IMPACT OF YOUTH ENGAGEMENT IN CROP PRODUCTION IN KARAMOJA REGION OF UGANDA CASE STUDY OF KOTIDO DISTRICT

BY

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DEDICATION

To my late Dad Obwona Johnson (Arukamoi) who sacrificed his “whole” to have all his childrens get the best eduaction.

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LIST OF ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
FAO	Food and Agriculture Organization
FEWS NET	Famine Early Warning System Network
GAM	Global Acute Malnutrition
GDP	Gross Domestic Product
HCT	Human Capital Theory
HIV	Human Immunodeficiency Virus
HPI	Human Poverty Index
IDP	Internally Displaced Person
ILO	International Labor Organization
MAAIF	Ministry of Finance, Planning and Economic Development
MoFPED	Ministry of Finance Planning and Economic Development
NAADS	National Agricultural Advisory Services
OECD	Organisation for Economic Co-operation and Development
PMA	Plan for Modernization of Agriculture
SAM	Severe Acute Malnutrition
SMEs	Medium-Sized Enterprises
UBoS	Uganda Bureau of Statistics
UN	United Nation
UNDP	UN Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	UN Population Fund
UNICEF	UN Children's Fund
USAID	US Agency for International Development

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ABSTRACT

The study evaluated the impact of youth engagement in crop production in Karamoja Region of Uganda using Kotido District as a case study. Specifically, the study sought to; establish the effect of youth perceptions on their engagement in crop production in Kotido district; establish the effect of Social-Capital networks on youth engagement in crop production in Kotido district and assess the effect of the economic factors on youth engagement in crop production in Kotido district. The study employed a crossectional survey study design incorporating both quantitative and qualitative methods to data collection with a sample size of 85 derived using Yamane (1967) sample size formula from a target population of 697 youth from 45 youth groups in Kotido district and 6 key informants that included the agricultural extension staff and local leaders of the selected sub counties. Quantitative data collected was exported to SPSS version 20.0 for coding to facilitate informative and relevant computation. The objectives of the study were analyzed using the Factor Analysis. For objective one, youth perception was significantly correlated with youth engagement in crop production with p-value of 0.007 which is below 0.05 with coefficient of 0.605. For objective two, Social-Capital networks was significantly correlated with youth engagement in crop production with p-value 0.004 which is below 0.05 with a coefficient 0.730 while for objective three, economic factors were significantly correlated with youth engagement in crop production with p-value 0.001 which is below 0.05 with a coefficient of 0.691. The study concluded that youth perceptions, Social-Capital networks and economic factors are paramount factors in determining youth engagement in crop production in Kotido district. The study recommends that Kotido district effectively manages the youth perceptions, social-capital networks and economic factors to enhance youth engagement in crop production because these variables have serious negative consequences on the promotion of youth and their engagement in crop production in the district.

CHAPTER ONE

GENERAL INTRODUCTION

1.1. Introduction

The study evaluated the the impact of youth engagement in crop production in Karamoja Region of Uganda using Kotido District as a case study. Young people have the potential to make significant contributions to agricultural development. It is therefore critical to groom emerging professionals and entrepreneurs to contribute meaningfully to agricultural development initiatives. The agricultural sector should provide opportunities for the youth to actively engage and benefit. However, lack of capacity building initiatives makes it difficult for them to fully realise their potential and to access the opportunities available to them, as such, their contribution to agriculture and development is not optimized. This study focussed on the impact of youth engagement in crop production in Kararmoja region of Uganda using Kotido district as a case study.

1.2. Background to the Study

Agriculture remains fundamental to poverty reduction and economic growth in the 21st Century. An estimated 75% of the world's poor are from rural areas and most are involved in farming, an activity which requires sustenance especially by the youth who are the leaders of tomorrow (World Bank, 2008). The reliance on agriculture for food production and food security at domestic, regional and global level depends on youth productive force. This is the generation which is expected to rise in the coming years for food production and food security (Proctor and Lucchese, 2012).

Uganda has enjoyed relatively high economic growth rates over the past decade but formal job creation has been lower than the rate at which the labour force is growing. Challenges still remain on bridging the gap between economic growth and jobs creation and in turn address the growing unemployment especially among the youth (ILO, 2012). With a high population growth rate of 3.2 percent per annum, Uganda is going through a young population bulge with close to 78 percent of its population below the age of thirty. According to Uganda, the youth (defined as between 18-30 years) represent approximately 21 percent (close to 7 million) of the population and they comprise about 64 percent of the unemployed persons in Uganda (Uganda Bureau of Statistics, 2016).

It is also evident from the Uganda National Household Survey (UNHS) data that the youth are more at a disadvantage in securing gainful employment today compared to six years ago. While many still view formal job creation in the formal wage sector as the solution to youth unemployment, prospects of finding this kind of employment is limited as the number of people entering the labour force far outweighs the number of jobs available in the formal wage sector (Ahaibwe, Mbowa and Lwanga, 2013).

Brooks et al., (2012) and Kararach et al., (2011) reveal that creation of non-agricultural jobs may not happen in the short run; as such agriculture is likely to continue being a source of employment and livelihood in the medium to long term especially for countries that heavily depend on agriculture. The 2008 World Bank "Agriculture for development report" further points out the enormous potential of agriculture in offering employment (World Bank, 2008).

Nationally, the agricultural sector is being prioritised, indeed the current five-year National Development Plan (NDP) 2016-2020 identifies agriculture as one of the core growth sectors.

Despite the recognition of employment creation within the sector, youth engagement in agriculture especially as farmers is declining not only in Uganda but in other African countries alike (FAC, 2017). Apparently, the agriculture sector is not looked at as a viable sector of employment and remains highly unattractive to the youth due to the risks, intensive nature and low profitability (FAO, 2012).

Most of the youth engaged in crop production are vulnerably employed as own account workers and contributing family workers with little or no income accruing to them. While the exodus of the youth from the agriculture sector (of 9.0 percent) might seem to be higher than that of the prime age group (of 3.4 percent), the majority of the youth continue to derive their livelihood from agriculture (Ahaibwe et al, 2013). Some would argue that this movement away from agriculture is a sign of structural transformation of the economy; but the pattern has not brought with it the required job growth needed to absorb the increasing young labour force and as such high levels of underemployment are being experienced in the services and industrial sectors (UBoS, 2009).

Despite its low growth rates and declining share in terms of contribution to GDP, agriculture remains the mainstay for both skilled and unskilled labour, at least in the short- and medium-term and could be a viable solution to tackling Uganda's rising youth unemployment as the industrial sector picks pace (Ahaibwe et al, 2013). Thus attracting and maintaining the youth in crop production does not only mean improvements in the on-going unemployment levels but will enhance exploiting their capabilities for national development in terms of increased agricultural outputs and productivity (ibid). Achieving this would require critical understanding of the challenges faced by the youth at the production node of the agricultural

vale chain and the prospects of youth engagement in agriculture which this paper attempts to do.

Given agriculture's major role in the rural economy, it has significant potential to provide medium-term solutions to the current problems of youth unemployment in Uganda (MoFPED 2016). Furthermore, the MoFPED underscores governments' keenness to undertake investments that will make agriculture and rural non-farm economic activities more attractive and profitable (MoFPED, 2016). To this effect, government devoted Ushs 25 billion towards creating jobs for the youth in FY 2016/17 and agriculture is one of the targeted sectors under the Youth Venture Capital Fund (MoFPED, 2017). Despite these incentives aimed at making agriculture and rural non-farm economic activities more attractive and profitable for the youth to engage in, the involvement of the youth in agricultural activities such as crop production has steadily declined in recent years (MAAIF, 2017). There is recognition from policy circles that the crop production sub sector can contribute to productive future youth employment in Uganda (MAAIF, 2017). It is against this background that the study sought to evaluate the impact of youth engagement in crop production in Karamoja Region of Uganda using Kotido District as a case study

1.2.1 Karamoja Sub Region

Positioned in the northeast of Uganda, the semi-arid region of Karamoja borders South Sudan to the north and Kenya to the east and forms part of a broader cluster of neighbouring pastoral and agropastoral areas (WFP, 2017). Karamoja is the most impoverished region of Uganda, with the poorest development indicators. Its population is highly dependent on subsistence agriculture, which depends upon rainfall during the critical March to October period and is therefore inherently sensitive to climate conditions, making agriculture one of the most

vulnerable sectors to the impacts of climate change. Indeed, the region suffers chronic food insecurity (half of the population is food insecure, of which 12% are severely food insecure due to high levels of poverty, low human development and unfavourable climatic/weather conditions (WFP, 2017). Unlike most regions of Uganda that have a bi-modal rainfall pattern, Karamoja has a uni-modal rainfall pattern. The rainfall season typically commences in March and ends in October and is followed by a prolonged, often severe dry season. As a result, one growing season exists, with land preparation, planting and weeding taking place from March until October.

Analysis of Karamoja's uni-modal rainfall pattern by WFP (2017) reveals two distinct rainfall phases within the rainfall season. First phase starts in late March, with rainfall peaking in early May and then declining to a relative low in late June and the second phase starts in early July, with rainfall peaking later in the month and then declining (with noticeable fluctuations) to early November. This finding demonstrates the poor temporal distribution of rainfall within the rainfall season in Karamoja. The growth and decline of vegetation in Karamoja reflects that of rainfall. Vegetation begins to develop in early March then displays a flat maximum from May to August, after which vegetation declines as the rainfall season comes to an end. There is no month in Karamoja when rainfall exceeds potential evaporation and permanent water features are scarce. As a result, agricultural production in the region is reliant upon and sensitive to rainfall, making agricultural based livelihoods vulnerable to variations in rainfall.

With unreliable rainfall patterns, livestock, in Karamoja are not only representative of wealth and status but have been described as 'the measure of all things' for a pastoralist community (Hudson, 1987). The importance of livestock cannot be overestimated and not just in terms of financial capital. The allegiances, identities and social fabrics that define these communities

revolve around their livestock. Keeping this in mind, in every study site visited, participants reported a considerable loss of livestock in recent years resulting in what in their perspective could be described as the '*impoverishment*' of the majority of households in their communities. As such, they now more or less consider everyone to be poor. This trend is illustrative of what Stites *et al* (2007) have described as an increasing inequity in livestock ownership (and therefore wealth) resulting in a shift to a more stratified and "individualized form of livestock ownership."

Food insecurity in Karamoja has been attributed to low rainfall, unreliable rainfall, rainfall distribution and low soil fertility (GOU, 2010). Drought represents by far the biggest threat to crop production and participants across all study areas mentioned between two to three droughts in the past ten years resulting in complete harvest failure. Poor harvests are also common with these events being reported in five out of the past six years (Burns, Bekele and Akabwai, 2013). Poor harvests were typically attributed to inadequate rainfall or unreliable rainfall and inconsistent rainfall distribution. Floods were also mentioned as contributing to crop loss in 2011-2012 and in 2007-2008. Unlike other places where floods replenish the water table and improve soil moisture, soil and stream types in Karamoja result in large swaths of land being inundated with water (Hudson, 1987). High temperatures also limit optimal crop production with an associated increase in evaporation and decrease in soil moisture content (Mubiru, 2010). A variety of crop pests were also mentioned, including stem borer, smut, shot flies, armyworms, grasshoppers, birds and rats. Livestock (mostly pigs) and wild animals were also blamed for crop losses. Across all three study areas, there was little evidence of farmers using herbicides or pesticides although there was considerable demand for these products. However, this recognition is not backed by empirical evidence on the extent of the youth engagement in crop production. It was therefore against this background

that this study sought to evaluate the impact of youth engagement in crop production in Karamoja Region of Uganda using Kotido District as a case study.

1.3. Statement of the Problem

Crop production which is basically a rural oriented sector, provides over 80% of employment opportunities in the country but remains unattractive to the youth especially in Karamoja region (Njeru and Gichumu, 2015). Crop production in the country is mostly done by the older people with the average age of a Ugandan farmer being 56 years, this is because most Ugandan youths are moving from rural to urban areas in large numbers in search of office work (Ahaibwe et al, 2013). However the urban areas are not able to generate jobs as fast as the growth in population which has led to high levels of youth unemployment (MoFPED, 2016). Kotido district is part of greater Karamoja region which is located in an arid area that mainly support livestock production than crop production. Unlike other parts of Karamoja region, Kotido district is blessed with good soils, adequate rainfall and medium sized flowing streams, which are being used for irrigation (MAAIF, 2017). Despite this substantial investment by the government, as well as development partners in providing funds and capacity building support to youth groups, young people in the district have not embraced the opportunities to engage in crop production, for employment creation and food security.

Group registration records at the Kotido district community based services department, as at end of March 2016, showed that, the district had 116 registered youth groups, and engaged in different enterprises. Out of the 116 registered youth groups, only 41 are involved in crop production. The youth groups had an average of 17 members, thus about 697 youth engaging in crop production through registered groups. This number is considered low, and begs the question of why the youth prefer other forms of enterprises and not crop production, despite the substantial investment made in enticing the youth back to agriculture. Despite worrying

accounts about youth's lack of interest in crop production, there has been relatively little research that has been done to try and capture the youth's views, voices and aspirations toward crop production (Ahaibwe et al, 2013). Therefore, there was no sufficient evidence on the impact of youth engagement in crop production in Uganda. Hence, this study aimed at filling the existing research gap by conducting study to evaluate the impact of youth engagement in crop production in Karamoja Region of Uganda using Kotido District as a case study.

1.4. General objective of the study

This study sought to evaluate the impact of youth engagement in crop production in Karamoja Region of Uganda using Kotido District as a case study.

1.5 Specific objectives of the study

1. To establish the effect of perceptions on youth engagement in crop production
2. To establish effect of social-capital networks on youth engagement in crop
3. To evaluate the role of socio economic factors on youth engagement in crop production

1.6 The research questions

1. How do the perceptions of the youth affect their engagement in crop production in Kotido district?
2. To what extent does social-capital networks affect youth engagement in crop production in Kotido district?
3. To what extent do the economic factors affect youth engagement in crop production in Kotido district?

1.7. Justification of the study

Karamoja has for long been is chronically food-insecure and it is characterized by generally low rainfall distribution, reliability and soil fertility which influences the types of activities and determines the livelihoods in the sub- region. The Sub-region has been affected by consecutive years of crop failure and low productivity due to low youth involvement, unfavourable weather conditions among others (Kotido District Local Government, 2013). This condition has created many problems in the sub-region such as; food shortages, reliance on limited lifeline (basically livestock resources) and water shortage hence high poverty levels, diseases, food insecurity and under development in general. It was against this background that the study was undertaken to evaluate youth engagement in crop production in dryland in Kotido District.

The study will also add to the researcher's personal professional development since the resulting document from this study is a partial requirement for fulfillment of the study requirements. The study is therefore expected to contribute to the researcher's theoretical knowledge on the variables of the study and also will enable the researcher to acquire a profession.

1.8. Scope of the study

1.8.1. Geographical Scope

The study was conducted in Kotido District, one the seven (7) Districts of Karamoja Region; Kotido is one of the dryland Districts in Uganda characterized by hunger, poverty, long dry spells, high temperatures and little annual rainfall amount. The District is located in Karamoja the North Eastern part of Uganda and was bordered to the North and North East by Kaabong District, Agago in the North West, Abim District in the West, Moroto in the South and Napak

in the South East. Physically the District lies between latitude 2˚ 41'N, 3˚15'N, 33˚49' and 34˚35'E. Kotido's present boundary covers 3,618 square km (Kotido District Local Government, 2013).

1.8.2 Time scope

The time scope focused on evaluating the impact of youth engagement in crop production in Karamoja Region of Uganda using Kotido District as a case study. The study considered a period of four years (2014 – 2017). The data was current, adequate, accessible and realistic for the study. This was a single period study, data was collected, analysed, and reported for a single period (cross sectional).

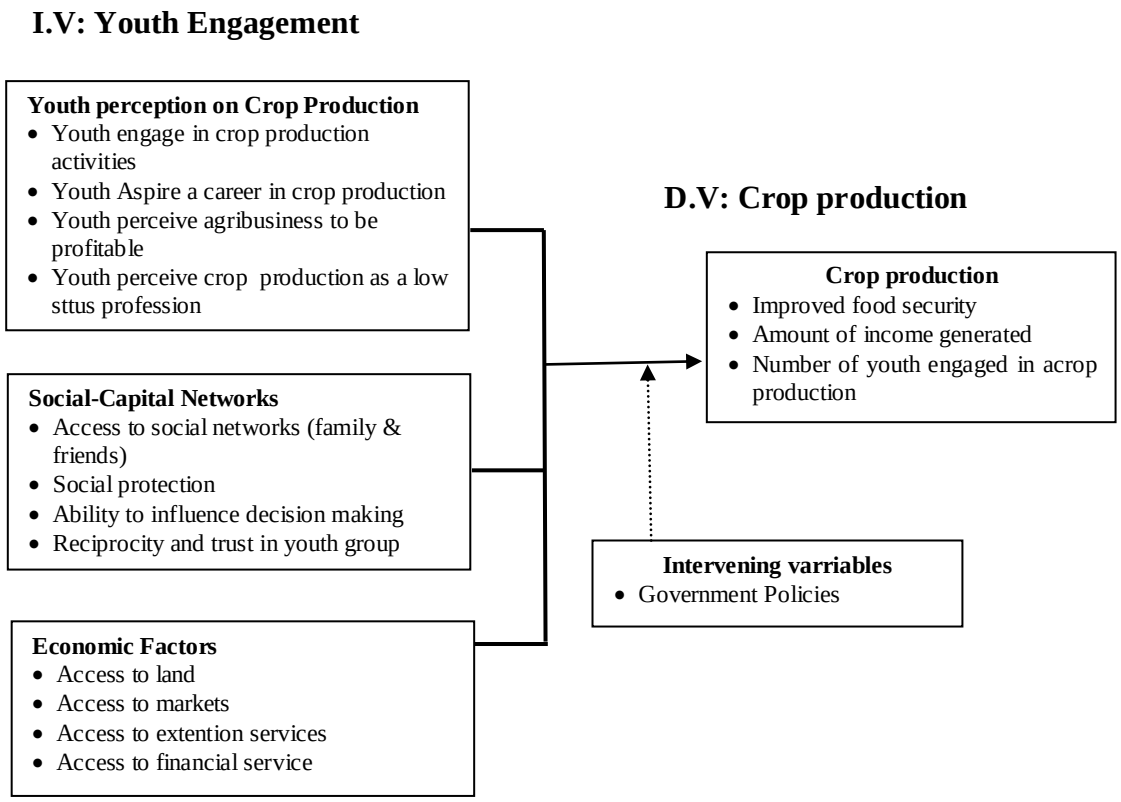
1.8.3 Content Scope

The study evaluating the impact of youth engagement in crop production in Karamoja Region of Uganda using Kotido District as a case study. Youth engagement was the independent variable with dimesions such as youth perceptions, social-capital networks and economic factors while crop production was the dependent variable with dimensions such as improved food secuirty and incomes and government polices and natural factors such as weather are the intervening variables.

1.9 Conceptual framework

Youths are individuals between the ages of 15 – 40 years as indicated in some studies (United Nations, 1990; Soeze, 2006). Youths have been noted for their unique capabilities and they could constitute a formidable force in agricultural production activities in any nation. In the conceptual framework above, youth engagement was the independent variable with dimesions such as youth perceptions, social-capital networks and economic factors while crop

production was the dependent variable with dimensions such as improved food secuirty and incomes and government polices and natural factors such as weather are the intervening variables.



Source: Adapted from literature: Butler and Mazur (2007), Ahaibwe et al (2013) & Kising'u (2016) with modification from the researcher.

Figure 1. Fig. 1.9.1 Conceptual Framework for Youth engagement and crop production

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This section presents the theoretical framwork that underpin the study. The section further literature based on the study objectives to include, literature on youth perception, social-capital and economic factors and how they relate with youth engagement in crop production.

2.1 Theoretical Framework

This study relied on Damon (2004) Positive Youth development theory. The theory looks at the capabilities, developmental potentials, and in increasing thriving behaviours of youth rather than on their deficiencies. By enforcing these traits, an individual's assets are built thus protecting him or her from health compromising behaviours, enhancing the opportunity for positive developmental outcomes, and building his or her resiliency in an effort to counter problems that may affect them (Benson, 2002, Peteru, 2008).

In essence, this theory addresses young people from a balanced and positive perspective, as it views them as resources rather than problems. According to Lerner et al. (2002), it stresses that positive youth development emerges when the potential plasticity of human development is aligned with developmental assets. It conceives young people from a strength-based point by recognising that their unending potential is consistent with their strengths (Benson, 2002; Damon, 2004; Peterson, 2004 and Villaruel et al., 2003).

Of importance is that, even though the positive youth development theory applauds involvement and participation of young people in development processes, it acknowledges this effort as being insufficient and that more effort should be made for youth to channel their energies to "positive directions" as this would make them to do things "responsibly" whilst

encouraging institutional support (Peteru, 2008). This theory therefore motivates young people (regardless of their problems) to use their potential to the fullest and also encourages them to seek and receive support from the human environment (e.g., family, peer group, the school, community). The role of the Youth workers would be to create an enabling environment in order to produce positive youth who can contribute to their families, communities, and society (Borden, Craig & Villaruel, 2004).

The positive youth development theory is based on the five P's as identified by Villaruel et al. (2003) and highlighted below as follows: **Possibilities and preparations:** what opportunities are available for youths in communities? This refers to creation of opportunities that will develop young people in every aspect of their lives e.g. physically, intellectually, morally, spiritually, socially, and emotionally (Merton & Payne, 2000). Pittman (1993) asserts that programs should provide opportunities for youth to develop in variety of ways and help them to avoid risk factors that interfere with good outcomes; **Participation/engagement:** do we know how youth are spending their out of school time? This approach aims to understand, educate and engage youth (Damon, 2004). It is essential that young people not only identify, but that they should accept their responsibilities as individuals, citizens, and group members. By participating in decision making at local, national, and global level, young people are offered an opportunity to be part of the solutions rather than problems (Merton & Payne, 2000; Peterson, 2004); **People:** who are the people interacting with youth daily? Who is in charge of youth programmes? Merton and Payne (2000) identified Youth workers to be in charge of youth programmes. On the other hand, Benson and Pittman (2001) highlighted investment and involvement of public and private sectors and the wider community as crucial for youth development (Benson, 2002); **Places and pluralism** - what resources are available for young people? How can they be accessed? This involves evaluating the resources which

young people can use to meet their needs and maximise their potential (Merton & Payne, 2000). This will entail, checking availability of opportunities, resources and support systems necessary for the development of young people (Benson & Pittman, 2001). The service providers in the youth development sector have a role to play in mobilising resources for the youth and **Partnership:** are youth included as partners in the planning and implementation processes of programmes that affect them? This view argues for involvement of young people in decision making structures which affect their own and other young people‟s lives. A sense of ownership could be fostered by engaging youth to become proactive in their development and also to involve them in decision-making processes (Benson, 2002).

From the above, it is evident that this theory is consistent with the definition of youth development and engagement, because it considers the underlying causes of problem behaviours and stresses positive outcomes for the youth. These outcomes are known as the five C‟s and include competence, confidence, character, connection and contribution or caring (Lerner et al., 2002; Villaruel et al., 2003 and Wheeler, 2000).

The study also elisted the social systems theory which is a holistic theory based on the basic assumption that "*the whole is more than the sum of its parts*" (Anfara & Mertz, 2006). It was developed largely in response to the need for different disciplines to analyse the complex interactive situations in which various system consists of smaller elements or subsystems and larger suprasystems, impinge upon the life of an individual (Shaffer & Kipp, 2009). How these systems interact must be understood.

This theory further views an individual as an organism and a member of society, because it immediately sees interaction between the individual and his or her situation or environment

(Coulshed & Orme, 2006; Lerner et al., 2002). When the systems theory is applied to the field of Youth work, interaction between youth and their situations and the way the youth are affected by these interactions influence whether or not the individual youth will develop positively or negatively (Benson, 2002; Lerner et al., 2002). The effort to change outcomes will consequently not only be directed at young people themselves, but would also be better directed at the system in which young people are caught up.

The study further incorporated Abraham Maslow's (1968) Humanistic theory to support youth engagement. In using this theory to gain an understanding of Youth work, the researcher focused on Abraham Maslow's work that sees the capable intervention of individuals in the course of their life's events as shaping and influencing their own beings. This theory is premised from the point of view that, individuals have the capacity of taking action that will direct the course of their lives and enable them to cope with challenges. The assumption when applying this theory is to focus on the extent to which individuals utilised their abilities to respond to life's challenges in meeting their own needs (Chess & Norlin, 1991; Vander Zanden, 1993).

According to Burger (2009); Vander-Zanden (1993) as well as Chess and Norlin (1991), this theory perceives people as having within them an ability to take charge of their lives and foster their own development, thus being responsible for their actions. It also emphasises the individual‟s uniqueness and ability to foster healthy and positive ways through distinctively human qualities of choice, creativity, valuation and the ultimate development point: self-actualisation/ realisation.

Abraham Maslow (1970), as one of the leaders in humanistic psychology, identified a hierarchy of needs, which motivate people to attain the needs in the high level of the hierarchy symbolising full development (Chess & Norlin, 1991; Vander Zanden, 1993). On the other hand Pittman, O"briel and Kimball (1993) as cited in Benson and Pittman (2001) as well as Hahn and Raley (1998) defined youth development as "*an on-going growth process in which all youth actively seek and are assisted to meet their basic personal and social needs to be safe, feel cared for, be valued, be useful, be spiritually grounded and to be build skills and competencies that allow them to function and contribute to their daily lives."*

2.2 The Concept of Youth engagement in crop production

The concept of Youth is usually defined with reference to age brackets; there is little agreement as to either the upper and lower limits (Afande *et al.*, 2015 p.4 - 19). For instance, in Uganda the National Youth policy (2016) puts the youth bracket at 18-35 years. Ethiopia the Ministry of Youth, Sports and Culture (2004) puts the youth bracket at 15 – 29 years. In Ghana, the National Youth policy (2010) puts the youth bracket at 15-35. In Senegal, the Youth Development Sector Policy Letter (LPDSJ, 2004) puts the bracket at 15 – 35 years. Kenya's National youth policy (2002) has the bracket at 15 – 35 years, while the Kenya Youth Enterprise Development Fund (YEDF, 2011) puts the youth bracket at 18 – 35 years (Afande *et al.*, 2015 p.4 - 19). For the purpose of this study, the age bracket of 18-35 years will be used as determined/ defined by Uganda.

Although crop production has good employment promises, youth tend to shy away from this sub sector which is considered by many youth as dirty and rigorous. Potential of crop production to offer employment for the youth is recognized nationally and internationally. Literature reveals that, there is decline of youth interest in crop production even though they

are most productive and are in the prime of their lives both mentally and physically. Despite the promise of crop production sub sector, youth involvement in it is declining in Africa; Uganda included (Mibey, 2015)

According to Afande *et al.*, (2015 p.4 - 19), given the huge population of young people, their predominantly rural location and the fact that most are unemployed or under-employed, the imperative for sustainably engaging them in crop production becomes easy to comprehend. However, one must emphasize that the vision is not that young people return to the farming methods of their parents and grandparents; rather the new emphasis is on value chains, entrepreneurship and 'crop production as a business'. This new emphasis has multi-dimensions which cover the whole plethora of agri-business value chain, from farm inputs to production and finally consumption. This has given rise to a new term "agropreneurship" which is a hybrid word coined from agriculture and entrepreneurship with full recognition of the innovation, creativity, resilience and market-orientation implicit in the concept of entrepreneurship (Afande *et al.*, 2015).

2.3 Youth Perceptions and Youth Engagement in Crop Production

Despite the recognition of the potential of the agriculture sector internationally and nationally, literature points to the decline of youth interest and engagement in farming. Yet, most point out that the young people should be at the forefront of revitalizing agriculture since they tend to be more innovative. Indeed, if their contribution is matched with the right skills and capital, the much needed youth dividend might be realized (Afande *et al.*, 2015, p. 4 - 19).

The poor perception of the youth towards agriculture could be attributed to several factors. Children from rural areas have less access to education than their urban peers (UNICEF,

2010). Apart from lack of educational infrastructure in rural areas, finding good and motivated teachers in rural areas may be a big challenge especially in developing countries (ibid). In addition, moving children up from primary to secondary school is not self-evident in many of these countries (ibid). For instance, some parents are hesitant in investing in secondary education for their daughters and instead marry them off after primary school. Not only do rural youth have less access to education, but the education in rural areas is often of less quality and not relevant to rural lives (ibid). Agricultural curricula have disappeared in schools despite the need to include it from primary school level.

Agriculture is seen as a less worthwhile subject or as a last resort for under-achievers hence influencing rural youth aspirations in a negative way; while urban students see agriculture as a 'dirty job' (PAFP, 2011). Rural youth not only need general education but they also need skills and training on agricultural activities. Studies by van der Geest (2010) and FAO (2014) revealed that agricultural training targeting rural youth can be highly effective in raising agricultural productivity.

Training and capacity building can change the perception of the youth towards agriculture. In the Pacific and sub-Saharan Africa, agricultural activities are often used in schools as a punishment (FAO, 2014) thus contributing to its negative perception by the youth. In Uganda, for example, agriculture has remained unattractive to the youth partly because schools administer agricultural-related punishments to errant and indisciplined children (Agena, 2013). In addition, prisoners have many a times been forced to work on farms under harsh working environment created by their supervisors (Sandys, 2011). Sandys (2011) further argues that these cases portray agricultural-related activities as deserving for wrongdoers hence limiting the youth enthusiasm to pursue livelihoods in agriculture as a result,

opportunities for agriculture-led growth among the youth are reduced leaving agriculture in the hands of the ageing rural population and consequently leading to low productivity.

The current mode of education is geared towards educating white collar workers, which doesn't reflect the economic and social context for which they are being trained (Agena, 2013). This is to suggest that although developing countries should plan for economic expansion, those plans should not negate the existing needs of the economy. According to Tyrone (2010), one response is to encourage partnerships with the education sector to integrate agriculture into the primary and secondary school curriculum. A report by KIE (2002) revealed the absence of agriculture from the curriculum in Kenyan schools, particularly at the compulsory levels of education. Many a times, agriculture is included in the curriculum as an optional component that is not taught with passion (ibid). If its inclusion can be broad-based and compulsory and supported with appropriate resources, it would help to motivate youth towards having a more positive view of employment opportunities in the agricultural sector (UNICEF, 2010).

Poor perception towards agriculture by the youth can also be attributed to the fact that most young farmers are not interested in receiving agricultural training since they work on other people's land and are thus not motivated to improve their agricultural skills (FAO, 2010-2011). In many cases, training programmes reach mostly young men and do not cater for the needs of young women (ibid). FAO (2014) confirmed that restricted mobility; young motherhood; and limited schooling as well as literacy levels are factors contributing to poor perception. According to IFAD (2009) argue that the timing of trainings are at times inconvenient for young women as they are busy with household chores.

The involvement of youth in agricultural activities has the potential of reducing the problems of the ageing farm population and increasing youth unemployment and this calls for securing the interest and participation of young people in agriculture in the form of deliberate shift in policy, training and promotion that specially targets the youth. This category of people are not only the productive backbone of every society, the major source of ideas and innovation, but also the main market for food consumption and very often the leaders and drivers of public opinion, public policy and action (Akpan, 2010).

2.4 Social-Capital Networks and Youth Engagement in Crop Production

Bhandari and Yasunobu (2009) summarize social capital as "a multidimensional phenomenon encompassing a stock of social norms, values, beliefs, trusts, obligations, relationships, networks, friends, memberships, civic engagement, information flows, and institutions that foster cooperation and collective actions for mutual benefits and contributes to economic and social development". This broad definition probably already took its roots in the various ways in which social capital was used by early researchers.

Bourdieu (1986) for example stressed the importance of social networks; Fukuyama (1995) that of trust and norms of cooperation; and Coleman (1988) defined social capital by its function, i.e. an aspect of social structure that facilitates action of the individuals within. The imprecise definition of social capital makes it unclear whether social capital resides at the individual or collective level. Even though social capital is something which exists between people, it has a clear individual attribute (Poder, 2011). Moreover, when social capital is defined at collective level, the question arises as to what defines the collective (Lancee, 2012). Different networks are clearly overlapping and some individuals might have a more central role, and thus benefit more, than others. In this thesis, I consider network participation and

trust as individual attributes of social capital, which may or may not be aggregated at village level. The norms of cooperation I include in chapter 3-5 are shared village norms.

Social capital can be classified along two well-known dimensions: bonding versus bridging social capital (Putnam 2000) and cognitive versus structural social capital (Uphoff and Wijayaratna 2000). Bonding social capital refers to ties between people of similar characteristics and is essentially horizontal in nature. Bridging social capital refers to ties across different groups and often across different power lines, thereby being essentially vertical in nature. In this thesis, I classify ties inside the village as bonding social capital, and ties between villages and in institutions as bridging social capital.

A rapidly growing literature identifies social capital as a factor conducive to growth and development (e.g. Knack and Keefer 1997; Zak and Knack 2001). Positive growth effects may materialize via various channels, including reduced transaction costs (precluding the necessity to write contracts that capture all contingencies), facilitated exchange of information, and enhanced trust (enabling communities to overcome social dilemmas). A recent study by Ahlerup and Olsson (2009) suggests that social capital and formal institutions are substitutes in development, so that social capital is especially important for the poorest countries where formal institutions are of the lowest quality (for other treatments of the interaction between social capital and institutions, refer to Dasgupta, 2005; Tabellini, 2005).

Agricultural innovation is widely viewed as an important factor for economic growth and development in Sub Saharan Africa (World Development Report, 2009). Yet agricultural innovation among youth has progressed slowly, and programs to promote the adoption of new technologies, even if occasionally successful locally, have largely proven unsuccessful. While

many aspects of innovation remain poorly understood (Landry et al., 2002), some argue that an important cause of limited impact of traditional research and extension in Africa is the simplistic yet dominant view on innovation processes. Recent work emphasizes interdependence among actors, network effects, joint learning, and social interaction (FARA, 2008; Röling, 2009).

Engagement in networks may also yield a synergy effect, as it fosters the combination of different ideas or skills, and a "realisability effect" due to enhanced access to different resources including political or financial support (Bandiera and Rasul, 2006). Cognitive social capital might matter for innovation in agriculture as well. Trust can increase the overall tendency to cooperate and lower transaction costs (e.g., bargaining and decision cost, policing and enforcement cost). Moreover, sufficiently high levels of trust may allow groups of individuals to self-insure against risk. In the presence of informal insurance mechanisms – a key component of social capital – individual farmers are better able to adopt (potentially risky) innovations as downside risks can be overcome (Narayan and Pritchett 1999).

Like trust, shared norms may lower transaction costs and facilitate cooperation and self-insurance (e.g. Isham 2002). But norms may also discourage innovation. Norms of good citizenship or orderliness that promote conservatism and conformity can reduce creative thinking and reaching for out-of-the-box solutions (e.g. Dakhli and De Clercq 2004; Kaasa 2009). Moreover, in-group norms of specific groups that conflict with the interests of wider society could be detrimental to development (Knack and Keefer 1997; Bowles and Gintis 2001). The net impact on innovation therefore, is ambiguous.

According to Mwangi and Ouma (2012), the networks comprise groups of people who interact directly, frequently, and in multi-faceted ways. This network remains a very important resource, especially in the rural areas. Social capital describes those intangible substances that count for most in the daily lives of people and include; goodwill, fellowship, sympathy, and social intercourse among the individuals and families who make up a social unit. Individual contact with neighbours, leads to an accumulation of social capital, which may immediately satisfy one's social needs leading to a social potentiality sufficient to the substantial improvement of living conditions in the whole community.

Social capital enables people to attach greater value in their family, friends and associates that facilitate collective action. Social capital lowers uncertainty and reduces transaction costs thereby fostering economic activity, at the micro level, while at the same time providing a new analytical tool to explain some macro phenomena like rural development differentials. The level of attachment, social ties and integration is considered to be very high in the rural areas (Landry et al., 2002). This could be partly explained by the degree of homogeneity in the economic activities that people engage in, the family ties as well as the cultural practise. One of the major requirements towards credit access in rural areas is investment in social capital. Whereas microfinance institutions will try to extend credit to individuals, it attaches greater value to organised groups. Besides, due to information asymmetry between the households and the financial service providers, rural households may be asked to get people who know them to act as guarantors when applying for funds. This depicts the importance of social capital in rural areas (Kaasa, 2009).

The established social networks help in creating spontaneous mutual insurance mechanisms. Moser (1996) established that those communities endowed with a diverse stock of social

networks and civic associations are in a stronger position to confront poverty and vulnerability as opposed to those without such networks. The same applies to economic establishments where certain parcels of land or housing units are sold only to members, a sign that social capital is an important asset. Holzmann and Jorgensen (1999) argue that the poor may have a close-knit and intensive stock of "bonding" social capital that they can leverage to "get by" thus gain access to the available social and economic facilities on offer.

2.5 Economic Factors and Youth Engagement in Crop Production

2.5.1 Access to land and youth engagement in Crop Production

Access to land is an important factor of production for the youth in the rural areas who intent to earn their livelihood through agriculture (FAO, 2012). Land is a limited commodity and which youth are expected to access through the adults (ibid). Land can often be difficult for youth access (FAO, 2014) as traditional land ownership systems restrict the youth from accessing land for investment as ownership of land is only granted to eldest household male (Njenga et al, 2012). The land issue affects both male and female youth (SACAO, 2013). The inheritance laws and customs which are the principle mechanism through which young people access land (MIJARC et al, 2012) often prohibits the transfer of land to young women (Sanginga, 2014).

Studies by FAO further confirm that young women face greater challenges in securing access to land since they can only obtain user rights through a male relative (FAO, 2014) or through their husbands and often do not have control over its usage (Mibey, 2015). As a result, only a small proportion of women own land which also happens to be very small sizes smaller than what men (FAO, 2011b). Worse still, accessing family land while parents are still alive remains a taboo in many African countries (UN-HABITAT, 2011). Poverty in developing

countries, usually force selling of land to outsiders by parents without even consulting their young children on the agreements which may bar and exclude them and their next generations' access to land (White, 2012). According to FAO (2011b) the land size for farming by youth is further limited by land degradation that has been on the increase which results to uneconomical land sizes that cannot effectively engage the farmers (Njenga et al, 2012).

Youth consider secure land access as principle for starting farming (FAO, 2011b). Youth access to land contributes to household food security, employment creation and income generation as land is used as collateral and security for one to access credit, signifies their identity, elevates their status, and also improves their participation in decision making within their communities and other organizations (MIJARC et al, 2012). According to UN-Habitat (2013) youth need land for livelihoods, work place, economic assets, income generation, leasing, markets/shopping, accessing services, and training and skills

The system of land tenure significantly affects crop production patterns (FAO, 2012). A study in Uganda revealed that the land tenure systems hinder youth from engagement in agriculture as many use it without exclusive rights of ownership (Ahaibwe et al 2013). In Rwanda which is a densely populated country, the land has been highly fragmented which led to adoption of laws that prohibit further land division which means that the family sole heir and final decision maker is the eldest son (IFAD, 2010a).

Valle (2012) argues that limited access to information and finance limits youth from benefiting from land reforms as they lack the knowledge to lobby for a lease or seek financial support to enable them buy land and therefore end up seeking informal land rights which can

be grabbed and have little prospect for lack of title deed. Further, according to UN-HABITAT (2011) youth are always never aware of land acquisition, registration and taxation requirements and therefore fall prey to fraudulent and corrupt land dealers. Nonetheless, expecting youth to acquire land through purchasing is unrealistic since most are not employed and those who are have low wages and also the land prices are so high which pose even a bigger challenge for young women in developing countries who usually work as house helps and earns low wages (FAO, 2011b).

Security of land tenure is not guaranteed in Uganda, due to gender discrimination resulting from biased laws and customs, lack of proper land administration for sustainable development and reforms aimed at improving land administration and management for sustainable development (Gottero, 2015). Gotterro (2015) further argues that rural youth rights in access and control of land resources still remain a challenge especially in Arid and Semi-Arid Lands (ASALs) in Kenya where communal land governed by customary laws denied ownership rights to youth despite the availability of adequate arable land. The land rights for the youth were limited to access rights, therefore could only provide casual or family labour.

2.5.2 Access to financial services and youth engagement in Crop Production

The availability of funds plays a substantial in agriculture development and the ability to access financial services in form of loans and savings is essential for starting any agricultural venture (FAO, 2014).The number of young farmers in Africa is increasing but the issue of lack of affordable financing is holding them back according to Barret (2014).

According to FAO (2014) Agriculture is becoming more mechanized at present which requires enormous capital investments to purchase farm inputs and implements. The financial

services providers should play an important role for these needs to be met (IFAD, 2010b). However, as they attempt to access financial services, youth across the world are faced with several challenges such as lack of tailored financial products, fear of the financial providers to offer services to the youth as well as the restrictive nature of the existing legal and regulatory environment (Valle, 2012).

Sanginga (2014) adds that lack of collateral and low financial literacy makes the financial providers reluctant to provide their services to the youth. Additionally, funding youth is considered highly risky because they lack experience and have limited financial capacities. (Atkinson and Messy, 2012). Most financial providers in both developed and developing country mainly focus on credit, and yet saving and asset building is also very important for the youth (MIJARC et al, 2012).

Furthermore, Micro Finance Institutions (MFIs) charge high interests on their loans offered to youth (UNCDF, 2012). Valle (2012) further argues the dependence on rain fed agriculture which limits production at times in rural areas makes provision of financial services in these areas risky. Therefore, to access financial services, youth resolve to use family and friends as well as ICT that offers various financial products through mobile banking such as e-trade, e-business, e-banking, e-business (Valle, 2012). Other financial access mechanisms involve matching grants through government and NGOs programmes. (Rutten, 2014). A large number of NGOs that target youth act as Financial Service Providers (FSP) and provide trainings, loans, writing of business plans and sensitization on financial literacy among poor rural and urban owners of small enterprises in (Valle, 2012).

In Uganda, skills development and youth economic opportunities are key focus for Uganda's Vision 2040 and among other key policies (MoFPED, 2016). The Youth Livelihood Programme (YLP) established in 2011 aims at supporting youth owned enterprises as well as enabling youth to start their own enterprises and market their products locally and abroad (MoLGSD, 2014). Through the Ministry of Labour, Gender and Social Development the YLP offers a grants for youth for agribusiness and acquiring agricultural inputs called (Ochilo, 2014). A study by Barret (2014) revealed that the accessibility of this fund has interested youths to borrow money for farming and availability of finances would result to increased number of young people working in the agricultural sector. Funds for Agriculture and Agribusiness and Economic Stimulus Programmes for poverty alleviation and creation of employment opportunities among the youth is also a government initiative targeting the youths (Mandania, 2012)

2.5.3 Market Access and youth engagement in Crop Production

Market is an important economic factor in agriculture. Access to market by farmers is defined by their ability to buy farm inputs and services, as well as their ability to supply agricultural yield to buyers (IFAD, 2010a). Access to markets is crucial for young farmers all over the world as markets provide the opportunity to generate income and influence production to respond to consumer quantity and quality demands (Schalkwyk et al., 2012). The distance from the market determines the cost of transportation and also the types of crops grown and enables youth to undertake viable and sustainable agricultural initiatives (FAO, 2014). The future of the agricultural sector depends on youth (MIJARC et. al 2012) and hence their ability to access markets is very crucial for increasing production, income as well as dealing with poverty and hunger in the future.(FAO, 2014).

The youth are faced with several challenges as they try to access markets, which at times surpass what generally smallholder farmers in developing countries experience (Giuliani and Valle, 2014). These include: strict supply chain standards for the supermarkets and the international market (FAO, 2014), inadequate knowledge and experience on market systems and structures, lack of skills to manage their entrepreneurial ventures as well as lack of information about prices. Further, demand for highly processed food triggered by globalization affects the market systems and standards and leads to introduction of new safety and quality standards that youth must comply to (Giuliani and Valle, 2014). This limits them from accessing and selling their produce for higher prices to other national, regional and international markets and this scenario leaves the youth with the option of the local (rural) markets (FAO, 2014).

In Uganda, the markets are characterised by instability in demand and prices, disorganization of the markets and delayed payments by dominant buyers which affects youth in farming (SACAU, 2013) This study further points that youths are interested in farming businesses which yield money fast, have minimal labour demands and also the ones with guaranteed such as contractual farming.

Greece, Italy, France, Spain and Cyprus initiated a platform "We Deliver Taste" aimed at improving the ability of the small scale farmers to access market as the mainstream stream supply chain oftenly excludes them and hence connects the producers to the consumers. (FAO, 2014). The United states of America also have Youth Trade that supports young entrepreneurs dealing with agro products or agro-processed products, provides certification for youth businesses and link them to other companies (Valle, 2014).

2.5.4 Extension services and youth engagement in agricultural project activities

Youth access to knowledge and information about agricultural production, processing techniques, finance land and markets is crucial for their successful participation in the agricultural sector (Sanginga, 2014). Appropriate information to the youth enables them to contribute to policies related to their ability to access land, finance and market (Goemans, 2014). If youth are to utilize the available market opportunities and establish their own businesses, training and education is very vital for them. (FAO, 2014). Youth can improve their agricultural production by utilizing modern farming technologies as they are fast learners (MIJARC et al 2012).

In many rural areas of the developing countries, accessibility to suitable education and training is always limited (Sanginga, 2014) and hence farming knowledge is mostly transferred to children from their parents (PAFPNet, 2010). Supporting education related to agriculture for efficient operation of small scale farms, profitability, market access and engagement process in the various agribusiness will enhance youth engagement in agriculture (Abdul et al., 2013).

Inadequate access to education, information and knowledge affects young people engagement in agriculture which limits productivity and the development of entrepreneurial ventures (FAO, 2014). According to Sanginga (2014) the development of entrepreneurial undertakings in Africa is limited by insufficient skills acquisition and knowledge whereas limited education affects productivity. During a regional consultative workshop for East African young farmers held in 2009, youth from the rural areas highlighted limited opportunities for apprenticeship, scarce leadership and business management training opportunities as key challenges (Proctor and Lucchesi, 2012).

Prospects for their training are further constrained by their low levels of education (IFAD, 2010a). A study in Uganda revealed that male youth with at least secondary education in households with more adults were less likely to engage in agriculture. (Ahaibwe et al 2013). These challenges in education, information and knowledge necessitates education and entrepreneurial skills development for rural youth and incorporation of agricultural and entrepreneurial skills into rural education. (Sanginga, 2014). IFAD (2012) adds that not only do rural youth need general education but they also need skills training on agricultural activities.

A study in Nigeria recommended identification of a more participatory way that focus on agricultural best practices, land laws and knowledge sharing in Education and capacity-building programmes for rural youths (Ajani et al, 2015). The providers of agricultural train and education should focus on addressing the agricultural labour market requirements and expose youth to real working world, the rewards and challenges thereof. In Cambodia, Bahmas and China youth being trained in agricultures are exposed through internships and tours to other areas for learning purposes (FAO, 2014)

The young farmers through enhanced access to market information, improved technologies and production methods and financial openings can contribute significantly in reducing youth rural-urban migration. (Ochilo, 2014). Use of Short message service (SMS) plays a key role in accessing agriculture extension information (Lung'ahi, 2014). Additionally young people can through their numerous acquired skills in ICT, support the country to carry out research aimed at enhancing agri-business (Waikenda, 2013).

2.6 Summary of Literature

The literature reviewed above shows that youth engagement is significantly to the success of agricultural programmes. Studies that focused on the factors affecting youth engagement in agricultural initiatives and programmes found that social, political, economic factors impacted significantly on youth engagement. Youth engagement was key in success of any development project. Studies that focused on aligning youth perception, social-capital networks and economic factors pointed that youth engagment was significant for the success of agriculture production in general but little is covered on crop production specifically, the gist of this study. The studies reviewed were silent on a number of key factors that would impact on youth engagement in crop production such as (i) Lack of household labor capacity is a key constraint to crop production, and yet there is a strong correlation between crop production (yields) and labor deficit households: (ii) The shortage of both seeds and other inputs as a constraints to crop production. In some cases this has to do with availability, particularly of short-term cereal varieties. But in general there appears to be a shortage of quality seeds and planting material in many areas in Kotido District. (iii) The lack of agricultural extension services (training) is also another surprising given the importance of crop production in the Karamoja Action Plan for Food Security 2010-2015. The National Agricultural Advisory Services (NAADS) and NGOs have provided some training although it mostly seemed to be very basic stuff such as row planting and vegetable production and (iv) Another gap not discussed thoroughly in literature was that although farmers use a variety of traditional granaries, post-harvest losses for all crops was still rampant particularly for sorghum, beans, tomatoes and onions. Weevils were a problem for red sorghum and white peas and inadequate drying procedures were mentioned as a constraint for grains, bananas, cassava and potatoes.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter provided guidelines on the methodology to be used in this study. The chapter is compossed of: research design; description of geographical area; description of the population;sampling strategy; data collection methods; validity and reliability; data analysis; ethical considerations and limitations of the study

3.2. Research design

Research design as defined by Gupta and Gupta (2011) is a process that allows the researcher to have an understanding about the significance of the research and the steps that are involved. This study used crossectional survey design. Mugenda and Mugenda (1999) explain that a descriptive survey design is utilized to obtain information regarding the current situation about a phenomenon to describe what exists, with respect to variables or conditions in a situation. This design depicted the relationship and practices that exist, beliefs and processes that are on-going, effects that are felt and trends which are developed. The study adopted the design to provide an analysis and explanation of views and comment about the effect of youth engagement in crop production in Karamoja Uganda using Kotido distict as case study. This design was considered appropriate since it enabled the researcher to collection data with less manipulation of variables.

3.3 Area of study

The study was conducted in Kotido District, one of the seven (7) Districts of Karamoja Region. Kotido District was curved out of the Karamoja District administration in 1971. The choice of location for this study is based on the fact that Kotido is one of the dryland Districts

in Uganda characterized by hunger, poverty, long dry spells, high temperatures and little annual rainfall amount which hampers crop production, a key concern for the youth in the sub region. Therefore the region was believed to emprical evidence on the impact of youth engagement in crop production.

3.3.1 Location and administrative structure

Kotido District lies between latitude 2˚41'N and 3˚15'N, longitude 33˚49'E and 34˚35'E in northeastern Uganda and bordered on the north and northeast by Kaabong District, on the west by Abim District, and on the south and southeast by Moroto District. Kotido is basically what used to be Jie County. Kotido District has an area of 3,618km2 and comprises 5 rural sub-counties, 25 parishes (LCIIs) and 168 villages (LCIs). The district has one Urban Council namely, Kotido Council.

3.3.2 Climate and Rainfall

According to UNDP Kotido District Hazard, Risk and Vulnerability Profile report (2014), Kotido has savannah vegetation to the west and a semi-arid climate with thorny bushes and shrubs to the east and northeast, characterized by an intensely hot season from November to March with strong winds and dust storms. Rainfall is mainly orographic, i.e., precipitated from air forced upward by terrain. The rainy season is from April to August, contributing to a sparse average 519 mm per annum, unevenly distributed and dependent on the local factors. There are a distinct minimum in June and a maximum in May and July. The rain is erratic timing and volume. Distinct wet and dry seasons are a prominent feature. The most common forms of precipitation are day-time showers, early morning dews and occasional mists. Rainfall is frequently accompanied by electrical storms. Hailstones and fog occur once or twice a year. Rainfall is inadequate, unevenly distributed and sparse, disadvantaging

agricultural production and economic growth in the district. There is one long dry season from October to February with dry spells in June to August. The daily temperatures range from 20˚c to 35˚c. Relative humidity can reach 60% between June and July. Overall, Kotido slopes westwards from the border of Karamoja Region with Kenya, formed by the western escarpment of the Great East African Rift Valley. The district is mainly drained by Kapetha/Lolelia, Dopeth, Longiro, and Lokwakieal Rivers flowing westwards and Nangoolapolon River flowing south-westwards.

3.3.3 Vegetation

The vegetation pattern is typically semi-arid with agro-pastoral zones in the east of the district and typical savannah tree and grass species to the west and northwest along the borders with Abim, Pader and Kaabong Districts

3.3.4 People and Livelihoods

The major ethnic group in Kotido District is the Jie from the Ngijie speaking group of the Karamojongs. They are mainly pastoralists and live in clustered settlements known as mayattas. There are also traces of Luo speaking people among other tribes in the District, mainly in areas of Kacheri Sub County and Kotido TC.

UNDP Kotido District Hazard, Risk and Vulnerability Profile report (2014), maps the livelihood in Kotido district based on the agro-ecological zones within the Sub Counties and town council. In the West Agricultural Zone (Kacheri sub county), the livelihoods include; (i) Crop farming (Simsim, Ground nuts, Sorghum, Bulrush millet (ii) Fishing in dams (iii) Apiary (iv) Crafting (v) Charcoal burning and firewood collection (vi) Casual labor and (vii) Local brewing “Abutia”

In the Agro-pastoral Zone (Kotido S/C, Kotido Town Council, Nakapelimoru S/C, Panyangara S/C and Rangen S/C) the livelihoods include: Crop farming (Simsim, Ground nuts, Sorghum), Fishing in the Dams, Crafting, Sand mining, Stone quarrying and Casual labor

In Agro-pastoral Zone Kotido S/C, Kotido Town Council, Nakapelimoru S/C, Panyangara S/C and Rangen S/C) the livelihoods include: Local brewing "Abutia"; Rearing of animals; Brick making; Charcoal burning and firewood collection and Petty trading

In the Pastoral Zone (Nakapelimoru S/C and Panyangara S/C) the main livelihoods include: Rearing of animals; Crafting; Casual labor; Local brewing "Abutia" and firewood collection. The women of Kotido are the main breadwinners, engaging in various activities including farming, charcoal burning, firewood collection, bee-keeping, casual labour, local brewing, stone quarrying. Some are in the formal business sector.

3.4. Sample size and Sampling strategy

3.4.1 Sample Size

The study used a mathematical formula to establish the sample size. Yamane (1967) sample size fomular was used for determining sample size of the study.

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

Where, N is the total population size, and e is the error or confidence level. The conventional confidence level of 95% was used to ensure a more accurate result from the sample. Based on this, the error term would equal to 0.1. Using the total youth population of 697 from 41 youth

groups each with an average of 17 members and error margin of 0.1, the sample size was calculated as follows:

$$n = \frac{697}{1+697(0.1)^2} = \frac{697}{1+697*0.01} = \frac{697}{1+6.97} = \frac{697}{7.97} = 87 \quad \text{Re}\,spondents$$

Out of the total population of 697 youths from the registered 41 groups in Kotido District, involved in crop production, a sample size of 87 was taken.

3.4.2 Sampling Strategy

Proportionate stratified random sampling was adopted to select a total of 87 respondents drawn from youth groups in the purposively selected Sub Counties of Kotido, Panyangara and Nakapelimoru of Kotido District. This was achieved by first stratifying the youth groups into three (4) strata according to their Sub Counties. Simple random sampling was applied within each stratum (Sub County), to select 29 respondents; which were an equal proportion (number) of respondents per strata, totalling to 87 respondents in all the three sub counties. The 29 respondents per Sub County were randomly selected from a list of youth group participants that was provided by the Community Development Officers (CDOs). The above population was ideal for the study due to limited time available for the study to manage a large number of respondents. A total of 3 Local Leaders and 3 Agricultural extension staff were selected purposively to participate in the interview.

3.5. Data Collection Instruments

Data collection is the process of acquiring subjects and gathering information needed for a study; methods of collection vary depending on the study design (Kothari, 2004). Primary data was collected for this study. Primary data was collected by administering a semi-structured questionnaire. This type of questionnaire used both closed and open-ended questions. Closed questions had predetermined answers and usually collect quantitative data while open-ended

questions give the respondents free will to answer and usually collect qualitative data. The interview guides was used to seek opinion from agriculture officials and older farmers. The researcher used questionnaires to ensure collection of data from many respondents within a short time and respondents are free to give relevant information because they are assured of their anonymity (Mugenda and Mugenda, 2003). Secondary data on the other hand was collected through review of both empirical and theoretical data from books, journals, dissertations, magazines and the internet. 3.6. Validity and Reliability of data collection instruments.

3.6 Validity and Reliability

3.6.1 Validity of the Research Instruments

Reliability is defined as the extent to which a questionnaire, test, observation or any measurement procedure produces the same results on repeated trials (Nunnally & Bernstein, 1994). It is the stability or consistency of scores over time. Therefore, the validity of the instrument was tested using the content validity index (CVI) which ensured that the instrument included were adequate and representative of the items that captured key concepts of the research and that it was done using judgment of the Research supervisors. The formula for content validity index (*CVI*) was computed using the following formula:

$$C.V.I = \frac{Number\ of\ items\ rated\ as\ relevant}{All\ items\ in\ the\ questionnaire} = CVI = \frac{R}{R+N+IR}$$

Where; R is Relevant. N is Neutral, and IR is irrelevant. The closer the value is to 1, the more valid is the instrument (Amin, 2005).

Table 3. 1 3.6.1: Supervisor scores on the Validity of the Instruments

Supervisor	Relevant (Score/100)	Neutral (score/100)	Irrelevant (Score/100)	Total Score	Average Score (Relevant/100)
1	80%	5%	15%	100	**78%**
2	75%	10%	15%	100	

Source: Primary data (2018)

From the two supervisors the average score was 78% which made the questionnaire content valid, which was way above the score of 0.7 or 70% as suggested by Sekaran (2003).

3.6.2 Reliability of data

Pak (2008) and Joppe (2000) defined reliability as: "The extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable". The researcher tested the inter-item consistency reliability to ensure that there was the consistency of respondents' answers to all items in the measure. A cronbach's alpha reliability coefficient was generated using the statistical package for social scientists (SPSS) computer program to estimate the reliability of the questionnaire as shown in table 3.6.2.

Table 3.6.2: Reliability index

Case Processing Summary

		N	%
Cases	Valid	62	96.9
	Excluded(a)	1	3.1
	Total	61	100.0

a Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.895	62

Source: Primary Data (2018)

So the alpha reliability coefficient for this scale is 0.895 or 89.5% of the questionnaire, which is far better and "acceptable" reliability. An alpha above 0.7 is acceptable as suggested by Sekaran (2003).

3.7. Data analysis

Analysing of data means categorizing, ordering, manipulating and summarizing of data that answers the research questions (Mugenda and Mugenda, 2003). The filled questionnaires were checked for consistency and completeness.

3.7.1 Qualitative Data Analysis

The data collected was gathered, sorted and coded to ensure that the responses are grouped as per the research objectives under the following themes: Youth perceptions and their engagement in crop production; social-capital networks and youth engagement in crop production

and Economic factors and youth engagement in crop production**.** The study used qualitative content analysis for text data. This data was obtained through word of mouth, narrative responses, interviews, observations, open-ended survey questions among others. This study used open-ended survey questions to gather text data.

3.7.2 Quantitative Data Analysis

Quantitative data was analysed using descriptive statistics in form of percentages, frequencies standard deviations and weighted means. This involved detailed description of the items that comprise a sample. Tabulating data and presenting them on the table was also used to give a visual display of findings, the trends and for easy reference. The second level of the data analysis involved inferential statistics, where Pearson Correlation Coefficient was used to establish the associations of the study variables. Using Statistical Package for Social Sciences (SPSS), the values of correlation coefficients were obtained.

3.9. Ethical Considerations

The study was conducted upon appropriate scrutiny by the research supervisor so as to qualify it ethically, introduction letter to be presented to Kotido District authorities was obtained from research coordinator Uganda Martyres University. Informal and written consent with official stamp was obtained from the Local authorities, like District authority, local council authorities of the villages where the study was conducted prior to the collection of data. This was done to obtain permission and to show community members that the project is known by the authorities. Data collected was kept confidentiality and only used for purpose collected for, identity of individuals and culture was not revealed for confidentiality.

3.10. Limitations of the study

Poor response or respondents' failure to participate in the study in time was another problem the researcher faced. Respondents feared to answer back the questions or not providing answers in time to allow enough time for data analysis. To minimize this limitation, the researcher assured respondents utmost confidentiality of the data collected, follow ups were also made on phones.

Another limitation of the study was sample size whereby just a portion of the population was considered to participate in the study. This was due limited time framework available for the study and insufficient resources such as human resource and financial resources to manage and print questions for the large population.

Insufficient funds limited the course of the study most especially inform of expenditure on typing, printing research tools, data collection & printing copies of report. However, insufficient funds was solved by sourcing for some funders to fund the project. Also budget was made to help in the effective funds allocation and efficient use of limited funds.

Furthermore, reliability of data was largely a constraint and largely depended on the extent to which respondents gave correct information.

CHAPTER FOUR

FINDINGS AND DISCUSSION

4.0 Introduction

This chapter presents the research findings and discusses the findings in relation to other reserachers. It is organized according to the study objectives presented in chapter one. The first part of the presentation focuses on background information of respondents. The analysis of the objectives was carried out by running factor analysis based on relationships among the independent and dependent variables. This was done using Principle - Component Analysis (PCA) which is a statistical procedure that uses an orthogonal transformation to convert a set of observations of possibly correlated variables into a set of values of linear uncorrelated variables called principal components and thereafter correlations and regression were run to show how strongly the variables correlated. A total of 87 respondents from subcounties of Kotido, Nakaperimoru, and Panyangara in Kotido district participated in the study.

4.1 Background Characteristics of the Respondents

4.1.1 Response Rate

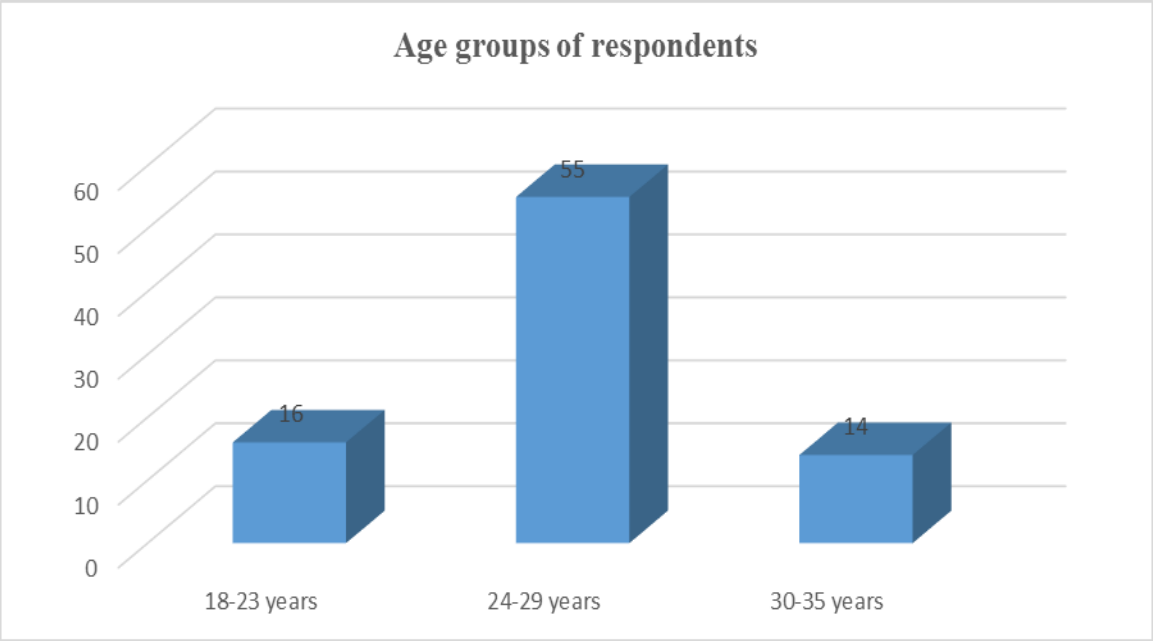
Table 4.1.1 Response rate

Sub county	**Data collection method**	**Targeted respondents**	**Actual responses**	**Percentage**
Kotido	Questionnaire survey	29	28	97
	Key Informants	2	2	100
Nakaperimoru	Questionnaire survey	29	29	100
	Key Informants	2	2	100
Panyangara	Questionnaire survey	29	28	97
	Key Informants	2	2	100
Total		**93**	**91**	**98**

Source: Survey Data (2018)

Results from Table 4.1.1 show respondents'response returns from the questionnaires and interviews targeted and returned for this study. A total of 93 respondents were targeted for the survey. Of the 87 respondents targeted for the questionnaire survey method, 85 actually responded and participated returning 98% response rate. All 6 (100%) respondents targeted as key informants for the qualitative study responded to the study. Overall the study achieved 98% response rate making the study findings reliable and valid over and above the 70% response rate as suggested by Amin (2005).

4.1.2 Age of the respondents

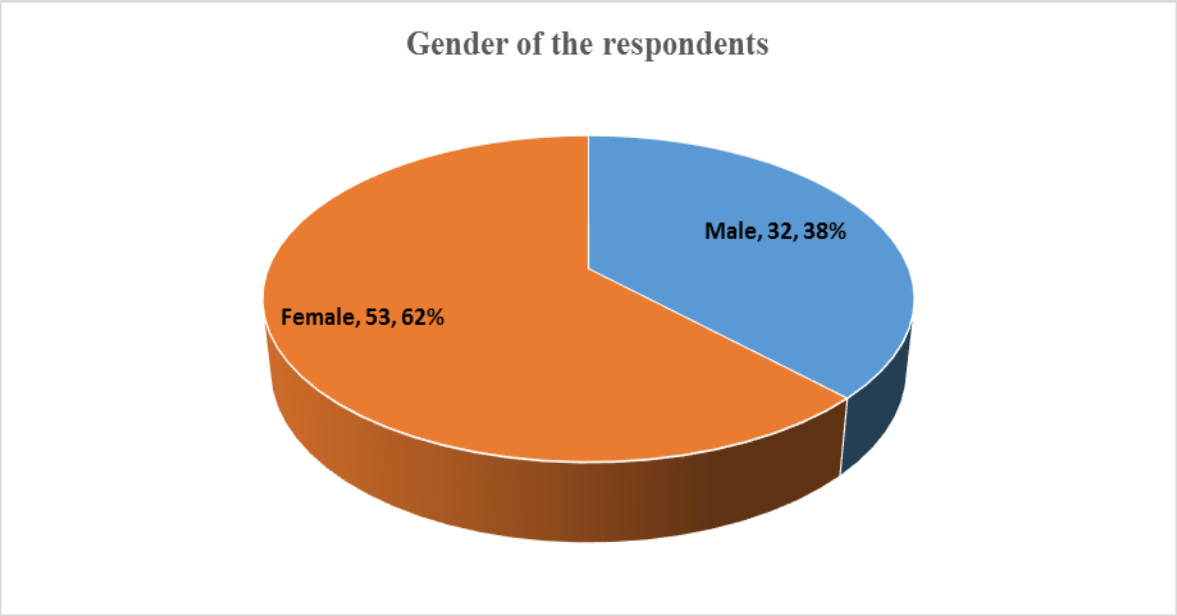


Source: Survey Data (2018)

Figure 4.1.2 Age group of the respondents

Results from Figure 4.1.2 show the age of the respondents. Majority 65% (55) of the respondents were in age group 24-29 years, 19% (16) of the respondents were in the age group of 18-23 years while 16% (14) of the respondents were in the age group of 30-35 years. The implication from the study is that findings/ analysis conform to the National (Uganda) definition of the targeted segment of the population, the youth.

4.1.3 Gender of the respondents

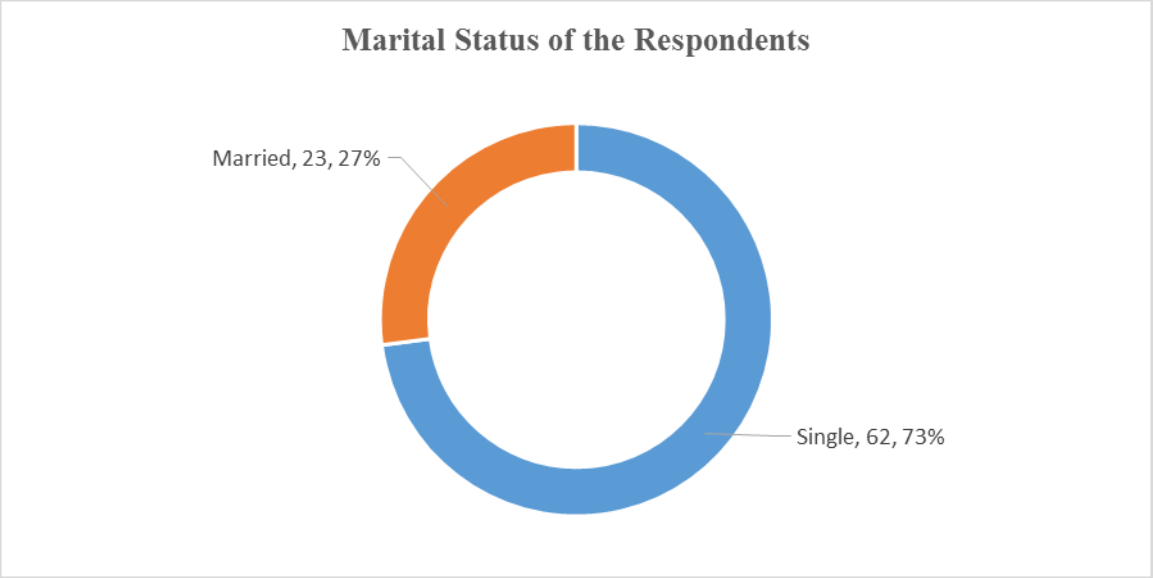


Source: Survey Data (2018)

Figure 4.1.3 Gender of the respondents

Results from Figure 4.1.3 show the Gender of the respondents. Majority 62% (53) of the respondents were females while 38% (32) were males. This means that the majority of repondents who are involved in crop production are the female youth. This confirms the findings by UNDP Kotido District Hazard, Risk and Vulnerability Profile report (2014) that indicated that women of Kotido are the main breadwinners, engaging in various activities including farming, charcoal burning, firewood collection, bee-keeping, casual labour, local brewing, stone quarrying. Some are in the formal business sector.

4.1.4 Marital status of Respondents



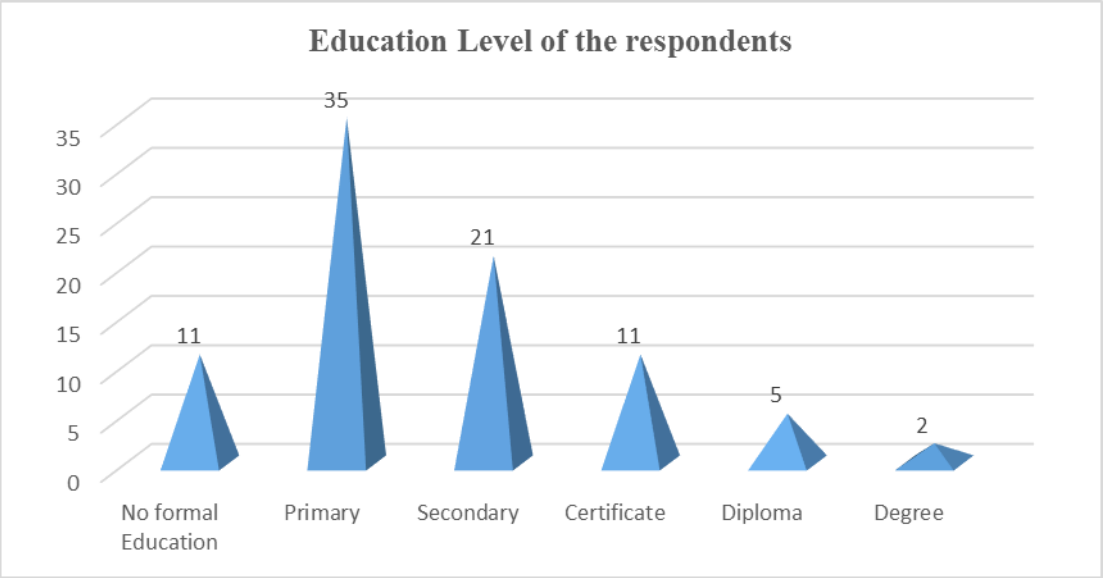
Source: Survey Data (2018)

Figure 4.1.4 marital status of the respondents

Results from Figure 4.1.4 show the marital status of the respondents. Majority 73% (62) of the respondents were single while 27% (23) of the respondents were married. The implication from the analysis is that the majority of youth in Kotido district are still single could be due to high demand of wealth required for one to marry.

4.1.5 Respondents Education Levels

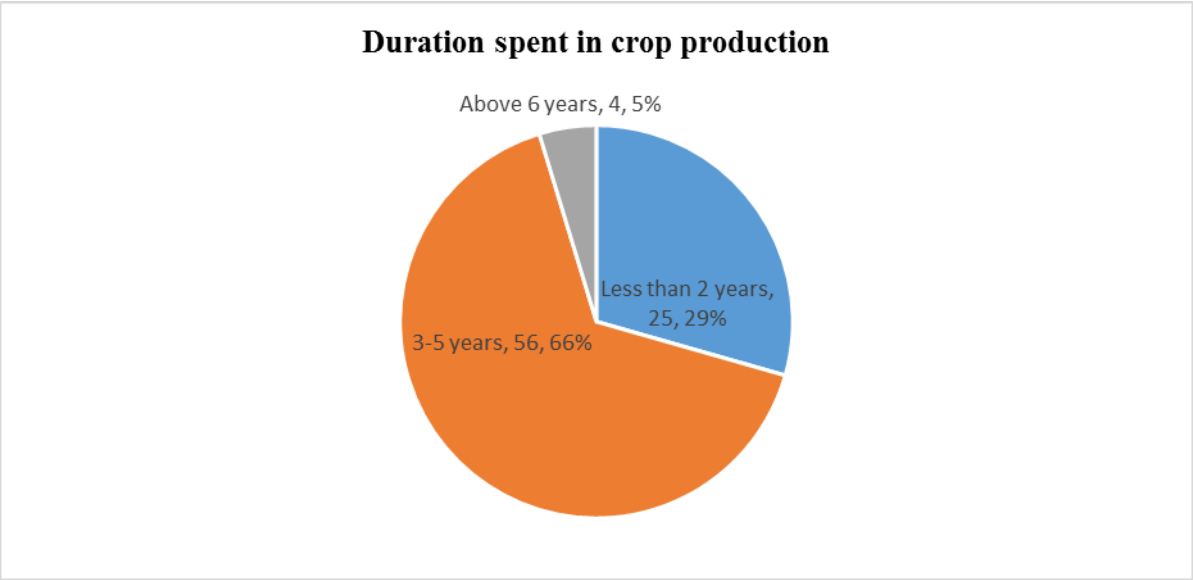
Results from Figure 4.1.5 show the education level of the respondents. 41% (35) of the respondents had attained primary level education, 25% (21) of the respondents had attained secondary level of education, 13% (11) of the respondents had either no formal education at all or trained certificate courses, 6% (5) of the respondents had attained diploma level training while 2% (2) of the respondents had attained degree level training. The implication from the results point to the fact that the district and Karamoja region is slowly embracing education, as a result of sustained government and donor programmes in the region.



Source: Primary Data (2018)

Figure 4.1.5 Respondents Education Level

4.1.6 Length of involvement in crop production in Years



Source: Survey Data (2018)

Figure 4.1.6 Length of involvement in crop production

Results in Figure 4.1.6 show the length, respondents have been engaged in crop production. Majority 66% (56) of the respondents indicated that they have been involved with crop production for between 3-5 years, 29% (25) of the respondents indicated that they had been

involved in with crop production for less than 2 years while 5% (4) of the respondents indicated that they have been involved with crop production for over 6 years. The implication of the analysis is that youth in Kotido district are slowly embracing crop production mainly due to targeted government and donor programmes supporting youth in agriculture.

4.1.7 Main crops involved in by the Respondents

Table 4.1.7 Main Crops engaged in by the Youth

		How many times was the aspect mentioned	Percentage based on respondents	Percentage based on answers
Main crop engaged in by the Youth	Sim sim	55	64.71%	31.10%
	Ground nuts	52	61.18%	29.40%
	Sorghum	34	40.00%	19.20%
	Bulrush millet	26	30.59%	14.70%
	Vegetable	10	11.76%	5.60%
	Total	85	208.24%	100.00%

Source: Survey Data (2018)

Results from Figure 4.1.7 show the main crops the youth in Kotido district were involved. 85 respondents have mentioned at least one crop they were engaged in. Being multiple response question, 55 respondents indicated that they were engaged in sim sim growing that is 65% of all people who responded and it was 31% of all the answers given, 52 respondents mentioned that they were involved in ground nuts production that is 61% all people who responded and it

is 29% of all the answers. In total the 85 respondents have ticked 55+52+34+26+10=177 aspects of the crops produced. So almost everyone did indeed tick two options as requested.

4.1.8 Activities of crop production engaged in by the Respondents

Table 4.1.8 Activities of crop production engaged in by the Respondents

		How many times was the aspect mentioned	Percentage based on respondents	Percentage based on answers
Main crop engaged in by the Youth	Land clearing	34	40%	38%
	Planting	26	31%	29%
	Weeding	15	18%	17%
	Harvesting	11	13%	12%
	Fertilizer app	4	5%	4%
	Total	85	107%	100%

Source: Survey Data (2018)

Results from Figure 4.1.8 show the activities of crop production engaged in by the youth in Kotido district. 85 respondents have mentioned at least one activity they were engaged in. Being multiple response question, 34 respondents indicated that they were engaged in Land clearing that is 40% of all people who responded and it was 38% of all the answers given, 26 respondents mentioned that they were involved in planting that is 31% all people who responded and it is 29% of all the answers. In total the 85 respondents have ticked 34+26+15+11+4=107 aspects of the crops production activities engaged in. So almost everyone did indeed tick two options as requested.

4.2 Descriptive statistics

4.2.1 Descriptive Statistics on Youth Perceptions on their Engagement in Crop Production

Table 4.2.1 Descriptive Statistics on Youth Perceptions and their Engagement in Crop Production

*Indicate your level of agreement with the following statements that relate to the influence of **your Perceptions** on your engagement in crop production in Kotido District, Karamoja Region*	**Strongly agree**	**Agree**	**Not sure**	**Disagree**	**Strongly disagree**	**Mean**	**Std Dev.**
I engage in crop production activities in my Sub-county	78 (92)*	7 (8)				3.65	1.175
I aspire for a career in crop production		52 (61)	9 (11)	17 (20)	7 (8)	3.55	1.183
The Youth in my sub county see crop production as low status profession		69 (81)	4 (5)	12 (14)		3.79	1.147
The Youth in my sub county perceive crop production to be profitable business		20 (35)		51 (60)	14 (16)	3.23	1.396
The Youth in my Sub-county appreciate crop production as source of income		20 (34)		51 (60)	14 (16)	3.77	1.179
I enjoy crop production practical work		64 (75)	3 (4)	18 (21)		3.77	1.26
I will prepare my children to engage in crop production		11 (13)		74 (87)		3.55	1.224
Crop production can be best practiced by young people not by the retire/old	5 (6)	42 (50)		31 (36)	7 (8)	3.4	1.18
Educated youth in my sub county are adopting crop production innovations	5 (6)	29 (34)	10 (12)	37 (44)	4 (5)	3.31	1.288
Going to the farm makes me feel good		35 (41)		49 (58)	1 (1)	3.53	1.364
I enjoy the challenges I face in crop production		18 (21)		64 (75)	3 (4)	3.34	1.318
Crop production is a part of my everyday life		34 (40)		51 (60)		3.21	1.45
Mean indicators for Youth perception on engaging in Crop production						**3.5**	**1.3**

Source: Survey Data (2018)

****Figures in the Parentheses are percentages***

Mean indicator and Interpretation

Very Important (4.00 – 3.21), Important (3.20 – 2.41), Fairly Important (2.40 – 1.61), Less important (1.60 – 1.00)

Results from Table 4.2.1 show rate responses on youth perception towards crop production in Kotido District. All 100% (85) respondents agreed that they engaged in crop production activities in their Sub-counties. Majority 61% (52) of the respondents agreed that they aspire for a career in crop production, 28% (24) of the respondents disagreed while 11% (9) of the respondents were not sure. Majority 81% (69) of the respondents agreed that the Youth in their sub counties see crop production as low status profession, 14% (12) of the respondents disagreed while 5% (4) of the repondents were not sure.

Majority 76% (65) of the respondents disagreed that the Youth in their sub counties perceive crop production to be profitable business while 35% (20) of the respondents agreed. Majority 76% (65) of the respondents disagreed that the Youth in their Sub-counties appreciate crop production as source of income while 35% (20) of the respondents agreed. Majority 75% (64) of the respondents agreed that they enjoy crop production practical work, 21% (18) of the respondents disagreed while 4% (3) of the respondents were not sure.

Majority 87% (74) of the respondents disagreed that they will prepare my children to engage in crop production while 13% (11) the respondents agreed. Majority 56% (47) of the respondents agreed that crop production can be best practiced by young people not by retired/old people while 44% (38) of the respondents disagreed. 49% (41) of the respondents disagreed that the educated youth in their sub counties are adopting crop production

innovations, 40% (34) of the respondents agreed while 12% (10) of the respondents were not sure.

On whether respondents feel good going to the farm, 59% (50) of the respondents disagreed while 41% (35) of the respondents agreed. Majority 79% (67) of the respondents disagreed that they enjoy the challenges they face in crop production while 21% (18) of the respondents agreed. Majority 60% (51) of the respondents disagreed that crop production was a part of their everyday life while 40% (34) of the respondents agreed.

The mean indicator on youth perception towards crop production (3.5) implies that the if the perception of the youth is positive and worked upon, then crop prodiuction activities may be enhanced in Kotido district. Therefore, the above variables are very important in explaining the effect of youth perception towards crop production in Kotido District, Karamoja Region of Uganda.

4.2.2 Descriptive Statistics on Social-Capital Networks

Table 4.2.2 Descriptive Statistics on Social-Capital Networks for youths engaged in Crop Production

Indicate your level of agreement with the following statements that relate to the influence of on ***access to Social Capital*** *on your engagement in crop production in Kotido District, Karamoja Region*	**Strongly agree**	**Agree**	**Not sure**	**Disagree**	**Strongly disagree**	**Mean**	**Std Dev.**
I am registered as a member in group (s) engaged in crop production activities	49 (58)*	36 (42)				3.74	1.2
I regularly network with members of other crop production groups	4 (5)	81 (95)				3.87	1.016
The group (s) that I have joined offer adequate social support e.g. access to credit, friendship bonds/ties		72 (85)		10 (12)	3 (3)	3.65	1.175
I feel that there are shared/common values		59	5	21 (25)		4.16	1.011

among the group members		(69)	(6)				
There is trust among youth group members		63 (74)		22 (26)		3.9	0.936
I participate in youth community and civic life	11 (13)	48 (57)		18 (21)	8 (9)	3.92	0.893
I participate in youth-centered decision making	11 (13)	48 (57)		18 (21)	8 (9)	3.92	0.893
My family supports my engagement in crop production	12 (14)	51 (60)		20 (24)	2 (2)	3.87	1.016
My friends supports my engagement in crop production	15 (18)	61 (72)		7 (8)	2 (2)	3.65	1.175
Mean indicators for Social-Capital Networks for youth enganging in Crop production						**3.8**	**1.07**

Source: Survey Data (2018)

****Figures in the Parentheses are percentages***

Mean indicator and Interpretation

Very Important (4.00 – 3.21), Important (3.20 – 2.41), Fairly Important (2.40 – 1.61), Less important (1.60 – 1.00)

Results from Table 4.2.2 show rate responses on social-capital networks available for youth engaged in crop production in Kotido District. All 100% (85) respondents agreed that they registered members in group (s) engaged in crop production activities in Kotido district and that they regularly network with members of other crop production groups within the district. Majority 85% (72) of the respondents agreed that the group (s) that they joined, offer adequate social support especially access to credit and friendship bonds/ties while 15% (13) of the respondents disagreed.

Majority 69% (59) of the respondents agreed that they felt that there are shared/common values among the group members, 25% (21) of the respondents disagreed while 6% (5) of the respondents were not sure. Majority 74% (63) of the respondents agreed that there is trust

among youth group members while 26% (22) of the respondents disagreed. Majority 70% (59) of the respondents agreed that they participate in youth community and civic life while 30% (26) of the respondents disagreed

Majority 70% (59) of the respondents agreed that they participate in youth-centered decision making while 30% (26) of the respondents disagreed. Majority 74% (63) of the respondents agreed that their families supports them their engagement in crop production while 26% (22) of the respondents disagreed. Majority 90% (76) of the respondents agreed that their friends supports them in their engagement in crop production while 10% (9) of the respondents disagreed.

The mean indicator on youth perception towards crop production (3.8) implies that the if the social-capital networks for youth exist and are strong, then youth engagement in crop prodiuction activities may be enhanced in Kotido district. Therefore, the above variables are very important in explaining the effect of social-capital networks on youth engagement in crop production in Kotido District, Karamoja Region of Uganda.

4.2.3 Descriptive Statistics on Economic Factors

Table 4.2.3 Descriptive Statistics on Economic factors affecting youths engaged in Crop Production

*Indicate your level of agreement with the following statements that relate to the influence of on **Economic Factors** and your engagement in crop production in Kotido District, Karamoja Region*	**Strongly agree**	**Agree**	**Not sure**	**Disagree**	**Strongly disagree**	**Mean**	**Std Dev.**
Land prices in my sub county are high	46 (54)*	32 (38)	7 (8)			3.37	1.23
Parents allow youth to farm in their existing land.	67 (79)	18 (21)				3.35	1.29
Parents inherit their farm land to the youth	18 (21)	67 (79)				3.5	1.18
Youth utilize the available land for crop production		55 (65)		29 (34)	1 (1)	3.45	1.3
Youth have access to markets for their produce		2 (2)		68 (80)	15 (18)	3.31	1.33
Youth have access to credit services		16 (19)		49 (58)	20 (23)	3.89	1.03
Water/irrigation for crops is available				81 (95)	4 (5)	3.69	1.03
The youth have access to extension services		12 (14)		71 (84)	2 (2)	3.45	1.3
The youth have storage facilities for the produce		5 (6)		69 (81)	11 (13)	3.31	1.33
Inputs are readily available		35 (41)		46 (54)	4 (5)	3.89	1.03
Adverse weather conditions affect crop production				85 (100)		3.37	1.23
Mean indicators for Social-Capital Networks for youth enganging in Crop production						**3.5**	**1.2**

Source: Survey Data (2018)

****Figures in the Parentheses are percentages***

Mean indicator and Interpretation

Very Important (4.00 – 3.21), Important (3.20 – 2.41), Fairly Important (2.40 – 1.61), Less important (1.60 – 1.00)

Results from Table 4.2.3 show rate responses on economic factors affecting youth engaged in crop production in Kotido District. Majority 92% (79) of the respondents agreed that Land

prices in their sub counties are high while 8% (7) of the respondents were not sure. All 100% (85) respondents agreed that parents allow the as youth to farm in their existing land and also that parents inherit their farm land to the youth.

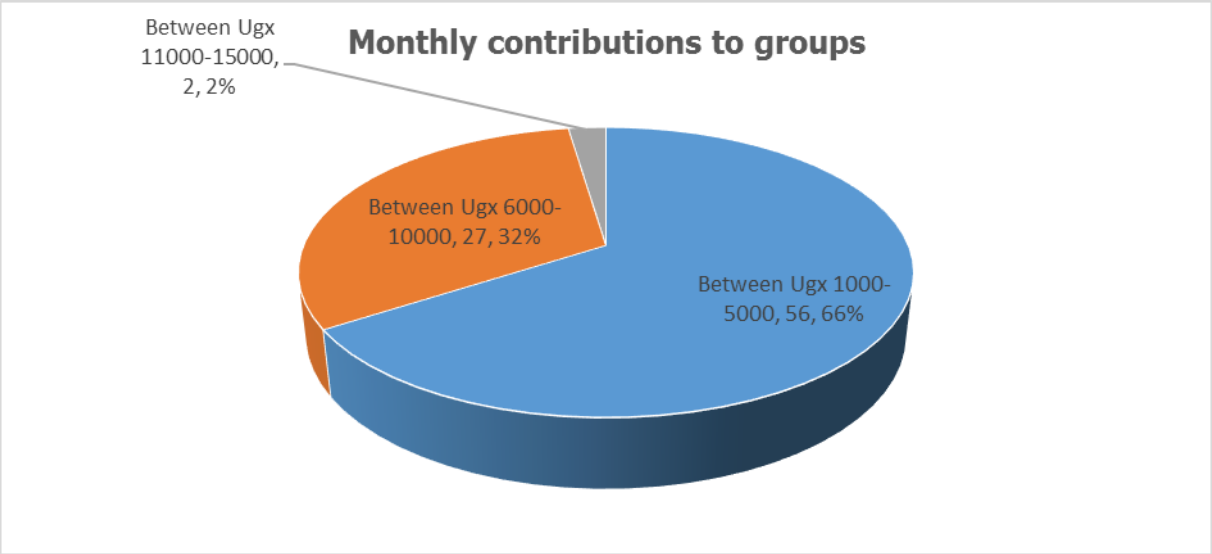
Majority 65% (55) of the respodensts agreed that the youth utilize the available land for crop production while 35% (30) of the respondents disagreed. Majority 98% (83) of the respondents disagreed that the youth have access to markets for their produce while 2% (2) of the respondents agreed. Majority 81% (69) of the respondents disagreed that the youth have access to credit services while 19% (16) of the respondents agreed.

All 100% (85) respondents disagreed that Water/irrigation for crops is available. Majority 86% (73) of the respondents disagreed that the youth have access to extension services while 14% (12) of the respondents agreed. Majority 94% (80) of the respondents disagreed that the youth have storage facilities for the produce while 6% (5) of the respondents agreed. Majority 59% (50) of the respondents disagreed that inputs are readily available while 41% (35) of the respondents agreed.

All 100% (85) respondents agreed that adverse weather conditions affect crop production. The mean indicator on economic factors affecting youth engaged in crop production (3.5) implies that the if the economic factors affecting the youth are conducive, then youth engagement in crop prodiuction activities may be enhanced in Kotido district. Therefore, the above variables are very important in explaining the how economic factors affacet youth engagement in crop production in Kotido District, Karamoja Region of Uganda.

4.2.4 Youth Engagement in Crop production

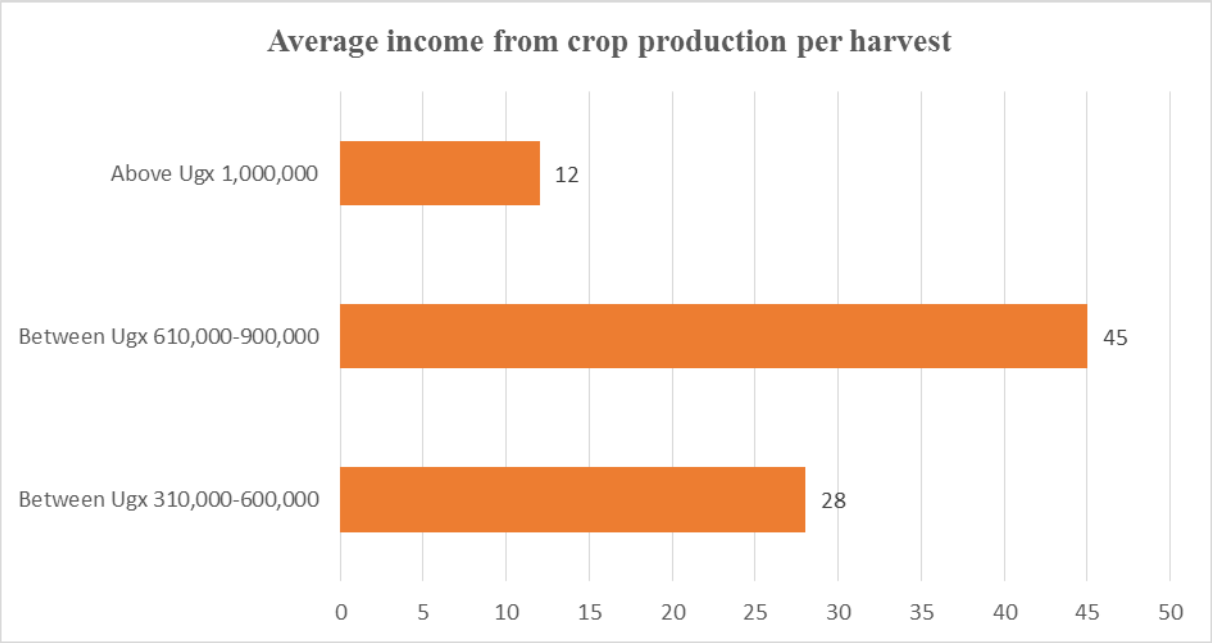
Respondents were also asked on how the engage in crop production activities. Majority 66% (56) of the respondents indicated that they contribute on average between Ugx 1,000-5,000, 32% (27) of the respondents indicated that they cntribute between ugx 6,000-10,000 while 2% (2) of the respondents indicated that they contribute between 10,000-15,000 to the groups the belong to as part contributions to finance the loans from the youth livelihood programme (YLP) the accessed.



Source: Survey Data (2018)

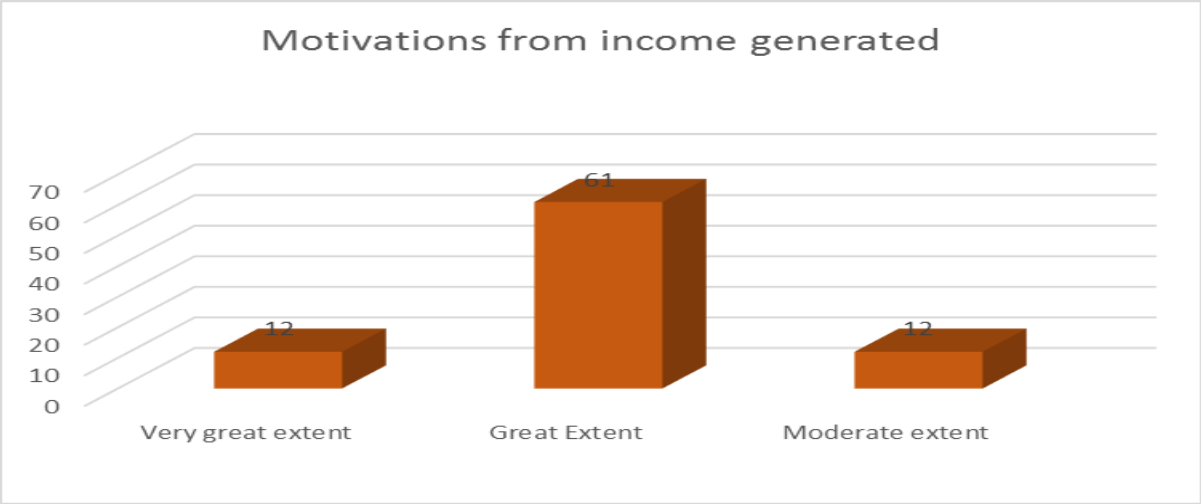
Figure 4.2.4.1 Monthly youth contributions to crop production groups

On average income earned from sale of crops produced, majority 53% (45) of the respondents indicated that they earn between Ugx 610,000-900,000 per hervest of the crops produced, 33% (28) of the respondents indicated that they earn between Ugx 310,000-600,000 while 14% (12) of the respondents indicated that they earn above Ugx 1,000,000. The implication from this result is that the youth engaged in crop production earn some incomes from the activities the engage in, which should give hope to the youth involved.



Source: Survey Data (2018)

Figure 4.2.4.2 Average income earned from crop production sale

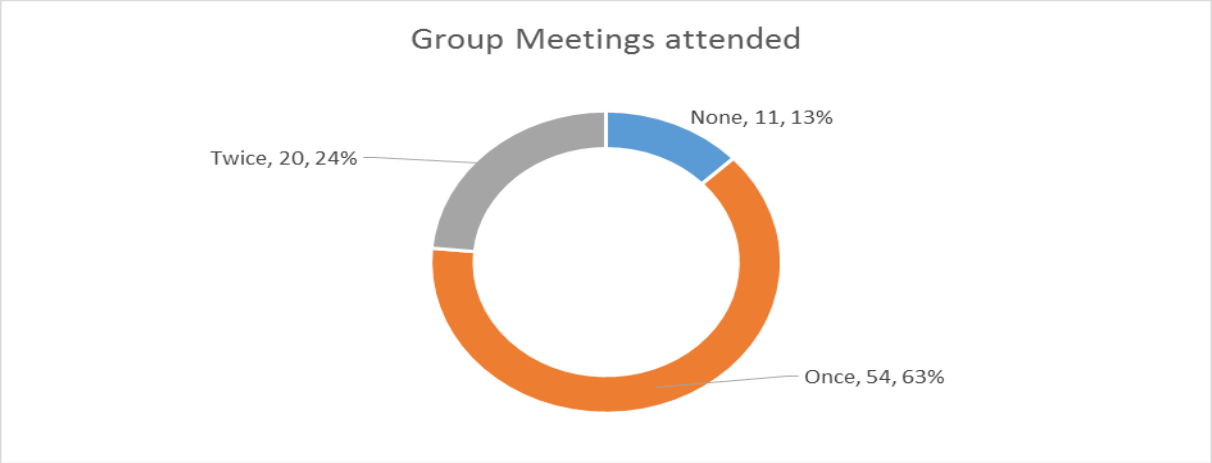


Source: Survey Data (2018)

Figure 4.2.4.3 Motivation from income earned from crop production sale

On the extent to which the harvest income earned by the youth from crop production activities motivates them to continue engaging in crop production in their Sub-counties, majority 72% (61) of the respondents indicated that to a great extent the incomes motivate them while 14% (12) of the respondents indicated that to a very great extent or moderate extent motivate them

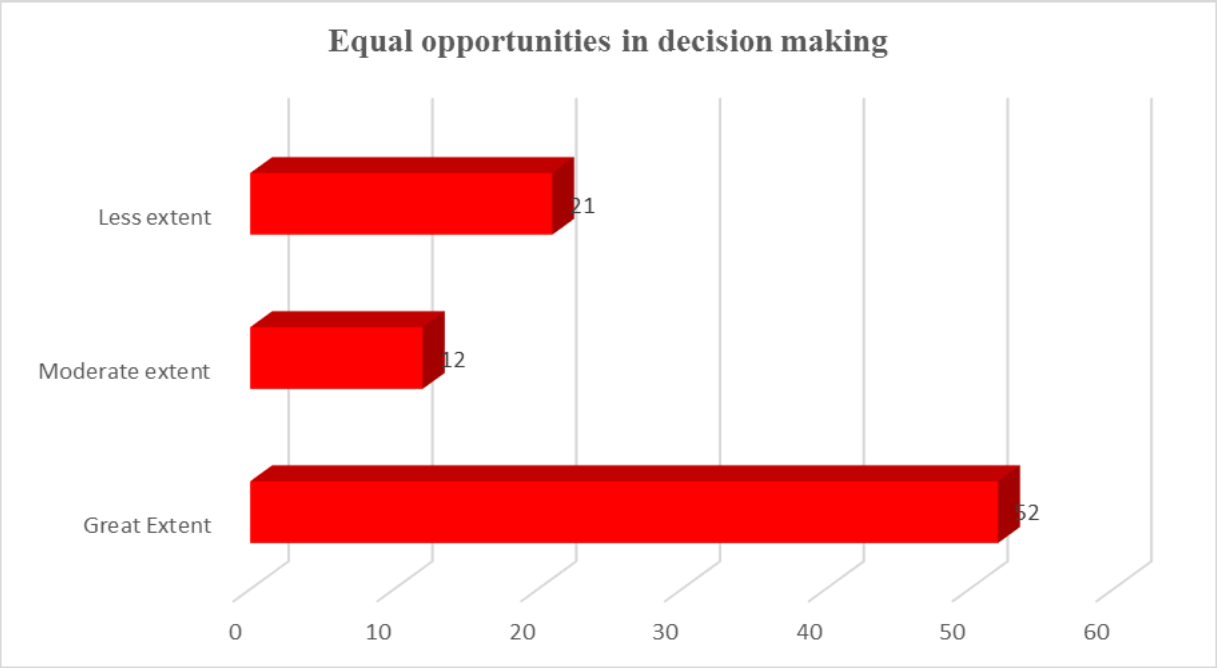
to engage in crop production. The implication from the result indicate that the youths are motivated with the incomes the generate from crop prodcution being carried out.



Source: Survey Data (2018)

Figure 4.2.4.4 Group meetings attended by the youth members

On how many crop production youth group meetings they attended in the last one month, majority 63% (54) of the respondents indicated that they attended the meeting once a month, 24% (20) of the respondents indicated that they attended the meetings twice while 13% (11) of the respondents indicated that they never at all attended any meetings. The implication is that some members not attending the meetings of the groups they formed, is enough to signal that possibly challenges exist with regard to group dynamics.



Source: Survey Data (2018)

Figure 4.2.4.5 whether equal opportunity is afforded to youth in decision making

On the extent to which equal opportunities are accorded to youth in decision making in crop production activities in their Sub-counties, majority 61% (52) of the respondents indicated that to a great extent they were accorded, 25% (21) of the respondents indicated to a less extent while 14% (12) of the respondents indicated moderate extent. The implication of the results is that there is some level of decision making in the groups with regard to the operation and management of the groups.

4.3 Correlation Results

4.3.1 Effect of Youth Perception on Youth Engagement in Crop Production

Table 4.3.1 Correlation between Youth Perception and Youth Engaged in Crop Production

Correlations			
		Youth engagement in Crop production	**Youth perceptions**
Youth engagement in Crop production	Pearson Correlation	1	.605*
	Sig. (2-tailed)		.007
	N	85	85
Youth perceptions	Pearson Correlation	.605*	1
	Sig. (2-tailed)	.007	
	N	85	85
*. Correlation is significant at the 0.05 level (2-tailed).			

Source: Survey Data (2018)

Results from the Table 4.3.1 indicate the correlation results between Youth engagement in Crop production and Youth perceptions. Youth engagement in Crop production and Youth perceptions have a positive Pearson Correlation 0.605 and statistically significant at 5 percent (0.05) with the p-value of 0.007 meaning we reject the null hypothesis that states that Youth perceptions has no significant effect on the Youth engagement in Crop production and accept the alternative hypothesis that states that Youth perceptions has significant effect on the Youth engagement in Crop production. The positive Pearson correlation of 0.605 shows that a unit increase in the levels of Youth perceptions leads to 60.5 percent increase in Youth engagement in Crop production. The implication of the above results is that when Kotido district positively identifies the challenges facing the youth, works tochange their attitude, then the youth perceptions towards crop production may change positively.

The study also interviewed key informants that included Local Leaders and Agricultural extension staff within the selected sub counties. Below are some of the key responses on the how youth perceptions affects youth engagement in crop production.

> *"The amount of money that is being allocated for agricultural production is meagre. My colleagues have described it as "non-seriousness" on the part of Government. Youths would much wish to join groups and engage in crop production but the allocation benefit fewer farmers than expected. It does not create employment for new entrants or the youth who are interested in agriculture,"* Argued one of the key informants.

> *"The YLP programme should focus on enterprises that allow small holder farmers to work on blocks of farm lands provided by communities and youth farmers' groups. Government should partner with the private sector to encourage the use of productivity-enhancing inputs, irrigation system in Kotido district,"* Argued another key informant

> *As a Karamoja region, Kotido district needs to prioritise crop production on its development agenda. The district needs to address the fundamental problems facing the crop sub sector to make it more attractive to the youth,"* Revealed another key informant.

> *Youth can be motivated to engage in crop production through transforming the agriculture from subsistence to commercial farming. This will not only aid in achievement of Vision 2040 that positions agricultural sector as a key driver for delivering the economic growth, but will provide employment for the unemployed youth. This can be possible through increasing productivity, commercialization and competitiveness of crop commodities and enterprises in order to make crop production more attractive to the youth,"* Argued another key informant

The study findings are in agreement with FAO (2014) study that observed that training and capacity building of the youths can change the perception of the youth towards agriculture

citing cases in the Pacific and sub-Saharan Africa, where agricultural activities are often used in schools as a punishment thus contributing to its negative perception by the youth.

The study findings are supported by Agena (2013) study that revealed that in Uganda, for example, agriculture has remained unattractive to the youth partly because schools administer agricultural-related punishments to errant and indisciplined children, adding that prisoners have many a times been forced to work on farms under harsh working environment created by their supervisors which rings a bad image in the minds of those who watch them.

The study findings further agree with Sandys (2011) study that concluded that poor perception portray agricultural-related activities as deserving for wrongdoers hence limiting the youth enthusiasm to pursue livelihoods in agriculture as a result, opportunities for agriculture-led growth among the youth are reduced leaving agriculture in the hands of the ageing rural population and consequently leading to low productivity.

The study findings are also supported by Agena (2013) study the concluded that the current mode of education is geared towards educating youth for white collar jobs, which doesn't reflect the economic and social context for which they are being trained, he further observes that developing countries should plan for economic expansion by looking at crop production for commercial viability.

The study findings are further in agreement with Tyrone (2010) study that observes that encouragement of partnerships with the education sector helpps to integrate agriculture into the primary and secondary school curriculum, as a report by KIE (2002) revealed the absence

of agriculture from the curriculum in Kenyan schools, particularly at the compulsory levels of education.

The study findings agree with IFAD (2009), FAO (2010), FAO (2014) studies that observes that poor perception towards agriculture by the youth can also be attributed to the fact that most young farmers are not interested in receiving agricultural training since they work on other people's land and are thus not motivated to improve their agricultural skills and that in many cases, training programmes reach mostly young men and do not cater for the needs of young women.

4.3.2 Effect of Social-Capital Networks on Youth engagement in Crop production

Table 4.3.2: Correlation between Social-Capital Networks and Youth engaged in Crop production

Correlations			
		Youth engagement in Crop production	Social-Capital Networks
Youth engagement in Crop production	Pearson Correlation	1	.730*
	Sig. (2-tailed)		.004
	N	85	85
Social-Capital Networks	Pearson Correlation	.730*	1
	Sig. (2-tailed)	.004	
	N	85	85
*. Correlation is significant at the 0.05 level (2-tailed).			

Source: Survey Data (2018)

Results from the Table 4.3.2 indicate the correlation results between Youth engagement in Crop production and Social-Capital Networks. Youth engagement in Crop production and Social-Capital Networks has a positive Pearson Correlation 0.730 and is statistically

significant at 5 percent (0.05) with the p-value of 0.004 meaning we reject the null hypothesis that states that Social-Capital Networks has no significant effect on the Youth engagement in Crop production and accept the alternative hypothesis that states that Social-Capital Networks has significant effect on the Youth engagement in Crop production. The positive Pearson correlation 0.730 shows that a unit increase in the support of Social-Capital Networks leads to 73 percent increase in Youth engagement in Crop production. The implication of the above results is that when the social neworks in Kotido district are enhanced and are effectively addressessed it would considerably enhance Youth engagement in Crop production.

The study also interviewed key informants that included Local Leaders and Agricultural extension staff within the selected sub counties. Below are some of the key responses on the how social-capital networks affects youth engagement in crop production.

> *"The first consideration relates to the nature of social capital. Just as with adult forms of social capital, youth social capital also consists of networks of social relations characterized by norms of trust and reciprocity. These elements combined support the individual and open future possibilities. I have always suggested that strong social capital can have positive effects and it is believed to play two very important roles in the life of young people,"* Argued one of the key informants

> *"My own small study how youth in Kotido district should be helped is through social networks. The importance of social capital as a support is to "get on" and "get ahead" in life, however, the types of ties that are used to achieve these ends differ between youth and adults,"* Remarked one of the key informants

> *"Adults use their bridging ties to enable mobility during adulthood and to help provide a sense of belonging to their community. And while thick bonding ties remain of some importance, bonding in adulthood is limited to close family and friends who operate as an emotional support system. However, for the majority of young people,*

friends and family play an integral role in helping to create a sense of community and to mobilise resources beyond their everyday needs including support for crop production in Kotido," Argued another key informant.

The definition of youth engagement has meant that the activities young people undertake within their community are largely neglected. For example, engagement in crop production can be taken to mean participation in youth-oriented farm activities such as planting and harvesting but excludes the way engage themselves outside the farms such as hanging out at youth specific venues, loitering etc which affect their mental capacities. Revealed anotherkey informant

The study findings are in agreement with Knack and Keefer (1997); Zak and Knack (2001) studies that revealed that social capital as a factor conducive to growth and development provides positive growth which ably effect the youth through various channels, including reduced transaction costs (precluding the necessity to write contracts that capture all contingencies), facilitated exchange of information, and enhanced trust (enabling communities to overcome social dilemmas).

The study findings are further supported by Ahlerup and Olsson (2009) study that suggests that social capital and formal institutions are substitutes in development, so that social capital is especially important for the poorest communities where formal institutions are of the lowest quality which helps communities to create bonds of self sustainance.

The study findings are in agreement with the World Development Report (2009) study that argued that agricultural innovation is widely viewed as an important factor for economic growth and development in Sub Saharan Africa including Uganda, reaveling further that agricultural innovation among youth has progressed slowly, and programs to promote the

adoption of new technologies, even if occasionally successful locally, have largely proven unsuccessful.

The study findings are supported by Landry et al., (2002), FARA (2008); Röling (2009) studies that argued that many aspects of agricultural innovation remain poorly understood revealing further that an important cause of limited impact of traditional research and extension in Africa is the simplistic yet dominant view on innovation processes. Recent work emphasizes interdependence among actors, network effects, joint learning, and social interaction.

The study findings are further supported by Boahene et al. (1999); Kaasa (2009); Bandiera and Rasul (2006) whose studies revealed that engagement in networks may also yield a synergy effect, as it fosters the combination of different ideas or skills, and a "realisability effect" due to enhanced access to different resources (including political or financial support).

The study findings are in agreement with Knack and Keefer (1997); Bowles and Gintis (2001) Isham (2002) studies that observes that like trust, shared norms may lower transaction costs and facilitate cooperation and self-insurance. They further argue that norms may also discourage innovation, norms of good citizenship or orderliness that promote conservatism and conformity can reduce creative thinking and reaching for out-of-the-box solutions Moreover, in-group norms of specific groups that conflict with the interests of wider society could be detrimental to development

4.3.3 Effect of Economic Factors on Youth engagement in Crop production

Table 4.3.3: Correlation between Economic Factors and Youth engaged in Crop production

Correlations			
		Youth engagement in Crop production	Economic Factors
Youth engagement in Crop production	Pearson Correlation	1	.691*
	Sig. (2-tailed)		.001
	N	85	85
Economic Factors	Pearson Correlation	.691*	1
	Sig. (2-tailed)	.001	
	N	85	85
*. Correlation is significant at the 0.05 level (2-tailed).			

Source: Survey Data (2018)

Results from the Table 4.3.3 indicate the correlation results between Youth engagement in Crop production and economic factors. Youth engagement in Crop production and Economic Factors has a positive Pearson Correlation 0.691 and is statistically significant at 5 percent (0.05) with the p-value of 0.001 meaning we reject the null hypothesis that states that Economic Factors has no significant effect on the Youth engagement in Crop production and accept the alternative hypothesis that states that Economic Factors has significant effect on the Youth engagement in Crop production. The positive Pearson correlation 0.691 shows that a unit increase in the levels of Economic Factors leads to 69.1 percent increase in Youth engagement in Crop production. The implication of the above results is that when Kotido district makes favourable the Economic Factors such as making it easy for the youth to access land, incomes, extension services, markets etc, it would considerably enhance Youth engagement in Crop production in the district.

The study also interviewed key informants that included Local Leaders and Agricultural extension staff within the selected sub counties. Below are some of the key responses on the how economic factors affects youth engagement in crop production

"The land ownership in Kotido district district is being mostly influenced by the customary laws. People acquire land from their parents and grandparents. Furthermore, there is gender and age biasness in land ownership. For decades, men have been given more priority in owning land in Kotido district compared to women. This has then resulted into older men having access to land and keep their hard while women and youth remain with no or little portions of land for crop production," Argued one of the Key informants.

"Given the age biasness on who should be given land, youths are not given or inherit land unless they are married or when their parents die. Furthermore, female youths are more excluded to access land compared to male youths. Given the condition that to be a member of elder's council in Karamoja, one should have land and keep animals, it creates a barrier for youths to join and participate effectively in crop production since they do not own land," Revealed another Key Informant

Youth, particularly young women typically do not own land. In most cases, women (in agriculture) undertake most of the cultivation but do not own land. Women therefore, lack of access to or control over credit and assets and not targeted in technical training," Revealed another key informant.

"Inheritance is still the most common system to obtain land in Karamoja region. Land is usually passed on from father to son(s). For young women it is even more difficult to acquire land. Many of these traditional customary laws deny women's rights to own land. It can generally be seen that the customary laws and rights of land ownership are also giving older men more rights and being perceived as owners of land," Argued another Key informant

The study findings are in agreement with FAO (2011b);FAO (2012); UN-Habitat (2013) studies that observes that youth consider secure land access as principle for starting farming, arguring that youth access to land contributes to household food security, employment creation and income generation as land is used as collateral and security for one to access credit, signifies their identity, elevates their status, and also improves their participation in decision making within their communities and other organizations.

The study findings are also supported by FAO (2012) study that concluded that the system of land tenure significantly affects crop production patterns for example, in Uganda, the study revealed that the land tenure systems hinder youth from engagement in agriculture as many use it without exclusive rights of ownership while Rwanda which is a densely populated country, the land has been highly fragmented which led to adoption of laws that prohibit further land division which means that the family sole heir and final decision maker is the eldest son.

The study findings are further supported by Valle (2012) study that argues that limited access to information and finance limits youth from benefiting from land reforms as they lack the knowledge to lobby for a lease or seek financial support to enable them buy land and therefore end up seeking informal land rights which can be grabbed and have little prospect for lack of title deed.

The study findings agree with UN-HABITAT (2011) study that argued that the youth are always never aware of land acquisition, registration and taxation requirements and therefore fall prey to fraudulent and corrupt land dealers and nonetheless, expecting youth to acquire land through purchasing is unrealistic since most are not employed and those who are have

low wages and also the land prices are so high which pose even a bigger challenge for young women in developing countries who usually work as house helps and earns low wages.

The study findings also agree with Ahaibwe et al, (2013) study that opined that security of land tenure is not guaranteed in Uganda, due to gender discrimination resulting from biased laws and customs, lack of proper land administration for sustainable development and reforms aimed at improving land administration and management for sustainable development.

The study findings are in agreement with Barret (2014); FAO (2014) studies that revealed that the availability of funds plays a substantial in agriculture development and the ability to access financial services in form of loans and savings is essential for starting any agricultural venture and that the number of young farmers in Africa is increasing but the issue of lack of affordable financing is holding them back according to.

The study findings agree with Valle (2012) study that further argues that the dependence on rain fed agriculture which limits production at times in rural areas makes provision of financial services in these areas risky.

The study findings agree with Barret (2014) and Mandania (2012) studies that revealed that the accessibility of this fund has interested youths to borrow money for farming and availability of finances would result to increased number of young people working in the agricultural sector and that funds for Agriculture and Agribusiness and Economic Stimulus Programmes for poverty alleviation and creation of employment opportunities among the youth is also a government initiative targeting the youths

4.4 Regression Analysis

Table 4.4.1: The Model summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.798[a]	.698	.500	3.01278
a. Predictors: (Constant), perception, socialcapital, econfactors				

Source: Survey Data (2018)

Interpretation

The 'Model summary' table of the regression result, provides information about the regression line's ability to account for the total variation in the dependent variable (Youth engagement in Crop production). In this study, the independent variables were Youth perceptions, Social-Capital Networks and Economic Factors while the dependent variable was Youth engagement in Crop production, whose total variation can be measured by its variance, the independent variables (such as Youth perceptions, Social-Capital Networks and Economic Factors) which proportion varies between 0 and 1 and is symbolized by R^2 (R Square). From the above table, the value of R^2 is 0.698, which means that 69.8% of the total variance in Youth engagement in Crop production has been 'explained'. This means that Youth perceptions, Social-Capital Networks and Economic Factors are some of the key variables that strongly explain Youth engagement in Crop production in Kotido district up to 70%.

Table 4.4.2: The ANOVA and Regression Coefficients

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	60.198	3	21.886	6.462	.011[a]
	Residual	541.002	136	2.554		
	Total	601.200	136			
a. Predictors: (Constant), perception, socialcapital, econfactors						
b. Dependent Variable: youthengagement						

Source: Survey Data (2018)

Table 4.4.3: The Coefficients

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.055E-16	.119		.000	1.001
	perceptions	.348	.023	.412	1.881	.009
	socialcapital	.301	.012	.278	1.344	.006
	econfactors	.398	.009	.290	1.765	.001
a. Dependent Variable: youthengagement						

Source: Survey Data (2018)

Results from the regression analysis confirm the results in the correlation in that Youth perceptions has a positive coefficient (0.348) and is statistically significant at 5 percent levels of Confidence with the p-value of 0.009 which is less than the 0.05 meaning that Youth perceptions influence the levels of Youth engagement in Crop production in Kotido district.

Results further show Social-Capital Networks has a positive coefficient (0.301) and is statistically significant at 5 percent levels of Confidence with the p-value of 0.006 which is less than the 0.05 meaning that Social-Capital Networks is one of the variables that influence the levels of Youth engagement in Crop production in Kotido district.

Results also show Economic Factors has a positive coefficient (0.398) and is statistically significant at 5 percent levels of Confidence with the p-value of 0.001 which is less than the 0.05 meaning that Economic Factors influence the levels of Youth engagement in Crop production in Kotido district.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The main objective of the study was to evaluate the impact of youth engagement in crop production in Karamoja Region of Uganda using Kotido District as a case study. Specifically, the study sought to; establish how perceptions of the youth affect their engagement in crop production in Kotido district; establish how social-capital networks affect youth engagement in crop production in Kotido district and assess how economic factors affect youth engagement in crop production in Kotido district. This chapter presents the summary, discussion, conclusions and recommendations based on the findings of the study and the concluding remarks.

5.2 Summary of Findings

5.2.1 Effect of Youth Perception on Youth Engagement in Crop Production

The results indicate a positive correlation (0.605) between Youth perception and Youth engagement in crop production. Youth perception and Youth engagement in crop production is significant with the p-value of 0.007 meaning we reject the null hypothesis and accept the alternative hypothesis at 5% (0.05) levels of confidence. The positive Pearson correlation shows that when the levels of Youth perception are effectively managed and eare positve, then their engagement in crop production may improve.

5.2.2 Effect of Social-Capital Networks on Youth engagement in crop production.

The results indicate a positive correlation (0.730) between Social-Capital Networks and Youth engagement in crop production. Social-Capital Networks and Youth engagement in crop production is significant with the p-value of 0.004 meaning we reject the null hypothesis and

accept the alternative hypothesis at 5% (0.05) levels of confidence. The positive Pearson correlation shows that when the levels of Social-Capital Networks are effectively managed, then Youth engagement in crop production may improve.

5.2.3 Effect of Economic factors on Youth engagement in crop production

The results indicate a positive correlation (0.691) between Economic factors and Youth engagement in crop production. Economic factors and Youth engagement in crop production is significant with the p-value of 0.001 meaning we reject the null hypothesis and accept the alternative hypothesis at 5% (0.05) levels of confidence. The positive Pearson correlation shows that when Economic factors are favourable and are well managed, then Youth engagement in crop production may improve.

5.3 Conclusions

5.3.1 Youth perception and Youth engagement in crop production

Youth perception and Youth engagement in crop production is significantly correlated and as a result an increase in the levels of Youth perception variables may substantially lead to an improvement in the Youth engagement in crop production system. We conclude that Youth perception variables are vital components in explaining the variations in Youth engagement in crop production in Kotido district.

5.3.2 Social-Capital Networks and Youth engagement in crop production

Social-Capital Networks and Youth engagement in crop production is significantly correlated and as a result an increase in the levels of Social-Capital Networks variables may substantially lead to an improvement in the Youth engagement in crop production system. We

conclude that Social-Capital Networks variables are vital components in explaining the variations in Youth engagement in crop production in Kotido District.

5.3.3 Economic Factors and Youth engagement in crop production

Economic Factors and Youth engagement in crop production is significantly correlated and as a result an improvement in the levels of Economic Factors variables may substantially lead to an improvement in the Youth engagement in crop production system. We conclude Economic Factors variables are vital components in explaining the variations in Youth engagement in crop production in Kotido district.

5.4 Recommendations

5.4.1 Youth Perceptions and Youth engagement in crop production

The study recommends that there is need for Kotido district to keenly look at how they effectively manage and improve the perceptions of the youth. To achieve this, there is need to create youth-in-crop production policies and integrate them with other policies on youth matters such as education and investment. This will empower the youth and change their perception towards crop production thus igniting their interest in crop production activities.

5.4.2 Social-Capital Networks and Youth engagement in crop production

The study recommends that there is need for Kotido district to keenly look at how they effectively integrate their Youths among the networks that exist within the district. This can be done by developing more resources which will increase how many youth can participate in crop production activities such as attracting more private funders, entrepreneurial efforts and work on developing a comprehensive programme about the value and impacts of crop production that can be used to advocate for more public funds.

5.4.3 Economic Factors and Youth engagement in crop production

The study recommends that there is need for Kotido district and other relevant partners to carry out intense sensitizations among the youth on land laws, policies and regulations at the village level to equip the youth with the necessary information in relation to land use and ownership issues. Additionally, the financial service providers should engage the youth in trainings and sensitization on the loan application processes and also re-look at their loan processing procedures to shorten the time taken to receive the funds.

5.5 Areas for further studies

The scope of this study was narrowed to "an evaluation of the impact youth engagement in crop production in Karamoja of Uganda": A case study of Kotido District. The study therefore recommends the following areas for future studies

1. To establish how modern faming technologies would influence youth to consider a career in farming in Karamoja region
2. To assess the impact of access to financial services for crop production among the youth in Karamoja Region

BIBLIOGRAPHY

Abdul, AA and Norhlimatun, NS 2013, Factors That Influence the Interest of Youths in Agricultural Entrepreneurship. *International Journal of Business and Social Science Vol. 4 No. 3; March 2013*

Abraham, M 1968, Maslow's Hierarchy of Needs

Afande, FO, Maina, WN & Maina, MP 2015, Youth engagement in agriculture in Kenya: challenges and prospects, *Journal of Culture, Society and Development 7, pp.4 - 19.*

Agena, M 2011, Increasing Rural Agricultural Productivity through Technology: A story of a young modern fruit grower in apac, Northern Uganda. East African Regional Winner of the CTA Ardyis Essay contest; 2011. Available: http://ardyis.cta.int/fr/ressources/publications-cles/

Ahaibwe, G, Mbowa, S & Lwanga MM 2013, Youth Engagement in Agriculture in Uganda: Challenges and Prospects

Ahlerup, P, Olsson, O and Yanagizawa D 2009, "Social capital vs institutions in the growth process." *European Journal of Political Economy **25** (1): 1-14*.

Akpan, SB 2010, Encouraging youth's involvement in agricultural production and processing. International Food Policy Research Institute: Abuja.

Anfara, V & Mertz, N 2006, Theoretical Frameworks in Qualitative Research. Thousand Oaks, California: *Sage Publications, Inc.*

Atkinson, A & Messy, F 2012, Measuring financial literacy: results of the OECD / International Network on Financial Education (INFE) Pilot Study [Working Paper n. 15]. OECD Publishing. Available http://dx.doi.org/10.1787/5k9csfs90fr4-en.

Bandiera, O and Rasul, I 2006, "Social networks and technology adoption in Northern Mozambique." *Economic Journal **116**(514): 869-902*.

Benson, PL 2002, Adolescent development in Social and Community context: a program of research. In R. M. Lerner, C. S. Taylor and A. von Eye, ed. Pathways to positive development among

diverse youth: new directions for youth development, 123--148. USA, California: Wiley Periodicals.

Bhandari, H and Yasunobu, K 2009, "What is social capital? A comprehensive review of the concept." *Asian Journal of Social Science 37 (3): 480-510*.

Boahene, K, Snijders, TAB and Folmer, H 1999, "An Integrated Socioeconomic Analysis of Innovation Adoption: The Case of Hybrid Cocoa in Ghana." *Journal of Policy Modeling **21**(2): 167-184*.

Borden, LM, Craig, DL and Villaruel, FA, 2004, Professionalising youth development: the role of higher education. New directions for youth development 104: 75--85.

Bourdieu, P 1986, The forms of capital. J.G. Richardson, Editor, Handbook of theory and research for the sociology of education. New York Greenwood

Bowles, S and Gintis, H 2001, Social Capital and Community Governance, Santa Fe Institute

Brooks, K. Zorya, S and Gautam, A 2012, Employment in Agriculture; Jobs for Africa's Youth, 2012 Global Food Policy Report, International Food Policy Research Institute (IFPRI)

Chess, WA and Norlin JM, 1991, Human behavior and the social environment (2nd ed.). USA: Allyn and Bacon.

Coleman, JS 1988, "Social Capital in the Creation of Human Capital." *The American Journal of Sociology 94: S95-S120*.

Coulshed, V and Orme J 2006, Social work practice (4th ed.). China: Palgrave Macmillan.

Dakhli, M and De Clercq D 2004, "Human capital, social capital, and innovation: A multi-country study." Entrepreneurship and Regional Development 16 (2): 107-128.

Damon, W 2004, What is positive youth development - *The Annals of American Academy of Political and Social Science, 59, 13--24*.

Dasgupta, P 2005, "Economics of social capital." *Economic Record 81 (SUPPL. 1): S2-S21*.

FAC 2017, Future Farmers? Exploring Youth Aspirations for African Agriculture, Policy Brief, # 037. Retrieved January 2018 from www.future-agricultures.org

FAO 2011b, Beyond Agriculture: The promise of the rural economy for growth and poverty reduction. Food and agriculture organization of the United Nations, agricultural and development economics division (FAO – ESA), Rome, Italy. *www.ifad.org/farmer/2012/youth/report.pdf*

FAO 2010a, The State of Food Insecurity in the World: Addressing Food Insecurity in Protracted Crises. Food and Agriculture Organization of the United Nations; 2010a. Available at: http://www.fao.org/docrep/013/i1683e/i1683e.pdf

FAO 2010b, Promoting Employment and Entrepreneurship for Vulnerable Youths in West Bank and the Gaza Strip; 2010b. Available at: http://www.fao.org/docrep/012/i1450e/i1450e00.pdf

FAO 2010-2011, the State of Food and Agriculture 2010-2011: Women in Agriculture: Closing the Gender Gap for Development; 2011. Available at: http://www.fao.org/docrep/013/i2050e/i2082e00.pdf

FAO 2012, Feeding future generations – Young rural people today, prosperous farmers tomorrow", Plenary panel discussion, 34th session of the Governing Council, Rome.

FARA 2008, Sub Saharan Africa Challenge Program (SSA CP) - Medium Term Plan 2009-2010. Accra, Ghana, Forum for Agricultural Research in Africa (FARA).

Röling N 2009, introductory chapter to Innovation and equality in rural development research and field experiments in Kenya URI: http://hdl.handle.net/11295/6496

Rutten, L 2014, Will young people be attracted to the agricultural sector if access to finance is made possible?

Fukuyama, F 1995, Trust: The Social Virtues and the creation of Prosperity. The Free Press, New York

Giuliani A and Valle FD 2014, Access to markets. In: IFAD, FAO, CTA 'Youth and agriculture: challenges and solutions for new programmes, IFAD, FAO, CTA, Rome, Italy

Gottero, M 2015, Rural Youth of Turkana, Kenya: access to land and livelihood diversification opportunities

Gupta, M., & Gupta, D 2011, Research methodology, New Dheli: Rekha Printers

Hudson D 1987, Some Aspects and Implementation of the Development of the Grazing Blocks in North Eastern Province, Kenya. International Livestock Centre for Africa, Nairobi, Kenya

IFAD 2009, Gender in agriculture Sourcebook; 2009.

Isham, J 2002, "The Effect of Social Capital on Fertiliser Adoption: Evidence from Rural Tanzania." *Journal of African Economies* 11 *(1): 39-60.*

ILO 2012, Global Employment trends report 2012

Kaasa, A 2009, "Effects of different dimensions of social capital on innovative activity: Evidence from Europe at the regional level." Technovation 29(3): 218-233.

Kararach G., Kobena TH and Frannie AL 2011, Regional Integration Policies to Support Job Creation for Africa's Burgeoning Youth Population, The African Capacity Building Foundation (ACBF) Working Paper #21.

Kenya Institute of Education (KIE) 2002, Secondary Education Syllabus. Sciences and Mathematics. 2002; 3

Knack, S. and Keefer P 1997, "Does Social Capital Have An Economic Payoff? A Cross-Country Investigation*." *Quarterly Journal of Economics 112 (4): 1251-1288*

Kotido District Local Government 2013, Youth Livelihood Programme. Opportunities and Challenges

Lancee, B 2012, Immigrant Performance in the Labour Market: Bonding and Bridging Social Capital, Amsterdam University Press.

Landry, R., Amara N and Lamari M 2002, "Does social capital determine innovation? To what extent." Technological Forecasting and Social Change 69 (7): 681-701.

Lerner, RM, Bretano C, Dowling EM. and Anderson PM 2002, Positive youth development: thriving as the basis of personhood and civil society. In R.M. Lerner, C.S. Taylor and A. Von Eye, ed.

Pathways to positive development among diverse youth: new directions for youth development, 11--34. USA, CA: Wiley Periodicals.

Lung'ahi, GE 2014, The effectiveness of mobile telephony SMS in agriculture extension information: the case of Soko+ SMS service in Sipili Olmoran ward in Laikipia County

MAAIF 2017, Agricultural Sector Support Development Programme (ASDSP) programme document, Government print

Merton, B and Payne M 2000, Louder than words: youth work and learning for sustainable development. UK: Youth Work Press.

Mibey, MC 2015, Factors influencing youth involvement in agribusiness projects in Bomet Central Sub-county, Kenya, *Unpublished project*, University of Nairobi

MIJARC/IFAD/FAO 2012, Summary of the findings of the project implemented by mijarc in collaboration with FAO and IFAD: 'facilitating access of rural youth to agricultural activities'. The farmers' forum youth session, 18 February 2012. available at *www.ifad.org/farmer/2012/youth/report.pdf*

MoFPED 2016, 2017, Background to the Budget Fiscal Year 2016/17: MoFPED, Kampala, Uganda.

Ministry of Gender, Labour and Social Development 2014, The National Youth Policy: A vision for the youth in the 21st century, Kampala, Uganda.

Moser, C 1996, Confronting crisis: a comparative study of household responses to poverty and vulnerability in four poor urban communities, Washington, DC: The World Bank.

Mubiru, DN 2010, Climate change and adaptation options in Karamoja. Accessed at http://www.fao.org/fileadmin/user_upload/drought/docs/Karamoja%20Climate%20Change%20and%20Adaptation%20Options.pdf

Mugenda, A & Mugenda, O 1999, Readings in Research Methods; Quantitative and Qualitative Approaches. Nairobi: African Centre for Technology Studies

Mwangi, IW & Ouma, SA 2012, Social capital and access to credit in Kenya. American journal of social and management sciences ISSN Print: 2156-1540, ISSN *Online: 2151-1559, doi: 10.5251,8-10*.

Narayan, D and Pritchett L 1999, "Cents and sociability: Household income and social capital in rural Tanzania." *Economic Development and Cultural Change 47 (4): 871-897.*

Njenga, P, Mugo, DF & Opiyo, R 2012, Youth and women empowerment through agriculture in Kenya, VSO Jitolee.

Njeru, K, Gichimu, BM, Lopokoiyit, MC & Mwangi, JG 2015, Influence of Kenyan youth's perception towards agriculture and necessary interventions; *A Review- Asian Journal of Agricultural Extension, Economics & Sociology 5(1):* XX-XX, 2015, AJAEES.2015.037 ISSN: 2320-7027

Ochilo W 2014, Youth Changing the Face of Agriculture in Kenya. May 19, 2014 https://blog.plantwise.org/2014/05/19/youth-changing-the-face-of-agriculture-in-kenya/

Pacific Agriculture and Forestry Policy Network (PAFP Net) 2010-2011, Youth in Agriculture Strategy 2011-2015: Echoing the Voices of Pacific Youth; 2011.

Peterson, C 2004, Positive development: realising the potential of youth. USA, Washington, D.C.: National Press Club.

Peteru, PS 2008, Youth development: a Pacifi c context. Commonwealth Youth and Development 6 (1), 23--35.

Pittman, K 1993, Stronger staff stronger youth conference. Washington, D.C: Center for Youth Development and Policy Research.

Proctor, FJ & Lucches, IV 2012, Small - Scale farming and youth in an era of rapid rural change. IIED/HIVOS, London/The Hague

Putnam, RD 1993 The prosperous community: social capital and public life, in the American Prospect, 4:13

SACAU 2013, Youth in agriculture. Synthesis report for Madagascar, Malawi, South Africa, Zambia and Zimbabwe

Sandys, P 2011, Youth and farming. Baobab. 2011; 61. Available: http://www.agriculturesnetwork

Sanginga, N 2014, Youth in Agribusiness within an African Agricultural Transformation Agenda

Schalkwyk V, Groenewald HD, Fraser JA, Obi, A & Van Tilburg, A 2012, Unlocking markets to smallholders, Wageningen Academic Publishers

Tyrone, H 2010, Can agriculture solve youth unemployment? Compton International Fellow, Clark University and LIGI´s Head of Communication; 2010.

Uganda National Bureau of Statistics (UboS) 2009, Uganda National Household Survey: Socioeconomic Report. Uganda Bureau of Statistics, Kampala, Uganda

Uganda National Bureau of Statistics (UBoS) 2016, The National Labour Force and Child Activities Survey 2014/15: Youth Employment Report

UNCDF 2012, Policy opportunities and constraints to access youth financial services. Insights from the UNCDF's Youth start programme. available at http://www.uncdf.org/sites/default/files/Download/AccesstoYFS_05_for_printing.pdf).

UNDP Kotido District Hazard, Risk and Vulnerability Profile report 2014, available at www.undp.org

UN-HABITAT 2011, Towards a youth agenda for the global land tool network: a scoping study. UN-HABITAT, Kenya

UNICEF 2010, 2013, Education and gender equality in Eastern and Southern Africa; 2010. Available: http://www.unicef.org

Valle, FD 2012, Exploring opportunities and constraints for young agro entrepreneurs in Africa. Conference abridged version. Rome, FAO

Van Der Geest K 2010, Rural Youth Employment in Developing Countries: A Global View. FAO; 2010. Available: http://www.fao.org/docrep/012/al414e/al414e00.pdf

Vander Zanden, JW 1993, Human development (5th ed.). USA: McGraw-Hill.

Villaruel, FA, Perkins DF, Borden LM and Keith J 2003, Community youth development: programs, policies and practices. London: Sage.

Waikenda, M 2013, Youth should turn to farming for jobs: August 21, 2013

Wheeler, W 2000, Emerging organisational theory and the youth development organisation. *Applied developmental science 1(4), 47--54*.

White, B 2012, Agriculture and the generation problem: rural youth, employment and the future of farming. Paper for the FAC–ISSER Conference on Young People, Farming and Food, Accra, 19–21 March 2012.

World Bank 2008, Agriculture for Development, World Bank: Washington D.C.

World Development Report 2009, Agribusiness and Innovation Systems in Africa, World Bank.

Yamane, T 1967, Statistics an introductory Analysis, 2nd Edition. New York: Harper and Row.

APPENDICES

APPENDIX I: SURVEY QUESTIONNAIRE (YOUTH)

TITLE: IMPACT OF YOUTH ENGAGEMENT IN CROP PRODUCTION IN KARAMOJA REGION OF UGANDA: A CASE STUDY OF KOTIDO DISTRICT

Dear respondent,

I am **Joseph Otim,** a student of Uganda Martyrs University pursuing a Master of Science Degree in Monitoring and Evaluation. I am conducting a research study on **"*Impact of Youth Engagement in Crop Production in Karamoja Region of Uganda: A Case Study of Kotido District*"**. I therefore kindly request you to spare a few minutes of your time and fill this questionnaire for me. The purpose of this study is purely academic and all information given will be treated with confidentiality.

Thank you.

JOSEPH OTIM (Candidate: Tel: +256-772-953373)

SECTION A: RESPONDENT'S BIO DATA

1. Respondent's age: a). 18-24years, b). 24-29 years, c). 30-55 years
2. Respondent's Gender a). Male b). Female
3. Respondent's marital status? a) Single b) Married c) Divorced d) Widowed
4. Please indicate your education background: a) No formal Education b) Primary c) Secondary d) Certificate e) Diploma e) Degree e) Others specify.....
5. For how long have you been involved in crop production? (in years)? .....
6. Main crop engaged in in (***cycle all that apply***) a) Sim sim b) Ground nuts c) Sorghum d) Bulrush millet e) Vegetable

7. What activities of crop production are engaged in (***cycle all that apply***) a) Land clearing b) Planting c) Fertilizer application d) Weeding e) Stalking f) Harvesting g) Other specify……..

SECTION B: PERCEPTIONS OF YOUTH ENGAGEMENT IN CROP PRODUCTION

No	*Indicate your level of agreement with the following statements that relate to the influence of* ***your Perceptions*** *on your engagement in crop production in Kotido District, Karamoja Region*	**Strongly agree**	**Agree**	**Not sure**	**Disagree**	**Strongly disagree**
B1	I engage in crop production activities in my Sub-county					
B2	I aspire for a career in crop production					
B3	The Youth in my sub county see crop production as low status profession					
B4	The Youth in my sub county perceive crop production to be profitable business					
B5	The Youth in my Sub-county appreciate crop production as source of income					
B6	I enjoy crop production practical work					
B7	I will prepare my children to engage in crop production					
B8	Crop production can be best practiced by young people not by the retire/old					
B9	Educated youth in my sub county are adopting crop production innovations					
B10	Going to the farm makes me feel good					
B11	I enjoy the challenges I face in crop production					
B12	Crop production is a part of my everyday life					

SECTION C: ACCESS TO SOCIAL CAPITAL AND YOUTH ENGAGEMENT IN CROP PRODUCTION

C.1. Are you a registered member of any youth group that engages in agricultural activities?

a) Yes b) No

C.2. If yes, in how many groups have you registered as a member? …….

C.3. What type of association is your group (s) registered under? (*You can choose more than one option) a)* Self-help group b) Community based organization c) Cooperative Society d) Others specify…….

No	*Indicate your level of agreement with the following statements that relate to the influence of on **access to Social Capital** on your engagement in crop production in Kotido District, Karamoja Region*	**Strongly agree**	**Agree**	**Not sure**	**Disagree**	**Strongly disagree**
C4	I am registered as a member in group (s) engaged in crop production activities					
C5	I regularly network with members of other crop production groups					
C6	The group (s) that I have joined offer adequate social support e.g. access to credit, friendship bonds/ties					
C7	I feel that there are shared/common values among the group members					
C8	There is trust among youth group members					
C9	I participate in youth community and civic life					
C10	I participate in youth-centered decision making					
C11	My family supports my engagement in crop production					
C12	My friends supports mu engagement in crop production					

SECTION D: ECONOMIC FACTORS AFFECTING YOUTH ENGAGEMENT IN CROP PRODUCTION

No	*Indicate your level of agreement with the following statements that relate to the influence of on **Economic Factors** and your engagement in crop production in Kotido District, Karamoja Region*	**Strongly agree**	**Agree**	**Not sure**	**Disagree**	**Strongly disagree**
D1	Land prices in my sub county are high					
D2	Parents allow youth to farm in their existing land.					
D3	Parents inherit their farm land to the youth					
D4	Youth utilize the available land for crop production					
D5	Youth have access to markets for their produce					
D6	Youth have access to credit services					
D7	Water/irrigation for crops is available					
D8	The youth have access to extension services					
D9	The youth have storage facilities for the produce					
D10	Inputs are readily available					
D11	Adverse weather conditions affect crop production					

SECTION E: YOUTH ENGAGEMENT IN CROP PRODUCTION

E.1 How much do you contribute to your crop production youth group kitty per month? a) I do not contribute b) Ugx 1,000-5,000 c) Ugx 6,000-10,000 d) Ugx 11,000-15,000 e) Above Ugx 16,000

E.2 How much income do you generate from your involvement in crop production activities per harvest? a) Ugx 100,000-300,000 b) Ugx 310,000-600,000 c) Ugx 610,000-900,000 d) Above Ugx 1,000,000

E.3 To what extent would you say that the harvest income that the you get from crop production activities motivates you to continue participating in crop production in your Sub-county? a) Very great extent b) Great extent c) Moderate extent d) Less extent e) Not at all

E.4 How many crop production youth group meetings have you attended in the last one month? a) None b) Once c) Twice d) above 3 times

E.5 To what extent would you say equal opportunities are accorded to youth in decision making in crop production activities in your Sub-county a) Very great extent b) Great extent c) Moderate extent d) Less extent e) Not at all

Thank you for participating in this interview.

APPENDIX II: KEY INFORMANT INTERVIEW GUIDE

(Local Leaders and Agricultural extension staff)

TITLE: IMPACT OF YOUTH ENGAGEMENT IN CROP PRODUCTION IN KARAMOJA REGION OF UGANDA: A CASE STUDY OF KOTIDO DISTRICT

Dear respondent,

I am ***Joseph Otim,*** a student of Uganda Martyrs University pursuing a Master of Science Degree in Monitoring and Evaluation. I am conducting a research study on **"*Impact of Youth Engagement in Crop Production in Karamoja Region of Uganda: A Case Study of Kotido District"***. I therefore kindly request you to spare a few minutes of your time and participate in this interview. The purpose of this study is purely academic and all information given will be treated with confidentiality.

Thank you.

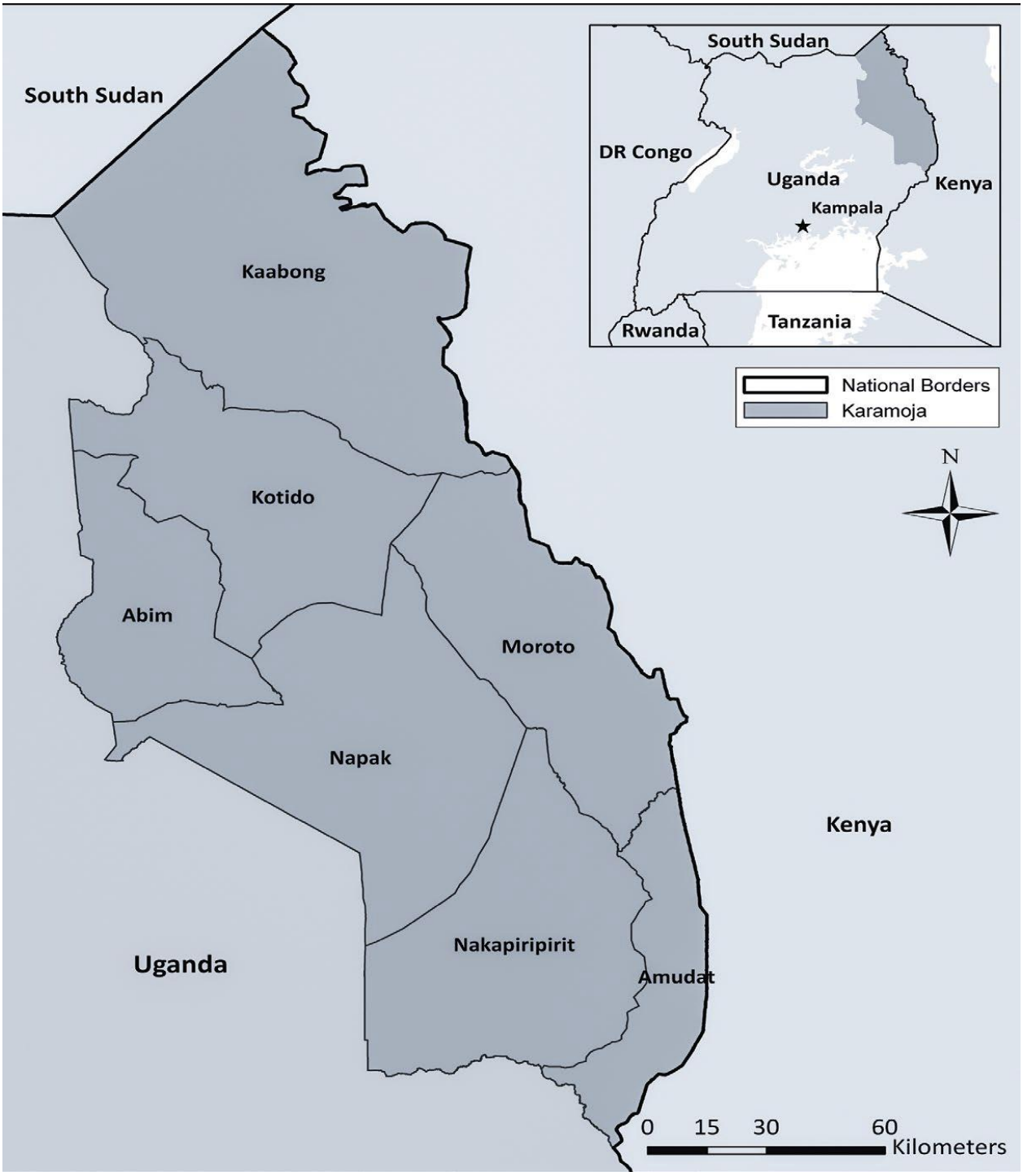
Joseph Otim (Candidate….Tel: +256-772-953373)

1. Respondent's Gender a). Male b). Female
2. Respondent's marital status? a) Single b) Married c) Divorced d) Widowed
3. Please indicate your education background: a) No formal Education b) Primary c) Secondary d) Certificate e) Diploma e) Degree e) Others specify.....
4. What are the main crop are the youth in this sub county engaged in?.....
5. What activities of crop production are engaged in by the youth in this sub county?....
6. In your opinion, what do you think are the Youth perceptions about engaging in crop production in this sub county?

7. In your view, what factors determine youth engagement in crop crop production in this sub county?
8. In your view, what factors limit youth engagement in crop production in this sub county?
9. What social networks are available o support the youth in this district?
10. Do you think this social networks have helped the youth engage in crop production? Explain?
11. What economic factors are available in this sub county to promote the youth to help them engage in crop production?
12. Do you think this economic factors have helped the youth engage in crop production? explain

Thank you for Time and Effort

MAP OF KARAMOJA SHOWING THE SEVEN DISTRICTS



MAP OF KOTIDO DISTRICT SHOWING THE SUB COUNTIES