

AGRICULTURE PRODUCTION AND POVERTY REDUCTION IN UGANDA

A CASE STUDY OF KITENGA SUB-COUNTY, MUBENDE DISTRICT

BY

MANISUUL KALYOWA

REG NO

1153-05154-02100

**A RESEARCH REPORT SUBMITTED TO THE COLLEGE OF ECONOMICS AND
MANAGEMENT IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR**

THE AWARD OF BACHELORS DEGREE IN ARTS AND ECONOMICS OF

KAMPALA INTERNATIONAL

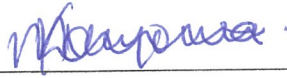
UNIVERSITY

AUGUST, 2018

DECLARATION

I **Manisuul Kalyowa** with **Reg No:1153-05154-02100**, declare that this Research Report is my own original work and has never been submitted to any University or Institution of higher learning for any Academic Award.

Name and Signature of Candidate

KALYOWA MANISUUL 

Date

17/08/2018

APPROVAL

This research report for the above student has been under my supervision it is ready for submission and examination.

Supervisor

Name Mrs. Nakawungu Faridah

Signature Nakawungu

Date 17/08/2018

DEDICATION

I dedicate this report to my dear late mother Mrs.Nalukenge Amiina, brother Mukisa Bruhan and Bukenya Shakim and not forgetting my sister Prossy Nakalema, relatives and friends of Kampala International University for their endless support and courage for my successful education.

ACKNOWLEDGEMENT

I would like to acknowledge God for granting me the opportunity complete my studies. In a special way, I would also like to acknowledge my immediate supervisor Mrs. Nakawungu Faridah, staff and friends of Kampala International University.

ABBREVIATIONS AND ACRONYMS

KIU-	Kampala International University
BC-	Before Christ
NAADS-	National Advisory Development Services
WB-	World Bank
SSA-	Sub Saharan Africa
UBOS-	Uganda Bureau of Statistics
UNHS-	Uganda National Household Survey
UN-	United Nation
GDP-	Gross Development Product
PHP-	Population and Housing Census
NDP-	National Development Plan
Ag HH-	Agricultural House Hold
MGLSD-	Ministry of Gender, Labour and Social Development
MAAIF-	Ministry of Agriculture, Animal Industry and Fisheries
PEAP-	Poverty Eradication Action Plan
NARO-	National Agricultural Research Organization
PMA-	Plan for Modernization of Agriculture
OECD-	Organization of Economic Cooperation for Development
NaCRRI-	National Agricultural Crop Resources Research Institute

TABLE OF CONTENT

DECLARATION	i
APPROVAL	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT	iv
ABBREVIATIONS AND ACRONYMS.....	v
TABLE OF CONTENT	vi
ABSTRACT	ix
 CHAPTER ONE	 1
BACKGROUND.....	1
1.1 Introduction	1
1.2 The problem Statement of the study.....	4
1.3 Purpose of the study.....	5
1.4 The objectives of the study	5
1.5 Research Questions	5
1.7 The Scope of the study	6
1.7.1 Geographical scope	6
1.7.2 Content scope.....	6
1.7.3 Time scope	6
1.8 Significance of the Study.....	6
 CHAPTER TWO.....	 7
LITERATURE REVIEW	7
2.0 Introduction	7
2.1: Theoretical review of the study	8
2.2.0: Review of the related Literature.....	9
2.2.1: The level of agricultural out produced by farmers	9
2.2.2:The level of poverty among the people of Uganda	11
2.2.3 The relationship between agricultural productivity and poverty eradication.	12

CHAPTER THREE	14
METHODOLOGY	14
3.0 Introduction	14
3.1 Research design	14
3.2 Study Population.....	14
3.3 Sample size	15
3.4 Sampling Procedure.....	15
3.5 Data sources	15
3.5.1 Primary data sources.....	15
3.5.2 Secondary sources.....	16
3.6 Data collection instruments	16
3.6.1 Questionnaire	16
3.7.0 Validity and Reliability of the Instruments	16
3.7.1 Validity of the instrument.....	16
3.7.2 Reliability of the instruments.....	16
2.8 Research Procedure	17
3.9 Data Analysis.....	17
3.10 Ethical Considerations	17
 CHAPTER FOUR.....	 19
DATA PRESENTATION ANALYSIS AND INTERPRETATION	19
4.0 Introduction	19
4.1.0 Demographic Characteristics of respondents in Kitenga Sub-County, Mubende district.	19
4.1.1 Age of respondents.....	19
4.1.1 Gender of respondents in Kitenga Sub-County, Mubende district.....	20
4.1.2: Level of education of respondents in Kitenga Sub County.....	20
4.1.3: Number of years spent in farming in Kitenga Sub-County.....	21
4.2.1: The level of agricultural production in Kitenga Sub County, Mubende district....	22
4.2.2: Rate of poverty in Kitenga Sub-County, Mubende district	23
4.2.3: The relationship between agriculture and the rate of poverty reduction in Kitenga Sub-County, Mubende district	23

CHAPTER FIVE	25
DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS	25
5.0 Introduction	25
5.1 Discussion of key research findings.....	25
5.1.1 Findings on demographic characteristics of respondents in Kitenga Sub-County. 25	
5.1.2 The level production of agricultural out put in Kitenga Sub County, Mubende district	25
5.1.3 The rate of poverty in Kitenga Sub-County, Mubende district.....	26
5.1.4 The relationship between agricultural productivity and poverty eradication in Kitenga Sub-County, Mubende district.	26
5.3 Conclusion.	26
5.4 Recommendation.....	27
5.5 Suggestions for Further Research	27
5.6 Limitations of the study.....	27
RESEARCH INSTRUMENT.....	29

ABSTRACT

This research report entitled agricultural Production and Poverty Reduction was conducted in Kitenga Sub County, Mubende District. The study investigated the level of agricultural production, rate of poverty and the relationship between agricultural production and poverty reduction.

The major problem under investigation was high poverty rate in the rural areas of Uganda which according to the UBOS 2012/2013 report is on average capped at 19.7 percent nationally implying that nearly 6 million population in Uganda is very poor.

The methodology applied in this study was descriptive research design by selecting a cross section of farmers in Mubende district and primary data was used.

The findings on the demographic characteristics of respondents revealed that majority were females with age ranging between 41-50 years, with secondary education as their highest level of education. The respondents had spent between 3-5 years in active agriculture which is a good experience for the development of the sector.

The findings on the level of agricultural production in Kitenga Sub County, Mubende district revealed that there is high level of agricultural production because the majority of respondents gave satisfactory responses with the overall mean of 2.4.

In addition, regarding the rate of poverty in the area of study, research revealed that majority of respondents could afford 4000/= a day, have food in the house but were not able to earn an average annual income of 3,400,000/= which is the threshold for being in the middle-income Country set by United Nation to be achieved by 2022. Regarding the relationship between agricultural production and poverty reduction, the results were also satisfactory.

The research concluded that the increase in the level of agricultural production will help to reduce poverty and the recommendation is that the government needs to embark more modernization of the sector.

CHAPTER ONE

BACKGROUND

1.1 Introduction

The history of agriculture dates back thousands of years ago where people gathered wild grains at least 105,000 years ago and began to plant them years ago before they were domesticated. This was driven by inadequacy of food supply that was being produced and supplied by early bush gatherers and hunting, Wikipedia (2018). The study of the transition from hunter-gatherers to agricultural societies indicates that the initial period and intensification started in the early places of China and Mesopotamia. The development of agriculture enabled the human population to grow many times larger than could be sustained by hunting and gathering. Agriculture began independently in different parts of the globe, and included a diverse range of classification.

The first agriculture in Africa began in the heart of the Sahara Desert in about 5200 BC because it was far moist and densely populated than today. Several native crop species were cultivated, most importantly pearl millet, sorghum and cowpeas, which spread through west Africa and the Sahel. Comparatively, the Sahara at this time was like the Sahel today because it's a wide-open field which made cultivation easy, but the poor soil and limited rain made intensive farming impossible. Generally, the local crops by then were also not ideal and produced fewer calories than those of other regions which limited surpluses and kept populations sparse and scattered.

Agriculture is Uganda's leading sector contributing over 44% of the country's gross domestic product. The sector is the back bone of Uganda's economy providing employment opportunities to over 80% of Uganda's total population directly and indirectly. However, despite the great contributions, agriculture sector was disrupted by civil wars, which hit the country in the 1980's, (Pearl of Africa 2018).

To address these drawbacks in the agriculture sector, the government has provided support in terms of funding through NAADS programs, providing advisory services to the farmers and supplying them with quality seeds along gardening tools.

Both food and cash crops are grown in different regions of the country for home consumption and sale. Most people with limited land practice subsistence farming in which crops are grown for home consumption. These food crops include sweet potatoes, cassava, beans, peas, maize, Irish potatoes, sorghum, millet and groundnuts among others. Subsistence farming is a non-monetary subsector in agriculture. Similarly, agriculture is exclusively dependent on smallholder farmers, who generally intercrop coffee with food crops such as bananas and beans.

In developing world, over 1 billion people are poor with a substantial majority of them living in rural areas where the development of agriculture can play a direct role in alleviating poverty (World Bank Report 1990).

This statistic is a replicate in Uganda where the global hunger index score is 26.4, categorizing the country's level of hunger as "serious" and putting it in 87th place out of 118 developing countries in 2016 (von Grebmer et al., 2016). According to the 2016 Poverty Assessment, Uganda has reduced monetary poverty at a very rapid rate.

The increased poverty levels that hit the country in the 1990's encouraged the government to initiate the poverty eradication action in 1997. This program has helped in the improvement of incomes through the raising of farm productivity (M.D Gracious 2017).

However, the proportion of the Ugandan population living below the national poverty line declined from 31.1% in 2006 to 19.7% in 2013. Similarly, the country was one of the fastest in Sub-Saharan Africa to reduce the share of its population living on \$1.90 PPP per day or less, from 53.2% in 2006 to 34.6% in 2013. Nonetheless, the country is lagging behind in several important non-monetary areas, notably improved sanitation, access to electricity, education (completion and progression), and child malnutrition.

According to Robert Knox of International Human Rights, (2015), the poor is talked about as having relationship with poverty, capitalism and human rights. Although we usually think about poverty as a characteristic possessed by certain people, Knox understands poverty as a process or relationship that people are involved in. With this reasoning in mind, he introduced us to the very interesting conceptualisations between poverty and human rights. For this approach, there are three ways to think about this complex relationship: a conservative, a liberal and a radical version.

According to the Marxist view, the major cause of poverty is inequality or uneven distribution of wealth and income which is a main consequence of capitalism. Weber also recognized the inequality of capitalist society he did not attribute it essentially to capitalism (P. Mondal 2018).

This study is based on the theory that is predominantly influenced by the Malthusian paradigm developed by Thomas Robert Malthus (1766-18834) and later improved upon by Robert Brenner in 1976 (cited in Harvey & Reed, 1922). This theory attributes poverty to economic factors resulting from the tension between population pressures and subsistence.

This theory is therefore based on two axioms; firstly, poverty is attributed to a mismatch between production capacity of the previous years and demographic trends in what is referred to as demographic catastrophes. Poverty is caused by geometric growth in population mismatched with arithmetical growth in means of subsistence. Unless regulated by positive checks, the mismatch continues producing an increased number of poor people.

Positive checks include war, famine, plague and misery which constantly curb over-production. Since these positive checks rarely occur, poverty continues to increase. Secondly, marginal productivity of land, labour and technology, and the way that these affect the supply of food and other resources also explains poverty over the years. Prices influence the affordability of commodities among the population and result in factors such as retrenchments which in turn explain poverty (Harvey & Reed, 1922).

Although this theory applies to Mozambique as it has experienced the so-called positive checks but poverty continues unabated thus clearly showing that positive checks alone cannot alleviate poverty.

It is important to also note that this theory does not apply to the rural community as they have abundant land and resources at their disposal and there is no tension between population pressures and subsistence and that why the researcher intended to conduct the study in Mubende District to find out the relationship between the volume of agricultural products and the eradication of poverty in the area.

1.2 The problem Statement of the study

According to UBOS 2012/2013, 19.7 percent of the population were reported to be poor which is nearly 6.7 million person, which 22.8 percent are living in the rural areas hence the incidence of poverty remains very high in this community because the rural dwellers in Uganda constitute about 77 percent of the total population hence constituting 87 percent of the nation poverty and this according to the latest reports precludes that overall, 10 percent of the population in Uganda is chronically poor, (UBOS 2017).

According to M. L Oketch, more Ugandans are slipping into poverty with the number increasing from 6.6 million in 2013/2014 to 10 million in 2017 (UNHS 2017). This increase in the poverty rate from 19.7 percent to 27 percent is attributed to the rural poor purely depending on agriculture which is always heavily hit by floods and droughts differently for various regions of the Country. The end result is that population that largely depends on agriculture as the main source of livelihood ends up failing to meet their basic needs (I. Kasirye 2017). The devastating effects of this poverty is poor health commonly manifested through high rate of malaria, tuberculosis and HIV and AIDS, followed by high rate of crime caused by high rate of unemployment. In the same line, poor education in Uganda is seems to have a correlation between poverty which is embodied into low academic performance in Schools at all levels (Naomi C. Kellog 2018). These all have ripple effects on the national economy but its origin emanates from the majority of the population depending on agriculture that gives low returns to

farmers in the rural areas. In a study conducted in northern Uganda on climate and agricultural productivity, majority of northern Uganda risk bearing the consequences of this unpredictable pattern of rainfall and most likely to be impoverished in case no alternative sources of livelihood targeting majority farmers are not found because agriculture still remains the major source of livelihood for the region and Uganda at large (I. Amuku 2018), accessed from <http://wougnet.org/home/news/rainfall-pattern-affecting-agricultural-productivity-in-Uganda>.

This is one of the factors that forced the researcher to conduct a research in Mubende district to examine the effects of agriculture and the extent to which the sector can Uganda eradicate poverty and achieve the 2030 sustainable development goals of the United Nations.

1.3 Purpose of the study

The purpose of this study was to establish the relationship between agriculture and poverty eradication in rural areas taking Mubende District as the case study.

1.4 The objectives of the study

The following were the objectives under which the study was carried out:

1. To establish the level of agricultural productivity in Mubende district
2. To establish the level of poverty among the people of Mubende district
3. To establish the relationship between agricultural productivity and poverty eradication in Mubende district.

1.5 Research Questions

1. What is the level of agricultural productivity in Mubende District?
2. What is the rate of poverty among the people of Mubende District?
3. What is the relationship between agricultural productivity and poverty eradication in Mubende District?

1.7 The Scope of the study

1.7.1 Geographical scope

The study was carried out in Mubende District Western part of Uganda. This study concentrated in the rural areas of Mubende where agriculture is highly practiced.

1.7.2 Content scope

The study was intended to establish the relationship between agricultural productivity and poverty eradication in rural areas taking Mubende District as the case study.

1.7.3 Time scope

The study was conducted for a period of three months, that is, from June, 2018 to August 2018. This period was expected to be enough for proposal writing, data collection, dissertation writing and submission to the Department of Economics and Applied Statistics of Kampala International University.

1.8 Significance of the Study

The study will be useful in the following ways:

The findings of the study will be useful to the Mubende district officials and other policy makers to find out the literature on how best they can improve agricultural productivity and eradicate poverty in Uganda by using the available data to implement the policies of the government.

The findings of this study will be useful to individual researcher because it will help to fulfill the partial requirement for the award of a Bachelor's Degree in Economics of Kampala International University. The study will also be useful to other scholars who may be interested in finding literature to conduct their future research in the field of agriculture and poverty eradication.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This Chapter comprises of the, conceptual framework, theoretical framework of the study and the review of related literature.

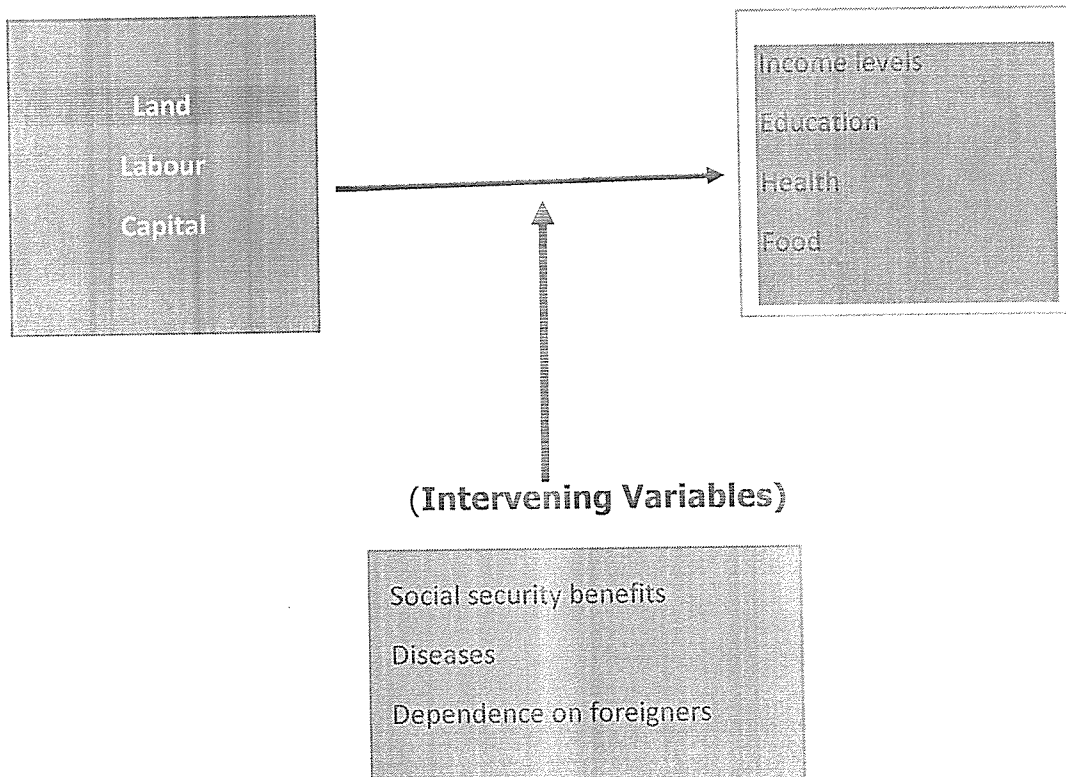
Figure 1:A conceptual framework of the study

Independent Variable

(Agricultural Productivity)

Dependent Variable

(Poverty)



(Source: Researcher 2018)

2.1: Theoretical review of the study

This researcher chose the theory that is predominantly influenced by the Malthusian paradigm developed by Thomas Robert Malthus (1766-18834) and later improved upon by Robert Brenner in 1976 (cited in Harvey & Reed, 1922). This theory attributes poverty to economic factors resulting from the tension between population pressures and subsistence.

There are majorly two assumptions under this theory of poverty firstly, poverty is attributed to a mismatch between production capacity of the previous years and demographic trends in what is referred to as demographic catastrophes. Poverty is caused by geometric growth in population with arithmetical growth in means of subsistence. Unless regulated by positive checks, the mismatch continues producing an increased number of poor people.

Positive checks include war, famine, plague and misery which constantly curb over-production. Since these positive checks rarely occur, poverty continues to increase. Secondly, marginal productivity of land, labour and technology, and the way that these affect the supply of food and other resources also explains poverty over the years. Prices influence the affordability of commodities among the population and result in factors such as retrenchments which in turn explain poverty (Harvey & Reed, 1922).

Although this theory applies to Mozambique as it has experienced the so-called positive checks but poverty continues unabated thus clearly showing that positive checks alone cannot alleviate poverty.

The researcher intended to conduct the study in Mubende District to find out the relationship between the volume of agricultural production and the eradication of poverty in Mubende district, a case study of Kitenga Sub-County.

2.2.0: Review of the related Literature

2.2.1: The level of agricultural out produced by farmers

Uganda is regarded as an agriculture-based economy and a food basket in the Eastern African region, given its ability to produce a variety of foods and in large quantities. It comprises of the food and cash crops production, livestock, forestry and fishing subsectors. These sub-sectors contributed 62, 8, 17 and 13 percent respectively to agricultural Gross Domestic Product (GDP) in 2011/12.

Agriculture is considered an important sector that contributed 23.7 percent to GDP (at current prices) in 2011/12. According to the UCA 2008/9, there were approximately 3.95 million small and medium agricultural households with a population of 19.3m persons (60% of the Uganda's population) these produced the bulk (over 95 percent) of the food and cash crops.

The agriculture sector, which is mainly subsistence, employs the largest proportion of Uganda's work force. During the Population and Housing Census (PHC) 2002, about 73 percent (81 percent female and 67 percent males) of the work force was employed in agriculture, making it the dominant economic activity at that time.

The sector remains a major employer to date, with 70 percent and 66 percent of the working population engaged in agriculture during 2009/10 and 2010/11 respectively. The sector is crucial for general growth of the economy (providing inputs into the industrial sector) and poverty reduction especially among the rural poor for whom it provides employment.

A number of gender-based differences in the Agriculture Sector exist in many African societies, of which Uganda is a part. Women and men play distinct but important roles in the Agriculture Sector and so the development of the sector requires the full participation and support of both parties. These roles are influenced by and vary across cultures, social and political beliefs.

In Uganda, women have limited access to: Land which is major input to agriculture is mainly owned by men; Labour (especially in the area of those so-called male activities) for land preparation; Extension services where focus is on male headed households; Technology due to limited literacy and education among women; Financial services because of lack of collateral (especially land) and immobility given the women's household responsibilities as well as Education and training. Despite the role of women in agriculture and food production in particular, women continue to lag behind in access to the above productive resources, hence hindering agriculture (food production) and rural development.

The National Development Plan (NDP) of Uganda (2010-2015) recognised the existing gender differences in various sectors, including Agriculture, hence the need to promote gender equality and transform mind-set, attitudes, cultural practices and perceptions.

A strategy to improve gender equality in the Agriculture Sector was put in place that is improving access to productive resources and services for female farmers order for them to play a larger role in commercial agriculture and improving access to resources such as credit, business skills, training and market information for female entrepreneurs.

The agriculture Gender Statistics Profile looks at the differences in male and female headed households at the national level, majorly basing on UCA 2008/9 carried out in the 80 districts that existed as of July 2007. Other data used are from the UNHSs and the PHC of 2002. Although the UCA covered both the Agricultural Household (Ag HH) and the commercial farms, the results presented here are based on the Ag HHs data only.

2.2.2: The level of poverty among the people of Uganda

Currently, more than 2 billion people don't have access to clean water at home, while over 800 million suffer from hunger. You might think that poverty causes hunger and prevents people from accessing clean water (and you would be right!), but hunger and water insecurity are also big reasons why people struggle to escape extreme poverty.

If a person doesn't get enough food, they simply don't have the strength and energy needed to work, while lack of access to food and clean water can also lead to preventable illnesses like diarrhea. And when people must travel far distances to clinics or spend what little money remains on medicine, it drains already vulnerable populations of money and assets, and can knock a family from poverty into extreme poverty (Kristin Myers 2018).

Even if clean water sources are available, they're often located far from poor, rural communities. This means that women and girls collectively spend some 200 million hours every day walking long distances to fetch water. That's precious time that could be used working, or getting an education to help secure a job later in life.

Although Uganda is a Sub-Saharan African country with one of the highest rates of poverty reduction, the country remains among the poorest in the world. According to a 2016 poverty assessment, poverty in Uganda reduced significantly between 2006 and 2013. The number of Ugandans living below the poverty line declined from 31.1 percent in 2006 to 19.7 percent in 2013.

The issue now is the sustainability of this poverty reduction, as Uganda is lacking important non-monetary resources. These include sufficient sanitation, access to electricity, health and well-being, education and nutrition (*Haley Hurtt 2017*).

As a result of the overall Gender Policy Framework, a Gender Policy on Agriculture was developed with the help of MGLSD to support the Gender Mainstreaming efforts within the sector (MAAIF, 1993). The Poverty Eradication Action Plan (PEAP) as well as the Plan of Modernisation of Agriculture (PMA) (MAAIF/MFPED, 2000) in compliance with

the overall policy framework of Gender Mainstreaming, recognise that persistent gender disparities hamper agricultural productivity, economic efficiency and growth.

Hence the National Agricultural Advisory Services (NAADS) and National Agricultural Research Organisation (NARO, 2000) in their plans have recognised the need for addressing gender concerns in all their activities. The paramount driving force is the desire to increase relevance, efficiency and effectiveness in addressing the needs and objectives of all stakeholders.

2.2.3 The relationship between agricultural productivity and poverty eradication.

According to a new poverty assessment conducted by the World Bank, the number of people in extreme poverty in Uganda (those living on less than \$1.90 (2011 PPP) a day) has fallen from 53.2% in 2006, to 34.6% in 2013. This reduction of 2.7% per year is higher than the regional average of 0.74 over the course of the same period, making it one of the fastest percentage point reductions in extreme poverty in Sub-Saharan Africa and the developing world (World Bank 2016).

Poverty reduction among households working in agriculture accounts for 79% of the national poverty reduction observed between 2006 and 2013. This underscores the important role the sector plays in creating lucrative livelihoods, especially given that it currently employs over 60% of the population. As the backbone of Uganda's economy, the sector also contributes to over 70% of Uganda's export earnings and provides the bulk of the raw materials for predominantly agro-based industries.

The relative contribution of agriculture to poverty reduction is shown to depend on its direct and impact. While the direct growth effect of agriculture on poverty reduction is likely to be smaller than that of non-agriculture, the indirect growth effect of agriculture appears substantial and at least as large as the reverse feedback growth effects as well as its participation effect because the poor participate much more in growth in the agricultural sector, especially in low-income countries, resulting in much larger poverty reduction impact (Christiaensen 2006).

There is a lot of evidence that agriculture can contribute to poverty reduction beyond a direct effect on farmer's incomes. Agricultural development can stimulate economic development outside of the agricultural sector, and lead to higher job and growth creation. Increased productivity of agriculture raises farm incomes, increases food supply, reduces food prices, and provides greater employment opportunities in both rural and urban areas.

Higher incomes can increase the consumer demand for goods and services produced by sectors other than agriculture. Such linkages (or the 'multiplier effect') between growth in the agricultural sector and the wider economy has enabled developing countries to diversify to other sectors where growth is higher and wages are better.

Diversification outside of agriculture is important to a country's development. This is particularly true in rural areas where about 70% of the world's poorest people live (IFAD 2011). Haggblade *et al* (2002) estimate that across developing countries, as many as a quarter of the rural population is employed full time outside of agriculture, which constitutes 35-40% of rural incomes. This is not only a pattern amongst the wealthier rural population - the poorest 20% of the population earn an average of 30% of their incomes from non-farm sources (DFID 2005).

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter comprises of the research design, target population, sample size, sampling techniques, data sources, research instruments, validity and reliability of the instrument, data gathering procedure, data analysis, ethical considerations, and limitations of the study.

3.1 Research design

The research study applied both quantitative and qualitative research approaches; the study employed both qualitative and quantitative research approach were used in which the major qualitative aspects consisted of agricultural productivity issues and poverty eradication issues in Mubende District.

3.2 Study Population

I used 60 agricultural producers depending on the number of population as I was told by the LC3 chairman Kitenga Sub County, Mubende district. I decided to use Mubende District as the case study due to a number of farmers who are practicing agricultural on a fragmented plot of lands that have for years failed to uplift them out of poverty and the proximity of the place to the researcher's residence.

3.3 Sample size

A sample of farmers and other indirect beneficiaries from agriculture on welfare were chosen from the target population of 60 in Mubende District. This sample was arrived at using Sloven's formula of sample size computation which states that;

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

Where, n is the sample size, N is the target population, e is the error, which is 0.05

$$N = 60 / 1 + 60(0.05)^2$$

$$n = 52$$

Category	Target population	Sample
Male	25	17
Female	35	35
Total	60	52

Source: Sub-county Annual report, (2015).

3.4 Sampling Procedure

To select the sample, Purposive sampling technique was used to select respondents from rural areas of Mubende District. In this technique, the researcher included only those respondents in which he has interest depending on their willingness to participate in the study. The researcher used inclusion and exclusion criteria in selecting the sample where the inclusion criteria was willingness to participate in the study and the exclusion criteria was unwillingness to participate in the study.

3.5 Data sources

The research used both primary and secondary sources data, where the primary data was obtained from the respondents by use of questionnaires, whereas secondary data was obtained through visiting the documents and files from the offices.

3.5.1 Primary data sources

The researcher obtained primary data by use of questionnaires, which were given to the farmers to collect information for the purpose of this researcher.

3.5.2 Secondary sources

The researcher also used data from reports and previous research work to back up and give evidence for the primary data collected majorly from text books and internet.

3.6 Data collection instruments

The major data collection instrument which the researcher used in this study basically was questionnaire and interview guide to fill the parts that were not be answered by respondents during the actual field.

3.6.1 Questionnaire

The questionnaires were administered through the help of research Assistants and partly by the researcher to different respondents and collected after time interval. The questionnaires comprised of both open ended and closed ended questions that required the respondents to answer all the questions to the best of their knowledge.

The questionnaires were used because they are cheap, quicker, and cover many respondents, and they are free from interview bias and give accurate information since respondents take their time to answer the questions. However, they have a disadvantage of non-response.

3.7.0 Validity and Reliability of the Instruments

3.7.1 Validity of the instrument

Validity is the degree to which results obtained from the analysis of the data actually represents the phenomenon under study. Content validity was ensured by subjecting the respondents to a few questions on agricultural productivity and poverty eradication to confirm the validity of the instrument by the researcher before the actual field study.

3.7.2 Reliability of the instruments

The test-retest technique was used to assess the reliability (accuracy) of the instruments. The researcher distributed questionnaires to six qualified respondents, from the community members Mubende district. These respondents were not included in the actual study. In this test-retest technique, the questionnaires were administered

twice to the same subjects after the appropriate group of the subject are selected, while the initial conditions kept constant, the scores were then be collected from both testing periods to get the coefficient of reliability or stability

2.8 Research Procedure

After approval of my research Proposal, I proceeded to visit Mubende District and then purposive sampling used to select respondents from the target population to arrive at the minimum sample size.

Questionnaires were then administered and during the administration of questionnaires, the respondents were requested to answer completely and not to leave any part of the questionnaires unanswered, the researcher requested respondents to ensure that the questionnaires were ready within five days from the date of distribution

For the interest of time, after collection of data, the data gathered were edited, encoded using the Statistical Package for Social Sciences (SPSS) for further analysis.

3.9 Data Analysis

The frequency and percentage were used to determine the demographic characteristics of the respondents. The means and standard deviations were applied in order to establish the relationship between agricultural productivity and poverty eradication in Mubende District. Analysis was done by statistical packages for social scientists (SPSS).

3.10 Ethical Considerations

The research sought for permission from all the stakeholders in this research to adopt the standardized questionnaire on agricultural productivity and poverty eradication in a formal communication to the author and respondents were requested to sign an Informed Consent Form.

The authors are acknowledged by quoting them in this study and the author of the standardized instrument through citations and referencing.

CHAPTER FOUR

DATA PRESENTATION ANALYSIS AND INTERPRETATION

4.0 Introduction

The chapterfour of this research report comprises of the demographic characteristics of the respondents, the level of agricultural production, the rate of poverty in Kitenga Sub-County, Mubende district and the effects of agricultural production on poverty eradication.

4.1.0 Demographic Characteristics of respondents in Kitenga Sub-County, Mubende district.

The demographic characteristics of respondents that were considered for this study were age,gender, education level, number of years in farming and marital status to help research understand the nature of people he intended to study. The results were presented using frequency tables, graphs and pie charts for better understanding by the reader.

4.1.1 Age of respondents

The findings from the study indicate that the majority of respondents were between the age of 31-40 years represented by 40.4 percent followed by those between the age of 41-50 years represented by 34.6 percent. Those between the age of 18-30 years and 51 and above had 19.2 percent and 5.8 percent respectively. This is partly explained by the fact that the majority of youth do not engage in farming making Mubende district to be the same case. This is shown on the subsequent table and figure.

Table 2: Age of respondents in Kitenga Sub-County, Mubende district

Age of respondents	Frequency	Percent	Valid Percent
18-30 years	10	19.2	19.2
31-40 years	21	40.4	40.4
41-50 years	18	34.6	34.6
51 years and above	3	5.8	5.8
Total	52	100.0	100.0

4.1.1 Gender of respondents in Kitenga Sub-County, Mubende district

The research findings indicate that the majority of respondents were females represented by 80 percent and males were only 19 percent. This is a typical of Kitenga Sub-County where women are the ones who carry out most of the farm work. Based on the data from Uganda Bureau of Statistics reports on gender profiling, a total of 50.9 percent of the total number of labour supplied in agriculture is from women hence confirming more women engaging in agriculture than men (UBOS 2012).

Table 2: Gender of respondents in Kitenga Sub-County, Mubende district

Gender of respondents		Frequency	Percent	Valid Percent
	Male	10	19.2	19.2
	Female	42	80.8	80.8
	Total	52	100.0	100.0

4.1.2: Level of education of respondents in Kitenga Sub County

The table below indicates that the majority of respondents had secondary education as their highest qualification represented by 46.2 percent, followed by diploma with 28.8 percent, primary with 15.4 percent. Other higher levels of education like degrees and others recorded 5.8 percent and 3.8 percent respectively. This is true because women who were the majority do not have good level of education most especially in rural

areas where Kitenga Sub County is one of them. This is shown on the subsequent illustration.

Table 3: Level of education of respondents in Kitenga Sub County

Education level of respondents		Frequency	Percent	Valid Percent
	Primary	8	15.4	15.4
	Secondary	24	46.2	46.2
	Diploma	15	28.8	28.8
	Degree	3	5.8	5.8
	Others	2	3.8	3.8
	Total	52	100.0	100.0

4.1.3: Number of years spent in farming in Kitenga Sub-County

Small scale farming is the practice that each and every rural dweller do to earn a living in Kitenga. According to the study results below, majority of farmers had spent between 3-5 years practicing farming because according to UBOS, (2012) agriculture is the major source of livelihood regardless of the years spent in production. Those who had spent between 6-8 years were represented by 30.8 percent of the respondents and those below 2 years were 15 percent of the respondents in the research study.

Table 4: Number of years spent in farming in Kitenga Sub-County

Years of experience of farmers		Frequency	Percent	Valid Percent
	Below 2 years	8	15.4	15.4
	3-5 years	28	53.8	53.8
	6-8 years	16	30.8	30.8
	Total	52	100.0	100.0

4.2.1: The level of agricultural production in Kitenga Sub County, Mubende district.

In order to determine the level of agricultural production, the researcher subjected respondents to few questions to investigate their opinion since their farmers who have been directly involved in this economic activity. The findings from the subsequent table indicates that soil fertility increases the productivity of farmers output because they were very satisfied with the question. The findings on land fragmentation affecting also indicates very satisfied results because majority of respondents strongly agreed that it affects the per unit return of output from agriculture. On the other hand, the use of family labour to carry out carry out agriculture every had a mean of 2.69 implying that respondents were satisfied with the statement, attending trainings to increase productivity, use of fertilizers to improve productivity and not considering skills as a condition for increased output all had means ranging between 1.0 to 2.0 implying that respondents were very satisfied with the statement.

However, the investment of more than 500,000/= a month on agriculture and getting returns of more than 3,400,000/= had means of more than 3 implying that respondents were somewhat dissatisfied with the statements.

Table 5: The level of agricultural production in Kitenga Sub County, Mubende district.

Descriptive Statistics	N	Mean	Std. Deviation	Rating	Description
Soil fertility increases the Productivity of my output	52	1.98	.700	1	Very Satisfied
Land fragmentation affects the per unit return of output from agriculture	52	1.96	.593	1	Very Satisfied
I use family labour to carry out agriculture every year	52	2.69	.853	2	Satisfied
I have always gone for trainings to increase the quantity of output produced	52	1.92	1.250	1	Very Satisfied
I use fertilizers to improve the quality of my output produced	52	3.19	1.103	3	Very Satisfied
I invest more than 500,000/= in agriculture every season	52	3.00	.000	3	Somewhat dissatisfied
The returns from agriculture to me is more than 3,400,000/= annually	52	3.02	.828	3	Somewhat dissatisfied
I do not consider skills as a condition for increased output from agriculture	52	1.69	.643	1	Very Satisfied
	52				

4.2.2: Rate of poverty in Kitenga Sub-County, Mubende district

The respondents were subjected to few questions here again to investigate the rate of poverty in Kitenga in terms of the amount of money spent on a daily basis, annual average income earned, being able to pay school fees for the children, going to check for medical checkup, having plentiful of food to eat and whether he/she has a land title which are basic determinants of poverty.

The study findings revealed that spending more than 4000/= daily and having plentiful of food for home consumption had means of 1.6 and 1.8 respectively implying that respondents were very satisfied. On the other hand, an annual income of more than 3400,000/= and affording school fees for the children had satisfactory results while affording to go for medical checkup in the past 3 months also had some dissatisfaction because farmers do consider it as a priority or they have no time for it as shown on the subsequent table.

Table 6: Rate of poverty in Kitenga Sub-County, Mubende district

Descriptive Statistics	N	Mean	Std. Deviation	Rating	Description
I spend more than 4000/= every day	52	1.63	.595	1	Very Satisfied
My annual average income is more than 3,400,000/=	52	2.92	1.007	2	Satisfied
I can afford to take my children to good schools and pay school fees in time	52	2.35	.764	2	Satisfied
I have for medical check up in the past 3 months	52	3.35	.764	3	Somewhat dissatisfied
I always have plentiful of food for my home consumption	52	1.58	.667	2	Very Satisfied
I have my house and land title	52	3.38	.491	3	Somewhat dissatisfied

4.2.3: The relationship between agriculture and the rate of poverty reduction in Kitenga Sub-County, Mubende district

The researcher asked respondents on the last objective about the relationship between agricultural production and poverty eradication in Kitenga Sub-County, Mubende

district. To achieve this, questions were asked and the response were as indicated on the subsequent table with the ratings and description.

Table 7: The relationship between agriculture and the rate of poverty reduction in Kitenga Sub-County, Mubende district

Descriptive Statistics	N	Mean	Std. Deviation	Rating	Description
I have been able to take children to school because of income earned from farming	52	1.73	.564	1	Very satisfied
I have always been able to get my daily food from the garden not market	52	1.71	1.054	1	Very satisfied
My health is in good condition because I have the money for paying for check up fee	52	3.29	.572	3	Somewhat satisfied
Agriculture has greatly improved the way I live in the community	52	1.31	.544	1	Very satisfied
We entirely depend on agriculture as the major source of livelihood	52	1.38	.491	1	Very satisfied
I own a permanent house constructed out of income from agriculture	52	2.33	.834	1	Very satisfied
My annual income of more than 1 million UGX partly generated from agriculture	52	2.54	1.056	2	satisfied
(Valid N)	52				

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the findings, conclusions, recommendations and areas that may require further research in future.

5.1 Discussion of key research findings

5.1.1 Findings on demographic characteristics of respondents in Kitenga Sub-County.

The findings on the age of respondents indicate that most of the respondents given the questionnaires had very good experience as farmers because they were between the age of 31-50 years. This is the most productive stage in personal life. Therefore, majority of the farmers in Mubende district are youth within the productive age.

In addition, the findings revealed that there were more females in Mubende district than males since this research targeted farmers and families which are in most cases headed by women in rural areas and they were very receptive to the research study.

The highest qualification of farmers in Mubende is secondary education. This is challenging trend because it implies that most people have no skills required to run their farm lands. And lastly on the demographic characteristics of farmers, the results revealed that most respondents had spent between 3-5 years in farming which gives them enough period to guarantee experience in planning and management of arable farms.

5.1.2 The level production of agricultural out put in Kitenga Sub County, Mubende district

To achieve this objective, respondents were subjected to a number of questions to provide answers to the research question derived from this objective. Data analysis and interpretation revealed the following findings on this objective. Based on the analysis of chapter four, from table 5 shows that soil fertility increases output going for further

trainings increases the quantity of output produced and skills not being a condition for increased output because respondents strongly agreed with making the findings very satisfactory according to the research.

The over all mean of the study opinion is 2.4 implying that there is high level of agricultural productivity in Mubende district since respondents were satisfied and strongly agreed with the statements.

5.1.3 The rate of poverty in Kitenga Sub-County, Mubende district

The researcher on this note again tasked or embroiled more questions to achieve the study objectives. Here respondents were subjected to a number of questions to provide answers to the research question derived from this objective.

The findings showed that most respondents were well off in terms of food to eat and a small amount of money to cater for daily needs. They spend more than 4000/= a day, have plentiful of food to eat in the house and can afford to educate their children. Though their annual income earned is less than 3400000 and only few of them are unfortunately have no permanent house and a land title which is unfortunate because this is not a good trend because of increased value of property.

5.1.4 The relationship between agricultural productivity and poverty eradication in Kitenga Sub-County, Mubende district.

According to the study findings in chapter four, it is reported that agricultural has greatly contributed to poverty reduction. This is because majority of respondents were very satisfied with the study results. For example, majority strongly agreed that they earn all their income from agriculture and send their children to school, get daily food from agriculture(gardens), have had improved lives because of farming as they earn an annual income of more than 1 million shillings which are all good indicators of poverty reduction among the populace.

5.3 Conclusion.

This study has established the level of agricultural production, the rate of poverty and what contribution can the sector make to reduce poverty rate in Uganda 2018. This

implies that the development in the agricultural sector can not only reduce poverty since they are found to a strong relation but may also escalate development in other sectors leading to rapid economic growth and development.

5.4 Recommendation

Basing on this finding, I would recommend the government to embark on modernization agriculture especially in the rural areas where there are large chunks of land with the highest population living there.

Ugandan economy which is still a developing country with low level of skilled labor, importation of capital and intermediates goods may lead to economic growth, therefore I would recommend the government to embark on industrialization, and modern technique of agricultural production.

5.5 Suggestions for Further Research

The results presented in this report are very not conclusive and should be treated as being preliminary. Further analysis of the survey data (agriculture and poverty eradication) needs to be done to validate these findings and provide greater confidence in explaining the changes in poverty rate and GDP growth.

1. A study should be carried to establish how the Labor force participation can contribute to economic growth.
2. Inflation and cost of living.
3. The relationship between inflation and economic growth.
4. The relationship between household investment and economic growth.

5.6 Limitations of the study

The research study faced the following problems:

- ❖ Most of the respondents were too busy, so less time was given to the researcher.
- ❖ Some of the community members in Kitenga were not willing to give out information due to lack of trust between the researcher and the respondents.
- ❖ Confidentiality, in that, there is some information which was not supposed to move out of the market areas to the researcher, this limited the research study.

- ❖ Some respondents were hesitant to give information since it does not benefit them, thus they needed to have some funds committed to them.
- ❖ Reading and understanding the questions was a challenge at the beginning for most of the farmers but the research Assistants had to come in to interpret in local languages.
- ❖ The study was only limited to the case study due to limited time and resources to cover the whole Mubende district. The researcher resorted to purposive sampling and yet it had its own disadvantages.

RESEARCH INSTRUMENT

SECTION A: DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

1. Age

- a) ____18-30 years, b) ____31-40 years, C)____41-50 years and d)____51 years
and above

2. Gender

- a) Male_____
b) Female_____

3. Level of education qualification

- 1) Primary _____
2) Secondary_____
3) Diploma_____
4) Degree_____
5) Others _____

4. Number of years in farming

- 1) Below 2 years_____
2) 3-5 years_____
3) 6-8 years_____
4) 9 years and above_____

SECTION B: LEVEL OF AGRICULTURAL PRODUCTION

Direction 1: Please write your rating on the space before each option which corresponds to your best choice in terms of the level of agricultural production. Kindly use the scoring system below:

Response Mode		Rating	Description
Strongly Agree	(SA)	1	Very Satisfied
Agree	(A)	2	Satisfied
Disagree	(D)	3	Somewhat dissatisfied
Strongly Disagree	(SD)	4	Dissatisfied

No.	Indicator	SAA	D	SD
	Level of Agricultural Production in Kitenga Sub-County			
1	Soil fertility increases the productivity of my land			
2	Land fragmentation affects the per unit return of output from agriculture			
3	I use family labour to carry out agriculture every year			
4	I have always gone for trainings to increase the quantity of out I produce			
5	I use fertilizers to improve the quality of my output			
6	I invest more than 500,000/= in agriculture every season			
7	The returns from agriculture is more than 3400,000/= annually			
8	I use elementary machines to improve the productivity of my agriculture land			
9	I do not consider skills as a condition for increased output from agriculture			

SECTION C: RATE OF POVERTY IN KITENGA SUB-COUNTY, MUBENDE DISTRICT

Direction 2: Please write your rating on the space before each option which corresponds to your best choice in terms of rate of poverty in Kitenga Sub-County, Mubende district. Kindly use the scoring system below:

Response Mode		Rating	Description
Strongly Agree	(SA)	1	Very Satisfied
Agree	(A)	2	Satisfied
Disagree	(D)	3	Somewhat dissatisfied
Strongly Disagree	(SD)	4	Dissatisfied

No	Indicator	SA	A	D	SD
	Rate of poverty in Kitenga Sub-County, Mubende district				
1	I spend more than 4000/= every day				
2	My annual average income is more than 3400,000/=				
3	I can afford to pay school fees for all children				
4	I have gone for medical check-up in the past 3 months				
5	I always have plentiful of food for home consumption				
6	I have my house and land title				

SECTION D: THE RELATIONSHIP BETWEEN AGRICULTURAL PRODUCTION AND POVERTY ERADICATION IN KITENGA SUB-COUNTY, MUBENDE DISTRICT

Kindly use the scoring system below:

Response Mode	Rating	Description
Strongly Agree (SA)	1	Very Satisfied
Agree (A)	2	Satisfied
Disagree (D)	3	Somewhat dissatisfied
Strongly Disagree (SD)	4	Dissatisfied

No.	Indicator	SA	A	D	SD
	Agriculture and poverty eradication				
1	I have been able to take children to school because of income from farming				
2	I have always been able to get my daily food from the garden not market				
3	My health is in good condition because I have the money for paying check-up fee				
4	Agriculture has greatly improved the way I live in this community				
5	We entirely depend on agriculture as the major source of livelihood				
6	I own a permanent house constructed out of agriculture income				
7	My annual income of more 1 million UGX is partly generated from agriculture.				

I APPRECIATE FOR YOUR TIME IN THIS RESEARCH