

**THE IMPACT OF COCOA GROWING ON THE SUSTAINABLE LIVELIHOOD OF
PEOPLE: A CASE STUDY OF KANYANSIMBI BUNDIBUGYO DISTRICT.**

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DECLARATION

I declare that that this work is my original work and has not been submitted for a degree or any other academic award in any university or institution of higher learning”.

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APPROVAL

This is to certify that this work has been submitted to the university under my approval as the university supervisor

Signature of Supervisor: Date:

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DEDICATION

I would like to dedicate this dissertation to the family of the late Aruta Denis ,thus to my dear mother Nazziwa Florence ,sister Birungi Scovia for truly being there for me in all the conditions that happened to be so challenging and impossible.

I also dedicate this work to all my family members, my brothers; Yasin Bwanika, Sakka Sula, Trevor Aruta, Agrey Odoi and Tim Odoi for being so loving and caring.

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ABSTRACT

The research examined the relationship between cocoa growing and the livelihood of Kanyansimbi people in Bundibugyo district. It was guided by three objectives that is; To examine the impact of cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district, to find out the challenges of cocoa growing in Kanyansimbi Bundibugyo district and to identify the solutions to the challenges of cocoa growing in Kanyansimbi Bundibugyo district. The study was conducted at, Kanyansimbi Bundibugyo district. Therefore it was easy for the researcher to move from one place to another because he stays within the area in case, this helped me to carry out the study.

The study employed a cross sectional research design to attain acknowledgement and information from the field. There was collection of both qualitative and quantitative data using questionnaires given to a sample of 60 respondents from the field.

The researcher found out that there is a positive relationship between cocoa growing to the livelihood of the people this implies that cocoa growing has improved the standards of living providing sustainable livelihoods to the people of Kanyaisimbi, Bundibugyo district.

It was found out that there are number of challenges facing cocoa growing in the region among which included, Poor variety and age of the existing tree, the prevalence of pests and diseases, the inadequate adoption of good farming practices, Partial fermentation caused by imperfections in the market chain, Poor soil conditions.

However despite all the challenges, it was found out that there are strategies laid towards improving cocoa growing in the region. This implies that there are strategies that have been put in place to improve on cocoa growing for the betterment of sustainable livelihood of the people of Kanyansimbi, Bundibugyo district.

The research recommends that's there is need for the cocoa growers to introduce better methods of cocoa growing and proper Education of the public about the cocoa growing within the district. The government should also support these local producers through giving them better seeds, farming tolls and buying their produce to help the local producers gain from cocoa.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

Chapter one contains the background of the study, statement of the problem. Objectives of the study, purpose of the study, hypothesis, definition of key terms and research questions.

1.1 Background of the study

Cocoa production in Uganda dates from the 1950s but had minor importance until recently. Exports stood at 2,130 tons in 2001, reaching 5,386 tons in 2005 and 10,090 tons in 2009. Production today is by 15-18,000 stallholders, overwhelmingly in Bundibugyo District bordering the Democratic Republic of the Congo. The cocoa area lies at an altitude of 700-1050 m. with average rainfall of 1400 mm. per year and average temperatures of 28-35°C. The District is remote but has electricity and tarmac roads of recent. To date, few of the plant health problems plaguing cocoa in other regions of Africa have been experienced.

In late 2005 there were four companies buying cocoa in Bundibugyo, one of which operated a contract farming scheme. By early 2009 there were six, three of which operated such schemes. All schemes were either certified organic or technically 'in conversion. The scheme operated by Esco (U) Ltd is the oldest. Farmer (re-)registration and certification was undertaken with support from a Sida project and the first exports occurred in 2002. In addition to cocoa, vanilla production is certified although Esco has made little attempt to encourage it since international prices collapsed in 2003-04.

Global cocoa prices have risen since 2000 and remain resilient despite the 2008/09 financial crisis. 'Upward trend, although erratic, has become more consistent during the last three years. This relates to repeated global supply deficits and a growing consensus that production in Cote d'Ivoire (historically the leading supplier) faces long-term problems. By the 2008-09 seasons, prices had reached levels not seen since the mid-1980s. Recent years also have witnessed a growing emphasis on product quality and value-chain sustainability. Two of the three major global players have made explicit commitments to support sustainable production

and this remains an area of expansion. In 2009, global cocoa output certified to ‘sustainable’ standards reached Ca. 40,000 tons or 1.2% of world production. Organic cocoa production was even lower, at ca. 20,000 tons (Tropical Commodity Coalition, 2009). The price premium for organic cocoa ranges from US\$100 to US\$300 per ton. (ICCO, 2006). However, due to its niche and luxury’ status, demand for organic cocoa is discontinuous and production capacity exceeds demand. Hence, exporters must ensure that organic cocoa also has quality attributes that command premiums in the conventional market. The development of deep and efficient agricultural markets remains a key challenge across sub-Saharan Africa (Hereafter, Africa) (world Bank, 2008). This paper examines the effects of a specific market intervention, namely an organic cocoa scheme introduced and operated by an exporter. The analysis is based on surveys of cocoa small holders conducted in the remote Bundibugyo region of western Uganda in 2005 and 2009. The survey design incorporates ‘treatment’ and ‘control’ households, corresponding to small holders from locations eligible and not eligible for organic certification. This enables us to evaluate the welfare impact of the scheme and the corresponding economic drivers. Although we do not have repeated observations on the same households, the repeat dimension of the design allows changes over time to be considered. These include market developments common to all farmers, as well as the persistence of scheme effects. The contribution of this paper is threefold. First, we address areas where past research efforts have been thin with some exceptions (c g, Minten et al 2009, Maertens and Swinpen, 2009), neither contract.

It’s upon this background that the researcher seeks to find out if cocoa growing has an impact on sustainable livelihood of people in Bundibugyo District in Uganda.

1.2 Statement of the problem.

Despite the ‘fact that Esco’s Bundibugyo scheme is structured so as to provide incentives to scheme member1o process their cocoa crop to a high grade, following recommended organic techniques, and sell the processed crop to EsCo. In turn, Esco provides are guaranteed price premium, a commitment to buy all high grade cocoa offered by farmers, and transparent measures of quality. Nevertheless, scheme members freely choose whether to process cocoa and how much to sell to Esco. Thus, the impact of participation in the scheme is of interest as opposed to formal membership.

These characteristics suggest four mechanisms through which scheme participation may affect household welfare. First, certified 'farmers may choose to sell properly processed cocoa to Esco, rather than to another intermediary, in order to benefit from an organic price premium. For farmers that already produced all cocoa to a high grade, farm practice would be largely unchanged. Second, for other farmers the scheme may induce greater specialization in production of high grade cocoa, entailing a shift away from production of a more diverse range of crops or different standards of cocoa. If farmers previously sold only raw beans, they may also adopt cocoa processing technologies for the first time, Third, organic certified farmers may adopt recommended organic practices. As noted in Section 2, however, these specific practices are not required 'for ongoing certification.

However, in the presence of multiple market failures, a superficial reading of incentives often provides a poor guide to behaviour. Farmers may resist full commercialization or improved technologies when these jeopardize a minimum level of cocoa crop production. or expose the household to large income fluctuations (Ellis, 1993). In contrast to selling raw cocoa, the decision to process beans to a high grade is not risk-free. Farmers must defer sale for at least two weeks, during which prices can change or buyers disappear from the market. Small holders also may reject increased specialization in cocoa production and/or processing if, for example, farm gate cocoa prices or local cocoa markets are unreliable. Indeed, producers often respond to price volatility by reserving a share of land for cocoa production, despite higher expected returns from other crops (Fafcharnps, 2003; Byerlee et al., 2006). This however led to the investigation of the researcher on the impact of cocoa growing on the sustainable livelihood frame work of the people of kanyansimbi Bundibugyo district.

1.3 Purpose of the study.

To find out if cocoa growing has improved the livelihood of Kanyansimbi people in Bundibugyo district.

1.4 General objective

To assess the impact of cocoa growing on the sustainable livelihood of the people of Kanyansimbi, Bundibugyo district

1.4.1 Specific Objectives

- i. To examine the impact of cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district.
- ii. To find out the challenges of cocoa growing in Kanyansimbi Bundibugyo district.
- iii. To identify the solutions to the challenges of cocoa growing in Kanyansimbi Bundibugyo district.

1.4.2 Research Questions

- i. What is the impact of cocoa growing on the sustainable livelihood of the people of Kanyansimbi, Bundibugyo district?
- ii. What are the challenges of cocoa growing in Kanyansimbi, Bundibugyo district?
- iii. What are the solutions to the challenges of cocoa growing in Kanyansimbi, Bundibugyo district?

1.5 Scope of the study

The scope of the study will be divided into three parts; geographical scope, Content scope. and time scope.

1.5.1 Geographical Scope

The study was conducted at, Kanyansimbi Bundibugyo district. Therefore it was easy for the researcher to move from one place to another because he stays within the area in case, this helped me to carry out the study.

1.5.2 Content scope

The research investigated the impact of cocoa growing on the sustainable livelihood the people of Kanyansimbi Bundibugyo district.

1.5.3 Time Scope

The research was carried out for a period of four months from April to July 2016 to acquire all the required information.

1.6 Significance of the study

The research would be of much importance to the members of the community such that they can come to know how important cocoa growing is in uplifting their standards of living on the household level.

The findings of the study will be important to the researchers in the way that, it would be used by future researchers to know more about the effects of cocoa growing in improving the standards of the livelihoods of the people in any community that is blessed with cocoa.

The research is so significant for it can help the leaders get the appropriate measures to improve the quality and quantity of cocoa production in order to ensure continuity of cocoa growing within the areas of its jurisdiction in the country.

1.7 Conceptual framework

Independent variable

Impact of cocoa growing

- Empowering farmer
- Empowering coco farmers.
- Farm development
- Encouraging responsibilities
- Strengthening communities
- Full sun cocoa
- Deforestation

Dependent variable

sustainable livelihood

- Improving standards of living
- Enabling open market
- Supporting small holder farmers
- Advancing African agriculture
- Income generation

Intervening variables

- Low productivity
- Marketing challenge Pests and diseases
- Environmental concerns
- Access to education
- Under investment
- Under perfuming farms
- Fragmentation

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

Chapter two presents the theoretical review, conceptual frame work and the related literature review of different authors and scholars pertaining to the study.

2.1 The Sustainable Livelihood

The study adapted the Sustainable Livelihood Framework which defines livelihoods as the assets, activities, and access that determine the living gained by individuals or households (Ellis, 1998 & I 999). The Sustainable Livelihoods (SL) framework helps to analysis the links between livelihoods and natural resource use (Scoones, 1998; Carney, 1998; Ellis 1999). The central idea of the framework is that sustainability of livelihood strategies of individuals or households depends on access to, use, and development of different types of assets.

The purpose of this framework, according to Woodhouse et al, (2000 a & b), is to provide a simple, quick, arid easily understood assessment of the status of access, endowment and or utilization of the different caitals based on local understanding and perceptions of stakeholders in the system. The framework is based on the five capitals of the sustainable livelihoods and describes the low and high status in access, use and/or endowment of the five capitals as defined in locally understood terms and perceptions.

The five basic types of capital that comprise assets for livelihoods are natural, physical, financial, human, and social. For each capital, a different range of words, pictures, scenario or indicators are determined by the relevant stakeholders to represent the best and worst scenarios in their view. The framework is then used to assist in the interpretation of local criteria of success, the identification of local indicators and to assess the success of the systems from the perspective of different stakeholders and also the information can be used to compare different systems and the status of different groups within the same system. The framework considers assets as stocks of different types of ‘capital’ that can be used directly or indirectly to generate livelihoods and these can give rise to a flow of output, possibly becoming depleted as a consequence, or may be accumulated as a surplus to be invested in future productive activities.

Natural capital consists of land, water, and biological resources such as trees, pasture, and wildlife. The productivity of these resources may be degraded or improved by human management. Physical capital is that created by economic production. It includes infrastructure, such as roads, irrigation works, electricity supply, and reticulated water, and also producer goods such as machinery. Human capital is constituted by the quantity and quality of labour available. At household level, therefore it is determined by household size, education, skills, and health of household members. Financial capital consists of stocks of money or other savings in liquid form. In this sense, it includes not only financial assets such as pension rights, but also includes easily-disposed assets such as livestock, which in other senses may be considered as natural capital. Social capital includes any assets such as rights or claims that are derived from membership of a group. This includes the ability to call on friends or kin for help in times of need, support from trade or professional associations (e.g. farmers' associations), and political claims on chiefs or politicians to provide assistance.

In summary, the Sustainable Livelihood Framework is an influential model for the conceptualization of rural people's livelihoods and has been adopted by many programmes and projects, particularly those under the Department For International Development (DFID), UK sphere of influence (Bond, Kapondamgaga; & Ragubendra, 2003). At the heart of this model is the concept of a 'livelihood platform', five capital assets which households access and utilize for their diverse livelihood strategies and which provide the sustainability to those livelihoods.

2.2 The impact of cocoa growing on the sustainable livelihood of the people

Cocoa, which is used mainly in the production of chocolate, is an important agricultural export commodity. Currently Uganda, producing about 700,000 tons of cocoa beans annually, is ranked second in the world, after her western neighbor Congo. In terms of quality however, Uganda is recognized as the world leader in premium quality cocoa beans production. Cocoa serves as the major source of revenue for the provision of socio-economic infrastructure in the country. In terms of employment, the industry employs about 60% of the national agricultural labour force in the country. For these farmers, cocoa contributes about 70% of their annual household incomes.

The contribution of the cocoa growing to the Ugandan foreign earnings had fallen from 62% before the discovery petroleum to less than 3% in the 1990s (CBN, 2003). Despite the decline in

the sector's contribution, cocoa still stands tall for its significance in foreign exchange earnings coming second after petroleum. Cocoa is an important generator of income for most rural farmers in Nigeria especially in the South West and serves as a backbone for their livelihood. However, in recent times, Nigeria has slipped from being the world's second largest producer to the fifth position, behind Cote d'Ivoire, Ghana, Indonesia and Cameroon with a production figure of 160 thousand tonnes representing 4.6% of the world production in 2006-2007 seasons (International Cocoa Organization [ICCO], 2005). Reasons elicited for the reduction in production included; less emphasis on agriculture, inadequate government program on agricultural input subsidy such as chemicals and planting materials, small farm sizes, inadequate capital, inadequate labour availability and most importantly, change in global climate (Oduwale, 2004).

Cocoa is the leading non-oil foreign exchange earner in Nigeria, however, growth in the sector has been slow since the abolition of the Nigerian Cocoa Board in 1986 (Folayan, Oguntade, & Ogundari, 2006). The dominance of smallholders in the cocoa production sector and the lack of farm labor due to increased rate of urbanization held back production. Nigeria has the potential to produce over 300,000 tons of cocoa beans per year, but production only amounted to 145,000 tons in 1999 (Nigeria Agriculture Stats, 2014). Low yield, ageing trees, and lack of proper equipment have been identified to inhibit production (Iremiren, 2011)

Cocoa is highly sensitive to changes in climate, particularly to temperature due to its effects on evapo-transpiration (Anim-Kwapong & Frimpong, 2005) and is known to thrive well with minimal but sustained water availability throughout the year (Obatolu & Esan, 1999). Meanwhile, yearly variation in the yield of cocoa is affected more by rainfall than any other climatic factors. Cocoa prefers calm conditions and persistent moderate wind can cause severe damage to yield. Thus being a selective plant, cocoa reacts badly to any incidence of extreme weather (Wood & Lass, 1985).

The International Cocoa Organization (2005) described extreme weather to include weather phenomena that are at the extreme of the historical distribution and observed that temperature and rainfall are important factors that impacts on optimum yield. This occurs when changes in weather element alter stages and rate of development of cocoa, cocoa pests and pathogens, modify host resistance and result in changes in the physiology of host pathogens and pest

interaction, causing shift in the geographical distribution of host. This ultimately results in low cocoa yield and crop losses and a resultant effect on socio-economic variables such as farm income, livelihood and farm level decision making. However, basic skills in cocoa production, coupled with an optimum motivation, are sensitive requirements for best practices and consequently high quality yield of cocoa (Ajewole & lyanda, 2010).

Cocoa being known as a more consistent crop during the last three years, it has helped when it comes to training farmers in the sustainable practices that has earned them certifications and premium payments, there has been an establishment of more than 200 farmer demonstration fields. These fields offer hands-on knowledge sharing and have allowed the training of more than 1,000 cocoa farmers to raise their yields, crop quality and incomes. An independent study conducted by Dutch research institute found that, on average, long-term training program participants in Bundibugyo district earned 53 percent more than recent program entrants. (Angrist, J. D. and Krueger, 1999).

Supporting farmer cooperatives also is essential to our approach. Coops are powerful tools to provide individual farmers with increased access to markets, and they serve as a hub to share best practices. In 2013, we partnered with Techno Serve and the International Finance Corporation to launch the Cargill Coop Academy, a first of its kind initiative that trains coop leaders in business management skills so they can make their organizations more successful.

Farmer training efforts work in concert with certification programs like Rainforest Alliance and the benefits to the farmer are clear. Since the launch of our certification programs, \$25 million in premium payments have been made to farmers and farmer organizations globally. During the 2012-13 crop years, farmers in our certified cooperatives produced more than 90,000 metric tons of certified cocoa and received premium payments of about \$6.25 million. A 2013 study found that in Bundibugyo district, 90 percent of premiums are used to develop farmer coops or are otherwise reinvested in the community. (Bacon, C. 2005).

Replacing aging cocoa trees with declining productivity, cocoa seed have been distributed for more than 25 million seedlings to farmers globally. And again there has been establishment of more than 650 demonstration plots to give farmers practical instruction on new techniques and

technologies. World Wide, the program with Syngenta is successfully educating farmers on crop protection and disease management. There have been also encouraging sustainable agricultural practices. Traditional cocoa farms had higher biodiversity because cocoa trees were planted in the shade among other crops and trees. We are working with farmers and local partners in Ghana to plant shade trees in and around cocoa plantations. To date, we have helped plant 46,300 shade trees that cover more than 2,000 hectares. In northern Brazil, we made a \$3 million commitment to The Nature Conservancy to restore deforested lands and grow cocoa in the shade of the forest canopy, boosting biodiversity. (Constantino et al, 2006).

2.2 The challenges of cocoa growing on the sustainable livelihood of the people

Several researchers have examined the challenges for improving the cocoa production in Sulawesi. Ruf and Yoddang (1998; 2001; 2007) have conducted several market-oriented studies of the local market chain and stallholder farmers' management choices in primarily South Sulawesi. Nielson (2005; 2007; 2013) has in particular studied farmers' management and adoption of good farming practices in relation to certification programs and private stakeholder projects in the Southern and Western areas of Sulawesi. Panlibutan and Meyer (2004) undertook an analysis of the drawbacks for upgrading in the cocoa value chain, primarily based on interviews with stakeholders in Central and South Sulawesi, and draw less on insight into farm level dynamics. Taher (1996) undertook an extensive quantitative study of the factors that affect cocoa farmers' adoption of farming and post-harvest practices in South Sulawesi, including their adoption of spraying, fertilizer and fermentation. To sum up, these studies suggest that the productivity and quality of the cocoa production in Sulawesi is declining due to numerous factors, including the poor variety and age of the existing tree stock, the prevalence of pests and diseases, the inadequate adoption of good farming practices, partial fermentation caused by imperfections in the market chain, and poor soil conditions.

In the beginning of the 1990s, prior to the heavy infestation by pests and diseases later in the same decade, this resulted in 'unbelievable' high yields compared to other cocoa producing countries worldwide (Ruf 1995). The boom was short-lived, however, and since the late 1990s the yields have decreased drastically. Ruf (2007) measured that yields had decreased from 1500-2000 kg/ha to 900-1200 kg/ha in the alluvial plains and from 1000-1300 kg/ha to less than 600 kg/ha in the hills. This has caused a productivity gap at the farm level, which stems from the

prevalence of pests and diseases, declining soil fertility and ageing cocoa trees (Ruf 2007; ACIDI/VOCA 2005). Also, the infestation of pests and diseases have resulted in a decrease in the quality of the cocoa beans and an increase in the percentage of waste material included in cocoa batches from Sulawesi.

Up to recently cocoa production in Indonesia was only targeted towards the international market for unfermented bulk cocoa, to which the Indonesian cocoa sector supplies large quantities of fat cocoa beans that are used to produce cocoa butter (Panlibutan and Meyer 2004). The Sulawesi cocoa sector holds a strong position on the bulk cocoa market, but it is not able to produce cocoa beans for the fine-flavor market due to the inferior cocoa varieties in Sulawesi (Nielson 2007). Lower quality cocoa beans can be used to produce cocoa butter, whereas higher quality beans are used to produce cocoa liquor, where flavor is significant (Jano 2007).

The usability and value of cocoa beans for chocolate manufacturers and raw bean grinders depend heavily on the quality and consistency of the raw beans, which is affected by the farming and post-harvest practices at the farm level and conditions along the market chain. Beans of a higher quality and consistency fetch a price premium at the world market, whereas the price is reduced for beans of a lower quality and consistency, which is the case with beans from Sulawesi (Jano 2007; Ponte and Fold 2008; Nielson 2007). This price reduction trickles down in the market chain and affects the farmers' profit, which in combination with the decreasing yields is leading to a decline in the smallholder farmers' interest in cocoa production (Nielson 2007; Intv. Engbers).

On the other hand, competition between the local buyers in Sulawesi results in higher farm-gate prices in comparison to the prices in regulated and less efficient cocoa markets (Ruf 2007). The farm-gate price in Sulawesi is stated to be around 70-90% of the 'free on board' (FOB) export price (Panlibutan and Meyer 2004; Lambert et al 2004).

Also, it has been estimated that up to 2% of the cocoa production in Sulawesi will need to be certified by 2020 to meet the growing market interest from large scale chocolate manufacturers and buyers such as Mars Inc., Continaf BV and Nestlé (ACIDI/VOCA 2005; Intv. Turrnudzki). Certification schemes by Rainforest Alliance and Utz are supporting farmer groups in primarily

the Southern, Central and Western areas of Sulawesi. In Southeastern Sulawesi, a certification program is running in Kolaka district, but no certification schemes are introduced in Konawe district.

The considerable achievements of the last 20 years in the cocoa sector have not significantly enhanced the attractiveness of the industry in the eyes of farmers, or necessarily affected their attitudes towards production. Although high prices since 2009 have stimulated interest in cocoa cultivation among some farmers, the overall perceptions of the cocoa industry indicate a decline rather than an increase in interest, especially *on* the part of younger generations. While this was more manifest in some areas than others, unless present overall trends are reversed, this raises questions as to the future sustainability of cocoa.

Cocoa's lack of appeal largely relates to the question of incomes. Because productivity rates are low, even when the prices at farm level are high, they are not enough to provide a living wage to farmers. The problem of low productivity is exacerbated by the volatility of world market prices and the fact that producers receive varying proportions of it,

Efforts which could boost production, such as replanting or pruning+, are not carried out frequently enough. They are undermined by cost (seedlings of better quality plants with higher yields are typically twice the price of other seedlings, and pruners are the most expensive segment- of the hired workforce) and inaccurate beliefs, thereby fuelling a vicious circle of underinvestment and low productivity. Low investments in farm maintenance are further perpetuated by the producers' decision to invest whatever capital they have in other ventures, because they know the cocoa farm will still produce a small quantity of cocoa, even if minimal inputs are provided. This inevitably results in low yields, and therefore perpetuates farmers receiving low incomes from cocoa.

At the micro-level, there is also an important household dimension to the issue of incomes, which should not be overlooked. Globally, much has been written about macro-level issues (e.g. cocoa producers being vulnerable to surges and slumps in world market prices, etc.), but little attention has been paid to the difficulties of managing cocoa incomes at the household level.

2.3 The solutions to the challenges of cocoa growing on the sustainable livelihood of the people.

In order for small-scale agricultural producers to stabilize or improve their production they must sustain their competitiveness, which is closely related to the processes of upgrading and innovation (Lundy et al. 2004; Campbell 2008). Upgrading can be understood as a way for small-scale producers to increase their market performance and competitiveness and, not least, add value to their production. Kaplensky and Morris (2001) distinguish between the process of innovation and upgrading. Basically, innovation is to adopt improved practices, whereas for an innovation to be defined as upgrading it must result in added value.

Depending on the sector in which a small-scale producer operates, upgrading may involve more efficient and increased production, production of pioneer or specialty products, value addition through compliance of quality and consistency standards, empowerment through economies of scale, or improving the position in a value chain (Campbell 2008; Laven 2010; Lundy et al. 2004). To comply with quality and volume standards is paramount for smallholders to sustain their market performance and, thus, to increase their benefit and living standards (Lundy et al. 2004; Campbell 2008). In addition, in the cocoa sector upgrading increasingly involves improvements of not only the material product, but also the process of production, which is the case with certified, organic or fair trade products that must comply with specific ethical or environmental standards (Laven 2010; ICCO 2009).

As Kaplensky and Morris (2001) argue, upgrading doesn't necessarily result in increased benefits, as the input and output prices fluctuate. This is the case with 'immiserising growth', where an increase in production can't make up for a drop in prices, which may stem from supply-demand dynamics on the national or global market, or from currency devaluations. That said, through innovation agricultural producers raise their chances for obtaining a higher market share and an 'entrepreneurial surplus' (Kaplensky and Morris 2001). In order to avoid unprofitable innovation, farmers must adjust their production to the dominant market trends and possibilities at hand (Lundy et al. 2004).

Campbell (2008) argues that firms upgrade as a response to positive or negative incentives in the market chain that enable, encourage or push firms to upgrade. Incentives can be positive like

price premiums, credit access, governmental services or input subsidies, but may also involve disadvantages for stallholders in the form of enforced standard regulation and price reductions (Lundy et al. 2012).

Research has shown that farmers act on price fluctuations by changing the intensity of their farm management (Laven 2012). In a study of cocoa farmers' adoption behavior in Ghana, Opare (1980) found that correct knowledge of fermentation practices didn't lead to adoption of the recommended practices, since the price offered by the buyers didn't provide the 20 farmers with an incentive to invest the work required to improve the fermentation process. Ponte (2008) argues that in liberal markets the private sector can provide economic incentives for quality compliance in substitute of regulation by the government. Higher prices may be offered for differentiated cocoa beans of a higher quality or consistency, or farmers may receive a price premium if they comply with certification standards (Jano 2007; Laven 2010). This stress the importance of price signals to encourage farmers to adopt improved practices. That said Kaplensky and Morris (2001) argue that market forces alone can be sub-optimal in enabling and encouraging small-scale producers to comply with market demands and standards a process that can be referred to as 'market failure

Some incentives are optional for farmers to act on, such as price premiums for specific types of cocoa, while other incentives are enforced through regulation of the trade in the market chain. Regulation and control procedures can be paramount to ensure compliance of quality and consistency standards among stallholders, especially in the absence of market incentives for differentiated trade (Ponte and Fold 2008). This may involve regulation of the percentage of waste material, the moisture level, the fermentation length, and the homogeneity of the cocoa beans (Ponte and Gibbon 2005; Ponte and Fold 2008; ICCO 2009).

Standard compliance among smallholders may be enforced by government bodies and private sector stakeholders through regulation or promoted, not least, by control, grading and payment procedures at the farm-gate or warehouse level by local buyers and the warehouse staff. Buyers may reject to buy or offer price reductions to beans of lower quality or consistency, which either push or encourage farmers to comply with the specific standards. Several researchers have shown that a common pattern has emerged in cocoa sectors in Africa that have undergone

liberalization. The removal or loosening of nationally enforced standard regulations and trade differentiation has resulted in deteriorating cocoa quality at the farm level in countries such as Nigeria, Cameroon and Cote d'Ivoire (Ponte and Fold 2008; Laven 2010; Haque 2004; Losch 2002).

To carry out the activities involved in upgrading may require investment capital, new technologies, good planting material, or modern agricultural inputs among others. Therefore, the ability of a farmer to undertake the activities involved in upgrading depends on the farmer's access to various inputs (Roshetko et. al 2002). Specific inputs required to adopt an innovation may be unavailable to farmers, unaffordable, or of low quality, which will hamper the farmer's ability and willingness to adopt the innovation. Private suppliers, buyers or governmental agencies can enhance farmers' access to primary inputs through trade and support services. Lundy et al. (2004) argue that there is a major gap in the provision of formal support services to farmers in most developing countries that directly hamper the farmers' ability to improve and enhance the competitiveness of their enterprises.

Also, facilities such as cocoa research stations, seedling nurseries, market information systems, a high number of experienced input suppliers and extension agents, or facilitating farmer groups and associations are likely to provide farmers with a better environment for upgrading. Farmer groups and associations may enhance farmers' personal capacity and facilitate bulk purchasing of inputs, group saving and lending schemes, training, economies of scale, and. collective production and marketing.

The existence of different incentives in the market and **input** chain is often the outcome of a strategic coordination of the market chain and sector. Market stimulants, standard regulation and support are often implemented intentionally by governments or, increasingly, by traders or processors that have an interest in supporting and encouraging farmers to increase their cocoa production and comply with specific quality, consistency and certification standards (Laven 2010; Campbell 2008). The transmission of incentives takes place through the interaction of actors in the input and market chain, who may have conflicting interests (Laven 2010). Regulation and vertical integration may promote consistent standard specifications and market incentives along the market chain, whereas long and unregulated market chains may be

dominated by an array of intermediaries with conflicting interests (Laven 2010; Ponte and Fold 2008; Ruf 1998)

Incentives in the cocoa sector must be understood in comparison with incentives to adopt other crops or livelihood strategies. Other crops may be more profitable or less demanding in terms of inputs and time, which will be an incentive for the farmers to turn their attention towards optimizing the management of the other crops and, thereby, reduce their maintenance of their cocoa fields, which Taher (1996) showed in his study of cocoa farmers' adoption of farming practices in South Sulawesi. In addition, several studies have indicated that agricultural smallholders are risk averse and not necessarily profit-maximizing, since they have to consider the risks and uncertainties involved in adopting an innovation, such as input and output price fluctuations as well as seasonal cash and labor shortages (Taher 1996).

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction.

In this chapter, the focus is on the way to use the various methodologies in the study. The chapter covers the process through which the study evolves and covers the research design, study area, the sampling procedure, data collection and the management process.

3.1 Research Design

A cross sectional research design was employed to attain acknowledgement and information from the study respondents. The appropriate research design for the study was a case study. It was therefore carried out in an intensive way by investigating or examining individuals who were knowledgeable about the research topic. This approach enabled the researcher understand the phenomenon in its entity, therefore quantitative method was utilized to grasp data on the process and reasons for the particular outcomes which were useful for providing adequate information on the study.

3.2. Area of the Study

The study was carried out in Kanyansimbi Bundibugyo district in. Geographically, this study was conducted among the public of Kanyansimbi, Bundibugyo district. This area of study was chosen because it is one of the few locations in Uganda that have benefited from rural farmers empowering farmers' contribution to economic empowerment in a decentralized system schemes especially in markets and associations.

3.2.1 Research Population.

The research population was comprised of full time members of the community in this case the study area which is Kanyansimbi found in Bundibugyo district 60 people were interviewed for the study.

3.3 Sampling Procedure.

After deciding on the sample size, the researcher formulated a procedure if selecting the subject to be included in the sample. The goal of random sampling was to select a reasonable number of subjects, objects or cases that represent the target population. This provided the researcher with accurate information about groups that are too large to study in their entirety.

3.3.1 Sampling Techniques.

Quota sampling

To avoid the aspects of double interpretation or repetition, the sampling population was divided according to the socioeconomic backgrounds of the respondents. This method of sampling was instrumental in getting relevant information from respondents in different calibers. Quota sampling relied on education levels, marital status, age among others.

3.4 Sample Selection and Size

The researcher had to use both quantitative and qualitative sampling methods. Among the quantitative, the researcher used simple random sampling, accidental sampling, stratified sampling, and cluster sampling. While for qualitative, purposive sampling was important especially as far as specified information was concerned, the researcher opt to use both methods owing to the nature of the research design's orientation. The sample size was expected to draw using the chi-square formula. Kanyansimbi, Bundibugyo district was purposively selected to represent both pen-urban and rural population. A purposive sample was selected in Kanyansimbi Bundibugyo district and these include; 15 local authorities, 15 small scale cocoa farmers, 15 large scale cocoa farmers and 15 general members of the population. 60 respondents were the study population.

Table 1: Sampling techniques table

Approach	Data collection	Types of sample	Data analysis
Empirical approach	Key informants	15 local authorities, 15 small scale cocoa farmers, 15 large scale cocoa farmers 15 general members of the population Total 60 respondents	Graphs, tables and formulae
	Structured interviews	25 men and 35 farmers 60 Discussants	Editing, encoding and tabulation

3.5 Data Collection Tools

Data collection refers to the gathering of information to serve or prove some facts. The researcher has a clear vision of the instruments used by the respondents and the selected area. The procedure used to collect data is influenced by the research instruments that are used. For example, Questionnaires, interviewing, sampling, reviewing the related literature and data analysis.

Interviewing

This was one of the most recommended methods of data collection especially for social research. The method involved an interaction between the interviewer and the interviewee. The interaction was either face to face or over the phone. For this research, in particular, this method was used on almost all planned respondents including key respondents and the locals. The interview guide or schedule was used as the tool for this method.

Observation

This method involved the researcher studying the research subjects by critically looking at them with his or his naked eye. The method was mainly applicable where the research subject(s) were overt, Observation as a method was very important to this research as it enabled the evidencing of the role of farmers in economic empowerment in, a decentralized system while focusing the research on Kanyansimbi, Bundibugyo district while basing on the research objectives. The observation guide or checklist will be used as a tool here.

Questionnaire Administration

This method involved the researcher using a pre-set list of questions to draw responses or opinions from the respondents. Questionnaires were used as a tool for this method and these were normally categorized as self-administered and mailed questionnaires. They were open ended especially where opinions were targeted, or closed ended where a particular emphasis was required. This method was important for this research since some of the targeted respondents were comfortable with it. Otherwise, this method will be only limited to people who can read and write.

Document Reviewing

This is referred to as a secondary data collection method. It involved the researcher revisiting earlier records on the study subject(s) in a way of comparing notes with what has been written and recorded about the study subject or in relation to it. Such write-ups may be in form of journals, magazines, textbooks, diaries, reports, brochures, among other records. This method is more commendable on issues that are studied over time that was involved trends; these will also be used in this study.

3.6 Validity and reliability of instruments

After constructing the questionnaire, the researcher had to contact the supervisor and two other experts. To establish the validity, the researcher used expert judgment method that is suggested by Gay (1996).

3.6.1 Data Relevance and Reliability

Relevancy and reliability were secured by measuring the research instruments before setting out to the field to ascertain whether they actually provided answers to the research variables and questions. Secondly, the researcher had to do double checking both in the field and out of the field in order to do away with omissions and errors. Reliability was also achieved by using a representative sample size for final findings drawing.

3.7 Procedures for data collection

The researcher started by obtaining a letter from Kampala 'international university to enable him visits the head office of Kanyansimbi, Bundibugyo district to inform them about the forthcoming study. Key information was purposively selected during the administering of the questionnaire.

The research instruments used were designed to capture quantitative data. The questionnaire is administered to 60 respondents. The structured questions there in are expected to solicit answers that would enable discernment of the quantifications of various aspects of farmers in a decentralized system. The open ended questions are expected to capture perception and explanation to the quantitative aspects.

3.8 Data Analysis and Presentation

i) Qualitative data analysis

To ensure coherence, comprehensiveness, legibility and completeness, editing was used in qualitative data analysis to eliminate any error and omissions. Coding was done to create data categories for classifying the data to be analyzed. That is to say; code categories, themes and classifications. All these were involved in the qualitative analysis of data. Data analysis was done by explaining and comparing of the extensive variations, quotation of data sources and discussion of research data so that it could be easily comprehended by the third party.

ii) Quantitative data analysis

Editing was done to ensure coherence, comprehensiveness, legibility and completeness, editing was used in qualitative data analysis to eliminate any error and omissions. Coding was done to create data categories for classifying the data to be analyzed that is code categories, themes and classifications, All this was involved in the quantitative analysis of data. Data analysis was done by manual tabulation of data, generating rates, quantities, percentages, frequencies, and the use of bar graphs, and Pie charts. This involved depicting and analyzing quantitative data presented.

3.9 Ethical Considerations

The researcher always had to be presentable and professional in his conducting of this research. This enabled him to get the most relevant data from the most prominent respondents easily. The researcher kept his word on the confidentiality of the respondents and none of the details and opinions were shared with a third party. The researcher did not base on stereotypical and racial demographics while soliciting for opinions from respondents.

CHAPTER FOUR

PRESENTATION, INTERPRETATION AND ANALYSIS OF FINDINGS

4.0 Introduction.

This chapter comprises of the findings that were gathered by the researcher from Kanyansimbi, Bundibugyo district in relation to the topic the impact of cocoa growing on the sustainable livelihood of the people. The data is presented and interpreted in view of the objectives mentioned in chapter one of this research. The interpretation also seeks to answer the research questions that were raised in chapter one. Presentation and interpretation of data in this chapter has been done with the aid of quantitative and qualitative methods for example the use of tables, graphs, percentages and personal analysis and interpretation presented in essay form. Questionnaires were provided to 60 respondents who filled them to the best of their knowledge.

4.1 Demographic information

This part presents the background information of the respondents who participated in the study. The purpose of this background information was to find out the characteristics of the respondents in terms of gender, age, level of education and marital status of respondents.

4.1 Demographic aspects of respondents

4.1.1 Findings on the gender of respondents

Here the researcher was interested in gathering information on the gender of respondents and information got was presented in the table below.

Table 1: Showing Gender respondents

Gender	Frequency	Percentage
Male	36	60
Female	24	40
Total	60	100

Source Primary data 2016

From table 1, it can be seen that the majority of respondents are male that is (36) representing 60% of the total number of respondents, 24 respondents are female representing 36.7% of the respondents. This is an indication that gender sensitivity was taken care of so the findings therefore cannot be doubted on gender grounds; they can be relied for decision making.

4.2 Findings on education of respondents

Here the researcher was interested in gathering information on the education of respondents and information got was presented in the table below.

Table 2: Show education of the respondents

Academic qualifications	Frequency	Percentage
O level	10	16.7
A level	09	15
Certificate	17	28.3
Diploma	8	13.3
Degree	09	15
Others	8	13.3
Total	60	100

Source: *Primary data, 2016*

Results in table 2 indicate that majority of the respondents were certificate holders with 17 respondents representing 28.3%, O level leavers had 16.7% of the respondents, degree had 15% of the respondents, A level had 15% of the respondents, diploma followed with 8 respondents representing 13.3% and others with the same 13.3%. This implies that the respondents are educated and therefore the information obtained from them can be relied on for the purpose of this study. The higher rate of secondary leavers was attained from the local population whose education levels were low. It is of no doubt therefore that information is attained from higher educated respondents. Information can therefore be relied on for decision making in this topic.

4.1.3 Findings on age distribution of respondents

Here the researcher was interested in gathering information on the age of respondents and Information got was presented in the table below.

Table 3: Show the age distribution of respondents

Academic qualifications	Frequency	Percentage
20-29	8	13.3
30-39	27	45
40-49	15	25
50+	10	16.7
Total	60	100

Source: *Primary data, 2016*

Table 3 above shows that, majority of respondents were aged between 30—39 years 27(45%) respondents followed, by 40-49 years represented by 15(25) respondents, followed by 50±

represented by 10 (16.7%) respondents and 20-29 represented by 8 (13.3%). From the above analysis, it can be construed that majority of the respondents are mature hence the information obtained from them can be trusted and looked at as true and good representation of the information the researcher was looking for.

4.1.4 Marital Status of respondents

Table 4: Showing Responses on Marital Status

Gender	Frequency	Percentage
Single	15	25
Married	35	58.3
Separated/Divorced	10	16.7
Total	60	100

Source: Primary data, 2016

The results in table 4 show that 58.3 percent of the respondents were married, and 25 percent were single and 16.7 percent divorced or separated. The presentation indicates that most respondents involved are married. This is perhaps because of the high responsibility therefore information attained from them can be trusted for decision making.

4.2. The impact of cocoa growing on the sustainable livelihood of the people of Kanyansimbi, Bundibugyo district.

The first objective of the study was to examine the impact of cocoa growing on the sustainable livelihood of the people of Kanyansimbi, Bundibugyo district. The information collected was presented as showed in the presentations below.

4.2.1 Whether there are impacts of cocoa growing on the sustainable livelihood of the people of Kanyansimbi, Bundibugyo district.

Table 5: Showing whether there are impacts of cocoa growing on the sustainable livelihood of the people of Kanyansimbi, Bundibugyo district.

Response	Frequency	Percentage
Yes	38	63
No	14	23
Not sure	8	13
Total	60	100

The study focused on whether there are impacts of cocoa growing on the sustainable livelihood of the people of Kanyansimbi, Bundibugyo district. The findings reveal that 63.3% of the respondents agreed with the responses, 23.3% disagreed and 13.4% were not sure. The findings imply that there are impacts of cocoa growing on the sustainable livelihood of the people of Kanyaiisimbi, Bundibugyo district.

4.2.2 The impact of cocoa growing on the sustainable livelihood of the people of Kanyansimbi, Bundibugyo district.

Table 6: Showing the responses to the impact of cocoa growing on the sustainable livelihood of the people of Kanyansimbi, Bundibugyo district.

The impact of cocoa growing on the sustainable livelihood of the people	Frequency	Percentage
Production of chocolate	6	10
Foreign earnings	11	18.3
Training farmers in the sustainable practices	13	21.6
Supporting farmer cooperatives	6	10
Establishment of more demonstration plots	7	11.7
Growth of industries	9	15
Improvement in standards of living	8	13.3
Total	60	100

The study findings on the responses to the impact of cocoa growing on the sustainable livelihood of the people of Kanyansimbi, Bundibugyo district, The findings were that majority of respondents agree with Training farmers in the sustainable practices 21.6%, Foreign earnings had 18.3%, Growth of industries had 15%, Passive aggressive behavior had 13.3%, Establishment of more demonstration plots had 11.7%, Improvement in standards of living had 10% and Supporting farmer cooperatives had 10% of the respondents. These findings imply that several impacts are in place in Kanyansimbi, Bundibugyo district to improve on the sustainable livelihood of the people of Kanyansimbi, Bundibugyo district.

4.2.3 Strategies that have been put in place to improve on cocoa growing for the betterment of sustainable livelihood of the people of Kanyansimbi, Bundibugyo district

Table 7: Showing responses to the Strategies that have been put in place to improve on cocoa growing for the betterment of sustainable livelihood of the people of Kanyansimbi, Bundibugyo district.

Responses	Frequency	Percentage (%)
Yes	30	50.0
No	20	33.3
Not sure	10	16.7
Total	60	100

Table 7 presents that 30(50%) of the respondents agreed that *strategies* have been put in place to improve on cocoa growing for the betterment of sustainable livelihood of the people of Kanyansimbi, Bundibugyo district, 20 (33.3%) disagreed that strategies have been put in place to improve on cocoa growing or the betterment of sustainable livelihood of the people of Kanyansimbi, Bundibugyo district and 10 (16.7%) of the respondents were not sure. This implies that there are strategies that have been put in place to improve on cocoa growing for the betterment of sustainable livelihood of the people of Kanyansimbi, Bundibugyo district.

4.3 The challenges of cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district

The second objective of the study was to find out the challenges of cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district. The study findings on this objective were collected as shown below.

4.3.1 Whether there are challenges facing cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district.

Table 8: Showing whether there are challenges facing cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district.

Responses	Frequency	Percentage (%)
Yes	40	66.7
No	12	20.0
Not sure	8	13.3
Total	60	100

The study findings were that there are challenges facing cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district. The findings were that 66.7% of the respondents agreed, 20% disagreed while 13.3% were not sure. This implies that there are challenges facing cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district.

4.3.2 The challenges of cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district.

Table 9: Showing responses on the challenges of cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district.

Response	Frequency	Percentage
Poor variety and age of the existing tree	23	38.3
The prevalence of pests and diseases	10	16.7
The inadequate adoption of good farming practices	12	20.0
Partial fermentation caused by imperfections in the market chain	09	5.0
Poor soil conditions.	06	10.0
Total	60	100

The study findings were that there are challenges of cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district. The findings were that poor variety ad age of the existing tree stock had 38.3%, the prevalence of pests and diseases had 16.7%, the inadequate adoption of good farming practices had 20%, partial fermentation caused by imperfections in the market chain had 15% of the respondents and poor soil conditions had 10% of the respondents. This implies that though the challenges facing cocoa growing are still in existence, there are other solutions to the consequences during sustainable livelihood of the people in Kanvansimbi Bundibugyo district.

4.3.3 How can challenges being faced during the process of cocoa growing be minimized.

Table 10: Showing how can challenges being faced during the process of cocoa growing be minimized.

Response	Frequency	Percentage
There is need for the cocoa growers to introduce better methods of cocoa growing	24	40
Education about cocoa growing within the district	36	60
Total	60	100

How can challenges being faced during the process of cocoa growing be minimized. The study findings were that there is need for the cocoa growers to introduce better methods of cocoa growing in Kanyansimbi Bundibugyo district according to 40% of the respondents, 60% argued that education about cocoa growing within the district. The study findings imply that many respondents agree with Education about cocoa growing within the district in order for the good quality of cocoa growing.

4.4 Solutions to the challenges of cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district

The third objective of the study was to identify the solutions to the challenges of cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district. The study findings can be further presented as below.

4.4.1 Whether there are solutions already put in place to curb down the challenges facing cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district.

Table 11: Showing responses to Whether there are solutions already put in place to curb down the challenges facing cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district.

Responses	Frequency	Percentage (%)
Yes	23	38.3
No	17	28.3
Not sure	20	33.4
Total	60	100

The results on whether there are solutions already put **in** place to curb down the challenges facing cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district had 38.3% of the respondents who agreed, those who were not sure were 33.4% and those who disagreed had 28.3% of the respondents. This implies that many respondents stated that little has been done by cocoa grower to curb down the challenges facing cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district.

4.4.2 What strategies solutions have been put in place to curb down the challenge facing cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district.

Table 12: Showing responses on the solutions put in place to curb down the challenges facing cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundihugyo district.

Response	Frequency	Percentage
Sustaining farmers competitiveness	15	25
involving upgrading more efficient and increased production	28	46.7
Encouraging or pushing firms to upgrade	12	20
Farmers acting on price fluctuations by changing the intensity of their farm management	5	8.3
Total	60	100

The findings on the solutions put in place to curb down the challenges facing cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district. Sustaining farmer's competitiveness had 25%, involving upgrading more efficient and increased production had 46.7%, Encouraging or pushing firms to upgrade had 20% and Farmers acting on price fluctuations by changing the intensity of their farm management had 8.3%. The findings imply that solutions have been put in place to curb down the challenges facing cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district according to 46% of the respondents who agreed with involving upgrading more efficient and increased production.

CHAPTER FIVE

SUMMARY CONCLUSION, RECOMMENDATIONS AND AREAS OF FURTHER STUDY

5.0 Introduction

The study was carried out with the view to assess the impact of cocoa growing on the sustainable livelihood of the people in Kanyansimbi Bundibugyo district. This chapter is concerned with summary, conclusion, recommendations and suggestions about the findings that were gathered.

5.1 Summary of the findings

63.3% of the respondents agreed with the responses that there are impacts of cocoa growing on the sustainable livelihood of the people, 23.3% disagreed and 13.4% were not sure. The findings imply that there are impacts of cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district.

The study findings on the responses to the impact of cocoa growing on the sustainable livelihood of the people of Kanyansimbi, Bundibugyo district. The findings were that majority of respondents agree with the Training farmers in the sustainable practices 21.6%, Foreign earnings had had 18.3%. Growth of industries had 15%, Passive aggressive behavior had 13.3%, Establishment of more demonstration plots had 11.7%, Improvement in standards of living had 10% and **supporting farmer** cooperatives had 10% of the respondents.

30(50%) of the respondents agreed that strategies have been put in place to improve on cocoa growing for the betterment of sustainable livelihood of the people of Kanyansimbi, Bundibugyo) disagreed that strategies have been put in place to improve on cocoa growing for the betterment of sustainable livelihood of the people of Kanyansimbi, Bundibugyo district and 10(16.7%) of the respondents were not sure.

The study findings were that there are challenges facing cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district. The findings were that 66.7% of the respondents agreed, 20% disagreed while 13.3% were not sure.

The study findings were that there are challenges of cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district. The findings were that poor variety and age of the existing tree stock had 38.3%, the prevalence of pests and diseases had 16.7%, the

inadequate adoption of good farming practices had 20%, partial fermentation caused by imperfections in the market chain had 15% of the respondents and poor soil conditions had 10% of the respondents.

The study findings were that there is need for the cocoa growers to introduce better methods of cocoa growing in Kanyansimbi Bundibugyo district according to 40% of the respondents, 60% argued that Education about cocoa growing within the district. The study findings imply that many respondents agree with Education about cocoa growing within the district in order for the good quality of cocoa growing.

The *findings* on whether there re solutions already put in place to curb down the challenges facing cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundihuyo district had 38,3% of the respondents who agreed, those who were not sure were 33.4% and those who disagreed had 28.3% of the respondents.

The findings on the solutions put in place to curb down the challenges facing cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district. Sustaining farmer's competitiveness had 25%, involving upgrading more efficient and increased production had 46.7%, encouraging or pushing firms to upgrade had 20% and Farmers acting on price fluctuations by changing the intensity of their farm management had 8.3%.

5.2 Conclusions

The study was set to assess the impact of cocoa growing on the sustainable livelihood of the people in Kanyansimbi Bundihugyo district. It was guided by three research objectives which included to examine the impact of cocoa growing on the sustainable livelihood of the people of Kanyansimbi i3undibugyo district, find out the challenges of cocoa growing on the sustainable livelihood of the people of Kanvansimbi Bundihugyo district and to identify the solutions to the challenges of cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district.

The study findings on the responses to the impact of cocoa growing on the sustainable livelihood of the people of Kanvansimbi, Bundibugyo district were that majority of respondents agreed with training farmers in the sustainable practices 21.6%, Foreign earnings had 18.3%; Growth of industries had 15%. Passive aggressive behavior had 13.3%, Establishment of more

demonstration plots had 11.7%, improvement in standards of living had 10% and Supporting farmer cooperatives had 10% of the respondents. These findings imply that several impacts are in place in Kanyansimbi, Bundibugyo district to improve on the sustainable livelihood of the people of Kanvansimbi, Bundibugyo district.

It was also established that there are challenges of cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district. The findings were that poor variety and age of the existing tree stock had 38.3%, the prevalence of pests and diseases had 16.7%, the inadequate adoption of good farming practices had 20%, partial fermentation caused by imperfections in the Market chain had 15% of the respondents and poor soil conditions had 10% of the respondents. it was also established that solutions have been put in place to curb down the challenges facing; cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district Sustaining farmer's competitiveness had 25%, involving upgrading more efficient and increased production had 46.7%, Encouraging or pushing firms to upgrade had 20% and Farmers acting on price fluctuations by changing the intensity of their farm management had 8.3%.

5.3 Recommendations

Based on the study objectives/questions and results, the researchers herein recommend the following for implementation in order to improve on cocoa growing in Uganda.

- i. The government through the Ministry of education should put in place laws on the poor cultivators such that they can stop improper ways of cocoa growing which cause harm like soil erosion.
- ii. The fact that cocoa famers have little knowledge on cocoa growing, the district should put in place measures that can stop farmers from growing of poor cocoa seeds.
- iii. The fact that soil erosion is at an increasing phase in the area, cocoa farmers Id the district
need to follow what the experts of cocoa growing recommend them to do, and this will increase on the quality of cocoa produced in the district.

5.4 Suggestions for further research

Due to limited scope and time, the researchers could **not exhaust all the** aspects of the study. Consequently, the researchers have recommended the following areas for further study:

- (i) The influence of environmental conservation towards farming
- (ii) The impact of agriculture on the growth of cash crop growing
- (iii) The role of government on combating poor methods of farming

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APPENDICES

APPENDICES I: Research instrument: QUESTIONNAIRE

Dear respondent,

I am called Opoka Godfrey, a student at Kampala International University pursuing a Bachelors Degree in development studies. I am conducting a study on the impact of cocoa growing on the sustainable livelihood of the people of Kanyansimbi in Bundibugyo district.

This questionnaire is purely for academic purposes and the information will be kept confidential.

Thanks for your cooperation.

Please tick the most appropriate box.

Part A: Respondents' Information

1. Gender

Male

☐

Female

☐

2. Age range

20-29

☐

30-39

☐

40-49

☐

50+

☐

3. Marital status

Married

☐

Single

☐

Divorced/ married

☐

4. What is the highest educational level you have attained?

O level	<input type="text"/>
A level	<input type="text"/>
Certificate	<input type="text"/>
Diploma	<input type="text"/>
Degree	<input type="text"/>
Others	<input type="text"/>

PART B. THE IMPACT OF COCOA GROWING ON THE SUSTAINABLE LIVELIHOOD OF THE PEOPLE OF KANYANSIMBI, BUNDIBUGYO DISTRICT.

5. In your view, are there impacts of cocoa growing on the sustainable livelihood of the people of Kanyansimbi, Bundibugyo district?

Yes	<input type="text"/>
No	<input type="text"/>
Not sure	<input type="text"/>

6. What are the impacts of cocoa growing on the sustainable livelihood of the people of Kanyansimbi, Bundibugyo district?

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7. What can be done to improve on cocoa growing for the betterment of sustainable livelihood of the people of Kanyansimbi, Bundibugyo district?

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PART C: THE CHALLENGES OF COCOA GROWING ON THE SUSTAINABLE LIVELIHOOD OF THE PEOPLE OF KANYANSIMBI, BUNDIBUGYO DISTRICT.

8. In your view, are there challenges being faced during the process of cocoa growing?

- Yes ☐
- No ☐
- Not sure ☐

9. What are the challenges being faced during the process of cocoa growing?

.....

.....

10. How can challenges being faced during the process of cocoa growing be minimized?

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.....

PART D: THE SOLUTIONS TO THE CHALLENGES OF COCOA GROWING ON THE SUSTAINABLE LIVELIHOOD OF THE PEOPLE OF KANYANSIMBI, BUNDIBUGYO DISTRICT

11. Are there solutions which are already put in place to curb down the challenges of cocoa growing on the sustainable livelihood of the people of Kanyansimbi Bundibugyo district?

- Yes ☐
- No ☐
- Not sure ☐

12. What are the solutions to challenges of cocoa growing on the sustainable livelihood of the people?

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13. How are the solutions for curbing down the challenges of cocoa growing on the sustainable livelihood of the people being put into consideration?

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