

**THE ROLE OF LIVELIHOOD STRATEGIES ON RURAL HOUSEHOLD FOOD
SECURITY: THE CASE OF BALAKA DISTRICT**

M.A. (DEVELOPMENT STUDIES) THESIS

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**UNIVERSITY OF MALAWI
CHANCELLOR COLLEGE**

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SECURITY: THE CASE OF BALAKA DISTRICT**

M.A. (Development Studies) Thesis

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for the degree of Master of Arts (Development Studies)**

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June 2012

DECLARATION

I the undersigned hereby declare that this thesis is my own original work which has not been submitted to any other institution for similar purposes. Where other people's work has been used acknowledgements have been made.

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APPROVAL

The undersigned certify that this thesis represents the student's own work and effort and has been submitted with our approval.

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DEDICATION

I sincerely dedicate this piece of work to my wife Irene, my son Praise, my daughter Twambilire and my parents for their love and moral support.

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ABSTRACT

Rural households in Malawi have various livelihood strategies which have long term effects on household food security. This study explains the role of livelihood strategies on rural household food security in Malawi. The study further searches for reasons for the disparities in household food security in rural areas. Based on household level data collected from 471 households randomly selected, several key informant interviews and four FGDs conducted in each of the four village in Bazale and Phalula EPAs in Balaka District, the extent of household food security and their livelihood strategies were scrutinized. Livelihood strategies for households in Bazale and Phalula EPAs were identified using qualitative and quantitative methods both of which provide similar results.

The study found that food insecurity is a severe problem in the two EPAs with 86% of rural households being food insecure. The study revealed various livelihood strategies of the rural households, which were found to be composite of different activities and choices to enable them to make a living. The principal sources of livelihoods included both agricultural and non-agricultural livelihood options. These include crop production, livestock production, charcoal production, migration and remittances and forest-based livelihood strategies. In conclusion, the study reveals that agricultural livelihood options are unsustainable for rural households where climatic conditions are unfavorable.

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LIST OF ACRONYMS AND ABBREVIATIONS

ADD	Agricultural Development Division
ADMARC	Agriculture Development and Marketing Corporation
AEDC	Agricultural Extension Development Coordinator
AEDO	Agricultural Extension Development Officer
AIDS	Acquired Immune Deficiency Syndrome
AISP	Agriculture Input Subsidy Programme
DADO	District Agricultural Development Officer
DAO	District Agriculture Office (ex-RDP Rural Development Project)
DFID	Department for International Development
DPD	Director of Planning and Development
EPA	Extension Planning Area
ESCOM	Electricity Supply Corporation of Malawi
FEWS NET	Famine Early Warning Systems Network
FGDs	Focus Group Discussions
FISP	Farm Input Subsidy Programme
GOM	Government of Malawi
GVH	Group Village Headman
HIV	Human Immunodeficiency Virus
KIIs	Key Informant Interviews
MDGs	Millennium Development Goals
MDHS	Malawi Demographic and Health Survey
MGDS	Malawi Growth and Development Strategy

MK	Malawi Kwacha
MPRS	Malawi Poverty Reduction Strategy
MVAC	Malawi Vulnerability Assessment Committee
NGO	Non Governmental Organization
NSO	National Statistical Office
SAP	Structural Adjustment Programme
SPSS	Statistical Package for Social Scientists
T/A	Traditional Authority
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
VDC	Village Development Committee
VH	Village Head

CHAPTER ONE

INTRODUCTION

1.1 Background

This chapter explains the purpose of this thesis. The chapter explains the dynamics of rural livelihoods and household food security in developing countries in general and Malawi in particular. Thus, the chapter gives a background to study, problem statement, its objectives, assumptions and significance. Thesis outline is provided at the end of the chapter.

The concept of household food security has not only generated a heated debate but also generated dichotomous views. Early conceptualization of household food security focused on production of stable national and global food supplies following the drought in the 1970s in most parts of Africa (Mkwambisi, 2007). This view has largely been challenged by empirical research carried out in the late 1980s and early 1990s that indicated that poor households go hungry in spite of abundance production. Sen (1981), in particular, challenged the view that food security is a product of household failure to produce enough food supplies. Backed by various evidences of household food shortages in the midst of abundant food supplies, Sen (1981) argues that household food security is a product of household food entitlement capabilities and not production.

The livelihood school unpacks the entitlement capabilities available to households (Ellis, 2000) by providing livelihood strategies available to households. The importance of the livelihood framework is defended by the view that, in developing countries, households do not only depend on one livelihood but diversifies livelihood platforms to reduce risks that characterize food production such as drought, lack of inputs and climate shocks and variability¹. Household food crises in Africa and much of the developing world are overshadowed by the recent global financial crisis (UNCTAD, 2009). Similarly, Mkwambisi (2007) observed that while household food security has remained a pressing problem in Africa, recent rise in global food prices has strengthened the cause for household food security analysis. This is especially so as global food crisis present a challenge to predicting future food platforms and entitlement. Academic research into the vulnerability and reliability of rural households' livelihood strategies reveal this changing economic and food security context. Generally, government policy on household food security has been for a long time focused on national production, which present a challenge on the policy dilemmas on food security (Chinsinga, 2007).

1.2 Household Food Security in Malawi

Malawi is a landlocked country with low-income, and least developed with 85% of its population of 14 million people living in rural areas². Furthermore, 48% of under-five children are chronically malnourished, 5% have acute malnutrition and 22% are

¹ Adopted from the Department for International Development (DFID, 1999) Sustainable Livelihoods Framework

² Malawi Demographic and Health Survey and Malawi Second Integrated Household Survey (GoM 2010)

underweight (GoM, 2006). The principal food crop grown, and the staple diet of the rural population, is maize, as such most households seek to secure sufficient maize as their primary objective, even if relative prices and opportunities might suggest the advisability of other strategies.

Maize accounts for about three quarters of calorie consumption for the population during a normal year (Minot, 2009). Among others, food insecurity in Malawi is caused by chronic poverty, low agricultural productivity, poor infrastructure, ecological constraints, inappropriate economic policies, limited arable land and other demographic and social factors (GoM, 2006). For instance, Malawi experienced severe food shortages in 1949, 1992, 1994, 1997, 2001 and 2002 due to drought and heavy rains (Charman, 2004; Cammack, et al., 2003). These conditions are also aggravated by high incidence of HIV and AIDS of about 12% and insecure land tenure systems (GoM, 2010; GoM, 2002).

The Government of Malawi policy on household food security largely reflects the weight of production in the conceptualization of rural household food security. The 2005/6 to 2008/9 Farm Input Subsidy Programme (FISP) aims at increasing food production by providing subsidized inputs to low income households so that they can manage to buy the required fertilizer and seeds. Similarly, the Malawi Growth and Development Strategy (MGDS) put agriculture and food security as one of the key priorities under sustainable economic growth (GoM, 2006). There are however emerging reports that there are some pockets of households that are food insecure in the midst of national food abundance³.

³ July to December 2009 Famine Early Warning Systems Network (FEWS NET) report

1.3 Problem Statement

Household food insecurity in Malawi is not only a common phenomenon, but also contentious especially with regard to strategies of its achievement (Chinsinga, 2007). However, the dichotomous view about food production and food entitlement is not settled (Cromwell and Kyegombe, 2005). Similarly, government of Malawi policy direction on food security of increasing food production through input subsidy mirrors this divide (GoM, 2006). For instance, most rural households livelihoods in Malawi depend on agricultural activities for food yet are food insecure. Recent literature suggests that emphasis on food supplies as a strategy of achieving household food security is not only simplistic, but ignores the idea that food production is unevenly distributed (Ellis, 2000).

Thus, livelihood strategies, that define food entitlements, have become significant in analyzing household food security situation. This view is empirically upheld by evidence of household food insecurity amidst abundant food supplies such as the Bengal famine in Ethiopia (Sen, 1981). However, the strength of livelihood platforms varies depending on economic, political, social and institutional context trends. Assessment of location specific situation is therefore crucial in understanding the role of livelihood strategies in achieving rural household food security.

Again, rural communities are not homogeneous and thus strategies from one area cannot be applied in another area value free. Though literature exists on livelihood strategies employed by rural households, there is little literature which critically evaluates the role of these livelihood strategies on household food security. This study attempts to do just

this. The driving force in this study is that the contexts affecting rural livelihood strategies are location specific and largely affected by broader social economic and institutional changes. Balaka district is one of the districts in Malawi which usually registers high number of rural households affected by food shortages with more than 50% food insecure rural households annually (MVAC 2010; FEWS NET, 2010).

So far, little is known about the role of livelihood strategies pursued by food insecure households in Balaka in order to understand the causes of their food insecurity situation. The present situation of household food security in Balaka does not only indicate that the livelihood strategies for food insecure rural households are not working, but also blurs the theoretical understanding of livelihood framework. In other words, the academic understanding of the dimensions within livelihood strategy framework and its application to rural household food security remain unknown.

The point of departure for this study is to investigate the role of livelihood strategies on rural household food security in Balaka. The study's three principal questions to be investigated are: What is the extent of household food security in rural areas in Balaka? What are the main livelihood strategies for rural households in Balaka? What is the contribution and reliability of the livelihood strategies to rural household food security?

1.4 Research Objective

The main objective of the study is to investigate the role of livelihood strategies on rural household food security in Balaka district.

1.5 Specific Objectives

Specific objectives of the study are:

1. To find out the extent of food security situation among the rural households in Balaka
2. To identify the main livelihood strategies for rural households in Balaka
3. To determine how each livelihood strategy contributes to rural household food security

1.6 Study Assumption

The assumption guiding this study is that non-agricultural livelihood strategies⁴ are becoming important in rural household food security. This change is driven by, among others, threats from climate change which are unfavorable to agricultural production. If household food security has to be achieved therefore, in Balaka, the non-agricultural livelihood strategies have to be promoted and strengthened.

1.7 Significance of the Study

The livelihood framework has become an established framework for understanding household food security situation. Supported by global empirical evidence, livelihood framework is not only appealing but also seems to be relevant to most developing countries where households naturally diversify their livelihood platforms (Otsuka and Place, 2001).

⁴ In this study ‘non-agricultural livelihood strategies’ are all rural livelihood strategies that do not involve crop and livestock production

Thus, the livelihood framework is fast influencing policy direction on household food security. Conversely, livelihoods platforms are neither spatially uniform, nor are their strength spatially equal. The significance of this study is that it provides the empirical role of rural livelihood strategies to household food security. The study therefore, contributes to the advancement of knowledge in the field of rural livelihood. This knowledge is also important in policy direction in this area.

1.8 Organisation of Thesis

This thesis is divided into five chapters. The first chapter presents background information to the problem under study. It briefly outlines the global, national and household food security situation and the importance of livelihood strategies. It also presents problem statement, objectives, assumption and significance of the study. Chapter two reviews the literature, concepts and theories relating to rural livelihood strategies and how they affect household food security. Chapter three outlines the research methodology by describing the study area, sample size and sampling techniques, data collection and data analysis techniques. Chapter four is a presentation and discussion of study findings. Chapter five presents conclusion, recommendations, limitations and direction for further research.

CHAPTER TWO

CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

2.0 Introduction

This chapter describes the study direction by providing conceptual and theoretical literature. It begins by describing the concepts guiding this study, in particular household food security and rural livelihood strategy. The chapter describes the changing understanding in food security and livelihood strategy. The chapter also discusses the main theories guiding this study, which provides a framework for understanding and analyzing the findings of the study.

2.1 Understanding Household Food Security

Food security is a flexible and multi-dimensional concept. It originated in the mid-1970s discussions of the global food crisis. The initial focus of the concept was on the volume and stability of food supplies. In the 1980s, the food security concept was elaborated in terms of access by all people at all times to enough food for an active, healthy life (Sen, 1981). Thus, food security at household levels exists when all households have, at all times, physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life (World Food Summit, 1996). This will be the working definition of food security for the study.

It should, however, be noted that food security is affected by a number of factors including agricultural production, trade patterns, income, food quality, clean water, sanitation, governance and political stability. However, Sen (1981) observes that the basis of hunger and malnutrition is not an inadequate and uncertain supply of food but rather a lack of access to that food. Sen therefore sets the platform for the production and entitlement debate of food security. On the other hand, household food insecurity can be defined as the limited or uncertain availability of nutritionally adequate and safe foods; or limited or uncertain ability to acquire acceptable foods in socially acceptable ways. This can be a product of production, purchase and transfer failures as determined by the different capitals available to households and modified by transforming structures and processes.

There are two main types of food insecurity namely transitory or chronic. Transitory food insecurity is a short-term and temporary phenomenon. It is marked by a sudden drop in the ability to produce or access enough food to maintain a good nutritional status. Chronic food insecurity is taken as a long-term food shortage condition due to low production, market failures, lack or low social assets and capital.

2.2 Evolution in Understanding of Household Food Security

Household food security has evolved from food supplies through own production to food access through entitlement. Food entitlement describes the process whereby households come to own food through production, market or social assets and capital. This is a

recognition that food insecurity does occur in situations where food is available but not accessible because of an erosion to people's entitlement to food. Sen's (1981) theory on food entitlement had a considerable influence in this change in thinking, representing a paradigm shift in the way that famines were conceptualized.

Achieving household food security is thus ineffective to most governments because of concentration on food supplies and less on entitlement (Salih, 1994). For instance, the belief that rural Malawians derive almost all of their food and income from subsistence-oriented maize production pervades the literature (Devereux, 2006). This view is, however, too simplistic, as the food security gap that the majority of farming households experience for several months every year forces them to find alternative sources of food. Rural households therefore strive to build secure livelihoods to avoid food insecurity.

2.3 Dimensions of Rural Household Food Security and Livelihood Strategies

There are several dimensions of rural household food security and livelihood strategies. For instance, Bogale and Shimelis (2007) found that in Dire Dawa, Eastern Ethiopia various livelihood strategies are employed among rural households for them to be food secure. Earlier on, Devereux (2000) observed that food insecurity in Ethiopia derived directly from dependence on undiversified livelihoods based on low-input, low-output rain fed agriculture. He noted that Ethiopian farmers do not produce enough food even in good rainfall years to meet consumption requirements.

Devereux (2000) argues that with current fragile natural resource base and climatic uncertainty, current policy emphases on agricultural intensification are misguided. He concluded that unviable livelihood system is by institutional constraints such as inflexible land tenure and ethnic federalism that affect food entitlement. These studies, despite that they were conducted in Ethiopia, did not assess the role and contribution of each livelihood strategy to household food security.

In sub-Saharan Africa, household food security status is largely as a result of varying per capita food production because of rainfall, poverty and high inequality in food distribution (Nyariki and Wiggins, 1997). Thus, increasing purchasing power, effective demand and food distribution is perceived as a sure way of enhancing household food security opportunities. However, understanding rural livelihood strategies regarding food production and land use requires the identification of critical factors that explain differences in resource allocation under varying changing agricultural production conditions (Dietz, et al., 2004).

According to Ashley and LaFranchi (1997) households' combination of activities to meet their needs depend on their opportunities, constraints and preferences. The two argue that households' adoption of the preferred strategies, depend on socio economic status; geography (access to natural resources such as fertile soils, water); and others factors affecting choice of livelihood strategies including time constraints and skills, household size and composition, rainfall/drought, access to family support, social and cultural conditions, and external incentives and economic conditions. Ashley and LaFranchi

(1997) found out that households food insecurity is largely caused by inadequate or lack of labour, lack of financial or physical capital, lack of employability or few skills for employment, lack of social capital, lack of natural capital and lack of infrastructure.

Sen (1981) made a major contribution in conceptualizing household food security. From his study of the famine in Ethiopia in 1940s, Sen argues that famine often occurs in spite of the adequate availability of food in an area. His major argument was that the famine did not result from production failure caused by consistent drought, but rather from an acute entitlement failure of many individuals as a consequence of war and a repressive policy. Sen contends that entitlement to food depends on a number of factors including physical, human and natural. For example, food is not available to household members either because they cannot produce enough, buy or receive from available social networks. This may be because there is no food in the market, no money to buy it or a household does not have networks to provide food as determined by reduced production, food distribution, functioning of the market, and available social networks. These challenges are very important in rural areas in shaping food production, food transfers and food market situation (Koczberski, et al., 2001).

2.4 Definition of Rural Areas in Malawi

The term rural is subject to debate, hinging on three particular aspects: whether rural towns are rural or urban; at what size does a rural settlement become urban; and the treatment of migration and commuting between rural areas and towns. However, there is no firm rule that resolves these issues, and the only practical solution is for researchers to

make sure that the definition they have adopted is clearly stated. Rural areas by official classification in Malawi comprise those parts that are not urban and vice versa (GoM, 2002). Rural areas are characterized by agricultural based activities.

2.5 Malawi's Rural Household Food Security History

In Malawi the subject of household food security has remained an important policy and development subject in a number of academic institutions, UN agencies and donors, international policy institutions and civil society organisations. For instance, Malawi's public policy aims at assuring that in the latter half of the 20th century all Malawians will have enough food to eat. Malawi also joined 185 nations in signing the Declaration of Rome at the 1996 International Food Summit, pledging to reduce by at least half the prevalence of hunger, each within its own jurisdiction, by the year 2015.

Rising global food prices are likely to exacerbate the unstable food security situation already threatened by climate change and erosion of traditional values (Devereux, 2002). Additionally, liberalization of food marketing systems, removal of subsidies on farm inputs and food crops, currency devaluations contribute to household food insecurity. Household food security is also affected by changing economic policies. For instance, Chirwa and Milner (1999) noted that the World Bank and IMF sponsored Structural Adjustment Programs (SAPs) created immense problems of accessibility to adequate food for the poor households. They argued that the adoption of these SAPs from the mid 1980s weakened the government's capacity to support local production and provided limited shield to the poor groups of people.

Though the literature has revealed that there has been adequate academic research into household food security, the subject area remains dynamic and diverse. Despite the fact that the paradigmatic shift towards perceiving food security as an entitlement issue seems appealing, but the analysis of the various strategies by which rural households entitle food is not adequately explored (Devereux, 2002). In southern Africa, including Malawi, past studies have indicated that rural households develop diverse livelihood strategies to cope with unproductive weather and soil conditions (Koczberski, et al, 2001), however, the reasons for the disparities in rural household food insecurity at the local level are not adequately explored. This study, focusing on Balaka District in Malawi, is therefore set to fill this gap in literature.

2.6 Theoretical Framework

This section presents and discusses the livelihoods theoretical framework adopted for analysis in this study. The livelihoods framework explains the idea that household livelihood is a product of a number of livelihood platforms. For many years until the 1980s, household food security was perceived to be largely determined by household own production and policy direction was aimed at increasing household food production except during the 1949 hunger when the colonial state in Nyasaland intervened reasonably well to household food security (Vaughan, 1987). However, widespread hunger in the midst of abundance led to new conceptualization of household food security (Sen, 1981). In particular, household food security is now perceived to be determined by its own production and other livelihood strategies. Accordingly, livelihood framework guides this study and the following section discusses this framework.

2.7 Livelihoods Framework

Livelihood strategies are the activities realized by household members (farm production, off farm activities, migration, etc), resulting in outcomes such as food and income security (Ellis et al. 2003). DFID (1999) define livelihood strategies as the range and combination of activities and choices that people make in order to achieve their livelihood goals, including productive activities, investment strategies and reproductive choices. A livelihood comprises the assets (natural, physical, human, financial and social capital), the activities, and the access to these (mediated by institutions and social relations) that together determine the availability and access of food to a household (Ellis, 2000). Availability generally refers to production and physical availability of sufficient quantities of food on a consistent basis in a given area whereas access means having adequate incomes or other resources to purchase in order to obtain levels of appropriate foods, i.e. the purchasing power of the households.

Thus, household consumption depends on availability of food and access to it. At the household level, the gap between consumption of and demand for food, based on requirements of all the household members, indicates the food security condition of the household. The capabilities (capability is the freedom to achieve valuable beings and doings- see Sen, 1981), assets and activities can be dependable or sustainable or unsustainable. Generally, a livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain and enhance its capabilities and assets both now and in the future, while not undermining the total asset (DFID, 1999). The risk of livelihood failure determines the level of vulnerability of a household to income, food,

health and nutritional insecurity. The interaction between household's entitlement endowment, transforming structures and processes determine the livelihood strategies or activities set by the particular household.

Broadly, household members in rural areas engage in two kinds of activities, natural resource based and non-natural resource based. A household's resource endowment and its allocation in different activities jointly support their general well being and food security in particular. The household food security situation at one time is also affected by crises and shocks, which either requires immediate outlays of cash or which diminish already low and irregular income (DFID, 1999; Ellis, 2000). Figure 1 present five forms of capital assets available to households, which define livelihood platforms.

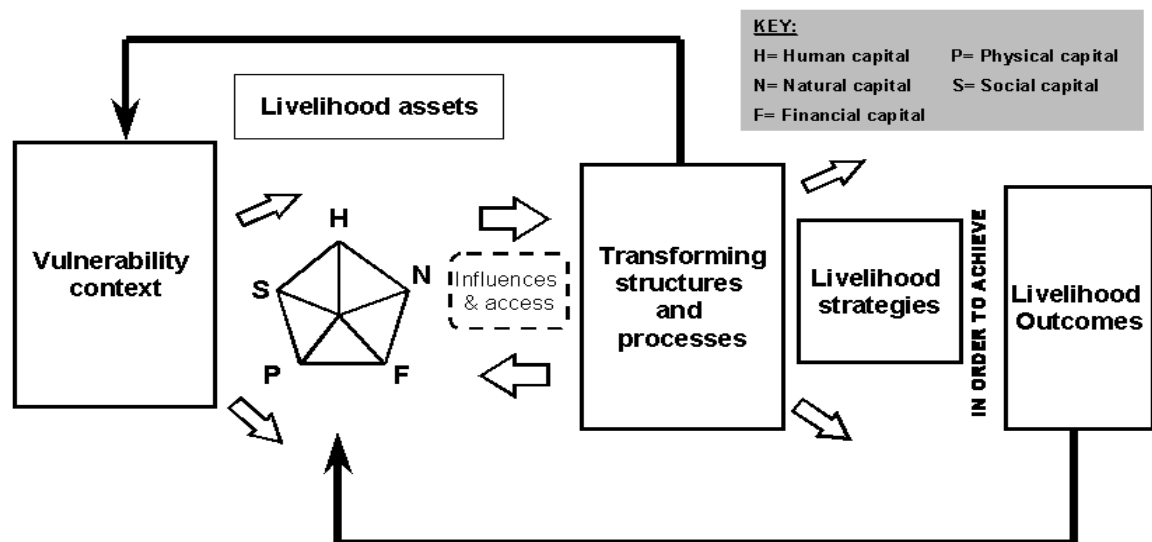


Figure 1: The Sustainable Livelihoods Framework

Source: DFID, 1999; Ellis, 2000

The livelihoods framework provides the relevant theoretical understanding to this study. Household food security is one of the crucial subjects in the development discourses of developing countries and therefore requires adequate analysis. The livelihoods framework can help in policy making towards sustainable household food security. In fact, livelihood framework can help identify livelihood platforms that need to be strengthened in the face of decreasing per capita land holding (GoM, 2006). The analysis of findings in this study has therefore been guided by the livelihood framework approach.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the methodology employed in this study by highlighting why the area was chosen, important variables and definitions in the study and its units of analysis. The chapter also provides methods, tools and sampling techniques used to collect data.

3.1 Study Area

The research was conducted in Balaka District between August 2009 and July 2010. The District is located in the Southern Malawi and has a population of 307, 785 (GoM, 2010). The study was specifically carried out in Bazale and Phalula Agriculture Extension Planning Areas (EPAs) within Balaka Rural Development Project (RDP). The two EPAs were chosen because they have high incidents of food insecurity (MVAC, 2010). However, Bazale EPA is close to Balaka town while Phalula EPA is located away from Balaka town, It is from this background that the two EPAs were chosen since they have different geographical socio-economic characteristics and provide a good basis for comparison.

3.2 Sample Size and Sampling Techniques

The selection of the sample to be interviewed was randomly done. This is because the rural households in question have almost similar socio-economic and socio-cultural characteristics. Government extension workers provided the names of the households for random sampling. The sample size for the household survey was calculated through the statistical formula below:

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

Where n = the sample size,

N = the target households/population,

e = the desired level of precision.

Bazale and Phalula EPAs have 271 and 187 villages respectively. From this number, two villages were randomly selected from each EPA to achieve geographical coverage namely: Kapalamula and Ndoya in Bazale and Kunyalani and Phalula in Phalula. There are 120 and 117 households in Kapalamula and Ndoya; and there are 337 and 147 households in Kunyalani and Phalula respectively. From these figures, 182 and 289 households were randomly selected for interview respectively, employing the precision level of 0.05 and 95% confidence level. This formula is relevant as the total population is known and the population is relatively economically and socially homogeneous. Table 1 summarises the sample size employed.

Table 1: Sample Size: Households Selected for Interviews in each Village

Name of EPA	Name of T/A	Name of Village	Total Number of Households in Village	Number of Households Interviewed
Bazale	Nsamala	Kapalamula	120	92
		Ndoya	117	90
Phalula	Chamthunya	Phalula	337	182
		Kunyalani	147	107
Grand Total			721	471

Source: Field work, 2008

In addition to household survey and interviews, four focus group discussions (FGDs) were conducted in each village. Participants in the focus group discussions were purposively chosen and included food secure and insecure males and females, identified with the help of the AEDOs in the villages. Each focus group discussion comprised twelve (12) individuals to allow free discussion and high individual participation. Additionally, both males and females were in different FGDs to allow free discussion among the participants. The study also used secondary data especially from rural health centers and EPA offices (from AEDCs and AEDOs) and NGOs working in the area on the household food security situation and aid. This was so as there was data on families in need of food aid at a particular time of the year.

3.3 Data Collection Methods

The study employed both qualitative and quantitative data. Qualitative data mainly included focus group discussions (FGDs), key informants interviews, household interviews, review of reports, journals and various government policies. This was done to understand the salient issues of food security and its contribution as rising from structured interviews with households. Information from key informants was collected through in-depth interviews with people who had first-hand knowledge and were knowledgeable about food security situation in Bazale and Phalula EPAs. These included the Traditional Authorities (TAs), Group Village Heads (GVHs), Village Headmen (VHs), Village Development Committee members (VDCs), the District Commissioner, the Director of Planning and Development, District Social Welfare Officer, AEDCs, AEDOs health workers, local NGO leaders, and local politicians.

Local leaders and villagers provided vital information regarding the various livelihood strategies that households pursue and explained the trend of household food security and coping strategies. District government officials and local NGOs staff also provided the food security situation for the area.

Quantitative data were collected through household survey using closed ended questionnaire with question items based on sustainable livelihood framework analysis. The primary data were collected twice between August 2009 and February 2010 and from April to July 2010; chosen based on the idea that they represent periods of different food security situations and rural livelihood strategies in Malawi.

3.4 Data Analysis

The unit of analysis for the study was the household. Qualitative data from key informant interviews and FGDs were analyzed through content analysis by developing themes from emerging food security issues. The emerging themes were explained in line with the livelihood framework presented earlier in the study.

Quantitative data from the household survey was analyzed through descriptive analysis in which statistics were generated and presented in either frequency, tabular or graphical form. To do this, responses from the household survey were coded and analyzed using the Statistical Package for Social Scientists (SPSS) and Microsoft Excel computer programmes. The quantitative data collected was triangulated with qualitative data to better analyse, understand and explain emerging themes in the study.

CHAPTER FOUR

PRESENTATION OF FINDINGS

4.0 Introduction

This chapter presents the extent of the rural household food security situation and the main livelihood strategies for the rural households in Bazale and Phalula EPAs in Balaka. The chapter further discusses how each livelihood strategy pursued by rural households contributes to household food security in the EPAs. In addition, the chapter describes the various socio-economic characteristics of the household members that are primary in achieving household food security such as household size, education attainment and occupation of the household head. It further analyses the rural livelihood strategies for households in Bazale and Phalula EPAs.

4.1 Households Socio-economic Characteristics in Bazale and Phalula EPAs

This section presents a summary of the socio-economic characteristics of households at Bazale and Phalula generated from 182 and 289 respondents respectively. For the purpose of this study a household is regarded as a person or a group of persons, related or unrelated, who live together in the same dwelling unit, who make common provisions for food and regularly take their food from the same pot or share the same grain store (*nkhokwe*), or who pool their income for the purpose of purchasing food (MDHS, 2004).

Table 2 summarises the socio-economic characteristics of households in Bazale and Phalula EPAs. Study findings indicate that the average age of respondents is 33 while the average household size is 7. There is a strong differential in educational attainment between the sexes, especially as age increases. In these EPAs 65% of household heads have not completed their primary education (85% of female household members have not completed their primary education; the proportion among males is 45%). The average land holding size is 1.2ha for Bazale EPA and 1.6ha for Phalula EPA.

Table 2: Household Socio-economic Characteristics in Bazale and Phalula EPAs

Household Characteristics	Bazale EPA		Phalula EPA	
	Kapalamula n =	Ndoya n =	Phalula n =	Kunyalani n =
Average age	33	31	35	34
Average household size	6	8	7	6
% respondents not completed Primary School	73	66	62	58
Average farm/land ownership size	1 ha	1.3ha	1.4ha	1.7ha
% of households depending on rain-fed farming	98	99	97	98
% of farmers practicing irrigation farming	2	1	3	2
% of female headed households	7	7	6	8

Source: Field work, 2008; 2009

All these characteristics have a negative effect on the income levels of the household and may thus affect their food security situation (Otsuka and Place, 2001; GoM, 2006). In Bazale 98.5% of farmers economically depend on rain-fed farming only; in Phalula 97.5%. Additionally, high population growth and overdependence on rain-fed farming in the study area may also affect household food security due to erratic rains experienced in the district.

4.2 Extent of Household Food Security Situation in Balaka

An inquiry into the extent of food security among rural households in Balaka was mainly centered on the following issues: number of months without own food, type of food available, asset base and livelihood income portfolios. In this study a household is considered food insecure (or without food) when its occupants are reported to have lived in hunger or fear of starvation before and during the study period. Months of current food stocks are a good indicator for food security, especially for rural households that primarily depend on their own production to satisfy a significant percentage of their food needs.

Type of food available reveals the alternative food consumed in time of food shortage while asset and income portfolios indicate the diversity of strategies available to households at a particular time of the year. Thus, type of food consumed reveals the alternative sources of food available to households at a particular time while assets and income reveal the capacity to access food from available food sources. Table 3 presents the food insecurity situation as revealed by period without own food.

Table 3: Household Food Insecurity Situation in Bazale and Phalula EPAs⁵

Name of Village	Total Number of Households	Number of Households Without Food			
		Aug 2009 to Feb 2010	% households without food Aug 2009 to Feb 2010	April to July 2010	% households without food April to July 2010
Phalula	337	331	98	57	17
Kapalamula	120	103	86	18	15
Kunyalani	147	99	67	38	26
Ndoya	117	87	74	28	24
Total	721	620	86	141	20

Source: Balaka RDP Office, 2009; 2010

From Table 3, it is observed that household own food production shortage in both EPAs is experienced throughout the year (86% of the households live without own food between August 2009 and February 2010; more food insecure households in Phalula 92% than in Bazale 71%). Study results further indicate that between April and July, 20% of the household survive without own food (less food insecure households in Phalula 16% than in Bazale 25%).

⁵ Household food insecurity situation as measured by months of own maize production cover in the two EPAs

To contend with food security risks, households make use of a number of the following risk management options, which include:

- Reducing number of meals taken per day,
- Selling household assets,
- Begging, stealing and prostitution, and Seasonal migration.

Household interviews also revealed that food insecurity situation in the two EPAs is relatively worse for female headed households (for example, of the 86% food insecure households between August 2009 and February 2010, 52% were female households while 36% were male headed households) who reported that the period without food extended for a period of 6-8 months before the next harvest. This demonstrates that female headed households are more vulnerable to food insecurity than male headed households. This scenario probably reveals men have diverse livelihood strategies than women. The findings also reveal a sharp contrast between the two periods indicating the role of own food production in rural food insecurity.

The findings above reveal that though food production plays a major role in household food security, it cannot address the frequent food insecurity situation in the area. This is largely due to the fact that own-food production hardly takes all the households through the year. Again, increasing food production is faced with several challenges including erratic weather and declining per capita land.

As illustrated in Table 3, 20% of households experience food insecurity even during period of harvesting (25% in Bazale 25% and 16% in Phalula 16%). Female and child headed households are at more risk of food insecurity as observed by a widow below:

I normally have poor yields almost every year which do not last the whole year. In the past I used to have food throughout the year. I do not know what to do in order for me to find food. I most often depend on my two sons who send me money for food every month. Nowadays, rainfall is not reliable and farming has become expensive⁶.

As outlined above, in critical times most households do not have enough cash to buy food and are involved in diversified coping strategies. However, such strategies are more seasonal in nature. For example, culturally acceptable coping strategies such as *ganyu* on other people's fields mostly depend on the availability of rainfall as such they mostly take place in the rainy season. Focus group discussions conducted in the area revealed that more female headed households (75%) are involved in undesirable coping strategies than male headed households (25%) such as eating premature crops, selling households' assets, child labour, stealing and prostitution. This reveals that livelihood strategies are not neutral but have a gender dimension. This finding is in line with the thinking that household risks combine with household responses to produce household food security outcomes.

Thus a household is said to be vulnerable to food insecurity if it does not have sufficient resources to adequately contend with the risk event. In other words, the extent to which a household can become and/or remain food deprived depends on the impact of the risk

⁶ Interview with a widow in Phalula EPA

event on the household. Thus, social safety nets in rural areas must target vulnerable households that suffer from given shocks and with limited or risky coping mechanism. Such targeting, however, depends not only on identifying the overall characteristics of vulnerable households, but also on identifying the types of risks that affect vulnerable households as well as identifying observable indicators on the basis of which appropriate targeting can be made⁷.

Generally, household food security vulnerability in Balaka District is the interaction between impoverishing forces household face and the effectiveness of their response options⁸. The study revealed that some of the important impoverishing forces include environmental and macroeconomic conditions, governance, ill health, lifecycle conditions and cultural beliefs and practices. The response options available to households are the human, social, political, natural, physical and financial assets. Thus poverty itself limits people's capacity to improve and safeguard their food security situation; and household's capacity to manage impoverishing forces diminishes as they struggle to survive successive waves of shocks and stresses.

4.3 Main Livelihood Strategies for Rural Households in Balaka

Rural households in Balaka District have a wide range of livelihood systems, determined by the existing agro-ecological attributes as well as the means of production, resource endowments and socio-economic characteristics of households. The livelihood strategies

⁷ DFID, 1999

⁸ Interviews with Director of Planning and Development (DPD) for Balaka, 2009; 2010

for rural households in Balaka are both agricultural and non-agricultural in nature⁹. Thus the study found the following to be the major livelihood strategies in Balaka:

- Crop production,
- Livestock production and trading,
- Charcoal production and trading,
- Remittances,
- Forest-based livelihood strategies.

The 65.3% of households interviewed have a mixed livelihood base in which they combine agricultural and non-agricultural activities. During the survey the interviewed households were asked to list all the livelihood activities pursued in their villages and identify their major and most commonly practiced. The major dependable livelihood strategies as mentioned by household were crop production, livestock production, charcoal production, remittances and forest-based livelihood strategies.

Agriculture (crop and livestock production) was mentioned by all household as one of the livelihood strategy, which reveals that it is a dominant livelihood strategy in the area. The major non-farm economic activity is charcoal production, which provides livelihood to 17% of the interviewed households with considerable income to buy food and other household needs throughout the year. Charcoal production, however, faces resistance from the environmental conservation movement.

⁹ On the contrary ‘off-farm’ activities are undertaken away from the household’s own farm (Ellis, 2000) and refer to agricultural labouring on someone else’s land i.e. *ganyu*.

Another important source of livelihood for landless rural households is the forest. Forest-based livelihood options include gathering of natural resources from forests such as firewood and fruits. These landless households also engage in casual labour, particularly in the agriculture sector. However this is seasonal and no single household rated it as the major livelihood strategy, but rather a coping mechanism if their major livelihood strategy fails.

Furthermore, only 8% of the households interviewed engaged in the service sector, which reveals the fact that in most rural areas the service sector is not well developed. The pie chart (Figure 2) summarizes the livelihood opportunities available to the households:

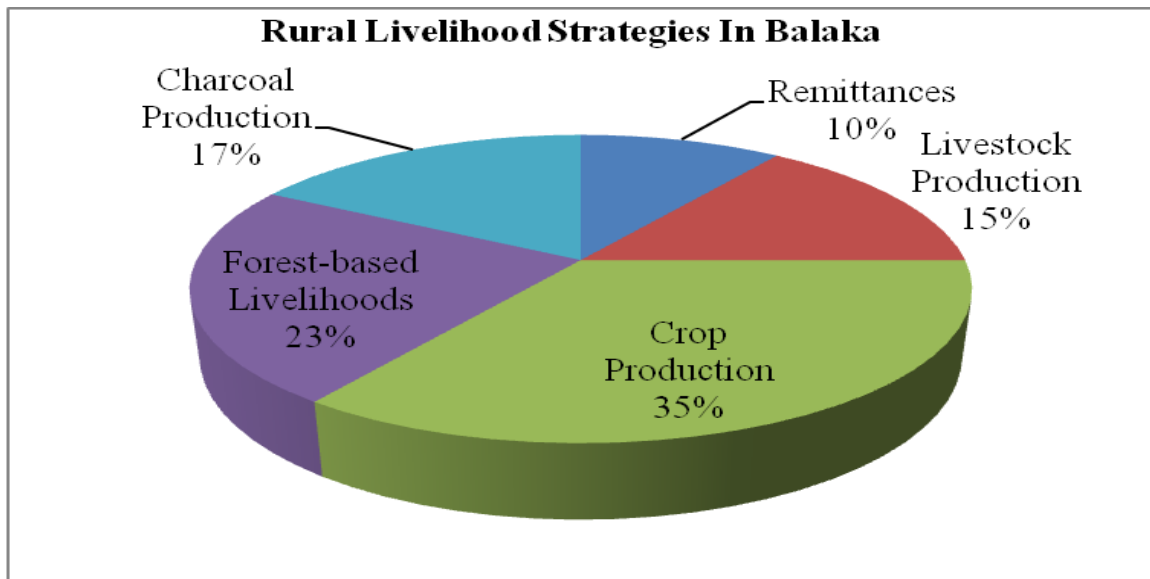


Figure 2: Rural Livelihood Strategies in Bazale and Phalula EPAs

Source: Field work, 2008; 2009

Figure 2 shows that a lot of people do engage in agricultural based livelihoods. This however does not tell that the livelihood has greater impact on their food security situation as production or incomes from the livelihood may be less than from other livelihood. *Ganyu* and petty trading are some of the off-farm activities pursued by households in the study area since these are their main coping strategies during times of hunger. *Ganyu* is mostly done during the farming season which is ideally a labour demanding period (mostly from crop production to harvesting). However, the greater participation in *ganyu* makes households not able to provide own labour to their farms at full capacity. Some women, having little or nothing to take home, are reportedly involved in prostitution in order to earn some money.

4.3.1 Crop production

The study results revealed that crop production, undertaken by 98.6% of rural households¹⁰ in Bazale and Phalula EPAs, provides both food and cash (these households combine crop production with other livelihood strategies). However, 35% of rural households¹¹ depend predominantly on crop production as their major livelihood option. Crop producing households have food for an average period of 6 months (between April and September). These results show that although households grow crops in Balaka district, most of them (65%) have given up their dependability on growing crops due to persistent poor yields due to droughts and lack of rainfall. Variability in harvests between households and between years is striking, but much of the data collected during the survey indicates that most households cannot produce the cereals they need for a year.

¹⁰ Interviews with sampled households in both EPAs

¹¹ Interviews with sampled farming households in both EPAs

From the analysis, maize is the most prevalent crop grown by 91% of households followed by pigeon peas (64%), cotton (55%) and ground nuts (51%). Vegetables are grown by 92% of maize growing households and are a major relish for rural households. About 85% of the households sell these crops to nearby markets.

Crops in the study area are mostly sold at ADMARC. Cotton is the major cash crop in the study area. Production figures show that male headed households outweigh female headed households in all production volumes. As a result of this, male headed households have higher income from crop sales as compared to female headed households. Figure 3 is a graph showing the percentage of households growing main crops in Balaka:

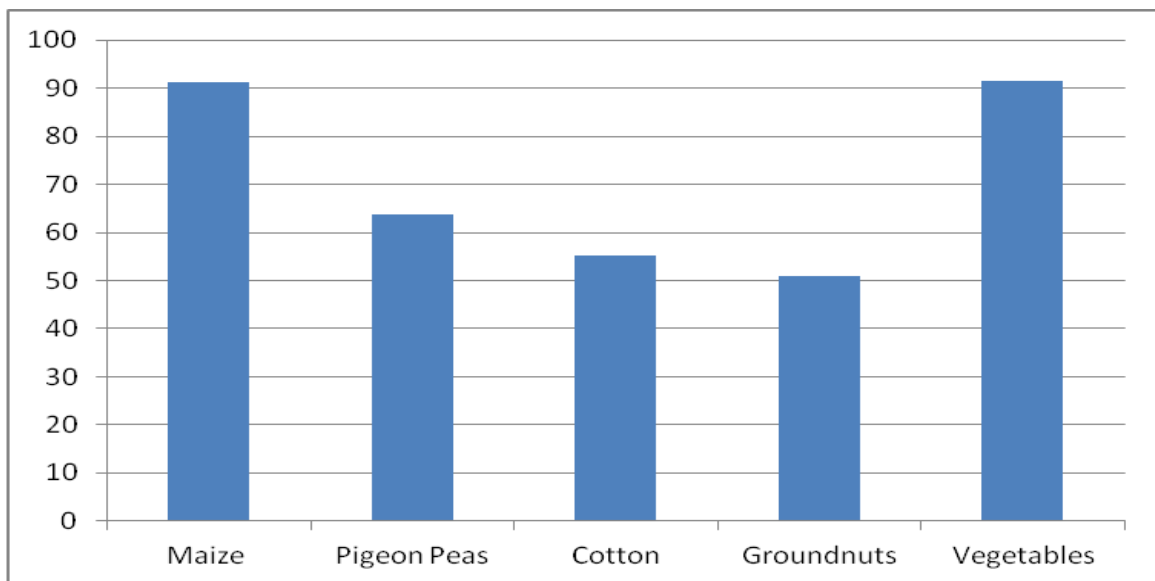


Figure 3: Main Crops Grown by Households in Balaka District (in percentage)

Source: Field work, 2008; 2009

In the sampled villages in the two EPAs, 91.2% of the farming households reported to grow maize. This observation is consistent with the national average findings that 90% of the rural households in Malawi grow maize (2005 Welfare Monitoring Survey). The study revealed that the size of land is not really a constraint to crop production. Among the crops grown, maize has got more land allocation, followed by cotton and ground nuts. Pigeon peas and vegetables are usually intercropped with maize. The high proportion of households growing the crops (in that order) indicates that such crops serve as an important livelihood option for them.

Within the sampled area, 93% of the households are involved in crop marketing in one way or another. The main crop that is sold is cotton, followed by maize, pigeon peas and ground nuts. However, the study reveals that for the past years cotton has been fetching very low prices on the market (as low as MK40 per kilogram in September 2009 and as high as MK165 per kilogram in May 2011). Other crops which are sold by households include vegetables (prices vary depending on type/variety) and sweet potatoes, MK46 per kilogram; polished rice sells at MK175 per kilogram, sorghum at MK90 per kilogram while cassava selling at MK68 per kilogram. Much as the study area is relatively dry and prone to droughts¹², agriculture in the district is predominantly rainfed, with the exception of some irrigated pockets of land along seasonal rivers and streams.

¹² Droughts are prolonged periods of abnormally low precipitation experienced in the two EPAs

Irrigated land accounts for only a minor proportion of the total sample area (less than 20% of interviewed households reported to have practiced irrigation farming in the last two years). However, reliance on rainfall introduces a strong component of risk into farming, more marked where rainfall patterns are erratic. In these EPAs, which are characterized by frequent, severe and prolonged droughts, uncertainty of harvests is a built-in feature of the farming systems.

The study revealed that in the district good harvests have diminished in the recent years due to current changes in the rainfall patterns (with an average of 133.6 mm of rainfall for the district in 2008 against the 350 to 450mm of rainfall required for maize production per annum; sometimes more rains come than required which result into floods)¹³. Even where household members do irrigation farming, risks have significantly increased in recent years. These risks include risk of diminished water flow, risk of siltation in irrigation channels, and of difficulties in access to fertilizers and pesticides due to low incomes at household level. Farming in rural areas of Balaka involves inputs of labour, seeds, fertilizer and water which require some purchasing power and access to credit. These are not widely found in both EPAs.

The study found that crop production was a livelihood activity of both male and female headed households in rural areas of Balaka. However more male headed households (83%) preferred growing cash crops such as cotton as compared to female headed households (44%) who preferred growing maize. The explanation to this may be that

¹³ Interview with DADO for Balaka, October 2008; 2009

females are more concerned with achieving household food security than males. In areas which are very dry with marginal and mountainous land, there are low opportunities for crop production as households engage in other livelihood strategies such as charcoal production. Additionally, in times of chronic food insecurity rural households generally opt for selling their labor within their own localities due to mobility constraints.

4.3.2 Livestock production

In Bazale EPA the principal livestock species are mainly fowls (chickens, ducks, guinea fowls) and the smaller ruminants (goats and pigs) while in Phalula EPA, since it is away from Balaka town and there is plenty land for feeding livestock, some households keep cattle apart from fowls and small ruminants. The study results reveal that 15% of rural households in Balaka depend entirely on livestock production as their main livelihood strategy.

However 63% of the total households interviewed reported to have livestock although 15% of them considered it as their major livelihood strategy. In Bazale and Phalula EPAs livestock stand out for their contribution to virtually all household needs. Their direct production of food and cash is usually small, but their value for manure, transport and as reserves and cultural assets is considerable. The study observed that rural households without livestock have lower crop production, greater dependence on off-farm cash income, and generally greater economic insecurity. In the study area households keep cattle, goats, pigs, chickens, ducks, rabbits, pigeons and guinea fowls.

Livestock production proved to be an important strategy in the rural households' economy and has moved even further center-stage in recent years with intensifying pressures on land. Livestock, especially cattle and goats, are traditionally constituted as one of the principal forms of durable assets in the economy. Their life cycles can straddle periods of scarcity and periods of plenty and their reproductive capacities cause them to appreciate in value. In the study area, livestock are easily transferable and relatively accessible in terms of cost. The multiple use-values of livestock and their favorable exchange values make them a convenient form of savings and a source of considerable wealth for rural households in Bazale and Phalula EPAs.

Livestock also serve as intermediate assets in the acquisition of other capital goods. Livestock such as goats and pigs multiply within a short period of time¹⁴ and are sold to pay school fees for children, buy food, and acquire land or to construct houses. Of the sampled households that reported livestock production in the study area in the past year, 90% sold livestock to buy food. Rural households also sell livestock in emergencies such as illness or death, and, sometimes, they pay for children's schooling. Traditionally a highly valued means of savings and asset-generation, it has now become a major source of basic livelihood for households in rural areas of Bazale and Phalula EPAs.

The study reveals that, by far, the most common reason for livestock sales during the study period and the past years was to buy food for the household (85% of the respondents). However, within this percentage, there are some households which depend

¹⁴ Interview with livestock farmer in Bazale EPA

absolutely on livestock sales in order to take care of important household needs such as paying school fees (15% of the respondents). This is one of the most telling indicators of the intensifying crisis of livelihood systems in the region. However, goats and chickens are the commonest form of livestock in the study area kept by 90% of households keeping livestock. Given the notoriously voracious foraging tendencies of goats, this constitutes yet another threat to the already precarious vegetative cover in Balaka.

However, in the study area, goat production sometimes hinders crop production as some households were reported to keep goats on free-range system thereby destroying crops in the fields. Livestock are most common by far in areas away from Balaka town in Bazale EPA, where, on average, over three quarters of the households raise animals, and over 60% of households in Phalula EPA do. This is due to the availability of fodder, owing to more extensive rainfed vegetation in fields, as well as more open pasture lands and common grazing areas.

On the other hand, cattle and pigs, reported by approximately 10% and 15% of households respectively in the sample, are relatively rare, whereas 40% have goats, and 60% chickens. Cattle are expensive to buy and manage while rearing of pigs somehow contradicts with the religion of some household members in the study area especially those who are Moslems (since 62% of respondents identified themselves as Moslems, 32% Protestant and 6% as belonging to other religions). Fowl (chickens, ducks, pigeons and guinea fowls) are by far the most common of all livestock categories, with 65% of household keeping fowls. Cattle also play an important role in agriculture and related

livelihood systems. They are used not only for food and sale but also to transport crops from fields to houses and to transport goods from houses to market places for sale (when used to pull ox carts for both own use and service to others).

However it was observed, especially Phalula EPA, that some households earn their living through tending for other peoples cattle and eventually owned part of the livestock as their payment. This reveals the form and extent of labour market in the subject area and revealed the accumulative advantage the livelihood has as involved households owned livestock in the process. The guardian, in exchange for tending to the livestock for a year, including providing fodder and veterinary services, gets half of the proceeds if the animal is sold, otherwise his/her payment is half of the offspring¹⁵. Guardianship of cattle and goats is practiced in 5% of the sample households: more than half of those who have cattle and goats in the study area give them out for tending.

Sale of livestock in the study area is strikingly high¹⁶. From the sampled households, 80% of households which owned livestock reported having sold livestock in the previous year, as compared to 65% of households who owned livestock at the time of survey. This high rate of livestock sales indicates conditions of extreme pressure on the asset base due to poverty and hunger. These levels of disinvestment are clearly unsustainable for maintaining rural household livelihoods or household food security.

¹⁵ Interview with DADO for Balaka, 2009

¹⁶ Interview DPD for Balaka, 2009

Study results reveal that there is more pasture land in villages away from markets and towns. Table 4 shows total number of livestock kept by households in the two EPA by detailing type of livestock and name of village:

Table 4: Number of Households with Livestock in each Village in Balaka

Type of livestock	Number of Households with Livestock in each Village								
	Bazale EPA				Phalula EPA				Av.
	Kapalamula	%	Ndoya	%	Phalula	%	Kunyalani	%	%
Cattle	14	12	9	8	17	5	22	15	10
Pigs	18	15	18	15	34	10	29	20	15
Goats	36	30	59	50	67	20	88	60	40
Fowls	60	50	82	70	270	80	59	40	60

Source: Bazale and Phalula EPA Offices, 2010

However, the study revealed that livestock appeared to be particularly vulnerable, not only to illness, but also, to an extraordinary extent, theft and to attacks by predators. The goat population among the sample households is huge. Study results indicate that 40% of the households own goats and the average number of goats per household across the sample is 2.7. Although this figure does not vary between the EPAs, some of the poorer localities exhibit far lower averages of goats per household. In Kapalamula Village in Bazale EPA, for instance, the average is one, while most of the goats are raised in Phalula EPA. The incidence of goat sales is also remarkably high as evidenced by 98% households reported having sold a goat during the year of the study. On the other hand,

pigs are relatively marginal in most areas of Balaka district since most household members do not eat pork due to their cultural and religious backgrounds as such there is poor market for pigs as compared to all the other types of livestock¹⁷. The average number of pigs per household is 1.5 in Bazale EPA and 3 in Phalula EPA.

Owned by 60% of households in the study area, chickens, ducks and pigeons are the most accessible form of livestock in households. Most households interviewed (85%) indicated that fowls are the easiest to tame of all the other types of livestock. They are within the purchasing power of a large proportion of households (56%), and are easier to buy and sell, as well as cheaper to feed than other livestock. Fowl are widespread in Phalula EPA which has more cereal growing households than Bazale EPA where the number of households growing cereals is lower¹⁸.

However, in rural areas of Balaka District fowl mortality is a serious problem: roughly the same proportion of households in the two EPAs that owned them reported loss of birds due to diseases, parasites and predators. Fowl sales provide a livelihood to most of the rural household as revealed by 72% of respondents indicating that they have sold an average of 3 birds during the research period. This pattern contradicts that of the areas close to the urban area. The study revealed that only 35% of households close to Balaka town and Phalula market reported sales of a fowl. Thus, selling of fowls is not a major livelihood strategy for areas close to Balaka town.

¹⁷ Interview with AEDOs for Bazale and Phalula EPAs

¹⁸ EPA monthly livestock production reports

It can therefore be concluded from the above discussion that livestock production and sales is one of the major livelihood strategy for rural household food security in Bazale and Phalula EPAs. Again, chickens (60%) and goats (40%) are the major livestock categories raised by rural households in the study area. These types of livestock are easily and cheaply managed. Other livestock categories are kept by very few households though they are perceived to have more value (e.g. cattle) but expensive to manage as compared to chickens and goats. The major problem with household ownership of these types of livestock is lack of capital to buy them as most rural households do not have access to loans, decreasing pasture land and disease¹⁹.

4.3.3 Charcoal Production

The study results further reveal that both in Bazale and Phalula EPAs 17% of rural households depend on charcoal production and marketing as their major livelihood option which has a very high income value. Charcoal is a product with a very large domestic market, yet whose production is treated variously as illegal (Kambewa, et al., 2007). Production of charcoal from wood, a major supplementary livelihood option in Balaka is practiced both in Bazale and Phalula EPAs.

In these EPAs charcoal is made from wood that has been burnt, or charred, while being deprived of oxygen so that what is left is an impure carbon residue. Charcoal produces a heat that is hotter and burns cleaner than wood, making it ideal for cooking. Charcoal producers in the study area acquire wood from the bush mostly forestry reserves by

¹⁹ Interview with District Social Welfare Officer for Balaka, 2009

falling down trees and sometimes digging up roots²⁰. Production of wood charcoal generally consists of piling billets of wood on their ends so as to form a conical pile, openings being left at the bottom to admit air, with a central shaft to serve as a flue. The whole pile is covered with turf or moistened clay. The firing is begun at the bottom of the flue, and gradually spreads outwards and upwards. The success of the operation depends upon the rate of the combustion.

Charcoal production provides alternative livelihood to farming households in the study area at varying degrees. However, in both Bazale and Phalula EPAs at present trees and bushes are no longer adequately available to furnish wood for charcoal. In the current years people have been resorting to digging up roots, stumps and twigs, in order to continue reaping a desperate livelihood²¹. It was reported that charcoal production from roots requires vastly more labor than production from tree or bush branches. Even more serious is the trend toward ultimate depletion of the resource: once the supply of roots is exhausted, this activity will become a thing of the past.

Study findings in Bazale and Phalula EPAs reveal that the most food secure households are those that depend on charcoal production with average annual incomes of MK54, 000 per household as compared to those that produce food and cash crops (MK15, 000 per household per annum). Responses from key informant interviews in each EPA corroborated the data from questionnaires on the significance of charcoal production. Marginal lands offer the best opportunities for this activity where large numbers of male

²⁰ Interview with a charcoal producing household, 2008

²¹ Interview with District Forestry Officer for Balaka, 2008

adults migrate to for several months to make charcoal. Charcoal production is however associated with the deterioration of the resource base due to depletion of trees contributing to a situation of severely diminishing returns to labor. The price of charcoal has remained more or less attractive to rural households.

It is from this background that this study mainly focuses on charcoal production as a livelihood strategy which was found to be of economic value for rural households' food security improvement. However, in Malawi charcoal production or burning per se is not illegal but most charcoal producers and sellers from rural areas evade taxes as such their product are confiscated by law enforcers if caught.

4.3.4 Remittances

Study results show that 10% of rural households in both Bazale and Phalula EPAs depend on remittances as their livelihood activity to achieve household food security. These households mainly comprise elderly headed male and female households who have children or relatives working in towns and are able to support them regularly in cash or in kind.

Remittance is defined in this study to include all cash money received by the household from migrant members and relatives living elsewhere in the country and outside the country. It is a good measure of food security situation because of food transport imperfections due to bad roads and food storage problems (Babatunde, 2010).

The study in Balaka revealed that those households that received remittances from their relatives had the capacity to purchase enough food throughout the year as compared to those that did not receive any remittances. However, remittances essentially depend on the course and direction that the migratory process takes, while, at the same time, this depends on numerous variables in the places of origin and destination.

In the communities of origin, these conditions include the characteristics of households with one or more migrants abroad, the economic and social contexts in which these households are found as well as structural conditions which determine the possibilities for productive entrepreneurship²². For instance, during the research, some households were discovered to be more privileged than others because they had more than one household member remitting resources. On the other hand, family size also matters since households with large families would still be food insecure even if they were reported to have more than one family member sending remittances. In the study of remittances, the most pertinent unit of analysis is the concerned migrant household.

A synopsis of key study findings regarding remittances and migration is that in Balaka District and Malawi culture in general, one does not migrate forever. The place in the rural area is home; the city is just a place to work. Rural dwellers move from rural areas (Bazale and Phalula EPAs) to urban areas (Balaka town, Blantyre city, Mozambique etc) in search of a better livelihood during their prime working age; they visit home regularly maintaining important reciprocal relations with extended families, and/or eventually

²² Interview with a food secure household that receives remittances every month

retire to rural areas.²³ This reveals the role of labour market in rural livelihood. Most of household members migrating are young (80% are under 30 years of age), educated (5% have completed standard 6) and are mainly single or never married (55%). This synopsis of key findings concerning remittance transfers is that money is the main item sent to rural households. In other cases, food items are also remitted to households in the study area. Money is sent by 90% of respondents and 75% of the money sent is used to buy food. It was observed during the study that the vast majority (90%) of those who send money presume that it is being used to purchase food. There is only a small difference between male and female heads of household in terms of sending money, where 5% more female headed households send money to rural areas of Bazale and Phalula EPA.

In Balaka, 12% of households indicated that they received remittances from female relatives regularly while 7% from male migrants each month. For many women working in urban areas as live-in domestic workers, this amount represents roughly half of their minimum salary of MK4, 000 per month. Men were reported to be capable of supporting their family members at any time and more frequently. In this case, the circumstances surrounding recipients' specific requests for financial assistance often dictate the amount sent back home. Remittances can be sent for special occasions or if the opportunity becomes available to send them informally with other migrants returning to rural areas from cities.

²³ Interview with District Social Welfare Officer, Balaka 2009

Donations to community and religious organizations working in the area are also examples of random remittances reported during the study. The following is an interview with a food secure household that depends on remittances as its main source of livelihoods:

We have two children; one is a boy who works in Blantyre. The other one is a girl and she works in Zomba. Both of them are Primary School teachers. Usually, the boy sends us money after two months, as for our daughter, she sends us money, food and clothes almost every month. With this assistance, we do not go hungry in our house... our friends complain of hunger every year due to poor harvest... we have enough food to feed the whole family²⁴.

In the migration and remittance literature, considerable attention has been devoted to the poverty effects of remittance income, much less is known about the food security impacts of remittances on households in rural areas. For instance, by focusing on the relationship between international remittances and poverty in developing countries, Adams and Page (2005) found that international remittances significantly reduce poverty in the developing world. In a study conducted in Guatemala, Adams (2004), found that remittances reduce the level, depth and severity of poverty among receiving households. Although some literature has highlighted the negative effects that migration and remittances can have on these communities, other studies have shown their potential for local development.

In conclusion, rural households that rely on remittances were found to be more food secure and their annual average incomes were generally high. These categories of households have the capacity to purchase food from the market as opposed to their lower

²⁴ Interview with a food secure household that depends on remittances, 2009

income counterparts who cannot withstand the high food prices. Seasonal migration within and outside the district has long been a strategy adopted by households to expand their labour opportunities in periods of scarcity at home. This livelihood strategy also often permits an accumulation of income that is rarely possible at home. In other words, persons returning from migration bring home a substantial sum of money all at once, while daily wages from agricultural labour earned at home are small and quickly consumed. The cumulative effect of the former is significant.

4.3.5 Forest-based Livelihoods

Finally, study findings reveal that 23% of rural households in Bazale and Phalula EPAs depend on forest-based livelihood option. Limited access to food and household income leaves local communities with few other livelihood options while engaging in activities that yield immediate economic gain, particularly illegal livelihood activities and convert lands for other purposes that can provide quick cash income²⁵.

Extraction, processing, consumption and sale of forestry products are crucial elements of livelihood strategies across a variety of settings in the district. In the study area, these forestry products range from food to non-food products -- fruits (e.g. mangoes and *masawu*), mushrooms, small animals (such as hares and mice), roots and tubers, timber and charcoal products. Forests are the major sources of main rivers found in these areas. More women depended on forests (55%) than men (45%). Forests are places where mostly female respondents indicated that they collect fuel wood from. Eneya and Saka

²⁵ Interview with District Forestry Officer, Balaka District, 2009

(2007) contend that there is a difference in the type of forestry resources accessed. Similarly, results from the study indicate that 90% of rural households pursue forest-based livelihood activities (though only 23% depend entirely on it) and have access to different types of forestry resources both in Bazale and Phalula EPAs. Some of these activities are seasonal (e.g. fruit and mushroom gathering; bee keeping) while others (e.g. charcoal production and hunting) are carried out throughout the year.

The study revealed that more than 40% of households in Balaka depend on bush meat and other protein sources from forests (especially hares, mice, birds and ants) hence the forests have been denuded of wildlife. In both EPAs interviewed households reported to entirely depend on the forest for fuel wood; 5% reported extracting honey from bees for food and for sale. Again, using forest resources, 7% of household members are involved in making of home crafts such as mats, carpets, brooms, hats, and sell them within and outside their villages.

Therefore, forests are also a good source of income. Additionally, rural household members use forest reserves as locations for graveyards where 100% of members in the study area are buried²⁶. Forest in this study is seen as a complex ecosystem in which trees are the dominant life-form. In Balaka the interaction of slope, soil, geology and climatic variables has resulted in different types of vegetation. However there are very small plantation forests which are owned by individual households or village committees as woodlots. Forestry resources are under threat due primarily to increasing population.

²⁶ Interview with GVH Phalula, 2009

It can therefore be concluded that forest-based livelihood options are an important indicator of well-being of most rural households in Balaka. Naturally, indigenous forests and forest resources are resistant to drought as such they exist even during adverse conditions of droughts. In many places in the study area, animal and vegetation populations have been severely depleted by unsustainable hunting, cutting down of trees and uncontrolled bushfires.

4.4 Contributions of Livelihood Strategies to Rural Household Food Security

The five major rural livelihood strategies identified by the study are usually not carried out in isolation of the other; rural households prefer combining two or more of the livelihood options in order for them to be food secure²⁷. However, most households in Balaka have an asset base in the forms of land and livestock that can help them to meet their basic needs. This therefore entails that agricultural production is the major livelihood platform available to households. This livelihood option is generally natural capital. Physical capital and social capital are resorted to as last options.

Conversely, erratic rains common in the area make farming and animal production undependable. Households, therefore, depend on other sources of income to compliment their livelihood. Poverty situation is worse among female headed households as revealed by type of house owned. Study results indicate that 4% of households interviewed in the study area owned iron sheet roofed houses with floors which are not cemented, 13% owned bicycles while none had money in a bank or had a bank account.

²⁷ Interview with DADO, 2009

The study findings further reveal that very few dwelling houses in the study areas are constructed with burnt bricks and thatched with iron sheets (4%). The majority of households (96%) own grass thatched houses as shown in Figure 5. The house with grass thatched roof, mud walls and floors reveal poverty levels in the area. The study found that 7% of male-headed households own houses constructed with burnt bricks and iron sheet as compared to 1% of the female-headed households.



Figure 4: A Picture of Grass Thatched House

Source: Fieldwork, 2008 (Photo by Researcher)

The above analysis reveals the gains from the livelihood strategies practiced in the area. For example, the study further found out that large land and livestock holders are more food secure than those that lack land and livestock. However, crop production and livestock production lag behind the non-farm livelihood strategies. Therefore, the most reliable livelihood strategies include charcoal production, remittances and migration and

forest-based livelihoods. Study results show that forest-based livelihood options are more significant in rural households' food and income security. Therefore rural households that do not have enough land and livestock maximize utilization of these resources where available in order for them to be food secure. However, there is need for a more sustainable way of utilizing these forest resources to reduce forest degradation and loss²⁸. For example, charcoal is potentially a renewable forest product, but the current production and distribution methods in Balaka prevent reinvestment in the next cycle of harvest. Reversing the lack of incentives for reinvestment is a critical political and economic issue.

It should however be pointed out that most livelihood platforms except crop production and dependency on forest resources are heavily controlled by men. This means that household food security is not a neutral situation but is heavily engraved in the gender dimension to household livelihood analysis. For instance, the study found out that average annual income for male-headed households involved in non-agricultural livelihood options such as charcoal production and marketing is MK88, 000.00 while that of the female-headed households is MK20, 000. Again, 14% of the male-headed households compared to only 4% among female-headed households reported engaging in livestock production; the same applies to self-employment such as making and selling of mats, brooms and carpets from forest resources.

²⁸ Interview with District Forestry Officer, Balaka, 2009

It can be further observed from Table 5 that rural household food security in the study area is a factor of production in terms of crop, animal and forests based resources; and social networks transfers. The table reveals that charcoal producing households (MK54,000 per annum) have more capacity to access food from the market than households who are involved in agricultural production activities (MK15,000 per annum for crop production and MK12,000 for livestock production) since the study area usually experiences crop failure and livestock losses. Some households are food secure by highly depending on remittances (MK50, 400 per annum) from their relatives who stay and work in towns; then those who depend on forest-based livelihood strategies (MK48, 000) are as well better off than actual food producers. Table 5 summarizes the average annual income earnings for interviewed households in the two EPAs:

Table 5: Average Incomes from Various Livelihood Strategies per Annum

Livelihood Strategy	Bazale EPA	Phalula EPA	Average per Annum
Crop Production	14,000	16,000	K15,000
2. Livestock Production	10,000	14,000	K12,000
3. Charcoal Production	52,000	56,000	K54,000
4. Remittances	40,000	60,400	K50,400
5. Forest-based Livelihoods	37,000	59,000	K48,000

Source: Field work, 2010

Apparently there is a small percentage of households (1%) that was reported to be dependent on socially unacceptable behaviors such as prostitution and stealing; unfortunately none of the respondents accepted as having been involved in such livelihood options as such this study did not dwell much on this minority category²⁹. Involvement in socially unacceptable activities was reported to be due to poverty and lack of capital to start small scale income generating activities. Microfinance opportunities are limited in the study areas since no respondent indicated availability of credit facilities or institutions. However there are some households get the credit informally through friends/relatives through the extended social ties in rural areas.

It can be seen from the above discussion that rural households in the study area have some periods without their own food stocks and are not capable to manage food demands even through the combination of different livelihood strategies. Study findings on household food insecurity situation reveal that only 14% of these rural households have food throughout the year through the combination of different livelihood strategies. From the 14% of food secure rural households, the study reveals that 11% were those rural households that are involved in non-agricultural livelihood strategies and only 3% were those that are involved in agricultural livelihood strategies. This means that non-agricultural livelihood strategies have a positive contribution to rural household food security than agricultural livelihood strategies. It further implies that food insecure rural households have fewer options to diversity their livelihood strategies in order for them to be food secure.

²⁹ FGDs with household members both in Bazale and Phalula EPA, 2009

Generally, having own food is one of the indicators of secure food security situation in the rural areas. To better understand rural food insecurity situation, therefore, emphasis is placed on documenting and assessing the number of months households live without own food, the changes in food coping mechanisms and asset base of the households which define alternative livelihood income portfolios. Crop production is the major base of the mixed livelihood systems in the two EPAs. However, in addition to erratic rains, the lands in the study area are extremely poor in nutrition and are highly eroded making agriculture viable only with substantial inputs³⁰. Crop production is clearly important as a livelihood, but its significance in the study area is limited by physical climatic and soil conditions.

In the study area, apart from growing food crops, rural households grow cash crops such as cotton and tobacco. Unfortunately these crops fetch low prices on the market (see Table 6). However, as for most non-agricultural livelihood options in Balaka, their market values are relatively attractive. For example, a bag of charcoal in the study area costs MK800 and each charcoal producing household is able to produce and sell at least 10 bags of charcoal per month. Therefore charcoal producing households were reported to be more food secure and had readily available cash to purchase food from the market. Although there is poor food production in the two EPAs, there were crops and livestock available on market during the data collection periods (Tables 6 and 7)³¹.

³⁰ Interview with DADO for Balaka, 2009

³¹ Most of these crops and livestock come from Blantyre, Machinga, Ntcheu and Zomba

Table 6: Prices per Kilogram (in MK) for Crops in Bazale and Phalula EPAs

Name of Crop	Bazale EPA	Phalula EPA	Average
Maize	50	30	40
Cassava	80	56	68
Pigeon Peas	150	90	120
Sweet Potato	52	40	46
Cotton	40	40	40

Source: Balaka RDP Office, 2010

Table 7: Prices (in MK) for Livestock in Bazale and Phalula EPAs

Name of Livestock	Bazale EPA	Phalula EPA	Average
Chicken	1000	700	850
Goat	4500	2500	3,500
Pig	7000	5000	6,000
Duck	1000	800	900
Cattle	60000	40000	50,000

Source: Balaka RDP Office, 2009

It has been noted from study findings that livestock's contribution to the total household income and food security is significant. The study found that in rural areas of Balaka where crop failure is persistent due to poor climatic conditions, livestock production is tremendous. In order to achieve household food security rural households should expand livestock production through the provision of adequate veterinary services, provision of

trainings for the livestock holders and improving the marketing conditions, among others³². In the rural areas of Bazale and Phalula EPAs livestock production is limited as farming households keep mainly chickens and goats.

The study further found that less than 1% of households in rural areas of Balaka pursue a range of socially unacceptable and potentially harmful livelihood strategies for their survival, it was also noted during FGDs and KIIs that these categories of households both in Bazale and Phalula EPAs were more food secure than those households that engage in agricultural based livelihood strategies. The main types of socially unacceptable and potentially harmful livelihood strategies include prostitution and stealing but did not want to come to the open. Other socially unacceptable livelihood strategies revealed by the study include growing of cannabis and witchcraft. These have not been discussed in this thesis significantly since respondents in the study areas did not acknowledge their involvement in such activities.

It can therefore be concluded from the above discussion that the understanding of the contribution and dependability of these livelihood strategies requires adequate analysis. For the major livelihood strategies analyzed by this study, it was discovered that livelihood strategies that do not directly involve agricultural production are more sustainable than those directly involved in agriculture (agricultural livelihood strategies). However, the major activities analyzed in the study are agricultural livelihood strategies and non-agricultural livelihood strategies as highlighted earlier on in the paper.

³² Interview with Balaka District Commissioner, 2008; 2009

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter provides a conclusion of the study based on the theoretical knowledge from literature review and from empirical findings from Balaka District. Lastly, the chapter provides the study recommendations.

5.1 Summary and Conclusion

The study has investigated the role of livelihood strategies on rural household food security in Bazale and Phalula EPAs. The results from a sample of 471 households in Balaka district (182 households in Bazale EPA and 289 households in Phalula EPA) yield an intuitive partitioning of the complex set of activities into 5 distinct livelihood strategies; crop production, livestock production, charcoal production, remittances and forest-based livelihoods. The study revealed that households involved in activities other than farming were more food secure than those directly involved in farming activities. These livelihood activities include charcoal production, remittances and forest-based livelihoods while livestock production and crop production are the least paying. This was because unstable weather condition negatively affects agricultural livelihood strategies.

Study results further revealed that households with more individuals working off-farm in skilled employment in towns are able to achieve household food security and higher average per capita incomes because of remittances sent to them (push and pull factors behind migration). Based on these findings it is possible to conclude that the constraints of the rural households in choosing livelihood strategies that will lead them achieve food security should not be put aside since food security problems cannot be overcome by simply concentrating on crop and livestock production alone.

Therefore this study has found that the contribution made by the non-agricultural sector (off-farm and non-farm livelihood strategies in the name of charcoal production, remittances and migration and forest-based livelihood strategies) to rural households is significant. However for the rural poor these activities are survival oriented and have little to do with wealth accumulation. This is evident by the nature of housing that most households own. On the other hand, the contribution made by income from cash crops such as cotton and the value of own consumption was found significant and substantial in achieving food security. This implies that efforts have to be made to improve income from cash crops production (cotton) to ensure food security through promotion of input use and marketing facilities.

It can therefore be concluded that the farming economy alone is not in a position to feed and sustain the increasing population of rural areas as evidenced from the study findings. Unfortunately even the agriculture input subsidy programme has not been very successful in the study area since 75% of rural households interviewed reported not to have

benefited from the programme; for those that benefitted reported that due to poor climatic conditions yields were generally very poor. Most of the food secure households are those pursuing other livelihood strategies other than farming and these are the ones feeding more of the growing population in rural areas.

5.2 Recommendations

Based on the findings of this study, the following recommendations are made:

1. Rural households should diversify away from precarious livelihood strategies such as crop and livestock production if conditions of carrying out such livelihood activities are not favorable for them (either due to poor climatic conditions, poor markets or lack of inputs and technology).
2. It is further recommended that scholars and policy-makers should reflect on the most suitable ways of supporting this diversity. With more appropriate policies that recognize the importance of diversity, it will be possible for more food insecure rural households to make positive exits from food security risk.
3. Rural households are poor, voiceless, hungry, powerless and inaccessible. It is finally recommended that empowering rural households economically will help them to effectively participate in non-farm livelihood activities. Thus, access to loan can help to break entry barriers to non-farm livelihood and service sector.

5.3 Areas of Future Research

The following areas of shortcomings remain future areas of research for the author:

- Examination of the role of population growth on choice of rural household livelihood strategies;
- Assessment of the impact of socially unacceptable livelihood strategies on rural household food security.

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APPENDICES

Appendix 1: Household Questionnaire

Role of Livelihood Strategies on Rural Household Food Security: The case of Balaka District

1. Name of Interviewer_____
2. Date of Interview_____
3. Name of District_____
4. Name of EPA_____
5. Name of TA_____
6. Name of Group Village_____
7. Name of Village_____
8. Name of Household head_____
9. Name of Respondent_____
10. Sex of Respondent
 - 1= Female
 - 2= Male
11. Marital Status
 - 1= Married
 - 2= Single
 - 3= Divorced
 - 4= Widow
 - 5= Widower
12. Type of Household
 - 1= Male headed
 - 2= Female headed
 - 3= Child headed
13. Number of people in the household_____
14. Number of household members under the age of five_____
15. a Is there anything that you do which is the main source of your livelihood strategy
 - 0= No
 - 1= Yes
 - b. If you have a livelihood strategy, do you do farming?
 - 0= No
 - 1= Yes
 - c. If you do farming, what type of farming do you do?
 - 1= Crop production
 - 2= Livestock production
 - 3= Both of the above
 - d. If you have a livelihood strategy, are you a skilled laborer or own a shop or builder or a carpenter or home crafts
 - 0= No
 - 1= Yes

- e. If you have a livelihood strategy, do you do charcoal burning and/or selling
 - 0= No
 - 1= Yes
- f. If you have a livelihood strategy, do you sell food stuffs or bakeries or local beer
 - 0= No
 - 1= Yes
- g. If you have a livelihood strategy, do you live by gifts or begging from friends and relatives
 - 0= No
 - 1= Yes
- h. If you have a livelihood strategy, are you employed (self/private or public)
 - 0= No
 - 1= Yes
- i. If you have a livelihood strategy, are you a butcher man or buy and sell farm produce
 - 0= No
 - 1= Yes
- j. If you have a livelihood strategy, do you live on piece work (ganyu)
 - 0= No
 - 1= Yes
- 16. What is the highest level attained by household members
 - 0= No education
 - 1= Primary
 - 2= Secondary
 - 3= Tertiary
 - 4= Others
- 17. a Average monthly income from farming
 - b Average monthly income from building/carpentry/shop owner/handicrafts
 - c Average monthly income from charcoal burning
 - d Average monthly income from selling food stuffs or bakeries or local beer
 - e Average monthly income from gifts or begging/alms
 - f Average monthly income from employment
 - g Average monthly income from butchery and vending farm produce
 - h Average monthly income from piece work (ganyu)
- 18. Current annual income (Jan 2009 - Aug 2009)
- 19. Previous annual income (Jan 2008 - Aug 2009)
- 20. a. Any illness in your household during the past 12 months
 - 0= No
 - 1= Yes
- b. Any drought experienced during the past 12 months
 - 0= No
 - 1= Yes

- c. Any pest/parasite and diseases for your crops and livestock during the past 12 months
 - 0= No
 - 1= Yes
- d. Any family event that affected your livelihood during the past 12 months
 - 0= No
 - 1= Yes
- e. Initiation ceremonies that affected your livelihood during the past 12 months
 - 0= No
 - 1= Yes
- f. Emigration of household head during the past 12 months
 - 0= No
 - 1= Yes
- 21. Did the shocks or events in Q20 affect the livelihood of your household in achieving food security
 - 0= No
 - 1= Yes
- 22. Do you own or have temporary user-right of any land
 - 0= No
 - 1= Yes
- 23. If Yes how much land in hectares
- 24. How was the land acquired
 - 1= Gift
 - 2= Inherited
 - 3= Leased
 - 4= Bought
 - 5= Not Applicable
 - 995= Others
- 25. If not own land, how do you acquire farm land
 - 1= Rent
 - 2= Borrowing
 - 3= Other
 - 996= Not Applicable
- 26. If you borrow/rent land, how much do you pay per season?
- 27. How many times do you produce on your land per year?
 - 0= Don't produce
 - 1= Once
 - 2= Twice
 - 3= Three times
- 28. a. How much maize did you harvest during this cropping season?
 - 0= None
 - 1= Not enough
 - 2= Enough
 - 7= Did not grow

- b. How much g/nuts did you harvest during last cropping season?
 0= None
 1= Not enough
 2= Enough
 7= Did not grow
- c. How much peas/beans did you harvest during last cropping season?
 0= None
 1= Not enough
 2= Enough
 7= Did not grow
- d. How much millet did you harvest during this cropping season?
 0= None
 1= Not enough
 2= Enough
 7= Did not grow
- e. How much cassava and sweet potatoes did you harvest during this cropping season?
 0= None
 1= Not enough
 2= Enough
 7= Did not grow
- f. How much cotton did you harvest during this cropping season?
 0= None
 1= Not enough
 2= Enough
 7= Did not grow
- g. How much tobacco did you harvest during this cropping season?
 0= None
 1= Not enough
 2= Enough
 7= Did not grow
- h. How much fruits and vegetables did you harvest during this cropping season?
 0= None
 1= Not enough
 2= Enough
 7= Did not grow
29. a. How much maize did you harvest last cropping season?
 0= None
 1= Not enough
 2= Enough
 7= Did not grow
- b. How much g/nuts did you harvest last cropping season?
 0= None
 1= Not enough
 2= Enough
 7= Did not grow

- c. How much peas/beans did you harvest last cropping season?
 0= None
 1= Not enough
 2= Enough
 7= Did not grow
- d. How much millet did you harvest last cropping season?
 0= None
 1= Not enough
 2= Enough
 7= Did not grow
- e. How much cassava and sweet potatoes did you harvest last cropping season?
 0= None
 1= Not enough
 2= Enough
 7= Did not grow
- f. How much cotton did you harvest last cropping season?
 0= None
 1= Not enough
 2= Enough
 7= Did not grow
- g. How much tobacco did you harvest last cropping season?
 0= None
 1= Not enough
 2= Enough
 7= Did not grow
- h. How much fruits and vegetables did you harvest last cropping season?
 0= None
 1= Not enough
 2= Enough
 7= Did not grow
30. Out of your previous total stock (of food and household income), how much is remaining?
 0= None
 1= Not enough
 2= Enough
31. Does your household currently have any food to eat?
 0= No
 1= Yes
32. When is your household normally without food?
 1= The whole year
 2= November - March
 3= April - October
 995= Not Applicable

33. Where do you store your produce?
1= Sacks/Bags
2= Granaries
3= Pails/Containers
995= Other
34. Do you have any knowledge on modern food processing/preservation techniques?
0= No
1= Yes
35. Where did you learn about the techniques in Q34 above?
1= School
2= Friends
3= Extension workers/Radio/TV
4= Church
5= Clubs
6= Hospital
7= Not Applicable
36. Do you keep any livestock in this household?
0= No
1= Yes
37. Did you sell any of your livestock last year?
0= No
1= Yes
2= Not Applicable
38. What was the reason for selling?
1= To buy farm inputs
2= To buy food
3= To pay school fees
4= To pay hospital fees
5= To pay dowry
6= To pay for luxury/Pleasure
7= Not Applicable
39. During the past 12 months how often did you worry that your household would not have enough food?
0= Never
1= Rarely
2= Sometimes
3= often
40. During the past 12 months how often were you or any of your household members unable to eat choice foods because of lack of food?
0= Never
1= Rarely
2= Sometimes
3= Often

41. During the past 12 months how often were you or any of your household member eat limited variety of foods because of lack food?
 0= Never
 1= Rarely
 2= Sometimes
 3= Often
42. During the past 12 months how often were you or any of your household member eat less in either the morning or evening meal due to lack of enough food?
 0= Never
 1= Rarely
 2= Sometimes
 3= Often
43. During the past 12 months how often were you or any of your household member eat fewer than three meals in a day due to lack of enough food?
 0= Never
 1= Rarely
 2= Sometimes
 3= Often
44. During the past 12 months how often were you or any of your household member go to sleep at night hungry due to lack of enough food?
 0= Never
 1= Rarely
 2= Sometimes
 3= Often
45. During the past 12 months how often were you or any of your household member go a whole day and night without eating anything due to lack of food?
 0= Never
 1= Rarely
 2= Sometimes
 3= Often
46. a. Were you worried whether food will run out before getting to next harvest?
 0= Never
 1= Rarely
 2= Sometimes
 3= Often
- b. Food harvested or bought didn't last; no means to get more
 0= Never
 1= Rarely
 2= Sometimes
 3= Often
- c. Couldn't afford to eat balanced meals
 0= Never
 1= Rarely
 2= Sometimes
 3= Often

- d. Relied on a few kinds of low-cost foods
 - 0= Never
 - 1= Rarely
 - 2= Sometimes
 - 3= Often
- e. Couldn't feed the children a balanced meal
 - 0= Never
 - 1= Rarely
 - 2= Sometimes
 - 3= Often
- f. Children not eating enough; couldn't afford enough food/money
 - 0= Never
 - 1= Rarely
 - 2= Sometimes
 - 3= Often
- 47. During the past 12 months which of the following food security coping strategies did you do to ensure access to food?
 - 1= Begging
 - 2= Remittances
 - 4= Selling of livestock/household items
 - 5= Piece work
 - 6= Didn't have any option
 - 995= Other
- 48. How often did the above happen?
 - 1= Rarely
 - 2= Sometimes
 - 3= Often
 - 4= Not Applicable
- 49. During the past 12 months did any of your children lose weight due to lack of food?
 - 0= No
 - 1= Yes
 - 9= Don't know
- 50. During the past 12 months did you or any member of your household ever get emergency food from a relative or any food organization?
 - 0= No
 - 1= Yes
 - 9= Don't know

END OF QUESTIONS

Appendix 2: Key Informants Interview Guide

Role of Livelihood Strategies on Rural Household Food Security: The case of Balaka District

A: LOCAL LEADERS

PROFILE OF KEY INFORMANT

NAME:

SEX:

POSITION:

LOCATION:

1. Tell me about yourself
(Mission? How long in the area?)
(Services provided or issues working with)
(How do you define your position/Community/Service area?)
2. Do you agree that food insecurity is a problem among rural households in Balaka district, especially in Bazale and Phalula EPAs? (obtain a food security situation if possible)
Yes () No ()
3. If yes, what are the major food insecurity issues that are experienced among rural households in Balaka district, in Bazale and Phalula EPAs?
(How do you identify or define households that are food secure and those that are food insecure in this community?)
(How do you characterize the nature of their food insecurity? For example, transitory versus chronic)
(Are there health, economic, social, political, cultural or other issues relating to food insecurity in these EPAs?)
4. According to you/your office, what are the various livelihood strategies that are pursued by rural households in this district/area?
5. What are the main livelihood strategies for rural households in Bazale and Phalula EPAs that help them to secure access to food? In other words, how do households in these areas secure access to food?
(Sources of income, education and employment patterns)
(What is the average land holding size per household?)
(If own production, do they produce enough for their households for the whole year?)
(If through purchase, how do they obtain incomes to purchase food?)
(If through gifts and private transfers, what relief organisations or individuals provide them with food?)
6. In your opinion, do the various livelihood strategies pursued by rural households within this district /area contribute to variations in household food security (with some households being food secure while others not)?

7. Are you aware of any programs (whether government or nongovernmental) related to food security in Bazale and Phalula EPAs in Balaka district? Yes () No ()
IF YES,
(What programs are available in these EPAs?)
(Which government or non-governmental departments or organisations provide them?)
(What role do these organisations play in reducing food insecurity in Bazale and Phalula EPAs?)
8. What are rural households' food insecurity coping strategies in Balaka district (Bazale and Phalula EPAs)?
9. In your opinion, what do you think would be the best way of solving the problem of household food insecurity in Balaka district (Bazale and Phalula EPAs)?

B: Government and Non-Governmental Organisation Personnel

PROFILE OF KEY INFORMANT

NAME:

SEX:

POSITION:

ORGANISATION/DEPARTMENT:

10. Tell me about yourself/your organisation
(Mission? How long in the area?)
(Services provided or issues working with)
(How do you define your organisation/Community/Service area?)
11. Do you agree that food insecurity is a problem among rural households in Balaka district, especially in Bazale and Phalula EPAs? (obtain a food security situation if possible)
Yes () No ()
12. If yes, what are the major food insecurity issues that are experienced among rural households in Balaka district, in Bazale and Phalula EPAs?
(How do you identify or define households that are food secure and those that are food insecure in this community?)

(How do you characterize the nature of their food insecurity? For example, transitory versus chronic)

(Are there health, economic, social, political, cultural or other issues relating to food insecurity in these EPAs?)
13. According to you/your office, what are the various livelihood strategies that are pursued by rural households in this district/area?

14. What are the main livelihood strategies for rural households in Bazale and Phalula EPAs that help them to secure access to food? In other words, how do households in these areas secure access to food?
 (Sources of income, education and employment patterns)
 (What is the average land holding size per household?)
 (If own production, do they produce enough for their households for the whole year?)
 (If through purchase, how do they obtain incomes to purchase food?)
 (If through gifts and private transfers, what relief organisations or individuals provide them with food?)
15. In your opinion, do the various livelihood strategies pursued by rural households within this district /area contribute to variations in household food security (with some households being food secure while others not)?
16. Are you aware of any programs (whether government or nongovernmental) related to food security in Bazale and Phalula EPAs in Balaka district? Yes () No ()
 IF YES,
 (What programs are available in these EPAs?)
 (Which government or non-governmental departments or organisations provide them?)
 (What role do these organisations play in reducing food insecurity in Bazale and Phalula EPAs?)
17. What are rural households' food insecurity coping strategies in Balaka district (Bazale and Phalula EPAs)?
18. In your opinion, what do you think would be the best way of solving the problem of household food insecurity in Balaka district (Bazale and Phalula EPAs)?

END OF QUESTIONS

Appendix 3: List of Key Informants

Chirambo, Moses, District Community Development Officer, Balaka, *Personal Communication*, September, 2009.

Gondwe David, Director of Planning and Development, Balaka District, *Personal Communication*, September 2010.

Kaiya Maston, District Information Officer, Balaka District Information Office, Balaka, *Personal Communication*, September 2009.

Kamwendo Charles, District Forestry Officer, Balaka District, *Personal Communication*, September, 2009.

Kayambo Doris, District Health Officer, Balaka District Hospital, Balaka, *Telephone Interview*, September 2010.

Movete Fred, District Commissioner, Balaka District, *Personal Communication*, August 2010

Mselera James, Hydrological Officer, Balaka District Water Office: Balaka, *Personal Communication*, September 2009.

Nkhuzenje Hetherwick, Project Officer, Concern Universal, Balaka, *Personal Communication*, September 2009.

Phiri Susan, Food and Nutrition Officer, Balaka District Agriculture Office *Personal Communication*, September 2009.

Salamu Charles, District Social Welfare Officer, Balaka District Social Welfare Office, Balaka, *Personal Communication*, September 2009.

Appendix 4: Focus Group Discussion Guide

Role of Livelihood Strategies on Rural Household Food Security: The case of Balaka District

NAME OF VILLAGE:

NAME OF EPA:

NAME OF TA:

PROFILE OF FGD PARTICIPANTS

NAME OF PARTICIPANT	SEX	AGE	MARITAL STATUS	EDUCATION LEVELS	LIVELIHOOD STRATEGY

1. What are the various livelihood strategies pursued by households in this village?
2. How do you think the livelihood strategies mentioned above assist you in achieving household food security?
3. What are the factors determining your choice and option for the above mentioned livelihood strategies?
4. Have there been any major changes over time in the various livelihood strategies pursued by households in this area?
5. If yes:
 - a) What have been the changes in your livelihood strategies?
 - b) What do you think caused the changes?
6. What are the major sources of income for your households?
7. Is household food insecurity a problem in this area?
8. If yes, for how long has food insecurity been a problem?
9. What do you think are the reasons for some households to be food insecure?
10. Are there other households in this village that are food secure?
11. If yes, what do you think are the reasons for the other households to be food secure in this area?

12. Do food secure households pursue different livelihood strategies from those that are food insecure?
13. If yes, mention all livelihood strategies pursued by food secure households and those by food insecure households.
14. What are the various strategies that households in this area do when they face the problem of food insecurity (household food insecurity coping strategies)?
15. How do most households utilize the incomes realised within their households?
16. What are the major shocks affecting the living standards (livelihoods) of your households?
17. How do the shocks affect the livelihoods of your households?
18. Name the various farming practices practiced in this area?
19. Where do you sell your commodities (including farm inputs)?
20. How good are the market prices for the various commodities that you sell?
21. Apart from selling off farm produce, how else do you use the farm produce?
22. What problems do most households face in crop and animals production?
23. During which months do most families run out of food in this village?
24. Why do you think most households run out of food during the months mentioned above?
25. How do government and nongovernmental organisations help to improve household food security and income?
26. In your own opinion how do you relate the various livelihood strategies carried out by households in this area with household food insecurity problems?

END OF QUESTIONS

Appendix 5: Map of Malawi Showing Study Area (Balaka District)



Source: <http://www.google.com> / map of Malawi