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THE SOCIO-CULTURAL FACTORS UNDERPINNING MAIZE FARMING IN ETHEMBENI LOCATION, KING WILLIAM'S TOWN DISTRICT

BY

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Dissertation submitted in fulfilment of the requirements for the degree of Master of Social Sciences (in Anthropology), in the Faculty of Social Sciences and Humanities at the University of Fort Hare

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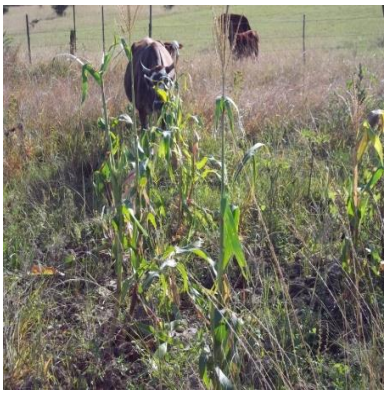

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DECLARATION

I, the undersigned, hereby declare that this dissertation is my original work, and has not been submitted in partial or entirety for degree purposes to any other university. All the work that was written by other authors and used in the dissertation is fully acknowledged.

Signature…… Date……

DEDICATION

This work is dedicated to my late parents Babsile Stevens and Ntomboxolo Girlscuse Nogcinile May. They will always be in my thoughts and memories.

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ABSTRACT

Maize is the staple food for most South Africans. This means that if maize crops are damaged that will affect the food security of many South Africans. Maize is an important staple food and a source of food security in Ethembeni location. The study found that maize has multiple uses: including that local farmers (1) use maize to make local drinks as a basic ingredient (including, *amarhewu and umqombothi*); (2) maize is used as food *umxhaxha (*a mixture of maize and pumpkin) and *inkobe* (maize boiled whole, i.e without being previously stamped); (3) and maize is given to livestock as feed. Local farmers also grow maize because the crop offers an avenue to raise money through which they sell at informal markets. The funds from the sale of crops are used to buy fertilizers, hire tractors and help cultivate fields. Also many people use these funds to purchase needed goods and consumables. Despite the significant role and contribution of maize production in the local economy, illiteracy, lack of credit, lack of access to agricultural lands, and desires for employment in the urban centres have added to the decline on maize farming in the study area. This bring us to the question of how we transform a traditional maize farming-system, dominated by socio-cultural constraints into a modern-farming type arrangement, whereby there is potential to advance maize production. Data was collected from 50 smallholder farmers who participated in maize production using purposive sampling and key informant interviews. The main data collection techniques used include participant observation, key-informant interviews, questionnaires, oral history and focus group discussions. Results indicate that land ownership, easy access to farmland, levels of education, age, labour, and infrastructure are essential for the development of maize farming. The researcher suggested strategies which aimed at addressing current socio-economic constraints ought to be addressed by local traditional leaders and government councillors who should view the issue of land ownership seriously and grant women land rights which are essential for any agricultural practices. What is equally important is that the current channels of communication that ought to be developed among government officials and local famers need improvement so that famers can have better assistance and improve on their agricultural production potential and capacity.

***Keywords*:** Maize, smallholder farmers, land tenure, cultural factors and constraints, communication.

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LIST OF ACRONYMS

AWHC	: Academic Writing Help Centre
SCF	: Socio-Cultural Factors
LM	: Labour Migration
SA	: South Africa
FS	: Free State
NC	: Northern Cape
WC	: Western Cape
EC	: Eastern Cape
AIDS	: Acquired Immune Deficiency Syndrome
FAO	: Food and Agriculture Organisation
NGO’s	: Non-Governmental Organisations
IFAD	: International Fund for Agriculture Development
OWFW	: Organisation for Women Farm Workers
SAHRC	: South African Human Rights Commission
LRAD	: Land Reform for Agricultural Development
SALDRU	: South African Labour and Development Research Unit
Stats SA	: Statistics South Africa
HPHC	: Home Production for Home Consumption
KZN	: KwaZulu-Natal
MDAN	: Managing Director of Advanced Nutrients
SABC	: South African Broadcasting Corporation
NEP	: National Extension Project

NFAC	: National Fund for Agriculture Credit
OPTRVA	: Operational Test de Reinforcement de la Vulgarisation Agricola
CEDAW	: Convention on the Elimination of all forms of Discrimination Against Women
ZEP	: Zingisa Educational Project
SPSS	: Statistical Package for Social Scientists
CAQDAS	: Computer Assisted Qualitative Data Analysis Software
SAHO	: South African History Online
SFLM	: Slavery and Forced Labour Model
ZAR	: Zuid-Afrikaanse Republiek
VTM	: Vehicle Miles of Travel

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Chapter One: Introduction

1.1 Background Information

Recently in the Daily Dispatch dated 29 May 2012, the Minister for National Planning, Trevor Manuel, called for farming to grow in the Eastern Cape Province. He emphasized that agriculture in the province was for rabble and people fighting off starvation. Manuel proceeded to argue that "agriculture must be actively sought after". Ironically, the province's agriculture department at the University of Fort Hare was regarded as a centre of excellence throughout Africa" (Daily Dispatch, 29 May 2012). Manuel (Ibid) argues that a lot of land in the Eastern Cape Province is lying uncultivated.

According to Ebojei, Aynde and Akogwu (2012:23-24), in Nigeria, crops make up a large part of the production of the agricultural sector and maize is becoming a miracle seed for its agriculture and economic development. They further argue that many researchers have found improved maize production to be a major step in the effort to become self-sufficient in maize production. Brisk improvement in production and productivity is important to ensure the central role of agriculture in an economy of the country.

In South Africa maize is the most important grain crop. It is produced throughout the country in diverse environments. Successful maize production depends on the correct application of production inputs that will sustain the environment as well as agricultural production. These inputs are, inter alia, adapted cultivars, plant population, soil tillage, fertilization, weed, insect and disease control, harvesting, marketing and financial resources. In developed countries, maize is consumed mainly as second-cycle produce, in the form of meat, eggs and dairy products. In developing countries, maize is consumed directly and serves as a staple diet for some 200 million people. Most people regard maize as a breakfast cereal (du Plesis 2003:3).

Mandikiana (2011:iv) is of the opinion that any harm to the maize crop will affect the food security of many South Africans. Although the Eastern Cape Province is not a traditional maize producing area, smallholder farmers in the province often produce it

for subsistence purposes and some sell the surplus on the local market or use it to secure other goods through barter trading.

The economy of Ethembeni location has a quasi-exclusive dependence on agriculture with about 90% of the population engaged in mainly subsistence agriculture. Ethembeni location is a study area; it is situated in the region between King William's Town and Stutterheim in the Eastern Cape. It covers an area of 50 square kilometres. It has an estimated population density of 8000 (see chapter four, figure 4.2 Map of Ethembeni location).

As in other villages in the region, in Ethembeni, maize is a major food crop and is essential for a number of households. While the researcher was conducting a pilot study in Ethembeni, she discovered that maize is an important staple food and a source of food security in these communities. She observed that maize has multiple uses. Local farmers grow maize as a feed crop. It is cultivated as a basic ingredient for local drinks and food products. It is also an outstanding feed for livestock. Local farmers also grow maize because the crop offered an avenue through which they could raise money by selling it on the market. The funds from the sale of the crop are used to pay school fees and hospital fees, among a host of many other domestic uses.

Despite the significant role and contribution of maize production in the local economy, there seems to be socio-cultural factors which may have influence on maize farming in the study areas. Maize production in Ethembeni has been on the decline during the last four years. Using the anthropological perspective, this study seeks to investigate the socio-cultural factors affecting the decline of maize production in this village. After investigating how socio-cultural factors stifle maize production in the study area, the research recommends strategies to increase maize production in the study area.

Social and cultural factors are characteristic of society to which the farmer belongs and dominate human behaviour (Arnon, 1981). According to Arnon (1981) these factors include beliefs and rules of behaviour which may constitute formidable barriers to technological innovations.

1.2 Research Problem

This study seeks to investigate the socio-cultural factors underpinning maize farming in Ethembeni Location, King William's Town District. Maize is the most important grain crop in this village. Local farmers produce maize for their subsistence needs and they show interest in becoming commercial farmers in future. However, maize production in this village has been declining due to socio-cultural and environmental factors. The latter include land tenure, access to farming inputs, climate change, the level of education of the farmers, labour migration and drought. Therefore, the study seeks to investigate the following: **What extent these socio-cultural factors contribute to the decline of maize production in the study area?**

Numerous studies have been done on maize farming on socio-cultural factors (Adams, Cousins and Manona 1999; Ardington and Lund 1996; Arnon 1981; Bank and Mabhena 2010; Bembridge 1986; Bundy 1979; Dlamini and Masuku 2011; Mandikiana 2011; Paudel, Shrestha, and Matsuoka 2009; Randall 2012; and Vorster 2007). These researchers have placed special emphasis on the role of socio-cultural factors influencing maize output. The general argument depicted by these scholars is that low yields of maize output can be attributed, among other things, to socio-cultural factors. These include land tenure, access to credit, labour migration, household size and the level of education. This study sought to show that there are other aspects that can pose a threat to maize farming. These include climate change and infrastructure. Farmers pointed out that maize production in the study area has declined because of drought. They pointed out that maize needs plus minus 500 mm of water per season to grow well and the study area experienced drought in the past three years. Maize production in the study area also suffered because of poor levels of infrastructure starting from roads for transportation to water supply, which are basic needs for the operation and development of a society. This brings the researcher to the question of how to transform a traditional maize farming, dominated by socio-cultural constraints, into modern farming, that will increase maize production.

1.3 Research Questions

- When did you come to Ethembeni Location to settle as a full resident?
- Where were you coming from?
- Please give a short history about people of Ethembeni.
- What is the effect of land tenure on the decline of maize production in Ethembeni Location?
- How does education affect the decline of maize production in the study area?
- How does access to credit contribute to the decline of maize production in the study area?
- What is the consequence of labour migration on maize production at Ethembeni location?
- To what extent does rural urban migration have an impact on maize production in the study area?
- To what extent does household size have an impact on maize production in Ethembeni location?

1.4 Research Aim and Objectives

The overall aim of the study is to investigate to **what extent socio-cultural factors influence maize production in the study area (Ethembeni location).** The study seeks to accomplish the following specific objectives:

- To find out history of customs, tradition, beliefs and values of people of Ethembeni location;
- To examine the effect of land tenure on the decline of maize production in the study area;
- To explore the role of education in the decline of maize production in the study area
- To illustrate the contribution that the lack of credit makes to the decline of maize production in the study area
- To examine the significance of labour for maize production at the Ethembeni location

1.5 Delineation and Limitations of the Study

1.5.1 Delineation

- This research only covered socio-cultural factors because of financial and time constraints. These constraints also led to this research to focus on one village of Amahlathi Municipality.
- The whole population of Ethembeni is approximately 8000 but the sample of this study was limited to fifty farmers. This is because the selected informants were the only active famers who have engaged tirelessly in maize production in the study area, the majority of the population has given up farming because they have been discouraged by the lack of resources and socio-cultural factors.
- The researcher could not get into detail on the issues of climate change in the study area because the study was only conducted in the period of two years within which there is not much change that can take place in the climate. Reliance was therefore based on information given by the informants.

1.5.2 Limitations

The lack of information on statistics and figures on the decline of maize production in the study area was a limitation to this study. However, the researcher ended up relying on national and provincial data that was published from the year 2007 to 2012 by the Department of Agriculture Annual reports. She also relied on the information given by the informants, and her observation of the area.

Before proceeding with data collection among farmers of Ethembeni, The researcher had to meet with *iNkosana* (the Chief) of the community, to explain to him the purpose of her visit to some of his subjects. By doing that she was avoiding being labeled as a spy or someone who disrespects *iNkosana* and his fellow subjects. She had to get his permission and it was not easy to meet with him for he was busy with his duties. However, they ended up communicating through the telephone. The researcher explained that she would come and drop the ethical clearance letter from the university and he gave me a go ahead to conduct a study of this nature in his village. He also suggested some of the key-informants that would help her with the relevant history of the location.

The estimated number of people in Ethembeni according to the ward counsellor, is 8000. The researcher thought the sample size that would be reasonable for generalization of the findings is hundred and twenty (120) farmers. When she got to the study area, there were only few active participants in farming. She therefore had to reduce the number of her sample to fifty (50) farmers. After reducing the sample size and planning to interview twenty five local farmers for each gender, she discovered that males who participated in farming were less than females. As a result the researcher came to the conclusion that she should interview thirty (30) women and twenty (20) male farmers. However, though the sample size of the study was reduced to a number of fifty (50) informants, there was a very limited space of time in which to participate in all the activities done throughout the season, for the production of maize was practiced between November and June of the following year. Due to this situation the researcher was forced to mostly rely on the information given during interviews.

Another limitation was that people did not like answering long questions; they complained that it was time consuming and they could not understand English. The researcher tried to overcome this limitation by reading and explaining the questions and answers in their language, IsiXhosa. She had to translate everything they were saying into English when recording. Some of the informants (especially the youth) could not answer some of the questions like the question on the history of Ethembeni location because they did not know it. Sometimes they would just leave the question blank, which gave the researcher some difficultly when interpreting data.

The researcher also encountered a problem in finding out the exact rates of the decline of maize over the period of three years (2010, 2011 and 2012) because the farmers do not record their yearly production. She had to rely on their memory, especially the key-informants because at least they would remember by relating the events that happened each year because of the sacrifice or suffering.

As she was observing, she had a sense that the informants (especially the older people), treated her with lot of respect because they had a perception that she was from the government and she was there to help render services though she had made it clear from the onset that the research was for educational purposes. Others would urge the researcher not to take pictures of their dry gardens as they argued that such pictures would portray laziness to someone who was not aware of their situation,

which was characterized by poverty because of deceased husbands and illiteracy. She ended up being worried and thought that maybe in future, a research of this nature should be funded, even if it meant offering such small things as fertilizers and other forms of encouragement to sustain farming.

There were also other touching events during data collection. At one time the researcher arrived at a household headed by a widow where no one in the family was employed. The woman was not yet old for the social grant and the home was characterized by poverty and the family was working hard on land. In some households the researcher was told that members of the family did not have means to buy food or seeds and even electricity. The situation was sad but the researcher had to be strong and give words of hope to the families.

During participant observation other informants were uncomfortable around the researcher. Others would change their behaviors in her presence or even lie about what they believed. That introduced an element of bias. She preached it throughout the sojourns that she is not a specialist, and she is also there to learn. As time went by she noticed that the informants were loosening up and were happy when she asked practical questions, since they regarded them as easy for they were dealing with them in their everyday lives. Others would even laugh at asking such easy questions.

1.6 Definition of Terms and Concepts

Empirical Research

Abercrombie, Hill, and Turner (1988) define empirical research as a research or theory that can be tested by some kind of evidence drawn from experience.

Inheritance

Inheritance is the transmission of property following the death of its owner (Seymour-Smith 1986).

Innovation

Innovation is the mechanism of creating of new ideas, new technologies, or new behaviours which make social and cultural change and evolution possible (Seymour-Smith 1986).

Invention

Invention is the first occurrence of an idea for a new product or process (Fagerberg, 2004) cited by George (2009).

Subsistence

Subsistence is referred to all agricultural produce of which is internally consumed (Reading 1977).

1.7 Assumptions

The main assumption of the study is that maize farming is somehow negatively influenced by socio-cultural factors in the study area.

Landlessness, illiteracy, household size, labour migration, Beliefs and customs play a role in the decline of maize production in the study area.

1.8 Significance of the Study

Maize production in the study area dropped as many people migrated to urban areas, and the youth is not interested in participating in agricultural activities. At present, the infrastructure for small farmers is lacking because people still hold on to the traditional allocation of land, and single women suffer because they cannot participate actively in farming and are not able to get credit from banks. However Horrigan, Lawrence, and Walker (2002:46) argue that agriculture is a significant part of every society. Economies are, in part, based upon sustainable food systems which are partly dependent on agriculture. Agriculture affects the environment, human health, and social order. As a result, any effort to achieve sustainability must set as a priority the attainment of a more sustainable agriculture.

This study helps in understanding factors that interfere with maize production in the study area; it also helps people from the study area to make use of their land to fight poverty.

1.9 Brief Chapter Overviews

The dissertation consists of five chapters.

Chapter One: Introduction. This chapter will contain the following:

Background Information; A problem Statement; Research Questions; Research Objectives; Delineation and Limitations; Definition of Terms and Concepts; Assumptions and Significance of the Study.

Chapter Two: Literature Review. In this chapter the researcher provides the reader with a theory base, a survey of published works that pertain to her investigation, and an analysis of that work. It is a critical, factual overview of what has happened before.

Chapter Three: Methodology. This chapter is a map the readers rely on when they get to the body of the dissertation. It makes it clear to the readers how the researcher got to the conclusion. It looks at issues of research philosophy, design, sampling procedure, data collection methods, data analysis, trustworthy and credibility, and limitations of the study.

Chapter Four: Historical; Socio-cultural Orientation and Characteristics of the Study Population. This chapter discusses historical and the prevalent type of socio-cultural activities within the study population. It further explains the Characteristics of the Study Population. These include personal characteristics of informants (gender of informants, household size, marital status, age, and level of education), socio-cultural factors (land tenure, labour migration, household economy, infrastructure etc).

Chapter Five: The Conclusion. This chapter contains six distinct sections:

Summary of Findings and Conclusions; Suggestion for Further Research; Implications for Existing Theory; Reflection on Research; Recommendations for Implementation and Conclusion.

Chapter Two: Literature Review

2.1 Introduction

Hart (1998) states that, a literature review is an examination of the research that has been conducted in a particular field of study, he emphasises that it is the selection of available documents (both published and unpublished) on the topic, which contain information, ideas, data, and evidence. According to him, this selection is written from a particular standpoint to fulfil certain aims or express views on the nature of the topic and how it is to be investigated and the effective evaluation of these documents in relation to the research being proposed.

The role of the literature review in an academic writing is to provide background information of a topic using previous research; it also evaluates the depth and breadth of research in regard to the topic. Lastly, it determines remaining questions or aspects of topic in need of research (Academic Writing Help Centre, AWHC 2007).

Having read and understood Hart's definition of the literature review, the researcher would like to state that this is a critical summary and appraisal of the recent state of facts in the field of social anthropology. The purpose of this literature review is to provide the reader with a recent account and discussion of the research findings on Socio-Cultural Factors (SCF) underpinning maize production both in South Africa and in a broader context.

This chapter will perform and examine a review of the relevant literature to the present day study which is the SCF that seem to hinder maize production in general. It also looks at the theoretical framework that informs this study. First, the significance of the agrarian theory will be discussed broadly. Secondly, the situation of land tenure and its importance both nationally and internationally will be explained. Thirdly, the level of education and maize production will be indicated as well. Fourth, the challenge of accessing credit for agricultural productivity will be highlighted, and effects of labour migration will be indicated. Fifth, the link between household size and lack of production will be discussed in detail. Sixth and lastly, the research gap will be identified and the conclusion will sum up the chapter accordingly.

2.2 Theoretical Framework

Hofstee (2006) is of the view that in academic terms; a theory is a logical explanation for why something is as it is or as it does. He further explains that theories are not cast in stone, something may come along and disapprove them tomorrow but they are the best explanation we currently have.

This study is based on two theories, **agrarian theory** and **modernisation theory**. Firstly, when one talks about land, cultivation and its ownership, especially in the context of rural areas, he or she cannot afford not to mention the agrarian perspective because it describes and favours farmers extensively. Collier's Dictionary (1986) defines agrarianism as doctrine advocating the equal distribution of land, it further explain that the word agrarian means the concern of land and its cultivation.

However, agrarianism has two common meanings. The first meaning refers to a social philosophy or political philosophy which values rural society as superior to urban society, the independent farmer as superior to the paid worker, and sees farming as a way of life that can shape the ideal social values. It stresses the superiority of a simpler rural life as opposed to the complexity of city life, with its banks and factories. The American Thomas Jefferson was a representative agrarian who built Jefferson and Democracy around the notion that farmers are the most valuable citizens and the truest republicans, Thompson (2010).

According to Thompson (Ibid) as a philosophical tradition, agrarian thought emphasizes the idea that farming practices have the power to shape the moral character of the individuals who engage in them and that a society's farming culture, its means of subsistence reverberates through all its institutions. Agrarian ideals are moral and aesthetic ideals. They describe a way of life as it ought to be lived. They articulate aspirations for both individuals and family groups. They apply equally to regions and towns and can be expanded to express ideals for entire civilizations. They celebrate agriculture shockingly unlike the agriculture that industrialized countries have today.

Merriam-Webster's online dictionary (1830) states that agrarianism claims that agriculture is the foundation of all other professions. Philosophically, European agrarianism reflects the ideas of John Locke who declared in his second Treatise of Civil Government (1690) that those who work land are the thinking of Thomas Jefferson, who in turn shaped the way many nineteenth century American homesteaders understood ownership of their farms.

Secondly, modernisation theory is also vital in this study in the sense that the content stresses the need for the people of Ethembeni to adapt to new technologies in order to improve and develop their agriculture. Modernisation visualises the development in terms of a progressive movement towards technologically and institutionally more complex and integrated forms of modern society[1]. Long (2011) emphasized that modernisation process is set in motion and maintained through increasing involvement in commodity markets and through a series of interventions involving the transfer of technology, knowledge, resources and organisational forms from the more developed world and gradually though not without social and cultural obstacles to change, economy and social patterns (like in this case of Ethembeni which reflects the need to encompass the laws that favour women to have their own access to land and the need to adapt to new advanced agricultural techniques) acquire the accoutrements of modernity.

To add on Long's (ibid) view of modernisation, Johannes Berger quoted by Zapf (2004:2) also defined modernisation as "the internal achievement of a society; the particular processes of modernization support each other in combination; the leading nations do not impede the followers; the processes of modernization are converging in a common goal" This means that progress or development cannot be explained by abusing people or accomplished by simply stealing institutions. Regardless of the fact of rising differentiation there is comparable process of rising interdependence. Regardless of visible trends of globalization the indigenous forces are crucial (Zapf 2004).

[1] Norman Long (2001) at this point explains the convergence of structural models of development which he believed had recently occupied centre in the sociology of development.

The leading modernisation intellectual, Bill Rostow, suggested that development should be seen as an evolutionary process in which countries progress up a development ladder of five stages. Firstly, undeveloped societies are 'traditional societies' dominated by institutions such as families, tribes and clans, within which roles are ascribed rather than achieved. The society that the people in such a society are in a condition of fatalism and denies that people could change their living condition because their minds are magical, mystical and non historical in the sense that they will not be able to dig to find out how to change or improve their wellbeing. They believe that things such as goods come into being by divine forces rather than the intervention of man or ingenuity. It does not mean that the economy's production level of such a society is static but is increased due to the surplus cultivation of the land in order to increase agriculture production (Rostow, 1960) quoted by Kasanda (2014). Kasanda (Ibid) also notes that it is important to understand that the states as well as the farmers in traditional society are aware of the various irrigation methods and the expansions in order to improve agricultural output levels. He assert that there have been barriers in traditional society which could not be crossed or overcome and this was due to lack of knowledge or application and constant development of modern science and technology.

Secondly, the 'pre-conditions for take-off' stage involves the introduction of material factors such as capital and technology from the West in the form of capital investment by Western companies and official aid. Rostow (1960) emphasizes that in this stage the society and the economy are fundamental in nature in the socio political structure and production technique. It is characterized by the massive development of mining industries, increase in capital use in agriculture, necessity of external funding and some growth in savings and investments. It also consists of certain dimensions that are associated with this transition from traditional society through the conditions to the take off phase. (Hollis and Robinson,1986) quoted by Kasanda (2014) points an example that there is a shift from agrarian to industrial or manufacturing society, trade and other commercial activities are broadened to reach not only local markets but also international markets and there is no wasteful of resources or the surplus attained by the landowners is used to develop industries, infrastructure and preparation of self sustained growth or development. It is the stage in which agriculture is commercialized and mechanized to bring about technological advancement and growth in

entrepreneurship activities. The main focus of this stage for Kasanda (Ibid) is to ensure that investment levels are above 5% of the national income depending on various sectors of the economy. The agricultural activities play an important role in the process of transition or development.

Thirdly, the 'take-off stage' is the most important and involves traditional attitudes and social institutions being overcome and replaced with their Western equivalents. Fourthly, the 'drive to maturity stage' is marked by export of manufactured goods to the West as the country takes its place in the international trading system. Lastly, development is achieved in the final stage which Rostow calls 'the age of high mass consumption'. In this stage, the majority of citizens live in urban rather than rural areas and enjoy a comfortable lifestyle. Life expectancy is high and most citizens have access to health-care and free education (Rostow 1960).

Both theories have explicit features that have straight applicability to the present study. These features include the land and its ownership, cultivation and agriculture or rural matters intended to further agricultural interests, shifting from traditional laws to State driven laws which are elite or education driven, importance have been emphasized in modernization theory as it is believed to have a huge impact in the development and sustainability of agriculture. The argument in this study is that in Ethembeni location, the residents (especially women) suffer a lack of equal distribution of land and resources to sustain agricultural production particularly maize. Maize production in this area has been stifled due to socio-cultural factors.

2.3 Land Tenure

"Land is considered the most fundamental resource to the poor and is essential to enabling them to lift themselves out of poverty" (Mutangadura, 2003:3).

In the study conducted by the United Nations Economic Commission for Africa Office for Southern Africa in 2003, it is revealed that land tenure insecurity is still widespread in Southern Africa and it manifests itself in a number of ways. It appears in minority groups in Botswana and Malawi in unclear or overcrowding in the form of high population to land ration in Lesotho, Malawi and South Africa; in alienation into leasehold in Malawi, Mozambique and Zambia; and in inappropriate and explosive

administrative practices and limited women's land rights in each of the study countries.[2]

Mutangadura (Ibid) also pointed out that the last three decades have witnessed some land reforms in Southern Africa, some of which were aimed at land redistribution and introducing land titling for customary tenure. While the issue of land tenure reform has not been given sufficient attention, land distribution has tended to be the core issue in many of the Southern African countries' land policy reforms. Today there is a growing recognition of the centrality of land tenure in sustainable development process in the region as witnessed by a number of regional and national initiatives and meetings. Providing security of tenure is often seen as a precondition for intensifying agricultural production and is now increasingly stressed as a prerequisite for better natural resource management and sustainable development. Rural people generally need both secure individual rights to farm plots and secure collective rights to common pool resources upon which whole villages depend. Despite the fact that security of land tenure is required for agricultural production and poverty eradication, cases of land tenure insecurity have been reported in the sub-region (Mutangadura Ibid).

However, Mayende (2010), gave a statistical information about land ownership in SA. He asserts that at present (in 2010) most (80%) of the agricultural land in the country (+/- 81 million hectares) remains in the hands of about 45 000 white industrial farmers, who own pieces of land with an average size of 1 300 hectares (ha), while in the communal areas 5 million households only have access to 15 million hectares, with an average size of 1.5 hectares.

In challenging the above statement Pieter Mulder in a report compiled by Cronje (2012), point out that some basic arithmetic reveals that a far greater share of the country is in black hands than is often acknowledged. According to Cronje's report, South Africa (SA) has a total area of 122 million hectares. As of March 2011 31 million hectares or 25% of that surface area was in the hands of the state. The remaining 91 million hectares of 75% of the surface area was privately owned. He emphasizes that

[2] See: Land Tenure Systems and Sustainable Development in Southern Africa Report compiled by the United Nations Economic Commission for Africa Office for Southern Africa in December 2003; Officer in charge, Dickson Mzumara.

the balance of state and privately owned land varied greatly between provinces. For an example in the great expanses of the Free State (FS) and Northern Cape (NP) private owners held 89% and 91% of the surface area respectively. In both the Western Cape (WP) and Gauteng 55% was held by the State. State owned land would previously have been regarded as part of the white owned 87%. It follows then that it should now be regarded as black owned, which means that at least a quarter of the country's surface is in black hands. Cronje (Ibid) concludes that people who comment on land reform in SA would therefore do well to consider the following points: the first is that the amount of land in black hands is not 13% but may be as high as 50%. The second is that the 50% in white hands is held by SA's food producers and that their numbers are shrinking very quickly as urban markets demand ever more cost effective production methods. The third is that any policy that compromises the ability of those farmers to produce food may trigger a series of urban protests that the government may find difficult to control[3].

Mulder in Cronje (2012) did not include other parts of SA in his research therefore it would be unfair to assume that the points he mentioned are to be generalized. For an example, in some cases people who are living in rural areas, e.g (Eastern Cape, Limpopo, etc) especially women tend to have the problem of access to land because of various reasons. It is no wonder that they do not sustain their agriculture. Several authors like (Cotula 1999, 2010; Cousins and Manona 1999) have clearly stated those reasons. This study is not focussing on landlessness associated with racial colour but rather problems facing the agriculture of South African residents especially that of the Eastern Cape (EC) as it is already indicated in the introduction.

Information provided by Mutangadura (2003) states that the technical publication describes the major sources of land tenure insecurity in six selected countries: Lesotho, Zambia, Malawi, Botswana, Mozambique and SA. Findings of her study reveal that land tenure insecurity is still experienced in Southern Africa. She asserts that her study has revealed that land tenure insecurity is still widespread in Southern Africa. It manifests itself in a number of ways. It appears in minority groups in Botswana and Malawi; in unclear or overlapping land rights and insecurity of farm

[3] See: France Cronje, *Research and Policy Brief: Land ownership and land reform in South Africa,* 27th February 2012.*A version of this article first appeare*d *in Rapport on 26 February 2011*.

workers and farm labour tenants in SA; in overcrowding in the form of high population to land ratio in Lesotho, Malawi and SA; in land alienation into leasehold in Malawi, Mozambique and Zambia; and in inappropriate and exploitative administrative practices and limited women's land rights in each of the study countries (Mutangadura Ibid).

De Sousa Santos (2006), pointed out the fact that for a large portion of humanity, the opportunity to produce depends on an ability to gain access to land. Despite urbanisation and the imperatives of the market economy, it is the ability to at least grow a small crop of staples like corn, beans, rice to supplement other forms of income, such as wage labour or government welfare or pensions, which makes the difference between many a family's capacities to sustain a meagre subsistence.

Fonjong (2012), also noted that the dynamics in tenure arrangements have affected community life and caused gender inequalities in regards to access to land. He asserts that prior to colonization; this important natural resource was very accessible to the poor and the underprivileged. Land reforms in most African countries have been introduced through legal frameworks which leave much to be desired due to their vagueness and lack of clarity. Implementation of laws related to land tenure has been epitomized by administrative irregularities and misunderstandings between statutory and customary authorities.

According to Cotula (1999), independent woman land rights which enable woman to decide on the use of land and keep the proceeds from such use, are still a dream for women in many countries, despite their increasingly central role in agriculture. Woman's relationship with land is determined by customs and laws of inheritance and marriage. If a woman does not inherit her father's property, but is expected instead to marry and move to her husband's land, she only has access to the land of her natal and marital homes.

For Iruonagbe (2010), every community of people has its cultural and economic life rooted in the soil it occupies. The term land may take on a major physical as well as spiritual meaning. Land is a major production resource and lack of control over this important resource has constituted a limiting factor to women's productivity. In addition to Cotula's statement, Iruonagbe gives the following information:

"Women's access to land depends on marriage and they retain access to land as long as they remain in their husband's household. Surprisingly, women rarely speak and hardly perceive the inequalities in the division of labour in agriculture because they are culturally legitimized" (Iruonagbe, 2010:260). Alston (1994) quoted by Iruonagbe (Ibid) pointed out that the problems women have in attempting land ownership in Africa are monumental. Women's efforts to plant trees are hampered by their lack of ownership of land[4].

In some contexts, women do keep the proceeds from the crops they grow and sell on their husband's property, but without formal ownership of land they are barred from using it as collateral for loans or credit, selling it as if they have to raise money or bequeathing it to daughters or others. The need for women to secure full and independent land rights has been argued on the grounds of welfare, efficiency and gender equality. On welfare grounds, landlessness has been linked in many studies to poverty. However, the Acquired Immune Deficiency Syndrome (AIDS) epidemic is causing distress sales of land in Zimbabwe, because many families cannot make a living from the land due to the lack of labor, and need to pay for medical care. It is likely that a new group of landless will arise from this problem (Tolsi, Mail and Guardian Online, 03 June 2011). As can be seen from this example, land is not only valuable for its use in agriculture, but is also a marketable commodity which provides security in times of crisis. Women are more likely to use land productively and sustainably. Empowerment approaches stress the fact that land ownership is not only an economic issue, but is closely correlated with social and political power.

However, ownership of land is one of the sensitive political issues. It is also clear that the present system of land tenure and size of land holding is a limiting factor in changing from subsistence agriculture to commercial farming (cf. Steyn, 1988).

Ashby and Gomez (1985) also agree that members of the underclass are impoverished widows, single mothers who have no access to land or illegitimate

[4] Women's land right and the challenge of patriarchy: Lessons From Ozalla Community (Iruonagbe2010).

female children with any land rights. The absence of a male partner may effectively block a single woman from access to land because of inheritance customs or land reform legislation, which in some countries denies single and married woman the right to their own parcels and assigns these to the head of the household or requires male authorization for woman to administer property (FAO 1995). Many such women become urban residents who go out into the countryside to find work.

Meer (1997), agrees with the authors above that women are underprivileged when it comes to land ownership. He noted that women are generally disadvantaged compared to men of the same race and class, in access to land, employment, labour and training. In addition to disadvantages in access to these resources, women are also disadvantaged in the control they are able to exercise over them. Compared to men, women have less authority and less involvement in decision making in the home, the community and the nation. Women and men also have different priorities in the development process, for an example in relation to land use because men's priorities are advantaged; all too often women's needs are not met.

Meer (Ibid) also pointed out that in general, women are insecure in their rights of access to land. As this access usually depends on their link to a man, married women are often forced to remain in problematic, or even violent, relationships in order to secure the income and other resources vital to their own and their children's survival. Single, widowed or divorced women are disadvantaged in access to land and often have to depend on the whim of a chief or headman to make a decision about their rights of access and use. As Murphy states:

> Apparently there is no tribal law stating that women cannot have access to land in their own right. This is a negotiable issue with the tribal authorities (all male), and depends on the extent to which the women can persuade the tribal authorities to grant them land rights. However, it is difficult for a woman to gain access to land, a woman gaining land in this way appears to be the exception rather than the rule (Murphy, 1990 quoted by Meer, 1997:3).

Survival strategies for landless rural women include migration to cities, prostitution, domestic service, agricultural fieldwork, or pairing up with a man who can provide her with access to land.

To add on the facts stated by Ashby and Gomez (1985) on women lacking ownership of land. Cotula (1999), mentions that another means of accessing land for women is borrowing, he affirms that land is lent mainly by those who have land in excess of what they can use. Needless to mention, this is a short-term and tenuous form of access. Among the challenges faced by women who wish to borrow is the fact that most people in a position to lend land are men. As such, women cannot effectively negotiate with them. Borrowing also imposes obligations on the borrowers, terms that are more or less equivalent to sharecropping. Those who lend land expect, as a matter of right, that the borrowers are morally bound to give some of the produce to the lenders. Some lenders fix this beforehand, irrespective of the fact that risks inherent to farming make it impossible to be certain about eventual yields. Lenders lend either marginal land that is not productive, or land with overgrown bush, so that the borrowers will clear and use it for one or two seasons before it reverts to the lenders. Besides, people are reluctant to lend land because there have been cases where borrowers have claimed ownership in the event of death of the lenders. All this makes it hopeless for women to rely on borrowing as a secure mode of access to land.

Writers such as Arnon (1981); Grigg (1970) as well as Tomlinson Commission are quoted by Steyn (1988) pointing out that the systems of land tenure in many of the developed countries is one of the main obstacles towards agricultural development. He further emphasizes this point by quoting Bembridge (1987) that with the need to improve agricultural production and with land being the basis of rural development, the size of the holding is of critical importance in evaluating the agricultural situation in the Ciskei and its future direction.

The above statement was written by Steyn (1988) quoting writers and it has been 43, 26, and 25 years ago and the statement was made and it shows that little or no progress has been made to improve land tenure systems to develop agriculture tremendously. This is shown by a statement made by the International Fund for Agricultural Development organization (IFAD) (2011) that for many of the world's poor rural people in developing countries, access is becoming more tenuous than ever. Competition for land has never been greater. Pressure on land is increasing as a result of a rising world population, climate change, declining soil fertility and the need for global food and fuel security. With governments and business now recognizing the

potential of growing biofuel crops and land that cannot sustain food crops, even less fertile agricultural land may now have value. Dissatisfaction and reduced availability of water compound these issues. It also highlights that land is fundamental to the lives of poor rural people and it is a source of food, shelter, income and social identity. Secure access to land lessens vulnerability to hunger and poverty.

However, Funder (2001) makes it clear that it is important to know how the tenure system works and how people in the area perceive it because the tenure system could be a disincentive for intensifying the land use. If people in the area perceive their rights to arable land to be uncertain, unreliable or in some way limited they may not think that it is worth the effort to invest time and money in cultivating the land.

IFAD also point out that tenure issues affect the everyday choices of poor rural women and men, such as which crops to grow and whether crops are grown for subsistence or commercial purposes. They influence the extent to which farmers are prepared to invest in the long-term wellbeing of their land or to adopt new technologies and innovations. The lack of secure land rights land tenure exacerbates poverty and has contributed to social instability and conflict in many parts of the world[5].

The statement by Fredensborg-Rasmussen (2002) also agrees with IFAD that women are the victims of landlessness in Africa. He argues that in Masindi (Uganda) where land is abundant it is easier for the farmer to find unoccupied land and therefore the majority of the farmers “own” the land they cultivate. It is also important to mention that women often lack the right to own land, indicating that interviewed women claiming to own the land probably refers to the ownership of the husband.

There is also evidence that in some areas, women are being pushed out of smallholder agriculture. In Southern Niger where land shortages have become critical over the last 20 years, women and young unmarried men are no longer receiving a parcel of land from the household head as used to be the custom. Previously, the household head would give out land to his wife (or wives) for them to cultivate, the production from this parcel was theirs to sell, allocate, or used as they wished with the increasing shortage of land, wives are no longer given their own parcels. This is being

[5] See: *IFAD and land issues,* [Online] Available from: http://www.ifad.org/english/land/index.htm

culturally justified by instituting a type of female exclusion- women are not supposed to work in the fields (Doka and Monimart 2000) cited by (Lastarria-Cornhiel 2008).

Mayende (2009) quoted by Fonjong (2012) points out that, women groups and the civil society in SA and Uganda played a strong role to fight for women land rights. For an example, the Organisation of Women on Farm workers (OWFW), and they demand that the implementation of current legislation must be monitored more effectively and that the socio-economic impact of evictions on vulnerable groups in rural areas of SA must be investigated and addressed.

In a bid to protect the women, the South African Human Rights Commission (SAHRC) demand in its submission to Parliament dated 11th November 2003 that where land is transferred to a household, the land must be registered in the woman's name as well as in the man's name (Ingunn *et al.* 2005) cited by fonjong (2012). Unlike in Cameroon, Section 2 of the Ugandan Land Act 1998 vests all land in Uganda in the citizens of Uganda, in addition, section 2 (a) of Land Act 1998 recognises 15% of the deceased husband's property irrespective of whether or not she has a marriage certificate, Section 65 (2) and (3) of Land Act 1998 ensures that at least one member of the land committee is a women and that at least one member should be knowledgeable and experienced in land matters (cf. Fonjong,2012:127-128).

Blignauta, Ueckermannb and Aronson (2009) reported that since 1994 the new government in SA has adopted legislation, policies and programmes towards the advancement of land and agrarian reforms. In 1994 the promise was to redistribute 30% of white owned commercial agricultural land to black people by 2009. By September 2009 only 6.9% of white owned agricultural land had been transferred to black farmers. So the date to meet this target was postponed to 2014, and has recently once again been postponed to 2025.

Besides failing to meet the promise of land redistribution, the model and strategies adopted for agricultural development have also not addressed the real issues of landlessness, poverty and hunger that affect the rural poor and landless people. Moreover, most of those who acquired land through the Land Reform for Agricultural Development (LRAD) programme are now indebted countrywide and are unable to

repay loans due to the lack of after-settlement support and failure by the government to ensure the provision of water for irrigation purposes.

The conventional wisdom is that only about a quarter of rural households have access to land for cropping (SALDRU, 1994) quoted by (Adams, Cousins, and Manona 1999). Ardington and Lund's (1996) critique of the Southern Africa Labour and Development Research Unit(SALDRU) data points out that this figure is 'influenced by the inclusion of a large number of peri-urban households in the rural sample, and it is questionable too on the grounds that only half of those who reported income from agriculture claimed access to land. Many studies in truly rural areas report much higher levels of access to land for cropping, especially when the productive (and often large) 'gardens' around homesteads are included.

Ardington and Lund (1996:55) remark:

> "Land does provide critical support to poor families for most households in rural areas. Its importance for poverty alleviation and livelihood support should not be underestimated".

Released data from the 1997 Rural Survey carried out by Statistics South Africa (Stats SA), using a sample of 6,000 households in the former 'homelands', confirms that access to land is wider than previously thought. It is reported that 71% of households have access to land for farming, although about half of these have access to less than one hectare (Adams *et al.* 1999). Adams *et al*. (ibid) speculate that around 1.7 million households grow crops, mainly for their own use (Statistics SA 1999).

However, Roth and Haas 1998 quoted by Dlamini and Masuku (2011) reported that farmers are more likely to make medium to long term improvements if tenure has security rights. Property rights are important for developing countries where risk to assets is put forth as a crucial determinant of lagging growth.

According to a research conducted by Zingisa Educational Project (ZEP) in 2011,in the current period in SA, there has been a further decline in support to farmers and

limited extension support from government and other players[6]. This continues to constrain the development of black farmers. Farmers in the Amatole District Municipality of the EC are amongst the most poor.Research conducted by the Department of Agriculture in the Western Cape confirms that:

- One third of EC households are involved in Home Production for Home Consumption (HPHC);
- In the Amatole District Municipality, about 17% of the households are strictly involved in agriculture, while 40% of the households are broadly involved in agriculture;
- The research shows that agricultural households are also generally worse off than those not involved in agriculture;
- Amatole has a poverty rate of 67.7%;
- 49.8% of the population living below the poverty line. The poverty in the area therefore is higher than the national average;
- Finally, poverty is also clearly a rural phenomenon, with rural poverty estimated at 82.2% compared to 42.1% in urban areas. The poverty rate is also much higher among agricultural households (80.3%) than non-agricultural households (65 %).

It is their view that large-scale land access and appropriate land use has the potential to contribute to poverty eradication and to increase food security, but this potential will only be realised if such a strategy forms part of a restructured rural economy. Isolated ad-hoc projects that are not integrated and supported by the local economy have little chance of achieving long-term success. Poor farmers need access to affordable transport, abattoirs, nurseries, grain silos, grinding machines and other small industries that can add value to agricultural production. Villages need to be linked to

[6]Zingisa Educational Project has a long history of working with the rural poor in the Amatole District Municipality. Their experience over the years has convinced them that there is an urgent need to re-conceptualise the export-oriented farming model. They believe that this model of farming is completely inappropriate for low-resourced farmers, particularly in a hostile global context, where even experienced commercial farmers are struggling to survive. [Online] Available from: tcoe.org.za/affliates/66-zingisa-educational-project.html

one another by roads to facilitate village-to-village marketing and all of this requires a vision and a long-term strategy.

2.4 Level of Education and Lack of Indigenous Knowledge

Vorster (2007) points out that in the last few decades great changes have taken place in South Africa. Urbanisation, migrant labour, great access to health care, education, a greater effort to shift farmers from subsistence to cash cropping, increased population pressures and environmental degradation have led to changes in the socio-cultural and environments of many people. These changes have severely eroded the indigenous knowledge base. Modi, Modi and Hendricks(2006) cited by Vorster (Ibid)found in a study in Ezigeni, Kwazulu-Natal (KZN), that there was a loss of knowledge about the plants in the younger age groups and suggested that education is very important in an attempt to prevent loss of indigenous knowledge of food crops.

In the opinion of Hepelwa (2010), the education variable is used as a substitute for managerial input. He asserts that it is true that a number of schooling may not necessarily reflect the impact on farm size in maize crop. The research of Hepelwa (Ibid) suggests that in his study area household members with a higher level of education are found to engage more on wage and self-employment; this offers little opportunity in maize crop production. Technical skills in agricultural activities, especially in developing countries, are more influenced by ‘hands on’ training than school attendance. The expected sign of co-efficient is positive for a lower level of education and negative for higher levels of education.

Nonetheless, Shultz (1964), believes that exposure to education boosts the farmers’ skills to acquire, process and use information relevant to the acceptance of techniques and improved maize production. He proceeds to conclude that education is vital to farm production in a speedily changing technological or economic environment.

However, Frank Winder, Managing Director of Advanced Nutrients (MDAN) reported on South African Broadcasting Corporation (SABC) Education news on the 16th of August 2012 that “change is another human factor that affects farming, which is necessary if one needs to make a paradigm shift. Many farmers are set in their ways and what has worked for them over the years they are reluctant to change.

Unfortunately what worked for farmers ten years ago may not have the same result now. Everything is changing and faring styles need to change and farmers need to adjust to better and more effective ways of farming" (SABC Education, 16-08-2012).

According to Nompozolo (2000) strong claims have been made for education as one of the crucial variables in achieving economic growth, agricultural development and human progress. Wharton (1963) quoted by Kepe (1992) states that education pushes back cultural prohibitions, widens the scope for decision making because it broadens a person's ideas of the "possible", adds new tastes and stimulates motivation. Education also very often causes frustrations which may lead to political activity with his or her own farm with its unique bundle of resources. It is no accident that in agriculture the majority of innovations[7] and inventions[8] have come from farmers themselves. Given the physical and climatic heterogeneity which is so characteristic of agriculture, self-discovery is an important ingredient in the agricultural growth process.

Nicholson (1989) quoted by Komanisi (2007) found a noticeable difference between the successful and the average farmer with regard to levels of formal education. He asserts that the study indicated that two-thirds of the successful farmers had successful five years of formal schooling, while only about one quarter of the average farmers never gone to school. He also contends that if completion of five years is regarded as being the basic requirement for literacy and numeracy, then it is apparent that most of the successful farmers were literate, while most of the average farmers as compared to one-quarter of the successful farmers had received no schooling at all.

For Lutz (1998), despite their importance in agriculture, women usually have lower levels of physical and human capital than men. In many developing countries, women have a lower school enrollment. In the early 1980's, average literacy rates for men in developing countries were still illiterate. This disparity continues to be larger in rural areas where educational attainment is lower. Laws governing women's rights to land and other property whether legal or customary typically provide them weaker rights to land. Many religious laws also discriminate against women in land rights. Women's rights under customary law in many African countries are allocated from their

[7]The generation of a new idea and its implementation of a new product, process, or service leading to the dynamic growth of the national economy and increase of employment (Urabe et al. (1988:3).
[8]A technological innovation (Seymour-Smith, 1986:154).

husbands and natal families based on their position within a kinship group and in particular, on their relationship to a male relative (father, brother, husband).

2.4 Access to Credit

Agriculture credit increases productivity and upholds the standard of living by breaking the fierce cycle of poverty of small scale farmers (Adebayo and Adeola 2008). Similarly, this view is supported by Ofuoku and Urang's study (2009) which confirms that farmers complain about the lack of credit facilities to improve their scale of production to meet the challenges of demand and improve their standard of living. The critical role of credit in agricultural production and development can also be appraised from the perspective of the quality of problems emanating from the lack of it[9].

Abdulquadri and Mohammed (2011), also point out that, unfortunately, the availability of credit to the agriculture sector has over the years remained insufficient, and even more so for the agricultural mechanization sub-sector.

There are several governments and private organizations funding or loans that are provided to farmers in South Africa but there are terms and conditions that apply in order to access them. These may include Land and Agricultural Development Bank of South Africa (Land Bank), Department of Agriculture, IFAD, FAO, etc.

Nonetheless, in Hepelwa's (2010) views, credit variable is used to capture the effect of credit on the efficiency of farmers. The availability and accessibility of credit will lose constrains of production facilitation to get the inputs on a timely basis. Farmers' access to credit enhances their timely acquisition of production inputs that would enhance productivity via efficiency. The sign of the estimated co-efficients is not determined in advance since empirical evidence found both negative and positive effects. It becomes negative as farmers use the credit amount for inputs to improve production in a small area under cultivation. The use of improved inputs limits the shifting cultivation by farmers. On the other hand, with loan cash, farmers are able to acquire more land holding for crop production through buying and/or renting. With cash loans, farmers are able to acquire more labour.

[9] See: Source and uses of agricultural credit by small scale farmers in Surulere Local Government Area of Soyo State (Adebayo and Adeola 2008).

Cotula (2002) states that credit programmes targeting women small scale entrepreneurs have recently been set up by commercial banks and Non-Governmental Organizations (NGO's) using the group lending model of the Grameen Bank in Bangladesh (House-Midamba 1993; Kiiru and Pederson 1996; Gopal and Salim 1998). Under the National Extension Project (NEP), village women have been used to spread technical assistance and agricultural extension. This NEP has greatly improved woman's access to extension services.

Credit laws make no explicit reference to women. In rural areas, women's access to credit is very limited. Only five percent of the loans of the National Fund for Agricultural Credit (NFAC) go to women, mainly because of women's high illiteracy rate and lack of collateral. No reference is made to gender. Women's access to credit is in practice limited due to their lack of land tittles, moreover, there is anecdotal evidence of banks requiring the consent of the husband before lending to women married in regime of separation of property (Cotula 2002).

Access to credit, both formal and informal, has important implications for the ability to attain a stable standard of living and undertake productive activities. According to Lutz (1998), credit is particularly important during the planting season, when seeds and cash inputs have to be purchased, and in the lean season before the harvest, as stocks for consumption are depleted. Credit may also be essential to smoothing consumption in case of crop failure or drought. Collateral requirements, high transaction costs, limited education and mobility, social and cultural barriers, and nature of women's business limit women's ability to obtain credit.

In Cotula's (2002) view, although most women work in agriculture (with a substantial number of de facto female-headed households due to men's migration), only a very limited portion of agricultural extension services benefit women. In 1985, the Operation Test de Reinforcement de la Vulgarisation Agricola (OPTRVA). Based on training visits, was launched. Moreover, a Bureau for the Promotion of Woman's Activities was established within the Directorate of agricultural Extension. As a result of these reforms, the number of women extension service beneficiaries increased substantially in the late 1980s, although extension services are still concentrated on male farmers (FAO 1995). Decree 97-428 of 1997 establishes the Ministry for Animal Resources

and, within which is responsible for promoting awareness among “new actors”, including women, to invest in pastoral activities (art 34).

Smallholder production especially of non-traditional agricultural exports is not always possible. Lastarria-Cornhiel (2008), made a practical example of this fact that in Chile, a sizable number of peasant households attempted to participate in the early years of fruit export market, particularly land reform beneficiaries. Household women worked in the fields doing traditionally male tasks, especially in peak season. By the late 1990s, most of these peasant producers had lost their land because they did not have access to the credit and product markets that larger commercial farms had and were unable to support the levels of debt needed for export fruit production. Many of these peasant households, particularly the women, now work as wage labourers for the agribusiness and medium-sized producers that purchased their land.

In SA, a considerable number of women are self employed, while men are more often absorbed in formal employment. For a long period, legal obstacles hindered women’s exercise of self employment activities. For instance, under the Black Administration Act of 1927, women married under customary law were considered as minors under the guardianship of their husband(s), and could not sign contracts, this norm was repealed by the Recognition of Customary Marriages Act of 1998, which recognizes the full legal capacity of the wife to enter into contracts. Legislation relating to agricultural self employed activities is mostly gender neutral. Moreover, a number of laws have recently been passed to improve the situation of self employed woman. The Co-operative Act of 1981 (in operation on 1991, extended to the homelands by the Agricultural Laws Extension Act of 1996) is gender neutral. The norms on membership requirements for agricultural cooperatives and “special farmer’s cooperatives” refer to natural or juristic persons “carrying out farming operations on their own account” (FAO 1995).

Agricultural credit is governed by the Agricultural Credit Act of 1966, as amended (lastly by the Agricultural Credit Amendment Act of 1995), which establishes an Agricultural Credit Board to supply agricultural (Cotula 2002).

According to Nompozolo (2000) rural credit policies fail to use lessons from other countries and circumstances, and this result in small holders being denied access to

useful sources of credit. Bembridge (1986) quoted by Nompozolo (2000) point out that in the less developed areas of SA, none of the institutional supporting services such as an operational agricultural development policy, suitable land tenure arrangements, marketing and pricing policy, credit and farming inputs, as well as research and extension services which are considered essential for agricultural development have been adequately fulfilled.

SA is not the only country that experienced the challenges of lack of credit and land for women. This is revealed by Yemisi and Mukhtar (2009) that in the same vein as land holdings, women have less access to credit than men. Women receive as low as 5% of agricultural loans in Burkina Faso to as high as 32% in Zimbabwe. In Benin Republic, less than 5% of the rural female headed households have access to credit. It should be noted that in terms of women's access to credit, none of the countries were able to supply national figures while the information supplied by individual institutions varied considerably. There is a need for caution when making generalizations about the situation of rural women at the regional level as it often differs not only among countries but also within a country, depending upon the socio-economic and ethnic groups to which women belong and other factors characteristic of a particular area. Several studies on women's status and problems have shown that gender discrimination exists throughout the world but that its intensity is felt in the daily lives of women and children in developing countries (Yemisi and Mukhtar 2009).

Tagwireyi (2006) cited by Yemisi and Mukhtar (Ibid) also noted that despite providing about 60-80% labour in food production, women in Africa receive little from the agricultural extension services in that country due to the traditional prejudiced attitude towards women, the lack of time on their part to attend meetings and their limited decision-making powers. They further make remarks on rural women in Gambia that they are increasingly being drawn into development process through their involvement in various income-generating projects.

Malina (1988) who studied the problems women face in Tanzania, suggested that the impact of women's activities on the farming system should be appreciated for agricultural research to be successful. Their needs and concerns should be

understood, their traditional roles and needs taken into account and their potential fully explored.

2.5 Labour Migration

Dashora (2010) writes that women contribute 50-60% of labour in farm production in India. There is evidence to suggest that if agriculture were focused on women, outputs could increase by as much as 10-20%, the ecological balance could be restored, and food security of communities improved.

Dashora (Ibid) further explain that in India, there are distinct male and female roles in the rural economy. Women and girls engage in a number of agro-oriented activities ranging from seedbed preparation, weeding, horticulture and fruit cultivation to a series of post-harvest crop processing activities like cleaning and drying vegetables, fruits and nuts for domestic use and for market. A disproportionate number of those dependent on land are women: 58% of all male workers and 78% of all female workers, and 86% of all rural female workers are in agriculture. Female-headed households range from 20% to 35% of rural households (widows, deserted women as well as women who manage farming when their men migrate). Although the time devoted by both women and men in agricultural activities may, in several communities and agricultural situations, be taken to be almost equal, women are dominant within the domestic tasks. Rural Indian women are extensively involved in agricultural activities, but the nature and extent of their involvement differs with variations in agro-production systems[10].

Yemisi and Mukhtar (2009) also raised important points on why a large number of women embark on agricultural activities. They state that prominent among such reasons is that of being able to earn financial resources, as well as being a family tradition and personal interest. The scenario whereby more and more of men, either temporarily or permanently, migrate has caused a shortage of labour in rural areas. As a result, more women are left behind to do much of the farm work as paid or unpaid family labour. Other reasons that have been identified include ease of handling; lack of other alternative occupations; acquisition of technical know-how; and husband's influence. It has been observed that religion and availability of funds or farming facility

[10] See: Women farmers: From seed to kitchen (Dashora 2010).

also influence the degree of women's involvement in crop production. Apart from providing employment and income for resource-poor small farmers, especially women, family poultry also serves as a means of capital acquisition and accumulation.

However, according to a research conducted by ZEP in 2011, in SA, women had to stay in the garden while their male counterparts were in the mines working for wages. The reason was that the black farmers in South Africa were severely undermined by apartheid practices as the apartheid-government[11] sought to ensure cheap migrant labour while reducing the competition for white farmers. This impacted on farmer organisation, the provision of research and support services, and undermined collaborative activity.

Furthermore, the entrenchment of migrant labour had profound implications for the *umzi*[12]*.* One of the most significant changes that came to the Eastern Cape was the introduction of the plough in rural homestead production. This brought cattle and men more directly into production because the ploughs that were introduced were ox-drawn and it was men who managed the oxen that drove the ploughs. Assembling a team of oxen to plough re-enforced male relations within extended family as fathers, brothers and uncles all contributed oxen as members of the ploughing team in return for the privilege of having their fields ploughed (Bank and Mabena 2010).

In 1981, Philip Mayer has reflected on the meaning of migrant labour for the *umzi* and its culturally defined division of labour. He explains:

> When the husband stayed at home and the husband and wife ran the *umzi* together as a team day by day, the wife was the principal producer and the husband part-time producer, part-time transactors; with the arrival of migrant labour both men and women became both producers and transactors. Wife and husband still saw themselves as a team but their co-operation was a different kind. They worked in two structurally and geographically separate sectors of the same economy, though amongst the Red Xhosa the effort of both were directed towards the same end to benefit the *umzi.* Each partner took charge of one branch of marital economy- the husband principally the money income and the wife the subsistence-cum- domestic side (Mayer 1981:40).

[11] An official policy of racial segregation involving political, legal and economic discrimination against non-whites (Mifflin, 2000)
[12] Xhosa word for homestead

Massey *et al.* (1993) in Kok, Bouare, and van Zyl (2003) identifies three economistic approaches for labour migration, namely; institutional theory, cumulative causation and migration system. These are, obviously, derived predominantly from an economic perspective of international migration.

Institutional theory

> Once international migration has begun private institutions and voluntary organizations arise to satisfy the demand created by the imbalance the large number of people who seek entry into capital-rich countries and the limited number of immigrant visas these countries typically offer. This imbalance, and the barriers that core countries erect to keep people out, create a lucrative economic niche entrepreneurs and institutions dedicated to promoting international movement to profit, leading to a black market migration (Massey *et al.* 1993).

According to Kok et al (2004) the institutional developments described by Massey and his co-authors are important in perpetuating international migration, and institutionalisation becomes more and more independent of the factors that originally caused migration. This theory is clearly relevant in the case of international migration, but it may also play a role in some internal migration (especially where closed-city measures apply, such as South Africa' influx control policy under apartheid).

Cumulative causation

Not much needs to be said here except to note that causation is cumulative in the context of migration when every migratory move 'alters the social context within which subsequent migration decisions are made, typically in ways that make additional movement more likely' (Massey *et al*. 1993).

Migration Systems Theory

In Massey's *et al* (1993) interpretation, migration systems are relatively intense and stable exchanges of goods, capital and people between certain areas (e.g. countries) and less intense/ stable exchanges between others.

Skeldon (1990), warns that a danger in applying these theories is that migration becomes an independent variable which not only regulates other societal changes but ultimately controls itself. He proceeds to say that the macro-level economic factors

highlighted above tend to lead to a conclusion that migration is inevitable, and that its causes do not require scholarly debate. Skeldon (ibid) further contends that this is a very narrow and ill-conceived conceptualization of a dynamic process. It is important to understand that migration is also dependent on other factors.

According to Lastarria-Cornhiel (2008), in Latin America, women were a small percentage of the agricultural wage labour force during 1970s and 80s-mostly harvest workers on traditional export crops. Rural women were more likely to work on their own family farm, as unremunerated family labour. Beginning on the 1980s, Non-traditional agricultural exports grew from 10 percent of total export in 1970s to 23 percent in 1990, creating a demand for a wage labour force.

2.6 Household Size

Female headed families are common phenomena in the rural areas which arose from the labour migrancy of husbands during the colonial era. Divorce, widowhood or single parentage also causes *de jure* female headed household (Gundu 2009).

The household size has an impact on the agricultural production. The larger family, the more resources are needed to feed, clothe, house and educate all members. In William's (1986) interpretation larger families consequently a great burden on such families, which in turn affects their ability to finance farming development. However, the larger the family, the more labour is available to cultivate arable land or work outside the area and send remittances to the family.

Bundy (1979) views the family as the production unit. However, he warns that this does not necessarily imply totally self-sufficient family units or totally self-contained work units. Bundy (Ibid) goes on to argue that a family may depend marginally upon exchange for certain goods and labour will be expended collectively upon certain occasions. Nevertheless, production within the tribal economy is principally organized by and for the family. It is the family household that organizes the growing and sharing of food, its processes and its storage; its members decide how much land to cultivate, and labour for cultivation is drawn from the various members of the family for different purposes. To express this in another way: the division of labour is not *between* families, but *amongst* the members of a family; it is based primarily upon the sexual division in each family (Bundy 1979:15).

2.7 Climate Change and Food Security

In Southern Africa, climate is among the most frequently cited drivers of food insecurity[13] because it acts both as an underlying, ongoing issue and as a short-lived shock. The low ability to cope with shocks and to mitigate long-term stresses means that coping strategies that might be available in other regions are unavailable or inappropriate. In other regions, though, such as parts of the Indo-Gangetic Plain of India, other drivers, such as labour issues and the availability and quality of ground water for irrigation, rank higher than the direct effects of climate change as factors influencing food security. Because of the multiple socio-economic and bio-physical factors affecting food systems and hence food security, the capacity to adapt food systems to reduce their vulnerability to climate change is not uniform. Improved systems of food production, food distribution and economic access may all contribute to food systems adapted to cope with climate change, but in adopting such changes it will be important to ensure that they contribute to sustainability.

The links between climate change and food security have, to date, largely been explored in relation to impacts on crop productivity and hence, food production.

South Africa in general has been approximately 2% hotter and at least 6% drier over the ten years between 1997 and 2006 compared to the 1970s. The use of water has also increased greatly over this same period. By 2000, 98.6% of that year's surface water yield and 41% of the annual utilisable potential of groundwater was allocated to use. Irrigation agriculture, comprising 60% of total consumption, is by far the largest single consumer of water. Given these climatic and water use changes as a backdrop, we employed a panel data econometric model to estimate how sensitive the nation's agriculture may be to changes in rainfall. Net agricultural income in the provinces, contributing 10% or more total production of both field crops and horticulture, is likely to be negatively affected by a decline in rainfall, especially rain-fed agriculture. For the country as a whole, each 1% decline in rainfall is likely to lead to a 1.1% decline in the production of maize (a summer grain) and a 0.5% decline in winter wheat. These results are discussed with respect to both established and emerging farmers, and the

[13] The idea that all people at all times have access (including physical, social and economic access) to sufficient, safe and nutritious food necessary to lead active and healthy lives (McDonald, 2010:2).

type of agriculture that should be favoured or phased out in different parts of the country, in view of current and projected trends in climate, increasing water use, and declining water availability (Blignauta, Ueckermannband Aronson 2009).

2.8 Research Gap and Conclusion

This chapter intended to assist in better understanding of the research problem by reviewing related literature from researches, books, thesis, articles and online journals. Based on the literature that is reviewed in this chapter, it can be concluded that there are gender differentiations of massive dimension within African Agriculture and rural people generally need both secure and individual rights to farm plots in order to sustain their agriculture.

What is also of the importance is that people must be encouraged to initiate and maintain agriculture in their communities as this will overcome poverty which is a very strenuous challenge facing our communities specifically in rural areas and unemployment is also a major challenge in South Africa which then calls for immediate attention to expose people to grow and sustain their own food.

However, Horrigan, Lawrence, and Walker (2002) argue that farming is an important part of every society. Sustainable economies are, in part, based upon sustainable food systems which depend in part upon agriculture. Agriculture affects the environment, human health, and even social order. Thus, any attempt to achieve sustainability must set as priority the attainment of a more sustainable agriculture.

This study will help in understanding the factors that seem to interfere with agriculture (maize production in particular) in the study area; it also identifies socio-cultural factors which most of the researchers in the literature did not identify like the cultural beliefs associated with land tenure, the attitude of farmers towards education associated with farming, the feeling of the society or individual households towards having a decline in the agricultural production and the system of migration of youth of which the whole situation that may have led to a possible decline in maize production in the study areas. The study of this nature will help people from the study areas to make use of their land to fight poverty and the researcher strongly believe that, awareness can

enlighten people that there are ways to grow economically without destroying resources.

Chapter Three: Research Methodology

3.1 Introduction

This chapter presents the research methodology adopted in this study. It first outlines the philosophy that underpins the approach taken during the research, discussing the researcher's interpretivist stance to research and the consequent choice of a qualitative approach. The next section discusses the rationale for the research design. It also offers data collection methods used in the study, as well as the means used to analyze the data. This chapter concludes with sections on the limitations of the research and ethical considerations.

3.2 Philosophical approach

The present day study employed the interpretivism philosophical approach. In Blaikie's (2007) elucidation, interpretivism had its origins in Hermaneutics and phenomenology. Various terms have been used to identify this, such as anti-naturalist or anti-positivist. Its central belief is that there is a fundamental difference between the subject matters of the natural and social sciences. The study of natural phenomena requires a scientist to invent concepts and theories for description and explanation; for it, a scientist has to study nature from the outside. Through the use of theories, a natural scientist makes choices about what is relevant to the problem under investigation (Blaikie 2007).

Table 3.1 below displays the characteristics of interpretivism, as used in this study, categorised into the purpose of the research, the nature of reality (ontology), nature of knowledge and the relationship between the inquirer and the inquired-into (epistemology) and the methodology used (Cantrell 2001) quoted by (Yuen 2005).

Table 3.1: Characteristics of Interpretivism

Feature	Description
Purpose of research	Investigating socio-cultural factors underpinning maize production.
Ontology	• There are several realities. • Reality can be explored, and constructed through human interactions, and meaningful actions. • Discover how people make sense of their social worlds in the natural setting by means of daily routines, conversations and writings while interacting with others around them. These writings could be text and visual pictures. • Many social realities exist due to varying human experience, including people's knowledge, views, interpretations and experiences.
Epistemology	• Events are understood through the mental processes of interpretation that is influenced by interaction with social contexts. • Those active in the research process socially construct knowledge by experiencing the real life or natural settings. • Inquirer and the inquired-into are interlocked in an interactive process of talking and listening, reading and writing. • More personal, interactive mode of data collection.
Methodology	• Processes of data collected by, key-informant interviews, interviews, and focus groups. • Research is a product of the values of the researcher.

Please note: This table was adopted from Yuen (2005).

Correspondingly, Ryman and Bell (2007) quoted by Lehman (2008) also state that, interpretivists take the view that the subject matter of the social sciences people and their institutions is fundamentally different from that of the natural sciences. According to them, the study of the social world therefore requires a different logic of research procedure. This different logic within an interpretivist stand might prompt a researcher to use inductive theory construction, reversing the deductive process by using data to

generate theory. Researchers would observe aspects of the social world and seek to discover patterns that could be used to explain wider principles (Lehman Ibid).

In addition, it is seen that there is no one reality, rather reality is based on an individual's perceptions and experiences (Robson 2002) quoted by Lehman (Ibid). Linked to this position is the argument that the aspects of the real world that are distinctly human are lost when they are analyzed and reduced to the interaction of variables (Hughes and Sharrock 1997). For this reason the role of the researcher should be to analyze the various interpretations that actors related to a particular phenomenon give to their experiences (Easterby-Smith, Thorpe, and Lowe 2002).

In Lehman's (2008) opinion, an interpretivist position can be adopted in a study because it is considered that there are multiple realities that make measurements difficult, and researchers can only seek to understand real-world phenomena by studying them in detail within the context in which they occur.

One of the reasons the researcher used this approach is precisely because her study was based on the empirical research strategy which included gaining knowledge of the people in the study area and the phenomena under study through direct participation. Miles and Huberman (1994) have summed up the strengths of qualitative empirical data in terms of realism, richness and a longitudinal perspective, locating the meaning of experience within the social world. In the words of Remenyi and Money (2012), empirical research involves the acquisition of primary data which has been described by researchers as sense perceived data. They proceed to note that empirical research draws on experience or observation of primary evidence in order to understand a phenomenon being studied. Here the researcher has to go out and meet people or has to collect new evidence in some sort of way. This evidence can be quantitative or qualitative. In this respect questionnaires have been a popular approach to empirical evidence collection. The similar argument have been raised by Moody (2002) that empirical research methods are a class of research methods in which empirical observations or data are collected in order to answer particular research questions. While primarily used in academic research, they can also be useful in answering practical questions.

Nonetheless, the two top level strategic choices are whether the research would be theoretical or empirical[14]. Establishing an overall strategy is sometimes said to be the most important step in the initiation of a research degree and the rationale for the choice made should be clearly articulated by both the researcher and his or her supervisor. The primary benefits of clearly articulating the research strategy and the design are that it facilitates communication between supervisor and researcher, the Dean of research and other parties concerned (Remenyi and Money 2012).

A research design or strategy is defined by Kumar (2011) and Cresswell (2009) as a plan, structure and strategy of investigation so conceived as to obtain answers to research questions or problems. Kumar (Ibid) proceeds by emphasizing that the plan is to complete the scheme or programme of the research. It concludes an outline of what the investigator will do from writing the hypothesis and their operational implications to the final analysis of data.

In addition, Quinn (1988) in Remenyi and Money (2007) paints a similar picture in her work; she argues that the research strategy is so important in that it provides a recognized basis from which the researcher may assert the validity of his or her findings. Basically, the research design or strategy refers to a set of scientifically proven and systematically utilized methods by which a research project is conducted, so as to reach reliable findings. According to Cooper and Schindler (2008) research designs constitute the blue print for the collection, measurement, and analysis of data. It aids the researcher in the allocation of limited resources by addressing crucial information in the methodology. The research methodology also comprises of data analysis methods to be used in the research.

3.3 Research Design

3.3.1 Ethnography

A distinctive feature of present-day cultural anthropology is the reliance on **fieldwork** as the primary way to conduct research. Cultural anthropologists may carry out their research in other contexts, including libraries and museums, but most rely on experiential fieldwork, where they describe and explain cultural features by collecting

[14]Remenyi, D. and Money, A. 2012.*Research Supervision for Supervisors and their Students*.

data on site and engaging in **participant-observation** (observing and learning in the field while participating in an activity) as part of their **ethnographic work.** Cultural anthropologists collect their primary data by living with the people they study. They learn the language of the people, ask questions, survey the environment, inventory material possessions, and spend long periods of time observing and participating in everyday life. Such a work is called **ethnography** (Andreatta and Ferraro 2012).

However, in many ways interpretivist position is based on a belief that a qualitative approach to the research aim is one that will best provide insight (Lehman 2008). To restate here, the overall aim of this research is to:

Investigate to what extent socio-cultural factors influence the decline of maize production in Ethembeni location, King William's Town District[15].

This is a complex issue, involving many global, societal and cultural factors, and as was indicated in chapters 1 and 2, that it has changed over an extensive time (2001 - 2010)[16]. It is felt that qualitative research methodology provides the variety and depth of data required in understanding the phenomena under study (Lehman Ibid). Miles and Huberman (2004) have summarized the strengths of qualitative data in terms of realism; richness and a longitudinal perspective, locating the meaning of experience within the social world; in other words placing the phenomena within their context.

In addition to the above statement, Barbour (2008) also noted that qualitative research is not for the faint hearted, but it can be exhilarating and can provide unique and valuable insights. He asserts that qualitative research answers very different questions from those addressed by quantitative research and some criticisms directed against qualitative research have, at times, failed to take this into account. According to him, qualitative research can help us understand illogical behaviours and is particularly well suited to the studying context. It also excels an illuminating process whether it is organizational change or individual decision making since it allows us to examine how

[15]These socio-cultural factors include land tenure, level of education and lack of indigenous knowledge, access to credit, labour migration, and household size.
[16]See a report conducted by the Department of Agriculture, Forestry, and Fisheries on Maize Market Value Chain Profile 2011/2012.

changes affect daily procedures and interactions. This may lead to uncovering unintended as well as intended consequences of new arrangements (Barbour Ibid).

There is a growing body of literature that uses a qualitative research approach in identifying factors that are affecting crop production. Funder (2011) used qualitative methods including in-depth interviews in investigating constraints on crop production in Mabua, South Africa. Dlamini and Masuku (2011) also conducted a descriptive study on land tenure and productivity in the case of maize production in Swaziland. Paudel and Matsuoka (2009) also used an in-depth case study approach in a study on cost efficiency estimates of maize production in Nepal, in the Chitwan district. This study takes the view that the nature of agriculture production, as a significant cultural tradition and a social entity with a long history, deserve an approach that will give it sensitive attention in detail.

Anthropology at large contributed to the field with its development of the research method of ethnography-type of cultural translation. Anthropologists have traditionally used a qualitative research approach to study culture, and such an approach is well suited to many of the complex questions confronting researchers interested in quality and culture (Alder and Alder 1987). More than just a set of data collection methods, qualitative research is an approach which seeks to understand events, actions, norms and values from the perspective of the people who are being studied (what anthropologists refer to as the 'emic' approach) (Hudelson 2004). This is in line with the sentiments of Babbie and Mouton who assert that "Qualitative researchers attempt always to study human action from the perspective of the social actors themselves" (Babbie and Mouton 1998:270).

Hennink, Hutter, and Bailey (2011) point out that qualitative research is a method of inquiry employed in many different academic disciplines, traditionally in the social sciences. Qualitative researchers aim to gather an in-depth understanding of human behaviour and the reasons that govern such behaviour. The qualitative method investigates the *why* and *how* of decision making, not just *what*, *where* and *when*. Hence, smaller but focused samples are more often needed than larger samples. The researcher chose this method because she perceived that it would really allow the same degree of exploration that qualitative does especially in the initial stages of a

study. She also believed that qualitative research would allow her to talk face to face with informants or prospects. The qualitative approach enabled her to uncover candid perceptions, attitudes and behaviours regarding the issue of the community she studied.

The quantitative approach was also used in this study, although it was not a major tool for this research. Some information was descriptive in nature, therefore the researcher was required to employ this approach as well. Quantitative research methods were originally developed in the natural sciences to study natural phenomena while qualitative research methods were developed to enable researchers to study social and cultural phenomena. Both quantitative and qualitative research studies are conducted in education. Neither of these methods is intrinsically better than the other; the suitability of which needs to be decided by the context, purpose and nature of the research study in question; in fact, sometimes one can be an alternative to the other depending on the kind of study. Some researchers prefer to use the mixed methods approach by taking advantage of the differences between quantitative and qualitative methods, and combine these two methods for use in a single research project depending on the kind of study and its methodological foundation (Brysman and Burgess 1999) quoted by Yuen (2005).

In this study some of the key-informants selected were interviewed door-to-door; a questionnaire (see Appendix II) was also designed as a tool to collect primary data. It was designed to collect qualitative and quantitative data whereby questions concerning demographic and livelihoods, were investigated. The questionnaire and interview schedule (see Appendix III) was administered to informants who are currently farmers through face to face interviews[17].

3.4 Sampling Procedure

This section has five subsections: population, sampling frame, sample size, sampling method, and sampling techniques. The purpose of sampling in qualitative research is designed either to gain in-depth knowledge about a situation, event, and episode or to

[17]Face to face interviewed were helping especially in cases whereby an informant needs clarity on the question.

know as much as possible about different aspects of an individual on the assumption that the individual is typical of the group and hence will provide insight into the group (Kumar 2011).

3.4.1 Population

A population is the theoretically specified aggregation of study elements[18]. However, Castillo (2009) pointed out that all research questions address issues that are of great relevance to important groups of individuals known as research population. He emphasized that a research population is generally a large collection of individuals or objects that are the main focus of a scientific query. It is for the benefit of the population that researches are done. However, due to the large sizes of populations, researchers often cannot test every individual in the population because it is too expensive and time-consuming.

For Castillo (Ibid), all research population is also known as a well-defined collection of individuals or objects known to have the same characteristics. All individuals or objects within a certain population usually have common binding characteristics. Therefore, the population in this research was composed of the local farmers of Ethembeni location, King William's Town. The researcher further considered other local farmers who have been successful or better than Ethembeni farmers according to the production of maize in Majali location, King William's Town[19].

3.4.2 Sampling Frame

The sampling frame is a list of the study population. In the words of Sapsford and Jupp (2006) when a survey is set up, the sampling units are organised by the researcher in sampling frame. A sampling frame is whatever is being used to identify the elements in each sampling unit. Whatever the circumstances, the sampling frame provides access to the individual elements of the population under study. Similarly, Papantoniou (1992), indicates that sampling frames are of vital importance because

[18]See Yuen, T.F. 2005. *Subject-matter Knowledge and Teacher's Planning and Teaching*.

[19]Majali location is one of the neighbouring villages across Ethembeni location. Farmers of Ethembeni suggested that the researcher should consult a chairperson of the Majali maize project which appears to be far better in maize production in the area in order to get better understanding of the situation of the decline of maize in Ethembeni.

the form of them or the lack of it determines the whole structure of the research, especially the accuracy of the results. In this study, the sampling frame was the list of all smallholder farmers in Ethembeni location who practice in crop production. One member from Majali location who represented the Majali maize farming project was also included.

3.4.3 Sample Size

The sample size of a study most typically refers to the number of units that were chosen from which data were gathered. However, sample size can be defined in various ways[20]. There is the designated sample size, which is the number of sample units selected for contact or data collection and there is also a final sample size as reflected below (Shapiro 2008).The significance of sampling is that the researcher can decide how many informants to choose from the total number of the target population. Thus, a sample was used in this study which was adequate to warrant generalization of the findings to the target population.

According to Blaikie (2009), the sample size represents the characteristics of the whole population. Sampling is economical and practical; is fast and cheap; can yield more comprehensive information; is more accurate; and because of the savings it permits in time and money, the sample survey makes possible the use of much larger and much more varied populations than would be possible for the same expenditure if one were making a complete numeration.

The sample size for this research was fifty (50) farmers. The researcher selected thirty (30) females, twenty (20) males and who have participated in maize production using participant observation, key informants interviews and focus groups. The reason to take the sample size of this nature is explained in detail in 3.8 (limitations of the study)

3.4.3.1 Final Sample Size

Final sample size is the number of completed interviews or units for which data is actually collected. The final sample size may be much smaller than the designated

[20]A sample size is described by Babbie (2010) as that element or set of elements considered for selection in some stage of sampling. In a simple single stage sample, sampling units are the same as the elements and are probably the units of analysis.

sample size if there is considerable non-response, ineligibility, or both. Not all the units in the designated sample may need to be processed if productivity in completing interviews is much higher than anticipated to achieve the final sample size (Shapiro Ibid).

However, the final sample size of this study was fifty one (51) farmers of Ethembeni plus one male member (Chairperson) of the Majali project[21] in Peelton who were believed by the farmers at Ethembeni to be more successful in maize production in the area and they can be able to state their challenges in comparison to that of Ethembeni and their success stories for the good recommendation of the study.

The researcher chose Ethembeni location for this study because the research site is easily accessible and gaining entry was easy as this is an open access community. Below is the demographic table of informants' interviews in this study.

Table 3.2 Demographic Table of Informants

AGE GROUP	GENDER	STATUS(LOCAL FARMER/YOUTH
26-32	Male	Youth (Local farmer)
26-32	Female	Youth (Local farmer)
26-32	Male	Youth (Local farmer)
26-32	Female	Youth (Local farmer)
33+	Male	Key informant (Local farmer)
26-32	Female	Youth (Local farmer)
26-32	Male	Youth (Local farmer)

[21]During the apartheid era people in the Peelton community were involved in limited farming as individuals, producing food for subsistence and food security. With the '*dawn of freedom'* some decided to ask the new government for support. They established a co-operative with the purpose of engaging and lobbying the ECDoA. As a result, in 2003, the community was identified to participate in the MFPP, although the Sigxoth' ndlala Maize Project, was a pre- existing project, formed many years before. In 2003 there were three groups in the community who were interested in participating in the MFPP. However, the ECDoA was only able to support one project and a community meeting was convened to identify one of the three groups. Sigxoth'ndlala Project was selected, comprising of thirty two (32) people who had land, were involved in agriculture and were willing to use and combine their land for the duration of the project. Of these 32 people, the majority were women, who are all still involved in the project. Individuals were encouraged to continue farming for food security purposes using their own yards to plant vegetables (Masifunde Education and Development Project Trust, 2010).

33+	Female	Key informant (Local farmer)
33+	Male	Key informant (Local farmer)
33+	Female	Key informant (Local farmer)
33+	Male	Key informant (Majali maize project)

3.4.4 Sampling Method

The non-probability sampling method was chosen for this study. In the opinion of Battaglia (2008) non-probability sampling does not attempt to select a random sample from the population of interest. Rather, subjective methods are used to decide which elements are included in the sample. One may consider using non-probability sampling because in some situations, the population may not be well defined. In other situations, there may not be great interest in drawing inferences from the sample to the population. However, in the case of the present day study, non-probability sampling was used because there was a number of subjects in the population that were unknown and could not be individually identified by the researcher.

3.4.5 Sampling Techniques

For this study, the researcher employed purposive sampling. This type of sampling is used in cases where the specialty of an authority can select a more representative sample that can bring more accurate results than by using other probability sampling techniques. The process involves nothing but purposely handpicking individuals from the population based on the authorities or the researcher's knowledge and judgment (Maree 2007). This benefited me to gain more information on the aspect because the researcher selected only informants who participated in the practice of maize production and have experienced the decline and all its challenges. "An effective sample design requires the balancing of several important criteria: Achieving research objective; providing accurate estimates of sampling variability; being feasible; and maximizing economy (Achieving research objectives for minimum cost)" (Dattalo 2008:8).

3.5 Data Collection Methods

The main data collection techniques used in this research study were participant observation, key-informant interviews, oral history, focus group and questionnaires.

3.5.1 Participant Observation

For this research the researcher used participant observation as the central research technique. According to Hennink, Hutter, and Bailey (2011) participant observation can be defined as "the process of learning through exposure to or participation in the day-to-day or routine activities of participants in the research setting." Through participation in the daily activities of the community being studied, the researcher was better placed and learnt about the behaviour of individuals in the community and also about the social order within a community, and the cultural norms. This technique allowed her to hear, see and begin to understand reality as participants perceive it. Maree (2007), is of the view that as a researcher, one studies through personal experience and reflection how the setting is socially built in terms of power, communication lines, discourse and language. As one gets involved in this, one begins to shape a relationship with the participants in the location[22].

This research tool was chosen because it provided a researcher with ways to check for non-verbal expression of feelings, determine who interacts with whom, grasp how participants communicate with each other, and checks for how much time is spent on various activities. Participant observation allowed her to check definitions of terms that participants use in interviews, observe events that informants may be unable to share when doing so would be impolite, or insensitive, and observe situations informants have described in interviews, thereby making them aware of distortions or inaccuracies in description provided by those informants. It also allowed close interaction with the informants and they trusted her and felt free to communicate and do their work.

In his study of methodology, Kumar (2011) observed that the main advantage of participant observation is that as you spend sufficient time with the group or in the

[22]For Kumar 2011, participant observation is another strategy for gathering information about a social interaction or a phenomenon in qualitative studies.

situation, you gain much deeper, richer and more accurate information but the main disadvantage is that, if you are not very careful, you can introduce your own bias. For this study, the researcher agrees with Kumar that when one spends more time in the study area with the informants, one tends to learn more about the phenomena under study and she was very careful to be biased.

3.5.2 Key Informant Interviews

The researcher also used key-informant interviews. Blum, Pelto, Pelto and Kuhnlein (1997) define key-informant interviews as qualitative in-depth interviews with people who know what is going on in the community. The purpose of key informant interviews is to collect information from a wide range of people including community leaders, professionals, or residents who have firsthand knowledge of the community. These community experts, with their particular knowledge and understanding, can provide insight on the nature of problems and give recommendations for solutions (UCLA Center for Health Policy Research 2013).

Oke (1984) asserts that participant observation and key-interviews have been the core of anthropological research, but these techniques together with life histories have generated some criticisms which are sometimes referred to limitations and prominent to these are the problems of quantification, representativeness and specificity of research procedure. However, Oke (Ibid) also mentioned that anthropologists have developed a number of refinements in their research techniques to offset some of these criticisms. These include structured interviews and questionnaires. According to Diem and Moyer (2004) key-informant interviews are short, semi-structured discussions with individuals or groups who know the community and have information on the issue at the beginning of the project. Key-informant interviews were where the researcher wanted to quickly gain some insight into a particular subject. The key-informant procedure is frequently used for improving information about ways of living that have ceased to exist or have been piercingly adapted by the time the field-worker arrives on the scene. When the anthropologist uses this procedure, he / she assumes that the community or the study population is all the same and any individual living in that community is a product of the community. Eventually his/her views, utterances

and behavior are, to a great extent, a manifestation of the community ideas, habits, beliefs and values (Oke Ibid).

3.5.3 Oral History

This method was used to have insight in the history of the study area which will be discussed in the next chapter (Historical and socio-cultural orientation of the study population). Oral history in qualitative research has become an approach to study perceptions, experiences and accounts of an event or gathering historical knowledge as viewed by individuals. It is a picture of something in someone's words. It is also a process of obtaining, recording, presenting and interpreting historical or current information based upon personal experiences and opinions of a study group or unit. These opinions or experiences could be based upon eye-witness evidence or information passed on from other sources such as older people, ancestors, folklore, stories etc. (Kumar 2011). For this study, oral history was collected from old farmers who the researcher made key-informants in the study.

3.5.4 Focus Groups

Focus Groups were also used in this study. Barbour (2008), pointed out that focus groups have developed independently of particular qualitative concepts. He asserts that they are often employed as a method of least resistance and are viewed as a poor relation of ethnography but have unique advantage, and if used appropriately, can provide extremely rich data. However, one rationale behind using focus groups is that it saves time and money. Focus groups are useful because they tend to allow a space in which people may get together and create meaning among themselves, rather than individually. The main advantage of focus groups is that they provide an opportunity to observe a large amount of interaction on a topic in a limited period of time based on the researcher' s ability to assemble and direct focus groups. Furthermore, group discussions provide direct evidence about similarities and differences in the participant's opinions and experiences as opposed to reaching such conclusions from post hoc analyses of separate statements from each interviewee (Babbie and Mouton 1998).

Compared with other data collection methods, focus groups are less expensive and needs far less time to complete. The information generated can be detailed and rich and can be used to explore a vast variety of issues. However, the disadvantage is that if the discussion is not carefully directed it may reflect the opinion of those who have a tendency to dominate a group (Kumar 2011).

3.5.4 Questionnaires

A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents. Although they are often designed for statistical analysis of the responses, this is not always the case[23]. The researcher chose questionnaires because of their advantages, which according to Gilbert (1993) are very cost effective when compared to face-to-face interviews. This is especially true for studies involving large sample sizes and large geographic areas. Written questionnaires become even more cost effective as the number of research questions increases, Secondly, they are easy to analyze. Data entry and tabulation for nearly all surveys can be easily done with many computer software packages; they are familiar to most people. Thirdly, nearly everyone has had some experience completing questionnaires and they generally do not make people apprehensive. Fourthly, questionnaires reduce bias. There is uniform question presentation and no middle-man bias. The researcher's own opinions will not influence the respondent to answer questions in a certain manner. There are no verbal or visual clues to influence the respondent. Lastly, they are less intrusive than telephone or face-to-face surveys. When a respondent receives a questionnaire in the mail, he is free to complete the questionnaire on his own time-table. Unlike other research methods, the respondent is not interrupted by the research instrument (Gilbert Ibid).

3.6 Data Analysis

Data analysis consists of running various statistical procedures and tests on the data (Bailey 1994). It is the conversion of meaningless information or data into something which can be easily understood. According to Cooper and Schindler (2003) the data is analyzed so that it can be easy to interpret.

[23] See: en.wikipedia.org/wiki/Questionnaire

This study used content analysis in analyzing data. Content analysis is a type of secondary data analysis. It is used to analyze texts, including, interview transcripts, newspapers, books, manuscripts, and web sites to determine the frequency of specific words or ideas. The results of content analysis allow researchers to identify, as well as quantify, specific ideas, concepts, and their associated patterns, and trends of ideas that occur within a specific group or over time (Maree 2007). The researcher chose content analysis because it provides an objective analysis of written materials and can identify meaning from text data, allow researchers to go through very large amounts of text quickly and can quantify qualitative data.

When the researcher analyzed data, she integrated the content analysis technique with annual reports on maize production, grain South Africa websites, newspapers on maize production and fieldwork photographs. This approach of analyzing data is suggested by Fillis (2000).Content analysis is an established research method that has been used in various areas of social science, including business, since the middle of the last century (Neuendorf2002) quoted by Lehman (2008).

Computer assisted qualitative data analysis software (CAQDAS) has become a common tool for the qualitative researcher (Easterby-Smith et al 2002) cited by (Lehman 2008). According to Lehman (Ibid) this is despite criticisms of a reliance on computer analysis, the ability to conduct frequency counts, which neglects the opportunity for contextual analysis presented by the data, can lead to an inappropriate quantification of the research study[24]. Similarly, the ability to easily code and retrieve can result in a breaking up of the data that loses the narrative flow, this is one of the principal reasons why a qualitative approach was taken in the first place (Brymanand Bell 2007). However, One of the significant advantages of CAQDAS is that it allows a level of transparency of method, with a congruence of analysis and theory evident from the documentation of the research (Bringer et al. 2004) cited by (Lehman Ibid).

At present, there are not known authors to me who have used both content analysis and Statistical Package for Social Scientists (SPSS) but several authors like Kudi*et al*. 2011; Mandikiana 2011; and Lehman 2008 did use descriptive statistics analysis and

[24]See Lehman, K.F. 2008, Museums and marketing in an electronic age.

Computer Assisted Qualitative Data Analysis Software (CAQDAS) in their quantitave and mixed method studies.

In this study, analysis of the data was also carried out with the assistance of the SPSS version 21 to run the data collected from smallholder farmers in Ethembeni to generate descriptive statistics.

3.7 Ethical Issues

A primary consideration in any research study is to conduct the research in an ethical manner, letting the community know that one's purpose for observing is to document their activities (Kawulich, 2005). The following ethical aspects were considered in this study.

3.7.1 Trustworthiness and Credibility

“A primary consideration in any research study is to conduct the research in an ethical manner, letting the community know that one's purpose for observing them is to document their activities” (Kawulich 2005:18).

For this research, the researcher safeguarded the interests of the informants by informing them exactly what the study was about and what their contribution will entail and they had the right to withdraw from the research at any stage. Secondly, she made sure that she respected confidentiality and anonymity. According to Bell (2005), confidentiality is taken to mean that the participant will not be identifiable in any way to any reader in the final report. Anonymity means that one would not be able to identify the participant from his/her response or the data provided. In this study, the researcher would ensure that she respects her informants’ rights to privacy and that their privacy would not be breached. It must be stated that all the names in the data analysis chapter of this research are fictionalized.

The traditional criteria for ensuring the credibility[25] of research data objectivity, reliability[26] and validity are used in scientific and experimental studies because they

[25]“Credibility in qualitative research is defined as the extent to which the data and data analysis are believable and trustworthy. Credibility is analogous to internal validity, that is, how research findings

are often based on standardized instruments and can be assessed in a relatively straightforward manner. In contrast, qualitative studies are usually not based upon standardized instruments and often utilize smaller, non-random samples. Therefore, these evaluation criteria cannot be strictly applied to the qualitative paradigm, particularly when the researcher is more interested in questioning and understanding the meaning and interpretation of phenomena. But the question is whether these evaluation criteria have any value in qualitative studies (Lehman 2008).

Assessing the accuracy of qualitative findings is not easy. However, there are several possible approaches and principles that can be used to enhance the trustworthiness of qualitative research findings. Trustworthiness is the corresponding term used in qualitative research as a measure of the quality of research. It is the extent to which the data and data analysis are believable and trustworthy (Shenton 2004).

Guba and Lincoln 1981; Krefting 1991; and Creswell 1998 quoted by Lehman (Ibid) suggest that "the trustworthiness of qualitative research can be established by using four strategies: credibility, transferability, dependability and conformability, and are constructed parallel to the analogous quantitative criteria of internal and external validity, reliability and neutrality. Each strategy in turn uses criteria like reflexivity, triangulation and dense descriptions. The researcher takes cognisance of this argument and prefers to use the term trustworthiness as it is used by several others to cover all these.

3.8 Limitations of the Study

It was not easy to meet up with *iNkosana* (the Prince) of the community as he was busy with his duties. However, the researcher and the *iNkosana* ended up communicating through the telephone. The researcher explained that she would drop the ethical clearance letter from the university and he gave her the go-ahead to

match reality. However, according to the philosophy underlying qualitative research, reality is relative to meaning that people construct within social contexts" (Lehman 2008:319).

[26]In addressing the issue of reliability, the positivist employs techniques to show that, if the work were repeated, in the same context, with the same methods and with the same participants, similar results would be obtained (Shenton 2004:71).

conduct a study of this nature in his village and also suggested some of the key-informants that would help her with the relevant history of the location.

The estimated number of people of Ethembeni according to the ward counselor, is 8000 and the researcher thought the sample size that would be reasonable for generalization of the findings is hundred and twenty (120) farmers. When she got to the study area, there were only few active participants in farming. Therefore she had to reduce the number of her sample to fifty (50) farmers. After reducing the sample size and planning to interview twenty five local farmers for each gender, she discovered that males who participated in farming were less than women. As a result she came to the conclusion that she should take thirty (30) women and twenty (20) male farmers. However, though the sample size of the study was reduced to a number of fifty (50) informants, there was a very limited space of time in participating in all the activities done throughout the season the for production of maize as the peak period of activities took place between four months of plantation in the study area and she was forced to rely mostly on the information given during interviews.

Another limitation was that people did not like answering long questions; they were complaining that it is time consuming and that they could not understand English. For this limitation, the researcher tried to overcome it by reading and explaining the questions in their language and the answers also were in IsiXhosa. The researcher had to translate everything they were saying into English when recording. Some of the informants (especially the youth) could not answer some of the questions like the question on history of Ethembeni location because they did not know it. Sometimes they would just leave the question blank and that gave the researcher some difficulty when interpreting the data.

She also encountered a problem in finding out the exact rates of the decline of maize over the period of three years (2010, 2011 and 2012) because the farmers do not record their yearly production. She had to rely on their memory, especially the key-informants because at least they could remember by relating to the events that happened each year because of the sacrifice or suffering.

As she was observing, she had a sense that the informants (especially old people), treated the with a lot of respect because they had a perception that she was from the

government and she was there to help render services though she made it clear from the onset to them that the research was for educational purposes. Others would urge her not to take pictures of their dry gardens as they argued that such pictures would portray laziness to someone who was not aware of their situation which was characterized by poverty because of deceased husbands and illiteracy. She ended up being worried and she thought that in future, a research of this nature should be funded, even if it means offering such small things as fertilizers and other forms of encouragement to sustain farming.

There were also other touching events during data collection. At one time the researcher arrived at a household headed by a widow where no one in the family was employed. The woman was not old enough to receive the social grant and the home was characterized by poverty and the family was working hard on land. In some households she was told that members of the family did not have means to buy food or seeds and even electricity. The situation was sad but the researcher had to give words of hope to the families.

During participant observation other informants were uncomfortable around the researcher. Others would change their behaviors in her presence or even lie about what they believed. That introduced an element of bias. She preached it throughout the sojourns that she is not a specialist, and she is also there to learn. As time went by she noticed that the informants were loosening up and that they were happy when she asked practical questions as they regarded them as easy as they were dealing with them in their everyday lives. Others would even laugh for asking such easy questions.

3.9 Conclusion

This chapter has outlined the research paradigm, research methodologies, strategies and design used in the study, including procedures, participants, data collection tools, data collection and analysis methods, and data credibility issues. The research design for this study was qualitative study. Qualitative research is concerned with finding the answers to questions which begin with why, how, in what way? (Hancock 1998).The researcher used this design because she had questions of that nature which she recited as follows:

- What is the effect of land tenure on the decline of maize production in Ethembeni Location?
- How does education affect the decline of maize production in the study area?
- How does access to credit contribute to the decline of maize production in the study area?
- What is the significance of labour for maize production in Ethembeni location?

However, this research attempted to answer those questions. Lastly, in analyzing data, the researcher employed content analysis and SPSS for statistics of descriptive questions.

Chapter Four: Historical; Socio-cultural Orientation and Characteristics of the Study Population

4.1 Introduction

A detailed description of the study area is provided in this chapter. It also portrays a detailed history. This history includes different aspects of the early history of the areas, peoples' customs and their traditions, agricultural practices in connection to the production of maize and infrastructural organization. According to Bembridge (1984), the previously mentioned aspects appear to be relevant to a study of this nature. Characteristics of study population are also discussed in detail, demonstrated by tables and graphs generated from SPSS.

According to Lionberger (1960) cited by Steyn (1988) social factors such as neighborhood, communities, family social cliques, reference groups; cultural factors such as values and attitudes; personal factors including age, education, psychological characteristics; and situational factors including farm income, size of farm, tenure status, community prestige and level of education are among the factors that encourage or discourage changes in behavior by rural people.

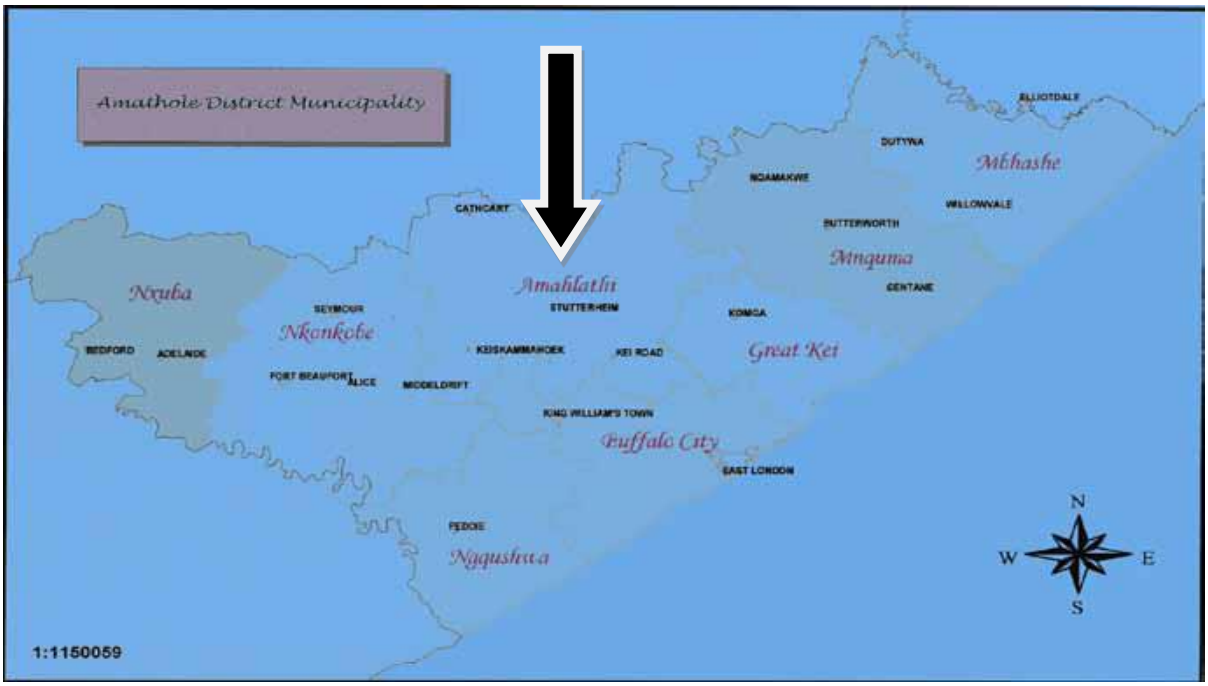
However, the section on characteristics of the study population presents the findings based on research objectives and questions. These characteristics presented here include personal characteristics of informants (gender of informants, household size, marital status, age, level of education), S-CF (land tenure, labour migration, household economy etc.) which may be acting as constraints to maize production and rural development. In Steyn's (1988) opinion, the human element is the key factor in agricultural development because of its importance in the decision making process.

4.2 Description of the Study Area

Ethembeni is located in the Eastern Cape Province, in South Africa. Administratively, Ethembeni location is ward seven which falls under Amahlathi Municipality in Stutterheim, which is one of eight municipalities in the Eastern Cape Province making

up Amathole District Municipality[27]. The map of Amathole District Municipality in figure 4.1 clearly shows where Amahlathi Municipality is located, with the arrow.

Figure 4.1: Map of Amathole District Municipality



Source: Masifunde Education and Development Project Trust, December 2010

This settlement is situated fifteen kilometres away from King Williams' Town in the direction of Stutterheim, there is a turn on the right on the intersection of Rooikrants dam and Frankfort. The co-ordinates of the location are shown on table 4.1 below.

Table 4.1: Coordinates of Ethembeni Location

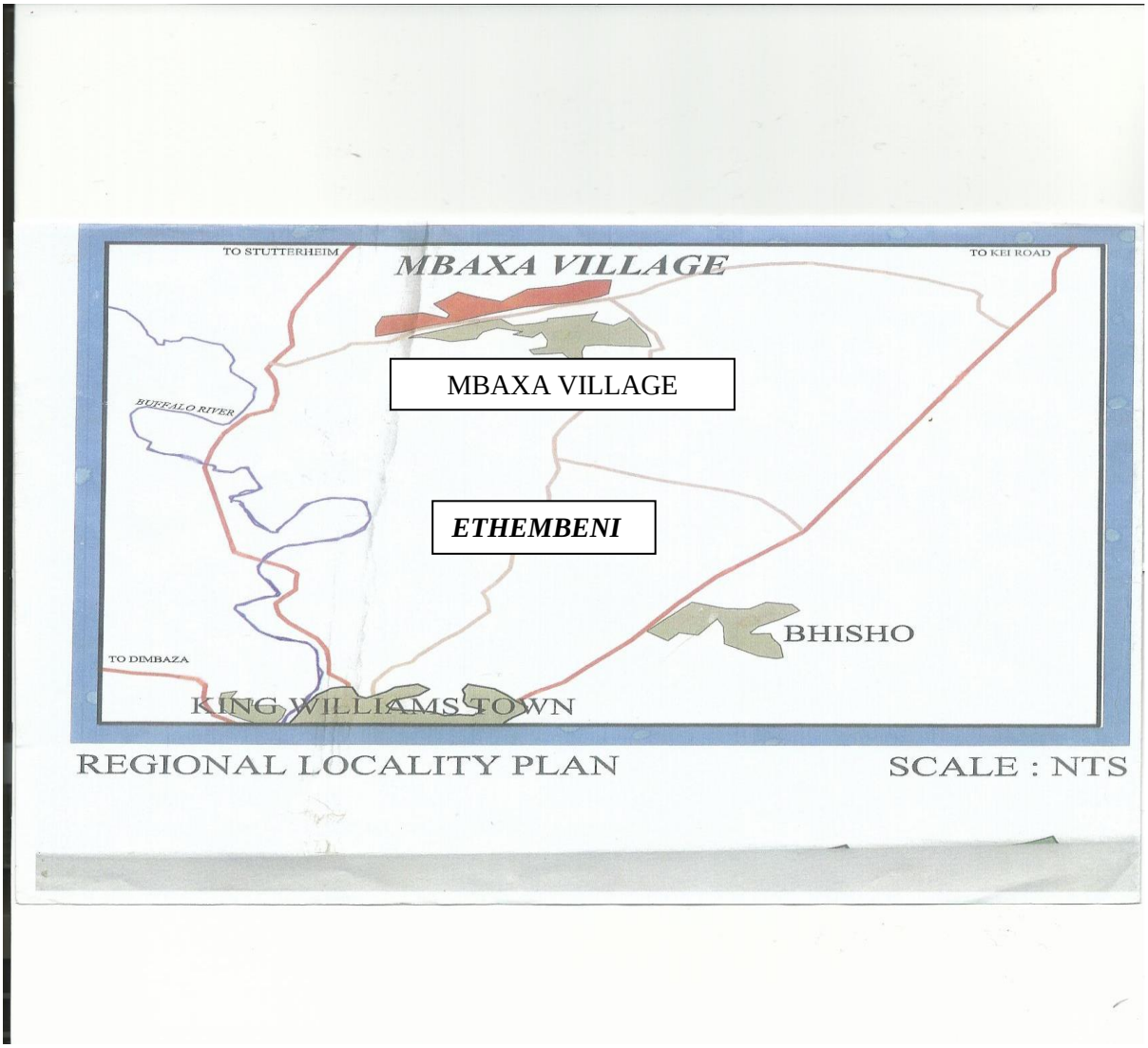
GPS Coordinates	Decimal	Decimal	Deg Min & Sec	Deg& Decimal Min
Latitude	-32.7665°	S 32.7665°	S 32° 45' 59.4"	-32° 45.99'
Longitude	27.4306°	E 27.4306°	E 27° 25' 50.16"	27° 25.836'
QR Codes (click icon to view QR code)	Google Maps	GEO	GEO vCard	

Source: Google Maps, November 2013

[27]The Amahlathi Municipal area is comprised of 20 Wards and is characterized by a range of settlement patterns and associated land uses, including formal urban areas, formal and informal rural settlement areas, and extensive, privately owned farmland (Amahlathi Municipality Integrated Development Plan 2007/08 – 2011/12).

Ethembeni location is one of the seven villages of the Zeleni administration area. The region is divided into five locations namely, Tribal[28], Kwa-Ngesi, Ebisini, Kwa-Emily and Nyathela Valley. This settlement area is characterized by dispersed villages that are predominantly residential in nature and vary individually in their density of development. The settlements again are normally interspersed by free-range grazing areas and, in certain cases, some arable lands, which are usually allocated to individual residents. Land occupied in these settlements is commonly (although not always) held in terms of lesser forms of tenure or is informally occupied (Amahlathi Municipality Integrated Development Plan 2007/08 – 2011/12). Below (Figure 4.2) is the map of Ethembeni Location.

Figure 4.2: Map of Ethembeni Location



Source: Local Councillor, October 2012

[28]According to the informants, this area used to be the great place where *izibonda* (chiefs) used to meet during the rule of Lennox Sebe in the Ciskei Independent Republic (1973-1990).

4.3 Maize and Early History of Ethembeni Location

Maize

It was mentioned earlier (chapter 2) in this study that maize is the staple food for most of the peoples in the study area, furthermore, maize contains starch, a carbohydrate which is obtained from certain cereals and is an important part of human diet. The maize grain can be prepared for food in many different ways (fried, grilled, in a salad or soup). Processing maize can also produce a wide range of products such as corn flour and corn meal. Maize is also used in livestock feed (poultry, pigs, cattle) in the form of grains, feed milling or as fodder. In addition, it is used a raw material in a range of industries (agri-food, textile, pharmaceutical, etc.) to create biodegradable plastics, biofuel and even alcohol. It is the most heavily cultivated cereal crop globally, with an average annual production of around 817 million tonnes in 2009, and followed by wheat (681 million tonnes) and rice (678 million tonnes). It can grow to a height of over two metres, and is made up of a single stem from which grow long leaves and both female and male flowers (the latter located on the apex of the stem). Average yields of traditional varieties grown by small-scale farmers are around 0.8 tonnes per hectare, compared with two to five tonnes for improved varieties (Escalante-Ten Hoopen and Maiga 2012).

In the socio-cultural context, maize or mealies (*umbona*), in addition to being one of the main items in the diet of the people is used in other spheres. There are common maxims connected with maize in the local or indigenous language (*IsiXhosa*) and the researcher did hear some of these maxims in the study area. They include the following:

- *Umbona uphantsi* (maize is on the ground) – this refers to being busy.
- *Umbona ohlekwe yinja* (maize which has been laughed at by a dog) – refers to cracked mealies on the cob of the maize stalk.
- *Umbona ka Nomyayi* (crow's maize) – refers to the fruit of the arum which resembles a maize cob.
- *Umbona ka Xam* (Leguaan's maize) – refers to anything that has been prepared.
- *Isikhwebu* (cob).
- *Umpha* (empty cob).
- *Idiza* (maize stalk).

- *Intshatshoba* or *ubulembu* (maize flower).
- *Iinkobe* (boiled maize).

Early history

During the researcher's sojourns to Ethembeni from 2012 to 2013, it became evident that people of Ethembeni came from the farms in Stutterheim, Qumrha and the Qumrha surrounding areas in the 1980s'. Informants pointed out that they came to Ethembeni because they were running away from slavery by the white farmers and government of that time. For them, the reason they ran away was because they were exploited by the white farmers, others were not even getting paid and others would be beaten with an ox strap for crimes they never committed and still have to work with bruises all over their bodies."Almost from the start, slaves began to run away, because of ill treatment, being over work and the natural desire to live as a free person" The South African History Online (SAHO) (2013)[29]. SAHO (Ibid) made the following observations regarding slavery in South Africa:

With colonialism, which began in South Africa in 1652, came the Slavery and Forced Labour Model (SFLM). This was the original model of colonialism brought by the Dutch in 1652, and subsequently exported from the WC to the Afrikaner Republics of the Orange Free State (OFS) and the Zuid-Afrikaanse Republiek (ZAR). Many South Africans are the descendents of slaves brought to the Cape Colony from 1653 until 1822. It soon became apparent to the Boers that beyond the WC and Boland regions, the terrain of SA was unsuitable for intensive agriculture but very suitable for cattle farming. The majority of them lacked the financial means to buy slaves imported all the way from Indonesia, but since they were already in the process of dispossessing the indigenous population of their land, it seemed logical to take both the land and the people by force. In the wars which they fought against the Khoi and the San, the

[29]South African History Online (SAHO) is the largest independent history education and research institute in the country. It was established in June 2000, as a non-profit Section 21 organisation. The organisation is run by an independent Board of Directors, comprising historians and people from the private sector. SAHO's aim is to promote history and the arts and to address the bias in written history as represented in South African educational and cultural institutions.

Boers frequently followed a policy of exterminating the mature adults, but capturing the children and raising them on the farms. These children were taught to speak Dutch and to practice the Christian religion. This system was hypocritically known as “apprenticeship”, but in fact it was nothing better than slavery because normal human and family rights were not respected, and children were bought and sold separately from their parents[30].

It is clear that the tendency of running away from slavery was the known practice among all South Africans who were under the strain. However, Informants of Ethembeni mentioned that before fleeing to Ethembeni, they knew clearly that things were going to be better there because the area was under the rule of *Izibonda / iinkosi* (headmen / chiefs) and the newly elected President, Lennox Sebe. Lennox Sebe was elected by the members of the National Assembly in 1981 as first President of the Republic of Ciskei. Two years later they installed him as President-for-life (White 2008).

White (2008), recalls the history of South Africa (SA) and Ciskei as follows:
Before the governance of Sebe came into existence, the territory known as Ciskei was governed by the colonial and South African governments for the greater part of the nineteenth and twentieth centuries. The black people of Ciskei, like the majority of their black compatriots in the rest of South Africa, had no vote and therefore no say in their own governance, nor in their political or constitutional future. The South African Native Land Act, 27 of 1913, shaped land policies in South Africa. It transformed the black reserves throughout the country, one of which was Ciskei, into inalienable black land and the only areas where blacks could lawfully acquire possession of land. This restriction did not apply to the Cape Province until after 1936,when the blacks in that province were stripped of their voting rights. The Development of Native Trust and Land Act, 18 of 1936, enlarged the area of Ciskei and on 27 November 1981 the areas of Hewu (Whittlesea), Keiskammahoek, Mdantsane, Middledrift, Peddie, Victoria

[30]See South African History Online, http//www.sahistory.org.za *History of slavery and early colonisation in South Africa.*

East (Alice) and Zwelitsha were transferred from SA to Ciskei. This then became the extent of the territory of Ciskei at independent in 1981.

The period 1971 to 1981 saw a strong increase in popular identification with the Ciskei homeland. For two centuries the people of the territory now known as Ciskei had yearned to be free from firstly the yoke of the British, then the Cape Colonial government, then the Union of South Africa, and finally from the Republic of South Africa. When Dr Verwoerd accentuated the policy of separate development, an independent Ciskei seemed achievable. This possibility caused great excitement amongst its people (White Ibid).

When the people of Ethembeni arrived in their territory, they were accepted by King Nciya in 1981 and he directed them to the land and they started electing *isibonda* (Headman) among themselves so that they can have someone to be their voice to the King and the President. *Isibonda* (Headman*)* and his counterparts' allocated land to each individual and people started building houses for themselves and for their families[31]. When asked if life at Ethembeni changed for the better as compared the one of slavery in Stutterheim, one informant who seemed to be well-versed with the history of Ethembeni had this to say:

"*Things here were much better when we arrived, yes we had to work hard developing our area but we were getting paid for that, our husbands had to work on road construction by picking stones and grind them in the road to prevent soil erosion and they were planting trees and women were working on the farm planting maize, vegetables, and raising chickens and the whole community benefitted in those projects*"[32].

Another informant also mentioned that really, things changed for the better in Ethembeni because Sebe was providing for them by giving the food parcels and employment like *ukulima* (farming) and other jobs like the ones mentioned above.

[31]Fieldwork interviews at Ethembeni Location (November 2012- March 2013)
[32]Fieldwork interviews at Ethembeni Location (November 2012- March 2013)

Until today, some of the residents of Ethembeni are still passionate about farming although they seem to have lot more challenges than before.

4.4 Socio-Cultural Identity

In common with other areas in the Eastern Cape, the majority (70%) of the population of Ethembeni are a Xhosa ethnic group. 30% is comprised of *Mfengu* (Figoes). According to Moyer (1976) cited by Steyn (1988), in the dim past, the *Mfengu* were refugees of *Nguni* stock, driven from Natal by Chaka's wars known as the *Mfecane*. They slowly moved westwards and spent some time among the *Gcalekas* in what is now Transkei. These refugees having left their homes in a state of turmoil had few possessions and suffered many hardships on their journey to the Cape. Among the people they met they reported as having initiated communication by saying *siyamfenguza* (we are hungry and seek shelter), this gave rise to the name Mfengu (Steyn Ibid). The effect of the history of *Mfengu* among the residents of Ethembeni still prevails because some of the *Mfengu* informants have an element of undermining *amaXhosa* as stubborn stereotypes because they are illiterate and the Xhosa still see the *Mfengu* as condescending and the kind of people who you should never trust. However, the rate of literacy has played a role in the development of Ethembeni and the way these two ethnic groups treat each other.

In the century of our ancestors, Xhosa culture was characterised by *amasiko* (rituals) and they were the most important and respected part in the life of um-Xhosa. Everyone knew that there is nothing that can be done without following *isikonesithethe* (customs and traditions) because it was believed that in order for the things to go well in a family; people had to follow the rules of their ancestors.

The informants agreed that in the past, the social life of people in Ethembeni location was characterized by *imitshotshokunye nee ntlombe* (traditional dance) as the other ethnic groups in the surrounding areas like Mbaxa, Gubevu, Nothenga etc. The boys used to play or fight with sticks on Sundays and this ended up with fights and battles at times. The traditions and ceremonies included *ulwaluko* (male initiation) which is still highly observed and the slaughtering of cows for ancestors. Knowledgeable informants maintained that these cows were slaughtered to appease the ancestors

when they have caused misfortune and thanks giving after recovery from illness or escape from danger. Other rituals may include *ukukhapha* (accompanying the dead),*ukuzila* (ritual slaughtering to mourn the dead),*ukucela uxolo kwizinyanya* (to ask for forgiveness to the ancestors). This was done in a case whereby some wrong had been commited among the members of the family.

Nonetheless, one informant emphasized that when they arrived in Ethembeni, farming was their main concern as it was one of their survival strategies. Agricultural practices seem to be a priority among Xhosa people. This is shown by Steyn (1988) in his study on farming systems of two rural areas in the Peddie District of Ciskei. He observed that the Xhosa and Mfengu were pastoral and agricultural people with a strong bias towards pastoralism. He asserts that by customary law every household is entitled to a residential site as well as an allotment of arable land. The agricultural plots were very small because hoeing was carried out by hand. Every member of the tribe was entitled to make use of the commonage and there was no restriction on the number of stock that could be kept. This is in line with views of Manona (2005) who argues that in South Africa, agriculture is viewed as a small but important buffer against poverty for some households in the former homeland areas, as well as a strategy for wealth creation by wealthier households.

4.5 Agricultural Practices

4.5.1 The Emergence of Agriculture Practices in Ethembeni Location

Clark and Brandt (1984), point out that if efficient subsistence agriculture is the base on which all the higher civilizations of the world were built, it might be expected that domestic animals and plants would have spread and been adopted rapidly wherever they could be kept or cultivated. They assert that the change from food-gathering to food production once looked upon as a relatively rapid transition. A revolution can now be seen to have its roots in the late Pleistocene and to have been sporadic rather than spontaneous.

Largely, on the bases of ethnographic and linguistic evidence, G.P Murdock (1959) as quoted by Clark and Brandt (Ibid) claimed that independent development of agriculture had occurred around the headwaters of the Niger River in approximately 4500 B.C,

agriculture must have been fully established in Sudan before this region was exposed to the diffusion of southwest Asian crops from Egypt, which could not have been many centuries after 4,500 B.C, or else the borrowing of cultivated plants from this source would surely have been more extensive than it has the entire Sudan, for an example, have adopted either barley or wheat.

Among other researchers who have conceded the possibility of an independent development of seed-crop agriculture in Africa are Holber and Hester (1969), Hays (1975), D.R. Harris (1976), Higgs (1976) and Wendorf*et al*. (1979). By far the most popular view of the origins of cereal-crop agriculture in Sub-Saharan Africa is that it was the product of human migration or some form of culture diffusion or stimulus deriving from southwest Asia. One suggestion is that a group (or groups) of wheat and barley cultivators moved into the Sahara from the North to North-West during a period of climatic amelioration, taking with them crops ultimately derived from the fertile Crescent. Later, deterioration of Saharan climate forced some of these wheat and barley cultivators to move southward into the Sahel and Sudanic zones. As they continued their migration to the South, they found that their cultivars, which were suited to winter rains had reached their ecological limits, and it was at this point that domestication of indigenous sorghums and millets occurred (Clark and Brandt 1984).

Sobahle (1982) as cited by Steyn (1988) pointed out the following observation by Maclean (1858) with reference to agriculture:

"*Cultivation commences if the rains fall early, in August but ordinarily not until September, when the Indian corn and pumpkins are first sown until the end of October, after which but every scanty crop can be expected. Indian corn can, however, be sown until the end of November. The green Indian corn is fit for use about the middle of January, but near the coast is sometimes earlier*" (Steyn1988:44).

Nonetheless, during the data collection, informants made it clear that agricultural practices at Ethembeni emerged in 1981 immediately they arrived in the area as they believed it was their source of food production for their families. They also highlighted that by the time they arrived, agricultural skills were already in their genes because from the farms where they were slaves by the age of ten (10), a child was already

included in the process of cultivation in the farms. They also mentioned that maize was their staple food but they also planted *oosenza* (a squash like vergetable) beans, pears, pumpkins, potatoes, etc. During work both women and men were expected to go and work in the fields, but most of the time it was women who were working in the fields even children who were attending school would not be allowed to go to school during the cultivation season.

Nowadays farmers in Ethembeni location still consider maize as their staple food and also plant the above mentioned vegetables according to their suitable season. Regarding the planting season of maize, one informant gave the following explanation:

"*Cultivation starts in November around 15th and 16th, after you put the seed under the soil it normally takes seven days to grow then after seven days, isikofulo(removal of weeds and softening of soil) needs to be done so that it grows properly according to its time and during January, February, and March it shows izikhwebu(Millie cop) meaning it is now ready to ripen then in June the maize will be ready to be harvested*"[33].

However, du Plessis (2003) gives a detailed report that maize needs 450 to 600 mm of water per season, which is mainly acquired from the soil moisture reserves. About 15, 0 kg of grain is produced for each millimetre of water consumed. At maturity, each plant will have consumed 250 l of water. The total leaf area at maturity may exceed one square metre per plant. The assimilation of nitrogen, phosphorus and potassium reaches a peak during flowering. At maturity the total nutrient uptake of a single maize plant is 8, 7 g of nitrogen, 5,1 g of phosphorus, and 4,0 g of potassium. Each ton of grain produced removes 15, 0 to 18, 0 kg of nitrogen, 2, 5 to 3, 0 kg of phosphorus and 3, 0 to 4, 0 kg of potassium from the soil. No other crop utilizes sunlight more effectively than maize, and its yield per hectare (ha) is the highest of all grain crops. At maturity, the total energy used by one plant is equivalent to that of 8 293 15 W electric globes in an hour. The number of kernel rows may vary between four and 40, depending on the variety. Up to 1 000 kernels may be produced by a single plant. In spite of only one pollen grain being required to produce one kernel, each tassel produces some 25 000 000 pollen grains, i. e. 25 000 grains for each kernel. As a result, up to 40 % of the tassels in a planting may be lost without affecting pollination,

[33]Fieldwork interviews at Ethembeni Location (November 2012- March 2013)

other factors remaining optimal (du Plessis 2010). Below, figure 4.3, 4.4,4.5, and 4.6 show the planting season and cultivation of maize by the farmers in Ethembeni Location.

Smith (1893:41) quoted by Steyn (1988) have a different method of explaining the process of maize production. He explains as follows:

“The time for maize (planting) is indicated by the flowering of another ragwort, with rather *idwarha* (a broad leaf for the size of the plant). The flowering of *umbaba* (the wild chestnut), seen afar from profusion of lilac blossom shows that it is time to plough” (Steyn 1988:45).

Figure 4.3: Maize after two weeks

Source: By the researcher, November 2012

Figure 4.4: Maize after *isikofulo* (removal of weeds and softening of soil)

Source: By the researcher, November 2012

Figure 4.5: Maize Harvesting

Source: By the researcher, June 2012

Figure 4.6: Sharing of Maize Among Small-holder Farmers of the Study Area

Source: By the researcher, June 2012

The pictures above show that the farmers of the study area are really keen for the production of maize. Steyn (1988) also shows that indeed, maize among the Xhosa people was significant and they knew their planting time. He states that millet or grain sorghum was the most important cereal but was later supplemented by maize when this grain was introduced, probably through contact with other races comparatively late in Xhosa history. They know the time when their crops should be sown and their planting time was about the middle of August and terminated in November.

Farmers of Ethembeni location have arable land of about 50 hectares which they use to plant their crops. They also have gardens in their homes but not all of them plant their gardens especially the women who claimed to be involved in other community projects like taking care of goats and chickens etc. With their production they share among themselves (as shown in figure 4.6), and if they have a big harvest they would even sell to people of the community and invest their profits in the bank. The reason of doing this is that all members of the farmer's project are unemployed and they have to take care of their children to pay school fees and provide food for them. One of the informants stated that they wish for their project to develop and have more young members so that they can produce more and be able to give some of their product to the needy within the community, including the sick and orphaned.

In the statement made by Kwaru and Gogela, (2002) the Eastern Cape Province focuses mainly on agriculture for its economic development. Although the agricultural

sector is relatively small in terms of its value of output, it is but labour intensive. It is the third largest sector in terms of labour employment and contributes to the provincial economy. It contributes 13% of formal employment in the Province. According to Mgomezulu (2010) the province of the Eastern Cape was established by amalgamating the three administrations: the former homelands Transkei, Ciskei and a portion of the former Cape Provincial Administration. Upon the take-over of the Province by Government of National Unity (GNU), many public sector officers, particularly those in the management level took severance packages and left the public sector. This resulted in a brain drain in the public sector as experienced personnel left. During the apartheid era, there were huge commercial agricultural projects (schemes) in the homelands, which were run by parastatal bodies: Tracor in Transkei and Ulimocor in Ciskei. The parastatals were for capacitating people, landowners in particular with farming knowledge and skills so that they could later on, take over and run the projects on their own. The landowners were not trained, but worked in the schemes.

However, the schemes experienced financial losses due to huge personnel expenditure and were therefore liquidated. Upon liquidation, some of the schemes were severely vandalized and this resulted in a great loss of infrastructure. The homeland Governments' Departments of Agriculture used to own tractors and cultivating implements, which were used to cultivate farmers' lands at subsidized tariffs. Land cultivation declined abruptly as the new government sold out those tractors to the public, stating that it would no longer do farming for the people (Mgomezulu Ibid).

4.5.2 Farm Labour

The organization of farm labour in Africa has traditionally covered around systems of kinship and descent, chieftaincy, public office and servitude[34]. Unlike European Latin America, access to labour, not land, was the basis of economic and political power in a continent where population densities were low and where land was frequently vested in communities rather than individuals. The seasonality of farm work is a

[34]The hired hand on a farm. see www.thefreedictionary.com/farm+worker

conspicuous ‘feature’ of African agriculture, as the alternation of wet and dry periods creates an uneven demand for labour, except in the few areas where irrigation is practiced. The general supply of and productivity of farm labour depends on the potential stock, which is shaped by levels of fertility and mortality, health, the length of time individuals work, and the returns from non-farm work.

However, in Africa, where the majority of farming is carried out by domestic groups, the size and composition of such groups and principles of labour organization they use are of primary importance. Age, sex and kin have traditionally structured domestic labour and they have by no means been abandoned, but over the past thirty years extended or complex groups have declined, and domestic production and reproduction have thus become more dependent on non-farm jobs, while there is increasing economic differentiation among peasant farmers (Swindell 1985).

Roades (1984:66) quoted by Steyn (1988) pointed out that among three basic elements of production, land, labour and capital the importance of land and capital is easily understood. Labour, however, is a much more subtle factor. Its availability is not only important to get the jobs done, but also determines whether the farmer is willing to invest in changes.

Table 4.2: Practice of Maize production among gender lines at Ethembeni Location

Farm Practice	% of Men	% of Women	Total %
Maize production	40	60	100

Findings of the study suggested that there was a division of labour in Ethembeni location in terms of working at home, like women taking care of household and men looking after the livestock. In case of maize production or planting in the fields, both women and men participate but the number of women who participate in maize production is bigger that the number of male participants. Table 4.2 shows that only 40% of men participate in maize production, it is clear that farm labours in the study area are more likely to be women than men. This situation is familiar in other places and studies. Steyn (1988) is of the opinion that this situation can be explained by the

fact that women heads of households (widows) increased sustainably over the years. This meant that they were therefore responsible livestock managers and spent more time in crop production to provide for the family. Swindell (1985) is also of the opinion that the hours spent on farm work by women shows much more variation than for men.

According to Cleave (1974) cited by Swindell (1985) African women spend between 51 and 1,195 hours per year on farming, which reflects the relative importance of women as farmers in different regions, and the sexual division of labour among different societies. He asserts that the importance of women farmers has been recognized for some time although it has not been sufficiently taken into account by development planners. The role of women has been, and still is, crucial in the acceptance and success of new crops and crop species, because introduction has repercussions on the organization and allocation of farm labour.

Steyn (Ibid) continues to argue that small scale farmers' agricultural production is associated with seasonal peak labour requirements. It is generally considered cheaper to hire additional labour for two to three months rather than to employ *ilima (*the traditional exchange labour system). However, most famers in Ethembeni location do not hire labourers, they work for themselves, and sometimes would work with their children, relatives and friends, this is called *ilima.* Eighty percent (80%) of the farmers at Ethembeni pointed out that working together as a collective is very important because one tends to learn new things from other people who are more enlightened, and it makes the work easy although you will not get much. Another informant confirmed that *ilima* is still active in the study area during weeding and harvesting time. The main reason the farmers in Ethembeni prefer *ilima* instead of paid labour for during maize cultivation is that they have small farms and do not have much profit to pay labour. The relatives and friends who help them would be thanked by some of the produce or they would prepare dinner and drinks for them to show appreciation.

4.5.3 Land Tenure

Nompozolo (2000), defines the term "land tenure" as the institutions governing the rights to use and transfer land, the fruits derived from land to the duties that go with those rights. According to Ali (1979) cited by Nompozolo (Ibid) see "land tenure" as a

tool used to express legal relationship between persons, groups and classes that regulate the use of land transfer thereof and enjoyment the products and the duties that go with those rights. In other words, land tenure means the manner in which land is held. It can therefore be considered a reflection of power relationships between persons and groups in the use of land.

Land tenure is one of the most sensitive political issues in almost every country across the world. It is also clear that the present system of land tenure in South Africa is changing from subsistence agriculture to commercial farming[35]. According to Bembridge (1884) cited by Steyn, (1988) implementing any system of land reform programme must be effected with as little disruption as possible and carried out in an evolutionary way. However, he also states the fact that the system of land tenure in many of the less developed countries is one of the main obstacles towards agriculture.

"Under apartheid laws, persons deemed 'black' in South Africa were prevented from retaining and/or acquiring rights in the land which was set aside for persons regarded as 'white'. At the same time, land which was provided in the crowded homelands was granted on limited and precarious permits subject to administrative discretion. Black people were placed under the jurisdiction of 'chiefs'. The dual system of land rights introduced under colonial and apartheid governments continues to prevail. Laws involving arbitrary racial distinctions have been repealed, but land in the former homelands continues to be registered in the name of the state. Apartheid laws which gave widespread powers to chiefs and tribal authorities in terms of not only land administration, but also judicial and government functions, still have to be repealed" (Adams, Cousins, and Manona 1999:15).

Looking back on how homelands were administered in the former Ciskei. Steyn (1988) made it clear that the Ciskeian Legislative Assembly was established on the 1st of June 1971 in terms of the Homelands Constitution Act (No 21) of 1971. Ciskei was declared a self-governing territory within the Republic of South Africa from the 1st of August 1972 by Ciskei Constitutional Proclamation (No R187 of 1972). The Ciskei National Assembly was a unicameral legislature headed by a state president with

[35]See: The right to hold property; part of an ancient hierarchical system of holding lands. wordnetweb.princeton.edu/perl/webwn

executive powers. In 1980, this legislature included fifty-seven (57) members consisting of twenty-nine (29) elected members and twenty-eight (28) chiefs. Then, the forty-two (42) tribal authorities that have been created constituted the local administration units of this government. The powers, functions and duties of the tribal and community authorities were to assist the chief or headmen in the execution of functions in administering the affairs of the tribe or local community and to advise and assist the government in matters relating to the material, moral and social well-being of the people resident in the area (Steyn Ibid).

However, this study reveals that the communal land tenure system is still used in the study area but magistrate has to issue title deeds to the occupier. According to traditional communal system of land tenure, the land belongs to the tribe but is vested in the chief who administers it and allocates it to the people according to their needs (Soga 1913) cited by Steyn (1988).

Steyn (Ibid) further explains that traditionally there are no well defined residential areas. Residential and arable sites are allocated by the chief and headman. Houses and arable lands are scattered throughout the area and communal grazing is practiced and after the maize harvest, stock are allowed to enter the fields and graze residues. This practice is called *ukubhuqisa*. This system still prevails in Ethembeni exactly as Steyn explains.

Fifty percent (50%) of the women interviewed in Ethembeni location have remarked that the title deeds granted by the magistrate after occupying the land were subjected to their male counterparts. They agreed that in case of the death of the husband, the title is given to the widow then in the case of death of both parents, the first born in the family has the right to inherit the land. Now this type of tenure is called freehold title. Nompozolo (2000) points out that freehold tenure is a form of tenure whereby land is owed by individuals or organizations that hold the title deed registered at Deeds Office (DO)[36]. He emphasized that freehold land is obtained through purchase or inheritance, and owners in turn are generally free to sell the land. The freehold title provides the

[36]Hansard (1987:911) defines freehold title as an absolute ownership of land for an indefinite period

owner with a considerable degree of security of tenure in that land does not have to be occupied or used to be retained; it is also free of many controls by administrative and governmental bodies, which can only enforce limited conditions on land use.

4.5.4 Land Use

Africa is faced with the major problem of poverty and over population, because land is not efficiently used. Therefore any piece of land available must be used efficiently with the aim of producing food for the nation. Land use planning can play a major role in making the land to be efficiently used. The evaluation of the farm in order to find out whether it is viable for the production of the agricultural production is aimed by land use planning of the farm. Therefore the enterprise that is best suitable to the area on the basis of prevailing physical, social and economic factors can be used in the production of those goods required by consumers Kral (1984) cited by Steyn (1988).

Vink (1975:15) quoted by Steyn (Ibid) states that present land use is the result of various factors, many of which are directly related to the nature and quality of the land resources, others of which have their origin in cultural, social and economic conditions of the past and their development within the context of history. Potential land-use must therefore always be tested, if not continually at least periodically, against other possible methods of land-use. There is no simple solution and in most cases several types of land-use must be considered and compared. Land use in Ethembeni is divided into the residential area, general business, and institutional church, institutional crèche, municipal area, municipal cemetery, educational, sports field, clinic, agriculture community gardens, public open space and road reserve. Unfortunately, because of the limitation of time frame for this study, the researcher could not get the detailed information regarding the actual percentages of these areas. However, According to the Amahlathi Intergrated Development Plan (AIDP) 2011 and 2012, in terms of the draft Land Use Management Bill, it is anticipated that the Amahlathi Municipality will be required to formulate an integrated Land Use Management System within the next 5-year planning period.For the purpose of the SDF, the Municipality has established Land Use Management Guidelines in respect of Urban Nodes (so-called GO-BUT Zones); Limited (Managed) Development Areas

(also GO-BUT); Restricted Development Areas (NO-BUT Zones). Below is the detailed table for the plan.

Table 4.3: Macro-zoning categories for Amahlathi Local Municipality

Urban Nodes (GO-BUT)	Limited Development Areas (GO-BUT)	No Development Areas (NO-BUT)
• Existing urban areas within the urban edge. • Identified tourism nodes.	• All land not classified as a No Development Area and Development node (Urban Edge) • Existing areas of degraded/ modified agricultural land. • Areas where development could ensure future environmental benefits • Transitional Zone areas adjacent to defined Urban Edges.	• Proclaimed nature reserves • STEP Protected, Process and Critically Endangered areas • Rivers, estuaries and undisturbed riparian zones of rivers • Diverse montane grass land and afro-montane forest vegetation types

Source: By Amahlathi Municipality Integrated Development Plan 2011/2012[37]

4.6 Infrastructural Organization in the Study Area

Infrastructure refers to services drawn from the set of public works that traditionally has been supported by the public sector, though in many cases, the infrastructure services may be produced in the private sector. Water supply, sanitation, transportation, electricity, telecommunications, irrigation dams, regulated markets and banks are some of the examples of infrastructure that generate services. The

[37] See: Amahlathi Municipality Intergrated Plan 2007/08-2011/12. Compiled by Amahlathi Municipality under Municipal Manager Mrs F.M. Shoba.

agricultural infrastructure includes all of the basic services, facilities, equipment, and institutions needed for the economic growth and efficient functioning of the food and fibre markets. Infrastructure investment demands a strong commitment to the research and co-operative extension system that enhances production, marketing, food safety, nutrition, natural resource conservation, and all the other functions of different agencies concerned with agricultural infrastructure (Venkatachalam 2003).

Venkatachalam (Ibid) is also of the opinion that agricultural infrastructure plays an important role especially in a developing country context where a larger percentage of the poorer section of the society depends on this sector for subsistence. The growth enhancing nature of the infrastructure warrants a closer scrutiny of the relationship between the level of agricultural development and the level of agricultural infrastructure from the regional perspectives. This assumes importance because, the agricultural sector plays a dominant role in alleviating poverty and the overall growth of the agricultural sector and its components such as growth of agricultural employment, income, output, etc largely depend on the level of investment made in infrastructure. In other words, the level of infrastructure in the agricultural sector is one of the major factors that could explain the regional balances and imbalances in the agricultural growth.

This section will discuss some of the infrastructure services in Ethembeni location; these include, transport, social and community services, and local organization.

4.6.1 Transport

Warner and Kahan (2007) point out that rural roads are the only means of access between farm and market in most parts of the region. Farmers and ranchers are increasingly contending with traffic from urban areas as drivers use rural roads to avoid congestion. (Compared to the regional average of 52 VMT per day and 30 VMT or less per day where densities exceed 10 units per acre), continues to be a popular product. While road improvements can help farmers and ranchers, the net impacts may be negative if better roads also lead to speeding and incompatible development in rural areas. Perhaps even more challenging is reaching agreement between cities and counties on a "fair share" accounting of impacts to rural roads and apportioning

local sales or property tax, or developer impact fees to pay for needed improvements (Warner and Kahan 2007).

Reliable transportation is absolutely critical for growth and innovation in African agriculture and agribusiness. Sufficient roads, rail, seaports and airports are essential for regional trade, international exports, and the cross-border investments that make both possible. Innovation in other areas of agriculture such as improved genetic material, better access to capital, and best farming practices will produce results only if farmers and companies have a way to get their products to market and get critical inputs to farms. Transportation is a key link for food security and agribusiness-based economic growth. Roads are the most obvious and critical element, but modern seaports, airports and rail networks are also important, particularly for export-led agricultural innovation (Juma 2011).

Ethembeni location has efficient number of transport facilities. This includes public transport service provided by individual owners who are residing in Ethembeni, Mbaxa, and Gubevu location and, a number of residents own vehicles. For agriculture purposes, the farmers at Ethembeni do not have a tractor of their own, in cases whereby they need to plough; they hire tractor services from individuals or from the farmers across the road at Mbaxa location. There is also a daily bus service which operates in the mornings and afternoons, these buses belong to some residents of the study area. This location is made up of gravel road with a number is a number of skewed pattern streets and there in no rail line, pedestrian facilities, traffic lights or road signs. Below in figure 4.7 is the picture of the current roads that are used by the transport at Ethembeni location (see next page).

Figure 4.7: Roads and transport used by the informants in Ethembeni location

Source: By the Researcher, December 2013

The researcher observed during the study that during rainy seasons it was difficult for local residents to travel as the roads would be muddy which makes it difficult for the informants to gain access to basic services, such as, local markets, health clinics and schools.

4.6.2 Social and Community Services

There is one clinic in Ethembeni for health care services. For other Health facilities; Bhisho and Grey Hospital are made available to the residents. The clinic opens from 08h00 to 16h30 and provides health promotion, prevention & rehabilitation treatment of minor ailments, trauma and emergency Mother Child and Women's Health care Integrated Nutrition care HIV, AIDS and Sexually Transmitted Infections TB Communicable diseases Non Communicable conditions Geriatric services Mental health and substance abuse Oral health Occupational Health Youth Health Services 24 hour call centre[38].

For educational facilities there are two pre-primary schools, four hower and Higher primary and one senior secondary school which starts from grade 8 to 12.

[38]Fieldwork interviews at Ethembeni Location (November 2012- March 2013).

There are no community centres, like public libraries and general entertainment facilities. The source of information is the schools and elderly people. School halls and churches are used for gatherings or meetings. For commercial services there is one general dealer shop and two spaza shops, for banking, post, shopping malls villagers go to King William's Town and Stutterheim. Sporting activities are mainly soccer, rugby and netball.

The relationship between Ethembeni location and other organizations is encouraging but a lot is still needed to be done to offer community services. However, there is a link between the community and local municipality plus the department of agriculture who in the past have sponsored the farmers' association developmental projects.

Most of the residents are unemployed. Many families do not live with their fathers as they are in big cities like Johannesburg, Cape Town and Port Elizabeth to look for employment. Other people live on piece jobs like gardening and doing washing for the privileged.

For communication there are Telkom landline telephones in some houses that can afford them. Many people have cell phones. Written letters are still used, some are using schools post boxes and some have their own post boxes.

There is a police forum formed by community members to secure the location as the police station is very far. However, many criminal activities like rape, assault, robbery and theft have been reported in the area. According to the informants, people commit these crimes because they do not have anything to do as they spend their time drinking and using drugs. For the justice system this location depends on Qhaza and King William's Town police station from which sometimes it takes time for the police officials to quickly respond to criminal activities in time.

Power is basically held by *iNkosana* and the local counsellor who is elected by the people. Apart from the elected counsellor, the *iNkosana* also holds considerable influence. This community haS a balance of power as these two (Counselor and *iNkosana*) work hand in hand. For the administration of politics, the decision making

process in Ethembeni location is left in the hands of leaders after consultation with the general public. The concerns of the general public are raised during consultative meetings held mostly in the community gatherings and the leader will bring to the attention of the local government officials.

4.6.3 Local Organisations

Steyn (1988) pointed out that the underprivileged sectors have little hope of achieving progress unless a change in the distribution of power within the rural community occurs. He assert that local informal groups and formal organizations are necessary to make the wishes and needs of the rural sector known to the local resources, to perform certain services for the transfer of certain government services to their members.

FAO (1969:14) quoted by Steyn (1988) define rural people's organizations as bodies which are run and controlled by their members to large extent. Members decide upon and engage in socio-economic programmes, as well as in bargaining and claim-making activities. Heck (1979) quoted by Steyn (Ibid) states that in most existing rural organizations the members play a positive role whilst the elite leaders make the decisions. He asserts that the leaders are generally local chiefs or politicians of higher socio-economic background, so that the organization perpetuates the local power structure.

There are very few economic activities going on in Ethembei location. Notably, the farmers' association projects are the outstanding economic activities taking place in this community which have attracted funding from the Department of Agriculture.
The majority of the community members are Christians whilst some are strict traditionalists. In Ethembeni location there are few rural organizations, apart from the various religious denominations which concern themselves basically with non-agricultural activities and burial societies, there are three agricultural orientated organizations although they seem to be discouraged because of the lack of resources. (Arnon, 1981:445) quoted by Steyn, (1988) noted that if the fostering of popular participation in rural organizations is accepted as the most effective tool for promoting

the interest and development of the disadvantaged sectors of the rural population, active support from government is essential

The majority of people at Ethembeni location are Xhosa speaking people. However, there is also a very small minority group of *amaMfengu*. From the discussion above, it is clear that in the olden days, although they were illiterate traditionalists who called themselves *amaqaba abomvu* (the red), they devoted themselves to work on their land, it is said they dedicated their lives in farming their fields as this was the only option of surviving with their families. Nowadays, there seems to be a problem to sustaining agriculture to most of the community members as the majority of the members focus their economy on cash related work.

Land ownership at Ethembeni location is still a problem because women are unable to access land although they seem to be the drivers of the whole idea of farming. The system of land tenure in this location was never revised. However, there are also residents who have *amafusi* (land that is not ploughed) who claim that they have no means of production to practice farming. The counsellors have mentioned that they also have a system they use in the case of those women who are interested in farming which involve borrowing from those who leave *amafusi* in their fields. Even the local farmers' projects do use this system because they need more land for their production. However, another constraint was identified from this system because a person would leave his land for years and if you borrow and make it fertile maybe even fence it, a person would in no time want his land back, and so this practice is discouraging the people who depend on borrowing land from other to cultivate.

4.7 Characteristics of Study Population

4.7.1 Personal Characteristics of Informants

This section discusses personal characteristics of informants which will include gender, age, marital status, house-hold size, level of education, land tenure, labour migration, household economy and possession of farming skill, maize production, beliefs, and customs in agriculture.

4.7.2 Gender of Informants

Figure 4.8: Gender Distribution of Informants

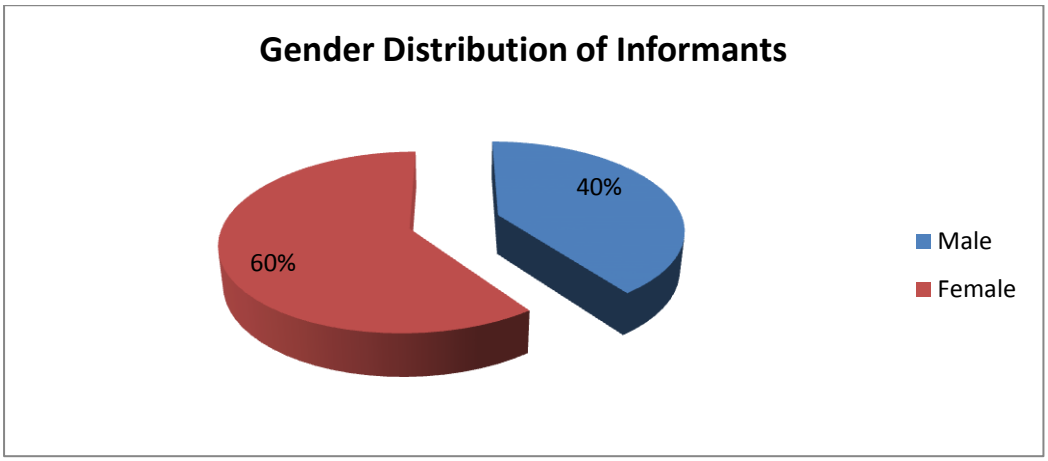
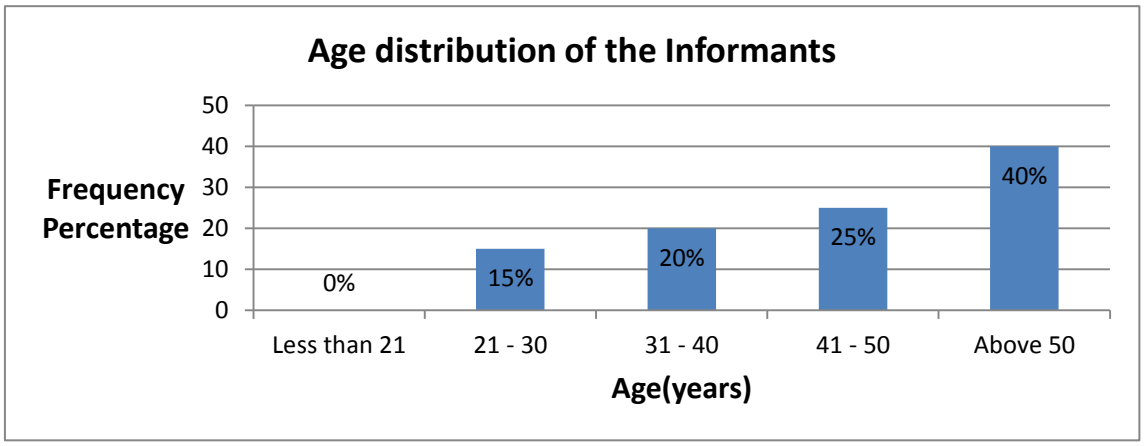


Figure 4.8 above indicates the gender distribution of the informants who participated in the study. The study targeted 50 farmers who have participated in maize production. The findings represent that the majority of the informants were females who appear to be 60%(30) while males are only 40% (20). The females were found to be the majority in farming practices. The reason for this is that most males in the study area have migrated to work in the mines and they come back home after a long time leaving females behind to look after the children. Females found farming as a gateway to be able to provide for their families while their husbands are away. Nonetheless, this has become a tradition in the study area that after getting married a woman shall work in the fields with her husband or while the husband is working in the urban areas. This proves a statement made by the Economic Commission for Africa Southern Africa Office, Lusaka, Zambia in their 2013 report on *land tenure systems and sustainable development in southern africa* that in South Africa, Botswana, Lesotho, Malawi, Mozambique, and Zambia, women are still discriminated against with regard to independent ownership and control of land in both customary and statutory land tenure systems. **Yet more than 50% of women in the countries live in rural areas and derive their livelihood from agricultural production**. Similarly, Mandikiana (2011) argued in his research findings that there are fewer men in agriculture because they part take in non-agricultural activities such as brick making and car repairs.

4.9 Age of Informants

According to Ngqangweni and Delgado(2003) cited by Mandikiana (2011) the age of the farmers is thought to be a very important variable in the study of this nature because it is believed that age is related to the experience one has in relation to the use of agricultural technologies. In addition, to a certain extent, age indicates the position of the farmer in the life cycle. A farmer's experience further influences his household members' farming activities since they usually get guidance from the head.

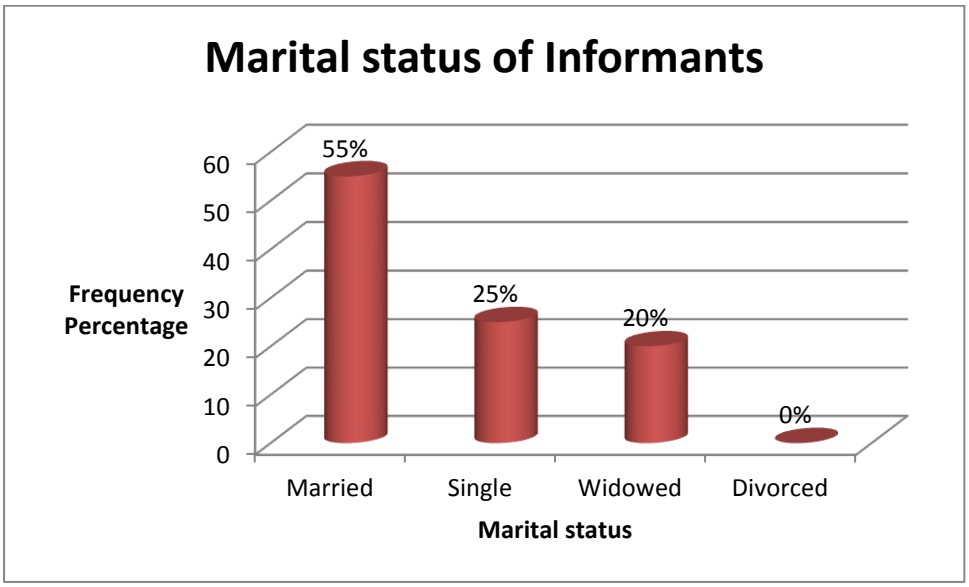
Figure 4.9: Age Distribution of Informants



This study has revealed that the majourity of the farmers at Ethembeni are old people who ranged above the age of fifty. Figure 5.2.2 explains that only 15% of young people who participate in maize production, from age 31-40 its 20% and from age 41-50 its 25%. According to the findings of this study, there is a perception among the youth that farming is something for old people and this poses a major problem because these same old peolple are illiterate. This makes it difficult for them to seek information on how to adopt new technologies used nowadays to help with the increase of maize production. Old people sometimes get sick for a long time and in that situation, the crops in the field suffer because there is no one to take care of them. Another reason for the majority of old people in the study area is the effect of migration which will also be discussed later in this chapter.

4.7.4 Marital Status of Informants

Figure 4.10: Marital Status of Informants

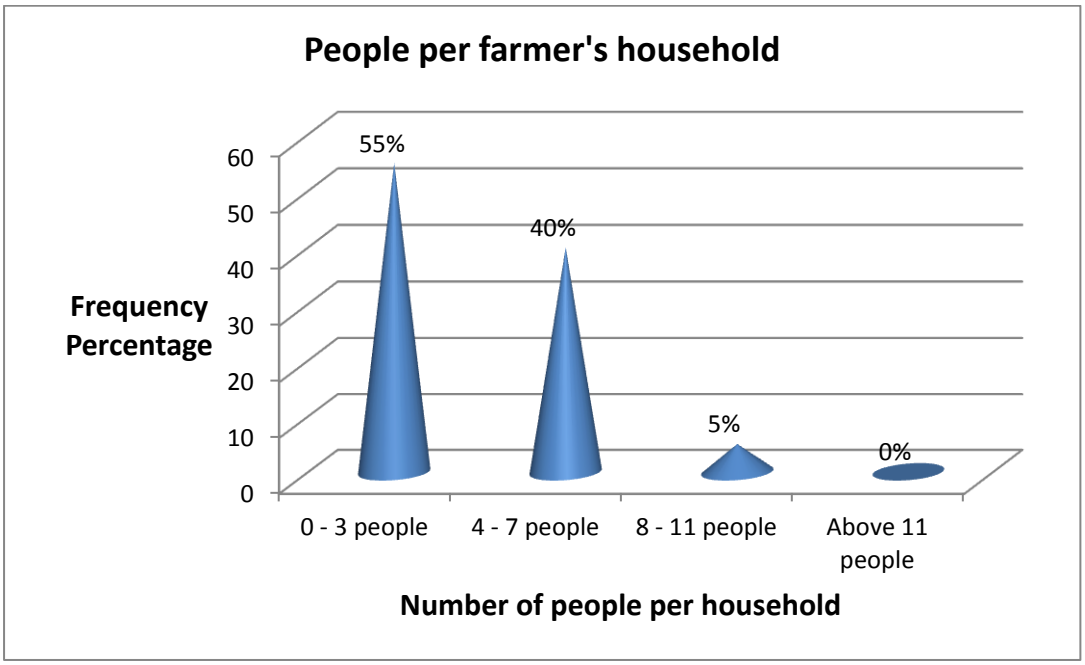


The marital status of the sample farmers was divided into four categories namely married, single, widowed and divorced. Of the total sample of 50 informants, most (55%) of the farmers are married and seemed to be more comfortable regarding issues of land tenure as compared to 25 percent who indicated that they are single and access to land to them is still a dream. Culturally, for married women, there is no need for them to own land while their husbands are still alive and has land of their own. The other 20 percent reported that they are widows and/or widowers who did not remarry and some of the women who are widows gained access to land through taking over the titles of their late husbands. However, there were no farmers who reported that they were divorced. Married or single men did not report having problems with land ownership.

“The women’s relationship with land is determined by the customs and laws of inheritence and marriege. If a woman does not inherit her father’s property, but is expected instead to marry and move to her husband’s land, she only has access to the land of her natal and marital homes” Cotula (1999:18). The statement by Cotula seems to be relevant in the situation of single women in Ethembeni location who are have interst in farming but do not have land rights.

4.7.5 Household Size of Informants

Figure 4.11: Household Size



The size of the household is also thought to have an influence in the decline of maize production. All the informants came from households with more than two members. The smallest household of a farmer interviewed had two members and the largest had ten household members. The average number of members of households interviewed had seven members. The farmers who had fewer members in their households agreed that their crops suffer because of the lack of family labour, they claimed to be unemployed and could not cultivate a big farm as in the olden days as they do not afford to hire paid labour. However, those who had more than seven members confirmed that their production has improved because they work together in the farm and are able to network with other people for help.

4.7.6 Level of Education of Informants

Table 4.4: Educational Level of Informants

Level of education	No of informants	Percentage
Primary	22	44%

Secondary	10	20%
Tertiary	0	0%
Other	0	0%
No education	18	36%

Table 4.4 above shows that from the informants interviewed, twenty percent have primary education, ten percent have up to secondary and no informant have tertiary education or other qualifications and thirty six percent of the informants reported that they never went to school. Most of the old people in the study areas are illiterate. The reason behind this according to the informants is that people of Ethembeni location were Xhosa who regarded themselves as amaqaba (red people). They claimed that during their early days in the farms they were not allowed to go to school but to work on the fields, other would only have a privilage of attending primary just to know how to write their names[39]. As stated earlier in the study, when these residents of Ethembeni arrived in this area, there were no schools nor a church, they had to work hard on starting eveything afresh. As red as they are, some of the parents never saw a need for their children to go to school but to seek employment from the projects which were offered by the president of Ciskei (Lennox Sebe) or work in the fields. As other areas of Xhosa communities women of Ethembeni especially girls would be grown to get married to bring cows to their homes, so there was no need to send them to school even for primary school level. If the woman could clean, cook, fetch water and work in the fields she was seen as qualified to be a wife. For men, their duty was to work for their parents first and then their wives and children, so when they turned 18, they would be sent to work in the mines to the big cities or for road construction. One informant pointed out that his parents agreed to send him to school but he had to herd the cattle to the fields in the morning and during cultivation time he would go to the fields before going to school and other boys would not even go to school in that period. However, nowadays, the majority of the youth in both communities drop out at secondary level. One informant claimed that they have no passion for school because even those who pass their grade twelve stay at home as there are no means to futher their studies. The few that manage to get opportunities to study do not want anything to do with agriculture, they prefere to study nursing, medicine, teaching etc because

[39]Fieldwork interviews at Ethembeni Location (November 2012- March 2013)

there is a perception among community members that these professions are well paid without having to work hard and agriculture is also associated with people who are lazy to think constructively or those who cannot do well at school.

Wharton (1963) and Dunn (1971) quoted by Kepe (1992) have made strong claims on education as one of the crucial variables in achieving economic growth, agricultural development and human progress. He asserts that the two effects of education on agricultural output were identified more specifically by Huffman (1974) as (i) an allocative effect, enhancing a farmer's ability to acquire, decode and sort market, technical and institutional information at less cost and (ii) a worker effect, enabling to produce more with a given quality of resources.

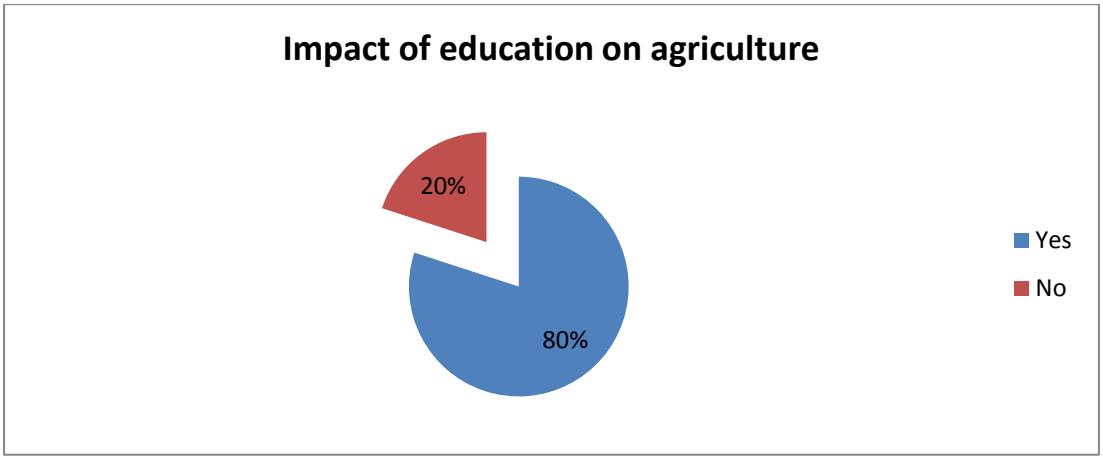
Wharton (1963) is also quoted by Nompozolo (2000) arguing that education pushes back cultural prohibitions, widens the scope for decision making because it broadens a person's ideas of the "possible", adds new tastes and stimulates motivation. Education increases the farmer's inquisitiveness, which hightens the likelihood of self-discovery of new knowledge concerning the operation of his or her own farm with its unique bundle of resources. It is not accidental that in agriculture the majority of innovations and inventions have come from the farmers themselves. Given the physical and climatic heterogeneity which is so characteristic of agriculture, self discovery is an important ingredient in the agricultural growth process.

In addition, Komanisi (2007) quoting Sobahle (1982) noted that the level of education the farming community seldom exceeds that of standard four on the average, and lies between standard two and four. This means that such people will always be ignorant of modern farming methods. Such people are always still under the strong influence of tradition, customs and magic, that they have a built-in aversion for change. Komanisi (Ibid) also points that such farmers could never be in a position or could take a very long time to get used to the modern machines. The illiterate farmers would always work under supervision of White officials. Once these officials are removed, the whole thing could collapse. These farmers will have nowhere to go to in order to put into practice what they have learnt, once they leave settlements.

The above statements are familiar with the situation at Ethembeni location because according to my observation, the informants lacked knowledge and information as to how they can be better farmers. They also lacked skills to improve their farming

methods but seem to be willing to change their methods and apply the morden technology because they see clearly that things have changed clearly and need to be improved. It is generally acknowledged that “education is one of the foremost agencies of acculturation renewal and individualization for society as a whole and for its members” (Benvenuit 1962) cited by Komanisi (2007:8). Therefore, if the majority of the members of a society lack education, it is likely that more members will tend to hold on to their beliefs and superstitions even if they are no longer working for them. The figure below shows the response of the informants when they were asked if they agree that education plays a role in agriculture.

Figure 4.12: Impact of Education on Agriculture



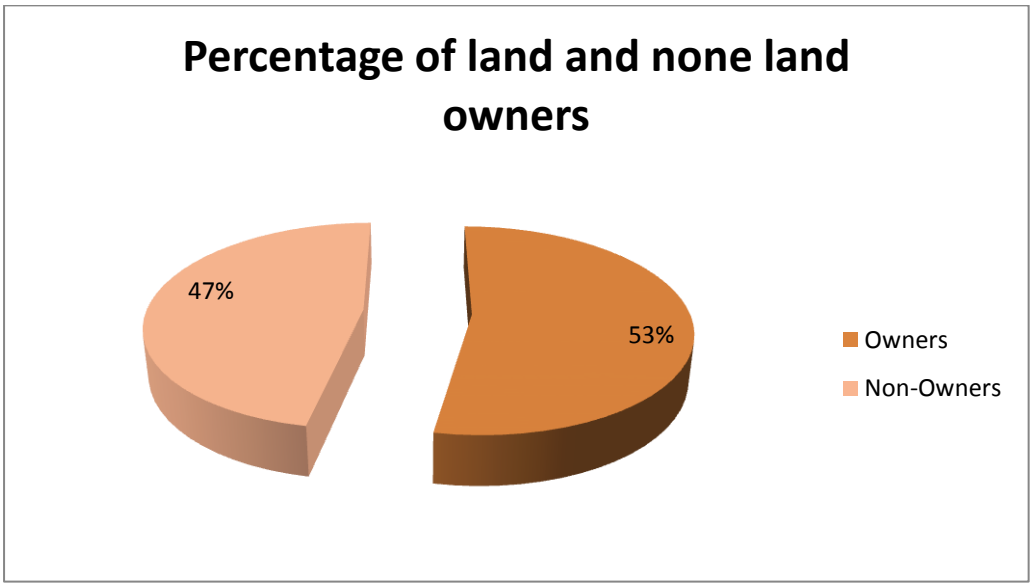
About 40 (80%) informants responded that they are aware that education plays a pivotal role in agriculture. One informant emphasized that their crops are only suffering now because they lack information and knowledge to apply new tools that have come with technology and above all, they have no means of resources and it is not easy for them to communicate effectively with their government and today they do believe that issues of this nature required educated people.

4.7.6 Land Tenure

Ethembeni is a relatively traditional area where local headmen, counsellors are still seen as legitimate local authority structures and continue to take responsibility for decision making around access to, and use of land and other natural resources. The local population is also relatively stable. The farmers were interviewed on the

ownership of the land they use for agricultural purposes. A relatively large number of farmers (47%) do not own the land they farm on, even though they have rights to use it. The results are illustrated in the figure below.

Figure 4.13: Percentage of Informants Access to Land



Land can be a restraining aspect in maize production. Ortmann and King (2006) cited by Mandikiana (2011) note that the quality of land determines the type of farming practice done by smallholder farmers. Arable land is mainly used for maize production. Besides the land itself, production practices of smallholder farmers are crucial when it comes to expected yield.

Figure 4.14: Satisfaction with the land allocation system

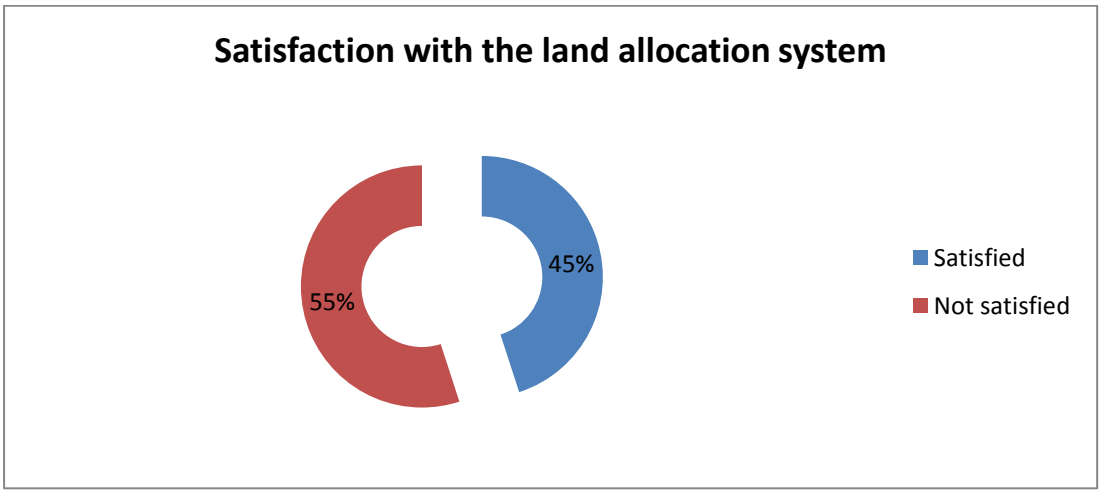
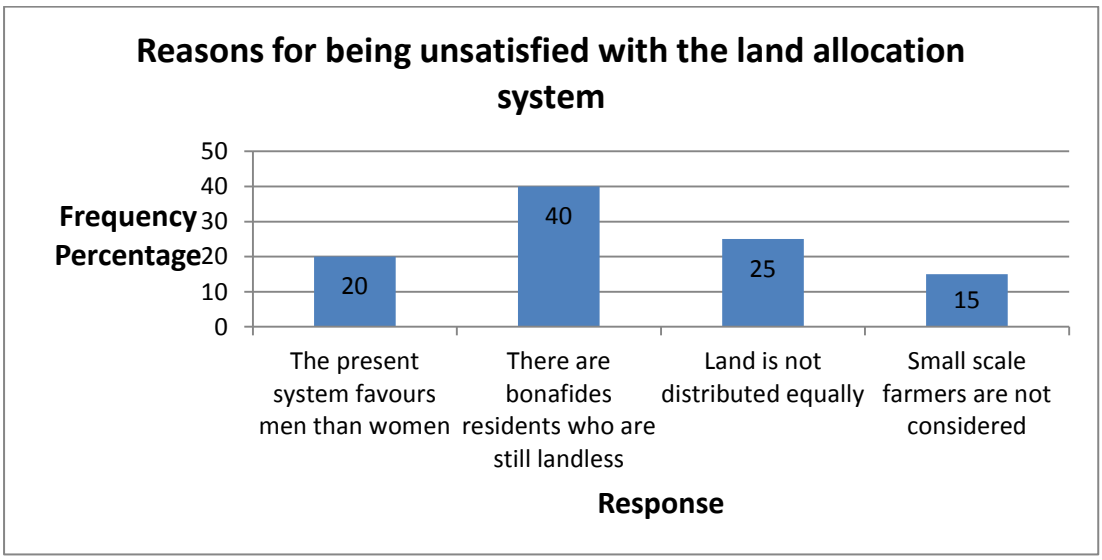


Figure 4.14 above indicates that only 45% of the informants confirmed to be satisfied with the current system of the allocation of land. These informants also confirmed that they do own land although it is not enough but are just greatful that they are among people who own land as they see that this is a very sensitive and difficult issue in the entire location. The figure above also indicates 55% of the informants are not satisfied with the present allocation system of land. Among these informants, the majority of them are single women.

IFAD (2008) confirms that land issues affect everyday choices and prospects of poor rural women and men. Land access and tenure security influence decisions on the nature of crops grown whether for subsistence or commercial purposes. They influence the extent to which farmers are prepared to invest in improvements in production, sustainable management, and adoption of new technologies and promising innovations. Success of future endeavours to promote new agricultural technologies for climate change mitigation and or adaptation will be predicated by the security of tenure. Land also acts as collateral and thereby influences people's access to financial services and their capacity to take advantage of markets.

Figure 4.15: Reasons for being unsatisfied with the land allocation system



Different reasons were stated when the informants were asked why they are not satisfied with the present land allocation system. Figure 4.15 shows that 30% of the informants pointed out that the present system favours men over women. This maybe be posed by the fact that women at Ethembeni only access land if they are married and they gain land titles when their husbands pass away. 40% of the informants stated that they are not happy because they are bonafides residents of Ethembeni who are still landles, these informants believed that if you belong in the certain area, regadless of being poor or rich, literate or illiterate, you are entitled to a portion of land for farming. 25% stated that land is not distributed equally among the residents, the reason behind this quiry is that there are people who own three mogen of land while others are given only one or none. One informant stated that the people who have more land than others were *izibonda* (headmen) in the olden days or were their relatives. Fifteen percent is concerned that the present allocation system should at least consider those who have interest in farming. They are of the opinion that small scale farmers end up in joint community projects because they cannot have access to their own land.

4.7.7 Labour Migration

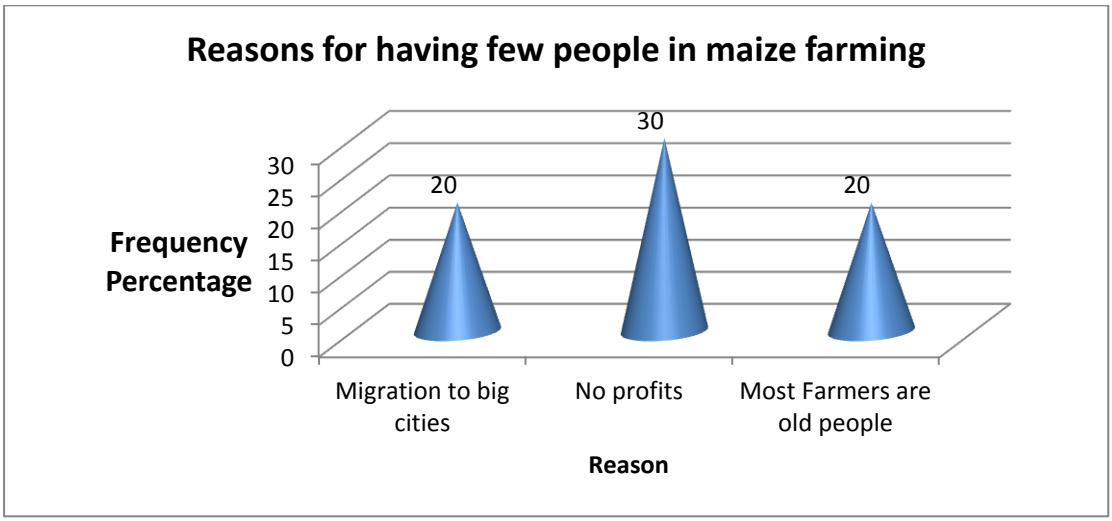
Resident migrating to the big cities is another aspect which contributes to the decline of maize production in the study area. Migration did not only play a role in the decline of maize production in the study area but also to weakning of social bond because young wives are left alone to take care of children and farms while their husband work for money aroun urban areas of South Africa. This was also noticed by Writh (1996;1998) that urbanism results to weakning of social bonds of kinship, the declining social significance of the family and disappearance of neighbourhood[40]. However, Du Toit and Safa (1975) had a different view in Latin America in the 1970's, they have found that migration has been selective that a substaintial propartion of the migrants are young and innovative and that of these young people who turn to move in greater numbers to the big cities are the women.

Figure 4.8 explained the gender distribution of informants and it showed that the majority of farmers at Ethembeni location are women. Informants confirmed that one

[40] Bank, L.J. (2011). *Home space, street styles: Contesting power and identity in a South African city*

of the factors of the shortage of labour in the farms is labor migration. Nowadays, people prefer cash labour than working on the farms and in this case, women seem to be the ones who stay at home and do the farming since they initially have to take care of children and household materials. Labour migration is not only a constraint to the development of agriculture but is also a social and physical risk. Komanisi (2007) raised that, although labour migration is economically necessary, it has social and physical risks which might include labour migrants to abscond and be lost for ever to their people and dangers of rock falls in the mines. The absence of men in their households results into a large number of female headed households in the rural areas where more women are left behind to do much of the farm work as paid or unpaid family labour. Figure 4.16 below explains why there are only few people participating in maize production in the study area.

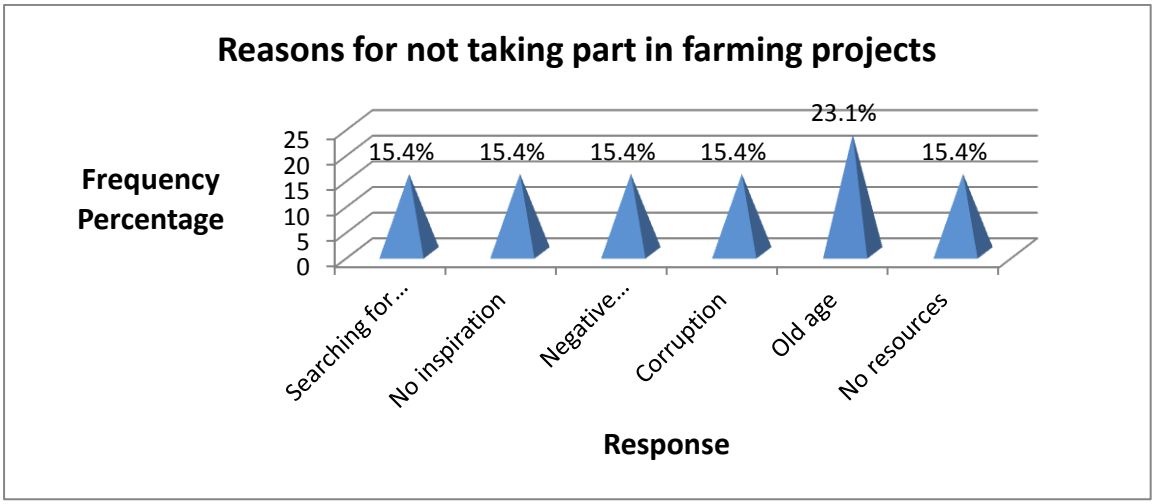
Figure 4.16 Reasons for having few people participating in maize farming



The figure 4.17 below state some of the reasons stated by informants why there are few people participating in maize production and the results shows that migration to big cities for cash income is one of the reasons because there are few young people who reside in the rural areas nowadays. Onother reason was because there in no profit in maize production or rather farmers are not paid and the youth of today need cash as lots of things like education, house, car etc need cash. Lastly, most farmers are old people so the production is likely to suffer as this group is not exposed to education and technology to improve their crops. The farmers were asked again what

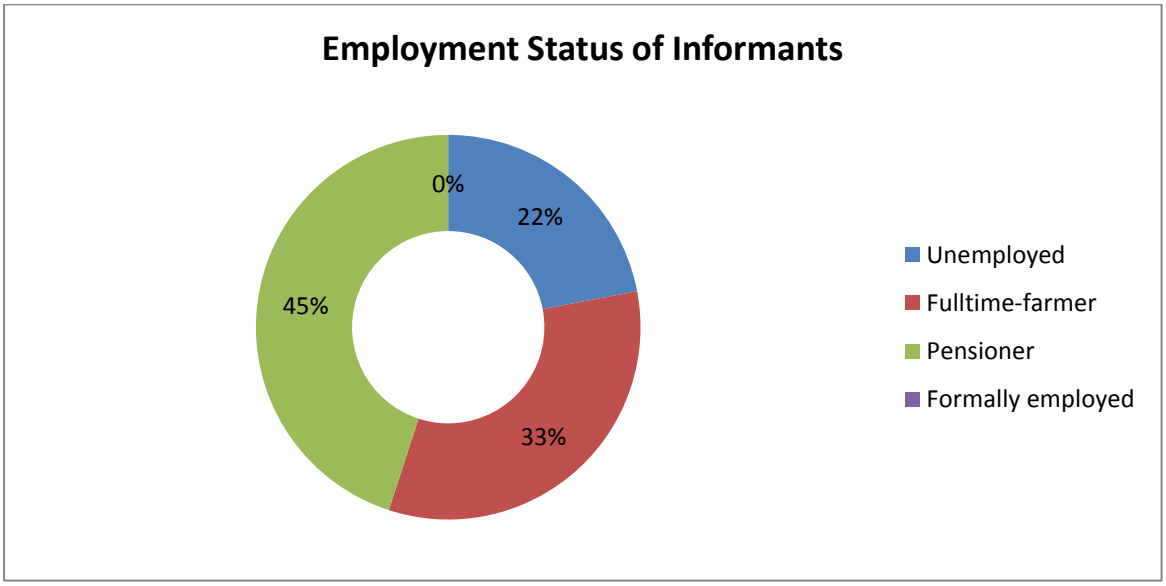
might cause people to be discouraged not to participate in maize farming projects. Figure 4.17 speculate the reasons according to the feedback given by the informants.

Figure 4.17 Reasons for not taking part in maize farming projects



4.7.8 Household Economy

Figure 4.18: Employment Status of Informants



According to the Department of Social Development (2009), access to economic opportunities is more likely to determine the wellbeing of a household as compared to the educational attainment of the household head[41].The employment status of the

[41]See: Draft conceptual framework towards poverty eradication in the Eastern Cape by Department of Social Development, 2009 [Online] Available from: www.socdev.ecprov.gov.za

informants was assessed to find out if the informants were likely to face constraints of access to credit and farming resources. The majority (45%) of the farmers reported that they are pensioners. 33% of the informants were comprised of fulltime farmers and they reported that they practice farming as their major economic activity. Only 22% of the informants revealed that they were unemployed and there were no informants who reported to be formally employed. However, findings of this study reveal that there is a lack of economic opportunities in the area and community members are engaged in crop production for subsistence purposes. Informants were also asked if they do possess farming skills especially for the production of maize and in figure 4.19 the results are outlined.

4.7.9 Possession of farming skills, Maize production and Beliefs & customs in agriculture

Figure 4.19: Possession of farming skills

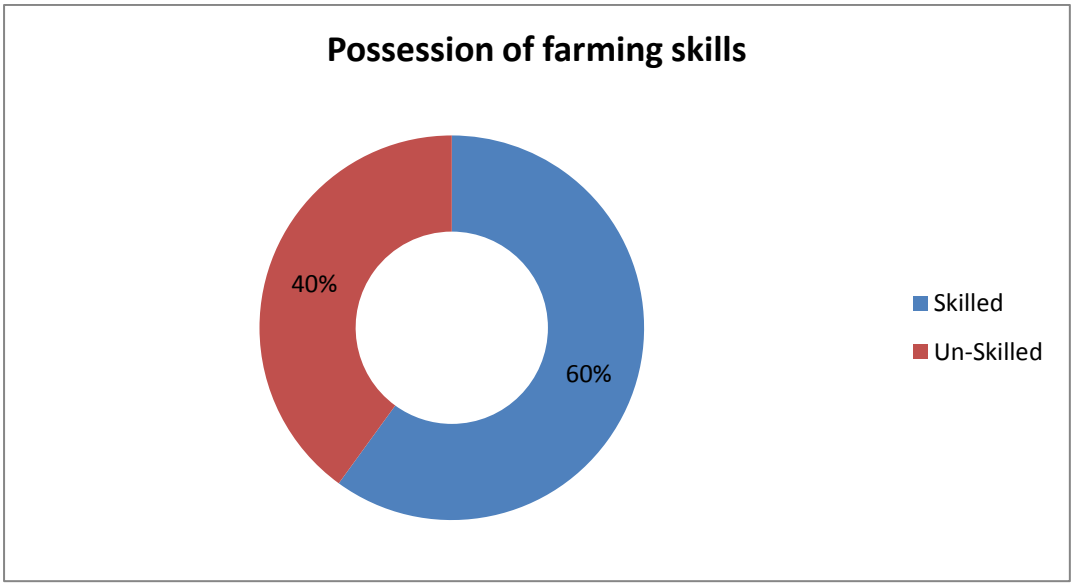
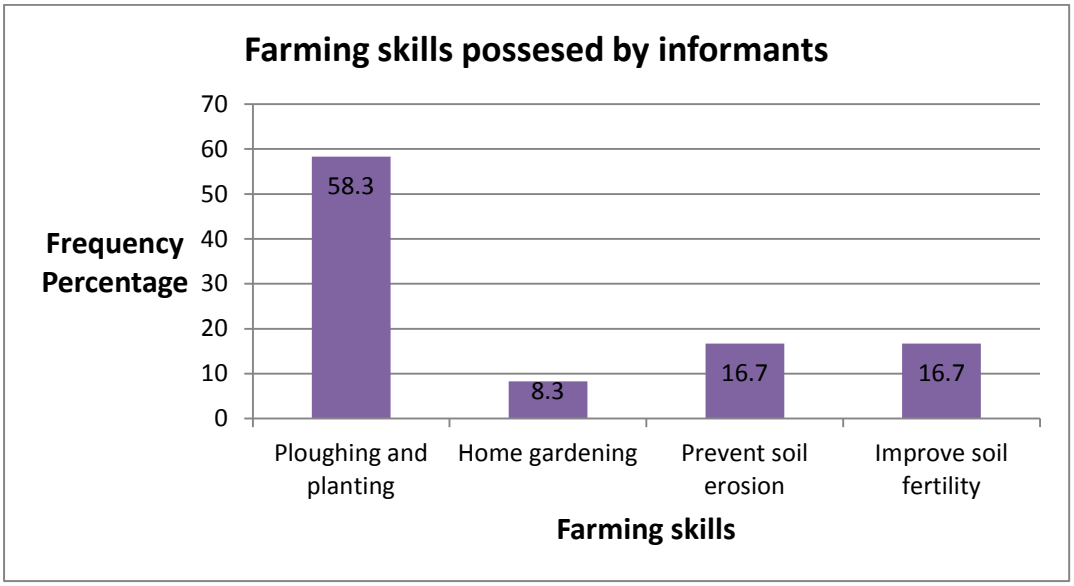


Figure 4.19 above indicates that 60% of the informants do possess farming skills while 40% confirmed that they do not have any farming skills but they practice farming according to what they are told by other experienced farmers. Forty percent is quiet a large number to lack skills in farming and this is likely to result in the crop failure. Negota (1990) and Nicholson (1989) quoted by Kepe (1992) also reported that in South Africa, researchers agree that there is a serious shortage of farm management skills among the black farming community. Similarly Fraser (1991) found that the

marketing system itself was not a major limiting factor to agricultural development in Ciskei. Other socio-economic factors which may be the basis for such skills as decision making, planning and so forth, appear to be more limiting. The low level of education of many farmers in the homelands is one of the major factors that lower the quality of their labour input.

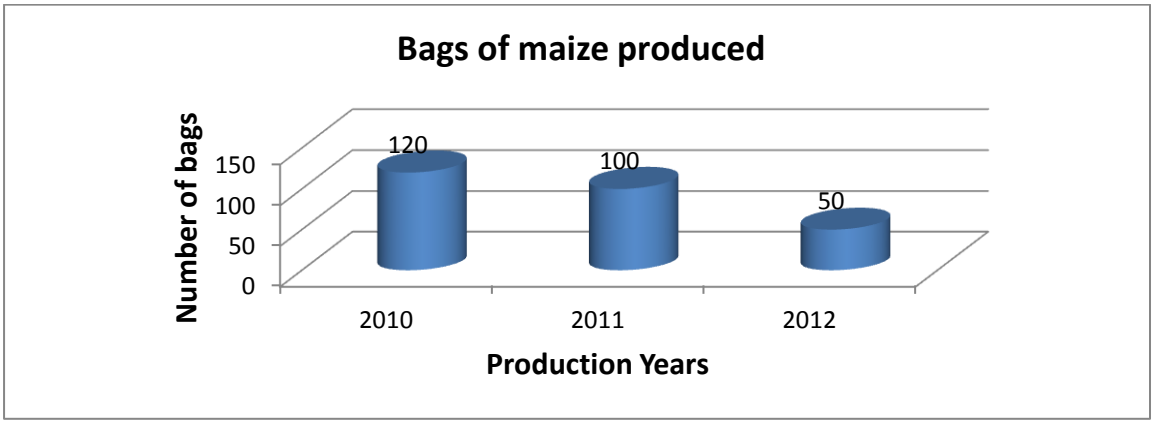
Famers were also asked to list the outstanding farming skills they possess and the following figure explains in detail what was gathered.

Figure 4.20 Farming Skills



Ploughing and planting (58%), home gardening (8.3%), prevention of soil erosion (16.7), and improvement of soil fertility (16.7) have been mentioned as the outstanding farming skills possessed by the informants.

Figure 4.21 Maize production in the study area



According to the findings of this study, the maize production has declined in the last three years. Although informants agreed that they have not been accurate in calculating the production over the years, they have speculated that as much as they remember in the year 2010 they managed to produce about 120 bags of maize as a result they sold about seventy bags of maize to the local shop and gained profit and they were left with some for home consumption. In 2011, the production reduced to 100 but they were not worried that much because they still sold fifty bags to the local shop and the real problem started heating in 2012 when they only produced fifty bags which they were forced to take home. One informant stated that except other socio-cultural constraints that have been mentioned in the study, the year 2012 was characterized with drought as a result they planted late and had to harvest early because the cattle were destroying their fields. The researcher also witnessed this because by the time they were harvesting in 2012, it was April and the researcher was already gathering data for this study. Every farmer was called upon to see the damage that was made by the cattle, it was Sunday morning but they felt that the cows were never going to stop so they were forced to start harvesting. The incidence is captured in figure 4.22 below:

Figure 4.22: Cattle Destroying the Maize Crop

Source: By the researcher, April 2012

During the past five years the total production of maize in the various provinces has experienced substantial fluctuations in all the maize producing provinces. Free State, Mpumalanga and North West provinces have consistently been the major producers of maize in the country[42].

The key informants of Ethembeni have highlighted that their maize production is far backward than other surrounding areas in Ezeleni, which specialize in maize, therefore they suggested that the researcher meet with one of the successful maize farmers in the area to detect the difference between their production. She therefore interviewed one member of the Majali project in Peelton and found that there was a huge difference in their production than the farmers of Ethembeni. The chairperson of the Majali maize project confirmed that their production has been booming but between the years 2010 and 2012 they also experienced a decline in their production. Sadly, the secretary of the project was reluctant to give me detailed information on their production over these years as she felt like the information was confidential and could only be revealed to government officials. However, Masifunde Education and Development Project Trust (2010) pointed out that this project had made great impact

[42] See Maize Market Value Chain Profile, 2011/2012 Department of Agriculture, Forestry and Fisheries.

in the year 2006, but eventually the production dropped. It pointed out that the farmers harvested 2120 bags (in 2006), 1062 (in 2007) and 1800 bags (in 2008). During harvesting each member was allowed to take home ten bags. The farmers were able to continue producing, despite the drought in 2006 and 2007, as their area is a wetland and the fertilisers used helped to see them through that period.

In the researcher's observation, this project also had members who have personal characteristics like age, gender, and illiteracy which may be constraints in their production. However, this project has almost all the resources to improve their production as it is one of the MFPP beneficiaries. The farmers of Ethembeni location can learn a lot from these farmers starting from the techniques they are using to network with government officials for help with resources.

Farmers at Ethembeni were also asked if they believe that traditional beliefs and customs play a role in agriculture in the study area and the majority of informants (80%) thought that beliefs do play a role in agriculture because the farmers of Ethembeni are characterized with old age which comes with high possibilities of the present of stereotype personalities who would like to remain using old methods of farming. Most farmers are illiterate so it is difficult for them to easily adopt new styles of farming. However, 20 percent of the informants thought that beliefs and customs do not play a role in agriculture. This group of farmers believed that at least some of the farmers are flexible enough to adapt to new technology which might improve maize farming, they emphasized that among these farmers are old people who used to work in the cities. They later rejoined the village farmers after they retired.

Below in figure 4.23 are the results of the information collected from the whole sample.

Figure 4.23: Beliefs and Customs in Agriculture

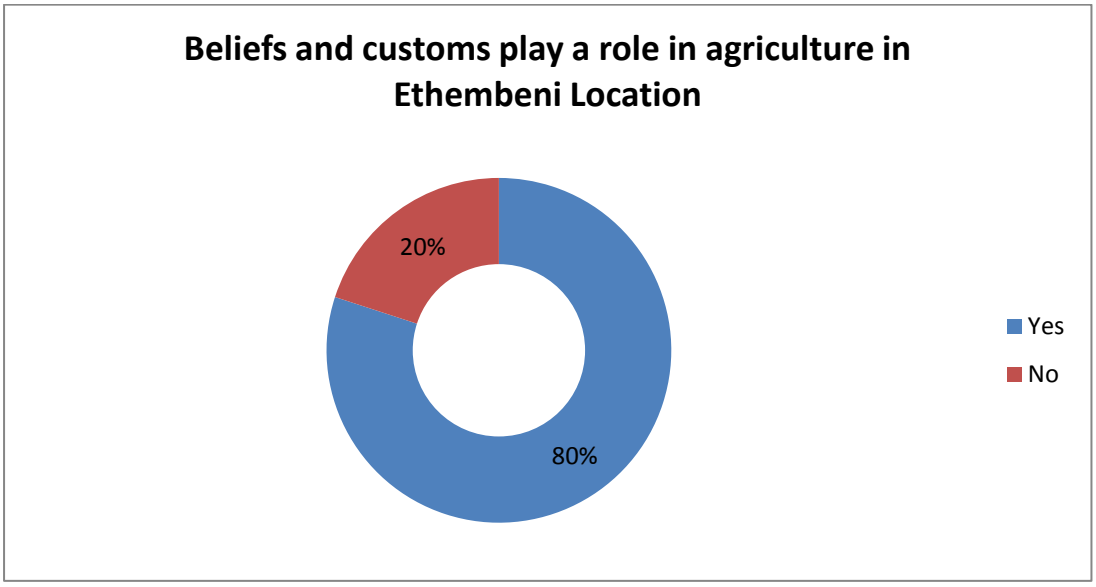
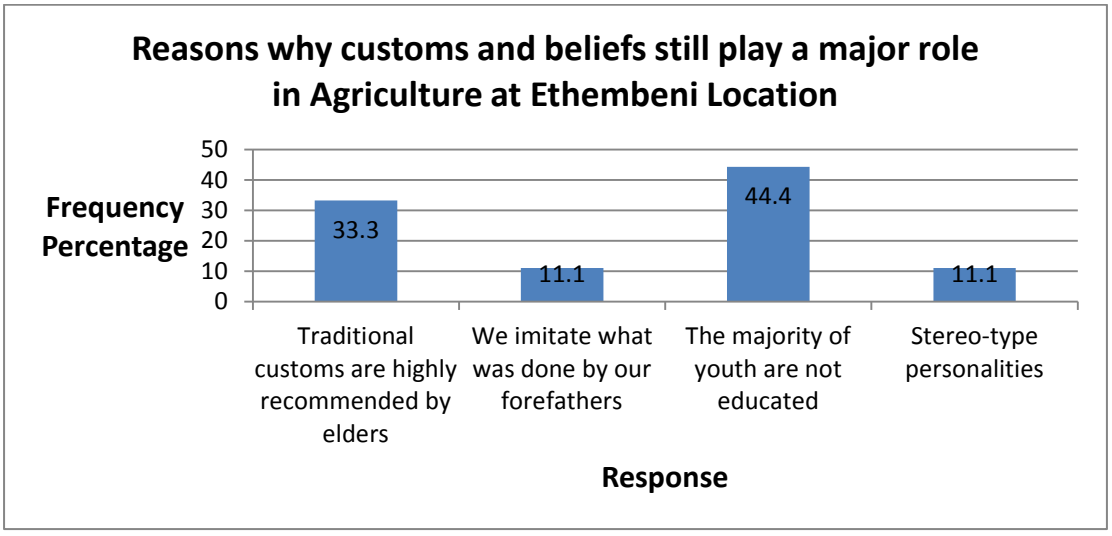


Figure 4.24: Reasons Why Customs and Beliefs Still Play a Role in Agriculture



All the informants pointed out the reasons why customs and beliefs still play a role in agriculture in Ethembeni location. Thirty three point three percent of the informants pointed out that traditional customs are highly recommended by old people and as the farming system is dominated by old people, they are more likely to operate with their old methods of farming and expect everyone to do the same. Eleven point one percent of the informants agreed that they imitate what was done by their forefathers and they still believe that their methods are still working. Forty four point four percent of the

informants seemed to be concerned about the high rate of illiteracy of youth among farmers and in the village. They pointed out that the majority of youth in the village is not educated, as a result they do not have passion or drive to see possibilities of prosperity through agriculture, they see agriculture as something done by the poor and elderly people. Another eleven point one percent of informants mentioned the issue of stereotype personalities among farmers, they argued that if red Xhosa people had a belief about something, it is not easy for them to change and that what is happening in the location, people turn to hold on to beliefs such as if their ancestors are angry with them, their crops will suffer.

The effects of these characteristics on maize production were also outlined in which personal experiences of the informants were also shared. During the research, the informants illustrated that the personal characteristics such as gender, age, household size, marital status, the level of education have influence on maize production in Ethembeni location. This is because the human element is a key factor in agricultural development because of its importance in the decision making process. Socio-economic factors such as land tenure, labour migration, and household economy were also outlined in this chapter, according to the information given by the informants; these factors appeared to take major part in limiting maize production in the study area. Possession of farming skills were also evaluated and it appeared that a large number of farmers (40%) in the study areas were unskilled, which posed a threat in the outcome of production. The chapter also outlined that maize production in the study between the year 2010 and 2012 and it was marked that maize production has declined between these years. Informants have stated that except socio-cultural constraints like the issue of land tenure, illiteracy, labour migration, family size, age, and marital status that have been mentioned in the study, the year 2012 was characterized with drought as a result they planted late and had to harvest early because the livestock were destroying their fields. Beliefs and customs also appeared to take part in maize production as the farmers were characterized by old, illiterate farmers who preferred to stick to their traditional methods of production because of a lack of information on how to get help in improving their production.

4.8 Conclusion

This chapter pointed out historical, socio-cultural orientation and the characteristics of the study population that were identified in the study as factors underpinning maize production. It described clearly the location of the study area, early history which started from the arrival in the study area to socio-cultural identity and emergence of agricultural practices. Regardless of the mentioned constraints to maize farming Ethembeni Location, it has been found that historically, the majority of farmers in Ethembeni are traditional oriented people who are passionate about agriculture and who are keen to learn more if they can be given a chance.

Chapter Five: The Conclusion

5.1 Introduction

This chapter provides a summary of findings and conclusions, suggestion for further research, implications for existing theory, reflection on research and recommendations for implementation. Conclusions presented in this chapter are deduced from the dissertation as a whole.

5.2 Summary of Findings and Conclusions

This study sought to investigate to what extent socio-cultural factors influence the decline of maize production in Ethembeni location, King William's Town, in the Eastern Cape. It endeavoured to accomplish the following objectives:

- To examine the effect of land tenure on the decline of maize production in the study area;
- To explore the role of education in the decline of maize production in the study area
- To illustrate the contribution that the lack of credit makes to the decline of maize production in the study area
- To examine the significance of labour for maize production at Ethembeni location
- A final objective in the study is to suggest ways of overcoming the identified barriers to develop maize production practices.

The information that is generated directly from the farmers shows that the production of maize in the study area has declined because of socio-cultural factors. It is clear that farmers are culturally rooted in applying the same methods of cultivation that are no longer effective or that need improvement. Just like in many parts of South Africa, maize in Ethembeni is the most important grain crop, and it is both the major feed grain and the staple food for the majority of the study area. Therefore, it is ideal to mention that most solutions that can be applied need to have a multi-sectoral approach in order to address the social, cultural, economic, and environmental challenges that are facing smallholder farmers.

5.3 Socio-cultural Status of Informants

5.3.1 Gender

It is noted in the study that the majority of informants participating in agricultural practices are women. Traditionally, women are expected to stay at home for child bearing, household maintenance and in most cases when their husbands abscond in the cities, they also have a responsibility of providing food for their children. Evidently, there are serious constraints which militate against the promotion of an effective role for women in the development in those societies which were bound by age-old traditions and beliefs. Patriarchal modes and practices motivated by cultures and or interpretations of religious sanctions and illiteracy hinder women's freedom to opt for various choices to assert greater mobility in social interactions. Resulting from these situations, women's contribution to agriculture and other sectors in the economy remain concealed and unaccounted for in monitoring economic performance measurement. Consequently, they are generally invisible in plans and programmes. They were, in fact, discriminated against by stereotypes which restrict them to a reproductive role, and denied access to resources which could eventually enhance their social and economic contribution to society.

Most men in the study area left their homes to work in bigger cities like Cape Town, Port Elizabeth, Gauteng etc. In this situation women are left to be household heads that have to find means to provide for the family. Other women are widows and they have no choice but to take care of the children. If women in this study area were given a chance to have land of their own, they would have made good farmers with knowledge and information but because of the traditional perceptions they remain under the rule of men. It is stated elsewhere in the study that lot of people, when they think of a successful farmer, usually think of a man because traditionally men are seen as more constructive thinkers than women, and they are the legal heads of their families so women are subjected to submit to their husbands and work under them. However, women farmers play a huge role in producing the world's food.

5.3.2 Age

Fieldwork evidence indicates that the majority of people participating in agriculture practices are old people. According to the findings of this study, there is a perception among youth that farming is something for old people and this poses a major problem because these same old peolple are illiterate, which makes it difficult for them to seek information on how to adopt new technologies used nowadays to help with the increase of maize production. Sometimes old people get sick for a long time and in that situation the crops in the field are suffering because there is no one to take care of them. Another reason for the majority of old people in farming in the study area is the effect of migration, youth seem to be obsessed to work in the big cities where it is believed that there is lot of money, rather than working hard in the farms. The large number of old people in farming sometimes causes a problem in adopting new techniques to develop maize farming as they are illiterate and are traditionalists that are reluctant to adapt to change. Nowadays people prefer to buy food from the shops although there is also a major problem of unemployment which may lead to them not to have money to buy food.

5.3.3 Household Size

It became clear during the research that households with a few members suffer to maintain their farms. The farmers who had fewer members in their households agreed that their crops suffer because of the lack of family labour. They claimed to be unemployed and could not cultivate a big farm as in the olden days for they cannot afford to hire paid labour. However, those who had more than seven members confirmed that their production had improved because they work together in the farm and they are able to network with other people for help.

5.3.4 Marital Status and Land Tenure

Marital status seems to influence maize production in the study area because the majority of people participating in maize production practices are married and they are women. This is because these women feel that they have a responsibility of providing for their children in the absence of their husbands. Few single (25%) women have

interest in participating in maize production. They stated that they do not have arable land or resources to support them. This is usually caused by the traditional laws of land inheritance, and single women do not have access to land in the study area. It is clear that the people of Ethembeni location struggle to get land for farming because of the cultural beliefs and values that they hold. Women cannot have land because they are single, and are unable to look after the land of their own.

The argument the researcher develops on the basis of research is that maize farming in the study area cannot be sustained successfully if there are still laws and cultural beliefs that restrict women from the access of land. The more danger that puts sustainability of maize production at stake is that these poor people end up moving to urban areas to work in the shops in town, or become domestic workers or sell vegetables on the markets/stands instead of farming their own land and making business.

5.3.5 Level of Education

The findings of the study proved that education plays a significant role in maize production. Sustainable agriculture practices are highly complex. Thus, adopting them imposes a need for increased learning. The lack of information about maize production practices is often regarded as a barrier to sustainable agriculture. Some of the farmers in the study area are resistant, and do not want to change their old way of farming and are not exposed either to new system of ploughing which includes using planter machines and fertilises to boost maize to grow faster and rich. The reason for this is that the majority of the members of a society lack education, therefore it is likely that more members will tend to hold on to their beliefs and superstitions even if they are no longer working for them. However, the informants lack knowledge and information as to how they can be better farmers. They also lack skills to improve their farming methods but seem to be willing to change their methods and apply the modern technology because they see that things have changed and need to be improved.

5.3.6 Access to Credit

Access to credit in the study area is still a dream for the farmers in the study area to develop successfully. This is because these farmers do not have knowledge as to how they can access credit other than waiting for the Department of Agriculture to fund them through the assistance of the local counsellor. Old people who are illiterate are afraid to go to the bank for loans because they have false perceptions about borrowing money from the bank. To them it is like they will pay the bank for the rest of their lives or may even become bankrupt in their personal accounts because of the debt. This is because they do not see themselves becoming commercial farmers; they are satisfied being subsistence farmers. However, the problem of access to credit in some cases goes with land access, without secure land rights, women and men farmers have little or no access to credit, which is essential for making investments in improved natural resources management and conservation practices.

5.3.7 Labour Migration

The majority of youth in the study area have migrated to the cities in search of employment therefore famers do not have enough labour for maize production. It can be concluded from the study that the majority of informants did not have sufficient labour for maize production. The availability of labour proved to be one of the most important determinants of maize production. However, in SA, women had to stay in the garden while their male counterparts were in the mines working for wages. The reason was that the black farmers in South Africa were severely undermined by apartheid practices as the apartheid-government sought to ensure cheap migrant labour while reducing the competition for white farmers.

5.3.8 Household Economy

The data collected during the investigation proves that the majority of farmers (45%) are government pensioners and they are household heads who have to take care of family utensils. This was perceived as a limiting factor in the production of maize because farmers are unable to buy enough resources to develop or sustain their crops.

5.3.9 Infrastructure Organization

Lack of infrastructure in the study area is one of the barriers to maize farming. The level of infrastructure in agricultural sector is one of the major factors that could explain the regional balances and imbalances in agricultural growth. According to the findings of the study transport in Ethembeni location seems to be a problem to the growing farmers in the present. Although public transport service is provided by individual owners who are residing and Ethembeni and Mbaxa location[43], for agricultural purposes, the farmers do not have their own tractor to plough and carry heavy loads, but rather when in need individual famers hire a tractor which costs R1800 per morgen from other local farmers in the surrounding areas like Mbaxa location. The local bus service operates in the mornings and afternoons; these buses belong to some residents of in the study area. However, the road is made up of gravel, there are a number of streets and there is in no railway line, pedestrian facilities, traffic lights or road signs.

The study revealed that there is one clinic in the study area. The health facilities serving Ethembeni Clinic is Bhisho and Grey Hospital. For educational facilities there are two Pre-primary schools, four Lower and Higher Primary and one Senior Secondary School which starts from grade 8 to 12.

There are no community centres, like public libraries and general entertainment facilities. The source of information is the schools and elderly people. School halls and churches are used for gatherings or meetings. For commercial services there is one general dealer shop and two spaza shops. For banking, post and shopping malls villagers go to King William's Town and Stutterheim. Sporting activities are mainly soccer, rugby and netball.

5.3.10 Human Factor in Agriculture

Eighty percent of informants agreed that beliefs and customs play a role in agriculture at Ethembeni location. Other farmers always farm in a certain way and they are unwilling to change because they are saying that they learned from their forefathers. As shown in chapter five, 47% of single women farmers could not access land

[43] See Figure 4.2 Map of Ethembeni location

therefore land ownership, access to other productive resources and the organization of maize production are influenced by cultural practices and traditions. For an example, rules of land inheritance (by lineage, gender and/or other culturally determined characteristics) are core determinants of effective access to land. Cultural aspects are thus of central importance for the understanding and devising of appropriate interventions in agriculture, food security and rural development.

5.4 Suggestion for Further Research

- Further research needs to be done on determining how to engage youth in maize production. With regard to social challenges such labour migration (which was observed to be one of the constraints in maize farming during the research).
- Urgent attention by relevant stakeholders and communities themselves need to pay attention to youth and formulate intervention strategies to deal with them.
- Amahlathi municipality should join hands with NGO's and other initiatives to combat illiteracy among black farmers.
- Further research needs to be done on ways of teaching rural farmers skills on farm management and marketing.
- Government policy makers should be made aware of the financial and social needs of small scale farmers in rural areas.

5.5 Implications for Existing Theory

This study is framed and guided by the **Agrarian and Mordenisation Theory**. Collier's Dictionary (1986) defines agrarianism as doctrine advocating the equal distribution of land. It further explains that the word agrarian means the concern of land and its cultivation. Agrarian theory is relating to or concerning the land and its ownership, cultivation, and tenure. It involves agricultural or rural matters, intended to further agricultural interests. "Agrarianism, broadly conceived, reaches beyond food production and rural living to include a wide constellation of ideas, loyalties sentiments and hopes. It is a temperament and a moral orientation as well as a suit of economic practices, all arising out of the insistent truth that people everywhere are part of the land community" (Freyfogle, 2011:xiii).

Modernisation theory was also important in this study in the sense that the content stresses the need for the people of Ethembeni to adapt to new technologies in order to improve and develop their agriculture

Both theories showed evidence and played a huge role in shaping this study; it has explicit features that have straight applicability to the study. These features include the land and its ownership, cultivation and agriculture or rural matters intended to further agricultural interests, shifting from traditional laws to State driven laws which are elite or education driven, importance have been emphasized in modernization theory as it is believed to have a huge impact in the development and sustainability of agriculture. The argument in this study is that in Ethembeni location, the residents (especially women) suffer a lack of equal distribution of land and resources to sustain agricultural production particularly maize. Maize production in this area has been stifled due to socio-cultural factors.

This study has confirmed that the lack of resources, traditional laws of land allocation and the lack of education indeed play a role in the decline of maize farming in the study area.

5.6 Reflection on Research

At the beginning of the research in 2012, the researcher thought she would have enough time preparing for everything that was required in her research in time. However, when she started drafting an appropriate topic it was difficult because she had several topics that she wanted to explore and most of them dealing with things she had witnessed in the society she lives in.

In the process, she asked herself what is it that she is passionate about in life and she had realized in that she knew from the word go that she wanted to do something in relation to agriculture that would help people in the long run. She thought locating the information was going to be easy because of her accumulation of knowledge during her honours research, but it was not like that, she had to work extra hard. Books, news papers, journals, internet, thesis, all helped engage her exploration for research.

Spending the whole year on developing a water tight research proposal was a bit stressful at times. After performing in an unsatisfactory manner in the first presentation of the research proposal at Higher Degrees Committee of the faculty in September the researcher almost gave up hope to proceed with the study, but with the help from her supervisor, she managed to pull off and proceeded again. She experienced a lot of challenges like poor time management skills, which is a crucial aspect in motivating oneself to accomplish a goal. However, in the end she managed to achieve all the objectives of the research which included the following:

- Examining the effect of land tenure on the decline of maize production in the study area. **The informants have stated clearly that the lack of enough land does contribute to the decline of maize production. Farming in the study is dominated by women who are discriminated against in terms of the laws on accessing land of their own.**
- To explore the role of education in the decline of maize production in the study area. This objective is also achieved in this study because the findings clearly **state that the farmers in the study area lack education leads to the farmers not being able to access information and as a result they lack skills required to apply to help with the production of maize.**
- To illustrate the contribution that the lack of credit makes to the decline of maize production in the study area. Informants in the study area never had access to credit of any nature and they complain about the lack of resources to help sustain their farming. Lack of credit goes with the lack of land tenure and the lack of information as to how they can improve their situation. The findings show **that single women lack legal access to land and therefore cannot have access to credit.**
- To examine the significance of labour for maize production in Ethembeni location. Labour power plays a role in the production of maize in the study area because they plant using hoes and their hands. However, the findings show that migration played a huge role in decreasing labour power among rural farmers because the present farmers are old and cannot avail themselves throughout the whole process of cultivation due to poor health. The majority of youth in the study area migrate to the big cities to look for salary jobs, as a result there is a lack of labour power to perform in the farms.

The overall aim of the study was to **investigate to what extent socio-cultural factors influence the decline of maize production in the study area**. It was also achieved because in the findings, it appears that not only land tenure, access to credit, migrant labour and education that contribute to the decline of maize farming, but there are other socio-cultural and environmental factors which are constraints which include climate change and the development and maintenance of infrastructure. Other social aspects like age, marital status, household size, and household economy were also discovered in this study.

Using participant observation has positive methodological advantages to get the best possible information (Andreatta and Ferraro 2013). This research tool provided ways to check for non-verbal expression of feelings, determine who interacts with whom, grasp how participants communicate with each other, and checks for how much time is spent on various activities during cultivation. Participant observation allowed the researcher to check the definitions of terms that participants use in interviews, observe events that informants may be unable or unwilling to share when doing so would be impolite, or insensitive, and observe situations informants have described in interviews, thereby making them aware of distortions or inaccuracies in description provided by those informants. It also allowed close interactions with the informants and some felt free to communicate.

However, this tool also has certain methodological problems that can jeopardize the quality of the information given by the informants (Andriatta and Ferraro Ibid). During fieldwork other informants were uncomfortable around me and others would change their behaviors in her presence, or even lie about what they believed and that put the research at the risk of being bias. The researcher preached it throughout the visitations that she was not a specialist, she was also there to learn and as time progressed she saw them loosenig up and they were happy when she asked them practical question as they regarded them as easy as they were dealing with them in their everyday lives. She told them that all the information they present to me is important for this study and my interest is to study their culture and their social problems to grow in the field she is studying.

5.7 Recommendations for Implementation

In view of the previous findings, the following recommendations are made:

- **Both women and men must be given the same opportunities to enrich themselves in agricultural production;**
- **There should be programmes offered by government departments like the Department of Agriculture or Department of Education to empower youth to participate in sustaining agriculture, especially the maize production programme, even in schools, teachers must teach the children how important it is to grow and sustain their own food without wasting any resources;**
- **The system of land ownership in the study area needs to be changed to accommodate single women to have access to land so as to maintain maize farming. The local leaders and government councillors should view the issue of land ownership seriously and grant women rights of land essential for sustainable agriculture because even those who are married gained access through marriage;**
- **Old people need to adapt to the new technology that come with education through workshops and trainings offered by the department of Agriculture;**
- **The people in the study area need to be given land rights and sufficient knowledge as to how they can develop further;**
- **A channel of communication needs to be developed among government officials and local famers so that famers can be assisted where possible;**
- **The current farmers need to be funded with a tractor and planter to make their farming easy and possible to grow bigger;**
- **The government should provide these public services to people; buildings of community halls, and renovation of the primary and high school;**
- **The government and other NGOs assist in the development of infrustructure in rural areas. Roads need to be developed for the farmers to be able to transport their produce to the markets in town.**

- **Agriculture in the study area can be developed by loosening up to traditional laws which are stated to be barriers and people need to be able to adapt to new changes;**
- **Youth need to be encouraged by both government and old people to take part in agriculture practices; and**
- **Government needs to create employment for youth and give those who are still schooling bursaries to further their studies in agriculture, so that they could come to their communities and enlighten others.**

5.8 Conclusion

The study investigated socio-cultural factors underpinning maize farming. As evidenced from the findings of the study it is clear that maize is the staple food for most rural communities. The main conclusion that should emerge from this study is that illiteracy, the lack of land tenure; labour migration, family size, and income contribute to the decline of maize production in Ethembeni location.

Furthermore, some of the challenges that are faced by the informants in adopting new agricultural practices are caused by their personal beliefs and values that have characterized their farming for many years. The previously mentioned recommendations can be used to address the socio-cultural factors interfering in maize production in Ethembeni and elsewhere in the country.

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Appendices

Appendix I

UNIVERSITY OF FORT HARE

Department of Sociology and Anthropology

Consent Form for a Research Undertaking

I am Nokonwaba May, Master of Social Science student from the Department of Sociology and Anthropology. I am conducting an academic study, which aims to investigate socio-cultural factors underpinning maize production in Ethembeni location. I kindly request you to assist me by answering questions that I need to ask you. The research is totally for academic purposes not for any illegal purposes. Your participation and input will contribute greatly to the body of knowledge which may be used for any subsequent development initiatives aimed empowering and understanding rural women's need in development.

Researcher's signature: .....

Date: .....

Informant's signature: .....

Date: .....

Appendix II

Questionnaire

---

1. Demographic Information

Please tick with an "X" on the following questions

1.1 What is your gender Male ☐ Female ☐

1.2 What is your age? I am……old

1.3 What is your ethnic group? Xhosa ☐ Coloured ☐ Other …….. ☐

1.4 What is your nationality? South African ☐ Other (Specify) ☐

……..

1.5 What is your marital status? Married ☐ Single ☐ Widowed ☐ Divorced ☐

2. Place of Birth, Previous Placeof Residence

2.1. Where were you born? ……..

2.2. Have you lived elsewhere? Yes ☐ No ☐

2.3. If you answered "Yes" below, state where……..

3. Household Size

3.1 How many people in your household?.....

3.2 Does your family participate in the process of maize farming? Yes ☐o ☐

3.3 If you answered 'yes', what and how is the involvement of the family members helping with the process?

……

……

……

……

……

3.4 If you answered 'no', please explain what are the challenges that you face when you work alone and how do you manage or how do you get labour to help?

……

……

……

……

3.5 Who is the head of your household? ……..

3.6 How do you divide labour in your household?

……

……

……

3.7 To what extent does household size have an impact on maize during the process of production

……..

……

……

……

……

3.8 How many employed members in your home?.....

4. <u>Ownership of Land</u>

4.1 Do you own land for farming? Yes ☐ No ☐

4.2 If "Yes" please state how did you gain access to the land……

4.3 If you answered "No" to question 4.1, please state why?

……

……

……

4.4 Would you like to own land by title deed? Yes ☐ No ☐

4.5 If "No" why?.....

4.6 Are you happy with the present system of land allocation/tenure? Yes ☐ No ☐

4.7 If "No" what do you suggest should be done to improve the system?.....
.....
……
……

4.8 Do you think land ownership contribute to the decline of maize production in your location? Please explain
……
.....

4.9 Is the soil of your farm/garden/field fertile? Yes ☐ No ☐

4.10 If yes, what are you using to improve it?
……
……..

4.11 Degradation of fertile soil is a constraint to loss in maize production. Have your soil fertility degraded on the past few years? Yes ☐ No ☐

4.12 If you answered 'Yes' above, please explain how did you overcome it. I you answered 'No' please explain how did you maintain your soil over the years
……
……
……
……
……

4.13 Do you have any technical farming expertise? Yes ☐ No ☐

4.14 If you answered 'Yes', please specify which farming expertise do you have
……
……
……

4.15 How many hectares do you own?
Less than one hectare ☐ More than one hectare ☐

4.16 Do you harvest what you have expected yearly? Yes ☐ No ☐

4.17 If 'Yes', how much do you harvest per year?
……
……

4.18 How often do you harvest what you have expected?

……

……

4.19 How important is maize in your farming and why?

……

……

……

4.20 What do you use maize farming for?

……

……

……

4.21 How important is land for farming in the lives of the people in your village and why?

……

……

……

4.22 Do you have any problem accessing enough land for farming? Yes ☐ No ☐

4.23 If you answered 'Yes', please explain what puts pressure on land in your village?

……

……

……

4.24 How do tenure issues affect your life/choices?

……

……

4.25 To what extent does land tenure (communal/private) affect maize production in your location?

……

……

……

5. EDUCATION

5.1 What is your level of education? Primary ☐ Secondary ☐ Other……

5.2 Do you think education play a role in sustaining maize farming? Yes ☐ No ☐

5.3 If "Yes" Why?.....

5.4 If "No" Why?.....

5.5 Do you have any skill (s) of farming? Yes ☐ No ☐

5.6 If "Yes" what skill (s) do you have and how did you obtain them?

.....

.....

5.7 Does education play a role in an attempt to prevent loss of local/indigenous knowledge of food crops? Yes ☐ No ☐

5.8 If you answered 'Yes', please explain how?

.....

.....

.....

5.9 Does the number schooling reflect the impact on farm size in maize crop in your village? Yes ☐ No ☐

5.10 Are the local farmers willing to change if they are convinced to paradigm shift? Yes ☐ No ☐

5.11 To what extent does education has impact on maize production in Ethembeni location?

.....

.....

.....

6. ACCESS TO CREDIT

6.1 Do you or have you ever had any credit/funding offered to you for your farmer or project? Yes ☐ No ☐

6.2 If "No" What are the challenges of accessing credit/fund?

.....

.....

.....

6.3 If "Yes" how did you gain credit/funding?.....

6.4 Who is funding of you?.....

6.5 Are you happy with the funding that is given to you, if not why?

.....

.....

6.6 To what extent does credit affect maize production in Ethembeni location?

……

……

……

7. Labour Migration

"In the last few decades, great changes have taken place in Southern Africa. Urbanization, migrant labour, great access to health care, education, a great effort to shift farmers from subsistence to cash-cropping, increased population pressures and environmental degradation have led to changes in the socio-cultural environment of many people"

7.13 How do the above mentioned factors have influenced the local/indigenous knowledge base of maize farming in Ethembeni location?

……

……

……

7.14 How labour migration have impact on maize farming?

……

……

……

7.15 To what extent does rural urban migration has an impact on maize production in your area?

……

……

……

8. BELIEFS AND CUSTOMS

8.1 Do you think beliefs and customs play a role in maize production in your Location? Yes No ☐ ☐

8.2 If "Yes" Why?……

……

……

8.3 If “No” Why?.....

.....

.....

8.4 In your own view, what are the other barriers to maize production in your community?

.....

.....

.....

.....

.....

.....

8.5 In your own view, what are the socio-cultural factors that may have influence on maize production in Ethembeni location?

.....

.....

.....

.....

.....

.....

.....

.....

.....

THANK YOU VERY MUCH FOR YOUR TIME AND EFFORT. YOUR PARTICIPATION IS VERY MUCH APPRECIATED!

Appendix III

Interview Schedule

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1. When did you come to Ethembeni Location to settle as a full resident?

   ……

2. Where were you coming from?
   ……
   ……
   ……
   ……
3. Why did you come here?
   ……
   ……
   ……
   ……
4. Please give a short history about people of Ethembeni Location, their customs, tradition, beliefs and values
   ……
   ……
   ……
   ……
   ……
   ……

THANK YOU VERY MUCH FOR YOUR TIME AND EFFORT. YOUR PARTICIPATION IS VERY MUCH APPRECIATED