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Master of Development Practice

Capstone in partial fulfillment of the Master of Development Practice

Joseph Kayongo, Cohort 21

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List of Acronyms and Abbreviations

ADP	Africa Development Promise
ASSP	Agriculture Sector Strategic Plan
CB.	Community Based Organization
CDO.	Cotton Development Organization
CSO	Civil Society Organizations
DDA	Dairy Development Authority
DSIP	Development Strategy and Investment Plan
FGD	Focus Group Discussion
FOB	freight on board
GDP	Gross Domestic Product
GOU	Government of Uganda
L4A	Learn for Agribusiness
KII	Key Informant Interviews
LED	Local Economic Development
MAAIF	Ministry of Agriculture Animal Industry and Fisheries
MDP	Masters of Development Practice
MOU	Memorandum of Understanding
NAADS	National Agricultural Advisory Services.
NAP	National Agricultural Policy
NARO	National Agricultural Research Organization
NDP	National Development Plans
NGRC&DB.	National Genetic Resource Centre & Data Bank
NSFYEA.	National Strategy for Youth Employment in Agriculture
PEAP	Poverty Eradication Action Plan
PFA	Prosperity for All
PMA	Plan for Modernization of Agriculture
RDS	Rural Development Strategy
UBOS	Ugandan Bureau of Standards
UCDA	Uganda Coffee Development and Authority
YES	Youth Entrepreneurs Scheme
YOP	Youth Opportunities Programme
YLP	Youth Livelihood Programme
YVCF	Youth Venture Capital Fund

1.0 Personal Statement

Joseph Kayongo is a Master of Development Practice (MDP) student at Regis University and a development practitioner, who has a passion for sustainable development and is committed to working with youth to better their livelihoods. This supports his selection of a capstone project on how to increase youth participation in agriculture in Eastern Uganda. He holds a bachelor's degree in Agribusiness Management from Makerere University, a certificate in coffee quality control from the Uganda Coffee Development and Authority (UCDA), and certificate in organic farming from Makerere University in partnership with Sokoine University of Agriculture-Tanzania and BOKU University – Austria. He has over 14 years of professional working experience in East Africa both in the banking sector and civil society organizations (CSOs). He has implemented agricultural value chain development projects including 1) Learn for Agribusiness (L4A) at Heifer International in Northern Uganda, Dokolo district, 2) Nurture Project at TechnoServe Inc., in Mbale Eastern Uganda and Tanzania and 3) Local Economic Development at VSO International Tanzania program in Mbeya, Tanzania, with youth and women as target groups. Learn for Agribusiness(L4A) was a three-year youth livelihood project which supported over 3,200 young farmers ages between 18-35 through skills development, increased access to markets (inputs and output market) and increased access to financial services. The project focused on four value chains of soybean, ground nuts, sunflower and maize using agri-hub model approach and was implemented by Heifer International and Edukan. Nurture project on the other hand, was a fresh fruits (passion fruits and mango) value chain development project which supported over 7,200 smallholder farmers in Eastern Uganda and Western Uganda. Farmers were supported through trainings in agronomic practices to increase productivity and quality, and access to markets through linkages. Lastly, T-LED Project under VSO was grain value chain project which sought to empower women led agribusiness small and medium businesses in Mbeya region.

Joseph Kayongo's first experience working with youth was in 2011 with Centenary Bank as a Loans Officer at the Bugiri Branch in Eastern Uganda after being selected to lead a youth loans scheme. The Government of Uganda (GOU) had released youth funds and Centenary Bank was among the channels where youth had access to these funds. He championed the sensitization and mobilization exercise with youth in Bugiri, Mayuge, Iganga, Namutumba, and Namayingo districts who were involved in the trade and commerce sector (such as general merchant shops, textiles/garments, saloons) as well as agricultural produce, trade, processing/milling, and poultry value chains in the agriculture sector.

In 2018, Joseph joined Heifer International and worked under a three year Learn for Agribusiness (L4A) youth livelihood project in Northern Uganda (Dokolo District). This provided him with another great opportunity to work with youth to better their living standards. The project supported over 3,200 youths between 18-35 years old to improve their household

income through skills development and increased market access focusing on oil seeds (sunflower, ground nuts, soybean, and maize) using an agri-hub model approach. A hub is a network that connects farmers with each other, with markets, service providers, government extension network and other support structures. The model takes group farming to the next level and moves smallholder farmers from periphery to the center of the value chain. The physical core of the hub is the bulking center and it is collectively owned by an association of farmers producing one or more of the selected commodities. The hub is managed by the association's elected board and operated by a small staff team. At Heifer, he served as a Project Business Advisor and spearheaded all of the project field implementation activities from inception/set up to the end. On this project, Joseph gained sufficient expertise to implement a market system development project (developing markets for the poor (M4P), youth engagement skills, community engagement skills, partnership development, management skills, and agri-entrepreneurship skills which involve financial management skills, business planning, cost-benefit analysis, record keeping, strategic planning, as well as marketing skills.

While he was working with Heifer, Joseph developed a passion to continue working with youth beyond the Heifer project, in his home district of Iganga. He therefore, shared this idea with a few of his colleagues in an effort to seek technical support on how to expand the idea and especially on how best to implement it. Back home, he has been a youth leader for over seven years at his church, (St. Jude Catholic Church, Iganga town) and he used this platform and mobilized youth, formed a Community Based Organization (CBO) called St. Jude Youth Development Initiative, comprised of 40 members and registered it with the district local government authority in 2019. Together as a group, they started with four economic activities: 1) savings and credit scheme, 2) mushroom production, 3) piggery, and 4) apiculture/bee honey farming but due to lack of funding, technical skills and access to markets, they have maintained only the savings component to date.

Through this capstone, his long-term goal is to expand and scale up the projects but with well-established organization. Therefore, Joseph intends to use this capstone as a guide to design a "Youth in Agribusiness" Program to be run as a social enterprise focusing on g/nuts and horticulture (leafy vegetable) value chains through an agri-hub business model (Young Farmers Ownership Model). A farmer ownership model is a where farmers take charge from production to marketing (produce and connects to markets without any middleman). The goal is to establish an Agribusiness Service Centre and work with youth in organized producer groups/cooperatives, partnering with government and private sector market actors/business service providers in horticulture and G/nuts sub sectors. The long-term goal is to increase living standards for rural youth through increased crop production and productivity, increased access to markets, and increased access to information and skills development.

As a young agribusiness professional in his mid-career, Joseph developed a passion for working with young people especially the disadvantaged youth who are surviving through agriculture. As a result of this, he developed an idea of working with youth in his home district supporting them to improve their livelihoods through agriculture which is a backbone of the national economy. Through the ADP program, working as Country Director and supporting rural Women, Kayongo Joseph accessed the opportunity and enrolled at Regis University for a Master’s in Development Practice. With the above experience working with young people, when the capstone opportunity emerged, Joseph did not hesitate to take it on for the capstone., Joseph, therefore, chose youth participation in agriculture for his capstone project. Through his capstone project, Joseph will identify and discuss 1) what constrains youth from active engagement in agriculture, 2) key strategies for youth engagement and empowerment, and 3) possible climate change mitigation strategies. Joseph will partner with Iganga district local government and local implementing partners to design interventions that will increase youth participation in agricultural enterprises to improve livelihoods and reduce unemployment among youth. From a practical standpoint, this may take the form of a new youth oilseed cooperative, focused on ground nuts (g-nuts) as part of the network of Heifer International supported cooperatives. Implementation of his project may also take the form of a Community Based Organization (CBO).

Figure 1 SWOT Analysis of Heifer Oilseed Cooperative vs CBO Social Enterprise



Base on the threat mentioned above, a social enterprise model (CBO) will be considered with a clear business model under which to operate. This will therefore, provide an opportunity for the project to be open (not limited) for partnerships with different development partners/Institutions/funder but fit within the model.

2.0 Literature Review

This literature review explores the key interventions/strategies to successfully engage and increase rural youth participation in agriculture to improve their economic standard of living in Eastern Uganda, background information and Country's economy context for different sectors. Defining the term "**youth participation**" is essential to understand the link between youth and agricultural development. According to Checkoway (2011), youth participation is the active engagement and influence of young people. This is not based on their passive presence or token roles in adult agencies, but also on quality, such as when people have a real effect on the process, influence a particular decision, or produce a favorable outcome. It involves young people in decision making process that affect their lives. Thus, youth participation in agriculture entails the engagement of youth in the sector through entrepreneurial activities, participation in value-chain activities, policy development, and advocacy in structures and systems linked to the food system. This section further provides a review of the issues facing youth in the agricultural transformation and the need for developing effective strategies for youth engagement in agriculture.

This review is organized four themes:

- i) the context of the national economy, agriculture sector and policy framework, and role of youth in production in Uganda,
- ii) issues facing/hindering youth to actively engage in agriculture for their livelihood and existing opportunities.
- iii) interventions/strategies to attract and successfully engage youth and increase their participation in agriculture (pathways to prosperity for rural youth and driving factors that contribute to the successful engagement of rural youth in agriculture

- iv) climate change impacts in Uganda, their expected impact on agricultural production, and mitigation strategies

3.0 Background

Agriculture remains a key sector where the surplus unemployed youth labor force can be employed in Africa. Agriculture plays a major role in the lives of many young people, and it is projected to remain so even in the next decades (FAC, 2011). With improved agricultural productivity, more and much better jobs are likely to be created (World Bank, 2008). Not only does a modern and productive agricultural sector have the potential to overcome food insecurity, but it can also offer employment opportunities to young people (Vale, 2012). Decent livelihoods/employment in agriculture (that allows a youth to meet all the basic necessities for the family) can be created through upgrading the existing jobs in agriculture or by creating new ones (FAO, 2009). The National Strategy for Youth Employment in Agriculture (NSFYEA) 2016–2017 reports that 37.8 percent of the employed youth are in the agriculture, forestry, and fishing industry. The majority of the youth (18-30) in employment from rural areas were in the agriculture, forestry and fishing industry (55 percent) while majority of those from urban areas were in the trade industry (27 percent). The proportion of youth in subsistence agriculture production is 31 percent (FAO, 2022). The National Strategy for Youth Employment in Agriculture clearly states the strategic interventions to support youth employment in agriculture and they are aligned to five distinctive thematic areas: 1) **Ensuring** an enabling environment for youth employment in agriculture, 2) **Supporting** youth oriented agricultural extension, 3) **Improving** youth education and learning, 4) **Supporting** youth entrepreneurship and 5) **Adaptating** to and mitigating agribusiness risk and uncertainties.

Additionally, under ensuring an enabling environment, the strategy highlights seven key pillars which include:

1. Strengthening the policy and legal framework
2. Enhance land access and control by the youth.
3. Strengthen family and community involvement in youth agricultural programs/projects to enhance ownership and sustainability.

4. Increase access to agricultural finance.
5. Increase access and use of ICT for youth in agriculture.
6. Increasing access to markets
7. Support youth in agricultural mechanization.

Therefore, strategies 2, 3, 4, and 6 will be applied by the project, because of.

Strategy 2, about enhancing access to land by youth is very important because land is one of the critical factors of production, yet the majority of youth have limited access and rights to own land at household and community levels. This is partly attributed to gender differences, inheritance, and cultural beliefs. Among most cultures, female youth continue to be excluded from land ownership because land is typically inherited by their male counterparts.

Strategy 3 of strengthening families and communities' involvement in youth agriculture project is equally important. Families and communities are critical in agriculture, yet they rarely participate adequately in program prioritization and planning for youth involvement in the sector. Communities can play a very strong role in mobilization of youth to participate in various programmes and projects so that gradually youth appreciate the investment effort required to benefit optimally from various agricultural enterprises. Communities have hosted Farmer Field Schools (FFS) to demonstrate practical skills for uptake by young people. The strategy is therefore, to support parents, guardians, and community leaders to demonstrate success stories as effective peer influence on the young people as a means of mentoring and creating of a mind-set change on agriculture as a viable option for employment.

Strategy 4 about increased access to financed is of great importance in production. Financial constraints are more pervasive in agriculture and related activities than in service and industry sectors, reflecting the risky nature of agricultural activities. Despite some development of financial services in Uganda, the majority of youths have limited access to finances that can make them competitive in the market. The ability of agricultural enterprises and rural households to invest for the long term and make calculated decisions for risky income flows is partly shaped by the availability of financial services (MAAIF, 2010). Access to financial services,

in particular savings and credit products, would expand their opportunities for more efficient technology adoption and resource allocation.

Lastly, strategy 6 about increased access and use of ICT for youth is very important given the current level of technology. This is an information age and access to ICT is critical in knowledge sharing on developments in the agriculture sector as well as demonstration of modern practices at all stages of the agriculture value chain. With increased ICT penetration (especially the use of mobile smart phones and social media).

3.1 The context of national economy

According to UBOS (2020), Uganda is one of the fastest growing countries in the world, with an average annual growth of GDP over six percent in the last 30 years. In 2020, Uganda's economic growth showed a \$37.60B increase over 2019. The main drivers of Uganda's growth are the liberalization of the economy in 1986 (privatization) and the massive investment in telecommunication, financial services, and construction. The economy is comprised of three main sectors: agriculture, industry, and services.

In FY 2022/23, agriculture accounted for about 24% of GDP, and 35% of export earnings. The UBOS estimates that about 68% of Uganda's working population is employed in agriculture. Following a pick-up in economic activity, according to the preliminary estimates of the Gross Domestic Product (GDP) released by the Uganda Bureau of Statistics (Ubos), Uganda's economy expanded by 5.3% in the fiscal year 2022/2023 as opposed to the 4.6% recorded in the financial year 2021/2022.

With a share of 42.6% in the fiscal year 2022/2023 compared to 41.6% in the fiscal year 2021/2022, Dr. Chris Ndatira Mukiza, executive director of Uganda Bureau Of Statistics (UBOS), stated the services sector remained to be the largest contributor to GDP. This was followed by the industry sector with a share of 26.1 percent in Fiscal Year 2022/2023 compared to 26.7 percent in the previous fiscal year, agriculture sector contributed 24.0 percent in Fiscal Year 2022/2023, a similar contribution registered in the Fiscal Year 2021/2022," he said.

Uganda has one of the youngest and fastest growing populations worldwide According to 2023 population growth rate by country by database. Earth, Uganda was ranked 13 in the world with

a 2.75% annual population growth rate. Niger ranked 2nd with 3.73%, Democratic Republic of Congo ranked 4th with 3.33%). A population pyramid released by UBOS 2024 suggest that Uganda is a Young Country with 50.5 percent of the population aged below 17, while age group 18-30 (youth) form 22.7 percentage of the count. With the biggest population being under the age of 30, the nation faces the challenge of meeting the needs of its youth, many of whom reside in rural areas and have limited education, skills, and work opportunities. According to latest census, youth constitute 80% of the country's unemployed. 75% of the workforce and 55% of youths are engaged in the agriculture sector. Youth unemployment is growing, with 400,000 youths entering the labor market and competing for only 80,000 formal jobs each year. Uganda is addressing youth unemployment in part by creating more opportunities for rural youth to become involved in the agriculture sector. Agriculture is one of the focal sectors in the efforts to employ Ugandan youths, and it has led to several development programs, both public and donor funded. It is increasingly recognized that professional agriculture has the potential to generate income and drive economic growth in Uganda. A number of agricultural development programs targeting youth put the sector in a strategic position for youth. Such programs include among others, Youth Livelihood Programme (YLP) targeting youth of 18-30 year olds. The Youth Livelihood Programme (YLP) is a Government of Uganda (GOU) financed program designed as one of the GOU interventions in response to the high unemployment rate and poverty among the youth. It covers all the districts and cities of Uganda. The YLP Programme Development Objective (PDO) is to empower the target youth to harness their socio-economic potential and increase self-employment opportunities and income levels. The Programme targets unemployed and poor youth, including the following categories:

- Drop-outs from schools and training institutions.
- Youth who have not had the opportunity to attend formal education.
- Single parent youth.
- Youth with disability.
- Youth Living with HIV/AIDS.
- Youth who have completed secondary school or tertiary institutions (including University) but remain unemployed.

The Programme has three components: (i) Skills Development, (ii) Livelihood Support, and (iii) Institutional Support. However, the youth in 14-17 age category are excluded from participation in government policies and program design and implementation because, legally, these young people are below the constitutional age of a youth. This age category is meant to be school going, however, a number of them are none-school going because they dropped out of schools due to lack of school fees. They are excluded from decision making within their families, communities, and development initiatives. It is therefore crucial to create mechanisms for their voices to be heard and recognized and that they are part of the decision-making process with regards to programs and policies that affect them.

3.2 Agriculture Sector and its contribution to the economy

Uganda agriculture sector is defined by a preponderance of smallholder farmers. Nearly 75% of the households engage in agriculture yet they produce 70% of the marketed produce. Women produce approximately 90% of Uganda's total food output and 50% of its cash crop production. However, most farmers use low productivity farming techniques and there is a high rate of counterfeit products on the market. Counterfeit products are adulterated products on the market and thus of poor quality (sub-standard). Due to lack of access to high quality products from certified input suppliers, farmers end up using counterfeit products thus leading to very low yields. As a case in point for the maize value chain, Ugandan farmer's typical yield is tenfold less produce than is yielded in Ugandan agricultural research stations. Despite this, farmers receive an estimated 70-75% of the freight on board (FOB) price indicating a lean post-harvest value chain. A freight on board price mechanism requires a producer/farmer to deliver produce/products to the buyer/selling point while incurring all delivery costs. Most output in agriculture comes from increasing land size rather than increasing productivity suggesting the opportunity for a large dividend should come through farmer education, especially for women and youth around the spread of agricultural best agronomic practices. This capacity building should be provided by agricultural extension officials at the district and sub county levels, development partners, and Civil Society Organizations (CSOs) who are supporting value chains development.

The agricultural sector therefore, has a strategic importance for poverty reduction and employment creation especially in low-income economies like Uganda and especially in rural areas where the majority of the population is employed in agriculture. The sector has been the backbone of Uganda’s economy for many years. Over 80% of Ugandan households are involved in agriculture (UBOS, 2015). It is a source of food, raw materials for industries, and foreign exchange given the many agricultural exports. The Agricultural Sector Strategic Plan (ASSP) and all the National Development Plans (NDPs) so far developed to the current 2020/21-2024/25, identify agriculture as one of the priority sectors for investment. This is largely because the sector has a great multiplier effect on the manufacturing/industry and services sectors and thus on the national economy, thus, a transformed and productive agriculture sector will lead to productive industry and service sectors. However, these plans and the strategy do not specifically point out the focus for Young farmers, but rather, general focus on the small holder farmers which leaves out youth.

3.3 Agriculture Policy framework in Uganda

The policy environment for agriculture sector in Uganda since 1997 has been shaped by several national level policy frameworks. These include the Poverty Eradication Action Plan (PEAP) and its successor, the National Development Plan (NDP); the National Strategy for Youth Employment in Agriculture as well as the Prosperity for All (PFA).

Table 1 Description of Frameworks

Policy framework	Focus
Poverty Eradication Action Plan	The Poverty Eradication Action Plan (PEAP) was drafted in 1997 and aimed at reducing the population living in absolute poverty by 2017. This Poverty Eradication Action Plan was revised in 2000 and it was done to add in new information generated from the widened consultations and analysis, mainly the information was got from Poverty

	<p>Assessments which were undertaken and analyzed. The Poverty Eradication Action Plan provided framework to guide public action to eradicate poverty. It was prepared through a consultative process involving central and local Government, Parliament, Donors and Civil Society. The Poverty Eradication Action Plan aimed at four core challenges and these were; (a) The restoration of security, dealing with the consequences of conflict and improving regional equity.(b) Restoring sustainable growth in the incomes of the poor.(c) Human development.(d) Using public resources transparently and efficiently to eradicate poverty.</p>
<p>National Development Plan I</p>	<p>The first National Development Plan 2010/11-2014/15 was launched in April 2010; it was the first of six five-year development plans covering the period of the Vision Framework. It comprised of the medium-term strategic direction, developmental priorities and implementation strategies. In summary, the First National Development Plan aimed to propel Uganda toward economic transformation, wealth creation, and inclusive growth. It laid the groundwork for subsequent development plans, each</p>

	<p>building upon the nation’s aspirations.</p>
<p>National Strategy for Youth Employment in Agriculture</p>	<p>The national strategy for youth employment in agriculture is part of the broader implementation of the Agriculture Sector Strategic Plan (ASS). The Vision of this strategy is to realize an economically empowered youth from gainful employment in agriculture. While this strategy focuses on the broader category of youth, specific interventions strategically designed for youth in the age category of 14-17 years especially school dropouts who have not been well targeted under various government programs.</p>
<p>Prosperity for All</p>	<p>The Prosperity for All program, also known as Bona Bagagawale, was launched in Uganda with the aim of boosting the country’s economy and promoting social and economic transformation. The Prosperity for All program in summary, aimed uplifting communities by fostering economic growth, supporting small-scale entrepreneurs, and enhancing agricultural practices. While it faced hurdles, its overall impact was significant in the pursuit of prosperity for Ugandans.</p>

The Government of Uganda has prioritized the generation of more and better jobs for the youth. This is well articulated in Government policies and strategic documents. Also, the current policy and strategic framework to promote youth employment is cognizant of the role that agriculture currently plays and can potentially play to increase youth employment and contribution to national development. The National Strategy for Youth Employment in Agriculture (NSYEA) was developed in total alignment with the existing frameworks, with the aim to foster policy coherence as explained at length in the background section. Youth employment priorities are reflected at a macro level in the country's National Development Plan (NDP II). Among its objectives are to: i) Promote decent employment opportunities and labor productivity ii) Enhance effective participation of communities in the development process, iii) Improve the resilience and productive capacity of the vulnerable persons for inclusive growth, iv) Improve the capacity of youth to harness their potential and increase self-employment and productivity, and v) Promote rights, gender equality, and women's empowerment in the development process. My planned project will leverage on objective iv which is well aligned to my project intended objective(s)

At the agricultural sector level, these policy frameworks were implemented through the Plan for Modernization of Agriculture (PMA) and the Rural Development Strategy (RDS).. The Ministry of Agriculture Animal Industry and Fisheries (MAAIF) published the first Development Strategy and Investment Plan (DSIP) in 2005 to implement the ministry component of the PMA and the second DSIP in 2010 to implement the agriculture chapter of the NDP. The National Agricultural Policy (NAP) was then developed as a result and intended to harmonize the different thoughts and approaches to national agricultural development. The National Agriculture Policy (NAP) was approved in 2013 by the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF). From a broader perspective this policy aims to achieve food and nutrition security, improve household incomes, promote domestic and international trade through coordinated sustainable agricultural productivity and value addition, provide better employment opportunities, and develop private sector-led agriculture in Uganda. To achieve the broad objective, the policy provides that the GOU shall pursue six inter-related specific objectives which include:

Objective 1: Ensure household and national food and nutrition security for all Ugandans.

Objective 2: Increase incomes of farming households from crops, livestock, fisheries, and all other agriculture related activities

Objective 3: Promote specialization in strategic, profitable, and viable enterprises and value addition through agro zoning.

Objective 4: Promote domestic, regional, and international trade in agricultural products.

Objective 5: Ensure sustainable use and management of agricultural resources.

Objective 6: Develop human resources for agricultural development.

For each of the objectives, GOU shall employ specific strategies, working closely with all stakeholders in agriculture, including central government ministries, departments and agencies, local government, private sector, civil society, farmers, and development partners. My proposed project which will run under a CBO arrangement is recognized with the objectives 1 and 2. These strategies are formulated with consideration and reference to existing policies.

The coherent coordination of government policies such as National Agricultural Advisory Services (NAADS), Operation Wealth Creation (OWC) and Youth Livelihood Program (YLP), could easily lead to increased participation for the youth in agriculture. Whereas the MAAIF has specialized units and agencies that implement intensive technical and advisory services of its broad mandates, they function as semi-autonomous agencies under MAAIF'S line of supervision.

3.4 Issues around Youth (challenges and opportunities)

Agriculture is recognized as a primary livelihood source for many rural people in Africa and an essential contributor to economic growth. According to Uganda Bureau of Statistics (UBOS, 2020), emphasizes the vital role that agriculture plays in employment creation, food, and nutrition security, and reducing societal inequality and poverty in Uganda.

However, despite this recognition of the potential of the agriculture sector internationally and nationally, literature points to the decline of youth interest and engagement in farming. In contrast, the young people should be at the forefront of revitalizing agriculture since they tend to be more innovative (Vale, 2012; FAC, 2011). If their contribution is matched with the right

skills and capital, the much-needed youth dividend(earning) might be realized (Brooks, 2012). Lack of incentives and drudgery are some of the reasons why the youth are disinterested in agriculture (IFAD,2011). FAC (2010) underscores the current limited efforts by most governments to engage youth in agriculture and target the youth specifically with a view to understanding the constraints they face and propose practical solutions to overcome them. A scoping review conducted in both Uganda and Nigeria on youth participation in agriculture in 2021 by Geza, W. et al pointed out that the existing agricultural interventions are production-centric and provide low-income earnings and inadequate social protection. Social protection, as defined by United Nations Children’s Fund, is a set of policies and programmes aimed at preventing or protecting all people against poverty, vulnerability, and social exclusion throughout their life-course, with a particular emphasis towards vulnerable groups (UNICEF,2019) . Social protection comprises a set of policies and programmes that addresses economic, environmental, and social vulnerabilities to food insecurity and poverty by protecting and promoting livelihoods (FAO, 2017). The study also points out that the youth have pessimistic perceptions about agriculture’s capability to improve their living standards. This could be ascribed to the minimal youth involvement in agricultural activities and the youth’s shared understanding of the agricultural sector’s contribution to general economic growth. The study further points out that from a policy perspective, the agricultural development programs do not adequately address structural issues underpinning youth participation in the economy. The current trend is that many youth are leaving agriculture for various reasons. Largely, youth perceive agriculture as a profession of intensive labor, which is not profitable, and is unable to support their livelihood compared to what white collar jobs offer (Youth in Farming, 2011). Therefore, the decline in participation of youth in agricultural production is linked to the rural-urban migration phenomenon. The migration decision involves “push” and “pull” factors (Lewis, 1954; Harris & Todaro, 1970). The **push** factors include declining national resources, increasing cost of social amenities, loss of employment, and lack of opportunities for personal development. Chief among the **pull** factors is the likelihood of better employment opportunities (Bogue, 1969). However, Akpan (2010) points out that some empirical studies found that economic push factors such as lack of access to rural credit, unemployment, and rural poverty

are most important, while economic pull factors like perception of high wages from urban employment are dominant. This predisposition is used to help explain why there is a declining participation of the youth in agriculture in Uganda. In Uganda, there are specific gender roles that make young women more vulnerable to challenges to their work within agriculture. Women work within a male dominated society.. There are growing fears in the social circles that this bulge of underemployed youth will weaken community and societal bonds and heighten social unrest, including crime, riots, armed conflict, and terrorism, (Akpan,2010)

Some literature points out many other factors linked to the transition from subsistence to commercial agriculture, which in turn, affect youth engagement in agriculture. According to Pender et al. (2006) and Hagos & Getta (2016), these include both external and internal factors. The **external** factors include demographic change, technological change, the introduction of new commodities, the development of new infrastructure and market institutions, and the development of the nonfarm sector through macroeconomic, trade, and sector policies. **External** factors also include 1) the development of input and output markets which run in favor of the economically empowered actors, 2) strengthened property rights and land tenure, 3) improved market regulations, 4) changes in the significance of cultural and social factors affecting consumption preferences, 5) changes in production and market opportunities, 6) changes in agro climatic conditions which has greatly affected production and productivity, and 7) enhanced or reduced production and market related risks. **Internal** factors include the resources endowment of the farmer, including land, human capital, and labor. Gemm et al. (2013) and Pingali et al. (2019) find that the ability of a smallholder producer to transform from subsistence and semi-commercial farming to commercialized farming requires strengthening linkages to markets through access to credit, land, technology, and to quality inputs like seeds, fertilizers, and pesticides. Nguyen et al. (2019) found that the key factors affecting entrepreneurial intentions among youth were a desire for success and to overcome challenges, a positive attitude towards entrepreneurship, perceived behavioral control, positive experiences with entrepreneurship, and creativity. Apparently, the agriculture sector is not considered as a viable sector for employment and remains highly unattractive to the youth due to the risks, labor intensive nature, and low financial returns. They often have a poor attitude towards

farming and lack of access to land, technical skills, as well as lack of knowledge on coping with the effects of climate change, (Nguyen et al, 2019)

3.4.1 Opportunities for youth in agriculture sector

Creating opportunities for rural youth is not just about increasing their productivity but for sustainable solutions, youth also need increased connectivity so that they can be more fully integrated with their society and greater agency so that they have the power to make decisions in their own best interest (IFAD, 2019). Productivity includes factors like education and skills, productive assets, and natural resources. Connectivity on the other hand includes markets, information, and social networks. Agency includes civic and political participation skills, education, and empowerment (IFAD 2019). Youth engagement in agriculture can occur successfully through several pathways, including as producers or by youth taking up other roles within agricultural value chains. The pathways adopted depend on geographic, farming system, market factors and more so the characteristics of the youth themselves. Specifically, along the crop value chains from production/farming to marketing, there exist opportunities for youth to take advantage which may include; trading/marketing activities, input marketing, value addition/processing and packaging.

There is recognition in the Youth Map developed by the International Youth Foundation (2011) that agriculture is one of the promising sectors for the youth employment in Uganda. The Youth Map further stressed that the role of youth in the agriculture value chains can be optimized when youth are provided with agricultural inputs together with career guidance and enterprise development support. Through capacity building, the youth can be introduced to farming as a business and various activities they can engage in both at the farm level and off farm level. For example, they can directly engage in production, processing, marketing, transportation, and warehousing of produce (Gemma et al., 2013).

The agricultural sector also presents opportunities for entrepreneurship, which would be ideal for employment creation, especially among youth. Moreover, the increasing growth in Africa's urban markets further presents an opportunity due to increased demand for processed and prepared foods. Consequently, this would attract substantial private sector investments for

small, medium, and large agribusiness entrepreneurs and other food systems participants like food processors/manufacturers. Therefore, fulfilling the potential of African agribusiness could open new markets for the produce.

3.5 Proposed interventions/potential solutions to increase youth participation in agriculture.

A growing body of knowledge suggests that part of the solution for promoting youth participation in agriculture should include supportive policies and frameworks that promote capacity building, stakeholder investment, and creating innovative spaces in agriculture in a way that considers youth aspirations (Geza et al.,2021). Such policies and frameworks should be inclusive and recognize young people as key players in policy formulation. However, this should be complemented by other initiatives as well. In a policy analysis conducted on agriculture, rural development, youth and employment policies in sub-Saharan Africa (SSA) Schwebel et al. (2019) concluded that policies focus more on promoting labor supply strategies like entrepreneurship training programs, rather than demand side strategies such as reducing the constraints to business development such as the enabling environment like proper regulations and infrastructure, access to credit, and job creation at the sectoral level. Moreover, this supply side focus fails to respond to the region’s human capital shortcoming which results from poor quality education and lack of employment skills. Thus, upgrading the agricultural production skills of young people is essential to ensuring youth participation in agriculture, promotion of food security, and reducing poverty in rural peri-urban and urban areas (Geza et al., 2021).

Rural youth with limited education who are not able to move out of rural communities largely depend on agriculture related activities and enterprises, particularly when off-farm and nonfarm opportunities are limited. The plan is to work through a social enterprise model but working with organised youth producer groups/cooperatives. The immediate option for them is to work on their parents’ farm, on land inherited from their parents, or on other land made available from the community or rented by the youth (Babu et al., 2021). Strengthening these youth’s skills to cope effectively with the risks and uncertainties of smallholder agriculture is first step to making them resilient farmers. This will require designing context-specific, on farm and value chain interventions that can help them to take on climate-smart agriculture practices

and take advantage of market opportunities that the value chain provides. For youth who have skills or can be trained to become business-oriented farmers or employed in rural off-farm enterprises, skills building, credit and market intelligence will offer attractive options for them to stay in agriculture, particularly where they could be easily integrated into domestic supply chains, . (Babu et al. 2021)

Therefore, to enhance the involvement of youths in agriculture, there is a need for policy implementation by the government and its agencies around integrated agriculture-based interventions that are context-specific and promote meaningful youth participation in shaping the future food system.

3.6 Climate change overview in Uganda

3.6.1 Climate change overview and its impact on agricultural production.

Uganda is at risk of experiencing natural calamities. It experiences extreme weather events which lead to drought, and flooding which have increased over the last 30 years. Flooding has become more frequent, largely due to more intense rainfall. Increased intensity of heavy rainfall has led to greater impact of floods and are causing more damage due to expanded infrastructure, human settlement, and development of the country.

Uganda depends significantly on rain-fed agriculture and the agricultural sector plays a critical role in Uganda's food security and economic prosperity. With the micro-scale irrigation scheme, a government project aimed increasing agriculture productivity through increased access to irrigation, the prolonged drought challenge could be addressed. The agricultural sector employs 70% (2014) of the working population and contributes over one quarter of Gross Domestic Product GDP (World Bank, 2021). Climate change could cause a reduction in the national production of food crops such as cassava, maize, millet, and groundnuts by 60% by the 2050s.

Rising temperatures and shifting rainfall patterns may increase soil erosion and increase growing difficulties for many crops as well as shorten growing seasons. These scenarios are also likely to alter the occurrence and distribution of pests. Rising temperatures are expected to increase suitable conditions for crop diseases and pest infestations such as blast and bacterial

leaf blight and fungal diseases in vegetables and aflatoxin in maize and g/nuts. Erratic rainfall may increase post-harvest storage risks as well as impacting g/nuts which need to be dried in the sun. Increased dry periods and continued soil degradation, associated with unsustainable agricultural practices, contributes to a reduction in reservoirs and undermines food security.

The projected increased heat will increase stress on crops and is also likely to alter the length of the growing seasons. Decreased water availability is likely to reduce yields and the reduction in soil moisture may alter suitable areas for agriculture or the production of g/nuts and vegetables without alternative irrigation system. Increased heat and water scarcity conditions are likely to increase evapotranspiration (plant loss of water) which is expected to contribute to crop failure and overall yield reductions.

3.6.2 What needs to be done.

Both the sensitivity of the agricultural sector to the climate and the high reliance of this sector on rain-fed agriculture and irrigation have important implications for Uganda and Iganga in particular. According to the World Bank (2021), improvements should be made concerning water capture and storage as well as investments in more efficient irrigation structures throughout the country, particularly in more arid agricultural areas and semi-arid locations like Iganga. The introduction and adoption of drought-prone and flood-prone crop varieties may increase short to medium-term resilience. For the case of Iganga district, drought resistant crop varieties need to be availed to the farmers like Naro Bean 6 for the case of beans, climate smart agriculture practices need to be trained to the farmers/youth and promotion of vegetable enterprises/value chains to attract youth into agriculture like application of mulches, in the crop field especially vegetables as well as encouraging raised crop fields as part of climate smart agriculture.

More climate- smart agriculture practices include crop diversification, small-scale irrigation, permanent planting basins, green manuring, conservation agriculture (rotations, intercropping, mulching, and reduced tillage) and agroforestry are among the most common climate smart practices being promoted in the country to improve productivity, food availability and resilience

to climate hazards. Some of the above practices if promoted especially conservation agriculture, green manuring, and agroforestry, youth could be attracted to engage actively in agriculture.

4.0 Community Context (Iganga district)

Iganga District is comprised of one county of Kigulu and Iganga Municipality. There are three constituencies of Kigulu South, Kigulu North, and Iganga Municipality. The former Iganga Town Council is now a municipality though the boundaries of the municipality remain the same but the local government is now divided into the Central and North Divisions. There are eight Sub Counties and two urban local governments in Iganga district. Kigulu South has Bulamagi, Nawaningi, Nakalama and Nakigo sub-counties. Kigulu North has Nawandala, Nabitende, Nambale, and Namungalwe as clearly shown in the map. (refer to the map).

The District accommodates all tribes in Uganda, and the usual common languages being Lusoga, Luganda, English and Swahili . The bulk of the population belongs to Basoga, characterized by the choice of their own religious affiliations, including Protestants, Muslims, Catholics, faith based (religious) and traditional cultural beliefs. Traditional foods include potatoes, cassava, matooke, rice, and maize flour. The people are very hospitable. The Office of the District Commercial Officer instituted and set up Local Economic Development (LED) – Forum / Business forum structures in the District; following the Ministry of Local Government, Local Economic Development Implementation Circular; instructing Local Governments to form LED / Economic / Business Forums, LED Resource Team was initiated which included District Departmental heads / Representatives , NGOs, Business Community representatives / Private sector.

Local Economic Development (LED), is a national policy, operationalized by the National Strategy for Local Economic Development (NSLED) 2021/2025 and its overall goal is to have a transformed local government system that facilitates effective business-oriented locality development with a focus on poverty reduction and sustainable wealth creation. LED is intended to create a conducive environment for investment, increased household incomes, creation of employment opportunities, and higher revenues for local governments, which translate into improved livelihoods for the communities. By implementing my proposed

capstone project, I will be contributing to this bigger cause of the district economic development.

Figure 2 Map of Iganga District showing Administrative Units

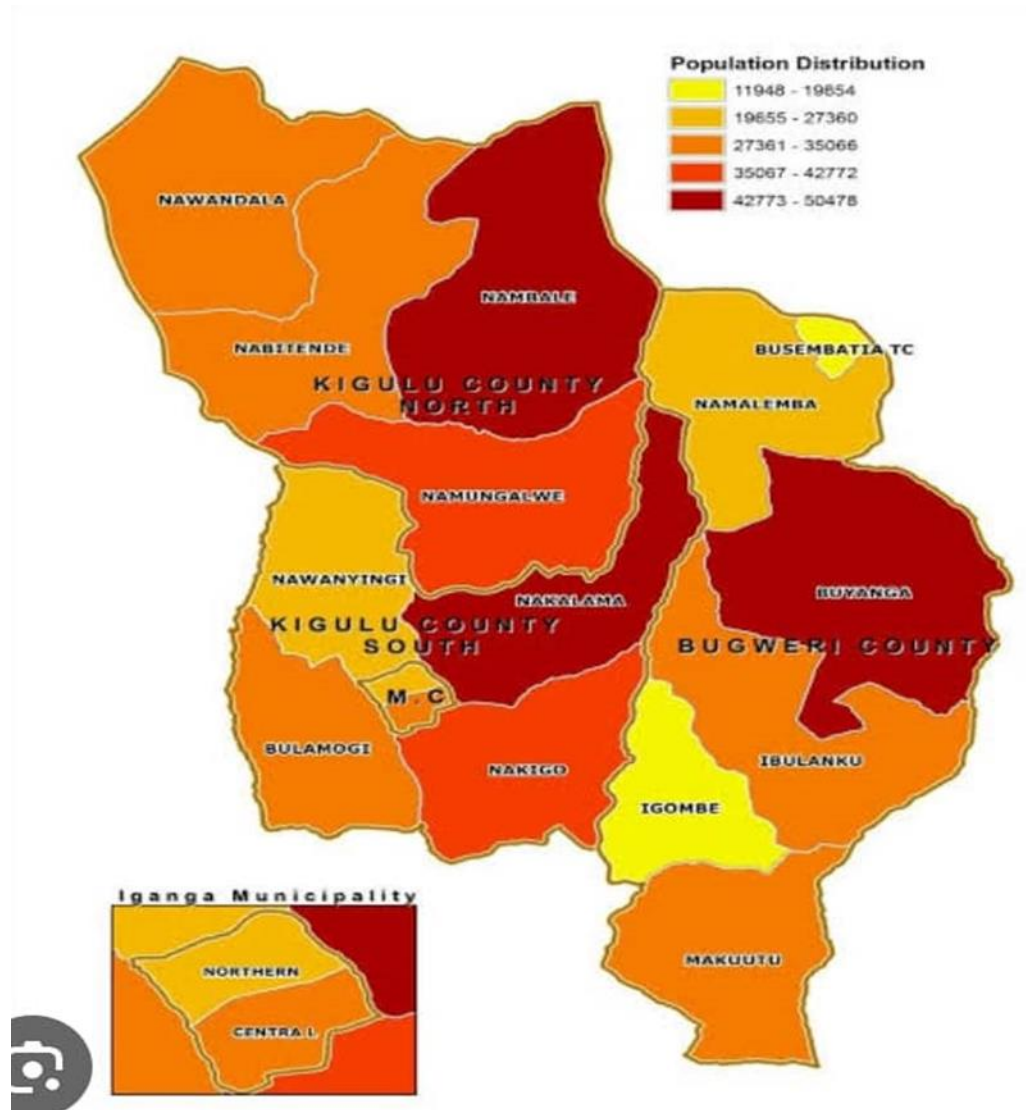


Table 2 Stakeholder Analysis

Stakeholder analysis - Youth Participation in agriculture in Eastern Uganda				
Type of the stakeholder	Name of the stakeholder and description	Relationship to Project	Incentives, Motivation or risks	Engagements
Private Sector Actor	Agroways Uganda limited	Buyer of produce and GAP skills provider	Buying produce from Youth, provide inputs on credit and internship. The company would be concerned with the consistent supply of quality products.	Collaboration through MOU (Contract farming) in areas of training and providing internship
	Balton Uganda Limited	Trainers of chemical application and provider	Provide agro input on credit to youth. Will youth groups have access to credit to have purchasing power?	Collaboration through MOU arrangement
	Tropical Dynasty Uganda Limited	Provides agro input credit and produce buyer	Provide seeds on credit and market for the harvest (produce). Will the youth be well organized to produce enough and pay back?	Collaboration through MOU (Contract farming) in areas of training and providing market
Local Community	Opinion Leaders (Religious, Cultural)	Support Youth mobilization and engagement	Influencing positively the youth on mind set and parents. The perception of opinion leaders towards youth, youth are not advisable, not trustworthy.	Keep informing and updating them (engagements from the start)
	Rural Youth (farmers, 18-35 years).	Youth (young farmers) are the primary targeted beneficiaries of the proposed project.	Youth voluntarily own the proposed project and collectively participate in all the planned project activities. Risk is that youth expectations may not be met and thus not sustainably participate in project activities	Mobilization, organization and sensitization into producer associations for economies of scale.
	Parents, Guardians, Elders	Provide mentorship to Youth and guidance	Provide access of land to youth for production. Youth are not settled and always look for quick gain and lack patience.	keep informing and engaging (collective participation with youth)
Government	District local government agricultural Officers	Learn the Extension curriculum	Providing guidance on agronomic skills training and inputs use	Keep informing, seek input verification, approval and scale up for sustainability, updates

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	District local government Community development Officers	Provide guidance on formal registration of youth Groups	Facilitate Youth Groups registration process and certificates of operation	Keep informing (updating the progress of activities) through report sharing
	Ministry of trade and cooperatives	Registration of Youth Cooperatives and certificate issuance	Certificate of registration issuance and renewal, protection	annual subscription and submission of annual reports and returns
	Youth livelihood Officers	Provide youth with guidance and required training on the program	Provide the youth with incentives, startup capital for inputs	keep informing and sharing progress reports annually
NGO	Heifer International	Learn from their project designs, potential funder	Align with their mission, vision and strategic objectives	Apply for partnerships (MOU) and funding for collaboration.
	World Vision International	Potential funder and learning from their program designs	Align our values with their values and strategic objectives	Seek partnership and apply for funding
	Stromme Foundation.	Potential funder	align the values, mission and learn from their youth engagement interventions	keep informing, engaging, collaboration and apply for funding
	Youth alive Uganda	Potential funder and learning from their program designs	align values, mission and strategic goals	seek collaboration/partnership and funding

5.0 Needs Assessment

5.1 Methodology and study area

The study was conducted in the target population of Iganga District. Interviews were conducted in January 2024, for two focus group discussions (FGD) of between 10-15 people, individual youth (37 youth) through a survey and key informant interviews of six local government officials. The 6 (six) local government officials represented the six sub counties that make up Iganga district. The two focused groups were organized from two sub counties of Nakalama in Kigulu South Constituency and Nawandala Sub County in Kigulu North Constituency. This was done to ensure fair representation from both constituencies. The 37 individual youths were randomly selected from all the six sub counties and the two constituencies.

NOTE: *Iganga district is comprised of two constituencies and one municipality.*

5.2 Focus Group Discussions

Two separate focus group discussions were held with 10-15 youth and older farmers. Efforts were made to ensure that gender considerations made in selecting group members. The interest were to find out the common crops grown by youth, if youth operate in groups or individually and why, how and where do youth access inputs (land, seeds, chemicals, fertilizers), if youth have any extension services for better farming practices and who provides, how do youth market their produce, challenges they face and what they propose to be done, what needs to be done to have more youth join agriculture.

5.3 Key Informant Interviews (KIIs)

Informal interviews or consultations were held with six (6) local government officials in Iganga District to get information about youth involvement in agriculture/agribusiness and these were from different sub counties in the district.

5.4 Survey

In addition to participating in the FGD, at least five youth were randomly selected from each group and were asked to complete a short questionnaire about their involvement in youth intervention programs, and challenges faced. In addition, 27 youth (not part of FGD) who were

farmers/traders/processors or in non-agribusiness) were randomly selected from each sub-county (6 Sub Counties) to participate in the survey. The area of interest was to probe more of their own individual involvement in agriculture, their major sources of income.

5.5 Data Analysis and reporting

After data collection exercise, data was entered into Microsoft Excel, and analyzed and findings were consolidated.

The write up includes youth involvement/participation in agricultural production especially the selected value chains of maize, soybean, ground nuts including their characteristics and constraints faced. The focus was on ground nuts and vegetables however, since maize, soybean among other crops are also largely grown, there was need to understand the extent at which youth are involved in those crops' production. Data collected from FGD and KII was used to identify common responses to draw conclusions with regards to interventions/strategies to increase youth participation in agriculture.

6.0 Youth involvement in selected Agricultural value chains (crops)

This section presents findings from a survey of 37 youth aged 18-35 years conducted in six sub counties of Iganga district to understand how youth are involved in maize, soybean, ground nuts and or any other value chain specified, their characteristics (demography), and constraints faced. In addition, the findings have been triangulated with information collected from six (6) key informant interviews with local officials as well two (2) focus group discussions that were held with as youth and adult farmers.

6.1 Characteristics of Youth Respondents

Table 1 below shows that the majority of youth who participated in the survey tended to be male, with average age of 30, 57% attained education to tertiary level, and 62% are married. About 59% of the respondents were members of youth group/association with 41% belonging to one group with paid up membership. About 22% of the youth who do not belong to any group/association mentioned unavailability of the associations/groups to join whereas 11% said were not able to join the existing groups. 43% of the youth interviewed were self-employed and only 8% were still students.

Table 3 Characteristics of Youth Respondents in Iganga District

Characteristic	Frequency	%
Gender		
Male	23	62%
Female	14	38%
Age		
Minimum age	18	
Maximum age	40	
Average age	30.2	
Education		
None	00	0%
Primary	01	03%
Secondary (O level)	13	35%
Secondary (A level)	02	05%
Tertiary	21	57%
Marital status		
Married	23	62%
Single	14	38%
Divorced	00	00%
Widowed	00	00%
Occupation		
Employed	13	35%
Self-employed	16	43%
Unemployed	05	14%
Student	03	08%
Membership to group/Association.		
Yes	22	59%
No	15	41%
Involved in farming		
Yes	30	81%
No	07	19%

Table 4 below shows that among the youth surveyed, a number were discovered to be in vulnerable category prone to socio-economic exclusion and poverty. Such categories included youth who were heading their own household 49%, and 16% of youth respondents came from household headed by a youth and older female headed of 3%. The 49% and 16% could have been attributed to the COVID-19 pandemic which forced many youth into marriage and poverty. During lock down, many businesses collapsed and as a result, family burdens for the bread winners became heavier and as a result, many young girls were forced to marry as a way of survival.

Table 4 Vulnerable Youth Categories

Category	Frequency	%
Household head		
Yes	18	49%
No	19	51%
Type of household		
Youth-headed (male/female)	06	16%
Female-headed (older female)	01	03%
Male-headed (older male)	12	32%

6.2 Youth Involvement/participation in maize, soybean, ground nuts value chains

Table 3 below shows that, 81% of the youth interviewed were involved in the agricultural value chains ranging from input supply to marketing/trade whereas only 19% of the youth were not involved in any agricultural value chain. The following crops are grown by the youth in Iganga district: Maize, soybean, g-nuts and sugar cane with 43% involved in farming/production followed by marketing & trade with 21%. Very few youths are involved in input supply and so in value addition, meaning youth produce and sell maize, soybean and g-nuts in unprocessed form.

Table 5 Youth Involvement in Selected Agricultural Value Chains

Stage of Value Chain		
	Response	%
Input Supply	3	5%
Farming	26	43%
Processing	12	20%
Marketing & Trade	13	21%
Not applicable (not involved in agric)	7	11%

6.3 Constraints faced by youth involved in agricultural value chain.

There are seven critical constraints to youth involvement in agricultural value chain and these include: inadequate capital (16%), bad weather (16%), lack of land (15%) and poor access to extension services (13%) as well as poor access to quality inputs like seed (11%), poor access to markets (10%), and pests and diseases (9%). Bad weather is associated with climate change

contributing to prolonged drought, unreliable rainfall. Such constraints occur at the production/farming and marketing & trading nodes of the agricultural value chains in which majority of youth are involved. Nonetheless, for those youth who might have engaged in value addition operation like grain milling and hulling, high taxes and energy costs seems to be associated challenges experienced by them as shown in the table below.

Table 6 Challenges Faced by Youth in Agriculture

Constraints Faced		
	Response	%
Lack of land	19	15%
Lack of quality seeds	14	11%
Poor access to extension services	17	13%
Bad weather	20	16%
Pests & disease	12	9%
Poor access to markets	13	10%
Inadequate capital	20	16%
High energy costs	3	2%
High taxes	2	2%
Other	2	2%
Not applicable	7	5%

From the key informant interviews conducted, six (6) government technical Officials of annex 2 attached, (Agriculture Extension Officers) response to the main constraints to increased involvement of youth in such agricultural value chain, was: lack access to land/land tenure systems, lack of access to credit/capital, poor attitudes towards agricultural production, lack of technical production skills. From the two FGD interviews conducted, the common constraints cited were price fluctuations of the agricultural products, low productions due to pests and diseases, poor soils, invasive weeds like striga, drought, lack of extension services, lack of access to quality inputs like seeds and fertilizers as well as pesticides and lack of capital (financial services).

6.4 Agricultural value chains with potential for youth

The two FGD interviews indicated that three values chains (ground nuts, maize, and cassava) were mentioned for having the potential for increased youth participation in agriculture because they are easy to grow and market is available with a number of employment opportunities along the value chains from input supply to marketing.

All the KII interviews conducted mentioned ground nuts and maize value chains having the potential for youth. Two officials also mentioned vegetable growing especially tomatoes and one official mentioned rice and poultry in addition to ground nuts and maize. These results correlate with the youth survey which indicates that 40% of youth interviewed were involved in maize value chain followed by 34% for ground nuts.

6.5 What needs to be done to increase youth involvement in agriculture.

From the six KII conducted with the district Agriculture Extension Officers, at both the district and sub county level, the following proposed interventions were recommended to ensure increased youth participation in the agricultural value chain:

- Government needs to improve further on **financial support** offered to youth by considering increased budgets for youth programs like youth livelihood program, extending agricultural loans/credits at an affordable interest rate through youth SACCOs, and providing grace periods on those loans.
- Government to ensure more **trainings for the youth** at grassroot level by its Extension Officers. In order, to effectively do this, there is need to increase the number of Extension Officers at the Sub County level. Such trainings should include mindset change, financial literacy, farming as a business, and good agronomic practice for improved productivity and production.
- Government to set up **research and training centers** in the district to attract youth to build capacity of youth in farming practices.
- **Rural electrification program** should be scaled up to villages. This will enable youth start adding value (setting up produce processing with small financial capital) and create more jobs along the agricultural value chains.
- Government should consider **implementing the new education curriculum** in secondary schools. The new education curriculum focuses on the student’s skill competency and thus promotes vocational skills in various sectors including agriculture.

From the two FGD interviews conducted, the proposed interventions were:

- Government to **incentivize inputs** especially quality seeds, pesticides, and post – harvest handling facilities.

- Government to work with development partners/market actors to **increase access to markets for youth.**

7.0 Conclusion and recommendations

7.1 Conclusions

Based on the above findings from the interviews conducted, the following conclusions can be drawn:

- Youth involvement in agricultural value chains is constrained by bad weather (drought), lack of land, inadequate financial capital, lack of extension services, lack of access to quality inputs. These constraints occur at the production and marketing nodes of the value chains where youth are concentrated.
- Youth in the rural areas are engaged in production/farming, processing/value addition and marketing of maize, ground nuts, soybean, and sugarcane. Their involvement in other nodes of the value chains like input supply is very minimal. Whereas soybean and sugar cane are grown solely for cash, maize and ground nuts serve a dual purpose of cash and food security.
- Maize production though widespread is unpredictable in profitability due to seasonal fluctuations in market prices and marketable output. Nonetheless, there is an opportunity in youth adding value to maize by producing and packaging flour to local schools with shops using modern medium mills that can be constructed in villages/trading center. This can be achieved if government scales up the rural electrification programs and reduces the costs of electricity.
- Ground nuts production has great potential for youth and offers an opportunity since its highly demanded locally, nationally, and in export markets. However, its biggest challenge is inadequate access to quality seeds and yet they costly (expensive for the farmers)
- Any successful implementation of youth intervention programs requires creation of strong youth groups with good leadership, trainings in both soft skills and technical skills like group dynamics, leaderships, communication skills, mindset change, financial literacy, business skills (planning, enterprise selection, marketing and

partnership/negotiation skills) and more so provision of some critical inputs in-kind and a “push”. This is a farmers’ start-pack through which they supported with some critical inputs like seeds, fertilizers and pesticides.

7.2 Recommendations

Based on the above conclusions, the following recommendations are made for consideration to increase the youth participation in agriculture:

- There is a need to identify existing youth groups or support them to form producer groups, set up good leadership structures, train youth groups in governance (leadership and group dynamics), mind set change, financial literacy training, business skills and technical skills like enterprise selection skills/farming as a business and agronomic practices. Having elders to join these youth groups as advisors and mentors and also advocating for youth access to land for production in the communities.
- There is a need for enhancement of access of youth groups to critical but expensive inputs, such as seed, chemicals, primary processing equipment (e.g. maize and g-nut shellers), tarpaulins, bags through provision of credit or in-kind support.
- There is a need to enhance youth group access to markets by linking them directly to independent produce buying traders and agribusinesses through promoting contract farming/marketing, supporting the setting up of bulking centres, and promoting value addition.
- Based on the conclusions, there is need to promote ground nuts value chain in each selected youth group for income generation. However, there is need to promote horticultural value chains (vegetables like Sukuma wiki, nakatti, spinach and tomatoes) in each youth group then for more income and food nutrition. Such crops especially Sukuma wiki and spinach can withstand drought (bad weather), easily to grow (unlike tomatoes), and provide quick and regular cash for youth throughout the year.

8.0 Theory of Change

In Uganda, the agricultural sector has the highest potential to absorb the youth labor surplus because of its production potential with the high and increasing demand for agricultural products. However, majority of youth shy away from engaging in agricultural activities to earn a living despite its potential due to several factors.

Youth lack the right skills of production, entrepreneurial skills to enter market and become successful farmers, they are poorly organized and lack common voice, they lack access to the necessary resource especially land, credit, technology, inputs, and information. The elders (owners of land) and productive capital, usually parents or relatives, are often hesitant to transfer their land to the youth, especially if they lack skills, strong business plans, and are disorganized.

Similarly, market and support structures are weakly organized and not easily accessible for youth farmers and or small holder farmers. The youth lack platforms to sell in good volumes, benefit from economies of scale and negotiate with off takers(traders) and input suppliers, services providers, and capital providers.

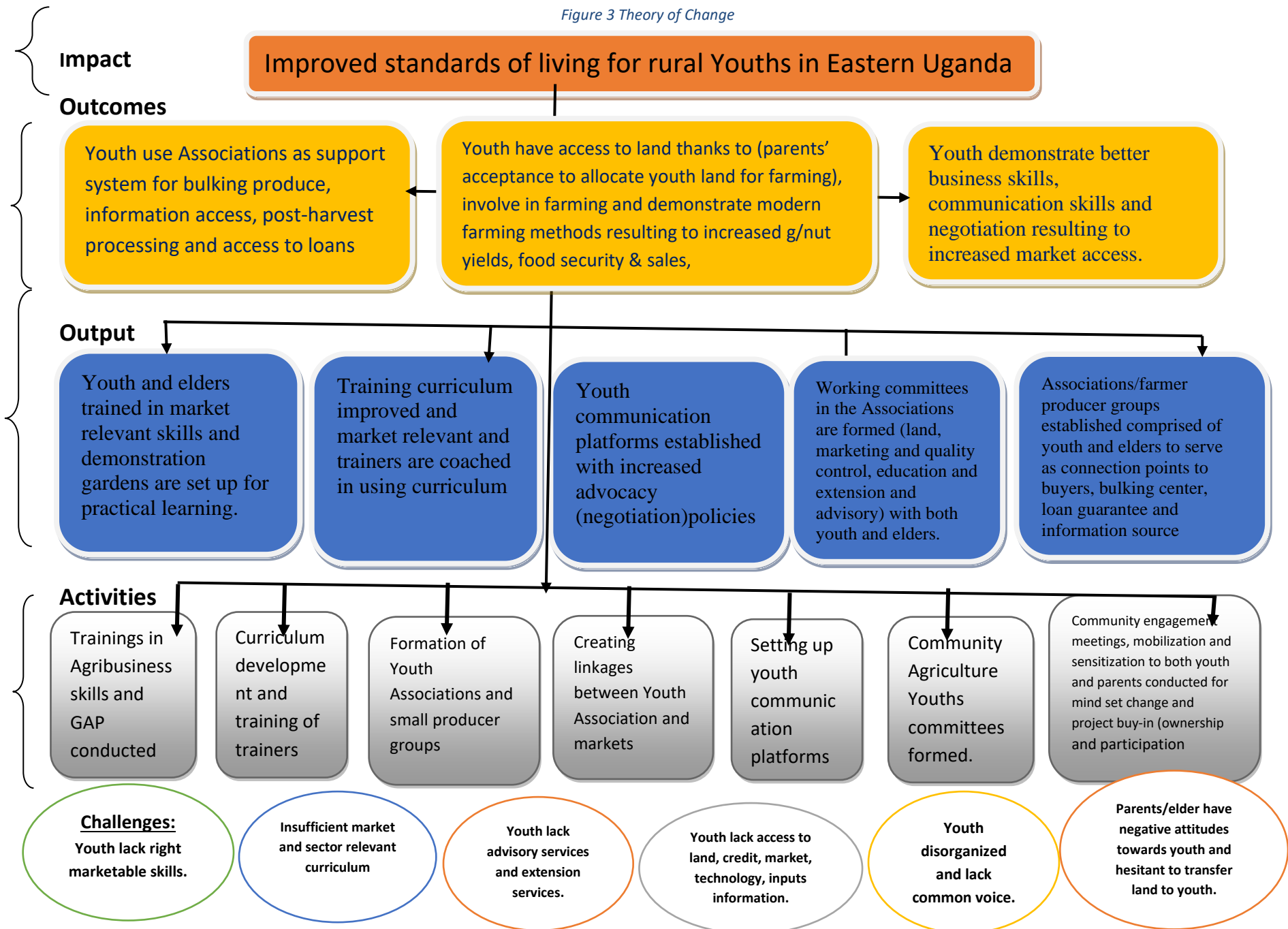
Its against the above factors that through this project, I propose integrated approach of both skills development and inclusive market to increase youth participation in agricultural production and marketing in the rural areas of Eastern Uganda (Iganga district) to improve their economic standards. The focus will be on G/nuts and vegetable value chains. The rationale for these value chains are, i) the value chains have high potential (cash) with a short production cycle which enable youth to earn income in a relatively short period of time. Additionally, some vegetables like Sukuma wiki, spinach,nakati and egg plants can be grown on small plots and easily managed even during dry season. value

To achieve this goal, a training curriculum will be developed for ground nuts and vegetables to be used to train youth to have right skills for production (like, crop cycle management, soil conservation, composting, pest control, use of drought-resilient varieties – climate smart agriculture) and processing (handling, transport, drying, storage, packaging) all of which will enable youth reach higher production levels in a more sustainable and cost-efficient way. Youth also require entrepreneurial skills and mindset, therefore, there capacity will be developed in business plans and marketing strategies, smart investment decision making, financial literacy, selling, negotiating, and cross cutting issues like gender related issues, nutrition and HIV. Community engagement, mobilization, and sensitization will be conducted to bring together both youth and parents/elders into organized associations and or producer

groups, establish farmer field schools for practical training sessions. This will be done to ensure that parents provide mentorship and advisory services as well as parents' mindset change towards youth to willingly provide access to land for youth. Within these associations/groups, youth can share and align their business plans, pool resources, better voice their interests and engage with other stakeholders like elders/parents and market actors, regulators etc. These associations will also serve as points for collective bulking, processing, value adding, and marketing.

As parents' mindset towards youth change, access to land will increase and this coupled with trainings, youth will ably demonstrate improved farming practices which will ultimately increase production and productivity, increase market revenues and household income and food security thus improved standards of living.

Figure 3 Theory of Change



9.0 Program description

9.1 Background

Youth in Agribusiness (YIA) - young farmers connect (proposed name of the project) is an innovative venture that seeks to work with youth to increase their participation in the agricultural value chains of ground nuts and vegetables in Iganga district, Eastern Uganda. In partnership with government and development partners, this venture seeks to work with youth aged 18-35 years engaged in agriculture through producer groups to improve their livelihoods through capacity building in technical and soft skills, increased access to quality inputs, access to markets, and promoting sustainable climate smart agriculture practices for increased production and productivity while at the same time creating (self) employment opportunities along profitable agricultural value chains. The venture targets to work and impact lives of 500 young farmers out of school to earn a decent income to support themselves and their families. 500 youth is three quarters of the youth population in the district. To achieve this, the venture will effectively train them in modern farming methods to increase the production of G/nuts and vegetables (Sukuma wiki/colewort/collard greens, spinach, nakati/ **Solanum** aethiopicum) with increased access to high quality seeds and critical production inputs, aggregate and sell their produce collectively.

9.2 The venture/Project main goal

The proposed project will increase youth participation in agriculture and thus increased income resulting from increased productivity/production through increased access to high quality inputs (seed, fertilizers, agro-chemicals and post-harvest handling materials), increased access to land and credit, create farmers market linkages thus increasing sales by 80% and total household income security by 15%. These are key performance indicators so far developed (more will be developed and added) and at the start of the project implementation, a baseline shall be conducted to ascertain the current economic status of the targeted beneficiaries.

9.3 Main constraints/barriers

The majority of the youth who are involved in agriculture are at the production and marketing/trade nodes of the value chain. The majority are subsistence farmers, producing only for their own daily consumption and very little for market as a result of low production and productivity being attributed to: 1) lack of access to quality inputs (seeds, agro-chemicals, fertilizers), 2) poor quality soils, 3) climate change effects like drought, pests and diseases, 4) invasive weeds, 5) lack of land for production, 6) low value additions, 7) lack of post-harvest handling materials and, 8) poor access to reliable markets. Youth themselves lack the technical and entrepreneurial skills to enter the market and become successful farmers or agri-entrepreneurs and high upfront costs (production costs) of such resources with limited purchasing power. Owners of land and productive capital, usually parents or relatives, are often hesitant to transfer this to the youth, especially if they lack skills and a strong business plan. Also markets and support structures are weakly organised and not easily accessible for smallholders and young entrepreneurs. They lack strong platforms to sell in volumes, benefit from economies of scale and negotiate with buyers and providers of inputs, services, and capital.

Table 7 Summary of how the proposed project intends to address the challenges for farmers

Challenge	Proposed interventions
Lack of technical and entrepreneurial skills	<ul style="list-style-type: none"> - Youth with good experience in farming will be identified in community and serve as model farmers- Community Based Trainers and farmer Agents. These will be trained in both technical and soft skills and then tasked each to identify 50 farmers (organised ingroups of 15-25) and train them on group dynamics, social capital, Good Agronomic Practices (GAP) and business skills. Besides training, the CBT will serve as agri-inputs sales agents, manage input loans and thus earn commissions as incentives supplementing training stipend. - Because youth lack technical and entrepreneurial skills, they perceive agriculture as non-profitable (not paying venture), therefore, the skills development in farming as a business (cost-benefit analysis), business planning, financial management skills shall be prioritised to ensure

	<p>mind set change to start taking agriculture as a paying venture. Since mind set change takes time, the focus will be on achieving higher impacts with the few youth at the start and thus attracting more to join over time.</p>
<p>Limited access to quality production inputs (seeds)</p>	<ul style="list-style-type: none"> - Work with government research agencies and sources for foundation seed like Serere Zard for G/nuts. - Partner with input supplies private companies and source for agro-chemicals from like BALTON (U) limited, Bokoola and Green Pulse Uganda. This will be done through partnership arrangement and negotiate for input loans.
<p>Lack of capital (High upfront cost) for quality seeds/inputs with limited access to credit</p>	<ul style="list-style-type: none"> - Young farmers shall be provided with seeds and agrochemicals on credit as start-up capital through group guarantorship and or elders guarantorship and after recovery, the startup capital shall be extended to other farmers. Negotiations shall be made by the project with the credible input suppliers to incentivise inputs to the youth so that they access quality required inputs at affordable prices. Formal engagements and partnership arrangements shall be negotiated and designed. - Project shall create linkages with financial services providers (financial Institutions) which offer agriculture credit services to ensure sustainability. - In order to build a sustainable relationship with the financial services providers, MOUs shall be designed and developed between the project and the identified suitable financial institution(s) and key aspects to be considered in the MOUs, is the service providers to conduct financial literacy training to the youth, financial management and having the youth open up bank accounts with the financial Institution both as individuals and also formed associations and start saving.
<p>Limited access to reliable market (poor prices)</p>	<ul style="list-style-type: none"> - Project shall promote group marketing model (bulking), by establishing Village Agri-hubs (collection centres) through which farmers shall bulk and project links and negotiate better prices with large off takers/bulk buyer. Sustainable partnerships with large off takers shall be sought like Tropical Dynasty for groundnuts and ICE Mark

	<p>for vegetables.</p> <ul style="list-style-type: none"> - The project shall seek for grants/working capital to be used for paying the farmers cash upon harvest and aggregation. This will help to avoid side selling since farmers need cash (do not wait after bulking for the prices to raise due to their immediate needs) (Side selling is where farmers decide to sell their produce to other buyers individually in the community other than through their organised groups. This normally caused due to lack of patience and immediate pressing needs at household.
<p>Bad weather (Climate change effect-like drought and floods)</p>	<p>-Venture will seek partnership with agriculture insurance service providers to have crop insurance on credit like M-Omulimisa insurance provider.</p> <p>-Project shall promote sustainable climate smart agriculture farming practices among the youth like raised fields/beds, application of mulches for vegetables, application of simple drip irrigation systems, use of disease and drought resistant seed varieties.</p> <ul style="list-style-type: none"> - Promote vegetable enterprise among youth especially leafy vegetables like Sukuma wiki, spinach and nakatti which can withstand harsh climatic conditions. These can serve as income generating enterprises in an event ground nut fails.
<p>Lack of access to land for production.</p>	<p>-A participatory planning approach shall be applied during stakeholder engagements (considering the key community stakeholders like elders/parents/guardians of the youth) for buy in.</p> <p>-Elders shall be part of the youth producer groups (20%) of group membership and these shall serve as mentors, coaches and advisors in the groups on various aspects thus building trust among the elders to offer youth land for production.</p>

9.4 The business model

The venture of project shall be implemented under a social enterprise arrangement using a local farm agents network model but working through producer groups. Farm agent network model will operate on principles of commissions where an experienced and passionate youth will be

identified, trained, and allocated a number of farmers to support. The model farmers (youth with good agricultural production experience) will be identified, trained through Trainer Of Trainers (TOTs) in soft and technical skills and will serve as trainers and farmers agents and recruit 50 youth each to work with through groups of 15-20 youth thus on average, the trainer to work with three youth groups. In order to attract youth out of school at tender age (15-18), enterprise development activities shall be incorporated alongside agriculture productions and also to keep the youth engaged throughout the year (both off season and on season). Such activities (liquid soap making, candle making, school chalk making, Hair dressing (learning how to plait hair of different fashions for ladies) for girls) shall be introduced, as such, a Youth Skilling centre shall be set up at the project Office.

In addition to enterprise development, there are a number of existing opportunities along the crop value chain (ground nuts) which some entrepreneurial youth can be supported to take advantage of especially hulling, processing into paste, marketing and transportation. Therefore, the business skills training (entrepreneurship) shall be tailor made to enable some youth get involved in such business activities (making ground nuts pastes, butter (locally known as oddi – so used on bread and as source) and packaging. After training, youth supported to acquire financial start up to buy the processing machines, ground nuts hullers – to be used for hulling/shelling ground nuts in communities at cost and earn a living and also involve in marketing. By so doing, youth shall not only depend on typical farming where they have to wait for 3 and more months before earning.

The project seeks to improve youth economic standard (household livelihoods) through ground nuts and leafy vegetable production and marketing. Vegetables like Sukuma wiki, Nakati, Spinach, cabbage, Bugga and egg plants (list of vegetables to be revisited as project kicks off with demand) shall be used for two main intervention reasons i) as an alternative income sources for the youth in addition to ground nuts resulting from climate change high production losses especially by drought, ii) to attract, increase and retain female youth in the project. Female youth participation target shall be at least 50:50 ratio and thus in addition vegetable enterprises, leadership positions shall be balanced in the respective formed groups/associations

and also during group formation, the field Staff shall be given a higher target for female to be recruited than male.

The farmers Agents/Community Based Trainers shall specifically be charged with:

1. Mobilizing and organizing youth into producer groups or strengthening the existing groups through trainings on group dynamics, leaderships, communication skills, networking, self-efficacy, financial literacy etc.
2. Support the farmer groups to ensure formal registration by the government agencies. This will enable such groups/associations to work with different market actors as independent parties to engage in business partnerships.
3. Training the farmers on agronomic practices and makes follow ups through field visits to farmers gardens to ensure they are applying the knowledge learned/best practices.
4. Distributing farm high quality farm inputs (seeds, agro-chemicals and fertilizers) to the farmers on credits – with an agreement that farmers will pay after they have harvested.
5. Coordinating the bulking/aggregation of produce at satellite centers or collection centres and support farmers documentations
6. Managing the farm inputs loans – collecting funds, reminding farmers to pay, etc.

By doing the above, the project will in turn aim at realising:

1. Improved farm productivity and production for the targeted farmers
2. Increased incomes and food security among the targeted young farmers.
3. Employment for the farm agents (who will earn a commission on the work done)
4. Increased agronomic knowledge and practices for smallholder farmers.
5. Increased farmers' linkages with financial services providers (financial institutions) to increase access to credit/finance.

9.4.1 Group formation and youth engagements.

The youth group formation and engagement exercise shall commence after inception meetings with the relevant key identified stakeholders especially the local district government officials, local authorities, identified development partners with projects focusing on youth in the same

community and community elders, cultural leaders and religious leaders to ensure buy-in of the project and support for youth.

After inception meetings, sensitizations and mobilization through churches especially, community gathering events like funerals and other functions shall be conducted in communities with support from local leaders/authorities.

The project shall leverage on my leadership influence in the the catholic church over the catholic youth fraternity and thus mostly those I have working with in the initial St. Jude Youth Development activities we have been engaged in. I shall therefore, build on this, to expand to other youth denominations in Iganga district for inclusivity. I shall also leverage on network that I have established and the hands-on expertise/skills gained from other project assignments involved in the past organization for lessons learned to implement a successful project. The proect shall be built on standard values and principles anchored on faith teaching since we started as church-based organization now expanding and opening up to the community.

9.5 Planning, Monitoring & Evaluation

The monitoring, learning, and evaluation of this project/venture will be designed to monitor progress and impact in a participatory manner. It will document lessons learned and best practices which will be disseminated to the different networks and fed into monitoring process, to continue improving the project. The measurement of the project will be developed and project results will involve various assessments at different stages of the project.

However, the following are indicators developed.

Domain in Community of Interest:

Farmers (youth) in the rural areas of Iganga district, Eastern Uganda demonstrate increased crop production and productivity.

Community of Interest Indicator 1:

- i) 70% increase of crop yield among the youth Farmers recorded

Community of Interest Indicator 2:

- ii) 70% of household income increase as a result of increased yield among the Farmers recorded.

Community of Interest Indicator 3:

iii) 80% of Youth farmers households are food secure.

Table 8 Proposed Team

Name of Person	Position/Role	Company Position	Qualification	Experience and skills
Joseph Kayongo	Executive Director	Founder	Bachelor of Agribusiness Management, Master of Development Practices	Has over 17 years of working experience in Agri-value chain development and rural development with International exposure
TBD	Office Finance and Administration Manager	Employee	Bachelor of Business Administration (Accounting)	Required, 4 years of working experience in office administration
TBD	Head Operation and Agronomy	Employee	Bachelor of Science in Agriculture (crop science)	Required with over 6 years of working experience in field extension services and farmers training
TBD	Enterprise Development Technical Manager	Employee	Bachelor of Business Studies and related	Required with over 6 years of hands on skills and knowledge in vocational skills training

Table 9 Proposed Budget

Expense Description	Units	Unit Cost	Total amount (Ugx)	USD(3700)
Seed loan for 350 farmers	30Kgs @	5,000	52,500,000	14,189.12
Tarpaulins for PHH for 17 groups	17 Pieces	60,000	2,020,000	545.95
Fertilizers (DAP)	50kgs	4,000	70,000,000	18,918.92
Crop Insurance Cost	350 acres	38,000	9,500,000	2,567.57
Enterprise start up and inputs	n/a	n/a	10,000,000	2,702.7
Company Registration and legal costs	n/a	n/a	2,500,000	675.68
Operating costs(field monitoring, transport, farmers training)	7 months	1,000,000	7,000,000	1,891.89
Administrative costs (2 Staff)	12 months	4,000,000	48,000,000	12,972.97
Working capital			50,000,000	13,513.51
Grand total			251,520,000	67,978.31

The proposed project budget will be realised through a number of fundraising strategies. The main focus will be on proposal writing and sharing with potential development partners, funders/donors especially those whose targets groups are youth. This will commence in the very near by future. The target organisations/development partners include SIANI (Sweden International Agriculture Network Initiative), AGRA, Master Card Foundation and USAID.

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ANNEX 1: Checklist of questions for FGD of producers/farmers

Questions for FGD of producers/farmers

1. What are the main cash crops grown in this area? (Probe: Maize, soy bean, and G-nuts)
.....
.....
.....
2. Which one of them are commonly grown by youth farmers (farmers aged 18-30)?
.....
.....
3. What is the trend in production of these crops in general and specifically by youth?
.....
.....
4. What are the average and the largest youth farmers for these crops?
.....
.....
5. How do youth obtain inputs they use in production of these crops? (probe land, labor, seed, machinery/ox-ploughs/hoes, chemicals/drugs, fertilizers, extension services)
.....
.....
.....
6. Which crop varieties are being grown in general and by youth? Do youth grow different varieties than the rest of the farmers and why?
.....
.....
.....
7. Do youth produce these crops individually or collectively and why? (Probe acreage for block farms)
.....
8. Do youth follow recommended agronomic practices in the production of these crops? Why or why not? (seed selection, row planting, crop rotation, pest and disease control, manuring/fertilizing etc)
.....
.....

9. What postharvest technologies are youth commonly practicing in regard to these crops? What are their advantages and disadvantages? (drying and storage facilities used)
.....
.....
10. How do youth market these crops? Do they process or add value to them?
.....
.....
11. If they process these crops, what products do they sell?
.....
12. What are key constraints facing youth in production and marketing of these crops?
.....
.....
13. What should be done to enhance the production of these crops? What roles can and can't youth play to achieve the above goal?
.....
14. Which of these crops has the highest potential to involve youth and create meaningful gains to them?
.....
15. Do you experience any climate change in the area?
.....
16. How has climate change affected your involvement or participation in agriculture?
.....
17. What do you think should be done to mitigate climate change effects in the area?
.....
18. Thank you so much for your time. Do you have any question(s) that you would like me to respond to?
.....

ANNEX 2: Interview guide for local governments officials

Interview guide for local government officials.

1. Please provide general information about this area in terms of geographical/political units, population, major economic activities? (*youth population size and main activities*)
.....
2. What is the importance of the agricultural sector to the economy of this area? What percentage of the economic activity is in agriculture? (*food security, incomes, exports*)
.....
3. How are youth involved in the agricultural sector? (Crops and animals they commonly grow)
.....
4. How are youth involved in the different stages of the agro-value chains? (input supply, production, value added processing, marketing, distribution)
.....
5. What role does local government currently play (if any) in improving youth involvement in the agricultural value chains in this area? Has this role changed over time and why? If no involvement, why not? (*extension, input distribution, credit, production, transportation, processing, marketing*)
.....
6. How about the private sector, what role does it currently play (if any) in involving youth in the agricultural value chains in this area? Has this role changed over time and why? If no involvement, why not? (*extension, input distribution, credit, production and market information, production, transportation, processing, marketing*)
.....
7. Do you know of any CBOs/NGOs/farmers cooperatives operating in this area with focus to the youth and agricultural value chains? Which are they and what exactly do they do?
.....
8. Which agricultural value chains do you think have the potential to include youth, including vulnerable youth, and create decent employment for them? (*maize/soy bean/g-nuts*).
.....
9. What do you see as being constraints to increased involvement of youth in these agricultural value chains in this area?
.....

10. Which strategic interventions has central government so far put in place to boost youth participation in these agricultural value chains in this area? Are any of these interventions active in your community?
.....
11. What more does government need to do to increase youth participation in these agricultural value chains in this area?
12. Thank you for your time. Do you have additional observations or comments that we have not discussed?

ANNEX 3: Questionnaire for youth survey

YOUTH SURVEY

Questionnaire No. _____
 Name of interviewer _____
 Name of Respondent _____
 Name of County _____
 Name of Sub-county _____
 Name of Village _____
 Date of interview _____

SECTION A: GENERAL INFORMATION ABOUT RESPONDENT

Respondent Information

1. Gender [1=Male 2=Female]		<input type="text"/>
2. Age (years)		<input type="text"/>
3. Level of education [code]		<input type="text"/>
4. Marital status [code]		<input type="text"/>
5. Employment status [code]		<input type="text"/>
6. Are you the head of the household? {1=yes, 2-No}		<input type="checkbox"/> =YES <input type="checkbox"/> =NO
7. If not, what type of household do you come from?	1.Youth-headed (male/female)	<input type="checkbox"/> =YES <input type="checkbox"/> =NO
	2.Female-headed (older female)	<input type="checkbox"/> =YES <input type="checkbox"/> =NO
	3.Male-headed (older male)	<input type="checkbox"/> =YES <input type="checkbox"/> =NO
9. Are you a member of any youth group/ association? {1=yes, 2-No}		<input type="checkbox"/> =YES <input type="checkbox"/> =NO
If YES	10. How many organizations are you a member of?	<input type="text"/>
	11. Do you pay any membership fee to join them?	<input type="checkbox"/> YES <input type="checkbox"/> NO
	12. If so, how much is membership fee? (Ushs/year)	<input type="text"/>
	13. How long have you been a member? (years)	<input type="text"/>
	14. How many members are in the organization?	<input type="text"/>
If NO	15. Why haven't you joined any youth organization? [code]	<input type="text"/>
Education level	Marital status	Employment status
1=None	1=Married	1=Employed
2=Primary	2=Single	2=Self employed
3=Secondary (O'level)	3=Divorced	3=Unemployed
4= Secondary (A'level)	4=Widowed	4=Student
5=Tertiary		
Reason for not being member of youth organization		
1=Unavailability of organization to join		
2=Not able to join existing organizations		
3=Don't like to join existing organizations		
4= Don't like to join any youth organization		
5= Other (specify) _____		

YOUTH INVOLVEMENT IN AGRICULTURE/AGRIBUSINESS

16. Are you currently involved in any agricultural value chains?					[]=YES []=NO	
If YES, please provide the following information about the stage of the agricultural value chain you are participating in:						
Nature of agricultural value chain (<i>check all that apply</i>)	1.Maize	2.Soy bean	3.G-nut	4.Oher (<i>specify</i>)	5.Other (<i>specify</i>)	6.Other (<i>specify</i>)
1. Input supply	[]]	[]]	[]]	[]]	[]]	[]]
2. Farming or production	[]]	[]]	[]]	[]]	[]]	[]]
3. Processing & value addition	[]]	[]]	[]]	[]]	[]]	[]]
4. Marketing and trade	[]]	[]]	[]]	[]]	[]]	[]]
17. What are the constraints you are facing in operating at this stage of the agricultural value chain? (<i>check all that apply</i>)	1.Lack of land					[]]
	2.Lack of good quality seed					[]]
	3.Inadequate access to extension services					[]]
	4.Bad weather (drought, hail, floods)					[]]
	5.Pests and diseases					[]]
	6.Poor access to market					[]]
	7.Inadequate capital/money					[]]
	8.High energy costs (electricity, diesel)					[]]
	9.High taxes					[]]
	10.Other (<i>specify</i>)					[]]
	11.Other (<i>specify</i>)					[]]
	12.Other (<i>specify</i>)					[]]
If NO, what is your major source of livelihood?						
Source of livelihood	a.Charcoal burning [1=Yes 2=No]	b.Brick making [1=Yes 2=No]	c.Carpentry [1=Yes 2=No]	d.Masonry [1=Yes 2=No]	e.Bike riding [1=Yes 2=No]	f. Other [1=Yes 2=No]

Capstone – Joseph Kayongo

a. Location of business (code)	[_____]	[_____]	[_____]	[_____]	[_____]	[_____]
b. Type of business (code)	[_____]	[_____]	[_____]	[_____]	[_____]	[_____]
Location of business 1=Rural 2=Town 3=City 4=Mobile		Type of business 1 = Sole proprietor 2 = Partnership 3 = Private company 4=Cooperative/Association 5 =Other(specify)_____				