



UNIVERSITY OF ZIMBABWE

SMALL-SCALE RESETTLEMENT FARMERS AND SMALL GRAIN PRODUCTION.
CASE OF DICK HUCK RESETTLEMENT AREA, MOUNT DARWIN DISTRICT.

 \mathbf{BY}

TIMOTHY MUSHAMBI (R123812M)

THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS OF THE MASTER OF SCIENCE DEGREE IN SOCIOLOGY AND SOCIAL ANTHROPOLOGY, DEPARTMENT OF SOCIOLOGY, FACULTY OF SOCIAL STUDIES, UNIVERSITY OF ZIMBABWE FEBRUARY, 2017.

Table of Contents

DECLARATION	5
ACKNOWLEDGEMENTS	6
DEDICATION	7
ACRONYMS	8
ABSTRACT	9
CHAPTER ONE	10
1.1 Introduction	10
1.2 Background of the study	10
1.3 Problem statement	13
1.4 Research objectives	13
1.5 Research questions	14
1.6 Significance of the study	14
1.7 Operationalization of terms	14
1.7.1 Private Company Committee	14
1.7.2 Village Development Committee (VIDCO)	15
1.7.3 Well up farmers	15
CHAPTER TWO	16
Literature review	16
2.1 Introduction	16
2.2 Definition of Small grains	16
2.3 Definition of Climate change	16
2.4 Definition of food security	16
2.5 Impacts of small grains on food security.	17
2.6 Assistance given to farmers by the government, NGOs and private companies	18
2.7 Evidence to justify the occurrence of climate change	19
2.8 Hindrances to small grain production	21
2.8.1 Depredations of the quelea birds on small grains	21
2.8.2 Labor costs associated with small grain production	21
2.8.3 Failure of small grains to yield much crop residue	22
2.8.4 Limited market	22

	2.8.5 Labor intensiveness of small grain production	22
	2.8.6 Lack of government support	23
2.9	9. Other livelihood strategies to enhance food security	23
CHAF	PTER THREE	24
3.1	I Theoretical Framework	24
CHAF	PTER FOUR	26
4.1 R	esearch methodology	26
4.2	2 Sampling Procedure	26
4.3	3 Data collection methods	27
	4.3.1 Semi-Structured Interviews	27
	4.3.2 Focus Group Discussions	27
	4.3.3 Key Informant Interviews	28
	4.3.4 Document analysis	28
4.4	4 Ethical considerations	29
	4.4.1 Beneficence	29
	4.4.2 Respect	29
	4.4.3 Justice	30
	4.4.4 Confidentiality	30
4.5	5 Limitations of the study	30
CHAF	PTER FIVE.	31
Prese	entation of findings	31
5.1	I Introduction	31
5.2	2 The kind of assistance that people got from the government, NGOs and private companies	31
5.3	3 Farmer's views on small grains as crops that can enhance household food security	34
5.4	Farmers' views on climate change as something that is happening their area	35
5.5	5 Hindrances to small grain production	38
	5.5.1 Depredations of the quelea birds on small grains	38
	5.5.2 Land shortages as a factor	39
	5.5.3 Labor costs associated with small grain production	40
	5.5.4 Failure of small grains to yield much crop residue	40
	5.5.5 Limited market	41
	5.5.6 Labor intensiveness of small grain production	41

5.5.7 Lack of government support	42
5.5.8 Corruption and nepotism as factors	42
5.5.9 Preference to white sadza.	43
5.6 Other livelihood strategies to enhance food security	43
5.6.1 Selling of wood.	43
5.6.2 Gold panning	44
5.6.3 Buying and selling.	45
5.6.4 Small and large livestock production	46
5.6.5 Paid labor	46
5.6.6 Gardening	47
5.6.7 Stealing	47
5.6.8 Drug dealing.	47
5.6.9 Extramarital affairs	48
CHAPTER SIX	50
Discussion and conclusion	50
6.1 Introduction	50
6.2 Natural factors beyond human control	50
6.3 Contestations of access to resources	51
6.4 Ineffectiveness and corruption of the VIDCO and the Private Company Committee	52
6.5 Preference to white sadza.	52
6.6 Conclusion	53
REFERENCE LIST	55

DECLARATION

I declare that this dissertation is my own work. It is submitted for the Master of Science Degree in Sociology and Social Anthropology at the University of Zimbabwe. It has not been submitted for any other degree or examination in any other University.

(TIMOTHY MUSHAMBI)

ACKNOWLEDGEMENTS

First, and foremost I am eternally grateful to the Almighty God for granting me divine favour. Indeed in Him My Anchor Holds.

I remain very grateful to Professor Mararike, my supervisor, for his analytical mind, excellent guidance and motivation and constructive criticisms that he offered me during the period of this study. You are the epitome of what supervision should be.

To my classmates Taurai, Wiriranai, Vannesa and Mercy thank you for the constructive criticisms and the group discussions. They were beneficial to me. Special thanks goes to all those who participated in this study. Without your participation, this exercise would have been a futile venture.

DEDICATION

To my late father Elias who did not live to see the fruition of his labor. Also to my living mother Emelda.

ACRONYMS

FGD: FOCUS GROUP DISCUSSIONS

KI: KEY INFORMANT

PCC: PRIVATE COMPANY COMMITTEE

VIDCO: VILLAGE DEVELOPMENT COMMITTEE

G.D.P: GROSS DOMESTIC PRODUCT

FAO: FOOD AND AGRICULTURE ORGANISATION

NGO: NON GOVENMENTAL ORGANISATIONS

ABSTRACT

In Africa, small grain production has been depicted as the most viable way to reduce food insecurity that is being caused by climate change and variability. This study sought to explore small grain production in relation to small-scale resettlement farmers in Dick Huck resettlement area in Mount Darwin District. A case study design was employed as a way of inquiry. Focus Group Discussions, Key informant interviews, Semi-structured interviews, Direct observations, and Document analysis were data collection methods in the study. Thematic analysis was used as a method for data analysis. Results from the study revealed that a number of micro and macro factors are negatively affecting small grain production in Dick Huck area. The study also revealed that giving small-scale resettlement farmers inputs to grow small grains does not guarantee their participation in small grain production.

CHAPTER ONE

1.1 Introduction

The study explored small grain food systems in relation to small-scale farmers in Dick Huck Resettlement area, Mount Darwin District by interviewing the general small-scale farmers, members of the VIDCO and also one of the Agriculture officers who operated in Dick Huck resettlement area. To achieve this, a case study approach was utilized in order to have an in-depth understanding of the phenomenon under study. The researcher also made use of KI interviews, FGDs, Semi-Structured Interviews and Document analysis as data collection methods. Respondents for the study were selected using purposive sampling and the gathered data was analyzed according to themes using the theories that are mentioned in Chapter Three of this thesis. Furthermore the discussion of the findings was done in relation to existing literature which is reviewed in Chapter Two below. The study focused on small-scale resettlement farmers. The aim being to understand why they are not taking heed of small grain production whilst they are also suffering from the effects of climate change.

1.2 Background of the study

Successive droughts in Zimbabwe compounded by other economic shocks in recent years have resulted in decreased maize productivity amongst the communal farmers. This has given rise to the need to find alternative food crops, which may sustain harsh climatic conditions (Svodziwa 2013). As such in Africa, the growing of small grains has been depicted as the workable way to reduce the food insecurity that is being triggered by climate change.

The production of small grains in Zimbabwe is not a new phenomenon. They have been widely grown since the pre-colonial times hitherto. During the pre-colonial times small grains were widely grown since they were regarded as the staple food for the people. During that era small grains were

used for several purposes such as brewing beer for Shona cultural practices such as *kurova guva* (death ritual), *nhimbe* (whereby people can work in one's field and later on drink beer), *mukwerera* (a rain making ceremony) and largely for cooking *sadza* (Svodziwa 2013). However, the encroachment of the white people into pre-colonial Zimbabwe saw the introduction of cash crops such as cotton and tobacco and also the introduction of maize as a staple food for the people. This negatively affected the production of small grains since people's attention was drawn to the production of the aforementioned crops. As a result small grains ceased to be the major crops of Zimbabwe in particular and of Africa in general. However this did not led to the absolute fall of small grain production since the production of small grains persisted into colonial times hitherto but on a small scale.

Nciizah (2014) and Svodziwa (2015) argued that in post-colonial Zimbabwe, small grains are mainly grown in semi-arid areas where maize production is not viable. Such areas include rural areas in districts such as Mwenezi, Rushinga and Bohera only to mention but a few. This is because these areas naturally receive small amounts of rainfall as compared to other districts such as Mazowe, Shamva and Bindura only to mention but a few.

However, due to climate change that has impacted on every corner of Zimbabwe it is important to note that agro-ecological regions are now a history. This is because the climatic conditions of Sub-Sahara region have shifted towards semi-arid to arid like conditions (Manyeruka et al 2013 and IPCC 2007). In Zimbabwe, this shift in climatic conditions has created a situation whereby small grain production is now an activity of the agro-ecological regions where maize production used to dominate. This is because almost every part of Zimbabwe is now receiving unreliable amounts of rainfall and maize production is now extremely vulnerable to drought. This has greatly threatened household food security especially in areas where maize production is widely practiced and Dick

Huck resettlement area is part of these areas. As such, in response to the food insecurity that is being instigated by climate change and also in pursuit of the need to guarantee sustainable rural agriculture the government of Zimbabwe and the private companies together with NGOs has since started supplying small scale rural farmers with the needed resources in order for them to embark on the production of small grains. The agenda being to free rural people from the austere effects of climate change and also to enhance rural development.

In Mount Darwin District, farmers were given such resources in order for them to venture into the production of small grains. However, in Mount Darwin District especially in Dick Huck resettlement area, the persistence of food insecurity is a clear testament that farmers are not taking heed of the growing of small grains. As such this research focused on the reasons as to why small scale farmers in Dick Huck resettlement area are not taking seriously the production of small grains.

In line with the above arguments, literature on climate change and rural livelihoods have revealed that a lot of people in most rural areas of Zimbabwe are not taking heed of the production of small grains. People still favor the production of maize and other cash crops such as cotton and tobacco despite the fact that the current climatic conditions are no longer conducive for the production of the aforementioned crops (Svodziwa 2015, Nciizah 2014 and Makurambwa et al 2010). Such a paradox was the bone of contention of this study.

Dick Huck resettlement area is located in Mount Darwin District of Mashonaland Central Province. The area is under the Chieftainship of Chief Madziwa. The resettlement area consists of 120 plot holders who mainly focused on the production of maize, cotton and tobacco. This study explored the reasons as to why farmers in Dick Huck resettlement area are not taking heed of small

grain production whilst they are also suffering from food insecurity that is being caused by climate change.

1.3 Problem statement

In Zimbabwe, climate change has been depicted as the major cause of household food insecurity (Svodziwa 2015). Furthermore climate change and variability are not only a threat to household food security but also to the economic development of Zimbabwe as a nation (Mallet 2001 and Svodziwa 2015). In response to the food insecurity that is being caused by climate change and also in pursuit of the need to guarantee sustainable rural agriculture the government of Zimbabwe through the Ministry of Agriculture and NGOs together with private companies saw the necessity to support small-scale rural farmers with the needed resources for the growing of small grains. At Dick Huck resettlement area farmers were given such resources in order for them to embark on the production of small grains. However the efforts of the government, NGOs and that of the private companies seem to be in vain as most farmers in Dick Huck resettlement area are not taking heed of the need to embark on small grain production. There is need to understand why farmers in Dick Huck resettlement area are not taking heed of growing small grains whilst they are suffering from the food insecurity that is being caused by climate change and this study seeks to explore that.

1.4 Research objectives

The study seeks to:

- a) Identify the kind of assistance small-scale farmers received from the government, NGOs and the private companies.
- b) Understand the farmers' views on climate change and if they see it happening why not taking heed of small grain production.

c) Identify other livelihood activities farmers have as strategies to food insecurity.

1.5 Research questions

- a) What kind of assistance did you get from the government, NGOs and the private companies?
- b) Do you see climate change as something that is taking place in this area?
- c) If it is happening why are you not taking heed of growing small grains?
- d) Besides crop farming what other livelihoods do you have as strategies to food insecurity?

1.6 Significance of the study

In Zimbabwe small grain production and climate change are not under researched areas, as shown by studies done by Svodziwa (2015), Juana et al (2012), Rukuni (1994) and Rohrbach (2003). However some of these studies partially discussed the growing of small grains in relation to small-scale resettlement farmers. Although all these studies revealed the need to grow small grains as an adoptive strategy to climate change, little research has been done on ground on the extent to which small-scale resettlement farmers participate in small grain food systems. As such, this study seeks to contribute to the literature on small grain food systems in particular and to the literature on rural development in general. It provides insights on the degree to which small-scale resettlement farmers participate in the growing of small grains. This will produce valuable information on the readiness of the small-scale resettlement farmers to enhance food security.

1.7 Operationalization of terms

1.7.1 Private Company Committee

Refers to a local village level committee that represents private companies, in case of Dick Huck area this committee represents Green Trade International, Mercy Corps and Delta Beverages. The members of such committee are chosen by the local people to represent them on issues to do with small grains.

1.7.2 Village Development Committee (VIDCO)

Refers to the local level village committee that monitors, regulates and takes a lead in any village development programs.

1.7.3 Well up farmers

Refers to those farmers with a lot of money and also those who produce high yields of tobacco.

CHAPTER TWO

Literature review

2.1 Introduction

This chapter contains a review of literature with theoretical, methodological, and empirical findings related to the current study. As Hart (1988) notes, this process is critical in unraveling how current empirical academic researches contribute to the already existing body of literature. This literature review is done in order to establish how this study is related to and contributes to the already existing studies on rural development.

2.2 Definition of Small grains

Musevenzi (2012) noted that small grains include crops such as sorghum, ground nuts, round nuts, rapoko, millet, water melon, pumpkins and cowpeas. FAO (2010), Makurambwa et al (2010) and Svodziwa (2015) noted that small grains have the potential to enhance household food security in rural Zimbabwe due to their adaptability to harsh climatic conditions.

2.3 Definition of Climate change

The IPCC (2007) defined climate change as the significant variation of the mean state of climate relevant variables such as temperature, precipitation and wind in a certain period of time usually over 30 years. These changes in the climate can be natural, resulting from the climatic system and its internal dynamics. The IPCC (2007) further argued that climate change can be induced by natural factors such as volcanic eruptions and solar variations as well as human induced changes in atmospheric composition.

2.4 Definition of food security

Kidane et al (2005) postulated that, food security is defined in different ways by global organizations and investigators. Arguing in this vein, Maxwell (1996) postulated that, there are

about 200 definitions of food security. Following this further, Maxwell (1996) went on to argue that, the term food security is a malleable term that should be given its clear definition. The World Food Summit 1996 defined food security as a condition that exists when all people at all times have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life

2.5 Impacts of small grains on food security.

Taylor (2003) argued that, small grains such as sorghum and millet are important cereals for the maintenance of food security in Africa. The same notion was supported by FAO (2008) that small grains are the answer to chronic food shortages to rural communities who reside in semi-arid regions especially of the sub Saharan region. This is because of their high levels of adaptation to African conditions. Taylor (2003) further argued that, small grains represent about half the total cereal production on the continent and as such they are a major source of protein for the population.

Van Oosterhout (1995) noted some benefits of small grains such as rapoko over maize. He noted that small quantities of flour are needed to prepare the meal as compared to maize. He also noted that a meal prepared from the millet and sorghum can satisfy hunger for a longer period and give more energy which is an advantage for farmers who uses more labor power for agricultural activities.

Van Oosterhout (1995) went on to argue that that crops like rapoko and millet can store better than maize which cannot be stored beyond eight months. He also went on to argue that, free storage ways are available whereas maize needs sophisticated ways of storing for it to be stored for a long time, and these sophisticated ways of storing are often unaffordable by farmers. He further argued that seeds of numerous varieties of small grains are obtainable for planting from the farmers own granary when needed and can be exchanged with neighbors and relatives (they might not need to

be purchased). In years of low rainfall, small grains will give some yield especially when grown in a multicropped system, whereas maize will be a complete failure.

2.6 Assistance given to farmers by the government, NGOs and private companies

Some studies also highlighted the kind of assistance that rural farmers have been given by the government and NGOs in order for them to grow small grains. Musevenzi (2012) noted that in Muzarabani district the World Vision Zimbabwe gave each household five kilograms of cow peas and two kilograms of sorghum, millet and rapoko in every agricultural cropping season for over five years. He further argued that the intervention by World Vision Zimbabwe initially supported 600 farmers in 2005 but by the end of 2007 the number of smallholder farmer beneficiaries increased to 2119. Also in Muzarabani district Musevenzi (2012) revealed that FAO provided seeds of sorghum, cow peas and groundnuts to smallholder farmers for a four year period form 2006. In Mwenezi district Musevenzi (2012) also noted that Care International Zimbabwe gave each household seeds of small grains such as sorghum, cowpeas, pearl millet and sunflower. In Siansengwe Svodziwa (2015) noted that farmers were given seeds of small grains such as millet and sorghum by Christian Care.

As for the support by the government Manyeruke et al (2013) noted that the government of Zimbabwe has not done much to fund the growing of small grain crops. In line with the above argument Mudimu (2003) noted that lack of support by the government on small grain production can be regarded as a poor strategic planning as the government of Zimbabwe keeps on distributing maize seed in areas that are prone to drought instead of encouraging people in these areas to grow small grains. This also tallies well with Foti et al (2007) who argued that not much benefit has been achieved from the government's subsidized scheme especially in semi-arid areas because the input packages and the variety that was issued did not tally with the agro-ecological location of

the farmer. However on the other hand, from his studies in Gokwe, Mwenezi and Muzarabani districts Musevenzi (2012) observed that from the support of the Department of Agricultural Extension Services (which is a branch of the government) NGOs were able to introduce and promote increased production of small grains for food security at the expense of cotton and maize since 2003. Furthermore from his findings pertaining Gokwe, Mwenezi and Muzarabani districts Musevenzi (2012) also observed that the government also supported farmers by giving them open pollinated varieties such as Marcia sorghum, pearl millet and cassava.

2.7 Evidence to justify the occurrence of climate change

Some of the studies also gave evidence to support the fact that climate change is a reality and that it is something that is happening in Zimbabwe. Manyeruke et al (2013) noted that the increase in the deviation from the mean rainfall amount from 1985 to 2000 shows the extent to which rainfall patterns are changing in Zimbabwe. In his study on agro-ecological regions of Zimbabwe, Mugandani (2012) noted that major shifts have occurred in the drought prone regions IV and V which have become drier than previously experienced. The dry regions IV and V in Zimbabwe have expanded by 5.6% and 22.6% respectively (Mugandani et al 2012). Manyeruke et al (2013) also noted that the two main food producing regions of Zimbabwe which are natural regions II and 111 have shrunk significantly. The study revealed that region 11 has shrunk by 49 % while region 111 has shrunk by 14%. Manyeruka et al (2013) further argued that what this shows is that Zimbabwe's climatic conditions are drifting towards relatively arid conditions that are not favorable for agriculture and to them this is a clear indication of the reality of climate change. Manyeruke et al (2013) further noted that the effects of climate change are evident in Zimbabwe's increasing variability in rainfall patterns, high average temperatures, increased frequency and extremity of droughts and floods. In line with the above arguments Schellnhuber et al (2013)

argued that, with global-mean warming of 4°C above pre-industrial levels by the end of the century, monthly summer temperatures across Sub-Saharan Africa are projected to increase by 4-6°C above present day temperatures, and reach 5-7°C over North Africa. They further argued that these increases are limited significantly to around 1°C above present-day temperatures in a scenario approaching 2°C globally by 2100.

Furthermore, Serigne et al (2006) argued that, the projected increase in greenhouse gas emissions in the atmosphere over the 21st century will have detrimental and disruptive effects on human and economic activity. They further argued that Africa is anticipated to be the most negatively affected continent on the planet due to several factors such as low adaptive capacity. To further support the above argument one can take into consideration the fact that in 2011 and 2012 Zimbabwe was forced to import over 50% of its maize requirements (The Zimbabwean 2012). This has been attributed to a reduction in the amount of rainfall received annually which has greatly affected yields of maize crop (ZUNDAF 2011). Garcia (2008) argued that, what makes climate change important in Africa's development is the reliance of many African countries on rain-fed agriculture. Changing rainfall patterns, for example, threaten to severely impact agricultural activity in Africa especially in the Sahel, East Africa and Southern Africa reducing rain fed agriculture by as much as 50 percent in some countries (Garcia 2008). It needs to be highlighted that agriculture and climate change are inextricably linked.

Furthermore, it needs to be noted that climate change has been taking place for many decades but its effects are now being clearly witnessed and are likely to continue rapidly taking place (Serigne et al 2006). A warming trend in Africa has been observed since the 1960s and this is expected to continue as global mean temperatures rise mostly consistently across the continent (Frost, 2001).

The fact that climate change is an irreversible process makes climate change and variability a recurring topic and calls for the dire need to adapt to it especially among many people who have become vulnerable (Garcia 2008). It has become common knowledge that the poor people will be hit hardest by climate change due to obvious reasons. For instance, it appears clear that vulnerability to climate change is closely related to poverty, as the poor are least able to respond to climatic stimuli.

2.8 Hindrances to small grain production

2.8.1 Depredations of the quelea birds on small grains

In his study in Siansengwe in Binga district, Svodziwa (2015) noted that depredations of the quelea birds on small grains was one of the factors that affected small grain production. This tally well with Nciizah (2014) who also noted that the production of sorghum in Zvishavane has been greatly affected by quelea birds especially considering that it is a big challenge to chase away these birds. Nciizah (2014) further noted that this has resulted in farmers preferring maize production since maize is prone to attacks by baboons and wild pigs which are easier to scare away than birds which attack the crop in large numbers and are difficult to chase away.

2.8.2 Labor costs associated with small grain production

Research has shown that increasing labor expenses in small grain farming has affected most farm processes from land preparations, hoeing, bird scaring, reaping and grain processing (Barret 2005, Scoones 1998, and Rukuni 1994 and Alumira and Rusike 2005). The easy with which maize can be processed compared to traditional staples such as millet and sorghum is the chief reason as to why maize is widely accepted even in Zimbabwe's semi-arid provinces (Rusike 2005). In line with the above arguments Wilhete (2000) notes that lack of processing technologies is yet another reason that has mired small grain production. By using old-style processing methods, small grains take longer to process than maize especially during reaping (Wilhete 2000 and Svodziwa 2015).

This factor has abridged its demand by even the poorest of the poor in rural Zimbabwe (Svodziwa 2015).

2.8.3 Failure of small grains to yield much crop residue

In Siansengwe, Svodziwa (2015) noted that farmers have shun small grain production due to the fact that small grains do not produce much crop residue which plays a very essential role to rural farmers in terms of animal feed and crop manure. Similar observations were also noted by Wilhete (2005), Mapfumo et al (2005) and Alumira and Rusike (2005).

2.8.4 Limited market

In Zvishavene Nciizah (2014) noted limited marketing opportunities as a major disadvantage that is associated with small grain production. The study further revealed that farmers in Zvishavane could not depend on GMB when it came to the selling of small grains such as sorghum, millets and groundnuts. Similar observations were also made by Svodziwa (2015) in his study in Siansengwe and Musevenzi (2012) in his studies in Gokwe, Mwenezi and Muzarabani districts. Following this further FAO (1995) reported that Zimbabwe's formal market handle less than 10% of the total sorghum and millet produced in Zimbabwe. The study further revealed that in Zimbabwe most of the produced small grains are consumed by the producing household or sold in the informal markets mainly for traditional beer brewing. In that regard, Svodziwa (2015) pointed out that the government of Zimbabwe must come up with polices that are pro-the growth of reasonable intra-rural markets if farmers are to be stimulated to grow small grains. In line with this argument Rohrbach et al (2007) noted that the development of rural markets for small grains like rapoko and ground nuts will help in providing interest for rural dwellers to grow small grains.

2.8.5 Labor intensiveness of small grain production

In Siansengwe about 95% of the respondents pointed to the labor intensiveness associated with small grain production as the major factor that made them to shun small grain production

(Svodziwa 2015). The study further revealed that many of the respondents pointed out that even though small grains can enhance food security the labor is too much hence farmers opted to just plant it on small pieces of land.

2.8.6 Lack of government support

Rukuni (1994) argues that lack of the government support when it comes to small grain production have made people in drier areas to change their tastes from small grains to maize. Svodziwa (2015) noted that lack of government support especially when it came to seed provision of small grains have affected small grain production especially on the side of the poor farmers who cannot afford to purchase inputs on their own. The study further revealed that the government of Zimbabwe has in many cases failed the rural people. In line with this argument Svodziwa (2015) argued that the problem that the government has is that it has since assumed that it is the role of the NGOs to provide rural development whilst it is the mandate of the government to take a leading role when it comes to rural development.

2.9. Other livelihood strategies to enhance food security

Some studies have noted other livelihood strategies beside small grain production that are being done by rural people. Musevenzi (2012) noted that in Gokwe, Mwenezi and Muzarabani districts people also survive on livestock production, gardening cooperatives, gold panning, fishing and stealing. Manyani (2013) also noted that in Muzarabani district people also rely on market gardening, crop farming and livestock rearing. Mararike (2011) noted that rural people also survive on wild plants, animals such as baboons and elands and also on insects such as *ishwa* (flying ants) and *makurwe* (crickets). He further noted that the collection of wild foods is one of the strategies adopted by rural people as a way to cope with food deficits.

CHAPTER THREE

3.1 Theoretical Framework

In an effort to understand why farmers in Dick Huck resettlement area are not taking heed of small grain production, the researcher employed Antony Giddens' (1984) structuration theory, Pierre Bourdieu's (1986 and 1989) analysis of forms of capital, and his concept of the habitus and Arjun Appadurai's (2006) conception of identity.

Pierre Bourdieu's (1986) conceptualization of capital in its various forms such as economic, cultural, Symbolic, social and linguistic as determinants of one's position in the social sphere was utilized by the researcher in this study. The analysis of capital allowed the researcher to explore how the various forms of capital shaped small-scale farmers' relations and their access to resources for small grains production. Economic capital is tied to material wealth; cultural capital is defined as cultural acquisitions which involve knowledge, social or symbolic capital is defined in relation to social connections that one has and linguistic capital is defined in relation to language power that allows one to pronounce something (Bourdieu 1986).

His concept of habitus was used by the researcher to understand how external factors controlled human action. He defined habitus as mental or cognitive structures through which people control the social world. Bourdieu (1989) further argued that people are endowed with a series of internalized schemas through which they perceive, understand, appreciate and evaluate the social world. Bourdieu further argued that habitus are the product of the internalization of the structures of the world. More so to Bourdieu a habitus is something like a common sense that is acquired as a result of a long term occupation of a position in a world.

Antony Giddens' (1984) structuration theory was used by the researcher to understand how different structures in Dick Huck area affected the growing of small grains. In that regard the researcher made use of Giddens's concept of the structure. He defined structure as structuring properties. Giddens (1984) further argued that structure is both enabling and constraining. Giddens further noted that structures gives form and shape to social life, he also further argued that structures are embedded within social systems.

Appandurai's concept of identity was used by the researcher to understand how one's identity impacted on small grain production in Dick Huck area. Appandurai (2006) argued that identity is a social construction and mobilization of an imagined group and that identity is about legitimating claims and access to resources. Appadurai's ideas were utilized to analyze how identities in Dick Huck resettlement area have played a role in enabling and constraining people's access to resources for small grain production.

CHAPTER FOUR

4.1 Research methodology

The researcher made use of the qualitative research methodology. This approach suited well with the research topic since it encompasses the values, experiences, feelings and attitudes of the research participants in a specific setting from their point of view (Leedy 1997, Burgess1982 and Patton 1990). Kothari (2004) and Bernard (1995) have it that qualitative research design encompasses a subjective assessment of attitudes of people and their behavior.

The researcher also made use of the case study strategy in order to gain good insights into the reasons as to why small-scale farmers at Dick Huck area are not taking heed of the need to grow small grains, whilst they are also suffering from the devastating effects of climate change. The use of the case study design enabled the researcher to carry out an in-depth scrutiny of one case or numeral cases (Creswell 2009, Denzin and Lincoln 2000). This permitted the investigator to bring to light deeper insights into small-scale farmers and small grains production.

4.2 Sampling Procedure

Purposive sampling was used in the selection process of potential participants. Glaser and Strauss (1967) notes that purposive sampling entails selecting particular units with special knowledge on the issue under study. Pope and Mays (2000) argued that purposive sampling is used when the researcher wants to access research participants with unique experiences who will be willing to talk about those experiences to the researcher. He also further noted that purposive sampling is

used when the researcher want to select cases that are typical of the population of interest, which depends on the judgment of the researcher who hand picks the cases to be included in the sample. The researcher made use of purposive sampling in order to select Focus Group Discussions participants (FGDs) and participants for semi-structured interviews. The researcher also made use of purposive sampling method to select two participants for Key Informant Interviews (the chairman of the Village Development Committee (VIDCO) and also one of the Agriculture officers who operates in Dick Huck area).

4.3 Data collection methods

The study solicited the views of small-scale farmers in Dick Huck resettlement area using FGDs, Semi Structured Interviews, KI interviews and also the use of Document Analysis. Research members were chosen for FGDs, Semi-Structured Interviews and KI interviews by verbal communication and also by visits at their houses.

4.3.1 Semi-Structured Interviews

Five semi-structured interviews were conducted by the researcher with three men and three women who are currently small-scale farmers. The semi-structured interviews helped the researcher to establish the different reasons as to why farmers are not effectively taking part in small grain food systems. With the help of an interview guide, the researcher directed the conversation on specific issues and this helped the researcher to probe on some of the critical issues that arise from the discussions.

4.3.2 Focus Group Discussions

Keyton (2001) and Debus (1990) argued that a focus group is a facilitator led group discussion that is used for collecting textual data from a group of participants about a particular topic in a limited amount of time. Two FGDs were used by the researcher to obtain information from general small-scale farmers and also from the members of the VIDCO. Each group was composed of six

people. The FGD with the members of the VIDCO was comprised of the vice chairman, the secretary and other members of the VIDCO. The chairman of the VIDCO was not selected for FGDs since he was chosen to participate in one of the KI interviews. The one with general small-scale farmers was comprised of three men and three women who are currently small-scale farmers in Dick Huck resettlement area.

The members of the VIDCO were chosen to take part in this study since they are the ones who control development programs at village level for example the dishing out of small grain inputs to other fellow farmers. As such the FGDs yielded information on how the VIDCO operates and also on the preparedness of the Dick Huck farmers to take part in small grain production.

4.3.3 Key Informant Interviews

According Cartel (1992) KI interviews are qualitative in-depth interviews with people who knows what is going on in an area. These experts, with their particular knowledge and understanding can provide insights on the nature of problems and give solutions and recommendations (Cartel 1992). As for this study, two KI interviews were conducted. One of the key informants was the chairman of the VIDCO. The other key informant was one of the Agriculture officers who operate in Dick Huck resettlement area. KI interviews helped the investigator to produce in-depth and detailed data from the people who have a better understanding of the topic under study. The KI interviews also allowed the researcher to probe whilst maintaining focus on the topic.

4.3.4 Document analysis

The documents that were analyzed by the researcher include books of the secretary of VIDCO and also the books of the Agriculture officer. The main aim was to come up with some of the documented information pertaining to the dishing out of small grain inputs to the farmers that might be missed in FGDs and Interviews. Kothari (2004) observes that document analysis can

provide meaningful insights to the phenomenon under study as it can yield data that can be triangulated with data gathered using other means. The researcher also used document analysis to verify the data gathered from the interviews and focus group discussions.

4.4 Ethical considerations

Cautious attention was paid to research ethics from the start of the research throughout the study process up to the compiling of the results. The researcher clarified the objectives and the nature of the investigation on contacting respondents. In order to gain a potential participant's informed consent, the researcher provided a written form which explained the nature of the study as well as the instructions and guidelines that governed the study process. According to Keyton (2001), this is crucial since it can enable the participants to freely agree to participate in the research process.

4.4.1 Beneficence

The researcher also considered issues to do with beneficence. According to Keyton (2001), beneficence is all about maximizing the possible benefits while minimizing the possible harms. The researcher also tried to minimize psychological and physical harm that might accrue from the research process. In order to protect the participants from any possible harm, the researcher allowed the participants to withdraw from the research whenever it starts to trigger some psychological and physical harm such as being annoyed by what the researcher or other participants will be saying.

4.4.2 Respect

The researcher also respected the participants and treated them as people who have the ability to make their own choices. Giving the participants enough room to act out of their discretion produced a decent relationship between the participants and the investigator and it also boosted the flow of information.

4.4.3 Justice

Issues to do with justice were also considered by the researcher. Keyton (2001) argued that justice is all about fairness when conducting a research. In line with this, the researcher treated the participants fairly without favoring any of the participants. This was implemented especially during FGDs. The researcher gave each participant enough time to talk.

4.4.4 Confidentiality

Confidentially was also maintained. The researcher made it clear to the participants that their names shall not be attached to the information they will provide. As such, the researcher made use of pseudonyms instead of real names of the participants

4.5 Limitations of the study

It was problematic to get sufficient time with respondents since the study was done in the farming season when all the farmers were busy in their fields on most of the days. The researcher made use of Fridays and Sundays as most of the respondents did not go to their fields on these two days. The research was limited to Dick Huck small-farmers only. Thus, the findings may not be generalized beyond other parts of Mount Darwin District which have different characteristics from Dick Huck resettlement area. The participants also refused to be recorded.

CHAPTER FIVE.

Presentation of findings

5.1 Introduction

This section presents the findings on the resistance to small grain production by small-scale resettlement farmers. Related findings are grouped using themes which the researcher constructed in line with the research questions. The data are presented in thematic form where themes were constructed by the researcher using research objectives as guides.

5.2 The kind of assistance that people got from the government, NGOs and private companies.

In a bid to identify the kind of assistance that people got from the NGOs, Private Companies and the government, the researcher asked the respondents to list the NGOs and Private companies that operate in their area, to explain how they operated, how reliable they were; and what they exactly got from these institutions. Participants were also asked to identify when exactly these companies, NGOs together with the government started operating in their area.

As a result of this one major NGO, World Vision was identified. World Vision started operating in Dick Huck resettlement area in 1992 where it gave people food stuffs such as yellow maize and cooking oil. The major aim was to liberate people from the 1992 drought which impacted on every corner of Zimbabwe. Since then, World Vision had been active in Dick Huck resettlement area. In 2000, the organisation gave farmers cattle and goats which they were to repay after every harvest for a period of three years. Through this program, some plot holders were given cows and others given two goats each. In 2008, the organisation supported women in Dick Huck resettlement area

by giving them inputs such as seedlings and seeds of tomatoes. They were also given security fence to fence their garden.

However, as a result of climate change, the NGO shifted its attention to small grain production. Since 2013, plot holders have been given two kilograms of rapoko (*zviyo*) and millet (*mhunga*). The NGO also gave two kilograms of beans per each plot holder. The task of dishing out these inputs was given to VIDCO and the Agriculture officer. One participant from one of the FGDs explained that, "World Vision *iri kubatsira vanhu muno maDick Huck, iri kutibatsira pakurwisana nenzara*". (World Vision is helping people in this area of Dick Huck area. It is helping us to fight against Hunger). However, a lot of criticisms were leveled against this argument. One of the youths, Mr X. argued that, "World Vision *irikubatsira vanhu handisi kuramba asi dambudziko rayo nderekuti iri kungobatsira maplot holders chete, ko vasiri maplot holders vanozobatsira nani?*" (World Vision is helping people am not refusing but its problem is that it is helping the plot holders only, what about those who are not plot holders who will help them?)

Participants also identified three private companies that have recently started operating in their area. These are Green Trade International, Mercy crops and Delta Beverages. The participants explained that, the approach of these private companies is a bit different from that of the government and World Vision. This is because these companies operated on contract basis whereby they gave farmers inputs of small grains under a condition that contracted farmers could sell part of their small grain produce as a way to repay the inputs that they were given by these private companies. These companies started operating in Dick Huck last year (2016).

Delta Company had only ten farmers contracted to it. Delta Beverages gave farmers ten kilograms of millet seed and also five kilograms of top dressing fertilizer. Farmers were also educated on how to grow millet and also on the advantages of growing small grains.

Green Trade International had fifteen farmers contracted to it. It gave farmers the *Kauninga* seed (a small grain crop that is used for making cooking oil). They were given two kilograms per each farmer. This company also educated farmers on how to grow this crop since it is a new crop to the people of Dick Huck resettlement area. Pertaining to this crop, one participant said that, "Vakatogona nekudzidzisa varimi vavo maringe nekudyarwa kwembeu iyi, dai vasina kudaro hapana chaibuda" (They did well by educating farmers on how to grow this crop, if they did not do this nothing was going to come out).

Mercy Corps was described by participants as one of the major companies that have done a lot when it came to assisting farmers on small grain production. The participants also applauded this company since it was the only private company that had managed to contract almost half of the farmers in Dick Huck resettlement area (of the 120 farmers almost 80 farmers were contracted to this private company).

This company assisted farmers by giving them five kilograms of beans per each farmer, one bag of down dressing fertilizer and also pesticides to control pests that eat leaves of the bean crops. This company also gave farmers two kilograms of millet per each farmer. Farmers were also educated on the importance of small grain production and also on how to grow bean and millet. Farmers also credited the government when it came to the production of small grains. The participants argued that the government through the Agriculture Department managed to educate people on the importance of small grain production. One of the participants explained that, "pamwedzi wega wega tinoita musangano namudhumeni apo anenge achitidzidzisa kukosha

kwemasmall grains akaita semapfunde nezviyo pakudzivirira nzara" (Every month we conduct a meeting with the Agritex Officer whereby he will be teaching us on the importance of small grains such as sorghum and rapoko when it comes to solving hunger issues).

However, one of the participants from one of the FGDs explained that, "government *pairi kutadza* panhu pabodzi, iri kungotiudza kukosha kwembeu idzi, iyo isiri kutipa mainputs embeu dzacho kuti tidyare. Iri kungotipa mbeu yechibage chairi kuti hachichawirirane nemamiriro ekunze aveko mazuvano. Dai tine mari taitenga tega mbeu kuti tirime". (The government is failing on one thing, it is teaching us on the importance of these crops, whilst it is not giving us the inputs of these crops so that we can grow them. It is continuing to give us maize seed whilst they are saying that maize is no longer suitable under the prevailing climatic conditions. If we had money we were going to buy the inputs of these crops so that we can grow them).

5.3 Farmer's views on small grains as crops that can enhance household food security.

Respondents explained that small grains such as millet, rapoko and sorghum can enhance household food security since they mature early as compared to other grains. One of the respondents, Mr. X, explained that, "mapfunde anosunungura mhuri kubva munzara, ndizvozvakaita kuti apihwe zita rekuti chimukadzi usaende". (Sorghum can free the family from hunger, it was because of this that millet was named chimukadzi usaende (meaning wife do not desert me cause of hunger because the millet will mature soon).

Respondents also explained that, the thick porridge that is cooked from small grains such as millet and sorghum can satisfy hunger for a long time as compared to the thick porridge that is cooked from maize. Mr. X one of the key informants (Agriculture officer) explained that small grains are easy to grow since they require little inputs during growth. He further explained that without

fertilizer one can be in a position to come up with a bumper harvest as compared to maize which requires a lot of top and down dressing fertilizer.

Respondents explained that small grains are very important to people since they can act as both food and cash crops which can enable them to fight against drought. For example small grains such as sorghum and millet are used to brew a type of beer that is locally known as *chiseven* days. Furthermore small grains such as sorghum are also used to cook a type of beer that is used for rain making ceremonies known as *mukwerera* in Shona. This can enhance food security since more rains can enable people's crops to grow and mature well.

Respondents also said that small grains can be stored for a long time as compared to maize. One of the respondents Mrs T said that, "masmall grains akaita sorghum nemillet akakoshera pakuti anochengeteka kwenguva yakareba izvi zvinoita kuti mhuri isafe nenzara izvi zvasiyana nechibage chisingachengeteke kwenguva yekareba. (Small grains such as sorghum and millet are important in that they can be stored for a long period as compared to maize which cannot be stored for a long time).

5.4 Farmers' views on climate change as something that is happening their area.

All the respondents who participated in the research accepted that climate change was a reality and that it was something that was happening in their area. Mr. X, one of the participants argued that, "ichokwadi kuti mamiriro ekunze arikushanduka mudunhu rino. Kudhara mvura yaitanga kunaya kupera kwaOctober asi ekezvino yavakutanga kunaya muna December zvichireva kuti mamiriro ekunze arikushanduka (It is true that the climate is changing in this area. Long back the rains usually started falling towards the end of October but as for now the rains are starting to fall in December meaning that the climate is changing).

One of the participants who participated in one of the semi-structured interviews explained that, "ekezvino mwaka wedu wekunaya kwemvura wavamudiki, mvura yava kutanga kunaya muna December, pakati paFebruary inobva yamira zvamuchose." (As for now our rain season has become shorter, the rains are now starting to fall in December and then mid-February the rains will stop and then go for good).

The respondents also explained that, they used to enjoy bumper harvests due to favorable climatic conditions. In relation to this argument, one of the participants from one of the FGDs explained that, "muno maDick Huck murimi wese anekavharo ayiita ngoro dzechibage dzinodarika fifteen, asi ekezvino nekushomeka kwemvura uku anotoita ngoro ten anenge ari mukono chaiwo, izvi zvichireva kuti mamiriro ekunze ari kushanduka mudunhu redu". (In this place of Dick Huck every farmer who is a plot holder used to produce more than fifteen scortchcarts of maize, but as for now due to rain shortages the one who can produce ten scortchcarts is a champion, meaning that the climate is changing in our place).

The researcher also asked the respondents on the extent to which climate change was affecting them. In response to this question, most of the participants accepted that climate change was greatly affecting them. The respondents said that hunger was the order of the day in their area. Mr. X one of the participants who participated in one of the SSI said that, "kusanaya kwemvura nekuda kweshanduko yekunze iri kuitika iyi kurikuita kuti vanhu vemuno titadze kuzvirimira chikafu chedu chinokwana kudya gore rose" (the failure of rains to fall due to the climate which has changed is making us the farmers of this area to fail to farm the food that can take us through the whole year). The respondents also said that climate change was not only affecting crop production but also animal production especially large livestock production. One of the respondent Mrs. X said that, "kusanaya kwemvura kwationesa ndondo nekuti mombe dzedu dzinotiraramisa dzirikufa

nekuda kwekushomekwa kwechikafu nemvura" (That the rains are not falling has made us suffer a lot just because the cattle we survive on are dying due to food and water shortages). This woman went on to say that, "muna August chaimo mvura inenge yatopera murukova, uyezve mashanga chaiyo anenge atopera mumaminda". (In the month of August the water will be dry in the river and also the crop residue that cattle feed on will be no more).

The respondents also explained that climate change also affected gardening due to shortages of enough water to water garden crops such as vegetables, tomatoes and green beans. Mrs. T said that, "zvemagadheni yatove history muno nekuda kwekushomeka kwemvura, mvura irikupwa murukova nemumatsime" (gardening is now a history in this area due to water shortages, water is drying in the rivers and the wells).

Furthermore Mr. X one of the key informants said that, poverty that was being caused by climate change has also led to child labour and slavery whereby parents are now sending their small children especially boys to other nearby communal areas such as Goora, Mushowani, Mupfure to work as cattle headers and house boys to well up families. The situation was so pathetic considering the fact that some of these children were being paid low wages of about US\$20 per month which cannot even suffice the needs of that particular child and that of the family. The Agriculture officer said that the situation is sad considering the fact that these children should be at school learning so that they can become better people tomorrow.

Mr. X (the headman) one of the Key Informants said that, climate change has also led to the dissolution of many families in Dick Huck area. He said that, "Baba (referring to the researcher) muno maDick Huck misha yaparara, vakadzi vazhinji kunyanya vechidiki varikutiza varume vavo nekuda kwenhamo iri kukonzereswa nekusanaya kwemvura". (Father in this place of Dick Huck, families are dissolving, many women especially youthful ladies are running away from their

husbands due to the poverty that had been caused by failure of rains to fall). He went on to say that, "vakadzi vazhinji vacho varikutiza vachienda kumadhorobha kunotsvaga mabasa emumba, vamwewo ndivo varikuenda kwaMadondo (a place in Mount Darwin town known for prostitution) kunohura kuti vawane raramo". (Most the ladies are running away to urban cities to look for jobs such as house helpers and some are going to Madondo area to be prostitutes).

Mr. X went on to say that, "vamwe vakadzi ndovakuita basa rekuita cheupombwe nemajaya nevarume vevanhu vemuno kuti vawane cheuviri". (Some of the ladies are now engaging in extramarital affairs with big boys and other women's husbands so that they can get something for survival).

He also went on to explain that, "ini sasabhuku ndatonga nyaya dzakawanda dzevarumene vakadzi vevanhu varikuita cheupombwe. Zvako iwe shamwari (referring to the researcher) vamwe vakadzi vacho vanenge vachipihwa five kilograms dzechibage kana godo resipo". (As a headman I have addressed many stories pertaining to married women and men who engage in promiscuity. My friend some of the ladies are given five kilograms of maize or a piece of soap).

5.5 Hindrances to small grain production

5.5.1 Depredations of the quelea birds on small grains

Respondents said that depredation of the quelea birds on small grains was one of the major hindrance to small grain production in their area. One of the participants said that, "masmall grains akaita sezviyo nemhunga anonetsera nyaya yeshiri, shiri dzacho dzinonetsa kutanda, naizvozvo kurima masmall grains kurimira shiri".(Small grains such as millet and sorghum have got a challenge of birds; the birds are difficult to scare away as such growing small grains will be nothing but for the birds). The fact that small grains are affected by birds which are difficult to scare away

has made famers to resort to maize production which is not heavily affected by birds and also other forms of small grains such as ground and rounds nuts.

5.5.2 Land shortages as a factor

One of the major factors which some respondents emphasized on was the issue pertaining to the land where to grow the small grains. This was one of the major limiting factors especially to the youths who are not plot holders, who have been given small pieces of land by their parents which range from half of the hectare to a full hectare. Some of the youths relied on renting fields from those who cannot plant on their entire field. One of the respondents, a youth said that, "Ini nditori kamuyouth ndakagopihwawo kamunda kadiki namudhara wangu kekuti ndingokwanisawo kurima fodya, kasingatombondikwanirawo kuti ndidyare fodya yangu, saka pekudyara masmall grains yacho hapana." (I am just a youth. I was given a small piece of land by my father which is not even enough for growing my tobacco, so where do I then grow the small grains).

Still on the issue of the youth, the researcher also established that not all the youths managed to access inputs despite the fact that they are residents of Dick Huck resettlement area. The youths who were denied access to inputs by World Vision and Private Companies were the ones whose parents were not influential and also some of them do not have existing parents. The argument for the denial was that such youths did not have enough land to grow small grains, so giving them inputs was considered wastage of resources. The youths with influential parents such as freedom fighters (people who fought in the Zimbabwean war of independence) managed to gain access to the inputs since their parents' identities played a crucial role in order for them to gain access to inputs.

5.5.3 Labor costs associated with small grain production

Research has also shown that labor costs associated with the production of small grains also affected the production of small grains such as millet and sorghum in the area of Dick Huck resettlement. One of the participants said that, "zviyo nemashava shamwari zvinoda mari yakawanda yekupa vanhu vanosakura, kukohwa, nekuzopura zvasiyana nechibage chisina macosts akawanda somuenzaniso chibage hatisakure tinoshandisa maherbicides and munhu one anogona kupedza five hactres dzese ariwega pakufirita sora izvi zvasiyana nezviyo nemashava zvinoda vanhu vakawanda vekupa mari pakusakura". (Sorghum and rapoko my friend needs more money for laborers when it comes to hoeing, harvesting and grain processing, this is different from maize production which does not involve a lot of costs for example one person can be able to spray herbicides on a land of about five hectares as compared to sorghum and rapoko which demands a lot of people when it comes to hoeing).

The study also identified that the easy with which maize can be processed compared to traditional staples such as millet and sorghum was the major reason as to why maize was widely accepted in Dick Huck resettlement area. The study also revealed that the use of old-style processing methods had made small grains to take longer to process as compared to maize especially.

5.5.4 Failure of small grains to yield much crop residue

In Dick Huck resettlement area farmers are not taking heed of the need to grow small grains due to the fact that small grains do not yield much crop residue which plays a very essential role to rural farmers in terms of animal feed and crop manure. One of the respondents said that, "isu muno tinorima mombe naizvozvo masmall grains anotidzikisira pasi nokuti haburitse mashanga akawanda anozodyiwa nemombe munguva yechirimo, saka naizvozvo ndosaka isu varimi tiri kushingirira nekurima chibage nekuti chinoburitsa mashanga akawanda anoraramisa mombe dzedu" (in this place we farm cattle as such small grains can draw us back since they do not produce

much crop residue which are needed by our cattle during the dry season, thus why we as farmers we are holding on maize production since maize can produce much crop residue which can make our cattle survive).

5.5.5 Limited market

Some of the respondents also noted limited marketing opportunities as one the major hindrance to small grain production in Dick Huck resettlement area. The Agriculture officer Mr. X revealed that farmers in Dick Huck resettlement area could not rely on GMB when it came to the selling of small grains such as sorghum, rapoko and millets. Most of the small grains produced by the people in Dick Huck area are sold locally to people who would want to conduct ritual practices such as kurova guva (death ritual) and also some of the produce was also used to produce a type of beer which they name *chiseven* days (the name was derived from the process of cooking the beer which can be cooked for 7 days for it to mature beer). The Agriculture officer also explained that local markets only consumed few small grains; as a result this made small grains to lose credibility in the eyes of the farmers. However the chairman of the VIDCO did not buy the point of limited market when it comes to small grains in their area. He said that, "parizvino hatichafanirwa kutaura nezvekunetsa kwekutengeswa kwema small grains nokuti varimi vacontracted kumacompany akasiyana siyana ayo achazotenga zviyo nemashava kubva kuvarimi ava".(As for now we should stop talking about limited markets since farmers are now contracted to different companies which can buy the small grains that farmers are going to produce)

5.5.6 Labor intensiveness of small grain production

Most of the respondents pointed to the labor intensiveness associated with small grain production as one of the factors that abridged small grain production in the area of Dick Huck. As a result of

this famers opted to grow small grains on small pieces of land despite the fact that they can enhance food security.

5.5.7 Lack of government support

Lack of the government support when it came to small grain production have made people of Dick Huck to continue with maize production despite the fact that maize was being heavily affected by rain shortages. The government continued to give people inputs of maize instead of giving famers inputs of small grains. The respondents also said that, the government failed them since it did not link them with banks and other micro finance institutions that can give famers loans so that they can purchase inputs of small grains on their own and also to purchase other machines which are needed for the planting and harvesting of small grains. The respondents also argued that for small grain production to be fruitful in Dick Huck area the government should come up with a sensible policy pertaining to the marketing of small grains. The respondents also said that the government should at list make the GMB (Grain Marketing Board) a reliable institution when it came to the purchasing of small grains such as millet and sorghum.

5.5.8 Corruption and nepotism as factors

Most of the respondents also pointed on the issue of corruption on the side of the PCC chairman who was given the mandate to distribute seeds and seedlings to the farmers and also corruption on the part of VIDCOs who were given the powers by the World Vision to distribute seedlings to the farmers. On the side of the PCC chairman, the inputs he was given control over when it comes to distribution were strictly for the contracted farmers who were contracted to the different private companies that operated in Dick Huck area. However the PCC chairman ended up giving the inputs to his relatives who dwelled in communal areas of Dotito and Rushinga at the expense of contracted farmers.

One of the respondents said that since the inception of these programs he did not get anything. In his words, "Ini ndinonyimwa mainputs nekuda kwekuti PCC chairman ndakambomubhadharisa mombe ina adanana nemukadzi wangu." (I am always denied these inputs by the PCC chairman just because I once made him pay four heads of cattle at the chief's court for having a love affair with my wife).

Some of the respondents said that single women received a lot of small grain seeds which they at times failed to plant. One of the participants explained that, "Chairman WeVIDCO anotora mukana wekugovera mainputs kuvarimi seplatform yekukonza vakadzi vevanhunhu nevakadzi vasina varume" (The chairman utilizes the chance of dishing out inputs to the people as a platform to establish love affairs with women). Thus corruption, homeboyism and nepotism are negatively affecting small grain production in Dick Huck area.

5.5.9 Preference to white sadza.

Some of the respondents said that most of the people in Dick Huck area are used to white sadza from maize as compared to brownish sadza from rapoko and millet. One of the participants said that, "Ini ndakakura ndichidya sadza jena kwete iri svipa remhunga nezviyo, naizvozvo kuti ndidye sadza rakadaro zvinondiremera" (I grew up eating white sadza from maize not brownish sadza from rapoko and millet, as such am I cannot eat such sadza).

5.6 Other livelihood strategies to enhance food security.

5.6.1 Selling of wood.

Respondents also argued that a lot of people in Dick Huck also survive on selling wood. Since farming have proved not to be lucrative, farmers in Dick Huck supplemented the little money they got from farming by selling wood to teachers at nearby schools such as Chaminuka Training Centre, Rukururwi Primary School and Madziwa Primary and Secondary schools or to nearby communal areas such as Goora. Furthermore, a lot of trees are destroyed especially during the

congregations of Vadzidzi VeChishanu led by Prophet Wimbo. These people do their congregations in April and August and each congregation last for about a week. As a result, both local people to Dick Huck area and externals cut down trees from the Dick Huck range of mountains called Makarati. Live trees are chopped down a month before each congregation starts. This period allowed the wood to dry and this made it suitable for market. It was people who came from different areas of the country who then bought the wood for firewood.

5.6.2 Gold panning

The respondents pointed on gold panning as one of their livelihood strategy they have as a way to enhance food security. Gold panning was done along a local river called Rukururwi and also in Makomo area (an area near Chindunduma High 1 School). One of the respondents Mr. X said that, "Kuwonga kuri kutibatsira zvakanyanya mudunhu redu rino, mari yatinowana tinoishandisa kutenga hupfu, kuendesa vana kuchikoro nekutengawo zvimwe zvekushandisa pamba zvakaita semabhara nemagejo" (Gold panning is helping us a lot in this area, we use the money we get to buy mealie-meal, to pay children's fees and also to buy other items such as wheelbarrows and oxdrawn ploughs that can used at home.).

However respondents said that panning in the aforementioned places has to be done with caution since the police will be patrolling in search of the gold panners. Those who get caught faced imprisonment as their punishment or to pay \$100 as fine. Panning was not allowed since it caused siltation of Rukurururwi River, which was dangerous for people's lives since it was from this river that people's livestock drank water from and it was from this river that people got water to irrigate their gardens. Panning also caused erosion in Makomo area due to holes that people opened in order to get access to gold. These open holes were also regarded to be dangerous to livestock such as cattle and donkeys since they can fall into these holes especially during the night.

5.6.3 Buying and selling.

The respondents also made mention of buying and selling as one of the livelihood strategy that helped a lot of people in Dick Huck area. The items that they bought and sold include tomatoes, second hand clothes and vegetables. One of the participants Mrs. X said that, "Ini pachangu ndinorarama nekutenga nekutengesa mavegetables nemadomasi. Izvi ndinozvihodha kuTsakare kunoitwa zveirrigation. Ndinotengesera vanhu vemuno nemateacher ekuRukururwi Primary School (a local primary school) nevashandi vepaChaminuka training college". (Personally I survive on buying and selling vegetables and tomatoes. I hoard these items from Tsakare a place where irrigation is done. I sell them to people in this area and also to the Rukururwi teachers and also to the workers of Chaminuka Training Centre).

Another participant Mrs. X said that, "Ini ndinorarama nekutengesa hembe dzemubhero. Hembe idzi ndinodzihodha kumbare kuHarare ndouya ndotengesera vagari vemuno maDick Huck neavo vanogara kwaChizanga, kwaSuwati nekwaVambe" (I survive on selling second hand clothes. I buy these clothes from Mbare in Harare then sell them to people who dwell in this area and also to others who dwells in Chizanga, Suwati and Vambe areas).

Furthermore one of the participants Mr E argued that, "ini ndine shop yangu muno maDick Huck. Ndinotengesa zvinhu zvakwanda zvakaita semagroceries, hembe nedoro. Shop iyi inondibatsira zvikuru nekuri mari yandiniwana kubva mushop umu ndoyandinishandisa kubhadhararira vana vangu kuchikoro uyezve nekutenga mafertilisers emuchibage kuti ndiite goho guru". I have my shop in this place of Dick Huck. I sell so many things such as groceries, cloths and beer. This shop helps me a lot because the money that I get from the shop is the one that I use to pay schools fees for my children and also to buy fertilizers for maize production and this can make me to produce high yields).

5.6.4 Small and large livestock production

Small and large livestock production was also mentioned as livelihoods of the people of Dick Huck. Small livestock that they rear include hens (road runners), goats and sheep. Respondents said that small livestock was easy to keep and also ideal especially in this context of climate change were there are cases of water shortages for animals to drink. They argued that fifteen goats can drink ten liters of water which did not suffice two herds of cattle. As such, that small livestock was easy to keep was the major reason as to why people in Dick Huck are now resorting to small livestock production.

Large livestock that they reared include cattle and donkeys. Respondents argued that cattle and donkeys are very crucial to them since they are used for draft power, also when sold large livestock such as cattle could fetch more money as compared to small livestock. Furthermore the milk that they got from cattle was used for many uses such as being sold to the locals and to people from other communal areas such as Goora and Vambe. The respondents also mentioned that large livestock was essential since large livestock produced large quantities of manure which they used to supplement inorganic fertilizers that they purchased from shops or that they were given by the government and private companies. However respondents were concerned about the future of large livestock production since shortages of water heavily affected large livestock production in their area.

5.6.5 Paid labor

Child labor was also mentioned buy the respondents as a form of paid labor in Dick Huck area. Child labor was whereby parents send their children especially young boys to work as cattle herders to other well up farmers who dwelled in Dick Huck and other communal areas in Shamva District. Some of these children were paid a sum of money which ranged from US\$20 to \$30 per

month. This money was used by their parents to purchase food stuffs such as maize, mealie-meal, cooking oil thereby enhancing the food security of their families.

5.6.6 Gardening

Few participants mentioned gardening as a sustainable livelihood. The majority said that gardening was now a history due to climate change which had led to water shortages in their area of Dick Huck. Gardening in Dick Huck was practiced by well up famers who have managed to drill boreholes at their homes and on their fields and about five well up farmers have managed to drill the boreholes.

5.6.7 Stealing.

The study also revealed that a lot of people in Dick Huck area especially the youths are surviving by stealing. They stole a number of different things such as domestic animals (cattle, goats and sheep); these thieves sell these animals to people who own butcheries. One of the participants said that these domestic animals are often sold for cheap prices. For example a goat which can cost \$50 could be sold for something like \$20. The participants said that poverty as major factor that is making people to engage in stealing. The participants also said the police are doing its best to curb the stealing of domestic animals and other and other items. For example in 2015 three youths got arrested for stealing goats and also Mrs. Q was also arrested for stealing people's cloths.

5.6.8 Drug dealing.

Selling of drugs was also noted by participants as another livelihood in Dick Huck settlement area. One of the participants said that, "vazhinji vechidiki vemuno vari kurara nekutengesa zvinodhaka zvakaita sembanje uyezve mbanje iyi vari kuirima mumagadheni avo" (Many Youths in this area are surviving by selling drugs such as marijuana and they grow this marijuana in their gardens). The participant also said that, "vanhu vazhinji vemunzvimbo dzakaita seGoora, Mushowani, Suwati, Mupfure ne Vambe vanotouya kuno kunotenga mbanje inoramwa nevechidiki ivava.

Vamwe ndovanotenga nemari vamwewo ndovanochinjanisa chibage, beans kana dzungu nembanje" (People from many places such as Goora, Mushowani, Suwati, Mupfure and Vambe often come to this area to buy the marijuana that is produced by these youth. Some of the people buy using cash and some exchange things like maize, beans and ground nuts with marijuana).

One of the participants also argued that, "ndinofunga kuti vechidiki vanotengesa madrugs vatori nani pane avo vanoita zvekuba zvinhu zvevanhu" (I think that the youths who are selling marijuana are better off than the ones who steal people's items).

However this argument was heavily criticized by one of the participants, who argued that, "Vese vari kuita zvakashata, vanofanirwa kusungwa nekuti mbanje iyoyo ndiyo iri kuzovapa vamwe ushinga hwekuzoita zvekuba. Pakatanga mwana wangu mukomana kuita zvekuputa mbanje ndopaakatanga kuita zvekuba nekuenda kwaMadondo kunotsvaga mahure." (They are all doing a bad thing; they should be arrested just because marijuana is giving some of the youths the courage to indulge in stealing). By the time my son started taking in marijuana thus the time he started doing things like stealing and also going to Madondo area to look for prostitutes.

5.6.9 Extramarital affairs.

Engaging in extramarital affairs was also mentioned by the participants as one of the livelihoods activities in Dick Huck resettlement area. The study revealed that this is usually instigated by the ladies who would want to benefit something from the men they do sex with. Mr. X said that, "vamwe vakadzi ndovakuita basa rekuita cheupombwe nemajaya nevarume vevanhu vemuno kuti vawane cheuviri". (Some of the ladies are now engaging in extramarital affairs with big boys and other women's husbands so that they can get something for survival). The participant went on to say that, "ini sasabhuku ndatonga nyaya dzakawanda dzevarumene vakadzi vevanhu varikuita cheupombwe. Zvako iwe shamwari (referring to the researcher) vamwe vakadzi vacho vanenge

vachipihwa five kilograms dzechibage kana godo resipo". (As a headman I have addressed many stories pertaining to married women and men who engage in promiscuity. My friend some of the ladies are given five kilograms of maize or a piece of soap).

CHAPTER SIX

Discussion and conclusion

6.1 Introduction

This section offers critical analysis of the findings and explains why farmers in Dick Huck resettlement area are not taking heed of small grain production despite the fact that some of the resources needed to grow small grains are provided to the farmers by various organisations. The study reveals that distribution of small grain inputs in Dick Huck resettlement area is a site where other issues peripheral to small grain production are reflected. This chapter focuses on the contestations over access to resources, corruption and nepotism and natural factors beyond human control.

6.2 Natural factors beyond human control

The study revealed that there are a number of factors beyond human control which are affecting small grain production in Dick Huck resettlement area. These factors include shortages of land, limited market and lack of government support when it comes to small grain production. Issues such as lack of government support and limited market tally well with some of the studies done on small grain production in Zimbabwe. In Zvishavane, Nciizah (2014) noted limited marketing opportunities as one of the major factor that abridged small grain production. The study further revealed that farmers in Zvishavane could not depend on GMB when it came to the selling of small grains such as sorghum, millets and groundnuts. Similar observations were also made by Svodziwa (2015) in his study in Siansengwe and Musevenzi (2012) in his studies in Gokwe, Mwenezi and Muzarabani districts. Following this further FAO (1995) reported that Zimbabwe's formal market handle less than 10% of the total sorghum and millet produced in Zimbabwe.

On lack of government support, Rukuni (1994) argued that, lack of government support when it came to small grain production has made people in drier areas to change their tastes from small grains to maize. Svodziwa (2015) noted that lack of government support especially when it came to seed provision of small grains have affected small grain production especially on the side of the poor farmers who cannot afford to purchase inputs on their own. The study further revealed that the government of Zimbabwe has in many cases failed the rural people.

Furthermore, all the reviewed studies did not point on land shortages as hindrances to small grain production. The major reason for this divergence with other studies is that most of the studies done on small grain production were done in communal areas and not in resettlement areas such as Dick Huck area. As such farmers in resettlement areas give first preference to the growing of cash crops such as tobacco and cotton since they regard farming as a business. Their major aim is to produce for the market as compared to communal farmers who produce mainly for family consumption. As such for communal farmers land for growing small grains is not an issue since they prioritize the growing of grains for family use.

6.3 Contestations of access to resources

The researcher also established that identity also played a crucial role in making other farmers to access inputs of small grains at the expense of others. The investigator also recognized that identity is a social construction used to legitimate access to resources. This tally well with the arguments given by Appandurai (2006) that identity is socially constructed and that it enables people to gain access to resources. In the case of Dick Huck area Mr. X a well up farmer used his identity to make the chairman of PCC to give him a lot of inputs at the expense of others. For example, this well up farmer received about ten to fifteen kilograms of rapoko and millet seeds in 2016 whilst others got very few seeds of about two kilograms each. The well up farmer often bought beer for the PCC

chairman and also gave the chairman oxen to plough his field. This is also consistent with Bourdieu's (1986) notion capital. He argued that capital that can be used by people to get access of what they want in life. In this case the well up farmer Mr. X used his economic capital to make the PCC chairman give him a lot of small grain seeds. This is evidenced by the incidents whereby the well up farmer bought beer to the PCC chairman, in order to receive benefits from the chairman such as being given a lot of seedlings. The notion of identity is also revealed by the case of influential parents such as freedom fighters who used their identity to enable their children access the inputs whilst those youths with non-surviving or non-influential parents were denied the chance to access the inputs.

6.4 Ineffectiveness and corruption of the VIDCO and the Private Company Committee.

The VIDCO and the PCC proved to be ineffective in the execution of their duties. This ineffectiveness and corruption of the VIDCO and the PCC can be analyzed using the structuration theory by Antony Giddens (1984) who believed that, the structure is both enabling and constraining. In the case of Dick Huck area, the ineffectiveness and corruption of the VIDCO and PCC made the farmers of Dick Huck not to take heed of small grain production. For example the leaders of VIDCO which is a structure failed to effectively execute their duties because of the need to suffice their own selfish needs such as winning the hearts of women by giving them a lot of seeds at the expense of other farmers. As such, some of the farmers ended up not getting what is enough for them to venture in the production of small grains.

6.5 Preference to white sadza.

People's preference to white Sadza also affected small grain production. This is evidenced by the case of one of the participants who said that "Ini ndakakura ndichidya sadza jena kwete iri svipa

remhunga nezviyo, naizvozvo kuti ndidye sadza rakadaro zvinondiremera" (I grew up eating white sadza from maize not brownish sadza from rapoko and millet, as such am I cannot eat such sadza). To analyze this point one can take into account Bourdieu's (1986) concept of the Habitus. Bourdieu argued that habitus are the mental or cognitive structures through which people deal with the social world. He also argued that habitus are the products of the internalization of the structures of social world. For example some people in Dick Huck are using their internal schemas (the habitus) to control activities within the social world, in this case the growing of small grains. In this context people have internalized the fact that white sadza is the only sadza that is good for human consumption just because they have been eating white sadza since they were born. Thus this belief in white sadza has made people not to take heed of the need to grow small grains.

6.6 Conclusion

The study revealed that small-scale farmers in Dick Huck area are willing to participate in the growing of small grains. However, a plethora of macro and micro factors are limiting the participation of small-scale farmers when it came to the growing of small grains. Some of the factors such as limited market need the attention of the government to facilitate and encourage the development of a strong market of small grains through partnering with the private sector. This market will not only assist in price discovery of small grains, but will create forward and backward linkages between food processors, financiers, investors, agro-dealers, speculators and farmers to sustain the market of small grains. The researcher of this study is aware of the work of local and international NGOs and developmental partners that have teamed up with agro-dealers in providing support to rural farmers through a voucher system. Such efforts are lauded and should be extended to small grains and other traditional food crops like cassava, cow peas, round nuts, runinga only to mention but a few.

Furthermore there is no doubt that given hybrid seed, farmers of small grains would see their yields increasing. A framework for resuscitating the small grains should address the issue of seed. Seed houses should be encouraged and assisted to prioritize small grain seed in their research, production and ultimately marketing.

Furthermore there is also need to introduce measures that can curb corruption on the part of the VIDCO and the PCC. The villagers should also respect the local committees which are responsible for the development programs of the village.

Furthermore, that commercial processing of small grains such as sorghum and millet into value added products in developing countries has the potential to stimulate economic development in these countries. Therefore, policies that support increased production of sorghum and millet should be viewed in a holistic approach regarding contributions they can make to the macro economy and not only as a means of increasing food security to those in semi-arid areas.

REFERENCE LIST

Alumira, J., and Rusike, J. (2005). The Green Revolution in Zimbabwe. *Journal of Agricultural and Development Economics*, 2 (1):50-66.

Appadurai, A. (2006). *Fear of Small Numbers*: An Essay on the Geography of Anger. Durham: Duke University Press.

Bang, S., K., and Sitango, K. (2003). Indigenous Drought Coping Strategies and Risk Management against El Nino in Papua New Guinea: *CGPRT center working paper* No. 74.

Barrett, C., B. and Maxwell, D., G. (2005). Food Aid After Fifty Years: Recasting Its Role. Routledge, New York.

Bernard, H., R. (1995). *Research Methods in Anthropology*, Second Edition. London: Sage Publications.01

Bourdieu, P. (1986). The forms of capital: Greenwood, pp. 241-258.

Bourdieu, P. (1989). "Social Space and Symbolic Power." Sociological Theory 7:14-25.

Burgess, R., G. (1982). Field research: A Source Book and Field Manual. London: Allen and Unwin.

Cartel, K., A. and Bealieu L., J. (1992). *Conducting a community needs assessment. Primary data collection techniques*. University of Florida.

Creswell, J., W. 2009. Research Design, Qualitative, Quantitative and Mixed Methods. Los Angeles: Sage.

Debus, M. (1990). *Handbook for excellence in focus group research*. Washington D.C: Academy for Educational Development.

Denzin, N., K. and Lincoln, Y. S. (2000). *Handbook of Qualitative Research*. London: Sage Publications.

Dicko, H., Gruppen, H., Traore, A., Voragen, J. and Berker, J. (2005). Sorghum grain as human food in Africa. Relevance of content of starch and amylase activities: *African Journal of Biotechnology*, 5 (5): 384-395.

FAO. (1996). Rome Declaration on World Food Security and World Food Summit Plan of Action. *World Food Summit* 13-17 November 1996, Rome, Italy.

Food and Agriculture Organisation (FAO), 2001. FAO's State of Food Insecurity 2001. Rome, Italy.

FAO. (2010). Crop and Livestock Assessment. Second round. (Unpublished Doc.)

Food and Agriculture Organization (FAO), (2008). Emergency and Rehabilitation assistance: Consolidated appeals Zimbabwe

Famine Early Warning Systems Network (FEWSNET), 2008. Zimbabwe Food Security Outlook October 2007 to March 2008

Foti, R., Muringai, V. and Mavunganidze, Z. (2007). Seed Aid for Food Security? *Some Lessons from Zimbabwe's Agricultural Recovery Programme*. Bindura University.

Giddens, A. (1984). The Constitution of Society. Cambridge, England: Polity Press.

Glaser, B., G. and Strauss, A., L. (1967). *The discovery of grounded theory: Strategies for qualitative research.* New York: Aldine De Grouter.

Hart, C. (2003). *Doing a literature review*, London: Sage Publications.

IPCC. (2007). Climate Change 2007: The Physical Science Basis. Contribution of Working Group. I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge, Cambridge University Press.

Juana, J., S. and Ignowski, E. (2012). Two Essays on Food Security in Zimbabwe.

Juana, J. S., & Mabugu, R. E., 2005. Assessment of small holder agriculture's contribution to the economy of Zimbabwe: A social Accounting Matrix Multiplier Analysis. Agrekon, 44 (3): 344-362.

Jayne, T. S., Chisvo, M., Rukuni, M., & Masanganise, P., 2006. Zimbabwe's food insecurity paradox hunger amid potential. In: Eds. Rukuni, M., Tawonezvi, P., Eicher, C., Munyuki-Hungwe, M. & Matondi, P., 2006. Zimbabwe's Agricultural Revolution Revisited, University of Zimbabwe Publications. Harare, Zimbabwe.

Keyton, J. (2001). Communication research: Mc Grew Hill. London.

Kothari, C., R. (2004). Research Methodology: Methods and Techniques. New Delhi: New Age.

Kidane, H., Alemu, Z & Kundhlande, G., (2005). Causes of household food Insecurity, 44(4):543-560.

Leedy, P., D. (1997). Practical research: planning and design. New York: Macmillan.

Mallet, M. & Plessis, P. (2001). A summary of current Knowledge about Pearl millet Post-Harvest Issues in Namibia: *Ministry of Agriculture, Water and Rural Development*. Windhoek, Namibia.

Maxwell, S., (1996). Food security: a post-modern perspective. Food Policy, 21 (2): 155-170.

Manyani, A. (2013). The Sustainability of Rural Livelihoods in the Face of Climate Change in Chadereka Ward I of Muzarabani Rural District in Zimbabwe. Bindura University of Science Education Bindura.

Manyeruke, C., Hamauswa S. and Mhandara L. (2013). The Effects of Climate Change and Variability on Food Security in Zimbabwe: A Socio-Economic and Political Analysis: *International Journal of Humanities and Social Science* 3(6): 270-286.

Mapfumo, P., Mtambanengwe, F., Giller, K., E. and Mpepereki, S. (2005). Tapping indigenous herbaceous legumes for soil fertility management by resource-poor farmers in Zimbabwe: *Journal of Agriculture Ecosystems & Environment* 109: 221-233

Mlambo, K. & Zitsanza, N., 2001. Economies of scale, capacity utilization and productivity measurement in Zimbabwean commercial agriculture. African Development Bank Reviews, Vol 9(2) [Online].

Mudimu, G. (2003). Zimbabwe Food Security Issues for the Forum for Food Security in Southern Africa.

Mugandani, R. 2009. Towards Food Sustenance: A revisit to the agro ecological zones of Zimbabwe. Paper presented at the Land Use Workshop, Bindura University of Science Education, 2-4.

Mugandani, R., Wuta, M., Makarau, A. and Chipindu, B. (2012). Re-classification of Agroecological Regions of Zimbabwe inconformity with climate variability and change. *African Crop Science Journal*, 20(2):361 – 369.

Mukarumbwa, P. and Mushunje A. (2010). Potential of sorghum and finger millet to enhance household food security in Zimbabwe's semi-arid regions: a review: Cape Town, South Africa, pp19-23.

Musevenzi, J. (2012). Rural Livelihood Diversification in Semi-Arid Districts of Zimbabwe: An analysis of Muzarabani, Gokwe and Mwenezi districts. *Doctoral thesis*.

Nciizah, T. (2014). The contribution of small grain production to food security in drought prone areas. The case of Zvishavane. *Master's Thesis*.

Patton, M., Q. (1990). *Qualitative evaluation and research methods*. (Second edition) Newbury Park: Sage.

Pope, C. and Mays, N. (2000). Qualitative Research in Health Care. London: BMJ Books.

Rukuni, M. (1994). Zimbabwe's Agricultural Revolution. University of Zimbabwe Publications Office. Harare, Zimbabwe.

Rukuni, M., Tawonezvi, P., Eicher, C., Munyuki-Hungwe, M. & Matondi, P., 2006. Zimbabwe's Agricultural Revolution Revisited, University of Zimbabwe Publications. Harare, Zimbabwe.

Ritzer, G. (1985). "The Rise of Micro-Sociological Theory." Sociological Theory 3:88–98.

Ritzer, G. (2008). Classical Sociological Theory. New York: McGraw-Hill.

Rohrbach, D. and Kiriwaggulu, J. (2007). Commercialization Prospects for Sorghum and Pearl Millet in Tanzania, 3(1):1-2.

Ritzer, G. (1975). "Sociology: A Multiple Paradigm Science." American Sociologist 10:156–167.

Scoones, I. (1998). Sustainable Rural Livelihoods: A framework for analysis. *IDS, Working Paper* 72, *IDS*, UK: Brighton.

Svodziwa, M. (2015). The feasibility of small grains as an adoptive strategy to climate change. *Rjoas*, 5(41):40-55.

Serigne T, et al, (2006), Climate Change Climate and Variability in Southern Africa: Impacts and Adaptation in the Agricultural Sector, Word Agroforestry Centre (ICRAF), United Nations Environment Programme (UNEP)

Taylor, J., R, Schober, T., J. and Bean, S. (2006). Novel and non-food uses for sorghum and millets. *Journal of Cereal Science*, 44: 252-271.

Taylor, J. R. N., (2003). Overview importance of sorghum in Africa.

Tekere, M. & Hurongo, J., 2003. The status of agriculture trade and liberalization in SADC countries: The case for Zimbabwe. Southern African Trade and Development Newsletter No 9 (March 2003)

The Zimbabwean. (2012). Climate change to impact heavily on food security.

Van Oosterhout, S. A.M., 1995. Excerpts from Zimbabwe's communal areas: International Development Research Centre.

Wilhite, D., A. (1991). Drought planning: A process for State government. *Water Resources Bulletin*. 27 (1): 29-38.

ZUNDAF. (2015). Policy Framework Document.