

# **SMALLHOLDER FARMERS' RESPONSES TO CHANGES IN THE FARMING ENVIRONMENT IN GOKWE- KABIYUNI, ZIMBABWE**



**A mini-thesis submitted to the Institute for Poverty, Land and Agrarian Studies  
(PLAAS) at the University of The Western Cape, in partial fulfilment of the Master of  
Philosophy degree in Land and Agrarian Studies**

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## **ABSTRACT**

### **Smallholder Farmers' Responses to Changes in the Farming Environment in Gokwe-Kabiyuni, Zimbabwe**

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Following Bryceson's article, 'De-agrarianisation in Sub-Saharan Africa: Acknowledging the Inevitable', and other related writings in the volume *Farewell to Farms*, rural development has become a contested academic and policy domain. One side of the debate is characterized by 'agrarian optimism', mirrored in various state policies and advice from the World Bank; the other side is typified by the de-agrarianisation thesis, which is sceptical regarding the agrarian path to rural development, because it doesn't accord with dominant trends. The main reasons given for the trend of de-agrarianisation are: unfavourable climatic trends, economic adjustments, and population growth. While the de-agrarianisation thesis seems to be a sensible proposition, it has failed to attract many disciples, evidenced by the continuation of current policy directions towards the agrarian optimistic path. The purpose of this study was to assess the applicability of the de-agrarianisation thesis in the Gokwe-Kabiyuni area of Zimbabwe, during a time when the nation went through climatic, economic and political crises. The idea was to assess the influence of such an environment to smallholder farmers in terms of livelihood strategies by observing trends in climate, education, occupation, and crop yields over the period. Both qualitative and quantitative methods were used to establish whether the de-agrarianisation process can be noted in two villages over the period 1990-2008. A comparative analysis of the experiences of smallholder farmers in these two villages revealed the existence of a cultivation culture and differential agrarian resilience depending on natural resource endowment and levels of infrastructural development, notwithstanding the involvement of the villagers in non-farm activities to diversify their livelihood portfolios. Because inflation intensified towards 2008, non-farm activities were gradually adjusted, in that those which involved buying and selling were dropped.


May 2010

## DECLARATION

I declare that *Smallholder Farmers' Responses to the Farming Environment in Gokwe-Kabiyuni, Zimbabwe* is my own work and that it has not been submitted for any degree or examination in any other University and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

Full name: Simbarashe Chereni

Date: 14 May 2010

Signed 



## **DEDICATION**

To all rural development practitioners and academics



## ACKNOWLEDGEMENTS

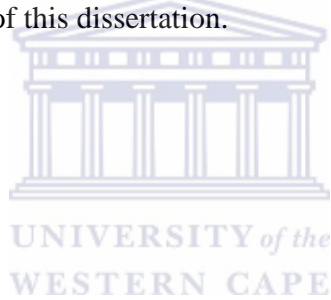
I wish to express my heartfelt gratitude to a couple of colleagues who contributed their ideas to make this project a success.

Firstly I would like to thank my supervisor, Dr. Michael Aliber for his useful contributions from the conceptualization stage of the research question to the final compilation of this volume. Through his analytical rigor, I developed invaluable academic writing skills. To him I say its job well done.

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## ACCRONYMS

CMB	:	Cotton Marketing Board
ESAP	:	Economic Structural Adjustment Programme
GMB	:	Grain Marketing Board
MERP	:	Millennium Economic Recovery Programme
MET	:	Meteorological Services Department
MDC	:	Movement for Democratic Change
NDPP	:	National Development Priority Programme
NERP	:	National Economic Recovery Programme
NGO	:	Non Governmental Organisation
UNDP	:	United Nations Development Programme
ZANU PF	:	Zimbabwe African National Union (Patriotic Front)
ZIMPREST	:	Zimbabwe Programme for Economic and Social Transformation





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# CHAPTER 1: INTRODUCTION

## 1.1 Introduction

While smallholder agriculture has always been viewed as the major source of livelihoods of the poor in rural areas on the African continent, it is continuously responding to changes in the farming environment. In order to support rural dwellers, it is therefore crucial to understand not only the needs of smallholder farmers, but how they adapt their livelihoods over time changes in the environment. The ‘farming environment’ in this dissertation can be defined as the physical, economic, political and social fabric within which smallholder farming is practiced. Smallholder farmers’ responses are defined as the coping or adaptive strategies which they embark on in the event of an unfavourable condition or new opportunity in the environment. These responses may include farm related adaptation practices (for example, shifts in planting dates, innovations in land preparation and land management, crop diversification and mixed farming) and diversification into off-farm activities.

Understanding trends in the farming environment and farmers’ responses has been an object of contention over the past three decades. Therefore policy recommendations for rural development have pursued different directions. For example Bryceson (1997) noted a downward spiral of the orientation towards agro-based livelihoods in Sub-Saharan Africa in general over the past few decades, a process which she termed ‘de-agrarianisation’. In terms of policy, she expressed concern over the way in which policy makers are turning a blind eye to de-agrarianisation and thus promoting an overly-optimistic ‘neo-liberal’ agrarian path to rural development. After Bryceson’s publication, views on the contribution of smallholder farming to rural livelihoods and regional economies have been polarized.

It is true that communities innovate new ‘situated micro practices’ to cope with, or take advantage of, changes in the environment. In the face of current trends in rainfall patterns, and the worsening political and economic situation in some parts of Sub-Saharan Africa, the understanding of these innovations is vital for policy makers in formulating overall strategies for the smallholder sector and rural dwellers at both national and regional level. What is still unclear is the role of some non-agricultural activities (which were cited by Bryceson as evidence of de-

agrarianisation) in farming in an input-output sense, which still calls for a microscopic analysis of the experience of smallholder farmers at the household and village level. Another interesting question is: what happens to the trends perceived by Bryceson if some crucial inputs like land are added to the productivity equation together with some changes in the agrarian structure, for example, improving market regimes for the smallholder sector?

Using the case of two rural villages in Gokwe, Zimbabwe, this study employed both qualitative and quantitative methods to understand the relationship between smallholder farming and non-farm activities in the area since 1990. In particular, the study sought to establish whether population growth, social differentiation, and spatial relocation were associated with a process of de-agrarianisation, given the special circumstances which Zimbabwe went through over this period, including severe economic instability, climate variability and political crisis.

## **1.2 Statement of the problem**

The polarisation of ideology between the de-agrarianisation hypothesis and 'neo-liberal agricultural optimism' has provided two extreme perspectives from which policy makers may approach rural development in Africa. For example, Bryceson's concept of de-agrarianisation conveys the idea that smallholder agriculture is dwindling in significance for rural livelihoods; on the other hand, the neo-classical agrarian optimists view smallholder agriculture as the springboard for the rural economy. Of much concern is the continuation of current policy formulations along the neo-liberal path, especially the policies of the International Monetary Fund and the World Bank.

Contemporary Zimbabwe presents an opportunity for a multi-disciplinary study of the relationship between smallholder farming and rural development under special circumstances, namely severe macro-economic instability. In other words, the current situation in Zimbabwe presents an opportunity to look at Bryceson's de-agrarianisation hypothesis in different circumstances. If in 'normal circumstances' rural dwellers branch out more and more into non-farm activities and thus both take advantage of, and contribute to, the diversification and development of the economy, then where the development of the economy is halted or stressed

by external factors (in this case, severe macro-economic mismanagement), we might expect to see a re-emphasis on farming, i.e. 're-agrarianisation'. On the other hand, some of the features of Zimbabwe's recent economic landscape mirror the pressures that earlier promoted de-agrarianisation; for example, the Structural Adjustment Programme of the early 1990s arguably had an effect on reducing state support to farmers in a manner similar to the macro-economic crisis 10 years later.

### **1.3 General objective**

The aim of this study is to deepen our understanding of the relationship between the farming environment, farming activities, and non-farm activities in a rural area of Zimbabwe, namely Gokwe-Kabiyuni, over the period 1990-2008, and establish how it relates to Bryceson's de-agrarianisation hypothesis. The hypothesis to be explored is that the changing farming environment (not physical only) has exerted contradictory pressures on rural households in the Gokwe-Kabiyuni area, of which some have the effect of advancing the process of de-agrarianisation, and others have the effect of reversing it.

### **1.4 Specific objectives**

- (i) To establish the impact of the physical environmental trends on smallholder farming in Gokwe-Kabiyuni from 1990 to 2008.
- (ii) To assess the implications of the changes in the policy environment in Zimbabwe from 1990 to 2008.
- (iii) To examine how smallholder farmers in Gokwe-Kabiyuni adapted to physical environmental trends and policy shifts.
- (iv) To relate the experiences of smallholder farmers in Gokwe-Kabiyuni from 1990 to 2008 to the de-agrarianisation thesis.

## **1.5 Research questions**

- (i) What changes in the farming environment have smallholder farmers experienced since 1990?
- (ii) What changes can be noted in their occupation and livelihood portfolios, in relation to trends in the farming environment and broader economic environment?
- (iii) What is the relationship between the non-farm activities and farming activities in the area, and how has this relationship evolved over time?

## **1.6 Justification for the study**

Bryceson's (1997) de-agrarianisation hypothesis has stimulated debate and further research around the contribution of smallholder agriculture to rural livelihoods and rural development on the African continent, especially by economists. The basic observation on which her concept and conclusion are drawn is that although there is fluidity in the use of agriculture as a source of livelihood both in rural areas and in urban areas, there is a general shift from farming-based livelihoods to non-agricultural activities on the African continent. It is in this context that she attacks the neo-liberal orientation of contemporary development policy which is still optimistic about the agrarian growth path. Her question is whether or not it still makes sense to rely on liberal agricultural policy prescriptions when the African continent is experiencing a shift in agricultural orientation.

Recent studies in the area have tried to answer this question. For example, the literature on de-agrarianisation (presented in Chapter 3) illustrates the real-world complexity of the process.

Current research findings cannot draw policy conclusions to completely answer Bryceson's question – whether it still makes sense to follow the agrarian optimistic approach to rural development in Sub-Saharan Africa. There is still need for further research in various localities. Besides, the conceptual frameworks that have been used by some researchers leave out some important concepts like the implication of opening up new opportunities in agriculture, for example land redistribution, development of irrigation infrastructure, conservation agriculture

and input and produce market reforms, which can assist in understanding the behaviour of smallholder farmers in response to the changing environment. An omission of an analysis of the relationship between farm activities, non-farm activities and off-farm activities was also made by Bryceson and other related scholars like Yaro 1999. However, Estudillo and Otsuka (1999), Mohapatra et al. (2005) observed a symbiotic relationship between farm activities and non-farm activities, together with off-farm activities.

Non-farm activities can be defined as those activities which are carried out to generate income but are not directly related to farming, for example selling water, whereas off-farm activities are related to farming but do not constitute the main farm activity, for example gardening. This is crucial for assessing the role of smallholder farming in such diversification efforts if appropriate policy directions are to be recommended.

This study adopts a comprehensive multi-disciplinary conceptual framework, which includes climatic, economic and socio-political processes that influence smallholder farmers' behaviour in decision-making. The concepts are drawn from a couple of theoretical propositions that include Marxist theory, economic models and the de-agrarianisation hypothesis. The idea is to avoid a parochial investigation and analysis of data, which does not capture social processes, power struggles, accumulation and economic incentive and disincentive mechanisms within the boundaries of peasant farming and rural diversification. Above all, Zimbabwe presents a special case in terms of its political economy and a special re-orientation of the economy to an agro-based economy which provides a special opportunity to test Bryceson's hypothesis under special circumstances.

## **1.7 Dissertation outline**

The dissertation is organized as follows:

### ***Chapter 1: Introduction***

This is the introductory chapter which demarcates the scope of the dissertation by explaining the key words in the title. The chapter presents the problem for which this dissertation sought to provide solutions. The main objective and specific objectives of the dissertation are also presented. The chapter also explains why this dissertation was worth undertaking by summarising the dark and grey areas related to the de-agrarianisation of rural livelihoods in Africa as a theoretical or hypothetical explanation of smallholder farmers' responses to the farming environment.



### ***Chapter 2: Conceptual Framework and Literature Review***

The concepts which guided this study are presented in this chapter. Firstly the chapter lays down six theoretical arguments which relate to the Marxist theory, the GKI perspective, the de-agrarianisation hypothesis, economic theory and systems theory and relates them to smallholder activities. Although all the theoretical arguments mentioned above are used to generate concepts for study, the main theoretical framework which was observed was the de-agrarianisation hypothesis. Secondly, it presents in a discursive approach, recent studies related to the responses of smallholder farmers to environmental dynamics. The knowledge gap which motivated the researcher to undertake this study is also demonstrated.

### ***Chapter 3: Background to The Study***

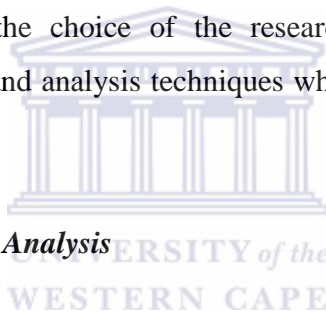
The background of Gokwe-Kabiyuni and Zimbabwe in general is outlined in this chapter. Issues related to the history of smallholder agriculture – physical, economic, social and political – are the building blocks of this chapter. The Chapter is crucial in that it explains the attributes of the



study area. By so doing, it helps to demonstrate the features and experiences of the farmers in the area which form the basis for using it in the ongoing debates explained in chapter one and two.

#### ***Chapter 4: Research Methodology***

This chapter outlines the research strategy for this dissertation. Firstly it summarises the data requirements of the dissertation from an analysis of the research problem and research objectives outlined in chapter one. Secondly it explains the stages which were followed in selecting the sample. Attention was put on the adequacy of the sample in representing various types of smallholder farmers which are found in the study area. Thirdly, it explains the data gathering techniques and the rationale behind the use of specific techniques which were used. The appropriateness of these techniques in relation to the data requirements of the research objectives was the main consideration in the choice of the research techniques. Lastly the chapter summarises the data presentation and analysis techniques which were used to draw meaning out of the field data gathered.



#### ***Chapter 5: Data Presentation and Analysis***

The research findings are presented and analysed in this chapter. It details the characteristics of the respondents, the environmental data (physical, social, economic and political) of the study area, smallholder farmers' experiences. The chapter engages in a discussion of the meaning of the data gathered and discusses how the data relates to the theoretical frameworks and previous research findings presented in chapter two. The overall argument of the dissertation is presented in this chapter.

#### ***Chapter 6: Conclusions and Recommendations***

Chapter 6 summarises the dissertation and explains the implications of the research findings to policy. It ends by listing possible ideas which can be adopted by policy makers in rural development.

## **CHAPTER 2: CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW**

### **2.1 Introduction**

This chapter presents the concepts that guided the study. It is structured into three sections. Firstly, it presents the theoretical body of knowledge that has developed to explain the role of smallholder farming in rural development. This is followed by a review of past studies and their methodologies. The literature review adopts a discursive approach in a way unearthing what is still unclear and/or what has been ignored in previous studies.

### **2.2 Conceptual framework**

The objective of this section is to review the theoretical body of knowledge that has been developed to understand the notion of the peasantry and rural livelihoods. Since the study adopts a holistic (multi-disciplinary approach) to the analysis of smallholder farmers and rural livelihoods, Marxist theories, the GKI inverse relationship hypothesis (Griffin et al 2002) and the de-agrarianisation hypothesis (Bryceson 1997) are briefly discussed to provide a yardstick for constructing the conceptual framework and review of past studies, observation and analysis of smallholder farmers' behaviour in relation to changes in the farming environment.

#### ***2.2.1 The Marxist approach***

Marx, in his famous influential volume, *Capital*, first published in 1867, viewed development as a schematic transition from pre-capitalist modes of production through primitive accumulation – which creates a condition of market dependence – to a capitalist mode of agricultural production which creates conditions for growth and productivity of land and labour through technical innovation and new forms of exploitation. Capitalist agriculture and Petty Commodity Production (PCP) become the major drivers towards increased agricultural productivity (Bernstein 1994). According to him, this generates a surplus crucial for industrial accumulation.

Subsequently economic growth is realised, which creates a precondition for socialism, i.e. an egalitarian condition characterized by the re-appropriation of resources. The transition from a pre-capitalist mode of production is demonstrated by the formation (over time) of classes or at least class places (Neocosmos 1986), that exemplify a new capitalist social relation: capitalist landed property, agrarian capital and proletarian agrarian labour' (Bernstein 2004). The simplest formulation by Marx (observed from the industrialisation of Britain) is that the first stage is Feudalism, where the feudal lord/feudal tenant formed the dominant class structure. Changes in the countryside were stimulated by the political transition-dispossession of the monarchy to democracy. This created a condition where more successful commercial farmers (usually those who were previously feudal lords) assimilated the less successful peasants (tenant capitalist farmers) as wage labour. This exploitation of labour led to increased production and with the help of trade by merchants, led to the transformation of Britain into an industrial nation. Variations to this formulation have been given after the study of transformations in Germany, the United States of America (Lenin 1973), France, Japan and Taiwan. Their detail is outside the scope of this dissertation, suffice it to say that class formation and new class relations are central in explaining the transformation of pre-capitalist relations in these states.

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What becomes apparent is that the Marxist agrarian question is the question of capital (Bernstein 2006). This first impression brought in by the Marxist tradition has stimulated much debate as it implies that, once capitalist agriculture is achieved, there is no need for further adjustment in the land ownership and agrarian structure. This assertion is questionable in post-colonial states like Zimbabwe who have a history of injustices in land ownership. It might not be true that maximum productivity is achieved when capitalistic agriculture is achieved. However, the theory has become an eye-opener to subsequent theorists. Its strength can be established in the concept of class which has been central not only in theoretical perspectives of later 'Marxists' but also in the theoretical formulations of his critics, for example Griffin, Khan and Ikwitz (2002).

In summary, from a Marxist perspective, it can be concluded that development should be viewed within the context of class struggles between the capitalist class and the proletariat over the means of production. In the initial stages in societal development he suggests a gradual process of differentiation through primitive accumulation (mainly in cultivation) which creates classes in

society. The class of capital owns the means of production and the class of labour is dispossessed of the means of production (Bernstein 1994), and left with no option other than to offer wage labour to the capitalist enterprises. Such processes have been observed in South Africa during the apartheid era, leading to structural poverty and inequality which is still a developmental challenge to the post independence government (see Wolpe 1972). Both Marx and the later Marxists suggested that the primitive community gradually starts a capitalist tendency through petty commodity production (PCP). Stronger petty commodity producers start to exploit the weaker until they become reliant on wage labour. In the quest for understanding the dynamics of peasant farming and livelihood strategies in Gokwe, this formulation was one of the most crucial building blocks in the construction of the conceptual map which guided this study.

### ***2.2.2 The inverse relationship between farm size and productivity (the GKI perspective)***

The proponents of this view include Griffin, Khan and Ickowitz (2002). They used Marx's analysis to further observe the role of fragmented factor markets and labour control in perpetuating poverty and vulnerability in the peasantry and later classes of capitalist formations, hence they advocate for the subdivision of large scale commercial farms into small farm units within the auspices of a land redistributive approach to poverty reduction – a paradigm which Byres (2004) called neo-classical neo-populism. Their major argument is that small farm units are more productive as compared to large farm units. Consequently they advocate for the redistribution of large-scale commercial farms into smaller manageable units to improve productivity. The concept of size of landholding was of much interest in this study as it is one of the factors that affect smallholder farmers' decisions with regards to diversification.

### ***2.2.3 The de-agrarianisation hypothesis***

This has been one of the most controversial propositions in the literature on agricultural development. It suggests a gradual shift from farm-based livelihoods to a diversified portfolio of activities (Ellis 2000), which include off-farm and non-farm activities in Sub Saharan Africa. The notable contributor in the formulation of this hypothesis is Bryceson (1997). She defined de-agrarianisation as a: 'long-term process of: (i) Occupational adjustment, (ii) income earning

orientation, (iii) social identification, and (iv) spatial relocation of rural dwellers away from strictly peasant modes of livelihood' Bryceson (1997: 4). In other words the abovementioned four processes are the indicators of de-agrarianisation. The drivers of de-agrarianisation are mentioned in her article as: (i) vagaries of climate, (ii) unfavourable market prices for agricultural produce, (iii) changing access to land, (iv) personal misfortune, (vi) illness and (vii) war.

The basic observation on which her concept and conclusion are drawn is that although there is fluidity in the use of agriculture as a source of livelihood both in rural areas and in urban areas, there is a general shift from farming-based livelihoods to non-agricultural activities. To her, non-agricultural rural employment "refers to the gamut of economic activities that are performed by rural dwellers outside farming and maintenance of rural subsistence needs" (ibid: 5). The consequences of such a shift have been the replacement of public goods with goods provided by the market (for example provision of safe drinking water), a reduction in demand for traditional handcraft products and the emerging and establishment of a local service economy in various rural localities (ibid). It is in this context that she attacks the neo-liberal orientation of contemporary development policy. According to her, rural development strategies that capitalize on farm activities and ignore the gradual shift towards off and non-farm activities are not likely to yield desired results because the poor are shifting their focus from and reducing their commitment to farm-based livelihood activities. Therefore the question Bryceson raises is whether one should still rely on liberal agricultural policy prescriptions when the African continent is experiencing a shift in agricultural orientation.

#### ***2.2.4 Economic theories and models***

On the other hand, there is the neo-liberal school of thought, which seems to provide signposts for contemporary development theory in the African context, for example economic liberalisation policies such as those historically favoured by the World Bank. The principles of such policies have been exemplified in state policies like the Growth, Employment and Redistribution (GEAR) strategy in South Africa. Neo-liberal economists have spent a considerable effort specifying the larger indirect role of agriculture in the economy by examining

the forward and backward linkages between agriculture and other sectors of the economy through input-output analysis (Van Zyl and Vink 1988; Van Seventer, Faux and Van Zyl 1992) and by simulating the impacts of periodic droughts on growth and employment (Pretorius and Smal 1992; Van Seventer et al (1999) These studies have demonstrated the existence of a positive correlation between agricultural production, economic growth and employment, and conclude that agriculture is therefore a *driver* of economic development.

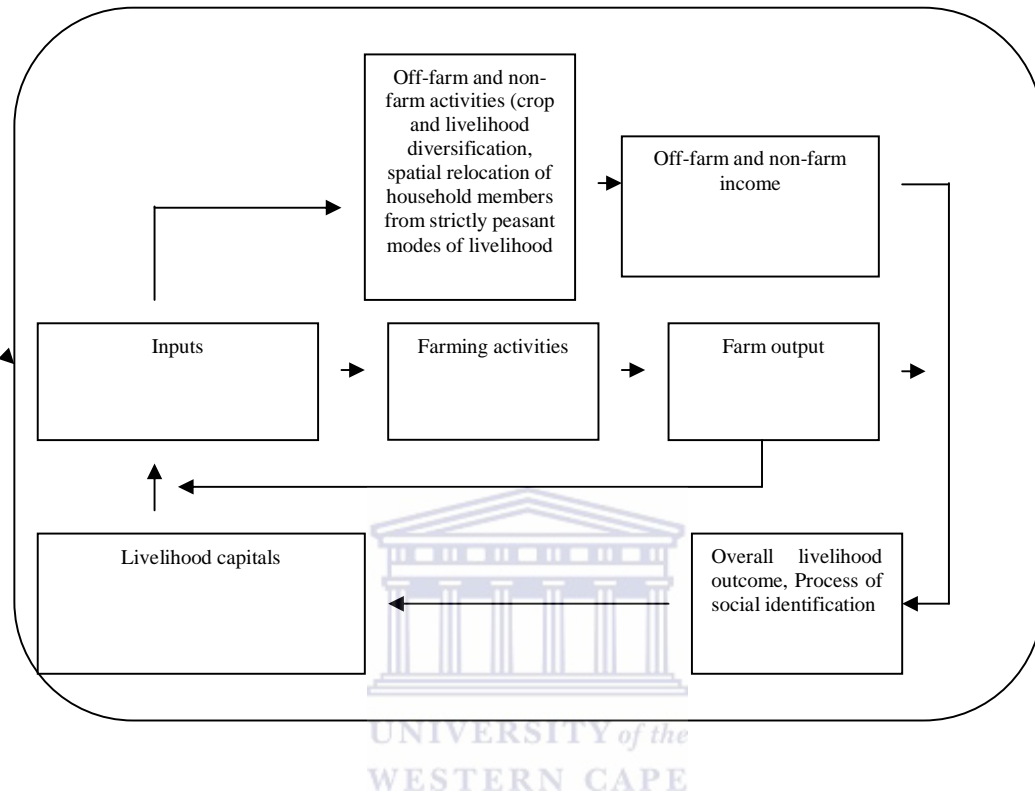
The above studies draw from earlier studies, for example Adam Smith's formulation of the relationship between agriculture and industry and from Marx's use of England as a classic example of primitive accumulation in agriculture and industrialisation. Although economic modellers during the same period assumed a zero marginal productivity of labour (Lewis 1954; Gulliver 1955; Mitchell 1957; Elkan 1960), by the mid 1960s, economic analysts and government policy makers adopted the view that migration from rural areas was depleting agriculture in terms of the labour force (Bryceson 1997). This view tends to corroborate Bryceson's concept of de-agrarianisation since it acknowledges that spatial relocation of people from farm-based activities contributes to a reorientation from farm-based livelihoods. What remains unclear is the actual relationship between the movement of labour into other sectors of the economy and agricultural production, especially in view of linkages in the form of remittances and the supply of inputs to the farming system (see Reardon et al 2006 and Mohapatra et al 2005). The question is whether de-agrarianisation in Bryceson's formulation necessarily reduces agricultural output and its centrality in fostering rural livelihoods in Africa, and if yes under what circumstances? Another question of much interest in this debate is that of the ways in which smallholder farmers adapt to current trends in climate variability and how these efforts impact on the livelihood orientation.

### ***2.2.5 Systems Theory***

In this study farming is viewed in the context of a system with inputs, processes and outputs within a livelihood framework. The following diagram illustrates this:

**Figure 2 (i): Farming as a system within a livelihood framework**

Farm environment (physical, political, economic and social factors)



The above diagram represents farming as a system with inputs, processes and outputs. The system operates within the environment. By environment, the study encompasses the natural, the economic and the social. The main assumption in this formulation is that changes in the farming environment impact on the three stages in the farming system. Farmers therefore adapt to the changing environment in order to cope with it (Lipton et al 1996). Because the system is cyclical, the farmers adjust their input use and their farm processes in response to the changing environment so as to raise output levels and to place the farm in a better position in the subsequent season (Ellis 2000).

In this dissertation, Bryceson’s ideas are related to this systems analysis to establish whether adaptation strategies in Gokwe-Kabiyuni necessarily caused a marked reduction in engagement with peasant modes of livelihoods.

## 2.3 Definition of terms

### 2.3.1 Farm inputs

These are the resources needed in farming and they can be classified in the following way:

- (v) Human Capital – the people who work and provide expertise of the farm.
- (vi) Physical Capital – the farm implements and other hard capital endowments on the farm – this includes land, ploughs, cattle, harrows, yokes etc.
- (vii) Natural capital – climate and weather.
- (viii) Financial capital – money to use on the farm, for example to buy seed and fertilizer.
- (ix) Social capital – these are relational ties that can guarantee access to assistance during times of need.
- (x) Political capital – these are the organisational groupings that necessitate the lobbying for and appropriation of resources at local level.



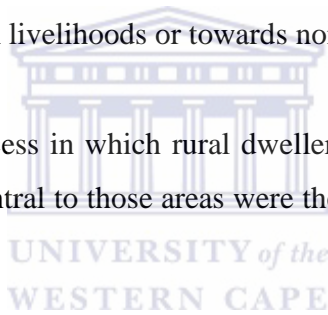
### 2.3.2 Farm Processes

For the purposes of this study, farm processes are not defined in a narrow scientific sense. They include plant biology, economic processes and socio-political processes that occur in a household and in a peasant community, which affect the quantity and value of output. The following concepts are crucial in this regard:

- Contract farming – A system in which farmers are given farming inputs usually by produce marketing companies on loan, the cost of which will be deducted from what will be due to them when they sell their produce
- Conservation agriculture – An adaptation strategy which involves minimum tillage, use of manure and/or fertilizer, and the increasing of the number of crop units per square meter



- Diversification – This is divided into two: (i) Farm activity diversification, which can capture mixed farming; and (ii) ‘Pluriactivity’ (Barrett et al 2004) – engaging in both on-farm and off-farm activities. This involves occupational adjustment of the rural dwellers, income earning orientation and spatial relocation of rural dwellers away from strictly peasant modes of livelihoods (Bryceson 1997).
- Social Identification – The gradual change in how people identify themselves within and among peasant households which impacts on their degree of involvement in peasant activities Bryceson (1997).
- Income earning orientation – This can be defined as the extent to which the household depends on income from a certain livelihood strategy, for example, a household might be oriented more towards farm livelihoods or towards non-farm livelihoods.
- Spatial relocation – A process in which rural dwellers shift from areas in which certain livelihood strategies are central to those areas where they rely basically on different modes of livelihood.



### ***2.3.3 Farm produce***

These are farm products, for example, grain, cotton, milk, meat etc. This term is related to the terms defined below:

- Produce market – The combined effect of demand and supply on the farm produce.
- Surplus – Surplus in this context is the difference between farm produce and what the farmer requires for subsistence.
- Farm income – Farm income is the earnings that are derived from the selling of farm produce.

- Off-farm income – Generally this implies all the income that is derived from activities that are done outside the family farm. This includes therefore piece work done on other people’s landholdings. However for the purposes of comprehensibility, in this study this shall imply farm related income earned not from the household’s farm account (Ellis 2000).
- Non-farm income – Non-farm income relates to all the other income from other activities not directly related to farming for example, informal trading, remittances etc.
- Remittances – This implies money or goods sent to the household concerned, by other people (usually relatives) who are employed in other sectors of the economy, away from peasant the community.



## 2.4 Review of past studies

This section explores recent empirical work that has been carried out in relation to smallholder farmers’ responses to changes in the farming environment to demonstrate the knowledge gap, which this study attempts to close. The concepts used and the techniques employed in gathering and analysing data are reviewed in order to assess the conclusiveness of the studies and the validity of the data. The review captures what has been found on the international platform, zeroing down to the Zimbabwean situation.

Research has proliferated around the concept of the peasantry in Sub-Saharan Africa. The reason for this trend is the perceived centrality of smallholder farming in alleviating poverty and in rural development. Researchers have therefore converged from various disciplines in a bid to provide signposts for poverty alleviation and rural development policy. Such disciplines have included *inter alia* sociology, economics, and geography. Until recently, researchers from these fields have been adopting a parochial disciplinary approach to the understanding of smallholder farmers’ behaviour in relation to the circumstances that they find themselves in. These

researchers have therefore created a platform for debate, based on their conceptualizations of smallholder farming and research findings. Results range from those who are keen to show that changes in the farming environment cause smallholder farmers to lose interest in farming – to gradually reorient their livelihood strategies towards non-farm income (de-agrarianisation), to those which show that smallholder farmers do innovate new strategies to adapt their farming systems and strategies in line with the changing physical, economic and socio-political environment to reduce risk, not necessarily reorienting more towards non-farm activities.

A notable contribution is Bryceson's (1997) de-agrarianisation concept, developed after doing a cross country analysis of census data on population growth and changes in occupation among citizens of rural Sub-Saharan Africa since 1960. For example, she noted that between 1965 and 1989, the percentage of the labour force involved in agriculture dropped from 79.0 to 73.8 in Angola, 86.0 to 74.0 in Cameroon, 61.0 to 59.3 in Ghana and 79.0 to 64.7 in Zimbabwe (see Table 1: African de-agrarianisation indices under the appendices section). Regardless of the limitations of analysis (relying on cross country national level census data), Bryceson is confident to challenge the neo-liberal approach to development that is still optimistic about the agrarian path to rural development. Her argument is that it is no longer logical to keep on relying on the agricultural path to rural development because the continent of Africa is reorienting towards non-agricultural income.

Although there is some sense in Bryceson's proposition, one would wonder whether national level census statistics can support such generalisations. In other words, what happens in various localities still needs attention, especially regarding to the relationship between farm activities and non-farm activities. Such an analysis was attempted by Mohapatra et al. (2005), studying in China. They established that there was a linkage between farm activities and non-farm activities, wherein agricultural produce could be used in non-farm activities and the profit ploughed back to improve agricultural inputs such as seeds and tractors in a cyclical input-output formula alluded to in Figure 2 (i) above. Similar processes were also observed by Estudillo and Otsuka (1999) in the Philippines and by Dione (1989) in Mali.

This leaves one with questions as to how the symbiotic relationship influences the general picture painted by Bryceson's thesis. Another question becomes that on the dynamics of rural occupation. Bryceson seems to assume a unilinear process which might not be accurate. There are occupational dynamics within communities which are induced by changes in the physical, economic and socio-political environment which are crucial in understanding smallholder farmers' behaviour in relation to the environment, if appropriate policy prescriptions are to be provided. This realisation opened a niche for other researchers like Barrett et al. (2005) studying Cote d'Ivoire, Rwanda and Kenya, and Jansen et al. (2006) studying a community in Honduras. These scholars established that diversification is influenced by constraints and opportunities in the communities that they studied. Such opportunities, incentives and constraints include, *inter alia*, the market for agricultural produce, size of landholdings, population pressure, climate and the level of capital endowment (Reardon 2006). Jansen established that households with low propensity to diversify into non-farm activities embarked on labour-intensive systems of farming to manage risk.

The issue of incentives, constraints and opportunities in Sub-Saharan Africa should not just be viewed from a narrow perspective. Africa's colonial background has a very big role in shaping the lives and capabilities of smallholder farmers in Sub-Saharan Africa. Therefore studies which are quick to conclude that smallholder farmers in Sub-Saharan Africa are re-orienting their livelihood portfolios towards non-farm based livelihoods without paying attention to the essential input requirements for smallholder farmers, and analysing how the colonial legacy adopted by post-independence governments influence their behaviour, are not conclusive. The majority of their conceptual frameworks conceal crucial issues in understanding the peasantry. McAllister (2000) asserts that such studies have often undervalued the contribution of agriculture in rural livelihoods by omitting the significance of green produce (for example green mealies, pumpkins, water melons, among others) from the perspective. Researchers from a Pan-Africanist perspective are worth noting in this regard. The following extract about pre-independence South Africa assists in the understanding of the influence of colonial regulations to smallholder farmers' options for survival:

“...The overwhelming economic and political power of the capitalist sector had succeeded, whether through unequal terms of trade or otherwise, in under-developing the African economy so that it no longer presented any significant competitive threat to White farmers. Production in the African Reserves, of a marketable surplus became increasingly rare, finally disappearing altogether. Unlike some other situations elsewhere, therefore, the capitalist sector was unable to extract the (non-existent) surplus product from the African pre-capitalist sector. The relations between the two were, indeed reduced to the provision by the backward sector of a supply of labour power to the capitalist sector” (Wolpe 1972:12).

The implication of this is that even to date the problem of the peasantry not only in South Africa, but in Southern Africa, is still structural. In other words, issues related to landholding and access to the market cannot be overemphasized in understanding the behaviour of smallholder farmers in the Southern African region. This is most likely to be the reason why, to Bryceson’s amazement, the world seems to “turn a blind eye to de-agrarianisation”. Yaro’s (2006) study in northern Ghana throws some weight on this assertion, recommending that de-agrarianisation should be conceptualized as a process embedded in social change, recognising the iteration between farm and non-farm livelihoods. Some interesting observations he made are worth noting here – even the supposedly booming informal sector is not well established in this area, because of marginalization and exclusion of the poor peasantry. Therefore the process of adaptation did not solely imply re-orientation to non-farm activities, but to a greater extent, an intensification of efforts in the farm sector with seasonal diversification into other livelihood activities.

Studying effects of climate variability in the southern part of Zimbabwe from a geographical perspective, Scoones (1996) noted that the community shifted crop choices and adjusted the area planted, and that the benefits from such forms of adaptation accrued more to those with large areas of land. Deane’s (1997) dissertation established the same in Zimbabwe, reiterating that even by making small changes in the proportion of the area devoted to maize or small grains, farm-level productivity in communal areas can be improved because small grains are drought resistant. A later study by Molua (2002) in southern Cameroon observed shifts in planting dates, furrow planting, mixed cropping as methods of adaptation to climate variability in the farm sector.

A recent study by Gwimbi (2009) of cotton farmers' vulnerability to climate change in Gokwe established anomalies in rainfall and temperature patterns which seem to follow the El Niño and Southern Oscillation, and the La Niña episodes. Three dry spells were observed –

1981/82, 1991/92 and 2001/02 – during which the area received below normal rainfall and increased temperatures, resulting in massive reduction in cotton yields. The study also established a long term reduction in rainfall totals particularly for the period after 1980.

To adapt to such changes some farmers switched to drought resistant cotton varieties, others diversified into other crops, and others were timing the planting dates in line with seasonal shifts. A large number thought that it would assist much if irrigation facilities could be provided by the government of Zimbabwe.

Gwimbi (2009) gathered some of the constraints that cotton farmers face in their effort to adapt to these climate dynamics. These have been cited as: (i) lack of access to timely weather forecasts, climate change information and credit facilities necessary for them to undertake water conservation strategies; and (ii) poverty and lack of technology to adapt to climate change.

Scoones', Deane's, Molua and Gwimbi's observations show that if smallholder farmers in Sub-Saharan Africa are supported in terms of land provision, information dissemination and the provision of other requisite capitals, they are more likely to remain oriented towards farm-based livelihoods. It is Yaro's argument therefore that, in as much as the concept of de-agrarianisation has been romanticized by some scholars in contemporary literature on the peasantry, 're-agrarianisation' should also be considered and new conceptual frameworks be built that do not leave out some of the factors of production. Studies should therefore be carried out in various localities if comprehensibility of smallholder farmers' behaviour is to be achieved.

Although neo-liberal economists seem to be on the right track in advocating for the deregulation of the agricultural market to liberate the peasantry from unfair terms of trade in selling their produce, studies by Vink and Kirsten (2000) in South Africa established that market deregulation benefited commercial farmers, but it did not necessarily mean that smallholder farmers enjoyed these gains. Scholars like Freeman and Silim (2001), as well as Heinman (2002), have cited lack

of information, organizational fuzziness (lack of well established groupings for lobbying), and lack of experience with market negotiation as the major constraints in play. Other limitations relate to physical market access like roads, market facilities, power and electricity (Magingxa and Kamara 2003).

Such studies ushered the institutional element into the analysis of the peasantry. The question that remains is the extent to which institutional reform can assist in the improvement of farm-based rural livelihoods, and how it will relate to Bryceson's conclusion? Therefore, in addition to the other applications of the New Institutional Economics (NIE) framework to input market failure, it can as well be argued that the rapid changes in the food and agricultural sector in developing countries after liberalisation and government devolution require that contemporary researchers include ideas in the NIE (Magingxa and Kamara 2003).



## **CHAPTER 3: BACKGROUND TO THE STUDY**

### **3.1 Introduction**

This chapter traces the history of Zimbabwe's land and agrarian policy in general since 1890. It also traces the background to the resettlements in Gokwe-Kabiyuni so as to explain the roots of some special circumstances which necessitated the testing of the de-agrarianisation thesis and its reverse. Attention is put on the dynamics of the regulatory and policy frameworks and how they impacted on smallholder farming within the context of a changing physical and policy environment.

### **3.2 Background to Zimbabwe's agrarian policy**

#### ***3.2.1 Zimbabwe under company rule***

By the time of colonization by the British South Africa Company in 1890, white settlers found traditional agriculture dating back some 2000 years (Kosim 1977), albeit mixed with hunting and gathering. The pre-Rhodesian society practiced livestock production and also produced a wide variety of crops and fruits, and engaged in barter trade (Kosim 1977).

This society was devoid of class in the Marxist sense, although one may suggest the existence of rich and poor peasants. It is also true that in some localities like the south-western part of what is now Matabeleland Province, hunting and gathering was the sole livelihood strategy among the Kalanga, the Khoi-Khoi and the San people. In short, before colonization, Zimbabwe was a primitive communalist territory. After the defeat of the pre-colonial Zimbabweans by the settlers in the 1890s, an order in council was passed in 1898, which led to the creation of black native reserves in the drier, less favoured areas, the implementation of which was the responsibility of the native commissioners (Rukuni 2006). Although the order had some provisions to ensure that Zimbabweans had access to adequate land for cultivation, grazing and water, these provisions ignored as shall be seen in the following sections of this chapter.



By 1907, it was clear that the white agricultural policy promoted commercial farming through reliance on imported seed for maize, tobacco, wheat, sorghum, groundnuts and sunflower (Arrighi 1967). The capacity of the white commercial farmers to capitalize their agricultural production was enabled by the establishment of the Land Bank in 1912 Arrighi (1967). The growth in demand for land among the white community led to the 1914 Native reserves commission, which allocated the better parts of the native reserves to white settlers. As the white commercial farms were established, they demanded labour from the black reserve areas which in the early years was not forthcoming. This led to forced labour (*chibharo*) and in some cases taxes were imposed so as to force blacks to become wage labourers. Forced labour was also used to facilitate commodity production. It is also crucial to note that demand for labour was not only from commercial farms but from the mines as well.

From the economic relations explained above, one observes the emergence of classes. For example, the white commercial farmers and miners constituted the bourgeoisie while the labourers on the farms and mines became the proletariat, albeit not in their pure form. In most cases they were seasonal and/or casual workers who had some land for cultivation in the reserves, a process which Cordell et al. termed '...a combination of hoe and wage' (1996, cited by Bernstein 2004:211). This class of the proletariat is called the worker peasant class (Bernstein *ibid*). Those who depended on wages and did not own land in the reserves became the proletariat in their pure form.

### ***3.2.2 Agricultural policy under self-governing rule***

The structure of the current agricultural industry in Zimbabwe was shaped during the forty years of self-governing rule from 1924 to 1965 (Rukuni 2006). The most influential events in the shaping of current debates in the land and agrarian system of Zimbabwe were: (i) the 1930 Land Apportionment Act, which formalized the already existing dual economy; (ii) the setting of a 50% subsidy of input costs and a free technical support program for all white commercial farmers in 1935; (iii) the 1939 declaration that agriculture was a controlled industry which formalized differential pricing of agricultural commodities depending on whether it was produced by white commercial farmers or black native peasants; (iv) the control of the

agricultural industry was facilitated by the establishment of parastatals such as the Grain Marketing Board (GMB), Cold Storage Commission (CSC), among others; (v) the establishment of the Land Settlement Board in 1945 which sought to settle ex-servicemen returned from the Second World War; (vi) the passage of the Land Husbandry Act, which enforced private land ownership among the white population and regulated stocking rates among the black native farmers, and which also led to the establishment of the Tribal Trust Lands (TTLs), formally native reserves (Beach 1977).

One of the significant events of much interest in this dissertation is the emergence of black commercial farmers and the stratification of the peasantry into rich, middle and poor peasants, especially during the Federal Government from 1953 when smallholder farmers were encouraged to grow crops such as cotton. Cheater's 1984 study of smallholder production in the Musengezi area demonstrated how black farmers exploited themselves as petty commodity producers. She noted that a class of rich black peasants emerged among members of the *vapostori* religious sect because the men were polygamous and had many children, the majority of whom did not go to school, concentrating on the smallholder farm. Because of abundant labour from their wives and children, they managed to produce much surplus which enabled them to buy more farm implements and other farm inputs. (See also Cousins et al 1992.)

By this time the main urban areas, especially Harare and Bulawayo, had been significantly industrialised and were demanding labour. In the period before the federal government, the proletariat was completely constituted by worker peasants. The formation of the federal government led to the recruitment of labour from Northern Rhodesia and Nyasaland (now Zambia and Malawi, respectively) to work in commercial farms and mines (Bernstein 2004). These people formed a purely proletarian class, free of the means of production. They did not have pieces of land for cultivation and they completely depended on wage labour. This class further grew during the time of the Unilateral Declaration of Independence from 1965 because of the then Prime Minister Ian Smith's import substitution policy under sanctions by Britain. The import substitution policy encouraged the growing of cash crops to supply the local manufacturing industry to such an extent that the purely peasant class disappeared. Consequently, there was an increase in petty commodity production among the smallholder

farmers but still under the dual agricultural structure. However, population pressure in the Tribal Trust lands increased and signs of reduction in productivity due to land shortages and poor farming practices were beginning to be noticed (Bernstein 2004).

### ***3.2.3 The Post Independence Land and Agrarian Experience***

At independence in 1980, Zimbabwe's land and agrarian question was deeply rooted in inequitable and segregatory capitalistic tendencies elaborated in subsequent sections in this dissertation. The Land Policy Papers – “Intensive Resettlement Policies and Procedures” of 1980, 1983, and 1990 – are the major land policy documents that directed the post independence agrarian experience in Zimbabwe. Within the auspices of these policies, the government embarked on a redistributive land reform programme through the willing buyer - willing seller approach. An argument was however generated which questioned the desirability of the resettlement model because of fear that it would disturb production in the white commercial farms (Sachikonye 2003). This strand of debate generated a lot of support from the influential Commercial Farmers Union (CFU) and also from multilateral institutions (Kinsey 1999).

The government heeded to this call and avoided more radical approaches to land reform. It therefore focused attention on other elements of agrarian reform, for example agricultural research and extension, credit, development of irrigation schemes, and social production infrastructure. When these facilities were extended to smallholder farmers around 1985, it boosted production and for the first time smallholder agricultural output outstripped the commercial agricultural output (mainly in grains like maize and sorghum) (Chatora 2003). Smallholder agriculture was also recognized by the market for agricultural products, evidenced by the establishment of collection depots of agricultural marketing boards such as the Grain Marketing Board (GMB) and the Cotton Marketing Board (CMB) in the countryside.

Another strand of the policy debate emerged pertaining to the desirability of tenure reform in resettlement land holdings. However, the government has been reluctant to intertwine land redistribution with tenure reform.

In the year 2000, there was a new twist in land policy and political debates because of the polarisation of the relationship between the then ruling party – Zimbabwe African National Union Patriotic Front (ZANU PF) – and the white commercial farmers. This relationship emanated from the failure of the 1998 donor conference which was organised to raise funds for land reform. Issues of neo-colonialism became central in shaping the subsequent approaches to land and agrarian reform, especially the Fast Track Land Reform Programme under which ZANU PF, with the assistance of the Zimbabwe Liberation War Veterans Association, embarked on a violent compulsory acquisition of land which saw most remaining white commercial farmers being disenfranchised of their landed property. On the other hand the white commercial farmers, the Movement for Democratic change (the main opposition party) and civil society shunned this policy stance, mainly on the premise that it disturbed productivity and destabilized the economy.

### **3.3 The Gokwe-Kabiyuni Area**

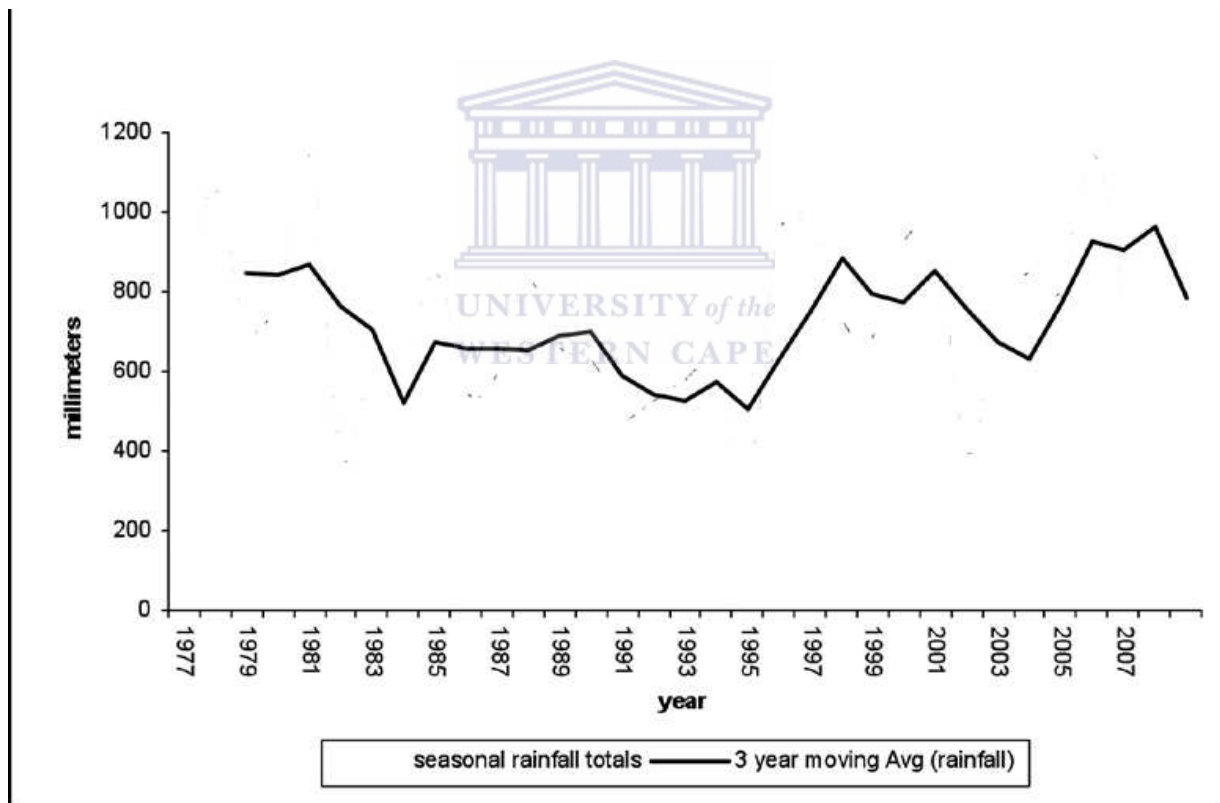
There have been notable changes in rainfall patterns in Zimbabwe at large. For example, Unganai (1996) noted a 10% reduction in average precipitation in the October to April season from 1900 to 1994.

The Gokwe-Kabiyuni area is one of the four parliamentary constituencies located in the midlands province to the south-west of Harare. The constituency is characterized by both medium and very low rainfall. One part of the area falls in natural farming region 3 while the other part falls in region 4 of Zimbabwe. Historically, it is a thinly populated area where people have been resettled in the 1990s from other areas like Mberengwa, Zvishavane and Zaka, among others, to relieve pressure on land in such areas. The area falls within the Communal Areas (formerly Tribal Trust Lands) and, as the name suggests, it is communally managed. However, the word communal here does not denote collective management. Land is vested in the president but traditionally managed by Chiefs, Headmen, and Village Heads who allocate plots to families who in turn share grazing land. A greater part of the area contains deep fertile soils suitable for cotton and maize production, along with livestock rearing.

### 3.3.1 Physical environmental trends

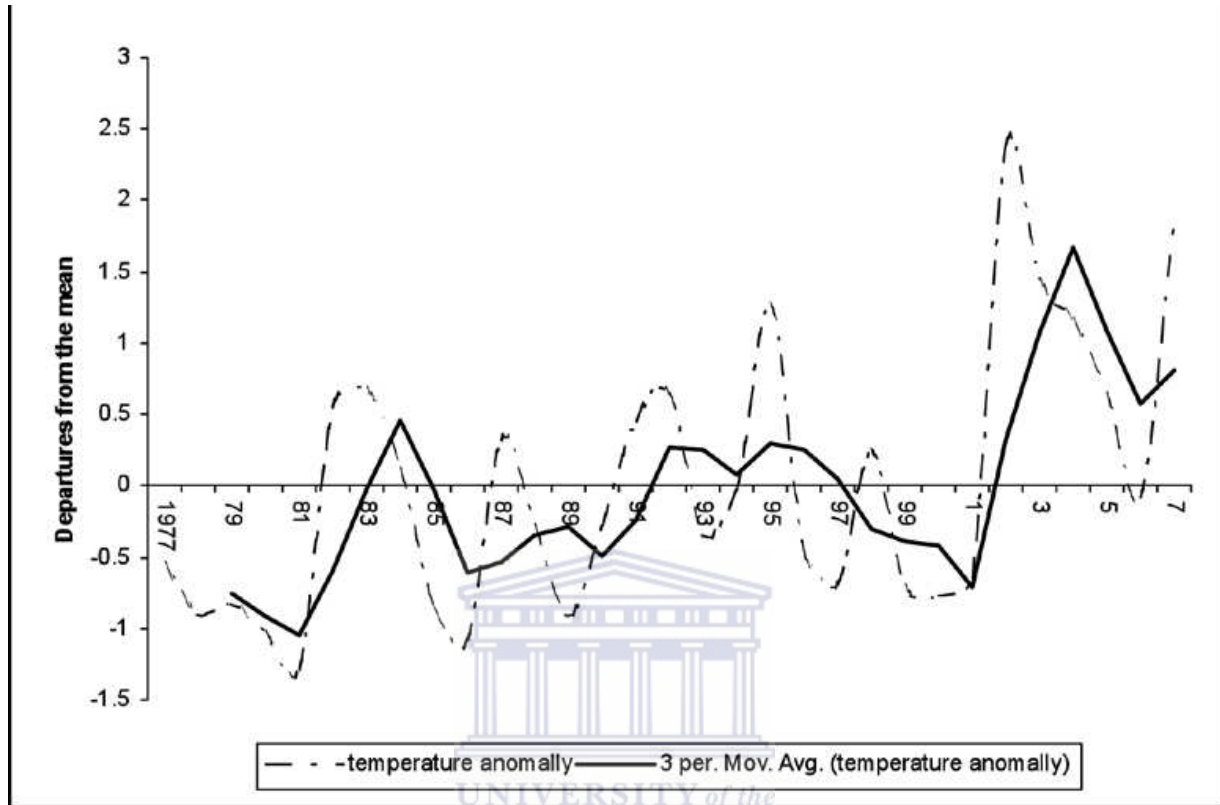
The area has experienced a marked change in climate, evidenced by the shifting of the rainy season from October to March during the period before 2000, to December to April currently. During the current rainy season, rainfall averages are no longer distributed in a crop-friendly fashion, resulting in dry spells and floods within the same season (field data, 2009). Temperatures have also increased such that crops such as maize are exposed to harsh conditions which compromise their production. The following two graphs summarise climate information for Gokwe district:

**Figure 3(i): Rainfall trends for Gokwe from 1977- 2007 extracted from Gwimbi (2009)**



Source: Zimbabwe Department of Meteorological Services, cited by Gwimbi (2009)

**Figure 3 (ii): Temperature averages for Gokwe District, extracted from Gwimbi (2009)**



Source: Zimbabwe Department of Meteorological Services, cited by Gwimbi (2009)

### ***3.3.2 The political landscape***

From 1990 to 2008, the Gokwe-Kabiyuni area was under the ruling party leadership (Zimbabwe African National Union Patriotic Front)-ZANU-PF. Development programmes were implemented through local government with the assistance of councillors who represented partitions of the area (wards) in the District Development Committee responsible for the execution of co-coordinated development in the whole district (field data, 2009). This committee coordinated development by line ministries and Non Governmental Organisations (NGOS). Through this arrangement, the area studied received assistance in the form of seeds, pesticides, insecticides, and animal drugs, among others, between 1990 and 2000. After 2000, when the government had adopted the controversial Fast Track Land Resettlement

Programme and inflation increased, the government of Zimbabwe was double-bound. On the one hand the fiscus was strained to such an extent that the government was no longer able to fund the bulk of development programmes, especially in marginal communities like Gokwe-Kabiyuni; on the other hand NGOs which operated in the area either downsized their operations or withdrew their assistance. According to one key informant, this resulted in the stopping of tsetse sprays and replacement of tsetse traps, which had been done routinely before 2000 to reduce the impact of tsetse on livestock. As a result the mortality rate of livestock increased as shown in the tables with socio-economic data for each household studied in chapter 5. The following pictures show the tsetse fly traps which were put by the government which are no longer replaced and some of the cattle in the area affected:



**Figure 3 (iii): Tsetse fly traps**



Source: field data, 2009

**Figure 3 (iv): Cattle affected by tsetse fly**



Source: field data, 2009



**Figure 3 (v): A calf affected by tsetse fly**



Source: field data, 2009

### ***3.3.3 The economic environment***

The economic environment in which the smallholder farmers cultivate and market their produce can better be understood by referring to the background of the Zimbabwean economy since 1990. In 1990 the government adopted the Economic Structural Adjustment Program (ESAP) which deregulated the market and liberalized the exchange rate (UNDP 2000). From 1995, the Government of Zimbabwe passed another economic policy – the Zimbabwe Programme for Recovery and Social Transformation (ZIMPREST) – which was almost an extension of ESAP due to its orientation towards market deregulation and liberalization of the market, but with a special modification biased towards social development, since ESAP had failed to improve the lives of the people (UNDP 2000). After ZIMPREST, the government passed three other policies: the National Economic Recovery Programme (NERP) in 1998; the Millennium Economic Recovery Programme (MERP) in 2000; and the National Development Priority Programme

(NDPP) in 2002. Throughout all these policy regimes market structures for smallholder farmers were distorted and monopolized by the state marketing boards, especially for maize and groundnuts. Because of this monopoly and control of prices for these crops, farmers interviewed did not realize the actual market value for their agricultural produce. This incapacitated them and placed them in a cycle in which they could not procure adequate inputs for the succeeding season. This situation compelled them somehow, to be involved in contract farming with the marketing boards and private companies operating in the area (field data, 2009), like the Grain Marketing Board, the Cotton Company of Zimbabwe and Olam Cotton. On the other hand, 5 out of 8 farmers indicated that they used non-farm income to buy some of the inputs required, resembling the same process observed by other studies (Dione 1989, Estudillo and Otsuka 1999, and Mohapatra 2005). The picture below shows some members of one of the villages studied gathering for registration to be considered for inputs within the framework of contract farming:

**Figure 3(vi): Village members gathered to register for cotton inputs to an Olam Cotton company representative**



Source: field data, 2009

All the farmers interviewed faced major inflation challenges during the period from 2002 to 2008. The following official statistics indicate inflation data in Zimbabwe since 1990:

**Table 3(i): Zimbabwe Inflation Statistics (1990-2008)**

Year	Percentage Inflation
1990	17
1991	48
1992	42
1993	28
1994	25
1995	23
1996	22
1997	20
1998	48
1999	58
2000	56
2001	112
2002	199
2003	599
2004	132
2005	586
2006	1281
2007	66 212
2008	231 million

Source: UN-HABITAT 2009

However, events on the parallel market indicated a different perspective: in the earlier years of the period, the Zimbabwean dollar lost value almost daily, while towards 2008 the loss was hourly (*The Standard*, 16-23 November 2008). The following analysis of farm income and off-farm income uses US\$ values after the 2009 dollarisation of the country's economy, notwithstanding various economic dynamics that characterized the economy during this period. In other words, the quantitative analysis only captures the potential incomes in values assuming the same value of the dollar over the period, while the qualitative analysis captures the challenges brought by the economic dynamics over the period. The main reason is that the Zimbabwean dollar went through various stages of currency reform and sometimes the denominations became so large such that to establish the values of farm and non-farm income

using it as the basis for computation might be problematic and even more confusing due to dual exchange rates which prevailed (the formal rate and the black market rate).



## **CHAPTER 4: RESEARCH METHODOLOGY**

### **4.1 Introduction**

This chapter outlines the research strategy which was used to gather the necessary data for the study. Since the study was mainly focused on smallholder farmers' experiences in a changing farming environment, it was both qualitative and quantitative in nature. In other words the study relied both on qualitative and quantitative data on socio-economic characteristics of selected households.

### **4.2 Data requirements**

The study sought data on people's experiences with the farming environment in Gokwe since 1990 and the ways in which they adapted to the perceived trends. Therefore the collection of data pertaining to their strategies in farming and outside farming also constituted a significant part of the study aim. In this regard a historical exploration of the dynamics of farming systems and livelihood portfolios was crucial.



A broader conceptualisation of the environment to include natural, economic, social and political elements means data on climatic trends, economic trends, social trends and political trends broadened the scope of this study. Rainfall and seasonal patterns, together with natural resource endowment, constituted the natural component of the farming environment, while data on physical infrastructure and economic policy trends (especially with regards to input and produce markets) explained the economic element of the farming environment. On social trends, data on cultural and behavioural perceptions, including relational ties throughout the period, were sought. Finally, the organizational infrastructure that coordinates economic development activities constituted the political element of the farming environment.

Within the farming environment, farming systems and strategies that smallholder farmers use and their occupation over the period under investigation, were also crucial building blocks for understanding their behaviour in relation to the farming environment. On the other hand their

assets, incomes and wages (livelihood portfolios) were central in this study, especially how the livelihood portfolios have been adjusted and readjusted in relation to the farming environmental trends. Population dynamics were also captured and an establishment of their link with the above-mentioned adjustments was carried out.

### **4.3 Sampling procedure**

Two villages were purposefully selected from the list of villages in the Gokwe-Kabiyuni area, namely Nyoni village and Maringa 1 village. The main reason for choosing this area was its history of intensified smallholder farming. In this regard the researcher wanted to observe the applicability of the de-agrarianisation thinking in such communities which have a long history of dependency on smallholder farming. A list of village households was requested from both village heads. With the assistance of the village heads and other informants, a sub-list of households and their years of establishment was constructed and stratified according to the time of establishment in the area. Two strata were constructed, one with households which were established before 2000 and another with households established after 2000. The households for analysis were chosen mainly from the first stratum, in order to establish a detailed picture of what happened within these households during some significant periods in Zimbabwe's politico-economic history.

Nyoni village had a total of 37 households among which 21 were established before 2000. From the 21 households which were established before 2000, 3 households were randomly selected for study while the other two were selected from the stratum of households established after 2000. Maringa 1 village had 17 households, 10 of which were established before 2000. After 2000 these two villages also experienced an exodus of other households into new resettlement areas in Empress near Kwekwe. However, these households were not many – 3 households from Nyoni village and 1 household from Maringa 1 village. The overall trend shows that the two villages grew significantly since 2000. This was a result of the combined effect of newcomer households migrating from other districts and offshoot households derived from established households in the area.

Three households were chosen for study from Maringa 1 village, making a total of 8 households for the study. Choice of narrowness in population coverage (sample fraction) and depth in analysis was made rather than breadth and shallowness. A sample fraction of 14% was the result. Within these households, experiences and perceptions of adults, women and the youth were established through their life histories in order to establish a rich perceptual mix derived from different experiences relating to age and gender.

#### **4.4 Data gathering techniques**

Both qualitative and quantitative methods were used. The specific methods that were used, the type of data that they sought to gather and the respondents are listed below.

##### ***4.4.1 Desktop research***

Textbooks and documentary sources of data were used to establish climatic and policy trends in the area and in Zimbabwe at large. The documentary sources included NGO reports, government reports and research reports. Data on yields were also generated in some instances by referring to vouchers and receipts for selling crop yields, especially of those crops which were sold to established marketing companies like the Grain Marketing Board and the Cotton Marketing Board. NGO reports were also used to review the changes in the Zimbabwean economic environment during the period under investigation.

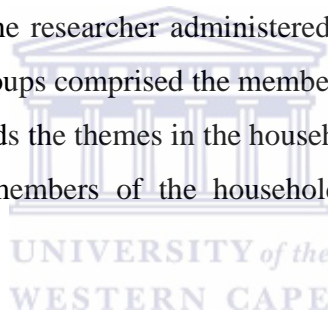
##### ***4.4.2 Interviews***

Unstructured interviews were used in the familiarisation visit to gain understanding of the area in order to map out the strategy for research execution. For example, because the study traced what happened since 1990, there was need to find households which were already established in the area by that year. Such information was gathered through interviews with key informants.

#### **4.4.3 Household Interviews**

A structured interview was developed and administered to the 8 households to gather socio-economic data. Such data included assets possessed, household income, family size, age, level of education, gender, farming inputs and estimated output, size of land holding, distance from service centres, and other infrastructure available.

Because the data required were historical and needed a lot of exploration and recall of past events, household interviews were conducted to complement the household survey. The idea was to improve accuracy by involving many people who went through the same experience so that they could assist each other in exploring their shared past. Each household was first visited and an appointment to meet possibly all the household members present was made. On the second visit to each household is when the researcher administered the questionnaire in the form of a household interview, where the groups comprised the members of the households selected for the questionnaire survey. In other words the themes in the household interviews were revisited in the focus groups, each comprising members of the household to which the questionnaire was administered.



These groups comprised women, men and youth. Since the study was not seeking any sensitive marital data, the researcher saw no harm in combining the different age groups and genders so that they could assist each other in providing the historical data sought by the study. In such a platform respondents were free to share their common experience. This was useful in gathering data on the trends in the farming environment since 1990, asset possession over the years, crop yields, off-farm and non-farm activities and levels of education of household members during specific periods under investigation.

To assist the respondents better explore their past experiences, the researcher highlighted some of the ways they could use, for example starting with the years they had bumper harvests, remembering what they harvested during highly memorable seasons such as: (i) the year when there was a drought (in this case 1992 and 2002), (ii) the year in which national elections were held (in this case 1990, 1995, 2000, 2002, and 2005, (iii) the year when a mother gave birth to a



child, and (iv) the year when a member of the household sat for examinations at school or at college. Data related to these periods were easier to remember first. When the respondents explored data related to other periods closer to these memorable events, it was also easier.

In vivo codes were also used to ascertain whether the data generated was accurate or near accurate, for example there were instances in which the focus group respondents could argue among themselves, making efforts to convince each other by further exploration of other related events. After a respondent was convinced that the colleague was right, he/she would make a big exclamation in agreement with the other respondents saying; '*E-e-eh asi ipapo urikurevesa*', meaning 'yes, on that you are surely correct'. After that consensus the researcher would note that the information was accurate.

#### ***4.4.5 Transect walks***

Transact walks were done along the boundaries of landholdings to verify the information given by the informants on the size of landholdings. Although no accurate measurements of the fields were done, the researcher observed that the information was near accurate. The main reason for this accuracy was that when they came to settle in this area, people's plots were pegged.

### **4.5 Data presentation and analysis techniques**

This section gives a summary of the techniques that were used to generate meaning out of the data obtained from the field. Two techniques were used.

#### ***4.5.1 Manual data analysis***

Data on household yields, asset possession, off-farm and non-farm income, and literacy levels were analysed and presented with the assistance of Microsoft Excel. The data were tabulated and further presented in graphs to give a clear picture of the trends, especially those pertaining to crop yields over the period.

#### 4.5.2 Content analysis

Qualitative data from life histories, documentary sources and focus group discussions were analysed through content analysis. During the interviews, attention was put on the themes that came out of the interview and how much they were stressed by the interviewee (in vivo codes). Body language like facial expressions was also observed to generate meaning on the extent to which certain events affected the smallholder farmers in the area.

#### 4.6 Synopsis

The following table summarises the research questions, data that were required to answer them, methods that were used to gather the data and the respondents to those questions.

**Table 4(i): Table of summary of research methodology**

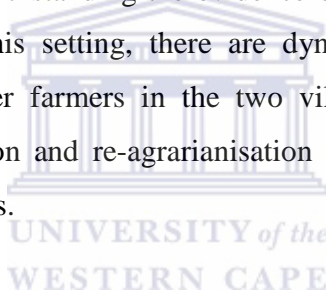
Research question	Data required	Respondents	Data gathering technique	Data analysis technique
What changes in the farming environment have the smallholder farmers experienced since year 1990?	<ul style="list-style-type: none"> <li>-Trends in seasonal variations</li> <li>-Trends in rainfall and temperature patterns</li> <li>-Community values and morals together with the state and magnitude of relational ties</li> <li>-Economic policy especially factor and produce market trends and physical infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>-Household heads &amp; Meteorological Services department</li> <li>-Meteorological Services department &amp; household heads</li> <li>-Household heads, women and children in the village</li> <li>-Documentary sources from Ministry of Finance and reserve Bank of Zimbabwe</li> </ul>	-Interviews	Content analysis
What changes can be noted in their occupation and livelihood portfolios, in relation to trends in the farming environment?	<ul style="list-style-type: none"> <li>-Occupation</li> <li>-income and survival strategies</li> <li>Responses to changes in the farming environment</li> </ul>	Household heads, youths and women	Interviews	Content analysis
What is the relationship between the non-farm activities and farming activities in the area?	<ul style="list-style-type: none"> <li>-The value chain of their farm produce</li> <li>-Farm produce and income expenditure patterns</li> <li>Non-farm income expenditure patterns</li> </ul>	Household heads, youths and women	Interviews and questionnaires	Content analysis



## **CHAPTER 5: DATA PRESENTATION, ANALYSIS AND INTERPRETATION**

### **5.1 Introduction**

This chapter presents the findings from the research and the central interpretations thereof, in the light of the academic and policy debates examined in the previous chapters, especially Chapters 1 and 2. In Chapter 4, it was stated that this study is both qualitative and quantitative, focusing on smallholder farmers' experiences within the farming environment of Gokwe, and how this affected their livelihood orientation. In this regard, the findings include both 'hard data' and 'soft data'. The data reveal the existence of a cultivation culture (in a dual economy order alluded to in Chapter 2) among the smallholder farmers in the two villages studied, which generates resilience (although variable) to the changing farming environment, and innovation, which breeds various adaptation strategies. This is notwithstanding the evidence of changes in both the physical and socio-political environment. In this setting, there are dynamics in the trends of livelihood orientation among the smallholder farmers in the two villages since 1990, revealing some iteration between de-agrarianisation and re-agrarianisation depending on the dynamics of the farming environment over the years.



It is also demonstrated that there is a relationship between smallholder farming and the types of non-farm or off-farm activities that they do in this area. The relationship can be established in the way surplus or profit is used or where the starting capital is derived from and the nature of the activities themselves.

This chapter is structured into 3 substantive sections. The first states the types of respondents observed during fieldwork. The second presents the findings in a discursive way in which the findings are related to the ongoing debates in the subject area and the previously related studies. The third section summarises the findings and presents the overall argument in the dissertation – that de-agrarianisation in Gokwe-Kabiyuni is not evident during years which recorded good crop production levels. With the introduction of conservation agriculture as an adaptation strategy, there has been a general shift towards re-agrarianisation.

## **5.2 Findings**

### ***5.2.1 Introduction***

The respondents in this study were families involved in smallholder farming in the villages of Nyoni and Maringa 1. Agricultural extension workers in the area were also interviewed in relation to their experience with the area. Much of the detail about their profiles is shown in subsequent sections because it forms part of the crucial data for the analysis of the findings

The data presented here was gathered with the view of establishing the relationship between the farming environment, farming activities, and non-farm activities in a rural area of Zimbabwe, namely Gokwe-Kabiyuni, over the period from 1990 to 2008, and establish how it relates to Bryceson's de-agrarianisation hypothesis. The main variables in this study were derived from Bryceson's (1997) drivers of de-agrarianisation in Sub-Saharan Africa (climate change, population growth and policy adjustments). However, as has been indicated in the conceptual map which guided this study, the word environment adopted in this study does not imply climate only, but also includes the political and socio-economic environment. It also takes into consideration the policy environment, party politics, NGO operations, and produce and factor market structure for agriculture.

The following section summarises the smallholder farmers' experience since 1990. The first five households were selected from Nyoni village (about eight kilometres from Chitekete business centre) while the last three were selected from Maringa 1 village (about a kilometre from the business centre). It should be noted that the exact income values from non-farm activities were not captured in the research; however average figures and differential experiences of households were gathered through qualitative methods.

### ***5.2.2 Nyoni village household socio-economic data***

#### ***Household 1***

The following table (Table 5(i)) shows the socio-economic data for the first household studied:



**Table 5(i): Household 1(male-headed) socio-economic data since establishment**

	<b>Household size</b>	<b>Literacy level</b>	<b>Size of landholding</b>	<b>Asset possession</b>	<b>Livestock possession</b>	<b>Appr % land cultivated</b>	<b>Farm outputs</b>	<b>Off-farm activities-contribution</b>	<b>Non-farm activities-contribution</b>	<b>Remittances</b>
<b>2001</b>	3	<Grade Seven	5 acres	-	-	50	100 kgs maize (\$12)	Piecework	Selling water	-
<b>2002</b>	3	<Grade Seven	5 acres	-	-	45	50 kgs maize (\$6)	Piecework	Selling water	-
<b>2003</b>	4	<Grade Seven	5 acres	-	-	62	150 kgs maize (\$18)	Piecework	Selling water	-
<b>2004</b>	4	<Grade Seven	5 acres	-	-	55	150 kgs maize (\$18)	Piecework	Selling water	-
<b>2005</b>	5	<Grade Seven	5 acres	-	-	50	140 kgs maize (\$16,8)	Piecework	Selling water	-
<b>2006</b>	5	<Grade Seven	5 acres	-	-	48	50 kgs maize (\$6)	Piecework	Selling water	-
<b>2007</b>	6	<Grade Seven	5 acres	-	-	60	50 kgs maize (\$6)	Piecework	Selling water	-
<b>2008</b>	6	<Grade Seven	5 acres	-	-	80	450 kgs maize (\$54)	Piecework	Selling water	-

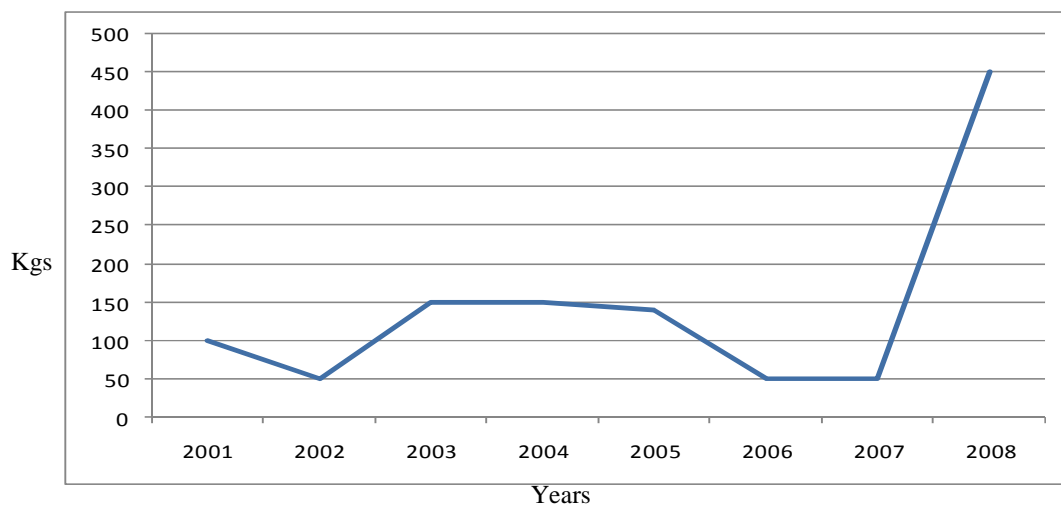
**Legend**

- <Grade seven: attained a level of education below grade seven
- >Grade seven: attained a level of education above grade seven
- Appr % land cultivated: approximate percentage of land cultivated

Source: field data, 2009

Household 1 was established in 2001 and from the table it can be established that the literacy level of all members is very low (below grade seven), the household plot was very small (5 acres only), and the asset possession was nil over the period. Owing to the lack of assets related to cultivation in the fields, the household only managed on average to cultivate 50% of its plot since they relied on hired draught power and/or zero tillage. In 2007 and 2008, there was an increase in the percentage of land cultivated to 60 and 80 respectively because two children who had dropped out of school added on the full time pool of labour for the household. From 2001 to 2003 inflation was beginning to accelerate. This, coupled with the delays by the Grain Marketing Board to pay farmers who sold grain to them, prevented this household from selling its grain to the Grain Marketing Board (GMB). The main reason given for this decision is that as the prices of commodities increased (inflation), the Zimbabwean dollar weakened. Considering the lengthy time lag between the delivery of grain to GMB and the payment it meant that by the time when a farmer would receive his/her payment, it would have lost value. This resulted in the household failing to buy seeds in time and sometimes to fail to buy seeds for the succeeding season. During such seasons, the household relied on untreated maize seed which they selected from their grain on harvesting. As a result the year-on-year production in the fields was very low over the period. Again there was no diversity in crops grown, with maize as the household's only crop. The following graph represents the trends of farm production for the household since 2001:

**Figure 5(i): Household 1's crop production levels**



Source: field data, 2009



From the graph above, it can be observed that farm productivity of household 1 fluctuated over the period, reaching its peak in 2008 (450 kgs) and at its lowest in 2002, 2006, 2007 (50 kgs). Comparing farm productivity to off-farm and non-farm activities' contribution to the overall livelihood, one can conclude that there is a greater percentage of off-farm and non-farm contribution from 2001 to 2007. This is so because farm produce was not adequate to cater for the needs of the household. Off-farm activities were mainly done as piecework in other people's plots (*maricho*) during the rainy season and the harvesting season. According to the family informant, on average the household members could be involved in off-farm activities for an average of once a week, generating an average of US\$8 per day for the period ranging from November to April. Therefore the household generated approximately \$192 per year from piecework in other people's fields. This figure declined for 2008 because the year had good harvests and the household needed to do piecework to get money for petty expenses only since they had harvested adequate grain.

The only non-farm activity which the household was involved in is selling water at the service centre (*Chitekete*), since the borehole water at the service centre was sour because of the presence of coal in the area. On average the household sold water 2 days per week over the period ranging from May to October, raising an average of US\$96 per annum. Therefore if one was to consider crop production levels only, the data suggest a process of de-agrarianisation. However the sharp increase in the harvest in 2008 (mainly because of conservation agriculture) and the consequent dwindling of the share of non-farm and off-farm activities in the overall livelihood portfolio of the household studied might also suggest a process of re-agrarianisation.

The household was involved in off-farm activities and non-farm activities over the period. The picture below shows a woman going to the business centre to sell water:

**Figure 5(ii): A woman heading for the business centre to sell water**



Source: field data, 2009

### ***Household 2***

Household 2 was also established in 2001, but it is a female-headed household with almost zero asset possession over the years. It was only in 2006 and 2007 when it bought a cow and a donkey. The livestock had been bought using money obtained from compensation for the impregnation of the daughter when she was in form 3 in 2004. Because of the low level of asset possession the farm production was very low because of a lower percentage of cultivated land, of which only 2 acres were available in any case. Like household 1 they basically depended on hired draught power and/or zero tillage, save for 2006 and 2007 when they had a cow and a donkey. During these years they combined their livestock with those of their neighbours to form a competent combination of draught livestock (*Chipani*) until the livestock died because of tsetse infection mid 2007. Consequently, their harvest increased in 2007 to 500 kgs of maize. A further increase in the harvest was recorded in 2008 although there was no livestock for draught power, which was attributed to the hiring of more draught power and the buying of enough seed with the assistance of the remittances sent by the household member employed as a temporary teacher.

Table 5(ii) below presents the data for the second household studied:

**Table 5(ii): Household 2 (female-headed) socio-economic data since establishment)**

	Household size	Literacy level	Size of landholding	Asset possession	Livestock possession	% Land cultivated	Farm outputs	Off-farm activities-contribution	Non-farm activities-contribution	Remittances
2001	3	<Grade 7	2 acres	-	-	55	50kgs maize (\$6)	Piecework and gardening	Selling water	-
2002	3	<Grade 7	2 acres	-	-	50	50kgs maize (\$6)	Piecework and gardening	Selling water	-
2003	4	<Grade 7	2 acres	-	-	50	90kgs maize (\$10,80)	Piecework and gardening	Selling water	-
2004	4	3<Grade seven 1 Grade 7	2 acres	-	-	50	80kgs maize (\$9,60)	Piecework and gardening	Selling water	-
2005	5	3<Grade seven 1 Grade 7	2 acres	-	-	60	70kgs maize (\$8,40)	Piecework and gardening	Selling water	-
2006	5	3<Grade seven 1 Grade 7	2 acres	-	1 cow	45	150kgs maize (\$18)	Piecework and gardening	Selling water	-
2007	5	3<Grade seven 1 Form 4	2 acres	-	1 donkey	90	500kgs maize (\$60)	Piecework and gardening	Selling water	Received from daughter - temporary teacher
2008	6	3<Grade seven 1 Form 4	2 acres	-	-	65	550kgs maize (\$66)	Piecework and gardening	Selling water	Received from daughter-temporary teacher

**Legend**

- <Grade seven: attained a level of education below grade seven
- >Grade seven: attained a level of education above grade seven
- Appr % land cultivated: approximate percentage of land cultivated

Source: field data, 2009

The following graph (Figure 5(iii)) illustrates what was happening in the household as far as farm production is concerned:

**Figure 5(iii): Household 2's maize production trends**



Source: field data, 2009

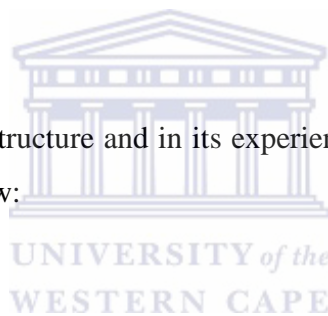
The literacy level is low for other members and average for one member, especially from 2006 to 2007, when she attained a GCE Ordinary level certificate. On this merit the household member managed to secure a temporary teaching opportunity at a nearby primary school which resulted in the sending of remittances of about \$720 per annum to the household in 2007 and 2008.

According to the main informant in the household, the magnitude of piecework which the household was involved in was very small because the only family members who were at home during the majority of the time was the mother and her grandchildren (children to the daughter who later secured employment in 2007). So the labour was very limited and as a result the household was involved in piecework in others' fields for an average of once per fortnight, which generated an average of \$96 per annum. Gardening also contributed to the livelihood portfolio at an average of \$5 per fortnight from April to October every year, giving an average contribution of \$80 per annum. This includes both the market value for sold vegetables and the imputed value for those consumed by the household.

Besides the off-farm activity, the household was also involved in selling water, albeit to a lesser extent than Household 1. This non-farm activity contributed about \$1 per month, giving an average of \$12 per annum. Combining the income which was to be derived from the field harvests, it becomes clear that the household largely relied on off-farm and non-farm income for livelihood. For example, if one adds the off-farm and non-farm income averages per annum (to get \$188 per annum) and compares to the price of agricultural produce on the market (in this case \$22,73/yr on average), one would establish that income from off-farm and non-farm activities is higher by 827% for this household. (Note: the values of both cotton and maize were averaged at \$1.20 per kg and the average weight of one bale of cotton was found to be 210 kgs). Even if one were to take into consideration the value of green produce, the value of farm income was still greatly outweighed by the income from off-farm and non-farm activities.

### ***Household 3***

Household 3 is quite different in structure and in its experience to the previous two households, as summarised in Table 5(iii) below:



**Table 5(iii): Household 3 (male-headed) socio-economic data since establishment**

	Household size	Literacy level	Size of landholding	Asset possession	Livestock possession	Appr % land cultivated	Farm outputs	Off-farm activities-contribution	Non-farm activities-contribution	Remittances
1990	8	3<Grade 7 & 5 Grade 7	25 acres	Plough, scotch cart, harrow	2 cattle, 5 donkeys, >ten goats	50	1400 kgs maize, 11 bales cotton, 150kgs groundnuts	Piecework, gardening	Traditional healing	-
1991	9	3<Grade 7 & 6 Grade 7	25 acres	Plough, scotch cart, harrow	2 cattle, 5 donkeys, >ten goats	50	500kgs maize, 5 bales cotton,	Piecework, gardening	Traditional healing	-
1992	9	3<Grade 7 & 6 Grade 7	25 acres	Plough, scotch cart, harrow	2 cattle, 5 donkeys, >ten goats	50	50kgs groundnuts	Piecework, gardening	Traditional healing	-
1993	9	3<Grade 7 & 6 Grade 7	25 acres	Plough, scotch cart, harrow	2 cattle, 5 donkeys, >ten goats	55	2000kgs maize, 16 bales cotton, 800kgs groundnuts	Piecework, gardening	Traditional healing	-
1994	9	3<Grade 7 & 6 Grade 7	25 acres	Plough, scotch cart, harrow	2 cattle, 5 donkeys, >ten goats	60	300kgs maize, 4 bales cotton, 200kgs groundnuts	Piecework, gardening	Traditional healing	-
1995	9	3<Grade 7 & 6 Grade 7	25 acres	Plough, scotch cart, harrow	5 cattle, 5 donkeys, >ten goats	80	200kgs maize, 3 bales cotton, 100kgs groundnuts	Piecework, gardening	Traditional healing	-
1996	9	3<Grade 7 & 6 Grade 7	25 acres	Plough, scotch cart, harrow	5 cattle, 5 donkeys, >ten goats	75	1200kgs maize, 11 bales cotton, 80kgs groundnuts	Piecework, gardening	Traditional healing	-
1997	9	3<Grade 7 & 6 Grade 7	25 acres	Plough, scotch cart, harrow	3 cattle, 5 donkeys, >ten goats	60	1000kgs maize, 10 bales cotton, 100kgs groundnuts	Piecework, gardening	Traditional healing	-
1998	9	3<Grade 7 & 6 Grade 7	25 acres	Plough, scotch cart, harrow	4 cattle, 5 donkeys, >ten goats	66	2000kgs maize, 16 bales cotton, 110kgs groundnuts	Piecework, gardening	Traditional healing	-
1999	9	3<Grade 7 & 6 Grade 7	25 acres	Plough, scotch cart, harrow	3 cattle, 5 donkeys, >ten goats	78	180kgs maize, 4 bales cotton, 50kgs groundnuts	Piecework, gardening	Traditional healing	-
2000	9	3<Grade 7 & 6 Grade 7	25 acres	Plough, scotch cart, harrow	3 cattle, 5 donkeys, >ten goats	78	180kgs maize, 5 bales cotton, 100kgs groundnuts	Piecework, gardening	Traditional healing	-
2001	7	3<Grade 7 & 4 Grade 7	25 acres	Plough, scotch cart, harrow	3 cattle	50	80kgs maize, 2 bales cotton, 80kgs groundnuts.	Piecework, gardening	Traditional healing	-
2002	7	3<Grade 7 & 4 Grade 7	25 acres	Plough, scotch cart, harrow	3 cattle	50	50kgs maize, 1,5 bales cotton, 20kgs groundnuts	Piecework, gardening	Traditional healing	-

2003	7	3<Grade 7 & 4 Grade 7	25 acres	Plough, scotch cart, harrow	3 cattle	54	100kgs maize, 2 bales cotton, 100kgs groundnuts	Piecework, gardening	Traditional healing	-
2004	7	3<Grade 7 & 4 Grade 7	25 acres	Plough, scotch cart, harrow	3 cattle	55	300kgs maize, 4,5 bales cotton, 1000kgs sorghum, 100kgs groundnuts,	Piecework, gardening	Traditional healing	-
2005	7	3<Grade 7 & 4 Grade 7	25 acres	Plough, scotch cart, harrow	1 cow	45	350kgs maize, 4 bales cotton, 950kgs sorghum, 550kgs groundnuts	Piecework, gardening	Traditional healing	-
2006	6	3<Grade 7 & 3 Grade 7	25 acres	Plough, scotch cart, harrow	7 cattle	78	400kgs maize, 6 bales cotton, 800kgs sorghum, 450kgs groundnuts	Piecework, gardening	Traditional healing	-
2007	6	3<Grade 7 & 4 Grade 7	25 acres	Plough, scotch cart, harrow	7 cattle	78	1000kgs maize, 9 bales cotton, 850kgs sorghum, 300kgs groundnuts	Piecework, gardening	Traditional healing	-
2008	6	3<Grade 7 & 4 Grade 7	25 acres	Plough, scotch cart, harrow	6 cattle	80	2500kgs maize, 12 bales cotton, 1000kgs sorghum, 850kgs groundnuts	Piecework, gardening	Traditional healing	-

**Legend:**

<Grade seven:

attained a level of education below grade seven

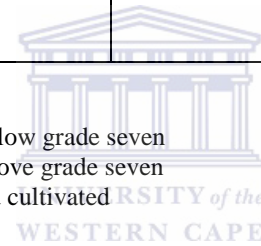
>Grade seven:

attained a level of education above grade seven

Appr % land cultivated:

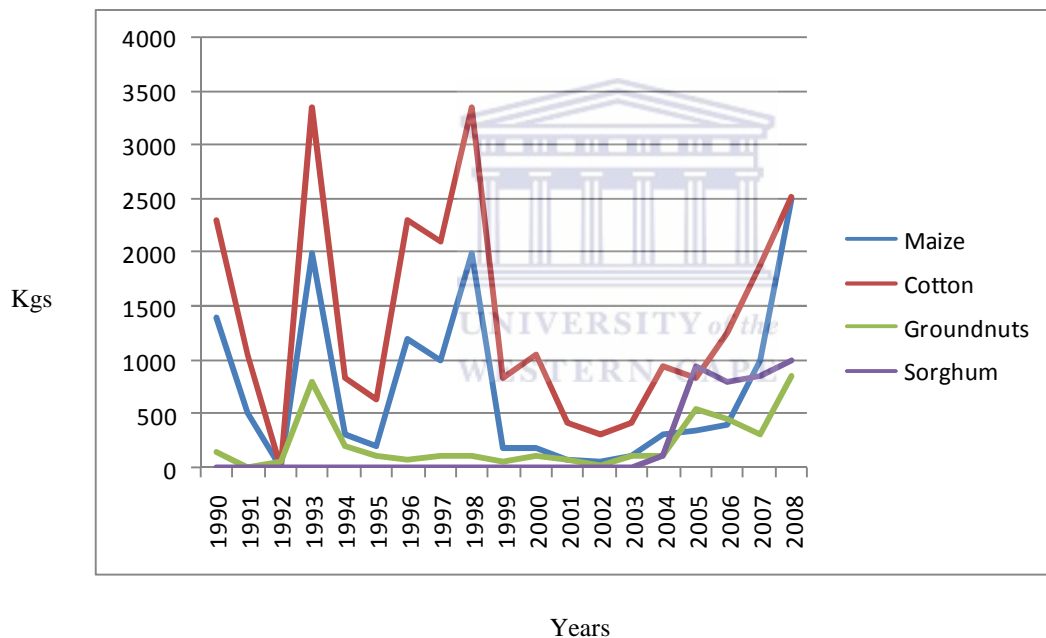
approximate percentage of land cultivated

Source: field data, 2009



The table for Household 3 shows a low literacy rate with all the members having attained at most Grade 7 education. The household was polygamous. In 1990, it consisted of a father, two wives and five children; by 2000 the number of children had increased to six, and then by 2005 had declined to four; and in 2008 to three. In terms of asset possession the household was better placed since it had a plough, scotch cart and harrow since 1990. A fairly good livestock possession trend also characterized the household over the period. The household also had a relatively large plot (25 acres) which it has never been able to completely cultivate despite possession of draught power over the period. The following graph illustrates trends in farm production since 1990.

**Figure 5(iv): Household 3's crop production (kgs)**



Source: field data, 2009

The graph above shows the crops grown by Household 3 during the period from 1990-2008. One can observe that cotton was the main crop grown by the household, followed by maize, groundnuts, and sorghum respectively, reaching their peak in 1993 and 1998, which can be attributed mainly to good rains. The harvests were at their lowest in 1992 and 2002 due to severe droughts. The harvests fluctuated over the years but a notable decrease in overall harvests can be noted between 1999 and 2004, notwithstanding the 1992 levels. It is during these periods when



non-farm income grew in significance compared to farm income, but starting from 2005 there was a gradual increase in the levels of farm harvests. Comparing the contribution which farm income contributed to the overall household portfolio relative to the contribution of non-farm and off-farm activities, one can conclude that there was an increase in the significance of farm income in this household. For example, according to the household's main informant, the household's combined off-farm and non-farm contribution averaged \$500 per annum, yet the contribution of cotton alone was \$1071 per annum on average. The main income generator in the off-farm non-farm category was gardening, which was also related to smallholder farming (generating 55% of the off-farm non-farm income category). The following pictures show the household garden – the pictures show both a diversification of gardening and an intensification of efforts evidenced by the variety of crops and fruits grown in the garden and further efforts to dig a perennial source of water for irrigation:

**Figure 5(v): Diversified gardening: some of the off-farm activity in the area**



Source: field data, 2009

**Figure 5(vi): Effort to guarantee perennial water availability for the garden**



Source: field data, 2009



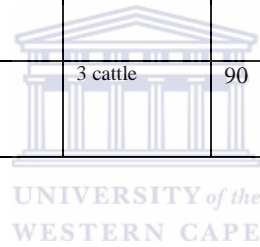
#### ***Household 4***

Household 4 is another male-headed household not well endowed with assets related to work in the fields and other related work (possessing a few cattle and a plough in 2002 and 2003 respectively), save for labour (having not less than eight members over the period). All the household labour was working on the household plot until 2005, when one household member secured a job in Botswana after attaining a Dressmaking Certificate, which culminated in the household receiving remittances from 2005 to 2008. Table 5.4 below represents the socio-economic data for household 4.

**Table 5(iv): Household 4 (male-headed) socio-economic data since establishment**

	Household size	Literacy level	Size of Landholding	Asset Possession	Livestock Possession	% Land cultivated	Farm outputs	Off-farm activities-contribution	Non-farm activities-contribution	Remittances
1990	8	<Grade 7	10 acres	-	-	45	1300 kgs maize, 4 bales cotton, 170kgs groundnuts	Piecework and gardening	Selling water and firewood	-
1991	8	<Grade 7	10 acres	-	-	50	600kgs maize, 2 bales cotton,	Piecework and gardening	Selling water and firewood	-
1992	9	<Grade 7	10 acres	-	-	60	20kgs groundnuts	Piecework and gardening	Selling water and firewood	-
1993	9	<Grade 7	10 acres	-	-	50	1700kgs maize, 7 bales cotton, 500kgs groundnuts	Piecework and gardening	Selling water and firewood	-
1994	10	<Grade 7	10 acres	-	-	50	200kgs maize, 2 bales cotton, 100kgs groundnuts	Piecework and gardening	Selling water and firewood	-
1995	9	<Grade 7	10 acres	-	-	55	150kgs maize, 3 bales cotton, 100kgs groundnuts	Piecework and gardening	Selling water and firewood	-
1996	9	<Grade 7	10 acres	-	-	55	700kgs maize, 6 bales cotton, 80kgs groundnuts	Piecework and gardening	Selling water and firewood	-
1997	9	<Grade 7	10 acres	-	-	52	500kgs maize, 4 bales cotton, 100kgs groundnuts	Piecework and gardening	Selling water and firewood	-
1998	9	<Grade 7	10 acres	-	-	56	1000kgs maize, 6 bales cotton, 110kgs groundnuts	Piecework and gardening	Selling water and firewood	-
1999	10	<Grade 7	10 acres	-	-	50	100kgs maize, 4 bales cotton, 50kgs groundnuts	Piecework and gardening	Selling water and firewood	-
2000	10	<Grade 7	10 acres	-	-	50	150kgs maize, 3 bales cotton, 80kgs groundnuts	Piecework and gardening	Selling water and firewood	-
2001	10	<Grade 7	10 acres	-	-	50	80kgs maize, 1 bale cotton, 80kgs groundnuts.	Piecework and gardening	Selling water and firewood	-
2002	10	<Grade 7	10 acres	-	2 cattle	60	20kgs maize, 1 bale cotton, 20kgs groundnuts	Piecework and gardening	Selling water and firewood	-

2003	10	<Grade 7	10 acres	Plough	2 cattle	80	100kgs maize, 1,5 bales cotton, 90kgs groundnuts	Piecework and gardening	Selling water and firewood	-
2004	9	<Grade 7	10 acres	Plough	3 cattle	85	200kgs maize, 2,5 bales cotton, 800kgs sorghum, 150kgs groundnuts,	Piecework and gardening	Selling water and firewood	-
2005	9	8<Grade 7, Grade seven + dressmaking course- Working in Botswana	10 acres	Plough	2 cattle	90	150kgs maize, 2 bales cotton, 900kgs sorghum, 400kgs groundnuts	Piecework and gardening	Selling water and firewood	received
2006	9	<Grade 7	10 acres	Plough	2 cattle	80	300kgs maize, 4 bales cotton, 800kgs sorghum, 350kgs groundnuts	Piecework and gardening	Selling water and firewood	received
2007	9	<Grade 7	10 acres	Plough	3 cattle	90	600kgs maize, 4 bales cotton, 750kgs sorghum, 200kgs groundnuts	Piecework and gardening	Selling water and firewood	received
2008	9	<Grade 7	10 acres	Plough	3 cattle	90	1600kgs maize, 9 bales cotton, 1000kgs sorghum, 850kgs groundnuts	Piecework and gardening	Selling water and firewood	received



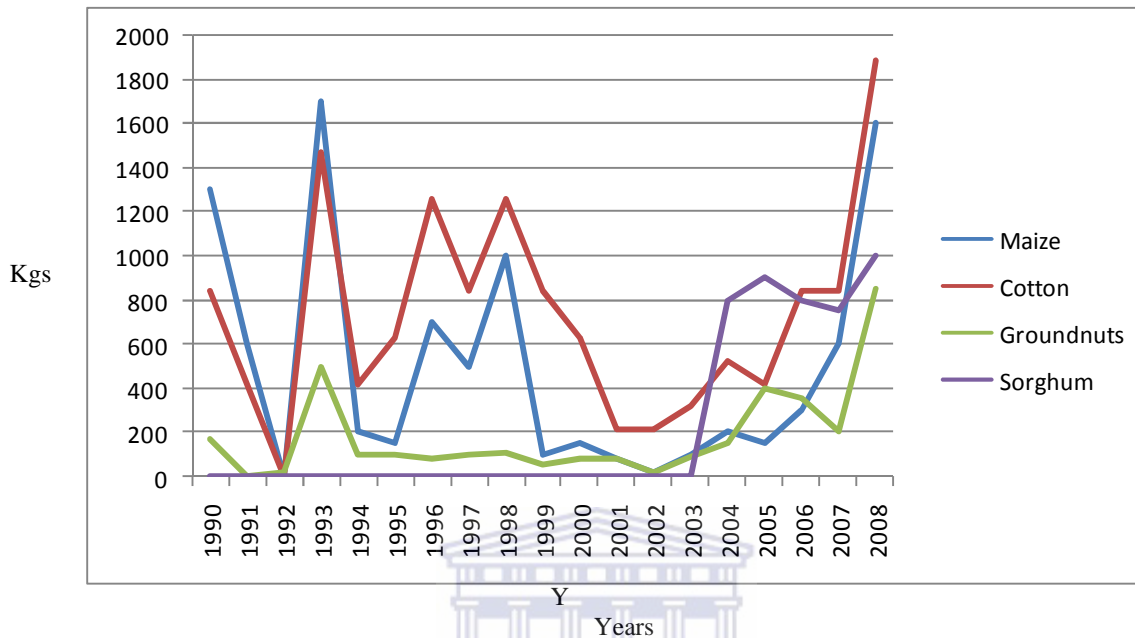
**Legend**

- <Grade seven:                   attained a level of education below grade seven
- >Grade seven:                   attained a level of education above grade seven
- Appr % land cultivated:       approximate percentage of land cultivated

Source: field data, 2009

The following graph illustrates the trend in farm production since 1990:

**Figure 5(vii): Household 4's crop production levels**



Source: field data, 2009

The above graph shows crop production trends for Household 4 since 1990, again showing some fluctuations. Like Household 2, Household 4's harvests show major depressions in 1992 and in the period from 2001-2002. Again, this is because of the severe drought spells. A look at the rainfall and temperature graphs (Figures 5.1 and 5.2) will help explain this trend. After 2002 there was a gradual increase in the share of land cultivated, rise in livestock numbers, and increased production of maize, cotton, and groundnuts. Sorghum was also introduced, the production of which started by recording 800 kgs, even higher than cotton and maize. This gradual increase meant a regaining of significance of farm income to the household livelihood portfolio, which may suggest a process of re-agrarianisation from a glance.

Two off-farm activities were carried out by the household, namely piecework and gardening. Both piecework and gardening contributed an average of \$96 per annum each, while non-farm activities (selling water and firewood) contributed an average of \$44 per annum. However from 2005 to 2008, the household received remittances of around \$ 529 per annum. Adding off-farm

income and non-farm income contribution, one gets a total average of \$765 which is lower than the total average price of cotton alone, which is \$875 per annum. Therefore the overall picture painted here is that the household's livelihood strategy continues to be skewed towards smallholder farming.

### ***Household 5***

Table 5.5 below summarises the socio-economic data for the fifth household, which is the last household from Nyoni village in our sample:



**Table 5(v): Household 5 (female-headed) socio-economic data since establishment**

	Household size	Literacy level	Size of Landholding	Asset Possession	Livestock Possession	% Land cultivated	Farm outputs	Off-farm activities-contribution	Non-farm activities-contribution	Remittances
1995	2	<Grade 7	5 acres	-	-	60	200kgs maize , ½ bale cotton, 20kgs groundnuts	Piecework and Gardening	Selling vegetables	-
1996	2	<Grade 7	5 acres	-	-	60	300kgs maize , ½ bale cotton, 40kgs groundnuts	Piecework and Gardening	Selling vegetables	-
1997	2	<Grade 7	5 acres	-	-	70	250kgs maize , ½ bale cotton, 40kgs groundnuts	Piecework and Gardening	Selling vegetables	-
1998	2	<Grade 7	5 acres	-	-	50	300kgs maize , 1 bale cotton, 60kgs groundnuts	Piecework and Gardening	Selling vegetables	-
1999	2	<Grade 7	5 acres	-	-	50	350kgs maize , 1 bale cotton, 50kgs groundnuts	Piecework and Gardening	Selling vegetables	-
2000	2	<Grade 7	5 acres	-	-	60	200kgs maize , 1 bale cotton, 50kgs groundnuts	Piecework and Gardening	Selling vegetables	-
2001	2	<Grade 7	5 acres	-	-	50	150kgs maize , ½ bale cotton, 20kgs groundnuts	Piecework and Gardening	Selling vegetables	-
2002	2	<Grade 7	5 acres	-	-	50	100kgs maize , ½ bale cotton, 10kgs groundnuts	Piecework and Gardening	Selling vegetables	-
2003	2	<Grade 7	5 acres	-	-	60	200kgs maize , ½ bale cotton, 800kgs groundnuts	Piecework and Gardening	Selling vegetables	-
2004	2	<Grade 7	5 acres	-	-	55	260kgs maize , 1 bale cotton, 60kgs groundnuts	Piecework and Gardening	Selling vegetables	-
2005	2	<Grade 7	5 acres	-	-	45	100kgs maize , ½ bale cotton, 30kgs groundnuts	Piecework and Gardening	Selling vegetables	-
2006	2	<Grade 7	5 acres	-	-	55	200kgs maize , ½ bale cotton, 20kgs groundnuts	Piecework and Gardening	Selling vegetables	-
2007	2	<Grade 7	5 acres	-	-	60	200kgs maize , ½ bale cotton, 40kgs groundnuts	Piecework and Gardening	Selling vegetables	-
2008	2	<Grade 7	5 acres	-	-	60	350kgs maize , 1 bale cotton, 50kgs groundnuts	Piecework and Gardening	Selling vegetables	-

Legend:

<Grade seven:

attained a level of education below grade seven

>Grade seven:

attained a level of education above grade seven

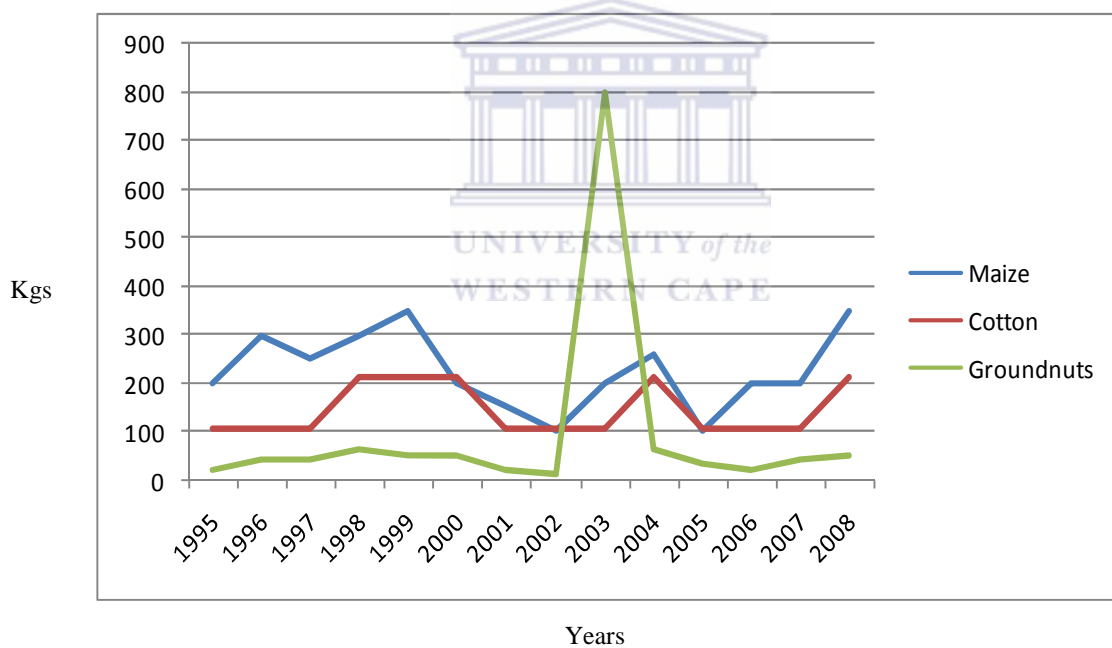
Appr % land cultivated:

approximate percentage of land cultivated

Source: field data, 2009

Household 5 is a female-headed household composed of only two members, namely a grandmother who was above seventy years at the time of study, and a grandchild aged 18. They had a small plot of 5 acres as shown in the table above, and a null possession of assets significant in cultivation. Literacy levels for the household were very low with both members falling below Grade 7. Although the household plot was very small, the household managed to cultivate an average of only 53% of the total area of the landholding. There were also no remittances over the period, but the household was involved in off-farm activities and non-farm activities. Before looking at their values, attention is put on the farm production for the period. The following graph illustrates this.

**Figure 5(viii): Household 5's crop production trends**



Source: field data, 2009

The above figure illustrates the trends in farm production for Household 5. From the graph, it can be established that the general trend of crop production was low (below 400kgs) for all the 3 crops cultivated from 1995 to 2008, except for groundnuts in 2003 which reached 800kgs. The main reason given for this peak was the devoting of a larger portion of the fields to groundnuts



because of its resistance to drought spells. The generally low level of crop production can be understood by considering lack of assets and enough labour for the plot as inputs for the farm. The household head also mentioned the problem of seeds as another drawback.

Off-farm income and non-farm income was not much because of the problem of inadequate labour to be involved in such activities. The average sum of off-farm and non-farm income was about \$60 (field data, 2009), which is far below the value of the farm produce. However, there were times when the ratio of off-farm and non-farm income to farm income was very high, i.e. in drought years.

### ***5.2.3 Maringa 1 village household socio-economic data***

From this village, only households established before 2000 were studied, since those who were established after 2000 were offshoot households established in 2007 and 2008, which the researcher felt was too recent considering the scope of this study.

#### ***Household 6***

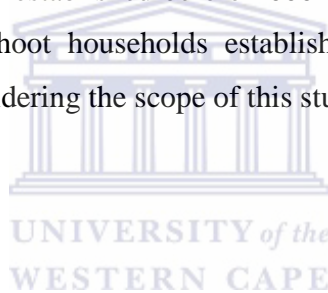


Table 5.6 below summarises socio-economic data for the first household in the village, which we refer to nonetheless as Household 6.

**Table 5(vi): Household 6 (male-headed) socio-economic data since establishment**

	Household size	Literacy level	Size of landholding	Asset possession	Livestock possession	% Land cultivated	Farm outputs	Off-farm activities-contribution	Non-farm activities-contribution	Remittances
1990	4	<Grade 7	12 acres	-	-	60	1500 kgs maize, 5 bales cotton, 600kg groundnuts	Gardening	Incidental building piecework, selling water, knitting	-
1991	4	<Grade 7	12 acres	-	-	60	1600 kgs maize, 4 bales cotton, 500kg groundnuts	Gardening	Incidental building piecework, selling water, knitting	-
1992	4	<Grade 7	12 acres	-	1 cow	62	-	Gardening	Incidental building piecework, selling water, knitting	-
1993	5	<Grade 7	12 acres	Plough, harrow and scotch cart	2 cattle	70	3200 kgs maize, 5 bales cotton, 800kg groundnuts	Gardening	Incidental building piecework, selling water, knitting	-
1994	5	<Grade 7	12 acres	Plough, harrow and scotch cart	3 cattle	80	1000 kgs maize, 5 ½ bales cotton, 400kg groundnuts	Gardening	Incidental building piecework, selling water, knitting	-
1995	5	<Grade 7	12 acres	Plough, harrow and scotch cart	3 cattle	90	3600 kgs maize, 3 bales cotton, 300kg groundnuts	Gardening	Incidental building piecework, selling water, knitting	-
1996	5	<Grade 7	12 acres	Plough, harrow and scotch cart	3 cattle	70	1000kgs maize, 4 bales cotton, 250kgs groundnuts	Gardening	Incidental building piecework, selling water, knitting	-
1997	6	<Grade 7	12 acres	Plough, harrow and scotch cart	3 cattle	80	2400kgs maize, 14 bales cotton, 300kgs groundnuts	Gardening	Incidental building piecework, selling water, knitting	-
1998	6	<Grade 7	12 acres	Plough, harrow and scotch cart	3 cattle	90	400kgs maize, 16 bales cotton, 350kgs groundnuts	Gardening	Incidental building piecework, selling water, knitting	-
1999	7	<Grade 7	12 acres	Plough, harrow and scotch cart	3 cattle	90	1200kgs maize, 9 bales cotton, 300 kgs groundnuts	Gardening	Incidental building piecework, selling water, knitting	-
2000	7	<Grade 7	12 acres	Plough, harrow and scotch cart	12 cattle	75	1200kgs maize, 5 bales cotton, 600 kgs groundnuts, 50 kgs sorghum	Gardening	Incidental building piecework, selling water, knitting	-
2001	7	<Grade 7	12 acres	Plough, harrow and scotch cart	8 cattle	60	200kgs maize, 1 bale cotton, 100 kgs groundnuts	Gardening	Selling water, knitting	Husband working
2002	7	<Grade 7	12 acres	Plough, harrow and scotch cart	8 cattle	58	200kgs maize, 1 bale cotton, 300 kgs	Gardening	Selling water, knitting	Husband working

							groundnuts			
<b>2003</b>	8	<Grade 7	12 acres	Plough, harrow and scotch cart	8 cattle	62	1800kgs maize, 11 bales cotton, 500 kgs groundnuts	Gardening	selling water, Knitting	Husband working
<b>2004</b>	8	<Grade 7	12 acres	Plough, harrow and scotch cart	8 cattle	90	350 kgs sorghum, 11 bales cotton, 600 kgs groundnuts	Gardening	Incidental building piecework, selling water, Knitting	-
<b>2005</b>	8	<Grade 7	12 acres	Plough, harrow and scotch cart	8 cattle	95	1800kgs maize, 800 kgs sorghum, 7 bales cotton, 350 kgs groundnuts	Gardening	Incidental building piecework, selling water, Knitting	-
<b>2006</b>	8	<Grade 7	12 acres	Plough, harrow and scotch cart	8 cattle	100	2100kgs maize, 350 kgs sorghum, 350 kgs	Gardening	Incidental building piecework, selling water, Knitting	-
<b>2007</b>	8	<Grade 7	12 acres	Plough, harrow and scotch cart	5 cattle	92	2100kgs maize, 7 bales cotton, 350 kgs sorghum, 300 kgs groundnuts	Gardening	Incidental building piecework, selling water, Knitting	-
<b>2008</b>	8	<Grade 7	12 acres	Plough, harrow and scotch cart	5 cattle	90	600kgs maize, 100 kgs sorghum 5 bales cotton, 250 kgs groundnuts	Gardening	Incidental building piecework, selling water, Knitting	-



**Legend**

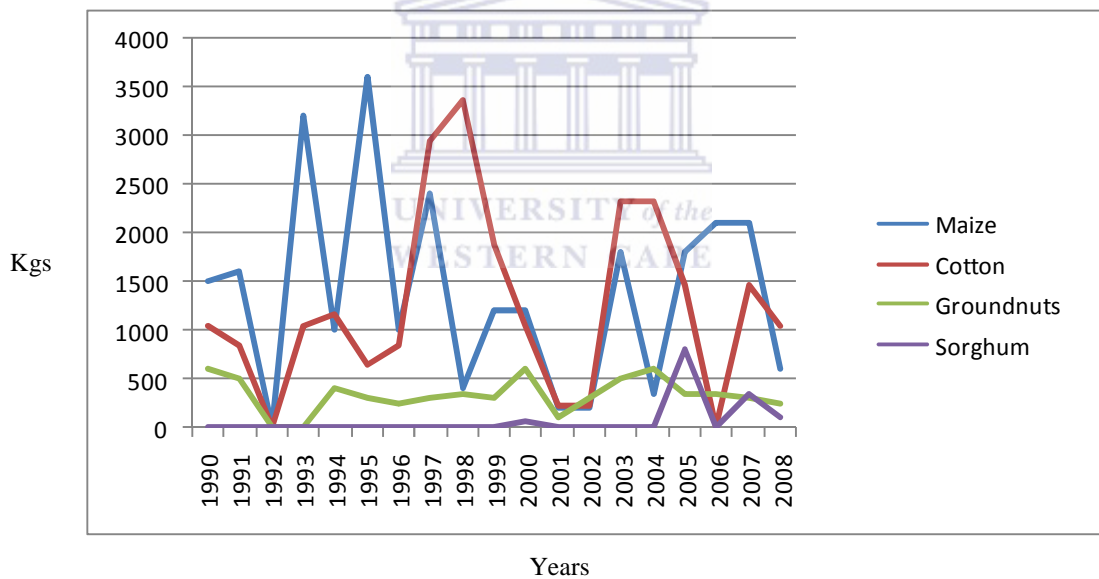
- <Grade seven: attained a level of education below grade seven
- >Grade seven: attained a level of education above grade seven
- Appr % land cultivated: approximate percentage of land cultivated

Source: field data, 2009

Household 6 (as shown in the table above) is a male-headed household which was fairly well resourced in terms of assets related to cultivation, especially from 1993 when they owned two cattle, a plough, a harrow and a scotch cart. The household size varied as follows: four members by 1990, five by 1993, six by 1997, seven by 1999, and eight members by 2008. The household members are not highly educated since all the members had attained less than Grade 7 education.

Starting from 1993 the household was better placed in terms of draught power since it had not less than two cattle. Generally a high average percentage of land was cultivated with the lowest being 58%, which was reached when the husband was working in Kwekwe town. In the majority of the seasons the figures were above 65%. The following graph gives a picture of the harvest trends in the household:

**Figure 5(ix): Household 6's crop production**



Source: field data, 2009

The graph above shows trends in crop production for Household 6 since 1990. It can be observed from the graph that there are 3 main depressions in crop production for all crops (in 1992, between 2000 and 2002), and for other crops except maize between 2007 and 2008. The highest peak for maize was in 1995, reaching a record of 3600 kgs, while for cotton it was in 1998, when the figure reached 3360 kgs. It can be observed from the graph that there was a shift in the

harvest of cotton to higher figures from 1996. The only depression was in 2006 when a zero harvest was recorded.

The household was involved in gardening. The vegetables which they produced were basically for household consumption (interview with key informant). The non-farm activities carried out by the household are incidental construction piecework, selling water and knitting. According to the household head, construction piecework was not an income source to be counted on since it depends on the availability of people in need of the service. However, he highlighted that on the few occasions he was contracted; it generated for the household a significant amount of money which could be used in the payment of children's school fees and even the buying of grain and groceries. The household was also not much involved in the selling of water at the service centre – they only participated when they wanted money for petty expenses like the grinding mill fee (*Mari yechigayo*) and the buying of salt and soap. Knitting was profitable for the household before 2000, when it was promoted by the government through competitions and exhibitions at Madzivazvido business centre. However, the household members could not exactly remember how much income they generated from knitting, though they did recall that it was sometimes enough to pay school fees and buy kitchen utensils. On average a qualitative analysis of the relationship between off-farm' together with non-farm income, and farm income, suggests that farm income is still the main source of the family livelihood, and increasingly so over the period. From 2001-2003, the household head was working in a construction company in Kwekwe, about 200 kilometres away from home. This is the only period during which the household received remittances. However, even during that period the household partially depended on farm produce. Figures of salaries could not be recalled, but the income bailed the household out from the impacts of the drought and managed to pay for children's school fees – a situation different in some respects to Household 7's experience, to which we turn below.

### ***Household 7***

Household 7 presents quite a different scenario in that it had many household members, many livestock, high asset ownership and high crop production levels from 1994-2001. The following table 5(vii) represents socio-economic data for household seven:

**Table 5(vii): Household 7 (male-headed) socio-economic data since establishment**

	Household size	Literacy level	Size of landholding	Asset possession	Livestock possession	% Land cultivated	Farm outputs	Off-farm activities-contribution	Non-farm activities-contribution	Remittances
1994	16	8<grade 7, 2 grade 7, 3 Form 4	30 acres	2 ploughs, harrow, 1 scorch cart, 1 wheelbarrow	48 cattle, 7 donkeys, 50 goats	90	10 bales cotton, 5000 kgs maize	-	-	-
1995	16	8<grade 7, 2 grade 7, 3 Form 4	30 acres	2 ploughs, harrow, 1 scorch cart, 1 wheelbarrow	49 cattle, 7 donkeys, 35 goats	90	-	-	-	-
1996	16	8<grade 7, 2 grade 7, 3 Form 4	30 acres	2 ploughs, harrow, 1 scorch cart, 1 wheelbarrow	40 cattle, 7 donkeys, 20 goats	80	48 bales cotton, 12000 kgs maize, 300kgs sorghum, 600kgs groundnuts	-	-	-
1997	16	7<grade 7, 6 grade 7, 3 Form 4	30 acres	2 ploughs, harrow, 1 scorch cart, 1 wheelbarrow	35 cattle, 7 donkeys, 20 goats	90	15 bales cotton, 5100 kgs maize	-	-	-
1998	15	7<grade 7, 4 grade 7, 4 Form 4	30 acres	2 ploughs, harrow, 1 scorch cart, 1 wheelbarrow	32 cattle, 8 donkeys, 18 goats	90	12 bales cotton, 2700 kgs maize,	-	-	-
1999	15	7<grade 7, 4 grade 7, 4 Form 4	30 acres	2 ploughs, harrow, 1 scorch cart, 1 wheelbarrow	20 cattle, 9 donkeys, 15 goats	95	22 bales cotton, 4500 kgs maize, 300kgs sorghum	-	-	-
2000	15	5<grade 7, 6 grade 7, 4 Form 4	30 acres	2 ploughs, harrow, 1 scorch cart, 1 wheelbarrow	21 cattle, 9 donkeys, 15 goats	60	6 bales cotton, 3000kgs sorghum,	-	-	-
2001	15	5<grade 7, 4 grade 7, 6 Form 4	30 acres	2 ploughs, harrow, 1 scorch cart, 1 wheelbarrow	21 cattle, 9 donkeys	70	5 bales cotton, 900 kgs maize	-	-	-
2002	2	1 form 2, 1 form 4	8 acres	1 ploughs, 1 wheelbarrow	22 cattle, 6 donkeys	20	1 bale cotton, 600 kgs maize	Piecework	-	--
2003	2	1 form 2, 1 form 4	8 acres	1 plough, 1 wheelbarrow	22 cattle, 6 donkeys	25	8 bales cotton, 300 kgs maize	Piecework	-	-
2004	3	1<grade7, 1 form 2, 1 form 4	8 acres	1 plough, 1 wheelbarrow	6 cattle, 2 donkeys	30	24 bales cotton, 900 kgs maize	-	-	-

2005	3	1< grade7, 1 form 2, 1 form 4	8 acres	1 plough, 1 wheelbarrow	2 cattle	20	2 bales cotton, 300 kgs maize, 300kgs sorghum	Piecework	-	Husband working at the service centre
2006	3	1< grade7, 1 form 2, 1 form 4	8 acres	1 plough, 1 wheelbarrow	3 cattle, 4 goats	30	300 kgs maize, 150kgs sorghum	Piecework	-	Husband working at the service centre
2007	4	2< grade7, 1 form 2, 1 form 4	8 acres	1 plough, 1 wheelbarrow	3 cattle, 6 goats	30	6 bales cotton, 900 kgs maize, 600kgs sorghum	-	-	Husband working at the service centre
2008	4	2< grade7, 1 form 2, 1 form 4	8 acres	1 plough, 1 wheelbarrow	3 cattle, 6 goats	30	12 bales cotton, 1500 kgs maize, 900kgs sorghum, 300kgs sunflower	-	-	Husband working at the service centre

**Legend**

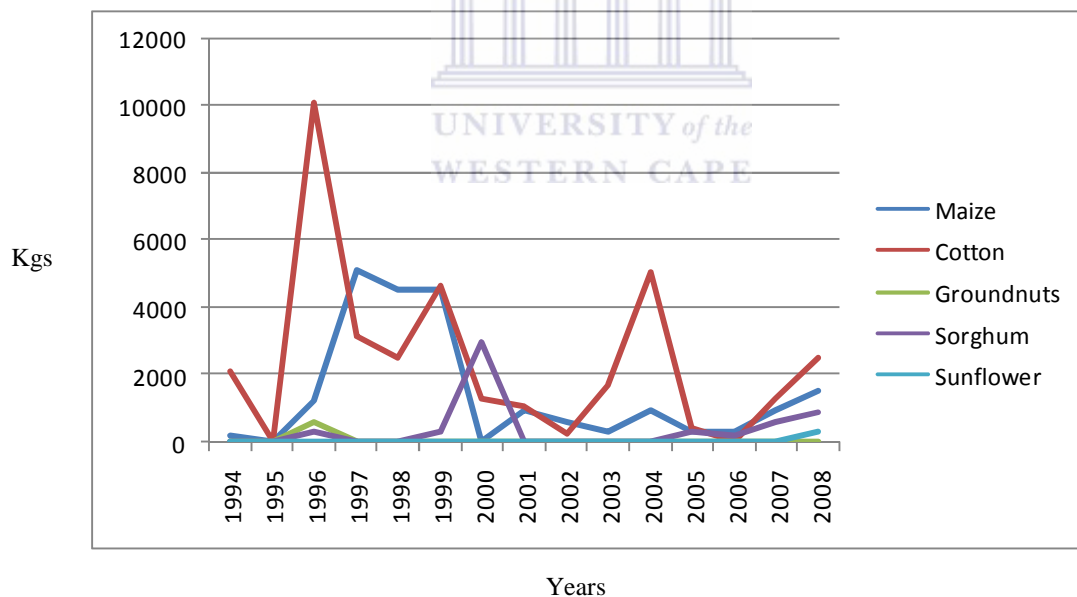
<Grade seven: attained a level of education below grade seven  
 >Grade seven: attained a level of education above grade seven  
 Appr % land cultivated: approximate percentage of land cultivated

Source: field data, 2009



Household 7 went through a major transformation since 1994. From 1994 to 2001, household membership ranged between 15 and 16, and draught power was plenty since the household owned between 21 and 48 cattle and between 6 and 9 donkeys. Although the household had a remarkable number of members who had attained the general Certificate of Education Ordinary-Level (Form 4) between 1994 and 2001, it did not have any member working outside the family plot. There was therefore no relationship between the level of education one attained and his/her disengagement from farm livelihood activities. The household was also not involved in either off-farm or non-farm activities between 1994 and 2001. During the same period the size of landholding was 30 acres, which is quite high in comparison to most of the other households in the sample. As a result the household had very high levels of production as illustrated in the graph below.

**Figure 5(x): Household 7 crop production trends**



Source: field data, 2009

In 2002 the size of the household decreased to 2 people because the informant married and moved to settle on his own plot, which was only 8 acres. The data for this table should have been indicated as data for two households but the researcher chose to record it as one household since the other members of the original households had transferred to another village. Although the



household still had much draught power until 2003, the 2002 and 2003 harvests were low because of the combined effect of less labour and a draught spell as illustrated in figure 5.1. It is during this period when the household was involved in off-farm activities. It was also involved in non-farm activity in 2005-2006. From 2005 the household head was employed as a security guard at the nearest business centre (Chitekete).

### ***Household 8***

In contrast to Household 7, Household 8 had no member working outside the family plot. Figure 4.15 below illustrates Household 8's experience since its establishment in 1996:



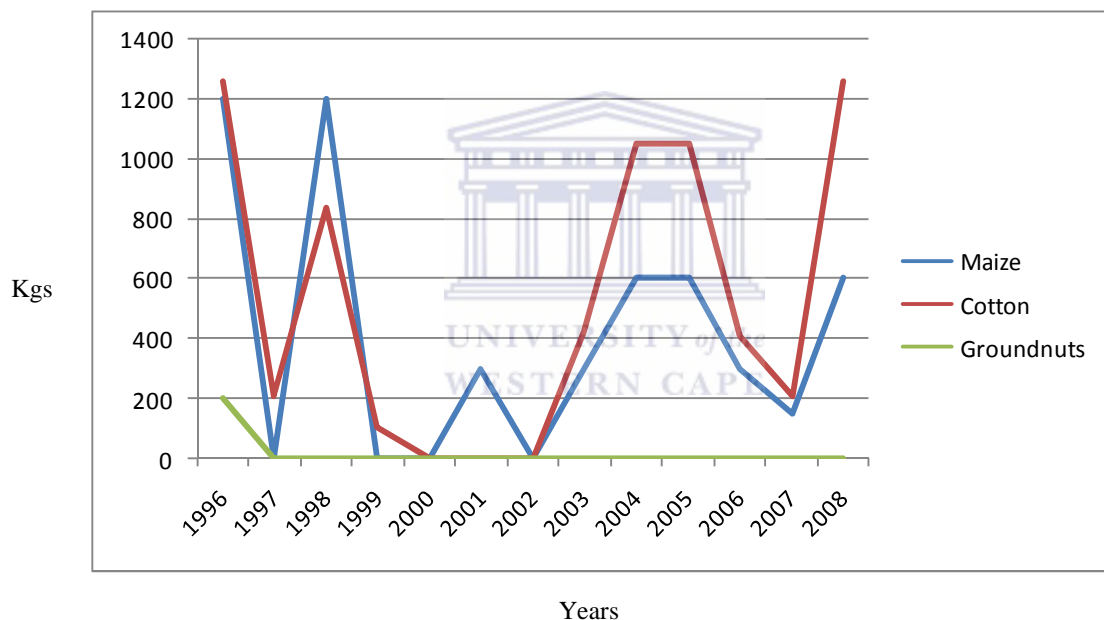
**Table 5(viii): Household 8 (male-headed) socio-economic data since establishment**

	Household composition	Literacy level	Size of landholding	Asset possession	Livestock possession	% Land cultivated	Farm outputs	Off-farm activities-contribution	Non-farm activities-contribution	Remittances
1996	5	< grade 7	18 acres	Plough	4 cattle, 6 goats	90	6 bales cotton, 1200kgs maize, 200kgs groundnuts	gardening	-	-
1997	5	< grade 7	18 acres	Plough	-	80	1 bale cotton	gardening	-	-
1998	5	< grade 7	18 acres	Plough	-		4 bales cotton, 1200kgs maize	gardening	-	-
1999	5	< grade 7	18 acres	Plough	-	70	½ bale cotton	gardening	-	-
2000	6	< grade 7	18 acres	Plough	-	50	-	gardening	-	-
2001	6	< grade 7	18 acres	Plough	-	65	2 bales cotton, 300kgs maize	gardening	-	-
2002	6	< grade 7	18 acres	Plough	-	45	-	gardening	-	-
2003	6	< grade 7	18 acres	Plough	-	60	2 bales cotton, 300kgs maize	gardening	-	-
2004	6	< grade 7	18 acres	Plough	-	60	5 bales cotton, 600kgs maize,	gardening	-	-
2005	7	< grade 7	18 acres	Plough	-	50	5 bales cotton, 600kgs maize	gardening	-	-
2006	7	< grade 7	18 acres	Plough	-	65	2 bales cotton, 300kgs maize	gardening	-	-
2007	7	< grade 7	18 acres	Plough	-	60	1 bale cotton, 150kgs maize	gardening	-	-
2008	7	< grade 7	18 acres	Plough	-	50	6 bales cotton, 600kgs maize	gardening	-	-

Source: field data, 2009

As shown in the table above, Household 8 is a male-headed household which was established in 1996 during which it consisted of 5 members. The membership grew to 6 members in 2000 and to 7 members in 2005. The literacy level in the household was very low, with all the members having attained a level of education below grade seven. The household plot was 18 acres which were prepared with the assistance of draught power in 1996 (4 cattle), but in subsequent years the family no longer had draught power and could only rely on hired draught power. As a result the average percentage of cultivated land from 1997 to 2008 was 54,5%. The following graph illustrates the trends in crop production in the light of the dynamics mentioned above:

**Figure 5(xi): Household 8's crop production levels (kgs)**

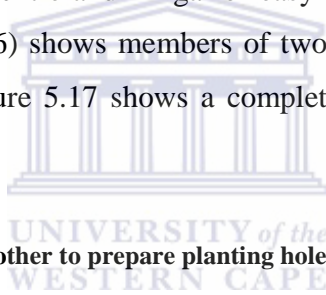


Source: field data, 2009

From the graph one can observe that production was high for all the three crops grown and in 1997 there was a major reduction in the yields for maize and cotton while groundnuts fell to zero throughout the study period. Although cotton maintained the 0 level (not planted during this period), maize and cotton recorded a peak in 1998 after which there was a general depression until 2003. Another peak was recorded for maize and cotton, with cotton surpassing maize even in the subsequent depression in 2007. In 2007 there was an increase in the output of cotton and maize, with cotton still surpassing maize.

### 5.3 Comparing Nyoni village and Maringa 1 village

Nyoni village is located about 9 kilometres from the business centre while Maringa village is located about one kilometre from the business centre. The former is also endowed with a higher water table, resulting in the existence of a number of wells, a situation which is not found at Maringa 1 village. Because of this, the types of non-farm activities in the two villages are different. While the main non-farm activity in Nyoni village was the selling of water at the service centre, in Maringa 1 village formal employment at the growth point was the main non-farm activity. A general increase in production after the 2008-2009 farming season can be noted among households in Maringa 1 village because of conservation agriculture promoted by 'Concern', an NGO operating in the area. The NGO mainly concentrated on villages nearer to the tarred road that joins Gokwe centre and Binga for easy accessibility on handing out inputs. The following picture (Figure 5.16) shows members of two households assisting each other in digging planting holes, while Figure 5.17 shows a completely prepared field for conservation farming:



**Figure 5.16: Neighbours assisting each other to prepare planting holes for conservation agriculture**



Source: field data, 2009

**Figure 5.16: Completely prepared land for conservation agriculture**



Source: field data 2009

Among the households who practiced conservation agriculture, there was a general reduction in the percentage of land cultivated during the 2008-2009 farming season and a decrease in the degree of non-farm activity due to the labour intensiveness of conservation agriculture. However, there is a general increase in yields due to intensive farming on the plots. This could be interpreted as support for the GKI perspective on the existence of an inverse relationship between farm size and productivity (see Chapter 2). It might also suggest a process of re-agrarianisation rather than de-agrarianisation.

## **5.4. Synopsis and discussion**

### **5.4.1. Introduction**

The tables in the previous section contain the socio-economic data for the sampled households in the two villages studied. The general objective of the study was to establish the relationship between the farming environment, farming activities, and non-farm activities in a rural area of Zimbabwe. In other words the research sought to establish the extent of the drivers and symptoms of de-agrarianisation (in Bryceson's formulation) and their implications for the overall

livelihoods of households in the two villages. These drivers of de-agrarianisation are climate change, Structural Adjustment (and economic change more broadly), changes in policy regimes and population growth, and the characteristic symptoms are increasing of the significance of off-farm and non farm activities for rural people's livelihoods, an evolution in social identity from a population which is much into farming to a population relying on employment, and spatial relocation of people from peasant communities to other areas where they rely on alternative means, for example; wage employment. The hypothesis explored is that the recent changes in the farming environment have generated in Gokwe a combination of both de-agrarianisation and its opposite, i.e. 're-agrarianisation'. The main focus of the data capturing exercise was to understand changes in households' circumstances over time and to appreciate differences between households, with a focus on the following domains: household composition, literacy levels of household members, occupation of household members, size of landholding, asset possession, percentage of land cultivated, farm outputs, off-farm activity contribution, non-farm activity contribution and remittances.

The summary table below conveys each household's experiences in relation to the changes in the farming environment (drivers of de-agrarianisation). In other words the previous section examined how household livelihoods have been structured and restructured in relation to the changes in the politico socio-economic environment. The second dimension of the study was to observe adaptation strategies in relation to smallholder farming as a system with inputs, processes and outputs. In this vein the idea was to observe the extent to which smallholder farmers have been able to avoid and/or ameliorate the impacts of some of the drivers of agrarian change in order to establish whether there is still light at the end of the tunnel (the agrarian optimistic path) within the context of Zimbabwe's special economic circumstances.

**Table 5 (ix): Summary of households and livelihood trajectories**

House-hold / village	Gender of household head	Wealth category (initial)	Trends in asset endowment and livestock possession	Trends in HH size	Trends in livelihood strategy	Trends in income diversification	Comments
HH1 / Nyoni	Male	Poor	No livestock and assets related to smallholder farming	The household grew significantly over the period studied	There was a greater significance of non-farm income compared to farm income since the establishment of this household.	Over the period studied the household has been involved in Piecework, and selling water	Because of the lack of livestock and assets crucial in cultivating land, combined with poor input base for smallholder farming, the household experienced a process of de-agrarianisation, wherein piecework and gardening, together with humanitarian aid, became central in the livelihood portfolio from 20008 non-farm activities which involved buying and selling were no longer favourable due to hyperinflation.
HH2 / Nyoni	Female	Poor	No livestock and assets related to smallholder farming	The household grew significantly over the period studied	There is a rise in the significance of non-farm and off-farm activities in the livelihood portfolio.	Over the period studied the household has been involved in piecework, gardening and selling water	Like Household 1, the absence of livestock for draught power and related assets like ploughs and harrows, the farm production was poor over the period, leading to the increase in the significance of non-farm and off-farm activities in the livelihood portfolio. However towards 2008 to much hyperinflation and shortage of cash reduced the options for diversification since activities like buying and selling were no longer profitable.
HH5 / Nyoni	Female	Poor	No livestock and assets related to smallholder farming	The household did not grow since its establishment	Smallholder farming is the major livelihood strategy with an increase in non-farm activities from in the last 8 years of the period studied	Piecework, gardening, and selling of water	Generally the farm income is higher (save for 1992 and 2000-2002 due to severe droughts) than the off-farm and non-farm income since establishment although there was no livestock ownership and poor asset endowment over the period. However the farm income was low to such an extent that humanitarian handouts formed part of the livelihood portfolio especially between October and February after failed seasons. A decrease in the significance of farm income can therefore be noted during those years when climatic conditions were not favourable.
HH4 / Nyoni	Male	Average	The household did not own any significant asset in the first thirteen years and owned cattle for draught power and a plough in the last six years of the period studied	The household grew slightly between 1990 and 2003 and it dwindled slightly for the remaining period studied.	Relied much on smallholder farming. It was affected by dry spells leading to a reduction in crop production during those periods.	During dry spells, the livelihood strategy was more skewed towards off-farm, non-farm activities and handouts	Evidence of de-agrarianisation can be noted in 1990, and between 1999 and 2006 because of unfavourable climatic conditions which reduced farm productivity and consequently led to the dwindling significance of farm income compared to non-farm and off-farm income
HH8 / Maringa	Male	Average	The household was not well endowed with assets related to	The household grew slightly since establishment	The harvests were generally low and the situation was	Involvement in gardening throughout the period studied	From 1999-2007 there was a decrease in agricultural produce but could not reduce the centrality of farm income in the overall livelihood portfolio.

			smallholder agriculture and diversification although its ownership of a few cattle and a plough assisted it in cultivation.		exacerbated in during dry spells.		
HH3 / Nyoni	Male	Well-off	Above average ownership of agricultural implements and livestock	The household experienced a slight growth in the first 10 years and the number decreased slightly in the remaining.	Main source of livelihood was smallholder farming throughout the period studied. However there was a significant increase in the role played by non-farm activities from 2001 to 2008.	Smallholder farming, gardening, piecework and traditional healing were the main livelihood activities	The overall livelihood orientation for this household was towards farm income because of a good livestock and asset possession since its establishment. A reduction in farm productivity and the consequent increase in the significance of non-farm and off-farm activities is merely a result of unfavourable climatic conditions during some farming seasons. For example; in the 1992 farming season and from 1999-2004 there was more reliance on off-farm income whereas from 2005-2008 there was reorientation towards farm based livelihood because of severe hyperinflation which scared the household away from selling.
HH6 / Maringa	Male	Well-off	No asset ownership in the first two years. Above average possession of livestock and farm implements for the remaining 17 years.	Grew significantly between 1990 and 2008	The household got above average farm proceeds during good seasons and below average harvests during dry spells.	During the first ten years, there was much reliance on smallholder farming 1990 to 2000. The re was much diversification thereafter but smallholder farming remained the main livelihood strategy.	Although there were not much figures on the value of non-farm income, there is general evidence of reliance on smallholder farming by the household
HH7 / Maringa	Male	Well-off	1994-2001- 2 ploughs, scotch cart and wheel barrow and above 20 cattle and 7 donkeys 2002- 1 plough, 1 wheel barrow and above 2 cattle.	The household had many members when it was established but witnessed a significant fall in membership over the remaining period studied.	Harvested above average in good rainy seasons and below average during dry spells.	In the first 11 years, there were no efforts towards income diversification- smallholder farming was the main livelihood strategy but thereafter there was livelihood diversification.	There is a general reliance on farm income since establishment. The absence of non-farm activities and off-farm activities between 1994 and 2001 suggests the significance of livestock ownership and good asset endowment and the reliability of climatic elements. Although the change in these attributes led to diversification into piecework, remittances and humanitarian handouts, they did not constitute a crucial percentage of the livelihood portfolio. There was no decline in the significance of farm income.

Source: field data, 2009



The above table demonstrates that the experiences of the eight households studied are dissimilar depending on the structure of the household and livestock and asset endowment. Apart from climate variability, farm capital and farm labour are crucial in determining the levels of farm productivity. For example, it is in the households without draught power (Households 1, 2 and 5) where there are low farm productivity levels, and for Households 1 and 2 there was a rise in the significance of non-farm activities. Household 5 did not necessarily re-orient towards non-farm and off-farm activities, but its production levels were so low that they were not sufficient to sustain the household. This household mainly relied on humanitarian handouts from NGOs.

Although Household 4 did not have draught power from 1990 to 2001, its experience was a little different from the other households mentioned above because of its composition – it had a lot of able-bodied members who worked in the fields. Therefore their farm production levels were nonetheless reasonably high, except for 1992 when there was a severe drought, and between 1999 and 2006, when there were unfavourable farming seasons. It can be established, however, that those households without draught power are affected by climate variability more compared to those households with draught power. For example the farm productivity levels for Households 3, 6, 7, and 8 are better even during bad farming seasons. This is because of their ability to have multiple planting dates since they have draught power (field data, 2009). This, according to them, reduced the probability of overall crop failure.

#### ***5.4.2 Applicability of the de-agrarianisation thinking***

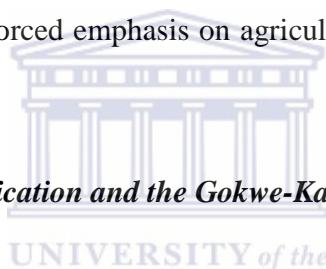
From the findings, it has been established that de-agrarianisation (in Bryceson's formulation) is not entirely evident among the households studied. It is not a continuous process but it is an element of an iterative/pendular process involving both de-agrarianisation and re-agrarianisation, proving the hypothesis which guided this study correct. The only evidence which might confirm the existence of the de-agrarianisation process is the reduction in household production during the seasons in which there were unfavourable climatic conditions and the consequent increase in the significance of rural non-farm and off-farm income relative to farm income. However, to those households which had good asset ownership status there was much cultivation resilience and good harvests.

There was no respective reduction in the time, labour and resources devoted to smallholder farming in response to climate variability. A cultivation culture has been noted in the community resulting in cultivation resilience which generates various coping strategies depending on natural resource endowment and economic performance. In this vein five out of the eight households sampled added sorghum – a drought resistant crop – to their crop portfolios to reduce risks of drought spells, and one household shifted planting dates to early October since part of its plot was wetland. The majority of the studied households in Nyoni village – 4 out of the 5 – diversified their livelihood portfolios by selling water at the business centre (*Chitekete*) because of the availability of wells in their area, while in Maringa 1 village only one out of the three households studied were involved in this activity due to their location away from the area with wells.

A qualitative analysis of the off-farm and non-farm activities in the area has suggested that about 80% of these activities provide petty income which is used for incidental uses. For example, when a household needs some money to buy soap, cooking oil, go to the grinding mill (*Chigayo*), buy salt, among others, while during the majority of the time they relied more on farm activities (eating green produce, selling green produce and selling the dry produce. After 2000, non-farm activities were also limited to those activities that relied on one's skill and/or those which had a very small pay back period because of the hyperinflationary environment. As

the period drew closer to 2008, non-farm activities which involved buying and selling were not evident among the smallholder farmers. Informal traders (cross border traders) came from other areas like Harare and Bulawayo and sold food stuffs and other goods in foreign currency (field data, 2009).

What this means is that Zimbabwe's economy after 2000 presented a special situation which reduced the number of non-farm activities that smallholder farmers could be involved in. HH2 shows the severe consequences of this – its diversification/de-agrarianisation strategy was impaired by macro-economic circumstances. And this is a problem for those households who are so poor and small that their level of agriculture remains very small. This is the reason why there was cultivation resilience – smallholder farming during this period was the lifeblood for the majority of the households, because at the very least they could generate in-kind income in the form of direct consumption. The forced emphasis on agriculture in a sense represents a form of re-agrarianisation.

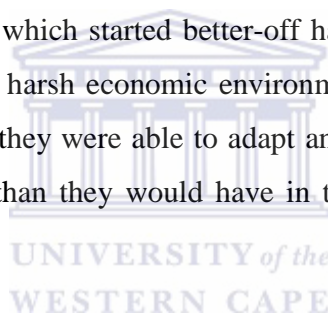


#### ***5.4.3 Social differentiation/identification and the Gokwe-Kabiyuni area***

Although it might not be easy to establish the impact of education among household members, since literacy levels in general were very low, it can be noted that levels of education did not completely disengage household members from farm-related activities. It was established that higher unemployment rates due to the closing of industries reduced the employment opportunities for the majority of the able-bodied household members. In some cases (in four households) in which household members were formally employed outside the household plot, they contributed money to improve the plot better than they would have done if they were at the plot. This they did by sending remittances which were used to buy inputs for cultivation and even to hire farm labour. On the other hand, they also benefited from the farm produce. This is what has been observed by others (Dione 1989, Estudillo and Otsuka 1999, and Mohapatra et al 2005) (see Chapter 2). In this regard, rising of literacy levels and the spatial relocation of household members were not necessarily driving or indicating a process of de-agrarianisation in this area. It can be asserted that they contributed to the opposite, i.e. re-agrarianisation, because the remittances sent assisted the remaining household members in terms of agricultural inputs

and gave them leverage in their efforts to diversify their farming activities. Alternatively, one could say that the emerging importance of remittances repatriated from abroad did represent a form of de-agrarianisation, but where the non-agricultural activities were by necessity located outside of Zimbabwe's borders; and yet, it was by virtue of the same economic processes that compelled Zimbabweans to seek an economic footing further afield that guided the remittances into agriculture, i.e. because the opportunities for rural off-farm economic activities were increasingly compromised by the country's economic crisis.

There was no noticeable improvement in the status of households which started poor: they remained poor over the period, and 'de-agrarianising manoeuvres' did not necessarily help them because of broader macro-economic problems. Those who started well-off generally prospered, notwithstanding problems with weather fluctuations, and they did so largely through agriculture. The reason is that the households which started better-off had an upper hand to resist the risks posed by climatic change and the harsh economic environment, because their assets served as safety nets, on the basis of which they were able to adapt and thrive. Does that mean that these households managed even better than they would have in the absence of Zimbabwe's macro-economic situation?



#### ***5.4.4 Market structures and the de-agrarianisation thinking***

The input and produce market both for livestock and crop production in the area was distorted due to the combined impact of the location of the two villages away from Gokwe Town (the nearest town) and the weaker negotiating position of the majority of the households, especially after 2000. Smallholder farmers in this area did not have a strong voice to influence the trends of the market- they were not organized in strong lobbying groups to negotiate for increase in the selling price for their agricultural products. In fact prices were imposed upon them and because of their position (lack of alternative markets especially for grains where the Grain Marketing Board enjoys monopoly of the market), they accepted the terms. In addition to this, the hyperinflationary environment meant that what was due to them when they sold their produce to the Marketing Boards lost value in the time lag between delivery of produce and actual

processing of payment since processing took between one month and three months. This confirms Freeman and Silim's (2001) and Heinman's (2002) observation of informational constraints, organisational fuzziness and lack of negotiating power as the major challenges facing smallholder agriculture. This further compromised the position of smallholder farmers since they have to continuously dance to the tune of the market patrons, especially in the case of contract farming. This is a clear manifestation of what the Marxists interpret as capitalist market structures which are disadvantaging smallholder farmers in the area.

#### ***5.4.5 The livestock side of smallholder farming***

Livestock is central to the livelihoods of smallholder farmers in the two villages since they provide draught power for the fields and for those households which sell water, for milk, manure for conservation agriculture, for generating income by providing draught power for other households or by selling them, and for providing the household with meat. However in terms of policy, this element of smallholder agriculture is often ignored or given little attention, evidenced by the absence of support both from government and from the NGO sector. As mentioned in earlier sections, this resulted in increased livestock mortality rates. Changes in climate variability in the area do not necessarily affect the rearing of livestock, if livestock drugs and sprays were to be provided. This is one element missing from Bryceson's conceptualization.

## CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

This study has demonstrated that in the two villages in the Gokwe-Kabiyuni area that were researched, namely Nyoni and Maringa 1, climate change, and spatial relocation away from farming based livelihoods, population growth and improvement in literacy levels among smallholder farmers in the area have not necessarily contributed to de-agrarianisation. The following points can be distilled from the analysis:

- (a) Although climate variability is evident and in some years affects crop yields in the area, leading to an increase in the (relative) significance of off-farm and non-farm activities, the incidences do not necessarily confirm the de-agrarianisation thinking. The evidence reveals a process of agrarian resilience in which smallholder farmers adapt to climate variability by diversifying into non-farm activity largely as a consequence of failure of the farming season and/or failure of their crops to find favourable prices on the market. In this regard, non-farm and off-farm income do not necessarily contribute a significant percentage to the overall livelihood portfolios except during years of severe drought.
- (b) Spatial relocation of people from the villages is not necessarily an indicator of de-agrarianisation since it has been established that the members of the households studied who moved to other places for employment do not completely disengage themselves from the farm, but rather continue to support the system through the provision of seeds, pesticides and cash to use for hiring labour in the fields.
- (c) The non-farm activities in the area are limited and rely on the few natural resources available in the area, for example the selling of water.
- (d) Smallholder farming is diversified (i.e. crop farming mixed with livestock rearing) to such an extent that if supported (for example by providing inputs, expert information, providing animal drugs and improving market structures), it is able to resist effects of climate variability.
- (e) Conservation agriculture is reducing the time previously devoted to off-farm activities and non-farm activities because of its labour intensiveness which requires early land preparation.

Because of these observations, this mini-thesis recommends that rural development needs in Sub-Saharan Africa should be viewed through a historical lens wherein experiences which shaped the current extent of disadvantage of smallholder farmers are taken into consideration. For example, unjust land tenure systems, unfair market regimes and inaccessibility of their areas compromise the smallholder farmers' ability to effectively cope with changes in the environment. These issues should be addressed by both government and the NGO sector because smallholder farming is still the lifeblood of the households in the area.



## REFERENCES

- Arrighi, G., (1967), *The Political Economy of Rhodesia*, Mouton, The Hague, The Netherlands
- Barrett, C. B., M. Bezuneh, D. Clay, and T. Reardon. 2005. Heterogeneous constraints, Incentives and Income Diversification Strategies in Rural Africa. *Quarterly Journal of International Agriculture* 44 (1): 37-60
- Bernstein, H., 1994, 'Agrarian Classes in Capitalist development', in L Sklair (ed.) *Capitalism and development*. Routledge, London and New York.
- Bernstein, H., (2004), 'Changing before our very eyes: Agrarian Questions and the Politics of Land in Capitalism Today' In *Journal of Agrarian Change*, vol 4 no 1 and 2.
- Bernstein, H., (2006) 'Is there an Agrarian Question in the 21<sup>st</sup> century?' *Canadian Journal of Development Studies* vol. 27, no. 4.
- Bryceson, D., 1997, 'De-agrarianisation in Sub Saharan Africa: Acknowledging the inevitable,' in D. Bryceson and V. Jamal (eds), *Farewell to farms: De-agrarianisation and Employment in Africa*, African Studies Center Research Series 1997/10, Ashgate: Aldershort.
- Byres, T., J., (2004) 'Neo-classical Neo-populism 25 years on: Déjà vu and Deja Passe. Towards a critique' *Journal of Agrarian Change*, vol 4, no. 1 and 2, 17-44.
- Chatora, N., 2003, 'Resettlement and Beneficiary Support- Settlement and Resettlement Models in Zimbabwe', In *Delivering Land and Securing Rural Livelihoods: Post Independence Land reform and Resettlement in Zimbabwe*, CASS and LTC- University of Wisconsin-Madison, USA.
- Cheater, A., P. (1984), *Idioms of accumulation*. Mambo press, Gweru, Zimbabwe.
- Cordell, D. D., Gregory J.W., and Peach, V., (1996), *Hoe and Wage. A social History of a Circular Migration in West Africa*, Boulder, CO: Westview Press.
- Cousins, B., Weiner, D., and Amin, N., (1992), *Social Differentiation in the communal lands of Zimbabwe*, In *Review of African Political Economy* no 53, 5-24.
- Deane, D. N., 1997, *climate, crops and cash: An investigation into the impact of EL NINO-SO Southern Oscillation (ENSO) forecasts on communal farmers in Zimbabwe*. PhD Dissertation presented at William College, Williamstown, Massachusetts.
- Ellis, F., 2000, *Rural Livelihoods and Diversity in Developing Countries*, Oxford University Press.



Estudillo, J. P., A. R. Quisumbing, and K. Otsuka. 2001. 'Income Distribution in Rice growing villages during the post green revolution periods: The Philippines case, 1985 and 1998,' *Agricultural Economics*, 25:71-84.

Freeman, H. A., and Silim, S. S., 2001, 'Commercialization of smallholder irrigation: The case of Horticultural crops in the arid areas of Eastern Kenya' in A. Sally and C. L. Abernethy (eds) *Private irrigation in Sub Saharan Africa: Proceedings of regional seminar on private sector participation in irrigation expansion in Sub Saharan Africa, 22-26, Accra, Ghana, IMWI, FAO and CTA.*

Griffin, K., A.R. Khan and A Ickowitz, 2002, 'Poverty and the Distribution of Land' in *Journal of Agrarian Change*, 2 no 3.

Gwimbi. P., (2009) Cotton farmers' vulnerability to climate change in Gokwe District (Zimbabwe): Impact and influencing factors. *JAMBA: Journal of Disaster and Risk Studies*, Vol 2, no 2 November 2009: 81- 92.

Hayami Y. and V. Rattan, 1985, *Agricultural Development: an international perspective* (revised and expanded edition) Baltimore and London: John Hopkins University Press.

Heinemann, E., 2002, *The role and limitations of Producer Associations: European forum for Rural Development cooperation*, 4 September, Montpellier.

Jansen, H. G. P., A. Rodriguez, A Damon, J. Pender, J. Chenier and R Schipper, 2006. *Determinants of income earning strategies and adoption of conservation strategies in hillside communities in Rural Honduras,* *Agricultural Systems* 88:92-110.

Kinsey, B., H., (1999), 'Land Reform, Growth and Equity: Emerging evidence from Zimbabwe's,' *Journal of Southern African Studies*, vol 25, no 2, 173-196.

Kosim, B., (1977), 'The Inyoka Tobacco Industry of the Shangwe people: The Displacement of the pre-colonial economy in Southern Rhodesia 1898-1938,' In Palmer, R. and Parsons, N., (Eds) *The Roots of Poverty in Central and Southern Africa*, Heinemen, London.

Lenin, V., I., (1973), 'The Development of Capitalism in Russia', vol 3 *of Collected Works*, Progress Publishers, Moscow, Russia.

Lipton, M., F. Ellis and M. Lipton, 1996, 'Introduction' in M. Lipton, M. Deklerk and M. Lipton (Eds), 'land, labor and livelihoods in Rural South Africa: Volume 1: Western Cape, Durban: Indicator Press.

Marx K., 1976, *Capital*, vol 1, Harmondsworth: Penguin (first published 1867).

Magingxa, L. and Kamara, A., 2003, *Institutional perspectives of enhancing smallholder market access in South Africa*, Paper presented at the 41<sup>st</sup> Annual conference of the Agricultural Economics Association of South Africa (AEASA), October 2-3, Pretoria, South Africa.

- McAllister, P., 2000, Maize yields in the Transkei; How productive is subsistence cultivation? PLAAS occasional paper series no. 14. Cape Town: University of The Western Cape.
- Mohapatra, S., S. Rozelle, and J. Huang, 2005. Climbing the Development ladder: Economic Development and the evolution of occupations in Rural China, UC Davies working paper.
- Moula, E. L., 2002, 'Climate variability and farm level adaptation options: The challenges and implications for food security in Southern Cameroon' in Environment and Development Economics 7; 529-545, Cambridge University press, UK.
- Neocosmos, M., 1986, Marx's Third Class: Capitalist Landed Property and Capitalist Development. Journal of Peasant Studies, 13 (3): 5- 44.
- Pretorius, C.J., and Small M.M., 1992, Notes on the Macro-economic effects of the drought, Quarterly Bulletin of the Reserve Bank, June 1992:31-38.
- Reardon, T., J. Bedegue, Christopher B. Barret and Kostal Stamoulis, 'Household Income Diversification unto rural nonfarm activities', in S. Haggblade, P. Hazell and T. Reardon (Eds.), Transforming the rural non-farm economy .Baltimore: John Hopkins University Press.
- Rukuni, M., (2006), 'The Evolution of Agricultural policy: 1890-1980,' In Rukuni et al (Eds), *Zimbabwe's Agricultural Revolution Revisited (second edition)*, University of Zimbabwe Press, Harare.
- Sachikonye, L., M., (2003) 'From Growth with Equity to Fast Track Reform: Zimbabwe's Land Question', Review of African Political Economy, no. 96, 227-240.
- Scoones, I., 1996, Crop Production in a Variable Environment: A case study from southern Zimbabwe, Development and Change, 26:67-88.
- Timmer C. P. 1998 'The Agrarian Transformation', in C. Eicher and J. Staats (eds.), International Agricultural Development (third edition), Baltimore and London: John Hopkins University Press.
- Unganai, L.S., 1996, Historic and future climatic changes in Zimbabwe, Climate Research 6:137-145.
- UN-HABITAT 2009, Housing Finance Mechanisms in Zimbabwe. United Nations Human Settlement Programme. Nairobi.
- Van Seventer, DEN, Faux, CS and Van Zyl, J., 1992, An input output analysis of agribusiness in South Africa. Agrekon, 31(1):12-21.
- Van Zyl, J., and Vink, N., 1998, Employment and Growth in South Africa: an agrarian perspective, Development Southern Africa, 5:12-29.

Vink and Kirsten, 2000. Deregulation of Agricultural Marketing in South Africa: Lessons learned. The Free market Monograph no. 25, Sandton, South Africa.

Wolpe, H., 1972, 'Capitalism and cheap labour in South Africa: from Segregation to Apartheid', Economy and society.

Yaro, A. J. 2006, Is de-agrarianisation real? A study of livelihood activities in Northern Ghana: Cambridge University Press.

Zimbabwe Human Development Report 2000, UNDP and Poverty Reduction Forum.



**ANNEX: HOUSEHOLD QUESTIONNAIRE**

**HOUSEHOLD QUESTIONNAIRE**

I am a student from the University of The Western Cape (Institute for Poverty, Land and Agrarian Studies), carrying out a study on smallholder farmers responses to changes in the farming environment. The study is done in partial fulfillment of the requirements of the Master of Philosophy Degree in Land and Agrarian Studies. It is therefore done solely for academic purposes.

Your household has been selected to assist with information to this effect. I therefore, kindly request you to respond to the following questions.

**SECTION A: SOCIO-ECONOMIC DATA- Household structure over the years**

1. Please indicate the status of your household in the appropriate box among the boxes provided below

- (a) Father headed household 1
- (b) Mother headed household 2
- (c) Child headed household 3

(d) Other (Please explain).....  
.....

2. How many people stay at this homestead? Please write your answer in the space provided below

.....

3. How many members constituted your household during the time listed below?

By 1990.....

By 1995.....

By 2000.....

By 2005.....

By 2008.....

4. Have you ever had members of your family who work outside the family farm/plot? Please indicate by filling in the appropriate box below.

Yes

No

If your answer to question 4 was no, please skip question 5 and 6

5. Please indicate the periods when you used to have a member/ members of your family working outside the family farm/ plot.

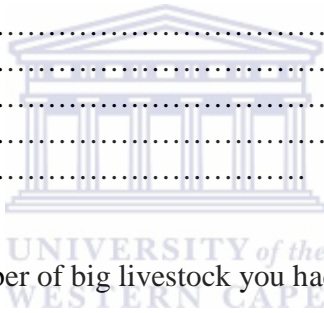
.....  
.....  
.....

6. What type of jobs were they doing? Please fill in the space provided below.

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

7. What are their levels of education?

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



8. Please indicate the average number of big livestock you had at the following times in the past;

By 1990.....

By 1995.....

By 2000.....

By 2005.....

By 2008.....

9. Are there other members of the family who stay outside the homestead? Please tick in the appropriate box below.

(a) Yes

1

(b) No

2

If your answer to question 3 was 'no', please skip question 4

10. What is their occupation? Please fill in the space below

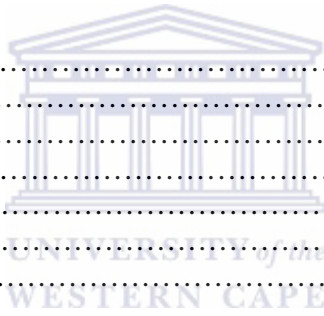
- (a).....
- (b).....
- (c).....
- (d).....
- (e).....

11. Where do they stay? Please fill in the gape provided below

- (a).....
- (b).....
- (c).....
- (d).....
- (e).....

12. Please list the activities which you carry out over a calendar year against the appropriate months below. For example land preparation, planting, weeding, harvesting etc. You are free to write more than one activity per month

- January.....
- February.....
- March.....
- April.....
- May.....
- June.....
- July.....
- August.....
- September.....
- October.....
- November.....
- December.....



13. Which activities do you carry out outside your farm area and homestead? Please list in the space provided below.

- (a).....
- (b).....
- (c).....

14. How do you rate your involvement in off-farm activities since 1990? Please indicate by writing the raking from 1-4 (with 1 representing the period when you were involved much in off-farm activities against the periods below

1990-1995

1996-2000

2001-2005

2006-2008

15. Do you receive any form of income from your relatives who are employed outside the family homestead? Please indicate your answer by ticking in the appropriate box below.

Yes

No

9. For what purposes do you usually use the money? Please fill in the appropriate space below

Payment of school fees

Buying food

For medication

Buying farm implements

Buying clothes

Hiring labor for the fields

To start income generating projects

To pay for a feast, burial etc

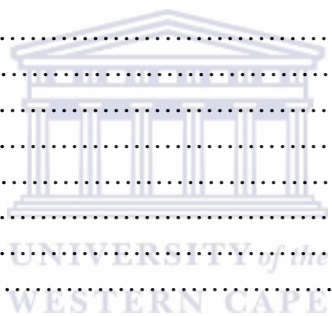


**SECTION B: TRENDS IN THE FARMING ENVIRONMENT**

16. Please indicate the events which affected your operations on your arable land against the particular years indicated below.

1990-1995 .....  
Physical.....  
.....  
Economic.....  
.....  
Social.....  
.....  
.....

Political.....	.....
.....	.....
.....	.....
1996- 1999.....	.....
Physical.....	.....
.....	.....
.....	.....
Economic.....	.....
.....	.....
.....	.....
Social.....	.....
.....	.....
.....	.....
Political.....	.....
.....	.....
.....	.....
2000-2005.....	.....
Physical.....	.....
.....	.....
.....	.....
Economic.....	.....
.....	.....
.....	.....
Social.....	.....
.....	.....
.....	.....
Political.....	.....
.....	.....
.....	.....
2006-2008.....	.....
Physical.....	.....
.....	.....
.....	.....
Economic.....	.....
.....	.....
.....	.....
Social.....	.....
.....	.....
.....	.....
Political.....	.....
.....	.....
.....	.....





17. Please indicate how much of each crop you harvested (on average) per year during the following periods. Please write down the name of the crop and the quantity in bags, bales etc.

1990-1995

- Crop no 1.....
- Crop no 2.....
- Crop no 3.....
- Crop no 4.....
- Crop no 5.....
- Crop no 6.....
- Crop no 7.....

1992-1999

- Crop no 1.....
- Crop no 2.....
- Crop no 3.....
- Crop no 4.....
- Crop no 5.....
- Crop no 6.....
- Crop no 7.....

2000-2005

- Crop no 1.....
- Crop no 2.....
- Crop no 3.....
- Crop no 4.....
- Crop no 5.....
- Crop no 6.....
- Crop no 7.....



2006-2008

- Crop no 1.....
- Crop no 2.....
- Crop no 3.....
- Crop no 4.....
- Crop no 5.....
- Crop no 6.....
- Crop no 7.....

18. For each crop that you cultivate/cultivated, please indicate the distance between your homestead and the marketing depot.

- Crop no 1.....
- Crop no 2.....
- Crop no 3.....

Crop no 4.....  
Crop no 5.....  
Crop no 6.....  
Crop no 7.....

19. When were the depots established? Please fill in the space provided below.  
.....

