income risks (Stark & Levhari, 1982). The elementary assumption is that people, households, and families act not only to maximize income but also to minimize and spread risks. This risk-spreading motive can even explain the occurrence of migration in the absence of (expected) wage differentials.



Plate 1: Rural migrant engaged in livelihood activities in Accra (top)

Photo: Researcher, 2013



Plate 2 Shows rural migrant women in Accra engaged in head porting for survival.

Photo: Researcher, 2013

In a recent work combining main theoretical approaches to explain Albanian migration, Carletto et al. (2005) show how individual, household and community (networks) factors have all played a significant role in the decision to migrate. They also find evidence of the importance of heterogeneity of these factors in influencing different types of migration and destination. Even though all the three theories explain why out-migration occurs, our study shows that the strongest explanation is the attraction of the pull factors, followed by the push factors and lastly the insurance against risk factors. The pull factors appear to be strongest among the factors responsible for migration because they appear as solutions to the push factors prevailing in the places of origin. This means that migration can only occur if the reason to live elsewhere (the push) can be solved by the corresponding pull factors at a particular destination (Muñiz-Solari et al., 2010 and Solem et al., Eds 2011). This corroborates with the Ghana Statistical Service (2005) citing Kelly and Williamson (1984) that rural-urban migration is response to opportunities in the urban destinations rather than population pressure from the areas of origin.

5.2 The relationship between out-migration and agricultural labour availability

The higher perception of the respondents on availability of agricultural labour is decreased labour in 'Mainland'. However, both 'Overseas' and 'Mainland' attribute labour shortages to out-migration. Angba (2003) indicates that the end result of rural-urban migration is indicated by increasing labour shortage. The implication of this situation is reduced agricultural productivity in the study area. This finding corroborates with the finding of Fazoranti (2009). He found out in his study on perceptions of rural-urban migration in selected communities in Nigeria that, most of the respondents (75.6%) agreed or strongly agreed that the movement of migrants away from the rural area decreases the labour available for farm work. In Bangladesh the overall shift of workers to nonfarm sectors from agriculture is observed and indicates that migration reinforces a situation of labour shortage

(Hossain, 2011). However, after reviewing a number of cases in Asia, Deshingkar (2004) concluded that a loss of labour through migration may or may not reduce agricultural production.

The situation of out-migration and labour availability is indicated by the level of use of hired labour for farm activities. Where labour is easily available for hiring, farmers would turn to do so. In this case the respondents in 'Overseas' tended to use only hired labour for the farming activities than in the 'Mainland'. Thus it is concluded that out-migration reduces labour availability in such communities and enhances use of hired labour. The strategies for addressing labour unavailability are telling, with hiring of labour the more dominant one. In this regard, Taylor et al. (2003) hold the view that loss in yield due to the reduction in available labour by out-migration may be compensated for partly by remittances from the migrants which are used to purchase additional inputs or hire labour substitutes for cropping. In general hired labour is used for the more tedious farm activities such as ploughing, weeding, and to a limited extent transportation.

Labour availability is very critical in the agricultural activities in the study area. Therefore a higher proportion of the farmers indicate that the impact of getting labour at the right time impacts positively on agriculture. As a result, majority of respondents in 'Overseas' (84.0%) compared with (80.0%) in 'Mainland', indicated yield increase as the impact.

5.3 The relationship between out-migration and agricultural land accessibility and availability

The effect of out-migration and agricultural land accessibility is indicated by individual ownership of land. The study found that individual ownership of land is higher in 'Overseas' (88.0%) compared with 72.0% in 'Mainland' communities.

The study also found that there is positive relationship between out-migration and land availability. The effect of out-migration on land availability is indicated by the higher perception that out-migration frees more farmlands for the non-migrants in the communities to use. Of the total of 400 respondents (200 from each migration area), 51.5% and 74.5% respectively from both 'Overseas' and 'Mainland' indicated that out-migration makes more land available after migrants have left their respective communities for other areas. This confirms the findings of Fazoranti (2009) in his study on perceptions of rural-urban migration in selected rural communities in Ondo State, Nigeria. He found that over 80% of the respondent agreed or strongly agreed that the movement of a member of the family to an urban location frees more land space for farming in the rural areas. Together with the findings on accessibility, the deduction is that whilst 'Mainland' is associated with lower individual ownership of land, it however provides opportunity for enhanced access to communal land.

5.4 The relationship between out-migration and agriculture performance

How out-migration affects agricultural performance is shown in Table 20. The dominant perception in both 'Overseas' and 'Mainland' is that out-migration affects agricultural productivity negatively. This finding corroborates with finding of Ray (2004) who stated that migration of labour force was increasing but declining trend in their return was adversely inflicting on agricultural productivity. That long term migration of farm labour in Terai region has caused a grave situation in declining agricultural productivity. Long-term migration to cities or elsewhere means that migrants are unable to return home and engage in agricultural activities and employment during the farming season. Their absence may generate labour shortages (Tacoli, 2002) with resultant low productivity. Ohajianya (2005) also concluded in his study of rural-urban migration and effects on agricultural labour

supply in Imo State, Nigeria that farm operations have been affected highly by the absence of larger proportion of household members at their homes for agricultural labour supply. However, some studies have found that migrants return to invest in agriculture to boost production in the rural areas. For example, an International Organization for Migration (IOM) survey of Zambian expatriates shows that 45% of emigrants are willing to invest in agriculture (Kapunda, 2011) but that, the level of investment of migrants in rural areas is nearly insignificant. The study found that there is statistically significant higher food insecurity in the 'Mainland' communities (70.5%) than in the 'Overseas' communities (61.0%). This suggests that there is more food availability in 'Overseas' area than in 'Mainland'. This finding is in line with Ray (2004) who states that out-migration has net effects on deteriorating situation of producers.

There is also a negative effect of migration on the study area with respect to farm incomes, even though there is no significant difference between the two types of communities. This is in agreement with Zahonogo (2011). In his study on migration and agricultural production in Burkina Faso, his analysis of the agricultural and non-agricultural income show that, the households with migrants have an average of agricultural income lower than households without migrants. Also, De Brauw & Rozelle (2003) found that the loss of household labour from migration negatively affects household crop income, although it does not negatively affect crop yields. They however provided proof that the remittances sent home by migrants partially recompense for this lost-labour effect, contributing to household incomes directly and also indirectly by stimulating crop production. This therefore means that out-migration results in decreased farm income or negative effect on agricultural income as a result of low agricultural productivity in the area.

The analysis also show that migration affected the livelihoods of the respondents in terms of food availability and household incomes with individuals in the ‘Mainland’ area experiencing lower level of food and incomes compared with individuals in ‘Overseas’ area. This confirms the picture shown in Table 3: (*Yield and Food Balance by Crop in 2012*) where negative food balance figures are recorded in all the crops cultivated in the district except yam and cassava. This agrees with Mimi (2001) who found that in most rural areas, the impact of rural-urban migration was a rapid worsening of the rural economy leading to persistent poverty and food insecurity. Incomes from the farms are much lower than expected to maintain the minimum standard of living essentially arising from low productivity (Nwaru, 2004; Iheke, 2010) and most of the farmers and other rural dwellers can hardly feed themselves. The consequence is pervasive poverty among the populace. These arise mainly due to excessive drain of youth from the rural populace thus leaving only the older and aged members to constitute the labour force of the rural area.

The difference is attributable to labour, a constraint which is higher in the ‘Mainland’ area resulting from lower agricultural productivity. However, (Taylor et al., 2003), using the household farm survey data collected by Rozelle in a paper found out that although loss of labour to migration has a negative effect on household cropping income, the overall effect of migration on crop yields is positive. However, Amin (2013) argued that, it would be wrong for anyone to conclude that the north was poor because of its weakened vegetative cover, stressing that increase in agricultural produce in a globalized economy such as Ghana’s does not translate to increase income for farmers and agricultural workers when he addressed a two day conference on Savanna Accelerated Development Authority (SADA). He said “*we know in agribusiness that a bumper harvest can actually result in impoverishment of farmers. So let us widen the discussion beyond just agricultural*

productivity to general conditions that can facilitate an economic take off of the north”
(Amin, 2013: 3).

5.5 Summary

The findings of the study indicate that all the theories (push-pull and new economics of labour movement) which underpin this study offer explanations for the occurrence of the phenomenon in the study area. However, the pull factors appear to dominate over the others. The perception of the respondents on labour availability is decreased labour in both ‘Overseas’ and ‘Mainland’ communities. The decreased labour availability is the function of out-migration from the perception of the respondents.

Even though the study found that individual land ownership is higher in ‘Overseas’ compared with ‘Mainland’, the results indicate that the people access their farm lands through the individual ownership. Out-migration was also found to free more land for the non-migrants left behind to cultivate after household members have migrated. Furthermore, agricultural productivity was found to be negatively affected by out-migration as productivity falls. This causes food insecurity and low farm incomes which threaten the livelihoods of the non-migrants left in the study area.

However, empirical evidence shows that migration can have positive effect on agriculture if remittances sent by migrants are invested in agriculture to offset the lost labour effect. This therefore suggests that rural-urban migration can have both positive and negative effects on agriculture depending on individual perception.

CHAPTER SIX: SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.0 Introduction

This chapter deals with the summary, conclusions and recommendations drawn from the study.

6.1 Summary

The study was structured to measure the impact of rural-urban migration on agricultural productivity and rural livelihoods in ‘Overseas’ and ‘Mainland’ areas of the Nanumba South District from the perception of the non-migrant farmers left behind in the area. The specific research questions were as follows; what are the factors that influence out-migration in Nanumba South District into the urban areas? What is the relationship between out-migration and agricultural labour availability in rural areas of the Nanumba South District? What is the relationship between out-migration and agricultural land accessibility or availability in the Nanumba South District? What is the relationship between out-migration food availability and level of farm income in the Nanumba South District?

The research design that was adopted for the study was largely quantitative with survey as the main method of data collection. The sample size was made up of 400 farmers within the Nanumba South District of the Northern Region. Determining the sample population involved the multistage sampling procedure. The first stage involved using the cluster sampling procedure to divide the district into two clusters ‘Overseas’ and ‘Mainland’. ‘Mainland’ represented the communities around the district capital whilst the ‘Overseas’ area represented the communities across the Black Volta. The second stage involved random sampling of households where respondents were selected for the study. Data that was collected from the respondents were analysed using the Statistical Package for Social

Sciences (SPSS). Both descriptive and inferential statistics were employed for the analysis of the data.

Results on the demographic characteristics of the farmers showed that majority of the respondents were within the middle ages. The findings also indicated that the farming industry is male dominated. Only a few of the respondents had some level of education ranging from the basic level to the tertiary level. The results also show that majority of the respondents were married with only a few being single. Majority of the married ones had a varied number of children ranging from 1 to 10 or more.

Findings of the study indicate that the push and pull factors as well as the insurance against risk factors are all important as far as migration decisions are concerned in the study area. The pull factors however appear the strongest among all the factors responsible for migration in the area. This finding disagrees with the neoclassical theories of migration (the push-pull theory) which claim migrants migrate for only economic gains though it supports the causes of out-migration in the study area. The study finds that migrants did not only leave the area because of the “push – pull” factors and the differential urban and rural wage, but some migrate as insurance against risk of crop failure among others. This agrees with the New Economics of Labour Migration (NELM) model which perceives migration as a risk spreading or sharing behaviour of individuals and households. This explains why migration continues even when migrants do not anticipate jobs in their destination areas.

The study also found that availability of agricultural labour in the study area has decreased in both the ‘Overseas’ and ‘Mainland’ communities. But the decrease is more severe in the ‘Mainland’ communities than in the ‘Overseas’ communities. Shortage of labour availability is indicated by the use of hired labour in the area. The major reason assigned to the decreased labour availability in the area is out-migration.

The main system of ownership of land is the individual ownership hitherto the communal system of land ownership which is supposed to be the traditional land ownership system in the area. This is chiefly attributed to population pressure on the land in the area resulting to land fragmentation. Migration is also found to free more land space for the non-migrants left behind to undertake their farming activities.

Furthermore the findings of the study indicate that out-migration has negative impact on agricultural performance and productivity as well. This is indicated by increase in the time spent on specific tasks on the farm, low level of farm income and low level of agricultural productivity. The study also found that as a result of out-migration the area is not food sufficient. Farm incomes were also found to reduce as household members migrate. Food insecurity and low farm income affect the livelihood of the people in the study areas.

The study however found some positive effects of out-migration at both the household and the community levels. The respondents perceived migration as a positive development in this sense that it increases their portfolio of durable goods and human capital. At the household level out-migration enables some households to acquire certain things they otherwise would not if they did not have migrants living elsewhere.

6.2 Conclusion

The study concludes that all the three theoretical explanations for out-migration were responsible for migration in the Nanumba South District. These include the push and pull factors and migration as a strategy for risk aversion. This therefore implies that the study supports the push-pull and the new economics of migration theories used in explaining migration.

Also, the findings also suggest that out-migration causes labour shortages as indicated in Figure 1 (conceptual framework). The implication of this situation is reduced agricultural productivity in the study area. Labour shortages lead to increased use of hired labour for the most tedious farm operations such as tiling the land, weeding among others.

The findings further suggest that due to population pressure agricultural land accessibility is gradually changing from the traditional communal land ownership system to the system of individual ownership of land. That out-migration makes more farm land available to be used by the non-migrants (Figure 1).

Furthermore, labour shortage created as a result of out-migration affects agricultural performance negatively. The result of which is longer time spent to undertake a specific farm activity, low farm incomes and low agricultural productivity. Poor performance of agriculture results in low farm incomes even though there is no significant difference between the two types of communities and food insecurity in the Nanumba South District. This results in poor livelihoods of the non-migrants in the district.

In a nut shell, the results agrees with Figure 1 that out-migration causes changes in community resources (land and labour) which affects agricultural performance and for that matter livelihoods.

6.3 Recommendations

The study therefore makes the following recommendations in order to reduce the rural-urban drift in the Nanumba South District in particular and Ghana in general.

The study recommends that opinion leaders and chiefs of the two major tribal groups should continue with dialogue on peace.

Increased growth both in agriculture, since most rural workers earn their living from primary production; and the rural non-farm economy. Growth in agriculture will create some new jobs, first and foremost in the industrial forms of farming, though this may not likely contribute to higher productivity and better returns to self-employed farmers. Development or the intensification of the non-farm economy will be vital in creating new jobs and, consequently, putting increasing pressure on rural wages.

When the people see the need for peaceful co-existence, investment in basic education, skills development, health, and early nutrition among the rural people will also in a way curb rural out-migration. This will not only improve the people's job prospects, but will also reduce unacceptable disparities between rural and urban people. Much can be done to close the urban and rural divide if public resources are allocated accordingly.

References

- Adepoju, A. (2005). *Migration in West Africa: A paper prepared for the Policy Analysis and Research Programme of the Global Commission on International Migration (GCIM)*
- Afshar, R. (2003). “*Dynamics of Poverty, Development and Population Mobility: The Bangladesh Case.*” Ad Hoc Expert Group Meeting on Migration and Development, organized by the Economic and Social Commission for Asia and the Pacific, Bangkok, 27-29 August.
- Afshar, O. A. (2003). Effects of Rural-Urban migration of Youth on Agricultural Labour Supply in Umea North Local Government Area of Abita State, Nigeria. *Journal of Agricultural Research*, 3(2) 77-83.
- Agesa, R. & Kim, S. (2001). Rural to urban migration as household decision: Evidence from Kenya. *Review of Development Economics*. (5) 60-75.
- Amin, A. (2013 July 5). Northerners not poor because they are lazy. *Daily Dispatch*, 33 (No.61) 3. 5TH July, 2013.
- Anarfi, J., Kwankye, S., Ofosu-Mensah, A., & Tiemoko, R. (2001). “*Migration from and to Ghana: A Background Paper*” Development Research Centre on Migration, Globalisation and Poverty. University of Sussex, Brighton. Working Paper_C4.
- Anh, D.N. (2003). “*Migration and Poverty in Asia: With reference to Bangladesh, China, the Philippines and Viet Nam.*” Ad Hoc Expert Group Meeting on Migration and Development, organized by the Economic and Social Commission for Asia and the Pacific, Bangkok, 27-29 August.
- Aworemi, J. R, Abdul-Azeez, I. A. & Opoola, N. A. (2011). An Appraisal of the Factors Influencing Rural-Urban Migration in Some Selected Local Government Areas of Lagos State Nigeria. *Journal of Sustainable Development*. 4 (3).
- Awumbila, M. & . Ardayfio-Schandorf, E. (2008). Gendered poverty, migration and livelihood strategies of female porters in Accra, Ghana. *Norwegian Journal of Geography* 62 (3) 171–179.
- Awumbila, M. (2007). *Internal Migration, Vulnerability and Female Porters in Accra*. Ghana Statistical Service, Pattern and Trends of Poverty in Ghana 1991-2006, Accra, Ghana Statistical Service.
- Babbie, E. (2005). *The Basics of Social Research*. 3rd Ed. Belmont, Calif. Wardsworth Publishing Co. Inc.
- Bahns, M. K. (2005). *Rural to Urban migration in Developing Countries: The Applicability of the Harris Todaro Model with a Special Focus on the Chinese Economy*. Dissertation zur Erlangung des akademischen Grades des Doktors der Wirtschaftswissenschaften an der Universität Konstanz.
- Beals, R. E. & Menezes, R. E. (1970). ‘*Migrant Labour and Agricultural Output in Ghana*’. Oxford Economic Papers 22(CD): 109-27.
- Beals, R.E., Levy, M.B. & Moses, L. N. (1967). “Rationality and Migration in Ghana”, *Review of Economics and Statistics*, (49) 480-486.

- Bencherifa, A. & Herbert, P. (2000). Rémigration Nador III. *Passau: L.I.S. Verlag GmbH*.
- Bencherifa, A. (1996). L'impact de la Migration Internationale sur le Monde Rural Marocain. *Séminaire sur "La Migration Internationale"*, 6-7 juin 1996. Rabat: CERED, 403-29.
- Bencherifa, A. (1993). Migration Extérieure et Développement Agricole au Maroc. *Revue de Géographie du Maroc*, 15(1/2), 51-91.
- Bencherifa, A. (1991). Migration Internationale et Changement Agricole. *Le Maroc et l'Allemagne*. Rabat: FLSH.
- Berg, C. (2007). *The Kayaye Survival in the City of Accra. Social Capital and Vulnerability in the Lives of Female Head Porters in Accra, Ghana*. Unpublished MSc. Thesis University of Amsterdam.
- Berg, E.J. (1965). "The Economics of the Migrant Labour System". In Kuper, H. (ed.), *Urbanization and Migration in West Africa*, pp. 160-181. Berkeley and Los Angeles: University of California Press.
- Bonnet, J.J. & Bossard R. (1973). Aspects Géographiques de l'Emigration Marocaine vers l'Europe. *Revue de Géographie du Maroc*, (23-24), 5-50.
- Braun van, J. (2004). "Towards a renewed focus on rural development." *Agriculture and Rural Development* 11(2) 4-6.
- Brydon, L. (1992). "Ghanaian women in the migration process". In Chant, S. (Ed), *Gender and Migration in Developing Countries*, pp. 91-108, London: Belhaven Press.
- Burton, (2005). Sampling strategies in survey research. In D. Burton (Ed), *Research training for social scientists: a handbook for post graduate researchers* (p 307-320). London: Sage Publications. Ed.
- Caldwell, J.C. (1969). *African Rural-Urban Migration: The Movement to Ghana's Towns*. New York: Columbia University Press.
- Caldwell, J.C. (1968). "Determinants of Rural-Urban Migration in Ghana", *Population Studies: A Journal of Demography*, 22(3), 361-377.
- Carletto, C., Davis, B., & Stampini, M. (2005), "*Familiar Faces, Familiar places: the Role of Family Networks and Previous Experience for Albanian Migrants*", FAO ESA Working Paper No. 05-03, Rome
- Chambers, R. & Conway, G. (1991). *Sustainable Rural Livelihoods: Practical Concepts for the 21st Century*. IDS Discussion Paper, no. 296. Falmer, Brighton.
- Chant, S. & Radcliffe, S. (1992). "Migration and Development: The Importance of Gender." In *Gender and Migration in Developing Countries*. Sylvia Chant, (ed). London and New York: Belhaven Press.
- Chant, S. & Gutmann, M. (2000). *Mainstreaming Men into Gender and Development: Debates, Reflections and Experiences*. Oxford: OXFAM.
- Chant, S. (1998). Beyond Rural-Urban Divide. *Journal of Environment and Urbanisation*, 1, 5-10.
- Chris, O. & St. George, D. M. (2004). Cross-Sectional Study Design and Data Analysis. *The Young Epidemiology Scholars Program (YES)*.
- Cleveland, D. A. (1991). 'Migration in West Africa: A Savanna Village Perspective'. *Africa* 61(2): 222-46.

- Creswell, J. W. (2003). *Research Design. Qualitative, Quantitative and Mixed Methods Approaches* (2nd Edition). Sage Publications London, New Delhi, Thousand Oaks.
- Dao, M. (2002). *Determinants of Internal Migration in Developing Countries*. Eastern Illinois University.
- Dawson, C. (2003). *Practical Research Methods: A User-Friendly Guide to Mastering Research Techniques and Projects*. Delhi: UBS Publishers' Distributors Pvt. Ltd.
- De Brauw, A. & Rozelle S. (2003). "Migration and Household Investment in Rural China", University of California, Davis, Department of Agricultural and Resource Economics, Davis, CA, USA.
- Dereje, D. (2002). *Causes, Trends and Patterns of Migration to Bishoftu Town*. Unpublished MA Thesis, Addis Ababa, Addis Ababa University.
- Deshingkar, P. & Grimm, S. (2005). *Internal Migration and Development: A Global Perspective*. IOM., United Nations Publication.
- Deshingkar, P. (2004). *Understanding the Implications of Migration for Pro-Poor Agricultural Growth*. Paper presented at the DAC POVNET Agriculture Task Group Meeting, Helsinki, 17-18 June.
- De Haan, A. (1999). "Livelihoods and Poverty: The Role of Migration – A Critical Review of the Migration Literature", *The Journal of Development Studies*, 36(2), 1-47.
- De Haas, H. (2008). *The internal dynamics of migration processes*: International Migration Institute, James Martin 21st Century School, University of Oxford. hein.dehaas@qeh.ox.ac.uk
- De Haas, H. (2007). *Remittances, Migration and Social Development A Conceptual Review of the Literature*. Social Policy and Development Programme Paper Number 34.
- De Haas, H. (2006). "Migration, remittances and regional development in southern Morocco." *Geoforum*, 37 (No. 4) 565–580.
- De Haas, H. (2003). *Migration and Development in Southern Morocco. The Disparate Socio-Economic Impacts of Out-Migration on the Todgha Oasis Valley*. Unpublished PhD Thesis, Radboud University, Nijmegen.
- De Haas, H. (2001). *Migration and Agricultural Transformations in the oases of Morocco and Tunisia*. Utrecht: KNAG.
- De Haas, H. (1998). Socio-Economic Transformations and Oasis Agriculture in Southern Morocco. L. de Haan and P. Blaikie eds., *Looking at Maps in the Dark*. Utrecht/Amsterdam: KNAG/FRW UvA, 65-78.
- De Mas, P. (1990). Overlevingsdynamiek in het Marokkaanse Rif-Gebergte. *Geografisch Tijdschrift*, XXIV(1), 73-86.
- De Vaus D. A. (1990). *Surveys in Social Research*. Academic Division of Unwin. Englewood Cliffs, New Jersey.
- Dugbazah, J. D. (2007). *Gender, Migration and Rural Livelihoods in Ghana: A case of the Ho District*. Unpublished PhD. The University of Birmingham
- Ezra, M. (2001). *Ecological Degradation, Rural poverty, and Migration in Ethiopia: A*

- Contextual Analysis. Policy Research Division, Population Council Working Paper, No. 149.
- Fasoranti, O. O. (2009). Perception of rural-urban migration selected rural communities in Ondo State, Nigeria. *Bangladesh e-journal of Sociology*. 6 (1) 96-105
- Ferry, M. & G. Toutain (1990) Concurrence et Complémentarité des Espèces Végétales dans les Oasis. *Les Systèmes Agricoles Oasiens*. Options Méditerranéennes. Série A, N° 11. Paris: CIHEAM.
- Gunder, F. A. (1966). "The development of underdevelopment." *Monthly Review*, Vol. 18, September.
- Gazdar, H. (2003). "A review of Migration issues in Pakistan." Paper Presented at the Regional Conference on Migration, Development and Pro-poor Policy Choices in Asia. Organized by the Bangladesh Refugee and Migratory Movements Research Unit. Bangladesh/DFID UK, Dhaka, 22-24 June.
- Gbortsu, E.P.S. (1995). "Socio-Demographic Profile of Internal Migrants". In Twum- Baah, K. A., J.S. Nabila, and A.F. Aryee (eds.), *Migration Research Study in Ghana*, pp. 114-134, Accra: Ghana Statistical Service.
- Ghana Statistical Service (2007). *Pattern and Trends of poverty in Ghana, 1991-2006*. GSS April, 2007.
- Ghana Statistical Service (2005). *Population Data Analysis Report; Socio-economic and Demographic Trends, I*, Accra, Ghana Statistical Service.
- Ghana Statistical Service (2000). *Migration Research Study in Ghana: 1995. Internal Migration. Vol. One*. Accra.
- Ghana Statistical Service (2000). *Ghana Living Standards Survey Round Four (GLSS4) 1998/9 – Data User's Guide*. Accra, Ghana.
- Gugler, J. (2002). "The Son of the Hawk Does Not Remain Abroad: The Rural-Urban Connection in Africa." *African Studies Review* 45(1) 21-41.
- Hampshire, K., (2002). "Fulani on the move: Seasonal economic migration in the Sahel as a social process." *Journal of Development Studies*, 38(5) 15–36.
- Hartveld, W. (2004). *Rural-to-Rural Migration and Female Livelihoods: The Case of Dagara Women in Ghana*. Unpublished MA Thesis, Amsterdam, Free University.
- Hossain, I. (2011). A rapid situation assessment of migration and remittances and their impact on food security, agriculture and rural development. *Thakurgenon, Ramphal Centre, FAO: 29*.
- Hugo, G. (2003). *Migration and Development: A Perspective from Asia*.
- IFAD (2007). International Fund for Agricultural Development. *Sending money home, Rome, Italy* <http://www.ifad.org/events/remittances/maps/brochure>
- IFAD: (2007). *Rural Poverty in Ghana*. Country Programme Evaluation desk review, Ghana.
- IFAD (2001). *Rural Poverty Report: The Challenge of Ending Rural Poverty: Summary*. www.ifad.org [8/11/2005]
- IOM (2005a). "Internal Migration and Development: a global perspective" *IOM Migration Research Series N. 19*.
- IOM (2005b). *Internal Migration and development: A Global Perspective*.
- IOM (2003). *The Migration-Development Nexus: Evidence and Policy Options*, Geneva.

Migration Research Series (MRS) No. 19

- Iheke, O. R. (2010). *Impact of Migrant Remittances on Efficiency and Welfare of Rural Smallholder Arable Crop Households in South Eastern Nigeria*. Ph. D. Dissertation. Michael Okpara University of Agriculture, Umudike, Nigeria.
- Kalim, R. & Samina T., (2003). Socio-economic Determinants of Rural to Urban Migration in Punjab. *GCU Economic Journal* 1:2.
- Kapunda, C. P. (2011). *Zambia Case Study on Migration and Development*. London, FA Ramphal Centre: 84.
- Kerbout, M. (1990). Les Mutations des Campagnes du Moyen Atlas Oriental. A. Bencherifa and H. Popp eds., *Le Maroc: Espace et Société*. Passau: Passavia Universitätsverlag.
- Kese, O. G. (2004). *A Study of Programmes for Rehabilitation of Kayayei in the Kumasi Metropolis*. Unpublished BSc. (Planning) special study submitted to the Department of Planning, KNUST, Kumasi.
- Khan, A. H. & Shahnaz, L. (2000). Determinants of Internal Migration in Pakistan: Evidence from the Labour Force Survey, 1996-97. *The Pakistan Development Review* 39:4.
- Kinfe, A. (2003). *A study on Migration of rural poor from Tigray to Addis Ababa; causes, consequences and possible solutions*, Mekelle, Tigray.
- Kinuthia, M. (2003). *Migration in Kenya and Its Impact on the Labor Market*. Paper prepared for Conference on African Migration in Comparative Perspective, Johannesburg, South Africa, 4-7 June American University United States of America.
- Kothari, C.R. (2006). *Research Methodology: Methods and Techniques*. New-Delhi: New Age International Publishers.
- Krantz, L. (2001). *The Sustainable Livelihood Approach to Poverty Reduction. An Introduction*. SIDA. Division for Policy and Socio-Economic Analysis. Stockholm.
- Kwankye, S. O., Anarfi J. K., Addoquaye, T. C. & Castaldo, A. (2007). *Coping Strategies of Independent Child Migrants from Northern Ghana to Southern Cities*. Working Paper, Regional Institute of Population Studies (RIPS), Institute of Statistical, Social and Economic Research (ISSER). University of Ghana and Sussex Centre for Migration Research.
- Kwankye, S. O. (2011). Independent North–South Child Migration as a Parental Investment in Northern Ghana. In Boyle, P. J and Findlay, A. M. (eds.) *Population, Space and Place*. John Wiley & Sons, Ltd.
- Lall, S. V., Harris S. & Zmarak S. (2006). “*Rural-Urban Migration in Developing Countries: A Survey of Theoretical Predictions and Empirical Findings.*” Development Research Group. The World Bank.
- Lentz, C. (2006). *Ethnicity and the Making of History in Northern Ghana*, Edinburgh. University Press, Edinburgh.
- Lieten, G. K, & Nieuwenhuys, O. (1989). Introduction: Survival and Emancipation. In *Women, Migrants and Tribals: Survival Strategies in Asia*, ed. GK Lieten, O Nieuwenhuys, L Schenk-Sandbergen. New Delhi: Manohar
- Lewis, J.R. (1986). “International labour migration and uneven regional development in

- labour exporting countries.” *Tijdschrift voor Economische en Sociale Geografie*, 77 (1).
- Lipton, M. (1980). “Migration from the rural areas of poor countries: The impact on rural productivity and income distribution.” *World Development*, 8 (1).
- Litchfield, J. & H. Waddington, (2003), “*Migration and Poverty in Ghana: Evidence from the Ghana Living Standards Survey*”, Sussex Migration Working Paper no. 10. Sussex Centre for Migration Research.
- Lobnibe, I. (2010). Of Jong Migrants and Jongsecans: understanding contemporary rural out-migration from Northwest Ghana. *Journal of Dagaare Studies*, 7-10, 1-21.
- Lolig, V. (2005). *The Role of Rural women in ensuring household food security in the Bolgatanga and Talensi-Nabdam districts of the Upper East Region, Ghana*. Unpublished Master’s thesis. University of Ghana, Legon.
- Lucas, R.E.B. (1997). “Internal Migration in Developing Countries”. In M.R. Rosenzweig and O. Stark (eds.), *Handbook of Population and Family Economics, Vol. 1B*.
- Lucas, R. & Stark, S. (1985). “Motivations to remit: Evidence from Botswana”, *Journal of Political Economy*, 93:901-18.
- Massey, D. S., Arango J, Hugo G, Kouaouci A, Pellegrino A, & Taylor, J.E. (1993). Theories of international migration: A review and appraisal. *Population and Development Review* 19:431-66
- Meagher, K. (2001). “The Invasion of the Opportunity Snatchers: The Rural-Urban Interface in Northern Nigeria.” *Journal of Contemporary African Studies* 19(1):39-54.
- Memon, R. (2005). Determinants and Trends of Internal Migration in Pakistan. In Hisaya Oda (ed.) *Internal Labour Migration in Pakistan*. Institute of Developing Economies, Japan External Trade Organisation, Chiba, Japan.
- Miller, R. L. & Brewer J. D. (2003). *A – Z of Social Research*: SAGE Publication Limited, London.
- Mini, S.E. (2000). *The impact of Rural-Urban Migration on Rural Economy in Rural Village*. www.geofileonline.com.
- MoFA, (2005). Ministry of Food and Agriculture, Nanumba South District.
- Muñiz-Solari, O., Li, W., & Schleicher, Y. (2010). Migration conceptual framework: Why do people move to work in another place or country? In Solem, M., Klein, P., Muñiz-Solari, O., and Ray, W., eds., *AAG Center for Global Geography Education*. Available from <http://globalgeography.aag.org>. Date accessed 30/06/2013.
- Myrdal, G. (1957). *Rich Lands and Poor*. Harper and Row, New York.
- Norwegian Refugee Council (2003). *Profile of Internal Displacement: Azerbaijan*. Geneva: Norwegian Refugee Council.
- NSDA (2005). Nanumba South District Assembly Profile, 2005.
- Neuman, W. L. (2000). *Social research methods: Qualitative and quantitative approaches*. Boston: Allyn & Bacon.
- Nwanze, O. (2000). *Monitoring Rural Well-being: a Rural Score Card*. The International Bank for Reconstruction and Development. The World Bank, Washington, DC.
- Nwaru, J. C. (2004). *Rural Credit Markets and Resource Use in Arable Crop Production in*

- Imo State of Nigeria*. Unpublished Ph. D Dissertation, Michael Okpara University of Agriculture, Umudike, Nigeria.
- Oda, H. (2005). Labour Migration from Rural Pakistan: Evidence from Village in Rain-fed Area of Punjab. In *Internal Labour Migration in Pakistan. ASED No. 72. Institute of Developing Economics, Japan External Trade Organisation.*
- Ohajiannya, D. O. (2005). Rural-urban migration and effects on agricultural labour supply in Imo State, Nigeria. *Int. J. Agriculture and Rural Development*, 6: 111-118.
- Opore, J. A. (2003). Kayayei: The Women Head Porters of Southern Ghana. *Journal of Social Development in Africa*, 18(2), 33 – 48.
- Opong, C. (1983) (ed). *Female and Male In West Africa*. London: Allen & Erwin.
- Papademetriou, D. G. (1985). "Illusions and reality in international migration: Migration and development in post-World War II Greece." *International Migration*, 23(2), 212.
- Pascon, P. (1985). *La maison d'Igh et l'histoire sociale de Tazerwalt*. Rabat: SMER.
- Popp, H. (1999). Les Effets de la Rémigration sur l'Agriculture Irriguée: Etude de Cas dans la Plaine de Zébra. M. Berriane and H. Popp eds *Migrations Internationales entre le Maghreb et l'Europe*. Rabat, Université Mohammed V: 189-196.
- Ratha, D. (2003). "Workers' remittances: An important and stable source of external development finance." *Global Development Finance 2003*. World Bank, Washington, DC.
- Ray, P. D. (2004). *Effects of labour migration on agriculture production in Mahottari District*. Unpublished M.Sc. thesis, Department of Agricultural Extension and Rural Sociology. Rampur, Chitwan, Nepal.
- Regmi, G. & Tisdell, C. (2002). "Remitting behaviour of Nepalese rural-to-urban migrants: Implications for theory and policy." *Journal of Development Studies*, 38(3) 76–94.
- Rozelle, S., Taylor, J.E. & De Brauw, A., (1999). Migration, remittances, and agricultural productivity in China. *American Economic Review*, 89 (2), 287-291.
- Rubenstein, H. (1992). "Migration, development and remittances in rural Mexico." *International Migration*, 30(No. 2) 127–153.
- Russell, S. (1992). "Migrant Remittances and Development." *International Migration*, 30(3/4), 267-87.
- SARDF (1997). *South African Rural Development Framework*
<http://cbdd.wsu.edu/kewlcontent/cdoutput/TR501/page59.htm>-[8/11/2005]
- Sarantakos, S. (2005). *Social Research*. Basingstoke: Palgrave Macmillan.
- Sander, C. (2003). *Migrant remittances to Developing Countries: A Scoping Study*, A Paper prepared for DFID, Bannock Consulting, June.
- Sajaastad, L.A. (1962). "The Costs and Returns of Human Migration" in Bilborrow, R. E. et.al. (1984), *Migration Surveys in Low Income Countries: Guidelines for Surveys and Questionnaire Design*. Sydney: CroomHelm Ltd.
- Skeldon, F. (1997). Rural to Urban Migration and its Implication for Poverty Alleviation, *Asia Pacific Population Journal*, 12 (1).
- Solem, M., Klein, P., Muñoz-Solari, O. & Ray, W. (2011). *AAG Centre for Global*

- Geography Education*. Available from <http://globalgeography.aag.org>. Date accessed 14/06/2012.
- Stark, O. (1991). *The migration of labor*. Cambridge & Oxford: Blackwell
- Stark, O. (1984). Migration Decision Making. *Journal of Development Economics*, 4, 239-265.
- Stark, O. (1978). *Economic-Demographic Interactions in Agricultural Development: The Case of Rural-to-Urban Migration*. Rome: FAO
- Stark, O., & Levhari, D. (1982). On Migration and Risk in LDCs. *Economic Development and Cultural Change*: 191-6
- Tacoli, C., (2002). « *Les transformations dans les rapports entre villes et campagne en Afrique Sub-Saharienne et leur impact sur les modes de vie* », IIED, Briefing paper series on rural-urban interactions and livelihood strategies.
- Taylor, J.E., Rozelle, S. & De Brauw, A., (2003). Migration and incomes in source communities: a new economics of migration perspective from China. *Economic Development and Cultural Change*, 52 (1) 75-101.
- Taylor, J.E. (1999). “The New Economics of Labor Migration and the Role of Remittances”, *International Migration*, 37(1), 63-88.
- Taylor, J.E., Wyatt, T. J. (1996). “The Shadow Value of Migrant Remittances, Income and Inequality in a Household-farm Economy”, *Journal of Development Studies*, 32(6), 899-912.
- Tesfaye, T. (2007). *The Migration, Environment and Conflict Nexus in Ethiopia: A Case study of Amhara Migrant Settlers in East Wollega Zone*. Addis Ababa, Printed in Ethiopia.
- Todaro, M. P. & Smith, S. C. (2012). *Economic Development*. 11th edition. New York, USA, Addison Wesley.
- Todaro, M. (1969). “A Model of Labor Migration and Urban Unemployment in Less Developed Countries.” *The American Economic Review* 59(1969)1:138-148.
- Tsegai, D. (2005). “*Impacts of migration and remittances on farm and non-farm self-employment incomes in the Volta Basin of Ghana*”, Paper Presented at the 11th EADI General Conference on Insecurity and Development, Bonn, 21-24 September, 2005.
- Tutu, K.A. (1995). “Determinants of Internal Migration”. In Twum-Baah, K. A., J.S. Nabila, and A.F. Aryee (eds.), *Migration Research Study in Ghana*, pp. 97- 113. Accra: Ghana Statistical Service.
- UN (2005). World Urbanization Prospects. *Department of Economic and Social Affairs Population Division. The 2005 Revision. United Nations New York*, 2006.
- USDA (2005). *Measuring Rurality: What is Rural?* Economic Research Service (ERS.USDA). [http://www.ers.usda.gov/Briefing/Rurality/ What is Rural/-8/11/2005](http://www.ers.usda.gov/Briefing/Rurality/What%20is%20Rural/-8/11/2005)
- Viljoen, J.H. (2005). *Migration pattern of foreign informal traders at the Harttebeespoort dam*. University of South Africa. Unpublished.
- Weeks, J. (1989). “*Population*”: An Introduction to Concepts and Issues. P438.
- Whitehead, A. (1981). “I am Hungry Mum” The Politics of Domestic Budgeting” in K. Young, C. Wolkowitz and R. McCullagh (eds) *Marriage and the Market. Women’s Subordination in International Perspectives*. London: CSE Books Pp 79-118.

- World Bank (2002). *Globalization, Growth, and Poverty*. World Bank, Washington, DC.
- Worku, N. (2006). The impacts of urban migration on village life, *the Gurage case social Anthropology Dissertation series No.8, Addis Ababa University*.
- Wouterse, F. (2010). Internal Migration and Rural Service Provision in Ghana, International Food Policy Research Institute Ifpri Discussion Paper 00952.
- Wouterse, F. (2006). Survival or Accumulation: Migration and Rural Households in Burkina Faso. *Wageningen University and Research Centre, Wageningen*.
- Yang, L. (2004). "Rural Labor Migration in China and its Impacts on Rural Households" in *Essays on the Determinants and Consequences of Internal Migration*. unpublished PhD thesis, Department of Economics, University of Chicago.
- Yeboah, M. A. (2008). *Gender and Livelihoods: Mapping the Economic Strategies of Porters in Accra, Ghana*. Unpublished PhD Thesis. Department of Geology and Geography, Morgantown, West Virginia.
- Zacharia, K.C. & Conde, J. (1981). *Migrations in West Africa: Demographic Aspects*. Oxford: Oxford University Press.
- Zahonogo, P. (2011). Migration and agricultural production in Burkina Faso. *African Journal of Agricultural Research* 6 (7) 1844- 1852.
- Zaslavskaja, T. & Liashenko, L. (1976). "Rural Socio-Economic Development and the Migration of Rural Populations." in Richmond, A.H. et al., (eds) *Internal Migration: The New World and the Third World*. Pp 64. Sage Publications, London, 1976.
- Zhao, Y. (2003). "Rural-urban Migration in China-What do we know and what do we need to know?" China Center for Economic Research, Peking University.

APPENDIX A : QUESTIONNAIRES**DEPARTMENT OF AGRICULTURE EXTENSION****COLLEGE OF AGRICULTURE AND CONSUMER SCIENCES****UNIVERSITY OF GHANA****LEGON**

RESEARCH TOPIC: THE IMPACT OF RURAL-URBAN MIGRATION ON AGRICULTURE IN THE NANUMBA SOUTH DISTRICT OF THE NORTHERN REGION OF GHANA

QUESTIONNAIRE

Dear respondent, I am seeking information to contribute to our understanding of your perception of the impact of rural-urban migration on agriculture in the Nanumba South District, as part of the requirements for the award of Master of Philosophy degree in Agricultural Extension at the University of Ghana. There may be no immediate direct benefit, however the study can contribute to enhancing knowledge on migration and development and suggest improved policies directions. I wish to assure you that all data/information given by you will be treated confidentially. Therefore, I shall be grateful if you can provide information as much as possible.

PART I: PERSONAL CHARACTERISTICS OF RESPONDENTS

1. Age of Respondent:

1. Below 30yrs

2. 31yrs- 40yrs

3. Above

40yrs

2. Sex Male

2.Female

3. Educational Status

1. No formal education 2. Up to primary education 3.

Secondary level

- 4 Post secondary 5. Tertiary

4. (i) Main Employment type:

5. (ii) Secondary Employment:

6. Marital status:

1. Single 2. Married

7. Number of children:

1. 0- 5 2. 6-10 3. More than 10

8. How many migrants come from this household?.....

9. Were the migrants employed before migration?

1. Yes () 2. No ()

10. If yes, what type of employment/occupation were they engaged in?

Main Employment:.....

Secondary Employment:.....

PART II: PERCEPTIONS OF CAUSES OF RURAL-URBAN MIGRATION

11. In your opinion, what factors account for the out-migration of people in this area?

Check all that apply

1. Famine ()
2. Conflict ()
3. Poor health services ()
4. Poor education services ()
5. Bad quality of housing ()
6. Poor crop yield ()
7. Unemployment ()
8. Others (please state).....

12. In your opinion, what factors attract the migrants of this area to the OTHER AREAS?

Check all that apply

- 1. More job opportunities()
- 2. Better health services()
- 3. Better education services()
- 4. Urban facilities and way of life ()
- 5. Others (specify)

13. From, your family’s point of view, what will be the benefit to the family from people from the family migrating from here to other areas?

- 1. To increase their sources of income
- 2. To increase their income
- 3. To overcome constraints on economic and investments in the rural areas.
- 4. Others: Specify

14. Have you ever migrated from this community to work elsewhere over the last five (5) years? (If the answer is no, skip to Q 15).

- 1. Yes
- 2. No

15. If yes to Q 13, why did you migrate?

.....

.....

.....

.....

PART III: EFFECTS OF MIGRATION ON AGRICULTURAL LABOUR AVAILABILITY

16. What are the sources of your agricultural labour?

- 1. Family labour only ()
- 2. Hired labour only ().....
- 3. Both family and hired labour ().....

17. Have you ever faced labour constraint for your farming activity?

- 1. Yes ()
- 2. No ()

18. If the answer to Q 16 is yes, how did you solve the problem?

1. Hiring of labour ()
2. By working with neighbours ()
3. With the help of children ()
4. With the help of extended family ()
5. Reducing acreage cultivated ()

19. For which of the agricultural activities do you hire labour?

1. Ploughing () 2. Weeding () 3. Harvesting ()
4. Staking () 5. Transporting ()

20. Do you get hired labour at the right time of the season?

1. Yes () 2. No ()

21. If the answer to Q 19 is Yes what do you think is the impact on crop production?

1. Yield increase ()
2. Has no impact ()
3. I don't know ()
4. If other (specify)

22. How do you evaluate the current availability of labour in your area with the past?

1. Increased 2. Decreased 3. No change

23. Reasons for increased labour availability:

.....

24. Reasons for decreased labour availability:

.....

25. Reasons for no change in labour availability:

.....

PART IV: EFFECTS OF MIGRATION ON ACCESS TO/AVAILABILITY OF FARM LAND

30. How do you access land for farming in this area? Indicate as many as apply to you.

1. By individual ownership 2. By communal ownership 3. By lease

31. Do you think out-migration of people from this area has affected the availability of farmland?

1. Yes () 2. No ()

32. If yes, explain.

1. land used by out-migrants is used for cultivation by other people ()
2. land used by out-migrants is allowed to fallow ()
3. Others (specify)

PART V: THE INFLUENCE OF OUT-MIGRATION ON AGRICULTURAL PERFORMANCE

35. In your opinion has migration of people from your village into the cities had any impact on agricultural activities?

1. Yes () 2. No ()

36. If yes, in which way(s).

1. Decreased time spent on farming

.....

.....

2. Decreased income from farming

.....

3. Labour shortage

.....

..

4. Lower agricultural productivity.....

.....

5. Other: Pls. explain:

.....

39. In your opinion, has migration had any impact on farm incomes in the village?

1. Yes () 2. No ()

40. If yes, please explain:

1. Increased farm incomes as a result of high productivity

2. Decreased farm incomes as a result of low productivity.....

3. Farm income remain unchanged

4. Others (specify).....

41. Is food available all year round in the local market for purchase?

1. Yes () 2. No ()

42. How long does harvested foodstuff last?

1. 1-3 months ()

2. 4-6 months ()

3. 7-8 months ()
4. 8-12 months ()