University of Fort Hare

Together in Excellence

Factors affecting participation rates in farming in the rural areas of South Africa. Case of Amathole District Municipality.

BY

XOLISA ZAMXAKA

A THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS

FOR THE DEGREE OF MASTER IN AGRICULTURE

(AGRICULTURAL ECONOMICS)

SUPERVISOR: PROFESSOR A.OBI

UNIVERSITY OF FORT HARE, ALICE

2015

DEDICATION

To my family, friends and most of all to my Supervisor Professor A.Obi.

DECLARATION

I hereby certify that this dissertation is my own original work and has not previously been submitted to another university for the purpose of a degree. Where use has been made of the work of others, such work has been duly acknowledged in this text.

Signed …… Date: ……..

XOLISA ZAMXAKA (Student Number: 200801962)

I, **XOLISA ZAMXAKA,** student number **(200801962),** hereby declare that I am fully aware of the University of Fort Hare's policy on plagiarism and I have taken every precaution to comply with the regulations.

Signature: ……

I, **XOLISA ZAMXAKA,** student number **(200801962),** hereby declare that I am fully aware of the University of Fort Hare's policy on research ethics and I have taken every precaution to comply with the regulations. I have obtained an ethical clearance certificate from the University of Fort Hare's Research Ethics Committee and my reference number is the following:…….

Signature: ……

ACKNOWLEDGEMENTS

Thank you God for giving me the strength and courage to carry out this work. I extend my sincere and deep gratitude to my supervisor Professor A. Obi I appreciate your tireless efforts of guiding and supervision right from the commencement up to the end of this work.

I also thank my friends for their support and my fellow students who had made a tremendous contribution towards my work.

A word of appreciation is owed to all those who assisted me in terms of data collection, extension officers, farmers who gave their time to make contribution to this study especially My friends around the campus with the data analysis of this project. I also acknowledge the contributions of my research assistants during data collection for their time as well as sharing of secondary information which has gone unnoticed.

Without forgetting my family for their prayers and support for my studies to be a success.

I sincerely express my deepest gratitude to you all, Thank you

ABSTRACT

South Africa and the rest of developing countries are faced with poverty and poor rural development. Rural participation in agricultural activities is one of the components that can be used to address the poverty challenge facing the people residing in rural areas. The broad objective of this research is to determine factors affecting participation rate in farming in the rural areas of Amathole District Municipality of Eastern Cape. In this study stratified random sampling method was applied in order to choose a sample out of 30 households that were interviewed 13 people belonged to Participants and 17 people belonged to non-Participants. The results from this study show that women participate a lot in farming activities. The multiple regression model was used to test the participation rates of the people in Amathole region specifically Phumlani area. A number of variables were considered in this study to assess the impact of different variables on participation in farming activities. The results showed that about 57% of the respondents are not participating in farming while 43% of the respondents participate. The farming participants that were interviewed all claim that there is a lack in farming support in the area. When there is no support of any kind, rural people would not be motivated to start development projects on their own. Consequently, this lack of farming support in the Phumlani area may have an influence on the number of farming participants. Therefore, the lack of support in the area may serve as a motivation for non-participants not to be influenced to farm. Rural farming needs to be promoted amongst the youth so as to protect and sustain agricultural growth in rural areas. The study has discovered that the youth of Phumlani is not actively involved in farming activities. Government can provide community members with farming resources so as to promote farming in the area. It would be wiser for the government to provide physical farming resources and implements rather than cash grants.

Keywords: Amathole, Agriculture, Participants, Non-participants, Phumlani village, rural areas, Poverty, Farming.

LIST OF ACRONYMS AND ABBREVIATIONS

SA-	South Africa
DRDAR -	Department of Rural Development and Agrarian Reform
DAFF-	Department of Agriculture, Forestry and Fisheries
ADM -	Amathole District Municipality
CASP -	Comprehensive Agricultural Support programme
LRAD -	Land Redistribution for Agricultural Development Programme
DBSA-	Development Bank of Southern Africa
DFID-	Department for International Development
DLA-	Department of Land Affairs
DoA-	Department of Agriculture
FAO-	Food and Agricultural Organization
GDP-	Gross Domestic Product
IFAD-	International Fund for Agricultural Development
MDG-	Millennium Development Goals
SADC-	Southern African Development Community
SSA-	sub-Saharan Africa
UNDP-	United Nations Development Programme
USDA-	United States Department of Agriculture
WBO-	World Bank Organization
ALGAF-	Africa Local Government Action Forum

Table of Contents

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

1.1 Background of the study

Agriculture is the backbone of South Africa's economy (McConnell and Brue, 1990). Agricultural activities play a vital and important role in the economic development of the country and alleviation of poverty. The country is self-sufficient in food production but there are still a number of people who are vulnerable to food insecurity and suffer from poverty.

In total 43% of South Africa's people reside in rural areas, which amounts to roughly 22 million people. However, the country's population is not equally distributed over the provinces, and this impacts budget expenditure on rural development (infrastructural, social, and economic) per province (May and Govender, 1998).

South Africa's rural economic activities are primary based, meaning that the main form of economic activity involves the collection and utilization of natural resources, to this end agriculture- implying crop and cattle farming, as well as fishing- forms the basis of the rural economy (Babulo et al., 2009).

However, poverty is the greatest problem in these areas, and therefore this informs the type of agricultural activity practised by rural households. In South Africa almost 70% of ultra-poor households are located in rural areas. Of these many include pensioners who need to be supported above and beyond the two-generational family unit (Aliber, 2003).

The success of the average South African subsistence farmer's activities therefore hinges on available resources (labour in the form of family members, land, water, seeds, equipment, etc). Some of these factors are money-dependent (seed, for example must be bought, as must fertilizers and tools with which to farm), which further limits the impoverished farmer's farming capabilities (Lacroix and Thomas, 2011). In addition, the legacy of apartheid also plays a role in limiting food production in some provinces: In areas where the previously demarcated homelands were found (mostly in the Eastern Cape, Limpopo, North West Province and KwaZulu-Natal).Overuse of land leading to severe degradation was a natural outcome to

restricting 80 % of the country's population to around 12 % of the country's land and expecting these people to support themselves by farming (Cunneyworth and Pamela, 2001).

This situation forced black South African households to have at least one alternatively-employed family member to help support the family structure.

Today, even though the homelands no longer exist, many black South African families still remain in these regions and continue to build on the family traditions - and practise agriculture (Bob and Urmilla), 2001. By now, some areas have such poor soil condition that crop farming is almost impossible. The preferred type of agriculture, therefore, is cattle farming, which has its own set of advantages and disadvantages. Naturally, rural areas are dependent on economic activities other than agriculture, but these are mostly found in the rural villages and towns: Low- and high-order services and products are crucial to the survival of rural settlements and their contribution to the rural economy must be noted (McManus, et al., 2012).

Poverty is more pervasive in rural areas - the majority of poor households are found in rural areas. The rural sector is characterized by a high percentage of uneducated and unskilled individuals who lack access to education which could equip them with agricultural knowledge (Jolan and et al., 1999). Agriculture can play an important role in helping the rural households in sustaining themselves. But, many of the rural people consider rural-urban migration as the better solution for reducing rural poverty. They ignore the role of agriculture to the development of their rural area. According to Machethe (2004), agricultural production is the best vehicle to reduce rural poverty by providing most of the employment in rural areas. However, about 16 million people in South Africa rely on old age pensions, grants and migrant labour remittances for household survival (Woolard and Murray, 2013).

Although land may be available abundantly in rural areas, lack of farming skills and lack of the necessary drive and entrepreneurial spirit in the community members may be the obstacles and impediments to profitable farming (Beingessner and Ellen, 2013). It is usually old men who tend to undertake farming. Younger people are wary of subsistence farming because of no or low income returns.

The problem of poor infrastructure in rural areas is another issue that discourages people to participate in farming (Ellis and Frank, 2005). For example, due to a lack of an efficient extension service, they may face reductions in their crop yields.

1.2 Problem statement

At present most people living in rural areas depend on non-agricultural activities like social grants which are provided by government to sustain their livelihood (Butterbury and Simon, 2001). However there are governmental programmes and economic opportunities that are implemented in rural areas to encourage participation of people in farming and employment creation as a way of reducing poverty in rural areas specifically programmes in agriculture. These programmes include: Comprehensive Agricultural Support programme (CASP), Land Care Programme, Land Redistribution for Agricultural Development Programme (LRAD), Household Food Production, Food Security and Starter Packs, Irrigation, Rehabilitation and Development Programme (Greenberg and Stephen, 2010). Despite this significant array of Government agricultural support schemes there are still a considerable number of people who are without employment in the rural areas. This is because people in rural areas fail to grab the opportunities provided to them and also they fail to utilize all the available resources such as land which tend to be abundant in rural areas. Many people in rural areas remain poor and live in hunger as a result (Nel and Davies, 2002).

The community has the livestock but they keep them for traditional purposes. Large areas of land are used for livestock grazing and very few individuals use the land for crop planting. The greatest concern is that community members do not engage themselves in farming in order to provide food for their own consumption. Subsistence farming is of great assistance to hunger reduction, especially for rural people (Dovie et al., 2006).

In the 60's and 70's rural people used to produce food for themselves through agricultural activities. People living in rural areas never relied on the market to supply themselves with food, but today things have changed. Very few individuals are involved in food production for home consumption (Hall, 2004). This means that people are no longer involved in farming as they used to do in the 70's and 80's. This situation raises the questions as to why circumstances have

changed so drastically and what can be done to correct the situation. Therefore there is a need to identify factors affecting participation rate in farming in the rural areas.

To that extent, this study will investigate constraints preventing rural people from engaging in farming and emphasize more on what can be done to improve participation of people in farming in the rural areas especially the youth.

1.3 Objectives

The broad objective of this research is to determine factors affecting participation rate in farming in the rural areas of South Africa. More specifically, the study aims to:

- Determine the factors that prevent rural people from being active in farming and what cause them to migrate to big cities?
- Identify the critical success factors that prevailed in the days when people used to produce for themselves
- Seek ways of how government and nongovernmental organizations can assist in improving participation of rural people in agricultural activities.

1.4 Justification of the study

With the multitude of rural families migrating to cities either due to lack of opportunities in rural areas, or in search of better job opportunities, poverty in rural areas is increasing. Increasing agricultural growth may have a large positive impact on poverty. It is those individuals who do not migrate to cities for a better life that are at a disadvantage.

Therefore, a better solution to rural poverty reduction other than urban-migration is necessary. Rural people lack access to information, they are not aware of the many government-provided opportunities for disadvantaged communities. The main aim of this study is to enlighten the communities about the opportunities that are available for them. The slogan of the present government is “rise up and do it yourself”. The government only gives assistance to a community that shows desire and commitment to farming.

1.5 Outline of the study

The study consists of six chapters. The first chapter is the introduction which introduces the whole document and it entails the background of the study, problem statement, objectives, justification of the study and outline of the dissertation report. The second chapter covers the literature review. The third chapter focuses on the study area. Research methodology presented in the fourth chapter. In the fifth chapter results of the analysis are presented and discussed, while the final chapter is devoted to the conclusion and recommendations.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

A comprehensive review was carried out in this chapter to avail information on what could be the causes of rural people to participate or not in the farming activities, thus, this chapter firstly presents a general overview of the rural areas in South Africa. This chapter reviews factors that prevent rural people from being active in farming. It provides details of these factors which are: rural-urban migration, infrastructure in the rural areas, age difference, lack of finance, lack of motivation, education capacity of people living in rural areas and leadership. Lessons learnt from previous similar studies have also been reviewed in this chapter.

2.2 Overview of the rural areas in South Africa

In general, people living in rural areas are the most disadvantaged in terms of access to services, including education and training. A large number of older people in rural areas cannot read or write because they lack education whilst a high percentage of youth lack access to education (Chambers and Gordon, 1992). Therefore, it can be understood that, the rural sector is characterized by people who lack education and knowledge. In order for these people to start developing themselves, they need to be assisted, with education and information. The lack of education has resulted in high levels of unemployment in rural areas (Buve et al., 2002).

The levels of unemployment in rural areas are extremely high, such that many inhabitants rely on gifts, state pensions and migrant labour remittances for household survival. Unemployment and food price increases expose rural people to hunger and starvation (Buve et al., 2002. Nowadays, food commodities are more expensive and may cause financial problems for individuals especially those from rural areas. In order to alleviate hunger and poverty, it is crucial that people grow their own food. Growing crops and raising their livestock could play an important role in helping them to sustain themselves. Lack of education does in rural people not mean that rural people cannot produce or be involved in farming activities. It is believed that farming in rural areas plays an important role in poverty and unemployment alleviation (Lipton, 2005).

According to Machethe (2004), agriculture is considered as the best vehicle to reduce rural poverty.

The rural people who participate or engage in agriculture (rural or small-scale farmers) have the positive potential to alleviate poverty and reduce unemployment in rural areas (Kirsten and Van Zyl, 1998). According to Tacoli (2009), difficulties with farming are physical and they include social factors, lack of infrastructure, climate changes and rural-urban migration. Due to a need to have food on the table, rural members need to be engaged in farming.

2.3 Factors that prevent rural people from being active in farming

2.3.1 Rural-urban migration

Rural areas are usually overpopulated relative to their ability to feed themselves and this result in an incentive to migrate to cities (Louw, 2004). Instead of the rural workforce being employed in rural agriculture, it chooses to migrate to urban areas or cities for better employment opportunities. Rural people generally migrate to urban areas in search of income and employment even when the chances of getting a permanent job and receiving income are minimal. It is a fact that rural areas are the most disadvantaged in terms of social service delivery compared to urban areas. As a result, rural areas are clouded by poverty and hunger. Unfortunately, rural people perceive rural-urban migration as the only solution of escaping rural poverty and hunger. Therefore, a large number of rural people migrate to urban areas seeking for greener pastures (Louw, 2004). The prime cause of this migratory trend is poverty, which particularly affects the rural community. Rural people do not realize that agricultural growth can also assist in eliminating poverty and creating self-employment opportunities. For example, if rural people can be engaged in farming activities, the food produced can be used to feed and support their families. Migration to urban areas seems attractive particularly to rural youth who are taught urban values through the education systems and perceive there to be limited employment opportunities in the rural areas.

Many young people leave rural areas and move to the cities to study or work and do not return to their homestead. When the youth find themselves having money or earning more income from working in urban areas, they end up seeing farming as not being an important activity to

participate in because they have cash to purchase food. According to Bajgai and Sumjay (2013), most of the youth leave rural areas, leaving only the old aged community members to constitute the farming labour force of the rural areas. With the youth far away in urban areas, the older generation is unable to pass their know-how and farming skills to this younger generation. This becomes a major problem for the future of farming in rural areas. Towns have a magnetic attraction for rural people. For many, agriculture is thought of as a low status job and a last resort, which adds to the pull of urban life. According to Bajgai and Sumjay (2013), the issue of rural-urban migration contributes to low agricultural production in rural areas. Even though a large number of people migrate to rural areas, a certain number of people choose to remain behind. Unfortunately, many rural people who remain on the land experience some farming obstacles which include the lack of new arable land for cultivation, inadequate training and extension services, low levels of technology and limited credit. Thus, it becomes a challenge to be engaged in farming activities.

2.3.2 Infrastructure

Many of South Africa's rural areas remain impoverished because they have no access to basic infrastructure essential for economic growth and development (Herselman, 2003). Rural people in general are the most disadvantaged in terms of access to services, including education and training, and are the worst served by infrastructure of various kinds. Infrastructures in rural areas are significant inhabiting factors towards development and are constraints on rural community to access services and socio-economic opportunities. Challenges to rural economic development are linked in part to isolation and poor or expensive access to specialized services (Start, 2001). Even with the successful extension programmes and other financial support, rural development cannot be achieved without the availability of appropriate institutions, such as, physical infrastructure. The rural people face the problem of poor infrastructure (Ortmann, 2005). For example, they experience a high mortality rate of livestock due to a lack of veterinary services. Some infrastructural improvements aim to improve local quality of life but, can also further economic development in rural areas. The shortage of agricultural implements is another contributor to non-farming participation. To start farming project may be very costly. Agricultural implements, fencing, seeds, and fertilizers are the main inputs require in farming production (Giller et al. 2009). Government could assist the community members by granting

them basic agricultural implements such as spades, hoes and wheelbarrows. In order to boost agricultural activity, particularly amongst the rural population, issues of access to land and the provision of adequate infrastructure and extension support will first need to be addressed. People in rural communities starve with hunger due to lack of resources, farm inputs and weak manpower to produce food so as to feed satisfactorily (Giller et al. 2009). Land cannot be created nor destroyed.

Government cannot create new land for the people but they must use the land that is available in better ways. However, other infrastructure, such as rural finance and skills training can be organized and provided if not available. Fortunately, land for farming is usually available in rural areas but remains neglected and inefficiently used. Therefore, there is a potential for farming in rural areas.

2.3.3 Age Differences

Rural farming communities mostly consist of the elderly (Liu, et al., 2003). According to Louw, (2004) the issue of rural-urban migration has contributed to the low agricultural productivity as most young people prefer to settle in the urban areas as opposed to staying in the rural areas. Unlike the older generation, youths are energetic, capable of bringing new innovations on farms and can quickly adapt to new technologies. Therefore, the engagement of young people to agricultural practices would produce good results. The youth is one of the greatest assets that any rural area can have. The youth people are not only legitimately regarded as the future leaders but are also potentially and actually the greatest investment for rural development (Liu, et al., 2003). Rural communities are waiting for the youth to devote their youthful intelligence towards rural development.

A huge gap of farming skills and knowledge exist between the old and the young generation. The older generation of 60s and 70s grew up working the Field because farming was the main source of food for the rural community back in the past (Bryceson, 2000). Nowadays, the younger generation born after 1994 is located in urban areas and cities seeking for better education and skills training. Unfortunately, the majority of this youth often fail to return to their homestead to plough back the skills and knowledge acquired from higher education. Combining the skills and knowledge that the youth acquired from higher education and that of the older generation could provide great results for farming in rural communities (Bryceson, 2000). However, it is difficult

for the older generation to pass its farming skills and knowledge to this young generation as most of the youth is dispersed in urban areas and cities. In actual case, the young generation that has received technical education must be at the forefront in effecting rural technical revolution. Unfortunately, it is not the case.

It is often the older generation that is interested in farming and tries to play a role in agricultural production. There is not enough support from the younger generation.

According to Bryceson, (2000) the lack of farming education and training by the older generation becomes evident in the low quantities of yield that is produced. The low output produced serves as a discouraging issue to the older generation. As a result, even the older generation ends up neglecting farming practises.

2.3.4 Lack of finance

Amongst other farming prohibiting factors in rural communities, rural finance is one on the top of the list. Rural finance can assist households in maintaining food security (Zeller, et al., 1997).Rural finance refers to financial services offered and used in rural areas by people of all income levels (Ruel, et al., 2010). A financial service is a key to enhancing economic development and reducing poverty in rural areas. However, access to key financial services such as savings and credit facilities is generally scarce in rural areas. Access is particularly limited for poor households and for micro, small, and medium enterprises (Zeller, et al., 1997). Non-farming activities in rural communities may be due to a lack of finance to buy farm and agricultural inputs to utilize their land for economic activities. This lack of the provision and financing of inputs and other production factors to rural communities is one major production constraints facing rural people. Therefore, there is a critical need to support rural people financially in disadvantaged rural areas (Ruel, et al., 2010. People usually expect to get money easy and fail to use it effectively once received (Deinlnger and Hans 1999) . It is therefore advisable that people should use their own funds to start up food gardens. This will increase the level of commitment from these individuals. Once people have started producing, the problem of finance can be manipulated. Producers may sell some of their produce to the community and spend the money earned on the purchases of seeds and fertilizers.

2.3.5 Lack of Motivation

Motivation is to give incentives, enthusiasm or interest that cause specific action or behavior (Deinlnger and Hans 1999). The lack of motivation and financial constraints result in an incomplete utilization of resources and ineffective production, particularly in remote parts of rural areas. Because of the poor living standards and low levels of education that rural people are facing, they lack self-confidence and self-esteem.

Motivation is one of the tools that can be used to boost the self-confidence and provoke positive attitude to rural people. Motivation is a drive that pushes an individual to work hard and reach whatever that particular individual is after. Rural people especially, the youth lack motivation to partake in farming activities (Deinlnger and Hans 1999). The youth of today has developed a negative attitude towards farming. They believe that farming is for the older generation. Therefore, young people must be motivated and empowered to participate in farming activities. The motivation of young people to partake in farming can start at the primary school level through school gardening. An ideal opportunity can be created for schools to turn their grounds into productive areas where learners may be involved to promote agriculture among the youth. If South Africa is to be successful in maintaining food security, the country must promote agricultural practice among the youth. The future of agriculture and food security is in the hands of the youth. There are a number of motivating activities that can be used to motivate rural people and these include oral motivation (i.e. informing them about benefits of farming), input subsidization, and so on. Motivating the poor without offering them material assistance is not enough to empower them for their own development. But with motivating activities such as implement grants and inputs giveaways, rural people may be somewhat motivated to participate in farming.

2.3.6 Lack of Education

Education is the knowledge or skill obtained or developed by a learning process (Finkel et al. 2005). There is knowledge that can only be passed down to people through the education system. Knowledge is one of the most powerful tools that an individual can possess. In the former homelands access to agricultural support services is a major factor constraining the growth of agriculture. Without adequate access to farming support services, improvement in rural

agriculture can hardly be achieved. On the other hand, adequate access to farming support services such as education and training, agricultural production can be increased significantly among rural communities. According to Reardon et al. (2001), education facilitates improvement in the quality of life and development of an individual. Because of their poor education background, rural people are lacking farming knowledge.

A strong education background is essential as it is the most important part of building interest of learning in an individual. Farming knowledge can be improved through learning processes.

Reading information resources such as books and magazines, knowledge can be improved. Unfortunately, the poor education background has influenced rural people to be unable to read such information resources to improve their knowledge. In order to transfer farming knowledge to rural people, education must be provided either through career/technical training or hands on experience. Therefore, education and training becomes one of the most important tools of transferring farming knowledge to individuals. However, as it is well known that most of the people in rural areas cannot read or write, farming knowledge can easily be transferred to such people through skills training or hands on experience (Bakenegura, 2003). Since farming is an activity that is practical, it does not necessarily require higher education training. Skills' training is more than sufficient for a successful agricultural practise. In other words, being illiterate does not mean that an individual cannot produce or be involved in farming activities. Another problem that is encountered by the rural people is that they have the land and other types of capital such as livestock but they do not have farming skills. The extension workers can play an important role by educating the rural people about correct farming, and how their resources can be used efficiently. Therefore, it can be said that poor education background is a minor prohibiting factor in practicing rural farming.

While agriculture plays a major role in poverty alleviation, the poverty problem in South Africa cannot be solved by promoting smallholder agriculture alone, education should be also be addressed. According to Mercedes and Manila (2006), lack of education has been cited as one of the reasons for the continuing poverty of our people. The rural community must be provided with education and needed skills in farming so that they can have a better future. The lack of knowledge and skills becomes a barrier to rural people. They have the livestock but they keep them for traditional purposes. Large areas of land are used for livestock grazing rather than crop

planting. Rural communities do have a potential for farming but they lack farming skills. Therefore, they need to be assisted in terms of improving their infrastructure and farming knowledge so that they can use their resources efficiently. In short, food production is considered as an appropriate vehicle to hunger reduction.

2.3.7 Leadership

Community members can form groups and start up community gardens. Leadership is a process by which a person influences others to accomplish an objective and directs them towards achieving that goal (Bass and Bass, 2009). According to Maxwell (2006), leadership is influence. Rural communities often lack good leaders or people with influence. A good leader would be able to influence and change situations in rural communities. The education system of the old South Africa has taught most of the rural people to be followers rather than leaders. The government social grants service has also added in teaching rural people to be more dependent on other people than themselves (Dube, 1985). Therefore, it is a challenge for many people to start something on their own. Rural people must be given an incentive to boost their interest in farming.

This can be achieved by a good leader who can lead the community to being food self-sufficient. In short, since people in rural communities are unemployed, their standards of living are poor as they cannot afford life necessities and access to sufficient food commodities. Poverty and hunger is not only widespread in rural areas, but most poverty is found in rural areas, particularly in the former homelands (Machethe, 2004).

Hunger eradication is the greatest challenge facing the government and is greatest in the rural areas. Its causes vary from region to region and it is interlinked with many other problems such as: rural-urban migration, lack of finance and poor infrastructure. Promoting smallholder agricultural growth can be an effective strategy to reduce rural poverty and hunger. Households (in the rural sector) engaged in agricultural activities tend to be less poor and have better nutritional status than other households. This implies that agriculture can be used as a tool for reducing poverty in rural areas.

Since many of the services required to promote smallholder agricultural development are public goods which are offered by the government. Therefore, little progress can be expected in achieving the objectives of agricultural development without government involvement. The role of the government is thus important.

2.4 Lessons from previous similar studies

A previous study on the influential issues that prevent members of the community from participating in farming could not be found. However, similar studies were reviewed and assisted in terms of information regarding data collection and data analyses methods. The literature review conducted on the study by Makhado and Kepe (2006) was of great use to this study as it gave an overview of the structure of a study.

This study uses the multiple regression model to analyze the data. The literature review revealed that multiple regression is similar to a probit analysis model. According to a study on rural-urban conducted by Vink (2009), a probit analysis was used to identify factors which determine farmers' access to additional farming land and credit facilities. The probit model hypothesized that access to more farming land would be higher amongst woman farmers who produce greater maize yield. Since the model of a probit analysis is similar to that of multiple regression, the interpretation of the probit analysis model is also similar to that of a multiple regression.

2.5 Chapter summary

In this chapter a general overview of the rural areas in South Africa was reviewed and the factors that prevent rural people from being active in farming were the most highlights and were discussed in detail. These factors are rural-urban migration, infrastructure, age differences lack of finance, lack of motivation education and leadership. Among the important factors were the lessons from previous similar studies, which give an idea of how other researchers conducted their studies and results found.

CHAPTER 3

SELECTION AND DESCRIPTION OF STUDY AREA

3.1 Introduction

The purpose of this chapter is to describe the study area. The study was carried out in selected rural areas of Amathole region, Eastern Cape of South Africa. This chapter further describes the study area. Maps of Republic of South Africa and Eastern Cape Regions respectively are shown in this chapter. This chapter further discusses in details how the study area was selected and which factors that led to the Phumlani area being chosen as study area.

3.2 Description of the study area

The data for this study were collected in Phumlani and its nearest town, East London is 15-20 kilometers away from the village. The village Phumlani falls under the Amathole District Municipality which falls under the Province of the Eastern Cape in Republic of South Africa. Figure 3.1 and Figure 3.2 which represent South Africa and Eastern Cape maps respectively are shown. The area of Phumlani is characterized by extremely poor infrastructure and high levels of unemployment. According to Ortmann (2005), people in rural areas rely on poorly developed road networks for connecting with the surrounding towns and cities. The poor road conditions of Phumlani prevent development in the area in terms of job opportunity creations. The inhabitants generate their livelihoods through backyard gardening, pension and government grants. Because the area is rich in agricultural land for crop farming, agriculture in this area is mainly focused on crop farming. In terms of livestock farming, only goats are kept because of the high topography landscape and poor pastures in the area. Agriculture therefore becomes the most important industry in Phumlani to improve and develop the area.

Figure 3. 1: Republic of South Africa. Province of the Eastern Cape is the area that is red shaded.

Source: www.ecprov.gov.za

Figure 3. 2: Province of the Eastern Cape. East London is where the study was conducted.

Source: http://www.mmilotours.com

3.3 Selection of the study area

Agricultural activities are more successful in areas where the land and the environment factors are suitable for agricultural practises. A community cannot be expected to be fully engaged in farming activities when the land and the environmental factors are not conducive to farming activities. Therefore, the fertility of the land and suitable environmental factors play a significant role in farming activities.

Since the study is to investigate on the factors that influence participation rate of the community members not to be engaged in farming activities, an area that that has good characteristics for agriculture had to be selected. The village of Phumlani was seen as the most suitable area for this study and was therefore selected.

This meant that the land's potential and the environmental conditions of Phumlani are suitable for farming activities. However, in spite of the land's potential for farming activities, very few community members participate in farming activities.

3.4 Chapter Summary

In this chapter the study area was described with Maps shown. The maps are showing the region where the study was conducted. Figure 3.1 shows Republic of South Africa then Eastern Cape being red shaded on the map. Figure 3.2 shows Eastern Cape as whole and East London at the bottom right. Among the important factors in this chapter it the fact that while Phumlani village may not be well accessible in terms of infrastructure i.e. roads in some part but however the area is agricultural suitable which makes it in good potential given that infrastructural problems solved.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 Introduction

The purpose of this chapter is to develop the outline of the design and models for analysis, the model variables applied in the analyses are explained, type of data used in modeling, sampling frame and sample size, and data collection methods. Research methodology is where the sampling method is explained. Procedures are used in making systematic observations, obtaining data, evidence, or information of the research study. Methods of data collection and data analysis are also well detailed of how they are going to be done. Significance testing of the hypothesis, testing the associations between variables using Chi-Square **(χ^2)** and Testing using multiple regression models are also discussed in this chapter.

The variables examined in the study are presented in Table 4.1.For the purpose of this study, a farmer is defined as any individual involved in the production of crops, whether in a large farming area land or even a small backyard garden. Previous research has shown that farming participation is strongly influenced by such factors as the physical conditions of the infrastructure, access to production and marketing equipment, and the way the marketing functions are regulated. The variables are described in Table 4.1.

Table 4. 1 Variables applied in the analyses

Variables	Unit	Type of variable	Expected sign (+/-)
Location	**Town in the municipality**	**Categorical**	**+/-**
Age	**Actual years**	**Continuous**	**+/-**
Household size	**Actual number**	**Continuous**	**+/-**
Educational level	**Attended formal schooling or not**	**Categorical**	**+**
Farming experience	**Actual years in farming**	**Continuous**	**+**
Access to credit	**Had or did not have access**	**Categorical**	**+**
Government support	**Received or did not**	**Categorical**	**+**
Attendance at agricultural workshop	**Attended or did not attend**	**Categorical**	**+**
Non-farm inome	**Had or did not have**	**Categorical**	**+**
Extension assistance	**Whether or not received**	**Categorical**	**+**
Extension visit	**Whether or not visited**	**Categorical**	**+**
Market distance	**Actual distance travelled**	**Continuous**	**_**
Total assests	**Actual value in rands**	**Continuous**	**+**
Crop income	**Actual value in rands**	**Continuous**	**+**
Livestock income	**Actual value in rands**	**Continuous**	**+**
Land Size	**Actual size in hectares**	**Continuous**	**+/-**
Fertiliser use	**Whether used or not**	**Categorical**	**+/-**
Youth involved	**Actual number**	**Categorical**	**+/-**

Source: Survey, 2014

Location: The study was conducted in Phumlani area. In order to accommodate this within the model structure and bearing in mind that a constant has been included, the location variable was included as two dummies for residence in Phumlani (1) or otherwise (0), and residence in surrounding areas (1) or otherwise (0).

Age: This variable is expressed as the actual age of the household head in years. Previous studies, have established that this variable is a key determinant of behavioral patterns of household and community members. Younger farmers are expected to be more technically constrained than older farmers who are perceived to have acquired experience of farming and resources. Therefore, it is hypothesised that a high age is negatively related to market access. This is supported by an observation by Mushunjeet al. (2003) that older farmers are likely to have more resources at their disposal, which may make them more likely to cover costs of marketing more readily than younger farmers, despite being less aggressive to seek out more profitable markets. In that case, age may be related to the measure of market access either positively or negatively.

Household size: Increase in household size might increase the dependency ratio, which in turn affects savings and investment. Conversely, a larger household may mean increased labour availability, which enhances farm production under the kind of labour-intensive farming systems that prevail in communal agriculture. In turn, increased production increases the chances of market access due to larger economies of scale. Therefore, it is possible for either positive or negative relationships to exist between market access and household size.

Education level: Studies conducted in several developing countries have confirmed the importance of education in the decision-making process with implications for the socioeconomic development and human capital production (Mushunje, 2005). For the agricultural sector, earlier studies equally established that education plays an important role in the adoption or otherwise of improved practises in traditional agriculture (Bembridge, 1984). The absence of education is therefore expected to have a negative influence on these processes. In the light of that, it can be hypothesised that there is a positive correlation between education and market access.

Farming experience: This variable measures the number of years a farmer has been engaged in farming. It can be hypothesised that the lesser the number of years the farmer is involved in farming, the higher the probability of being technically constrained because certain farming techniques require that the farmer possesses some degree of experience. Thus, it can be hypothesized correlation between market access and farming experience.

Access to loans and/or credit: This variable measures whether farmers had access to institutional finance for the facilitation of production. Foltz (2005) developed a model that links credit access with agricultural profitability and investment in Tunisia. The findings show that credit constraint negatively affects farm profitability. As Reardon et al. (1996) have noted, farm profitability depends on availability of markets. It can therefore be hypothesised that market access is positively correlated to access to production loans and/or credit.

Government support: This variable measures whether the people in the community received any kind of support from government specifically from department of rural development and agrarian reform (DRDAR). DRDAR its mandate is to carry out programme such as Comprehensive Agricultural Support programme (CASP), Land Care Programme, and Land Redistribution for Agricultural Development Programme (LRAD), Household Food Production, Food Security and Starter Packs, Irrigation, Rehabilitation and Development Programme, which are meant to benefit people residing in rural areas.

Agricultural workshop attendance: In South Africa, as in other parts of the world, attendance at technical workshops provides an opportunity for mass information sharing about opportunities and production possibilities, among other goals. This variable therefore measures the extent to which a farmer is exposed to agricultural education and training. Thompson et al. (2008) noted that workshops play a crucial role in influencing farmers' beliefs and attitudes in farming. It is hypothesised that market access is positively correlated to workshop attendance.

Non-farm income: This variable measures whether the farmer is receiving off-farm income. Off-farming income can help diminish on-farm technical constraints since the farm has alternative

capital inputs. Farmers who lack off-farm income are likely to be affected by finance-related technical constraints than those who have. This is also supported by Mashatola and Darroch(2003). Thus, it can be hypothesised that there is a positive correlation between off-farmincome and market access.

Extension contact: This variable measures whether farmers are in contact with extensionofficers more than twice a month. Extension service is an important source of farminginformation and advice to smallholder farmers (Enki et al., 2001). Thus, it can behypothesised that market access and extension contact will move in the same direction, themore extension contact with the smallholder the better the market access. In this case, twoseparate variables were employed to measure this attribute, namely frequency of extensionvisits and extension assistance.

Market distance: This variable measures the distance to the point of sale of the farm output, notably a market centre where buyers congregate. The greater the distance to the market, the higher the logistical problems in terms of the availability of transport facilities and transport costs. Farmers who are located at considerable distances to the point of sale are likely to lack market access if they do not possess the means to transport their produce. Further, lucrative markets may be located far away from the point of production. It can therefore be hypothesised that there is a negative correlation between market access and distance to the market.

Value of assets: Inadequate technical farm inputs, tools, implements, farm machinery, motorised and other transport equipment, household appliances, residential facilities represent serious constraints to the average farmer. Tools and farm machinery are vital aids to Field production while motorised transport are needed by farm household for transporting farm produce to markets. Household appliances such as radio and television are vital sources of information about market opportunities and prices. Assets can serve as collateral for credit. It is therefore expected that asset ownership and market access will be positively correlated.

Total gross income: Gross value of annual farm production from crop and livestock is an indicator of the performance of the farm business and the extent of commercialisation.

Low values signify lack of market access and vice versa because farm income is a reflection of the value of surplus production. Total gross income is derived by combining crop and livestock income.

Land size: This variable refers to the size of land in hectares. Increase in land size may enhance production if the land is effectively utilised. At the same time, land may be available but not being effectively utilised. Effective utilisation will entail application of appropriate farm practises that will lead to higher physical output than otherwise would be the case. In the absence of more direct means of assessing effectiveness, this can only be inferred from the results. Intuitively, one can expect higher output if there is effective utilisation of available land, and lower output otherwise. It is also reasonable to expect that the more physical output a farmer produces, the more surplus is marketed. Therefore, it is hypothesised that there is either a positive or a negative correlation between market access and land size.

Fertiliser use: A number of studies have established that fertiliser usage is positively related to productivity (Reardon et al., 1996; Xu et al., 2009). Conversely, a farm unit that is too constrained to afford adequate amounts of fertiliser will most probably experience lower productivity which will translate to lower physical output and ultimately less marketable surplus. The production of insufficient volumes of the produce can discourage efforts to seek out outlets for disposal of produce. At the same time, retail outlets that buy up surplus produce from small producers are less eager to enter into contracts with small-volume producers. It is therefore reasonable to expect a direct relationship between fertiliser use and market access within the strict definition employed in this study.

Youth involved: This variable measures the number of youth participating in farming activities in the area of Phumlani and the surrounding areas. In this study it has shown clearly that percentages of youth taking part in agricultural activities are quite low at early stages of youth from 19 years to 30 years of age but once they reach 35 years of age up to 40 years of age they start to take farming seriously and participate fully. It needs to be encouraged that youth be involved in Agricultural activities as it one of the driving force behind eradicating poverty in the rural areas.

4.3 Type of data used

The data used in this dissertation were extracted from primary survey of households using a structured questionnaire. In analysis participants and non-participants were used.

4.4 Methods of data collection

The study consists of a sample size of 30 respondents. Data was collected from individuals or respondents through interviews using interviewer-administered questionnaires. The questionnaires were interviewer-administered to alleviate the problem of misinterpretations or misunderstandings of words or questions by respondents. The respondents were presented with a series of questions that they respond to directly on the questionnaire form itself with an aid of an interviewer. This questionnaire method of data collection is much quicker than formal interviews in terms of time. The interviewer will read questions to respondents while recording their answers. The advantage of this data collection method is that an interviewer will be in a position to probe for more information. The questionnaire consisted of both open ended and closed ended questions. Open ended questions allow respondents to express their views freely, but they were minimized for easy data analysis as well as to pay focus on issues relating to our research. Most of the questions were structured as closed ended questions for the benefit of obtaining information from respondents without consuming much of their time as well as for easy coding of responses.

4.5 Data analysis

The study will use graphs, tables (including cross tables) and descriptive statistics (mean, frequency, standard deviation and percentages) to analyze data. Descriptive statistics will be used in the analyses of personal and household information while graphs and tables will be used to analyze other relevant information. This study will also make use of the multiple regression models to analyze the data and explain the relationship between several independent variables and a dependent variable. The chi-square model will also be used where necessary.

4.5.1 Significance testing of the hypotheses

In order to prove the correctness of the hypotheses, simple statistics and the econometric model of multiple regressions is used. The null hypothesis is formulated to allow for the significance of lack of farming resources, age differences and lack of leadership and as the influential issues preventing members of the community from participating in farming. Thus, the (NULL: Ho) hypotheses are as follows:

1. The lack of farming resources does NOT influence the participant's farming status.
2. Age differences have NO influence on the farming status of participants.
3. The lack of leadership has NO influence on the farming status of participants.

4.5.2 Testing the associations between variables using Chi- Square (X^2)

According to Dougherty (1992), the chi-squared test uses different significance levels, to test the strength of the relationship between variables. Dougherty (1992), continues to explain that the smaller values show that there are less chances of being wrong. This study will also make use of chi-square to test for associations between different variables.

The significance level of 1 percent was chosen for this study. Any probability value which is less than 0.001 will be indicating a strong association between the variables that being tested.

4.5.3 Multiple regression

In order to explain the relationship between several independent variables and a dependent variable, the study will use multiple regression model. Multiple regression analysis refers to a group of techniques which allow for measurement of the degree of relationship between a dependent variable and independent variables (Bless, et al., 2006). The multiple regression analysis allows the simultaneous testing and modeling of multiple independent variables. In this study, the multiple regression model will use age differences, farming resources, lack of motivation, leadership, education levels, and lack of finance, as independent variables and non-farming participants as a dependent variable to test the hypothesis.

In the literature review (chapter 2), seven factors that prevent rural people from being active in farming were discussed. However, data will be analyzed for only six factors excluding the rural-urban migration factor.

The probability of rural-urban migration existing in Phumlani was low and doubted. Before the drafting of the questionnaire, there was a discussion on the significance of this factor in Phumlani. As a result of the discussion, a question on this subject was mistakenly not captured on the questionnaire. Therefore, the result analysis of rural-urban migration will not be undertaken. The regression model is as follows:

$$Y = ß_0 + ß_1X_1 + ß_2X_2 + ß_3X_3 + ß_4X_4 + ß_5X_5 + ß_6X_6 + U$$

Where: Y = Non-farming participants

X_1 = Age differences

X_2 = Lack of farming resources

X_3 = Lack of motivation

X_4 = Lack of leadership

X_5 = Education level

X_6 = Lack of finance

U = Error term

$ß_0$ = the intercept and

$ß_1, ß_2, ß_3, ß_4, ß_5,$ *and* $ß_6$ are partial regression coefficients

Using the Statistical Package for Social Science (SPSS) Version 20.0 computer software, beta values ($ß_1$, $ß_2$and $ß_3$) will be obtained.These values will be used to measure how strong each independent variable (X_1, X_2, X_3, X_4, X_5, or X_6) influences the dependent variable (Y).

Thus, the higher the beta value the greater the impact of the independent variable on the dependent variable.

4.6 Sampling method

Possible sampling methods are classified into probability and non-probability sampling methods. The non-probability sampling methods refer to cases where the probability of including each element of the population in a sample is unknown (Bless *et al*, 2006). When a complete population list is not available non-probability sampling is more suitable.

A complete population list for Phumlani could not be found. The department of agriculture in East London does not keep a population list of communities. Unfortunately, Home Affairs could

not be of much help either, the list was not available. After consulting the municipality of East London as suggested by Home Affairs, again, the population list could not be found.

Since a population list of Phumlani was not available, the study will therefore use the availability sampling method which is a non-probability sampling procedure. Since, the focus of the study is mainly on households which do not participate in farming; availability sampling method is a most suitable method. This method is more convenient in terms of time and money. Quota sampling was also used to ensure that both gender groups in a population are represented. Thus, the selected quotas were the females and males. The sample size consists of thirty respondents with a female distribution which is larger than that of males. This was done purposely and to accommodate the fact that female population is greater than that of males.

4.7Chapter Summary

Most important points in this chapter it was clearly revealed how data collection and analysis are going to be conducted. Testing using multiple regression is among the important methods since it is looking at these factors that prevent rural people from being active in farming. . Procedures were used in making systematic observations, obtaining data, evidence, or information of the research study. Methods of data collection and data analysis were also well detailed.

Significance testing of the hypothesis, testing the associations between variables using Chi-Square **(χ^2)** and Testing using multiple regression model were also discussed in this chapter. In this research methodology chapter sampling method were also explained.

CHAPTER 5

RESULTS OF THE ANALYSIS AND DISCUSSION

5.1 Introduction

This chapter presents the research findings of the study. A total of 30 respondents were interviewed. The questionnaire that was used to collect data was divided into three sections, namely, the demographic, faming participants and non-farming participants sections. The chapter begins with an insight of the Analysis of personal and household information. Therefore, this chapter is sub-divided into three parts. The first section of the presents personal and household characteristics as well as the description of agricultural environment in the Phumlani area. The second part is that which analyses data presented by farming respondents. These include data such as farming education background, farming support received and others. The third part analyses data that was obtained from non-farming respondents. For the purpose of this study, a farmer is defined as any individual involved in the production of crops, whether in a large farming area land or even a small backyard garden. Individuals that participated in farming are referred to as participants and those who are not involved in farming are referred to as non-participants. The chapter concludes with the analysis of significance through the multiple regression model. Thus the dependent variable which is farming status will be interpreted along with independent variables namely: Age differences, lack of farming resources, lack of motivation, lack of leadership, education level, and lack of finance.

5.2 Analysis of personal and household information

This section of the chapter analyses personal and household information as obtained from respondents. General information obtained from respondents is also included in this section.

Table 5. 1: Personal and household information of respondents

Variables	N	Minimum	Maximum	Mean	Standard deviation
Gender	30	1	2	1.67	0.79
Age	30	1	5	3.60	1.221
Marital status	30	1	4	1.77	0.774
Education	30	1	4	1.87	0.730
Household size	30	3	10	5.13	1.852
Number of children per household	30	0	6	2.13	1.697
Number of adults per household	30	1	7	3.00	1.232

Source: Field survey, 2014

The table 5.1 above shows that data was collected from a total number of thirty respondents of which minimum gender was 1 and the maximum was 2 with the mean of 1.67 and standard deviation of 0.79. Age minimum was 1 and maximum was 5 with the mean of 3.60 and standard deviation of 1.221. Marital status minimum was 1 and maximum was 5 with the mean of 1.77 and standard deviation of 0.774. Education minimum was 1 and maximum was 4 with the mean of 1.87 and standard deviation of 0.730. Household size minimum was 3 and maximum was 10 with the mean of 5.13 and standard deviation of 1.852. Number of children per household minimum was 0 and maximum was 6 with a mean of 2.13 and standard deviation of 1.697. Number of adults per household minimum was 1 and maximum was 7 with the mean of 3.00 and standard deviation of 1.232 and standard deviation of 1.232.

5.2.1 Analysis of gender distribution

Gender distribution was purposely chosen because of the importance of gender participation in farming activities. It is widely thought that in rural areas females are more active in practicing farming than males; however the tables 5.2 and 5.3 below will give more insight on which gender take part more than the other in the farming activities.

Table 5. 2: Gender distribution of respondents

Variables	Frequency	Percentage (%)
Males	10	33.3
Females	20	66.7
Total	**30**	**100**

Source: Field survey, 2014

The table 5.2 above shows that data was collected from a total number of thirty respondents of which 10 were males and 20 were females.

Therefore, the distribution of females is 66.7% while that of males is only 33.3%. This distribution of gender was purposely chosen based on the assumption that the female population is greater than that of males.

Table 5. 3: Gender distribution by participant's status

Variables	Frequency	Percentage (%)
PARTICIPANTS:		
Males	1	8
Females	12	92
Total	**13**	**100**
NON-PARTICIPANTS:		
Males	9	53
Females	8	47
Total	**17**	**100**

Source: Field survey, 2014

The table 5.3 above shows the gender distribution by participant status. The results show that out of the 20 female respondents, 12 were found to be participating in agriculture and only one male out of the 10 male respondents participated in farming. About 92% of the farming participants were females and only 8% were males. From these results, it is clear that females are more participative in farming activities than males.

5.2.2 Analysis of respondents' age

Age is one of the important distributions of respondents as it gives a clear view of which participate more in agricultural practises. Results of analysis of respondents' age are presented in the Figure 5.1.

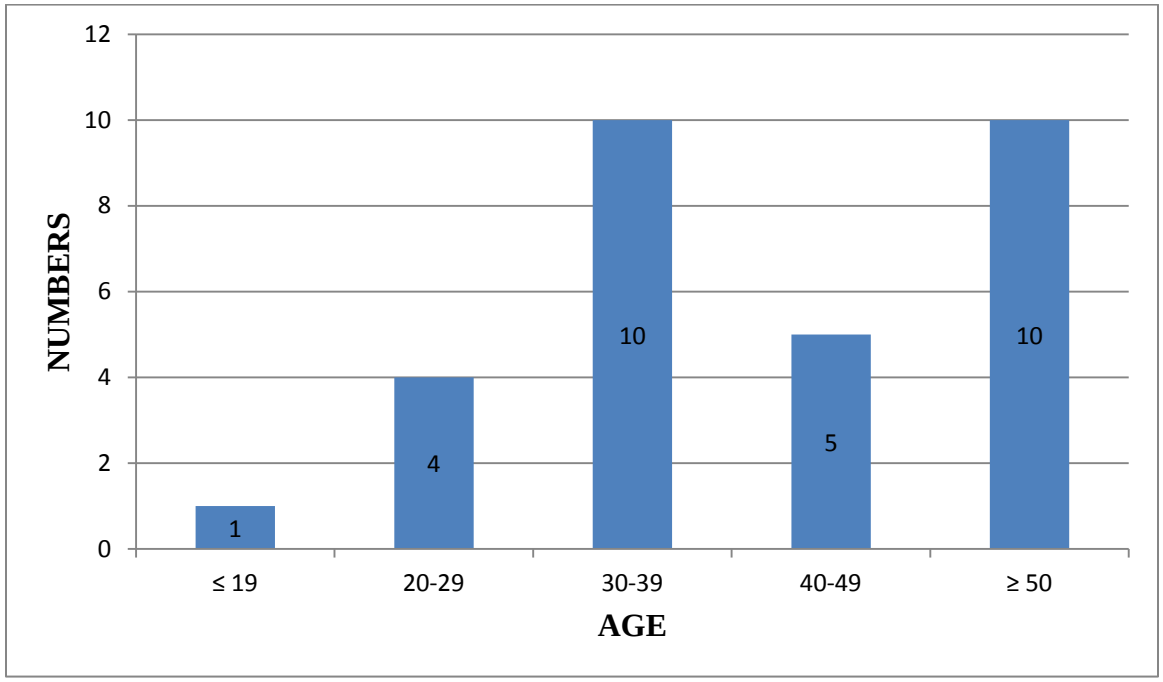

Figure 5. 1: Age distribution of respondents

Source: Field survey, 2014

A specific age of a respondent was not recorded as most people are not comfortable with giving out their actual age. Therefore, the age of respondents were divided into a group of five. According to the Figure 5.1, only one household younger than 19 years of age was interviewed while ten households older than the age of 50 were interviewed. The study was mainly focused on people older than the age of 21. People younger than 21 were assumed to be scholars and has no time for farming.

Table 5. 4: Cross table of age distribution by farming status

Variable	Age					Total
	≤19	**20 - 29**	**30 - 39**	**40 -49**	**≥ 50**	
PARTICIPANTS						
Number	0	3	6	2	2	**13**
Percentage	0	23.08	46.15	15.38	15.38	**100**
NON-PARTICIPANTS						
Number	1	2	4	3	7	**17**
Percentage	5.88	11.76	23.53	17.65	41.18	**100**
Total	**1**	**5**	**10**	**5**	**9**	**30**

Source: Field survey, 2014

The table 5.4, indicates that most of the farming participants (46.15%) are between the ages of 30 and 39 while the majority of non-participants (41.18%) are those above the age of 50. The results show that out of the nine respondents above the age of 50, only two are participating in farming and the other seven is not involved in farming activities. Their reasons for not farming included that they were too old to farm, do not have farming implements and money to buy inputs.

5.2.3 Analysis of marital status

Marital status analysis it important for this study as it helps to get an idea of who participate more in farming those who are currently in marriages or those who are not. The results of the marital status are presented in the table 5.5 below.

Table 5. 5: Distribution of marital status of respondents

Variables	**Frequency**	**Percentage**
Single	11	36.7
Married	17	56.7
Divorced	0	0
Widow	2	6.7
Total	**30**	**100**

Source: Field survey, 2014

The table above shows that the 36.7% of the respondents were single while 56.7% of the respondents were married. There were no respondents who were divorced and only 6.7% of the respondents were widows.

5.2.4 Education of respondents

Checking education levels is vital for study as results will clearly tell the level of education of the people of Phumlani. The following tables 5.6 and 5.7 presents the results regarding the level of education of the respondents.

Table 5. 6: Education levels of respondents

	Primary school	**High school**	**Tertiary level**	**Never schooled**	**Total**
Participants	0	10	3	0	**13**
Non-Participants	9	7	0	1	**17**
Total	**9**	**17**	**3**	**1**	**30**

Source: Field survey, 2014

The level of education ranges from those who never attended school to those who reached a tertiary level. The table shows that most of the respondents (17 in total) have a high school education background with one having no formal education at all. Out of the total of 13 farming participants, there are no individual with a primary school level or who never went to school; results show that 10 have a high school education level and 3 have a tertiary education level. However, with non-participants, only 7 individuals received a high school education while 9 had a primary education and 1 never went to school.

These results show that farming participants have better education levels than non-participants. From these results it can be assumed that education background has an influence on an individual's choice of participating in farming.

Table 5. 7: Association between education and farming status

Variable	**Chi-square**	**Degrees of freedom**	**Probability**
Education and farming status	17.200	3	0.000*

Source: Field survey, 2014

Since the probability (0.000) of the result being wrong is small and less than 0.01, there is a strong relationship between gender and farming status. Therefore, we can say that farming participants are better educated than those not participating in farming.

5.2.5 Analysis of household information

Analysing household information is very important as it give a clear indication of number of factors in the particular household.

Factors such as household size, number of children per household, number of adults per household are being looked at and analysed in detail. The results of household size distribution are presented in the table 5.8 bellow.

Table 5. 8: Distribution of household size

Household size	**3**	**4**	**5**	**6**	**7**	**8**	**10**	**Total**
Frequency	8	4	6	5	4	2	1	30
Percent (%)	26.7	13.3	20	16.7	13.3	6.7	3.3	100
Number of Children per Household	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**Total**
Frequency	3	11	7	3	2	2	2	30
Percent (%)	10	36.7	23.3	10	6.7	6.7	6.7	100
Number of adults per households	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**Total**
Frequency	2	9	10	7	1	0	1	30
Percent (%)	6.7	30	33.3	23.3	3.3	0	3.3	100

Source: Field survey, 2014

For the purpose of this study, a child is considered to be below or equal the age of 20 (age $\leq$ 20) and an adult is above or equal the age of 21 (age $\geq$ 21). The table above shows that eight (26.7%) of the households had three household members and only one (3.3%) household had more than eight household members. From the table above, three of the households responded that they had no children and six of the households had more than four children. Ten of the households (33.3%) had four adult household members. Table 5.8 above showed that, the minimum household size is three household members and a maximum of 10 household members. On average household size consists of five household members. The number of children ranges from zero to six members with an average of two children per household. The average number of adults per household is three.

5.2.6 Analysis of household income

Household income plays a vital role in determining if a particular household is going to participate or not in the farming activities. It is widely thought that household with income are likely to take part more in the farming compared to the one that has no income. The results analyses of household income are presented in the following chart figure 5.2.

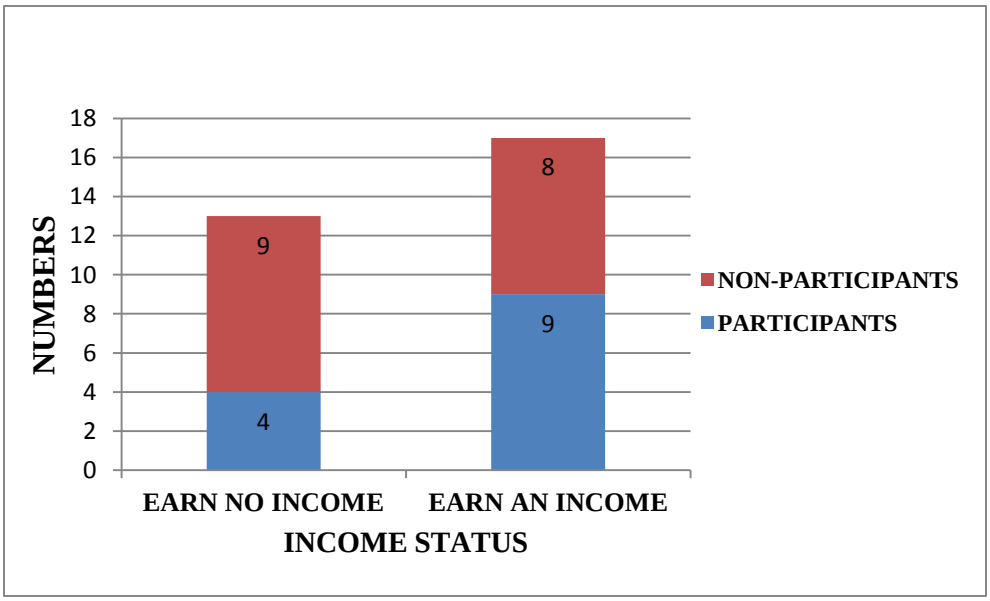

Figure 5. 2: The income status of respondents

Source: Field survey, 2014

The household income information was categorized into two, namely, households earning income and households earning no income. For those households who are not earning any income, a conclusion is made that they are without employment (the major source of generating income). Very few individuals in rural areas, if any, are involved in businesses so the majority of the population relies on employment for generating income. Although a total of 17 respondents earn an income, the majority of these income earners are earning their income from social grants. This means that a number of people in the area are unemployed. From the table above, the majority of the farming participants come from those who earn an income. The table shows that 9 of the farming participants earn an income while the other 4 earn no income. Since the majority of farming participants come from income earners, it can be assumed that income status has no influence in promoting farming among the rural people.

Table 5. 9: Association between income and farming status

Variable	Chi-square	Degrees of freedom	Probability
Income and farming status	23.600	2	0.000*

Source: Field survey, 2014*Significance level of 1%

At a significant level of 1%, there is a strong relationship between the income and farming activities. This is because the probability that the results are wrong is 0.000 which is less than 0.01.

5.2.7 Analysis of agricultural land ownership

Ownership of agricultural land is important in this study as people who have the ownership of arable land have better chances of practicing farming activities and help their families in reducing poverty which is widely spread in rural area. The results of the land ownership in the Phumlani area are presented in the chart figure 5.3 below.

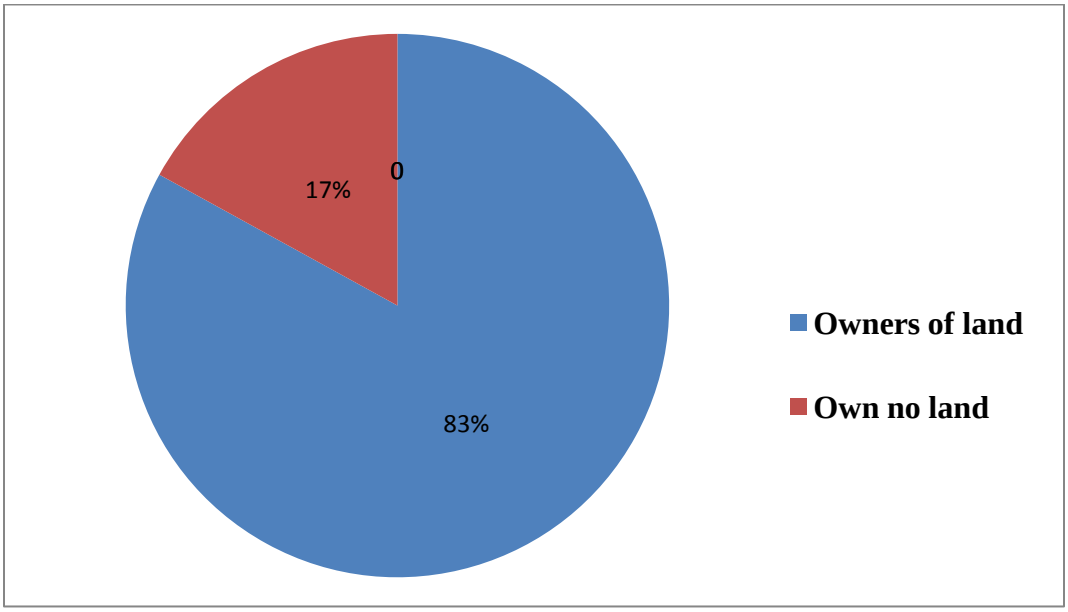

Figure 5. 3: The distribution of land ownership

Source: Field survey, 2014

The chart indicates that 83% of the respondents own an agricultural land whereas only 17% of the respondents own no agricultural land. In most rural areas, agricultural land is available in abundance but the land is neglected and lies idle. This is also the case in Phumlani where the

agricultural land is available to many but is not used for agricultural purposes. The chart above shows that more than 80% of the respondent own agricultural land but as already mentioned above, only 43% of the respondents are participating in farming activities. This means that 40% of land owners are not using their agricultural land. It can therefore be concluded that agricultural land is not the limiting factor for agricultural practises in Phumlani Village.

5.2.8 Analysis of implements ownership

Ownership of the implements determines that those people who have ownership of agricultural implements are likely to practice agricultural activities with their implements. The results in the figure 5.4 below clearly show that ownership of the implements.

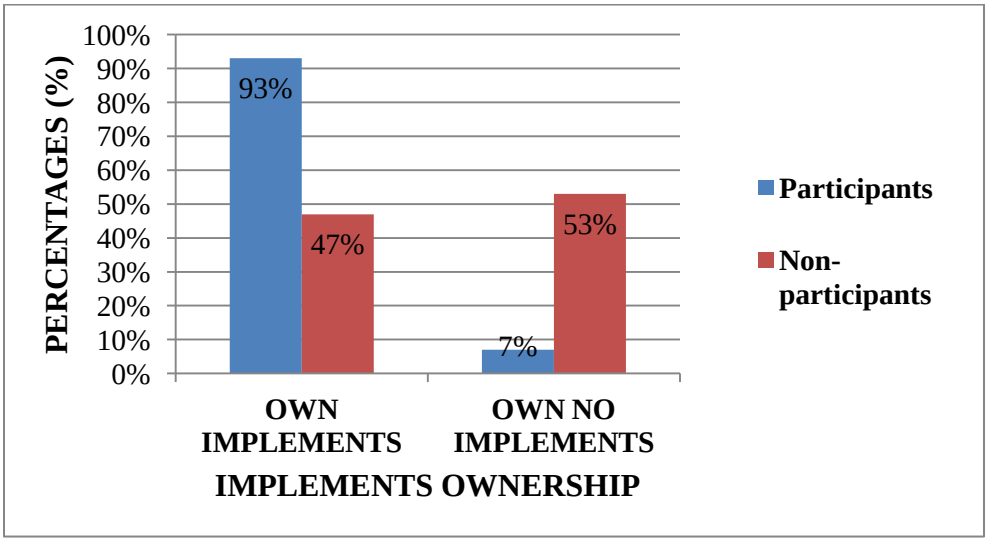

Figure 5. 4: The distribution of implements ownership

Source: Field survey, 2014

The figure above shows that 93% of the farming participants owned some farming implements. However, the research showed that these were just basic implements such as spade, hoe, fork and a wheelbarrow. The 47% that owned implements never used them because they were not active in farming. The results show that having farming implements might be an influencing factor to participate in farming. The majority of non-participants came from those who had no farming implements. This supports the statement that owning implements may be an influencing factor to participate in farming.

5.2.9 The importance of farming

Farming is very important food security aspect that people in rural areas use to support their families. In all times farming must be encouraged as it helps families not to go to sleep without food. The results in the table 5.10 below clearly show how people of Phumlani responded on how they perceived the importance of farming.

Table 5. 10: Respondents' responses on the importance of farming

Variable	**Frequency**	**Percentage (%)**
Provides Income	13	25
Provides healthy food	5	10
Reduces food consumption Expenditures	19	37
Reduces poverty and hunger	7	13
Provides jobs	2	4
Keeps the youth busy	1	2
Don't rely on the market for food	5	10
Total	**52**	**100**

Source: Field survey, 2014

*Due to rounding, percentages do not necessarily add up to 100%.

In this category, many of the respondents gave more than one response on how they perceived the importance of farming. Therefore, a total of 52 responses were received from the 30 respondents. The above table shows that the most of the responses (37%) that came from respondents were that farming reduces food consumption expenditures. In rural areas employment opportunities are scarce. The majority of the community members rely on social grants for income, as already mentioned above. Their income is therefore too small to cover all their basic needs effectively. A reduction in food consumption expenditure means that more income can be allocated to other basic needs such as health and education. Therefore, the majority perceives farming as an aid in reducing their food consumption expenditures. With scarce opportunities of employment in rural areas, agriculture can be a good tool of proving income for a household. As a result, the second highest response (25%) was that farming provides income.

5.2.10 Analysis of general information about the area

General information was analysed and the results are shown in the table 5.11 below.

Table 5. 11: The description of the environment

Variable	Frequency	Percentage (%)
The farming potential of the land in the area:		
Has No Potential	0	0
Has Potential	30	100
Total	**30**	**100**
Agricultural development in the area:		
No Development	28	93
Development	2	7
Total	**30**	**100**
Individuals promoting farming in the area:		
No Individuals	21	70
Individuals	9	30
Total	**30**	**100**

Source: Field survey, 2014

The table above shows that every respondent (100%) believed that the land in the area has potential for farming. Even those who are not farming believe that the land has potential for farming. They based this statement on the fact that the soil produced higher yields of good quality when planted. The fertility of the land is therefore not a reason for not participating in farming. Unfortunately, rural people are faced with a problem of poor agricultural development. They are usually isolated and lack agricultural development projects from relevant stakeholders. This is evident in the table above where 93% of the respondents responded that they did not see any agricultural development in the area while only 7% of the respondents said that there is agricultural development in the area. However, the agricultural development that the 7% respondents perceived was that of seed grants received from the government a number of years ago. The lack of motivation and mentorship results to an incomplete utilization of resources and ineffective production, particularly in remote parts of rural areas. It is unfortunate that a number of rural communities lack individuals who can play a role of promoting farming. The results above show that 70% of the respondents did not see any individuals who were promoting farming in the area. This means that the area is in need of farming promoters.

5.2.11 Farming participation status

The data on farming participation status was collected and analysed. The results in the chart figure 5.5 below clearly show the percentage rates of people participating in farming and those who do not take part.

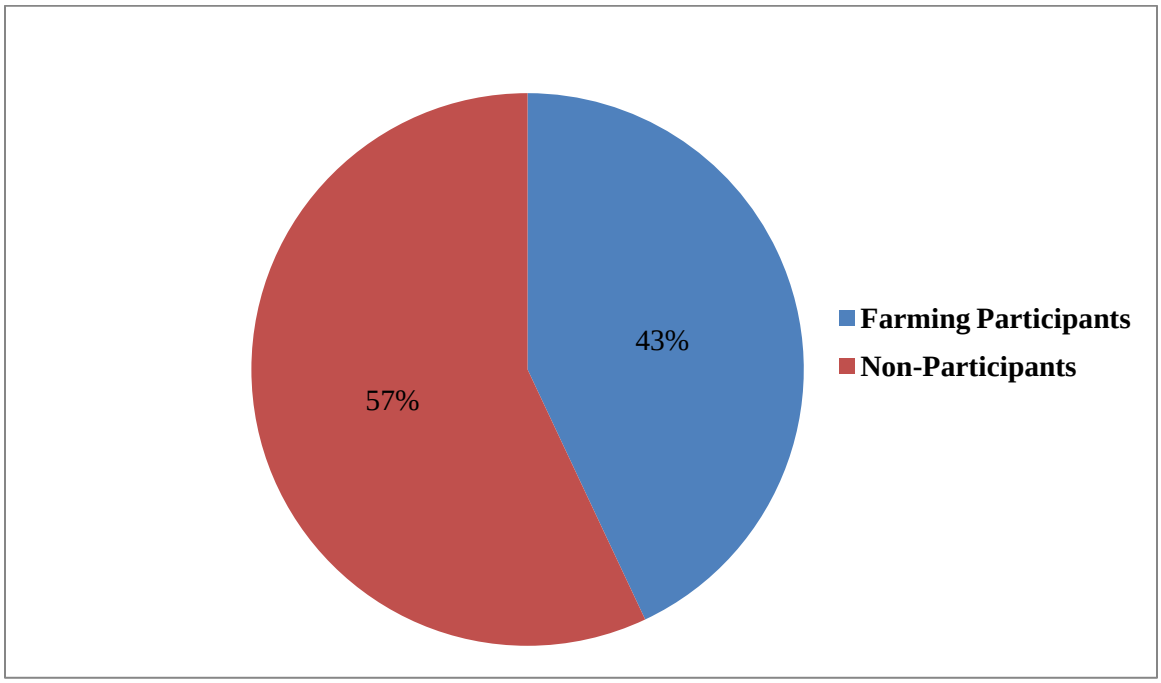

Figure 5. 5: The distribution of farming participation status

Source: Field survey, 2014

The above chart shows the distribution of respondents who participate in farming and those who are not participating in farming. The chart shows that about 43 percent of the 30 respondents are participating in farming whereas 57 percent is not participating in farming. This means that the majority of the respondents were not involved in farming.

Since the sample size represents the population, it can therefore be assumed that the majority of Phumlani residents are not active in farming activities.

5.3 Analysis of farming participants

This second section of the chapter analyses information collected from farming participants. The purpose of including this section is mainly for comparison purposes between farming and non-farming respondents.

There are a number of factors that can influence individuals to be engaged in farming activities. Such factors may include the ease with which to access agricultural inputs, support from relevant stakeholders and many more. This section will try to determine the factors that influenced the farming participants to be engaged in farming activities.

5.3.1 Accessibility to agricultural inputs

Accessibility of agricultural inputs determines whether particular household practise agricultural activities or not. Without agricultural inputs it is difficult to practise farming. Below is the table 5.12 presenting the results of participants' way of acquiring agricultural inputs.

Table 5. 12: Participant's ways of acquiring agricultural inputs

Variable	**Frequency**
Use the produce from previous harvest	2
Purchase seeds from shops	10
Use homemade fertilizer	1
Total	**13**

Source: Field survey, 2014

According to the responses obtained from respondents in Phumlani, the farming participants have only two major inputs, seeds and fertilizer. Usually, farmers in rural areas do not have many inputs costs that require payments in monetary value. The table above shows that, the only input that involved monetary payment was the purchasing of seeds. Other input costs that require monetary payments such as fertilizer cost, pest control costs and others are not incurred. This is mainly due to the fact that rural households do not have enough money to afford such inputs. In an effort to save money, rural people usually use home-made fertilizers instead of buying it. Three of the participants responded that they use home-made fertilizers. None of the participants responded that they buy fertilizers but 10 of the participants responded that they purchase seeds.

Therefore, seed purchasing is their only cost that involves monetary payment. Therefore, non-farming participants do not have an excuse of not having money to work the land. The costs of seeds in the market are not very expensive but are affordable.

However, if the affordability of seeds is a major problem, then instead of buying seeds they can use seeds from previous production. Thus, accessibility to agricultural inputs can be regarded as one of the factors that influenced farming participants to be engaged in farming activities.

5.3.2 Farming support

Farming support is the support that usually comes from government specifically the department of rural development and agrarian reform which provide extension support and agricultural inputs to pursue farming. The results are presented in the figure 5.6 below.

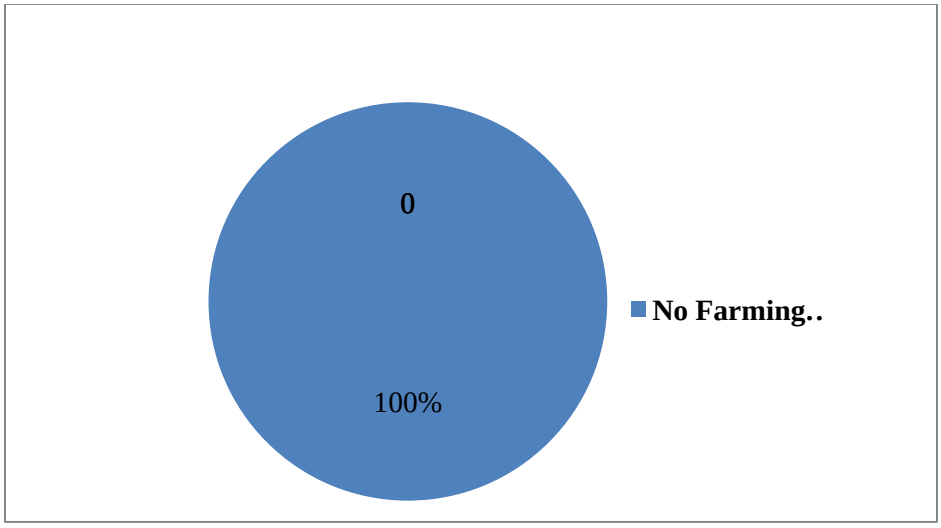

Figure 5. 6: Farming support received by participants

Source: Field survey, 2014

The above chart is showing the distribution of the farming support received by farming participants. According to the chart, 100% of the participants received no farming support. This means that none of the participants received farming support. The respondents were asked if they got any farming support from government institutions or the Eastern Cape Department of Agriculture, and all responded, "No". This simply means that government does not support

agricultural production in the area under study, Phumlani. This farming support included cash grants, farming implements grant and extension support.

Government social grants have influenced poor people to rely on external support rather than on their own efforts. As a result, external support from relevant stakeholders especially the government can motivate poor resourced and uneducated communities to participate in farming. There is a high chance that, if government's agricultural support was active in Phumlani, the number of farming participants might have been more than the current number of participants.

5.3.3 Farming education background

Results of the farming educational background are presented in the figure 5.7 below.

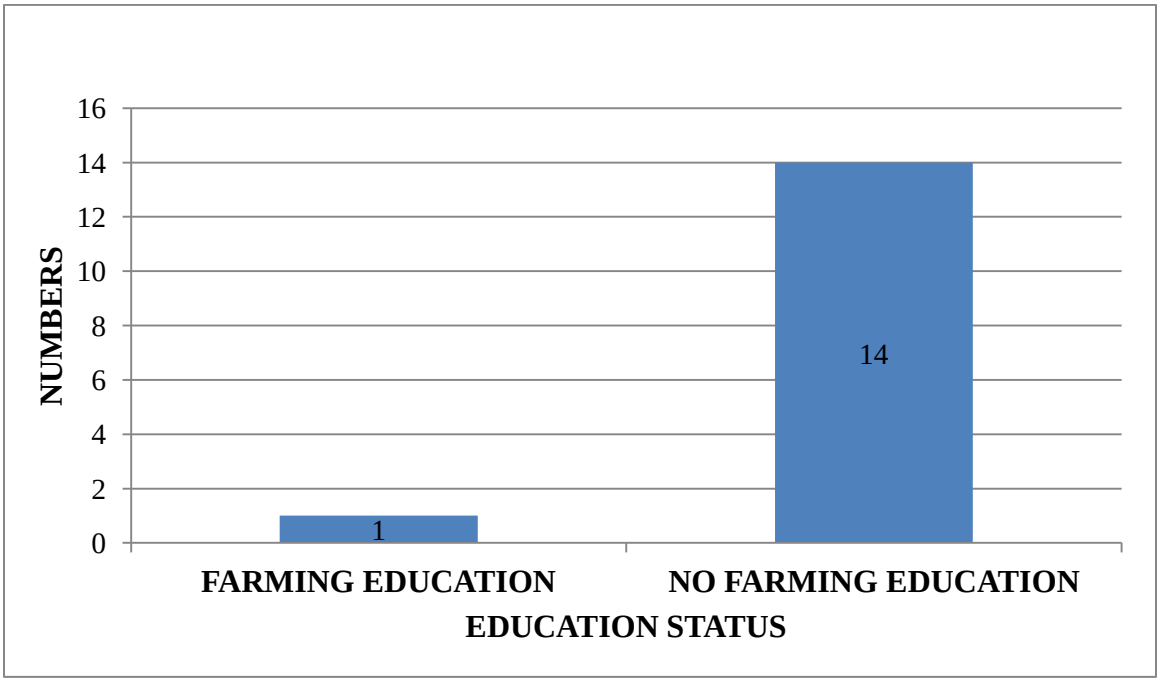

Figure 5. 7: Farming education background

Source: Field survey, 2014

The figure above shows that only one farming participant has had a farming education background. This farming education was obtained from the Fort Cox College. The other fourteen farming participants never received any farming education. These findings prove that agricultural production does not necessary rely on education background. Agricultural production is an activity that largely requires farming skills. Since the fourteen participants never had farming

education, it can be said that they are using their skill and experience to produce. Therefore, it can be said that farming education does not necessarily influence the decision to farm.

Farming is an industry that requires skills development. Things such as farming environment, technology developments and production techniques are changing all the time. This makes it important for farmers to keep on improving their farming knowledge and skills. Unfortunately, none of the participant respondents were improving their farming knowledge. When asked about their sources of information of improving their farming knowledge, 100% of them responded negatively. All of the farming respondents responded that they have no source of information to improve their farming knowledge. This either means that the sources of information are not available or rural people have no interest in improving their knowledge.

5.3.4 Youth assisting with farming activities

The results of the youth assisting with farming activities are presented in the chart figure 5.8 below.

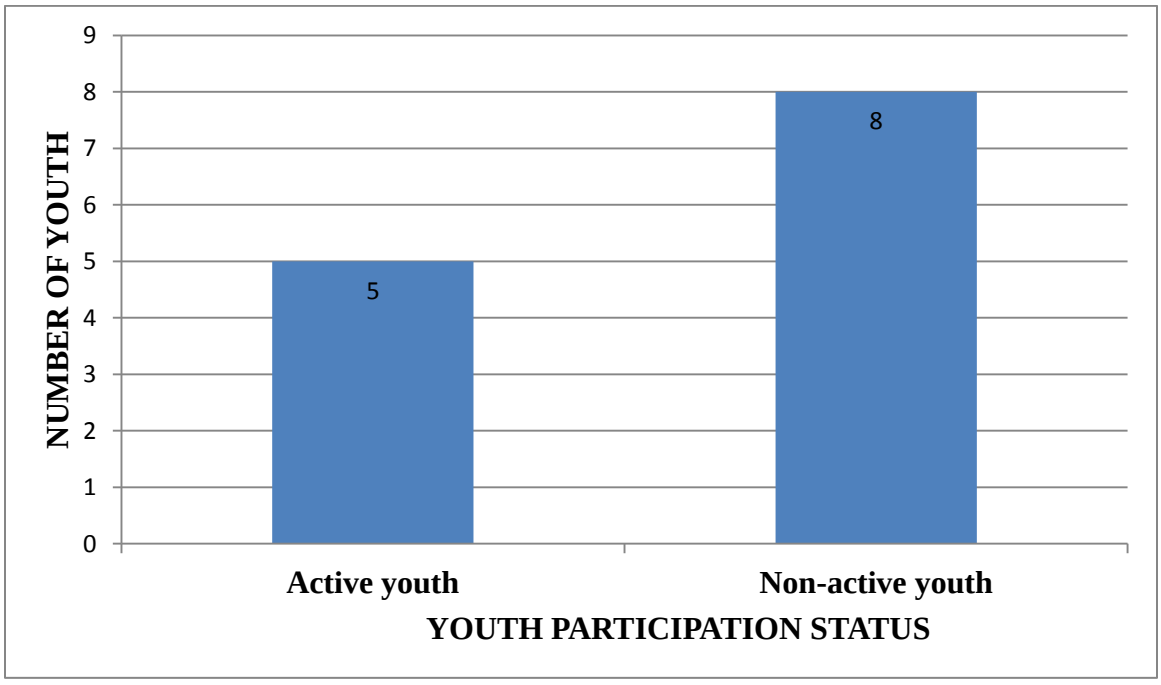

Figure 5. 8: Distribution of the youth farming participation status

Source: Field survey, 2014

The graph above is showing the distribution of the youth assisting with farming activities. The results show that only 5 of the participants received assistance from the youth with their farming activities. About eight of the participants responded that they do not receive assistance from the youth.

When asked for reasons the youth is not active in farming, the respondents responses were that the youth does not have time for farming, not interested in farming, there are no community projects or farming resources in the area to motivate young people and that they are too young to farm.

Respondents were asked if they pass their farming skills and knowledge to their younger generation. About 53% of the farming participants responded that they do pass their farming 'know how' to the younger generation through practicing agriculture with their children.

All participants responded that they pass their farming skills to their family members. Unfortunately, there is no one who stands out as a leader and involves the young community members in agricultural activities. The other 47% of the farming participants responded that they do not pass their farming skill to their younger generation. Their reasons were that the youth is not interested in farming and have no time for farming, during weekdays they are in school and on weekends, there is no time for farming.

5.3.5 Motivation

The farming participants were asked to give details of the factors that motivated them to be engaged in farming activities. The aim was to discover the factors that motivate rural people to be engaged in farming activities. Responses to this question included that farming derived food for home consumption, generate income and reduce food consumption expenditure. From these responses it can be concluded that rural people mainly partake in farming activities in order to provide food security for their household.

5.4 Analysis of non-farming participants

This section analyses information obtained from non-participants. It tries to discover the possible reasons for these individuals not to participate in farming activities.

5.4.1 Farming resources

The results of the ownership of farming resources of non participants are presented in the chart figure 5.9 and in table 5.13.

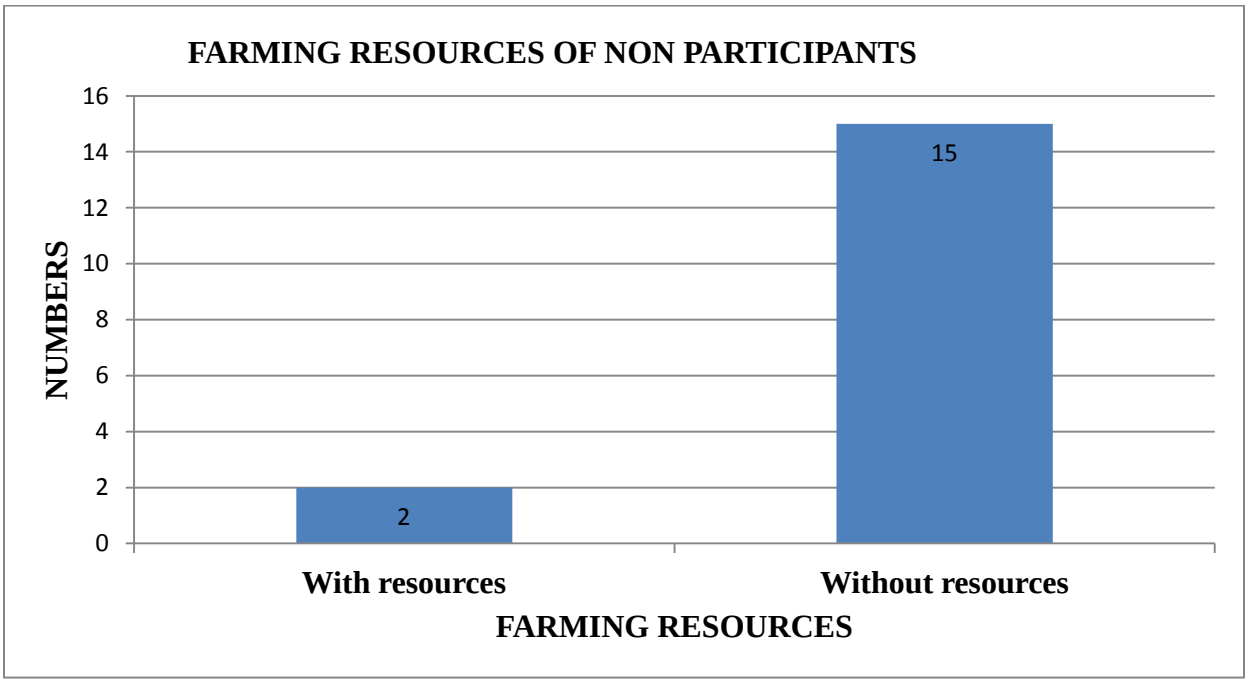

Figure 5. 9: Ownership of farming resources

Source: Field survey, 2014

The chart above indicates that the majority of non-participants do not own farming resources. Only two non-participants (17%) responded that they owned farming resources while the other fifteen (88%) owns no farming resources. However, the farming resources owned by the 17% of non-participants included just basic implements such as ploughs, spades and rakes. From the chart above it is evident that most of the non-participants are without farming resources. The lack of farming resources makes it difficult for these individuals to participate in farming. Therefore, the lack of farming resources may be a major factor that influences individuals not to participate in farming activities.

Table 5. 13: The desire to own farming resources

Variables	Frequency	Percentage (%)
Desire to own farming resources		
YES	12	80
NO	3	20
Total	**15**	**100**

Source: Field survey, 2014

When the fifteen individuals that owned no farming resources were asked if they wished they owned farming resources, twelve (80%) of them responded 'yes' and the other three (20%) responded 'no'.

From these responses, it can be said that most of the non-participants would have participated in farming activities had they owned farming resources. This conclusion is drawn from the fact that they had a desire of owning farming resources which would have been used only for farming purposes.

5.4.2 Analysing the farming background of non-participants

The results of the analysis of the farming background of non-participants are presented in the following chart figure 5.10.

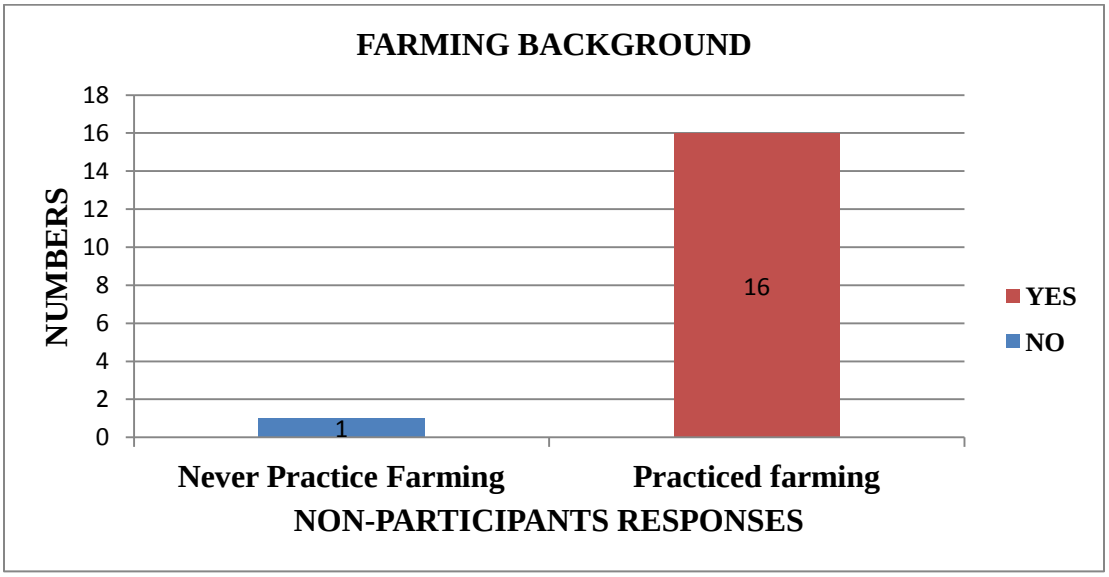

Figure 5. 10: The farming background of non-participants

Source: Field survey, 2014

The figure above shows that almost all the non-participants do have a farming background. According to the figure above, sixteen of the non-participants have had a farming background and only one non-participant had no farming background. This simply means that there are certain factors that took over and influenced these individuals not to continue with farming activities. These factors may include lack of farming resources, loss of interest to farm, age differences and others.

5.4.3 Community members participating in farming activities

The results that show people who have knowledge of farming taking place in the area are presented in the table 5.14 below.

Table 5. 14: Knowledge of farming participants in the area

Variable	**Frequency**	**Percentage (%)**
Any individuals involved in farming in the area?		
YES	16	94
NO	1	6
Total	**17**	**100**

Source: Field survey, 2014

When the non-participants were asked if there are any individuals involved in farming activities in the area, 94% of them responded 'yes'. This simply means that they are aware of farming activities taking place in the area.

5.4.4 The benefits of farming

The figure 5.11 and table 5.15 below presents the results of benefit of farming according to non-participants.

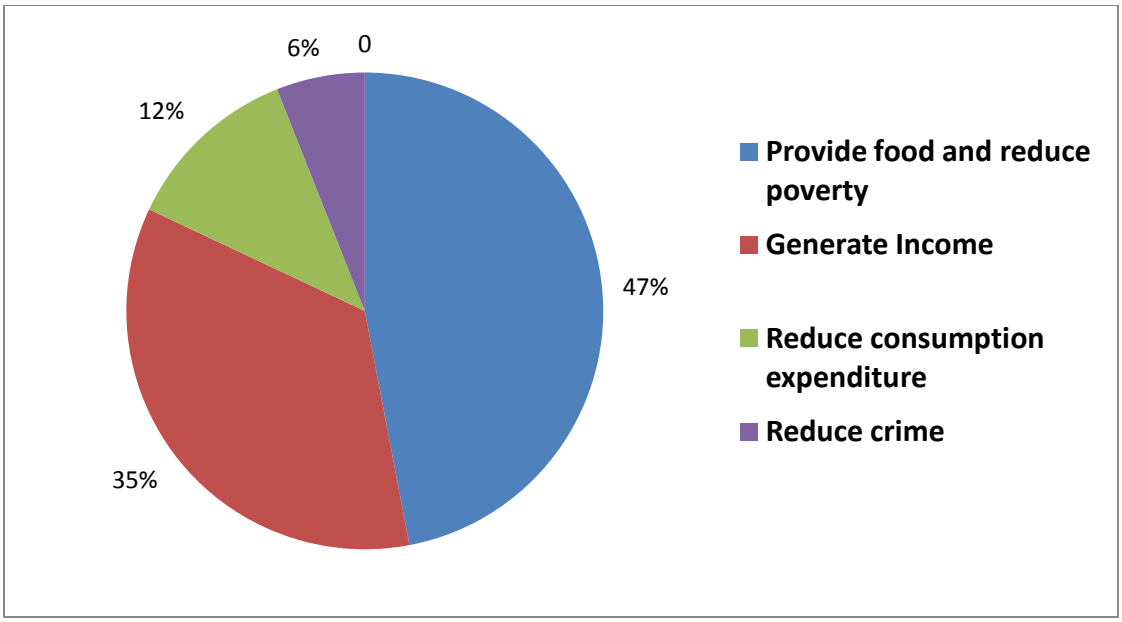

Figure 5. 11: Benefits of farming according to non-participants

Source: Field survey, 2014

The figure above indicates the responses according to non-participants of the benefits of farming. Most of the non-participants (47%) believe that farming provides food and reduces poverty. Six percent of the non-participants see farming as a tool of reducing crime in the area.

Table 5. 15 Perceiving farming benefits from local farmers

Variable	**Frequency**	**Percentage (%)**
Do you see farming benefits from your local farmers?		
YES	15	88
NO	2	12
Total	**17**	**100**

Source: Field survey, 2014

The success of local farmers can play a significant role in promoting farming in the area. If community members can perceive farming benefits from local farmers, they themselves may be motivated to participate in farming activities. The table above indicates the responses from non-participants to the question of perceiving farming benefits from their local farmers. About 88% of them responded that they do see the benefits of farming from local farmers. It can therefore be said that the local farmers in the area are successful in their farming. This draws a conclusion

that farming in the area of Phumlani can provide the community with the above mentioned (in figure 13) benefits.

5.5 Analysis of significance through the multiple regression model.

This section of data analysis uses multiple regression to analyze the degree of relationship between a dependent variable and independent variables.

The regression model is as follows:

$$Y = ß_0 + ß_1X_1 + ß_2X_2 + ß_3X_3 + ß_4X_4 + ß_5X_5 + ß_6X_6 + ß_7X_7 + U$$

Where: Y = Non-farming participants

X_1 = Age differences

X_2 = Lack of farming resources

X_3 = Lack of motivation

X_4 = Lack of leadership

X_5 = Education level

X_6 = Lack of finance

U = Error term

Dependent variable: Farming Status

Independent variables: Age differences, lack of farming resources, lack of motivation, lack of leadership, education level, and lack of finance.

$$Y = ß_0 + ß_1 + ß_2 + ß_3 + ß_4 + ß_5 + ß_6$$

$$Y = ß_0 - 0.005 + 0.236 - 0.036$$

Table 5.16 below presents the results of the multiple regression model where the degree of relationship between dependant variable and independed variables was analysed.

Table 5. 16: Multiple regression results

parameters	Estimate ($ß_1$, $ß_2$ and $ß_3$)	Standard Error	t Value
intercept		0.843	1.480
Age differences	-0.005 ($ß_1$)	0.008	-0.018
Farming resources	0.236 ($ß_2$)	0.369	0.844
Motivation	-0.036 ($ß_3$)	0.286	-0.125
leadership	-0.339($ß_4$)	0.210	-1.696
Education level	-0.597($ß_5$)	0.099	-3.043
Lack of finance	0.070($ß_6$)	0.301	0.382

Source: Field survey, 2014

Interpretation:

5.5.1 The relationship between the farming status and age differences

H_0: *$ß_1 = 0$ (the farming status is NOT influenced by the age differences*)
H_1:*$ß_1 \neq 0$ (the farming status IS influenced by the age differences*)

$ß_1$ has a negative value, meaning that there is a negative relationship between the farming status and the age differences. This means that the age difference has nothing to do with Phumlani people not participating in farming activities. An increase in number of people not participating in farming has nothing to do with their age, whether it's because they are old, they cannot do anything for them or it's because they are young (youth), so they lack motive to participate in farming. If we can hold $ß_2$ and$ß_3$ constant, the presence of age difference has no impact of the farming status, since it is shown by -0.005. Since $ß_1$ is negative, this shows a negative relationship between farming status and age difference.

This means that we fail to reject H_0 (*$ß_1 = 0$*) and conclude that age difference does not affect the farming status like age difference is the causal factor of Phumlani people not farm.

5.5.2 The relationship between the farming status and farming resources

H_0: *$ß_2 = 0$* (*farming resources has NO influence on the farming status*)
H_1:*$ß_2 \neq 0$ (farming resourceshas AN influence on thefarming status*)

$ß_2$ has a positive value, indicatinga positive relationship between farming status and farming resources. This positive relationship is shown by a positive number ($ß_2$) of 0.236.

This means that the absence of farming resources is the causal factor of Phumlani people not to participate in farming. If we can hold age differences and motivation constant, the absence of farming resources lead to people of Phumlani location not to participate in farming. The above results lead to us rejecting H_0, this means that there is a positive relationship between farming status and farming resources.

5.5.3 The relationship between the farming status and motivation

H_0: $ß_3 = 0$*(motivation has NO influence on the farming status*)
H_1:$ß_3 \neq 0$ *(motivation has an influence on the farming status*)

$ß_3$ has a negative value, meaning that holding $ß_1$ and $ß_2$, whether Phumlani people can be motivated or not, they will continue not to participate in farming, as there is negative relationship between farming status and motivation. This negative relationship is shown by negative $ß_3$ of -0.036. Phumlani people need something more than motivation in order for them to participate in farming.

5.5.4 The relationship between the farming status and leadership

H_0: $ß_4 = 0$ *(the farming status is NOT influenced by the lack of leadership*)
H_1:$ß_4 \neq 0$ *(the farming status IS influenced by the lack of leadership*)

$ß_4$ has a negative value of -0.339, indicating the negative relationship between the farming status and leadership. If $ß_1$, $ß_2$ and $ß_3$ can be held constant, leadership which is indicated by $ß_3$ alone does not has an influence on the farming status of Phumlani people.

The negative relationship between farming status and leadership is shown by a negative sign of $ß_4$ (-0.339). This means that we accept H_0 (the farming status is not influenced by lack of leadership).

5.5.5 The relationship between the farming status and education

H_0: $ß_5 = 0$*(education has NO influence on the farming status*)
H_1:$ß_5 \neq 0$ *(education has AN influence on the farming status*)

$ß_5$ has a negative value, meaning that the relationship between farming status and education level is negative. This tells us that the education level has nothing to do with farming status, especially in rural areas. Days before many people in rural areas used to be engaged in farming activities and they were not educated. This means that a person can be involved in farming without being educated; he or she will use indigenous knowledge. The negative relationship between farming status and education levels is shown by -0.597 ($ß_5$). Therefore, we accept H_0, meaning that education level does not influence the farming status of Phumlani people.

5.5.6 The relationship between the farming status and lack of finance

H_0: $ß_6 = 0$ *(the farming status is NOT influenced by the lack of finance*)
H_1:$ß_6 \neq 0$ *(the farming status IS influenced by the lack of finance*)

$ß_6$ has a positive value of 0.070, indicating a positive relationship between farming status and lack of finance. If $ß_1$, $ß_2$, $ß_3$, $ß_4$ and$ß_5$ can be held constant, $ß_6$ (which indicates the effect of lack of finance on farming status) has a positive value, meaning that the lack of finance cause or lead to Phumlani people not to participate in farming. This means that the higher the lack of finance, the more people will not be engaged in farming. This led us in rejecting H_0, and accepting H_1, which means that the farming status is influenced by the lack of finance.

5.6 Chapter Summary

This chapter presented the results of the study. These include data such as farming education background, farming support received and others. The third part analyses data that was obtained from non-farming respondents. For the purpose of this study, a farmer is defined as any

individual involved in the production of crops, whether in a large farming area land or even a small backyard garden.

Presented in the first part of the chapter was the section of the personal and household characteristics as well as the description of agricultural environment in the Phumlani area. The second part presented was analyses of data presented by farming respondents. These include data such as farming education background, farming support received and others. The third part analysed data that was obtained from non-farming respondents. For the purpose of this study, a farmer is defined as any individual involved in the production of crops, whether in a large farming area land or even a small backyard garden. Individuals that participated in farming are referred to as participants and those who are not involved in farming are referred to as non-participants. The chapter concluded by the analysis of significance through the multiple regression model. Where the dependent variable which is farming status was interpreted along with independent variables namely: Age differences, lack of farming resources, lack of motivation, lack of leadership, education level, and lack of finance. The findings were as follows: Relationship between the farming status and the age differences had negative value, meaning that it was negative; this means that the age difference has nothing to do with Phumlani people not participating in farming activities. Relationship between farming status and farming resources was positive; this means that the absence of farming resources is the causal factor of Phumlani people not to participate in farming. Relationship between farming status and motivation was negative, thus means Phumlani people can be motivated or not, they will continue not to participate in farming. Relationship between the farming status and leadership was negative;this means that the farming status is not influenced by lack of leadership.Relationship between farming status and education level was negative, thus tells us that the education level has nothing to do with farming status, especially in rural areas. People living in rural areas used to be involved in farming using indigenous knowledge. Positive relationship between farming status and lack of finance was indicated, thus means that the higher the lack of finance, the more people will not be engaged in farming.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

Agriculture as a source of food security has an ability to reduce poverty and hunger in rural communities. People living in rural areas face the harsh conditions of poverty, food insecurity and lack of access to services on an almost daily basis. If rural people can participate in farming in large numbers, the above mentioned problems of food insecurity resulting to rural hunger and poverty can be reduced, since many rural households will be producing agricultural products for themselves. Therefore, agriculture can be regarded as an appropriate vehicle to provide households with food security and reduce hunger.

6.2 Summary

6.2.1 Chapter 2 Summary

In chapter 2 a general overview of the rural areas in South Africa was reviewed and the factors that prevent rural people from being active in farming were the most highlights for this chapter and were discussed detailed. These factors are rural-urban migration infrastructure, age differences lack of finance, lack of motivation education and leadership. Among the important factors were the lessons from previous similar studies, which give an idea of how other researchers conducted their studies and results found.

6.2.2 Chapter 3 Summary

In chapter 3 the study area was described with Maps shown. The maps are showing the region where the study was conducted. Figure 1 shows Republic of South Africa then Eastern Cape being red shaded on the map. Figure 2 shows Eastern Cape as whole and East London at the bottom right. Among the important factors in this chapter it the fact that while Phumlani village may not be well accessible in terms of infrastructure i.e. roads in some part but however the area

is agricultural suitable which makes it in good potential given that infrastructural problems solved.

6.2.3 Chapter 4 Summary

Most important points in this chapter it was clearly revealed how data collection and analysis are going to be conducted. Testing using multiple regression is among the important methods since it is looking at these factors that prevent rural people from being active in farming. In this research methodology chapter sampling method were explained. Procedures were used in making systematic observations, obtaining data, evidence, or information of the research study. Methods of data collection and data analysis were also well detailed. Significance testing of the hypothesis, testing the associations between variables using Chi-Square **(χ^2)** and Testing using multiple regression model were also discussed in this chapter.

6.2.4 Chapter 5 Summary

This chapter presented the results of the study. These include data such as farming education background, farming support received and others. The third part analyses data that was obtained from non-farming respondents. For the purpose of this study, a farmer is defined as any individual involved in the production of crops, whether in a large farming area land or even a small backyard garden.

Different individuals are influenced by different factors that prevent them from engaging in farming activities. It is therefore important that all the factors that possibly affect an individual's decision whether to farm or not should be greatly considered. Among other farming preventive factors such as unavailability of land and lack of support, the lack of farming resources seems to be a major factor that influences the Phumlani community members not to participate in farming activities. About 88% of non-participants claim that they owned no farming resources. This large proportion of individuals who lack farming resources may be the reason for their non-participation. The lack of farming resources makes it difficult for these individuals to participate in farming. Rural communities fail to develop themselves in the absence of external support. They remain impoverished because they have no access to basic infrastructure essential for

economic growth and development. This makes rural communities to largely depend on external support for their development.

6.3 Conclusions

It is unfortunate that government social grants to poor people have taught them to largely depend on government grants and free giveaways for survival. Rural people always complain to the government for not securing support mechanisms for their development. The farming participants that were interviewed all claim that there is a lack farming support in the area. Government grants have taught rural people to rely on grants rather than on their own effort for their own growth and development. When there is no support of any kind, rural people would not be motivated to start development projects on their own.

Consequently, this lack of farming support in the Phumlani area may have an influence on the number of farming participants. Therefore, the lack of support in the area may serve as an incentive for non-participants not to be influenced to farm

From this study, it appears that land unavailability is not an influential factor for the Phumlani community members not to participate in farming. This is because in Phumlani, agricultural land is available in abundance. The availability of an agricultural land is a major determinant of farming activities to take place. Fortunately, the area of Phumlani has an abundant agricultural land the community members are unable to capitalize on this benefit such that a large agricultural land remains unused and unproductive.

Rural farming needs to be promoted amongst the youth so as to protect and sustain agricultural growth in rural areas. It is important to understand that the future of rural agriculture lies with the youth. Currently, the older generation has a duty of passing their farming skills and knowledge to the younger generation. The study has discovered that the youth of Phumlani is not actively involved in farming activities. As already mentioned above, about 62% of the participants do not receive assistance from the youth in their farming activities. The youth's excuse is that they do not have time for farming and there are no farming resources. Unfortunately, this is a negative factor for the future of agriculture in Phumlani.

6.4 Recommendations

Through the planting of food gardens, communities lend a hand in the development and betterment of their lives. Households participating in farming activities are not only able to support their families with their produce but, also to start small businesses supported by the very food gardens in order to raise income.

Therefore, rural farming has many benefits such as income-generation, food security and crime reduction. The study findings provide strong support for the view that while farming resources is important to rural people's farming participation status and so are the influences from farming support and motivation. The government has a major role to play in ensuring that agriculture is promoted among rural communities. In this study, the lack of farming resources serves as a major factor that prevents individuals from farming.

Therefore, the government can provide farming the community members with farming resources so as to promote farming in the area. It would be wiser for the government to provide physical farming resources and implements rather than cash grants. Cash grants tend to drive poor people away from working hard to reach their goal and shifts their focus more on the cash received. The current government of the country aims at assisting a group of people rather than an individual. This aim can be achieved by introducing community garden programs. The government can promote farming activities within rural communities by introducing community garden programs. This program has an ability to involve a large number of community members to participate in farming activities.

It is not only the role of the government to promote rural farming but the community itself has a role to play. Therefore, blame for hunger in rural areas cannot be pointed out only to the government but also to the members of the community. In Phumlani, there is a need for a community leader who can influence the community members to participate in farming activities. The presence of an influential leader can have significant results in the growth number of farming participants. Also, the community can form farming community projects. The formation of these community projects does not necessarily depend on government intervention but requires the contribution of community members. In order to protect and sustain agricultural growth in rural areas, the youth's attitudes towards agriculture must be changed.

Farming knowledge is empowerment which is needed by rural people especially the youth, so that they may be empowered to become food self-sufficient. The youth must be informed of the importance of farming so as to influence them into farming careers. This can be done through motivation and informing the youth about the opportunities that are available in the agricultural sector.

LIST OF REFERENCES

Agresti, A., 1990. Categorical data analysis. John Wiley and Sons, New York, NY, USA.

Aliber, Michael., 2003. "Chronic poverty in South Africa: Incidence, causes and policies." *World Development* 31.3: 473-490.

Arbor, MI, USA. Liao, T.F., 1994. Interpreting probability models: logit, probit, and other generalized linear models. Sage Publications, Thousand Oaks, CA, USA.

Babulo, Bedru, et al., 2009. "The economic contribution of forest resource use to rural livelihoods in Tigray, Northern Ethiopia." *Forest Policy and Economics* 11.2 :109-117.

Bajgai, Ram Chandra, and Sumjay Tshering., 2013 "Rural-urban migration: A challenge in preserving socio-cultural practises and values." *Conference Proceedings of the 2nd International Conference on Population and Development*. Vol. 1. No. 1..

Bakenegura, Namara Rose., 2003. "AFRICA LOCAL GOVERNMENT ACTION FORUM (ALGAF 111)."

Bass, B. M., & Bass, R., 2009. *The Bass handbook of leadership: Theory, research, and managerial applications*. Simon and Schuster.

Batterbury, Simon., 2001. "Landscapes of diversity: a local political ecology of livelihood diversification in south-western Niger." *Cultural Geographies* 8.4: 437-464.

Beingessner, Naomi Ellen., 2013. *Alternative Land Tenure: A Path Towards Food Sovereignty in Saskatchewan?*. Diss. Faculty of Graduate Studies and Research, University of Regina.

Bless c., Higson-smith, c. and Kagee, a., 2006. Fundamentals of Social Research Methods. (4th edition). Juta & company ltd., Cape Town, South Africa.

Bob, Urmilla., 2001. "The Intersection of Gender. Race and Class: The Socio-Economic and Spatial Implications of Differentiation in the Former Homelands of South Africa." *South African Geographical Journal* 83.3: 190-197.

Bryceson, Deborah., 2000. *Rural Africa at the crossroads: livelihood practises and policies*. London: Overseas Development Institute.

Buvé, Anne, Kizito Bishikwabo-Nsarhaza, and Gladys Mutangadura., 2002. "The spread and effect of HIV-1 infection in sub-Saharan Africa." *The Lancet* 359.9322: 2011-2017.

Chambers, Robert, and Gordon Conway., 1992. *Sustainable rural livelihoods: practical concepts for the 21st century*. Institute of Development Studies (UK).

Cunneyworth, Pamela., 2001. "Managing Agricultural Resources for Biodiversity Conservation."

Deinlnger, Klaus, and Hans Binswanger., 1999 "The evolution of the World Bank's land policy: principles, experience, and future challenges." *The World Bank Research Observer* 14.2: 247-276.

Dougherty, C., 1992. Introduction to Econometrics. Oxford University Press, Oxford.

Dovie, Delali BK, Charlie M. Shackleton, and E. T. F. Witkowski., 2006. "Valuation of communal area livestock benefits, rural livelihoods and related policy issues." *Land Use Policy* 23.3: 260-271.

Dube, E. F. (1985). The relationship between racism and education in South Africa. *Harvard Educational Review*, *55*(1), 86-101.

Ellis, Frank., 2005 "Small farms, livelihood diversification, and rural-urban transitions: Strategic issues in Sub-Saharan Africa." *The future of small farms*, 135.

Finkel, Steven E., and Howard R. Ernst., 2005"Civic education in post-apartheid South Africa: Alternative paths to the development of political knowledge and democratic values." *Political Psychology* 26.3: 333-364.

Giller, Ken E., et al., 2009. "Conservation agriculture and smallholder farming in Africa: the heretics' view." *Field crops research* 114.1: 23-34.

Greenberg, Stephen. 2010. "Status report on land and agricultural policy in South Africa."

Hall, Ruth., 2004. *Land and agrarian reform in South Africa: A status report 2004*. Cape Town: Programme for Land and Agrarian Studies, University of the Western Cape.

Herman D., van Schalkwyk Jan A., Groenewald Gavin C.G., Fraser, Ajuruchukwu Obi., Aad van Tilburg., 2012. Unlocking Markets to Smallholder Farmers: Lessons from South Africa, vol 10: 94-95.

Herselman, M. E. 2003. "ICT in rural areas in South Africa: various case studies." *Informing Science Proceedings*, 1-11.

Jalan, Jyotsna, and Martin Ravallion., 1999. "Are the poor less well insured? Evidence on vulnerability to income risk in rural China." *Journal of development economics* 58.1: 61-81.

Kirsten, J. F. and Van zyl, J. 1998. Defining small-scale farmers in the South African context. Agrekon 37 (4): 561-565.

Klasen, S. and I. Woolard, 2005. Surviving unemployment without state support: unemployment andhousehold formation in South Africa. Working Paper No. 129, University of Cape Town, Centre of Social Science Research (CSSR), Cape Town, South Africa.

Lacroix, Thomas., 2011. "Migration, rural development, poverty and food security: a comparative perspective."

Lam, D., 1999. Generating extreme inequality: schooling, earnings, and intergenerational transmission of human capital in South Africa. Research Paper, University of Michigan, Ann.

Lipton, Michael., 2005. *The family farm in a globalizing world: The role of crop science in alleviating poverty*. Vol. 40. Intl Food Policy Res Inst.

Liu, Amy Qiaoming, and Terry Besser., 2003."Social Capital and Participation in Community Improvement Activities by Elderly Residents in Small Towns and Rural Communities*." *Rural Sociology* 68.3l: 343-365.

Louw, Jaysveree M., 2004. "RURAL-URBAN MIGRATION IN SOUTH AFRICA." *Globalization and Urbanization in Africa*, 105.

Machethe, C. L., 2004, October. Agriculture and poverty in South Africa: Can agriculture reduce poverty. In *Paper presented at the Overcoming Underdevelopment Conference held in Pretoria* (Vol. 28, p. 29).

Mercedes, B. S. and Manila, B. 2006. Holistic Rural Education document. Available online: http://www.opusdei.org.za/art.php?p=20474 Accessed on 2 March 2014.

Mcconnell, C.R., and Brue, S. L., 1990. Economics-Principles, Problems and policies. McGraw-Hill publishing company. United States of America.

McManus, Phil, et al., 2012. "Rural Community and Rural Resilience: What is important to farmers in keeping their country towns alive?." *Journal of Rural Studies* 28.1: 20-29.

Magingxa, L.L., 2006. Smallholder irrigators and the role of markets: a new institutional approach. PhD Thesis, Department of Agricultural Economics, University of the Free State, Bloemfontein, South Africa.

Makhado, Z., and Kepe, T., 2006. Crafting a livelihood: local level trade in mats and baskets in Pondoland, South Africa. Development Southern Africa 23(4): 497-509.

Makhura, M. and M. Mokoena, 2003. Market access for small-scale farmers in South Africa. In: L. Nieuwoudt and J. Groenewald (eds.) The challenges of change: agriculture, land and the South African economy. University of Natal Press, Natal, South Africa, pp. 137-148.

Mashatola, M.C. and M.A.G. Darroch, 2003. Factors affecting the loan status of sugarcane farmers using a graduated mortgage loan repayment scheme in KwaZulu-Natal. Agrekon 42: 353-365.

Maxwell, J. C., 2006. How to overcome the common myths of leadership. Available online: http://itc-northeast.tripod.com/articles/LeadershipInfluence.doc. Accessed on 02 April 2014.

May, J., 1998. Poverty and inequality in South Africa. Report prepared for the office of the executive deputy president and the inter-ministerial committee for poverty and inequality. Praxis Publishing, Durban, South Africa.

Mokoena, M.,R., Mekuria, M., and NgqalenI, M., 1997. A probit analysis of women farmers' access to farm land and credit in the Northern Province. Agrekon 36(1), 41-47.

Mokoena, R., 2003. Deterioration of agricultural support services. Report. National Treasury, Pretoria, South Africa.

Mushunje, A., A. Belete and G. Fraser, 2003. Technical efficiency of resettlement farmers of Zimbabwe. Contributed paper presented at the 41st Annual Conference of the Agricultural Economic Association of South Africa (AEASA), Pretoria, South Africa, 13 pp.

Mushunje, A., 2005. Farm efficiency and land reform in Zimbabwe. PhD thesis, University of Fort Hare, Alice, South Africa.

National African Farmers Union of South Africa (NAFU), 2005. NAFU-farmer. Avialable at: http://www.nafufarmer.co.za/pdf_files/NAFU_AD.pdf.

Ndirangu, N., 2002. Africa worse-off after agreement on agriculture. Paper presented at the Roundtable on Food and Trade: the WTO Development Change, November 4-5, 2002, Ottawa-Ontario, Canada.

Nel, E.L. and J. Davies, 1999. Farming against the odds: an examination of the challenges facing farming and rural development in the Eastern Cape province of South Africa. Applied Geography 19: 253-274.

Nel, Etienne L., and Ronald W. McQuaid., 2002. "The evolution of local economic development in South Africa: The case of Stutterheim and social capital." *Economic development quarterly* 16.1 60-74.

Nyamande-Pitso, A., 2001. The experience of black business in the import/export market. Paper presented at the 8th Annual Agriculture Management Conference, October 30, 2001, Midrand-Johannesburg, South Africa.

Ortmann, G, F., 2005. Promoting the competitiveness of South African Agriculture in a dynamic economic and political environment. Agrekon 44(3): 287-293.

May, Julian, and J. Govender., 1998. "Poverty and inequality in South Africa." *Indicator South Africa* 15 53-58.

Pauw, K., 2005. Quantifying the economic divide in South African agriculture: an income-side analysis. Provide Project Working Paper 3, 2005, Elsenburg, South Africa.

Perret, S., 2002. Water policies and smallholding irrigation schemes in South Africa: a history and new institutional challenges. Working Paper 2002 No. 19, University of Pretoria, Department of Agricultural Economics, Extension and Rural Development, Pretoria, South Africa.

Reardon, Thomas, Julio Berdegué, and Germán Escobar., 2001. "Rural nonfarm employment and incomes in Latin America: overview and policy implications." *World development* 29.3. 395-409.

Ruel, Marie T., et al., 2010. "The food, fuel, and financial crises affect the urban and rural poor disproportionately: a review of the evidence." *the Journal of Nutrition* 140.1: 170S-176S.

Start, Daniel., 2001. "The Rise and Fall of the Rural Non-farm Economy: Poverty Impacts and Policy Options." *Development policy review* 19.4: 491-505.

Tacoli, Cecilia., 2009 "Crisis or adaptation? Migration and climate change in a context of high mobility." *Environment and Urbanization* 21.2: 513-525.

Woolard, Ingrid, and Murray Leibbrandt., 2013."The evolution and impact of unconditional cash transfers in South Africa." *Development Challenges in a Postcrisis World*: 363.

Xu, Z., Z. Guan, T.S. Jayne and R. Black, 2009. Factors influencing the profitability of fertilizer use on maize in Zambia. Agricultural Economics 40: 437-446.

Zeller, Manfred, et al., 1997. *Rural finance for food security for the poor: Implications for research and policy*. No. 4. Intl Food Policy Res Inst,

APPENDIX 1: QUESTIONNAIRE

UNIVERSITY OF FORT HARE
FACULTY OF SCIENCE AND AGRICULTURE
DEPARTMENT OF AGRICULTURAL ECONOMICS AND EXTENSION

FACTORS AFFECTING PARTICIPATION RATES IN FARMING IN THE COMMUNITY MEMBERS OF RURAL AREAS OF SOUTH AFRICA.

(A CASE STUDY IN PHUMLANI LOCATION)

HOUSEHOLD SURVEY QUESTIONNAIRE:

Village:…….
Name of Interviewer……. Date of Interview: …….

SECTION A: PERSONAL INFORMATION

1. Name *(Optional*):
……..……...

(Please tick correct option)

2. Sex Male ☐ Female ☐

3. Age ☐

4. Marital Status

SINGLE	MARRIED	DIVORCED	WIDOW	OTHER *(please specify)* .....

5. Highest Education

Primary School	High School	Tertiary Level	Other*(please specify)* .....

SECTION B: HOUSEHOLD INFORMATION

Household Size	
Total Number of Adults (age ≥ 21)	
Total Number of Children (age ≤ 20)	
Number of Households Bringing in Income	
Total Household Income	

Household Assets

Type of Assets	**Numbers**
Durable	
House	
Car	
Couches	
Beds	
Non-Durable	
Computer / Laptop	
Television	
Radio	
DVD	
Camera	
Fridge	
Stove	
Microwave	
Iron	
Ironing Board	
Kettle	
Fan	
Heater	

Type of Livestock	Numbers
Cattle	
Horses	
Donkeys	
Goats	
Sheep	
Piggery	
Poultry	
Dogs	
Cats	

Household Implements

Type of Implements	Numbers
Tractor	
Spade	
Hoe	
Wheel Barrow	
Other……..	

SECTION C: GENERAL INFORMATION

1. Do you own or rent any agricultural land? YES ☐ NO ☐

If yes, how many hectares?…….....

2. Are there any agricultural development projects taking place in your area? YES ☐ NO ☐

If yes, please elaborate

……...……..….

…….……

……

3. Are there any individuals in your area who are promoting farming? YES ☐ NO ☐

If yes, in what way?

.....

.....

4. Do you thing that there is potential for farming in your area? YES ☐ NO ☐

5. In your own view, what are the important aspects of farming?

.....

.....

6. What is the current condition of the infrastructure? (Roads, Electricity)

……

7. Are you currently involved in farming activities? YES ☐ NO ☐

If the answer to question 7 is yes, please complete section D.

If the answer to question 7 is no, please complete section E.

SECTION D: PARTICIPANT IN FARMING ACTIVITIES

1. In what year did you start farming?.....

2. How do you get or acquire agricultural inputs?

.....……

……..

3. Do you get support from government institutions? YES ☐ NO ☐

If yes, what kind of support?

.....

……...

4. Please indicate which crops you grow?

CROPS	**Please tick**
Maize	
Cabbage	
Onion	
Spinach	
Carrots	
Tomatoes	
Beans	
Other (please specify)	

5. Did you receive any form of farming education? YES ☐ NO ☐

If yes, please elaborate

……

……

……

6. Do you have any support from the Eastern Cape Department of Agriculture?

YES	NO

If yes, what kind of support?

.....

.....

7. What role do you think the government can play in promoting rural farming?

.....……

……

……

8. What are your sources of information that help you improve your farming knowledge?

.....

9. Are there any youth assisting you in your farming activities? YES ☐ NO ☐

If no, what are the reasons for their non-participation?

.....

….....**.....**

……

10. Are you passing your farming knowledge to your children or youth in the area? .....

If yes, in what way?

.....

If no, why not?

.....

11. What motivated you to be engaged in farming?

.....

.....

……..

12. How can the youth be motivated to participate in farming activities?

.....

……

13. Did you receive any form of Agricultural training? If yes who was responsible for it?

…….....

14. After the harvesting the product do u sell it or use it for home consumption?

……

15. Do you have access to market?

….....**.....**

16. Do you have institution that is assisting you with market information?

……....

17. Do you have access to credit loans or grants? If yes where do you get them?

.....

18. Is there any other agricultural help that you getting? If yes where do you get it?

.....

19. Any other Occupation aside from this farming?.....

20. Any other source of income?.....

SECTION E: NON PARTICIPANTS IN FARMING

1. Do you believe the statement that rural farming is the best way of reducing rural hunger?

……..…

……

2. Do you have any farming resources in your possession? YES ☐ NO ☐

If yes, please complete question 2.1 and 2.2

2.1 Please list the availableresources

……..……

……..……

2.2 What would motivate you to start using these resources?

.....

……

……..

If your answer to question 2 is no, please complete question 2.3

2.3 Do you wish you had the farming resources? YES ☐ NO ☐

If yes, would you have used them for farming purposes? YES ☐ NO ☐

3. Have you ever practised farming in your life? YES ☐ NO ☐

If no, why?**.....**

……

If yes, what made you not to continue with farming?**.....**

……

……

4. Are there any people involved in farming in your area? YES ☐ NO ☐

5. In your own view, what are the benefits of farming?**.....**

……..…..

……

6. Do you see any of those benefits from your local farmers? YES ☐ NO ☐

7. What would motivate you to participate in farming?**.....**

……

……..……

……

THANK YOU FOR YOUR COOPERATION!!!!