



TRANSFORMING AGRICULTURE FOR
LIFETIME DECENT SELF-EMPLOYMENT
(TRALIDE) PROJECT

AGRIPRENEURSHIP LABOR MARKET STUDY REPORT

April 30, 2025

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Acknowledgement

The Transforming Agriculture for Lifetime Decent Employment (TRALIDE) project Agripreneurship labor market study was conducted by Partnership for Development Capacity Consult (PDCC) Limited with an engagement of a number of stakeholders. Although we cannot thank them all, the following deserves particular appreciation for their cordial support: Dr. Alfred Lakwo, Executive Director and Hudson Ogwal, Director Program in AFARD and all those who participated in Key Informant Interviews (KIIs) and In-Depth Interviews (IDIs) in the local governments, private sector and Civil Society Organizations (CSOs).

We would also like to give our deepest gratitude to Katulinde Wycliff, Leverious Nyakuni, and Samuel Abajja the District Production Officers who reached out to the labor market study participants in their districts. Your support contributed greatly to the achievements of the field activities.

Dr. Hannington Odongo Jawoko

Team Leader

April 30, 2025

Table of CONTENTS

ACKNOWLEDGEMENT	4
EXECUTIVE SUMMARY	7
1 INTRODUCTION	10
1.1 Background of the study	10
1.2 The purpose and objectives of the study.	10
1.3 Scope and Deliverables	11
1.4 The study deliverables	11
2 METHODOLOGY	12
2.1 The study approach	12
2.2 Study questions and focus	12
2.3 Study Sites and Respondents	10
2.4. Sampling Methods and Sample size	12
2.5 Data Collection Methods	13
2.6 The study process	14
2.7 Data management and ethical issues	15
2.8 Report Dissemination	16
2.9 Limitation of the study	16
3 STUDY FINDINGS	17
3.1 Description of the study Area	17
3.2 Policies and programs targeting youth in agribusiness	17
3.3 What agribusinesses have youth been engaged in the district?	19
3.4 What new agribusinesses are emerging in the districts?	20
3.5 Are these emerging enterprises able to lift youth out of poverty?	22
3.6 What constraints are likely to inhibit the uptake of these enterprises by youth generally and female youth and persons of special needs specifically?	29
3.7 How can youth be encouraged to take up these new enterprises?	32
4 ADDED RECOMMENDATIONS	34
4.1 Increasing access to land and other resources	34
4.2 Promoting positive mindset change towards agribusiness	34
4.3 Increasing access to agricultural inputs, technical, financial and agribusiness development services advice to the youth	35
5. REFERENCES	36

ANNEXES	37	Eggplant / Brinjal	56
Annex 1: Data Collection Tools	37	Irish Potato	57
Annex 2 Market survey tool	41	Tomatoe	58
Annex 3 List of persons interviewed	42	Bananas-Cooking Type	59
Annex 4: Emerging agribusinesses by districts	43	Dodo	60
Annex 5: Priority agribusinesses	43	Bee keeping	61
Annex 6: Commodity Agribusiness Profitability Analysis	44	Local Poultry	62
Sunflower	44	Kroiler chicken	63
Soybean	45	Piggery	64
Broad Bean NABE 14	46	Local Goat Rearing	65
Rice	47	Grapes for wine	67
Cassava chips - NASE 14	48	Cocoa	69
Cassava Flour	49	Clonal Robusta Coffee	71
African Eggplant	50	Traditional Robusta Coffee	73
Paw paw	51	Cashew nuts	75
Okra	52	Orange	77
Nakati	53	Mango	75
Cabbage	54	Arabica Coffee	81
Water melon	55	Macadamia	83
		Annex 7: Young Agribusiness Innovators	85

LIST OF TABLES

Table 1: Study focus, key questions and data collection methods	12
Table 2: Summary of Respondent Categories	13
Table 3: Relevant programs supporting youth and gender in agribusiness	18
Table 4: Priority agribusinesses and reasons for selection	19
Table 5: Emerging agribusinesses and reasons for selection	21
Table 6: The Gross Margins for Traditional Annual Crops Agribusinesses	26
Table 7: The Gross Margins for Emerging Annual Crops Agribusinesses	27
Table 8: The Gross Margins for Emerging Livestock Agribusinesses	28
Table 9: Commodity Based Agribusinesses entry barriers	31

LIST OF FIGURES

Figure 1: Our four-stage methodological framework	15
Figure 2: Traditional agro-commodities ability to close the extreme poverty income gaps	22
Figure 3: Emerging agro-commodities ability to close the extreme poverty income gaps	23
Figure 4: Emerging livestock agribusinesses and the extreme poverty income gaps	23
Figure 5: Emerging perennial agro-commodities ability to close the extreme poverty income gaps	24
Figure 6: Intensification of perennial crops with cooking banana and local poultry	25
Figure 7: Intensification of Emerging annual crops with local poultry	25

Executive Summary

The Agency For Accelerated Regional Development (AFARD) received funding from Wilde Ganzen Foundation's Blue Ambition Fund to implement the 3-year TRALIDE project with the aim of having 600 vulnerable married youth (50% women) in Nebbi district own and operate resilient agri-enterprises that will provide them decent self-employment opportunities and sustainable livelihoods. To ably provide decent self-employment opportunities and sustainable livelihoods to the [married] youth, a labor market study was commissioned, in the four districts of Bullisa, Madi-Okollo, Nebbi and Pakwach districts, to identify new commodities, assess their economic viability for wealth creation, and explore entry barriers for males, females, and persons of interest.

The study was conducted using both qualitative and quantitative research methods namely secondary literature review and Key Informant Interviews (KIIs) and In-Depth Interviews (IDIs) with stakeholders including district local government officials from community services, production and commercial departments, private sector and civil society actors (NGOS). Together with the identified Agribusiness Innovators, production analysis was conducted for the various identified agribusinesses. This was followed by market surveys to validate cost prices in the various agro-inputs shops and produce buyers used by the Agribusiness Innovators. Finally, literature review was done to ensure that for each commodity best practices were used, and then gross margin analysis was conducted for the various identified agribusinesses.

The study answered five key questions, namely:

1. What agribusinesses have youth been engaged in?
2. What new agribusinesses are emerging in the districts?
3. Are these emerging enterprises able to lift youth out of poverty?
4. What constraints are likely to inhibit the uptake of these enterprises by youth generally and female youth and persons of special needs specifically?
5. How can youth be encouraged to take up these new enterprises?

What agribusinesses have youth been engaged in?

The study found that the main agribusinesses in the study districts were livestock rearing (cattle, piggery, goat rearing, bull fattening, poultry), bee keeping, cassava production, produce trade, grinding mills, and crop farming (ground nuts, coffee, fruit, banana, rice, beans, Irish Potato, and horticulture). These agribusinesses are being taken up because they suit the agroecological requirements, have better returns, there is ample land, favorable gestation period (mainly short periods of 3 months for horticultural crops), and sometimes they are pre-selected by the promoting government, private sector and NGO programs and projects.

What new agribusinesses are emerging in the district?

The study identified the following as the newly prioritized enterprises: horticulture (watermelon, tomato, okra, onions, eggplant, nakati, dodo, pumpkin, and African eggplant), fruit/nuts growing (citrus, mango, pawpaw, grapes, macadamia, and jack fruit), cashew nuts, soybean, cocoa, banana, layer birds, Kuroiler birds and bee keeping. The main reasons the Agribusiness Innovators provided these emerging agribusinesses include higher income and profit margins, high demand, very short gestation periods of 3 months for vegetables and ready market mainly with oil companies, restaurants, hotels and in the local markets.

Are these emerging enterprises able to lift youth out of poverty (profitability of the enterprise)?

In the analysis of the viability of the various emerging agribusinesses in enabling youth exit from extreme poverty that they are also likely to transmit to their children, it was evident that:

- None of the traditional cash crops sunflower, soybeans, broad beans, rice, and cassava is able to lift the youth out of extreme poverty. Even with value addition for rice and cassava, the poverty income gap remained huge thus calling for a targeted approach to value addition.
- Under the emerging annual crops, 05 crops (ntula, pawpaw, Okra, Nakati, and Cabbage) out of the 11

crops are able to lift youths out of extreme poverty. At least two crops (watermelon and eggplants) have a fairly narrow poverty income gap to close while 4 commodities (Irish potato, tomato, cooking banana, and Dodo) have a huge income gap.

- Small livestock (goats, pigs, local poultry, Kuroiler birds, and bee keeping) too are on their own unable to lift the youth out of extreme poverty.
- All the 09 perennial crops (macadamia, arabica coffee, traditional robusta coffee, clonal robusta coffee, oranges, mangoes, cashew nuts, cocoa and grapes) are long term enterprises that requires “patient investment” contrary to the youth rush for quick cash. However, in 3-5 years clonal coffee, cocoa, and grapes are able to generate income above the extreme poverty line.
- Attempts at sustainable agriculture intensification of crop-livestock mix in the wake of climate change, land fragmentation, and declining social security shows that: a) adding cooking banana and local poultry can make cashew nuts and traditional robusta coffee poverty eradication crops from year 3 onwards; b) the promotion of oranges, mangoes and macadamia will only need to be done with pawpaw as an intercrop; and c) adding local poultry to piggery and emerging annual crops does not enable them to lift the youth out of extreme poverty. These commodities can only be promoted with a vibrant alternative income generating activities anchored on VSLA.

What constraints are likely to inhibit the uptake of these profitable enterprises by youth generally and female youth and persons of special needs specifically?

The identified commodity specific entry barriers for the youth study were:

- Fruits, vegetables and pulses agribusiness: crop destruction by vermin, high cost of inputs, high cost of labor, lack of access to small irrigation facilities, lack of knowledge on improved technologies and inputs, high transportation, lack of storage facility, and lack of access to extension services.
- Perennial crops agribusiness: stray animals, lack of ownership and access to land by female youth, and long gestation period.
- Livestock agribusiness: high cost of inputs and limited access to land for animals like cattle and goats that require large land. Other inhibitors included inadequate extension support services, absence of good role models, cultural barriers especially for the female youth, negative impact of climate change, negative youth perceptions and lack of aspirations.

How can youth be encouraged to take up these new enterprises?

To increase youth engagement in the identified agribusiness, the study recommends that local governments, development partners, cultural and religious institutions, and private sector should collectively do the following:

Challenges	Strategies to solve the challenge
Crop destruction by vermin	• Conduct regular training and demonstration on vermin control measures. • Support vermin control department that is underfunded to execute its roles
High cost of inputs	• Mobilize young Agripreneurs to form groups with VSLA to ensure access to finance. Mature youth VSLA should be linked to friendly financial services like the Agricultural Credit Facility Grant (ACF) that offers 1% monthly interest loan for agribusiness. • Provide start-up agricultural inputs to the young Agripreneurs from which they can see practical success and sustain their enterprise growth • Link youth groups to credible agricultural input suppliers to buy and transport in bulk. • Ensure input suppliers and financial institutions develop youth friendly services • Support AFARD to upscale its booster fund to VSLA currently under pilot to enable youth to borrow for procurement of inputs and refund after harvest.
High cost of labour	• Innovate labour saving technologies such as ox traction. • Increase access to low interest credit facility for the young agripreneurs.

Lack of access to small irrigation facilities	• Establish small irrigation facility demonstration plots and pilot low cost-efficient small irrigation technologies including drip kits, small, motorized pumps, solar pumps, rope and washer pumps to boost uptake by young agripreneurs who hardly know of the technologies and their benefits. • Train selected young agripreneurs' in small irrigation technology including the maintenance and repair of the small irrigation technology equipment. • Promote trade in the sale of small irrigation technology equipment spare parts. • Provide a sustainable irrigation loan schemes and link the suppliers, banks, AFARD Booster fund and the youth
Limited access to extension services curtailing adoption of improved technologies and inputs	• Set up demonstration farms where young people can be provided learning exchange visit to learn new technologies • Build community extension systems so that youth can gain from peer-to-peer agribusiness mentors. • Conduct Open Days that brings together agricultural innovators to expose youth to new technologies • Develop or upgrade and regularly review AFARD's digital FAMIS App with relevant extension information
Limited access to market and market information	• Set up physical boards for agribusiness market information system at LLGs and liaise with extension staff for regular updates. • Engage with media houses (local FMs) to disseminate weekly market information • Promote collective marketing among youth groups based on the different agribusiness value chains to increase their bargaining power. • Especially to reduce post-harvest losses in fruits and vegetables, construct low-cost storage facilities with porous evaporative cooling storage structure and pot-in-pot cooler. • Upscale onboarding of youth on AFARD's digital FAMIS App platform where they can provide and access market information and conduct transaction deals
Destructions by stray animals	• The lower local governments through local council one (LC 1) need to formulate, approve and enforce the implementation of the by-laws on stray animals.
Limited access to land by female youth	• Create awareness on gender equality and land rights issues. • Conduct dialogue meetings with community power holders. • Support community land certification to ensure all people have land rights.
Long gestation period	• Promote crop (seasonal and perennial)-livestock-tree mixed farming to enable youth to earn income in both short and long term. For instance, TRALIDE provides for income from soybeans (3-months), poultry (5-6 months), bananas (9-10 months) on an annual basis while cocoa will start yielding and generating income in 2.5-3 years. In this way, youth will adopt cocoa production without any fear of a very long gestation period. • Build long term growth mindset as opposed to "now gratification mindset."
Negative impact of climate change	• Conduct training and demonstrations on climate smart agribusiness practices. • Increase access to climate resilient agro technologies e.g., seeds, irrigation, cold storage chains, etc.
Negative perceptions and lack of aspirations	• Invest in positive mindset change towards farming as a business (agribusiness). • Invest in the creation of youth role models in agribusiness. • Conduct exposure & learning visits for youth to areas where there are agribusiness role models (agribusiness innovators).

1. INTRODUCTION

This agriprenueurship labor market report is presented to Agency For Accelerated Regional Development (AFARD) to guide the Labor Market Study process.

1.1 Background of the study

The Agency For Accelerated Regional Development (AFARD) is a local non-denominational NGO operating in West Nile regions, Uganda. AFARD's vision is a prosperous, healthy, and informed people in Uganda. AFARD has received funding from the Wilde Ganzen Foundation's Blue Ambition Fund to implement the 3-year TRALIDE project that seeks to transform the labor market to increase productive work opportunities for married youth in agriculture sector. TRALIDE will promote self-employment through a resilient, gender-responsive and sustainable agribusiness intensification. It will take a family-centered approach to organize 600 married youth (50% women) into 15 Youth Agribusiness Groups (YAGs), equip them with mindset change towards entrepreneurship, agribusiness vocational and life skills, financial literacy, start-up kits, and provide agribusiness development services (improve access to market, finance and business management skills) in a bundled service approach. TRALIDE goal is that by 2027, "600 vulnerable married youth (50% women) in Nebbi district, Uganda own and operate resilient agri-enterprises providing them decent self-employment opportunities and sustainable livelihoods." To achieve this goal are:

- **Specific objective 1:** To facilitate mindset transformation and collective action for 600 underemployed married youths.
- **Specific objective 2:** To enhance vocational and agribusiness management skills of 600 underemployed married youth.

- **Specific objective 3:** To strengthen access to business development services, markets, and affordable financial products for 300 underemployed married youth households.

1.2 The purpose and objectives of the study

The government of Uganda has acknowledged that given the narrow formal employment market, agriculture will in the short and medium term remain the major sector for employment. However, the district leadership (both political and technical) noted that many youths do not aspire to be employed in agriculture because "the farming their parents/guardians engaged in has failed to transform their wellbeing. They emphatically point to the fact that this farming has made them poor for life." In addition, the leaders also noted that "the agricultural zonation by central government has perpetuated the production of low return commodities." The echo is now, "we need a new smart farming that is able to attract the youth, sustainably generate high incomes, and make employment rewarding." Achieving this new focus requires a comprehensive study that is able to identify [new] commodities, assess their economic viability for wealth creation, and explore entry barriers for males, females, and persons of interest.

1.2.1 Specific objectives

The specific objectives of the labor market study were to:

- 1) Profile existing and potential agribusiness opportunities in Nebbi and Pakwach district¹ while drawing lessons from the neighboring districts of Bulisa and Madi Okolo with which they share same agro-zonation. Nwoya district was

1. Pakwach district is included because it shares the lower agroecological belt with Nebbi district. This belt has limited opportunities compared to the Nebbi and Zombo highlands that grow virtually any crop.

excluded because it has commercialized large scale highly mechanized farms (growing cotton, green gram, maize, sunflower, soybeans, ground nuts) that are beyond the reach of the youth.

- 2) Analyze the economic viability and business case (capital size, gestation period, and monthly profitability margins, etc.) of each of the identified agri-business opportunity especially in lifting youth out of extreme poverty.
- 3) Identify existing entry barriers (norms, capital, skills, gestation periods, and regulation, etc.) especially for female youth and persons of special needs; and
- 4) Recommend how these opportunities can be introduced or upscaled by the district local governments and their development

stakeholders.

1.3 Scope and Deliverables

The labor market study was conducted in Bulisa, Madi-Okollo, Nebbi and Pakwach districts in March 2025. Consultations was made with key stakeholders which included, but not limited to, agribusiness owners, local government officials as well as development partners and private sector players (agro-input dealers and produce buyers).

1.4 The study deliverables

The key outputs of the study included:

- 1) Inception report detailing a study methodology, implementation plan and data collection tools.
- 2) Draft and final reports in agreed format.



2. METHODOLOGY

2.1 The study approach

In view of the study objective, the study employed qualitative approach that included secondary data review, In-Depth Interview (IDI), Key Informant Interview (KII) data collection techniques and quantitative market survey and analysis methods for enterprise gross margin analysis. The qualitative content analysis focused on the narrative and the

quantitative analysis addressed the actual numbers used in the economic analysis of the emerging agribusinesses.

2.2 Study questions and focus

In order to operationalize the study objectives and scope of work, Table 1 below presents the focus of the study, guiding questions and the data collection methods.

Table 1: Study focus, key questions and data collection methods

Study focus	Key study questions	Data collection methods
Profile existing and potential agribusiness opportunities in Nebbi and Pakwach district (including in the neighbouring districts)	1) What agribusinesses have youth been engaged in in the district? 2) What new agribusinesses are emerging in the district?	• Literature review • KII with LG officials, youth leaders, private sector • Field visits and in-depth interviews with innovators
Analyse the economic viability and business case (capital size, gestation period, and monthly profitability margins, etc) of each of the identified agri-business opportunity especially in lifting youth out of extreme poverty	3) Are these enterprises able to life youth out of extreme poverty?	• Field visits and in-depth interviews with innovators • Market survey with private sector players
Identify existing entry barriers (norms, capital, skills, gestation periods, and regulation, etc.) especially for female youth and persons of special needs;	4) What constraints are likely to inhibit the uptake of these profitable enterprises by youth generally and female youth and persons of special needs specifically?	• KII with LG officials, youth leaders, private sector, innovators
Recommend how these opportunities can be introduced or upscaled by the district local governments and their development stakeholders.	5) How can youth be encouraged to take up these new enterprises?	• KII with LG officials, youth leaders, private sector, innovators • IDI with AFARD team and DLC production department

2.3 Study Sites and Respondents

As per the terms of reference, the study was conducted in Bullisa, Madi-Okollo, Nebbi and Pakwach district local governments. The respondents included adult and young agribusiness innovators, sub-county officials, private sector enterprises (For Profit including agri-input suppliers, and Not For Profit Organizations) and district officials including local politicians and technical staff among others.

2.4 Sampling Methods and Sample size

The primary Agripreneurship study units of analysis as shown in table 2 included the agribusiness innovators, local government technical and political staff, development partner staffs, private sector players, and project staff. The study team purposively sampled and reached out to these units of analysis to collect the different data needed given that they have lived and participated in agribusinesses, in the districts for long, and therefore have accumulated knowledge on agribusinesses overtime in the districts.

Table 2: Summary of Respondent Categories

Respondent category	Respondents	Data Collection Method	Respondents' number
Agribusiness innovators	Individual agripreneurs	IDIs	12
NGOs/CBOs	AFARD, Caritas Nebbi and other agencies	Kills	5
Local Government officials	District Production & Marketing Officer, District Agricultural Officer, District Commercial Officer, District Community Development Officer and Secretary for production	KIIs	22
Private sector actors	Agro-input dealers and produce buyers	Market survey	3
Total			42

2.5 Data Collection Methods

To elicit comprehensive information from the various stakeholders, the following data collection methods were used, namely:

i. Document review: We reviewed the following documents:

- National Agricultural Extension Policy (NAEP) intervention,
- National Agricultural Extension Strategy,
- National Strategy for Youth Employment in Agriculture,
- National Development Plan (NDP) III and IV,
- Agricultural value chain strategy 2021-2026,
- Ministry of Agriculture Animal Industry and Fisheries (MAAIF) calculated profitability analysis and strategic interventions per value chain
- Ministry of Agriculture Animal Industry and Fisheries (MAAIF) Fisheries Enterprise Selection Guide
- Ministry of Agriculture Animal Industry and

Fisheries (MAAIF) Fisheries National Agricultural Advisory Services (NAADS) Cocoa production guide

- Ministry of Gender Labor and Social Development (MoGLSD), Youth Livelihood Program (YLP) Impact Study 2022
- District local government five-year development plans.

ii. Key Informant Interviews: Key informant interviews, using open-ended interview guides, were conducted with a number of players including district local government officials (District Production & Marketing Officer, District Agricultural Officer, District Commercial Officer, District Community Development Officer and Secretary for production), religious leaders, and other agribusiness value chain actors (private sector, CBOs and NGOs representatives). It focused on types of agribusinesses, their characteristics, enabling environment for the youth, challenges/barriers and opportunities, knowledge and capital requirements, technical support services provided, required support to enhance youth participation and strategies to motivate the youth to engage in agribusiness.

iii. In-Depth Interviews:

These were conducted with agripreneurs in selected sub counties to profile the existing and potential agribusiness opportunities including the types, available agribusiness interventions, emerging agribusinesses, barriers and opportunities, economic viability of the agribusinesses, technical support services provided, required support to enhance youth participation and strategies to motivate the youth to engage in agribusiness in Bulisa, Madi-Okollo, Nebbi and Pakwach districts.. These respondents were identified by the KII respondents as agribusiness innovators.

iv. Markey surveys:

This was conducted among agripreneurs to validate cost prices in the various sources of agricultural inputs the Agribusiness Innovators used and, the cost of labor and selling prices for the output per unit.

2.6 The study process

The study was conducted in four -step phases as presented in figure 2 below to collect relevant information on the agribusiness situation in Bulisa, Madi-Okollo, Pakwach and Nebbi districts (qualitative research), as well as establishing initial stakeholder commitment (in individual meetings with the client and study participants). While the focus of the inception phase was on study instruments approval, field mission focused on primary data collection, reporting ensured that preliminary report was submitted and presented to AFARD project team and the final dissemination stage focused on the submission of final study report and the related data sets.

Inception

It involved a thorough conceptualization of the project through a) the review of the relevant documents and design of the labor market study questions and instruments; and b) writing a detailed Inception Report; and c) securing approval from AFARD for phase two commencement. The inception phase process entailed:

- Holding an entry meeting with AFARD project team to gain in-depth briefing of the task, roles management, and communication requirements. This meeting also agreed on the various documents necessary for understanding the labor market study context in line with TRALIDE project implementation.
- Literature review of the various study documents as a guide for the elaboration of the proposed methodology.

- Design of study tools able to answer all the Agripreneurship labor market study questions from the different units of analysis and the review thereof by the AFARD project team.
- Developing a detailed work plan to ably manage the field mission.
- Writing an inception report and hold a review meeting with AFARD project team to fine tune the methodology, tools, and work plan.

Data collection

With all labor market study instruments approved, this phase focused on primary data collection from the various units of analysis detailed under above -AFARD project team, Caritas Nebbi Diocese, AFCE, Sub-County officials, Agripreneurs innovators, and District Local Government officials, among others. The phase involved: a) The production of the approved final study tools; b) a ten days data collection (between March 5-14, 2025); with d) data entry as an on-going process and data protection.

Reporting

PDCC managed the 4-phased approach with utmost care and ethical consideration to ensure that valid data was collected, transcribed, and analyzed in order that the Agripreneurship labor market study report was written and presented to AFARD timely.

Report dissemination

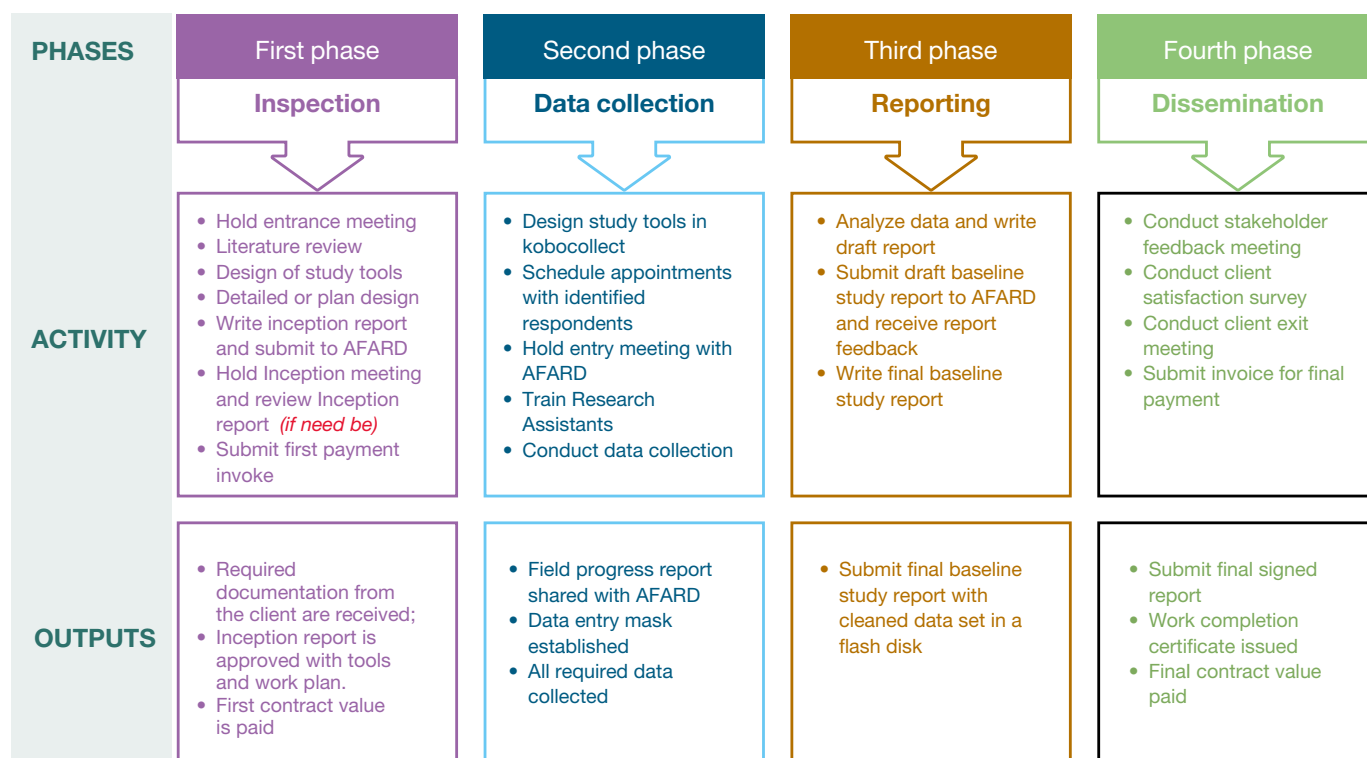
A two-feedback mechanism approach was adopted for the Agripreneurship labor market study report dissemination. A draft study report was shared internally with AFARD project team for review. The final report was then produced and submitted to AFARD for production and circulation.

Important to note are:

- The Key Informant Interviews and In-Depth Interviews were conducted by the consultants to elicit in-depth information on the key questions of the study.
- The consultants conducted desk reviews of relevant agribusiness policies and programs targeting the youth, to inform the organization and analysis of the data.
- We worked closely with AFARD project team and local government officials including local council (LC 1) to ensure that all the primary units of analysis were reached.

Figure 1: Our four-stage methodological framework

The study was conducted in four phases



2.7 Data management and ethical issues

The 4-phased approach was managed with utmost care and ethical consideration to ensure that valid data was collected, transcribed, and analyzed. To ensure that the consultancy service was provided in line with the Terms of Reference and at an appropriate professional level, the following quality control measures were used:

Joint review of study instruments: The study team together with AFARD staff members were involved in this process to ensure data consistency with the internal AFARD programme management system.

Pre-testing of study instruments: This was done prior to the main fieldwork to ensure reliability, acceptability, feasibility, question flow, and the duration of the interview. This exercise helped in modifying the survey tools.

Social mobilization for data collection: To increase the response rate, the consultants received support from AFARD project staff to undertake prior mobilization of the respondents for a timely administration of the study tool.

Introduction letters: AFARD team availed our field team with letters of introduction to facilitate acceptance by the various local institutions.

Consent and confidentiality: The consultant's team (research assistants), in line with the Data Protection and Privacy Regulation 2021 (see AFARD's policy <https://afard.net/publications/policy-documents/259-afard-data-protection-policy/file>), sought consent from respondents to participate in the study. This process also involved a statement of confidentiality for the respondents that explained the purpose of the study and committing not to divulge individual respondent details except when consented to. Where photography was involved, a consent form from AFARD was used.

Health and safeguarding regulations: The study team adhered to the current Ministry of Health regulations for the prevention of COVID-19 and Ebola (by use of sanitizers and face masks and avoiding any body contact). Emphasis was also placed on safeguarding of children and beneficiary sexual exploitation in line with AFARD safeguarding policy (<https://afard.net/publications/policy-documents/286-afard-safeguarding-policy-revised-2025/file>).

2.8 Report Dissemination

This draft study report is submitted to AFARD for the team to internally review the report and provide timely feedback to complete the final report that will be submitted to AFARD in soft copy. However, AFARD will be responsible for the production and actual dissemination of the printed and electronic copies of the study reports.

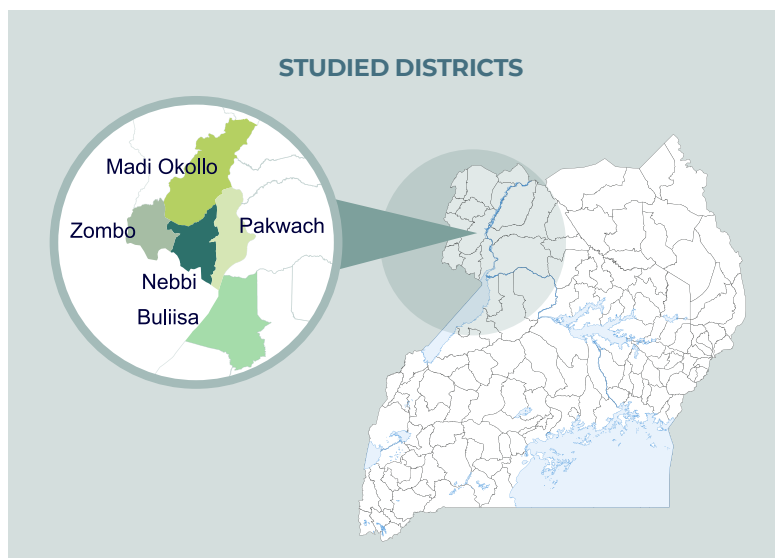
2.9 Limitation of the study

The study only focused on the emerging agribusinesses² with production bias. However, for future study, we encourage a re-orientation to a value chain outlook of the different types of agribusinesses ; however, this should take into consideration the detail analysis of the value chain segments starting from inputs and service provision, production, aggregation/bulking, marketing, processing, distribution, retailing and consumption.



2. John Ariko Okelai, Ingrid Flink, Alfred Lakwo, and Lucia Wegner (2017). INCREASING YOUTH ENGAGEMENT IN AGRICULTURE IN NORTHERN UGANDA: SITUATION REPORT AND PROPOSED STRATEGIES NU-TEC Market Development Programme: A study to support better understanding of youth in agriculture in Northern Uganda

3. STUDY FINDINGS



3.1 Description of the study Area

Madi-Okollo, Nebbi and Pakwach districts are in West Nile region of Uganda. They are located in the North-western part that lies at 2°10' and 3°49' latitudes and 30°44' and 32°05' longitudes. Nebbi is bordered to the North by Madi Okollo District, Zombo to the west, Pakwach to the East and South – East and Democratic Republic of Congo (DRC) to the West and Pakwach district is bordered by Nebbi district in the West, Nwoya and Amuru districts in the East, Democratic Republic of Congo (DRC) in the South West, Arua in the North West and Bullisa to the South. While Bullisa district is in Bunyoro (Albertine) Sub Region - Mid-western part of Uganda.

It borders Pakwach and Nwoya districts in the North, Masindi in the East, Hoima in the South and Democratic Republic of Congo in the west.

The study districts are in the Albertine graben with many oil companies offering employment opportunities for the few skilled youth in the oil sector in plumbing, welding and metal fabrication, electrical engineering mechanical and water engineering. The districts have increasing population of unskilled youth who are employed in boda boda riding, salon and barber shops in the urban areas. Most of the youth live in the rural areas and are dependent on agriculture as the main economic activity and source of employment. The youth are involved in profitable but very low-income agribusiness including working in sugar cane plantation, growing cassava, beans, and maize and rearing small ruminants.

Over the years, the local governments and development partners in the study districts have implemented many agribusiness programs and projects targeting the youth with the aim of improving their livelihoods. The emergence of new agribusiness calls for the local governments and development partners to create enabling environment for entrepreneurship, good governance and accountability by improving their vocational and agribusiness management and entrepreneurship development skills needed to grow agribusiness of the youth and create

more jobs to meet the demands of large youth population in the study districts.

3.2 Policies and programs targeting youth in agribusiness

The Government of Uganda acknowledges the importance of agricultural sector building both national and local economies, particularly in the creation of jobs for youths in rural areas. In line with this, the Ministry of Agriculture, Animal Industry and Fisheries of Uganda developed a new five-year strategic plan 2020-2025 recognized that increasing the participation of gender and youth in the various agriculture value chains is crucial for providing employment opportunities for them. Similarly, Uganda Vision 2040 and National Development Plans (NDPs) I, II, III and IV prioritize agriculture focusing on increasing the commercialization and competitiveness of agricultural production and agro-processing through targeting the youth. The District Development Plans 2024-2029 for Nebbi and Pakwach districts also consider gender and youth in their priorities.

3.2.1 Main agricultural programs with a youth and gender perspective in the study districts

The relevant reports and key informant interviews highlighted a number of programs have been designed and implemented to directly and indirectly support the youth in the 4 district local governments.

Some programs are still on-going. Table 3 below summarizes key programs identified by local government key informants in the study districts.

The key informants reported that the agribusiness programs and projects that have targeted the youth usually look at the youth as a homogenous group with similar interests, capabilities, expectations, and aspirations. In addition, these programs only care about the profitability of the interventions and do not take into consideration the socio-cultural dimensions that shape the aspirations of youth toward engaging in agribusiness activities. Equally, the different length of time a given agribusiness takes to get economic returns were noted to not matter in enterprise selection. But overall, these interventions do not

involve the youth to contribute toward the design and planning of the interventions and evaluation of the outcomes as many including Parish Development Model (PDM), Youth Livelihood Program (YLP) and Uganda Women Empowerment Program (UWEP) do not fund the effective and efficient activities like extension services. By ignoring the fact that majority of youth hardly know what fits their local market, neither do they have the requisite technical and business management skills, not the cultural support, these programs were reported to have received dismal results. One respondent summed it well that “in government we hardly learn lessons. Program designers (often expensively hired consultants and academicians) simply design projects to attract donor funding but not to cause grassroot transformation.”

Table 3: Relevant programs supporting youth and gender in agribusiness

Programs	Key content and general observations
The Parish Development Model (PDM) 2021-ongoing	• Boost household income and improve Ugandans' quality of life by transforming subsistence households (on- and off-farm, rural and urban) into the money economy. • Women (30%), youth (30%), PWDs (10%), older people (10%), and men / the general population (20%).
Restocking program 2015-ongoing	• Provides heifers to households using community-based targeting. These households then need to pass the first calf on to another household in the community. • The programme does not directly target youths, but targets households in most need; however, vulnerable youths belonging to such households may benefit to varying degrees.
Youth Livelihood Programme (YLP) 2013-ongoing	• A government initiative providing male and female youths from vulnerable backgrounds with productive assets for viable income-generating enterprises, and loans with youth-friendly terms. The program does not fund value addition activities. • Evidence from Nebbi district suggests that male youths dominated boda boda riding, grinding mills, piggery, goat rearing and cassava production, while females were many in produce trade, salons and fish trade.
Agriculture Cluster Development Project (ACDP) 2017-2023	• A partnership project of the MAAIF and the World Bank, financed by the International Development Association of the World Bank, and initiated in 2017. • It aims to raise on-farm productivity, production and marketable volumes of selected agricultural commodities (maize, beans, rice, cassava and coffee). • It targets youth to engage in agriculture and other value-addition activities.
Third Northern Uganda Social Action Fund (NUSAF 3) (2015–2021)	• The project aimed to provide income support to and build the resilience of poor and vulnerable households in Uganda's Northern region. It offers labour-intensive public works and household income support.
Uganda Women Entrepreneurship Programme (UWEP) 2015-ongoing	• The primary target beneficiaries of the programme are women aged between 18 and 65. • It aims to improve women's access to financial services, and equip them with the skills for enterprise growth, value addition and marketing of their products and services. • Women are provided with interest-free revolving credit to initiate or strengthen their enterprises.

**Operation Wealth Creation (OWC)
2013-ongoing**

- The program aims at promoting commercial agriculture among the masses, with a focus on boosting household incomes. This involves the equitable and timely distribution of production inputs to enhance productivity.
- Provides strategic commodities and inputs to increase food security and household incomes.
- The programme has strict eligibility requirements (such as land), that do not favour women and young people, who are less likely to own land or make decisions related to land use.

**Enable Youth in Uganda
2018-2022**

- Under Ministry of Water and Environment supported by the African Development Bank and Nordic Development Fund, it aims at empowering young agri - entrepreneurs in Uganda specifically in and around the watershed areas of Mubuku, Ngenge, Tochi, Wadelai and Doho irrigation schemes to start and grow their agri-businesses into sustainable businesses.
- Support youth aged between 18 and 35 years, to develop scalable and sustainable enterprises across different value chains within the agricultural sector.
- Upgrades specific value chain technical skills of young people (with particular attention to women), adopt innovative agricultural business management practices, expand entrepreneurship education, entrepreneurial ecosystem development, and access expansion capital.

**Generating Growth Opportunities and Productivity for Women Enterprises (GROW) project
2024-ongoing**

- The aim of the project is to increase access to entrepreneurial services that enable female entrepreneurs to grow their enterprises in targeted locations, including host and refugee communities. Specially targets Women in Business (WiB) with the provision of technical skills, access to finance and business development services.
- Implemented by Ministry of Gender, Labour and Social Development and PSFU, its focus is on transitioning existing women enterprises from one level to another (i.e. micro to small; or small to medium enterprises).

3.3 What agribusinesses have youth been engaged in the district?

To promote agriprenueurship among the youth, identification and prioritization of feasible agribusinesses that can enable the increasing youth population to redirect their efforts in a productive economic activity

needed to enhance their development is critical. To identify the agribusinesses, the respondents were asked to list the different agribusinesses that have been and are being promoted with the reasons for their selection in the 4 district local governments. Table 4 below highlights the responses.

Table 4: Priority agribusinesses and reasons for selection

District	Priority agribusinesses	Reason for selection
Pakwach	• Cattle • Piggery • Goat rearing • Bull fattening • Fishing • Cassava production • Produce buying and selling • Ground Nuts	• Agroecological suitability as the cattle and goat are hardy animals • Based on enterprise gross margin analysis • Land availability

Nebbi	• Coffee • Fruit growing (Citrus and Mango) • Produce buying and selling • Cassava • Piggery • Poultry • Banana • Rice • Beans • Irish Potato	• Youth driven interest • Based on enterprise gross margin analysis • Land availability • Agroecological suitability • Gestation period
Madi-Okollo	• Horticulture • Sesame • Cassava production • Piggery • Goat rearing • Poultry • Produce buying and selling • Grinding mills	• Pre-selected by the programs • Short gestation periods for sesame and limited input requirements • Based on enterprise gross margin analysis • Land availability • Agroecological suitability • Gestation period
Buliisa	• Horticulture (Watermelon, tomato, onions, nakati, dodo, cabbage, egg plant, and African egg plant) • Cassava • Local poultry • Apiary	• Individual and group interests • High demand for horticultural products • Very short gestation periods of 3 months for vegetables • Ready market • Agroecological suitability

It was also noted that:

- 1) Adults have over the years been growing coffee, banana, cassava, rice, sesame, beans, ground nuts, Irish potato, fruits and vegetables yet the revenues earned have not enable their household to move out of poverty. This is because these farmers majorly used traditional seeds and planting materials without good farming practices e.g. climate smart agricultural practices. For instance, one Extension Officer noted that, “if you visit a farmers banana garden, hardly will you find even 400 plants, yet s/he will tell you I have 1-acre of banana.” In the end, yields are sub-optimally low, and the resultant revenue too is low. Yet overtime these practices has led to rapidly declining soil fertility and persistent low yields, and low profitability.
- 2) The communities have been keeping livestock mainly to meet social obligations like paying dowry and with little attention given to care for the animals as limited economic value is attached to the livestock. With no clear profitability and income expectation, high start-up capital, high labor cost, large land that the youth do not have, long gestation period, low and irregular income, the youth have lost interest as they don't see much prospect in improving the livelihoods of their households from livestock agribusiness. One youth leader said, “I bought 2 goats from the sales of my cassava. In 2 years, I had only 3 goats. Yet the conflict I had with our neighbors was overbearing. Fines I would pay

monthly because the goats would have destroyed our neighbor's crop. In the end, I had to sell the goats away, and at a loss.”

- 3) Many of the government programs hardly built agribusiness mindset besides not investing in skills development necessary for youth to build sustainable agribusinesses. Evidence from many NGO small programs (less than 1,000 reach) that invest in integrated provisioning of inputs, skills, and market access shows that the youth engaged in these enterprises earn high incomes relative to their counterparts in government programs.

3.4 What new agribusinesses are emerging in the districts?

Recognizing the narrow employment market vis-à-vis youth resistance to engage in agribusiness that only perpetuate their poverty necessitated exploration of new agribusinesses that can provide decent opportunities for the creation of employment for rural and urban youth. By so doing, such an initiative can spur local economic growth through increasing household incomes and tax revenues for local governments.

Respondents from the local government, development partners and private sector were asked to list the emerging agribusinesses in the district. This revealed a number of agribusinesses undertaken by both the youth and adult innovators. Table 5 below presence the emerging agribusinesses.

Table 5: Emerging agribusinesses and reasons for selection

Agribusiness	Reasons for selection								Overall perceived profitability		
	Land required	Gestation period	Labor intensive	Technical skills	Capital	Cultural barriers	Religious barriers	Market		Full-time employment	Long term investment
Watermelon	Small	Short	Medium	Medium	Medium	No	No	High	Medium	No	Very high
Tomato	Small	Short	High	High	High	No	No	High	High	No	Very high
Okra	Small	Very short	Medium	Medium	Low	No	No	Medium	Medium	No	High
Egg plant	Small	Short	Medium	Medium	Medium	No	No	Medium	Medium	No	High
African eggplant	Small	Short	Medium	Medium	Medium	No	No	Medium	Medium	No	High
Dodo	Small	Very short	Low	Medium	Low	No	No	High	Low	No	Moderate
Soybean	Large	Short	Medium	Low	Medium	No	No	Medium	Low	No	Very low
Nakati	Small	Very short	Low	Medium	Low	No	No	High	Low	No	High
Orange	Medium	Long	Medium	Medium	Medium	No	No	Medium	Low	Yes	Moderate
Mango	Medium	Long	Medium	Medium	Medium	No	No	Medium	Low	Yes	Low
Pawpaw	Small	Short	Medium	Medium	Medium	No	No	High	Low	Yes	Very high
Wine making from Grapes	Small	Long	Low	High	Medium	No	No	Medium	Low	Yes	Very high
Coffee	Medium	Long	Medium	Medium	Medium	No	No	High	Low	Yes	Low
Macadamia	Large	Long	Medium	Medium	Medium	No	No	High	Low	Yes	High
Cashew nuts	Large	Long	Medium	Medium	Medium	No	No	High	Low	Yes	High
Cocoa	Large	Long	Medium	Medium	Medium	No	No	High	Low	Yes	High
Banana	Medium	Short	Medium	Medium	Medium	No	No	Medium	Low	Yes	Moderate
Piggery	Small	Short	High	High	Medium	No	High	High	Low	Yes	Moderate
Apiary	Small	Short	High	High	Medium	No	No	Medium	Low	Yes	Low
Poultry (Kuroiler birds)	Small	Short	High	High	Medium	No	No	Medium	Low	Yes	Moderate

3.5 Are these emerging enterprises able to lift youth out of poverty?

The pivot of any agribusiness for youth should be its capacity to provide secure employment and higher incomes with which the owners can witness poverty reduction. The youth hate poverty. They all aspire for “better lives/well-being.” Therefore, even though a number of agri-enterprises have been found to have mushroomed in the region, it was important to understand their economic viability on youth poverty reduction. To do so, leaders from local governments, development partners and agribusiness innovators were engaged in the economic profitability analysis of these various enterprises as follows:

- Documents were retrieved from departments/ institutions supporting these projects
- On-farm productivity analysis was conducted with agribusiness innovators
- Market survey was conducted to fine tune costs to prevailing market conditions (cost of inputs, labor,

transport, and fees in their production, harvesting, and marketing activities for the agribusinesses).

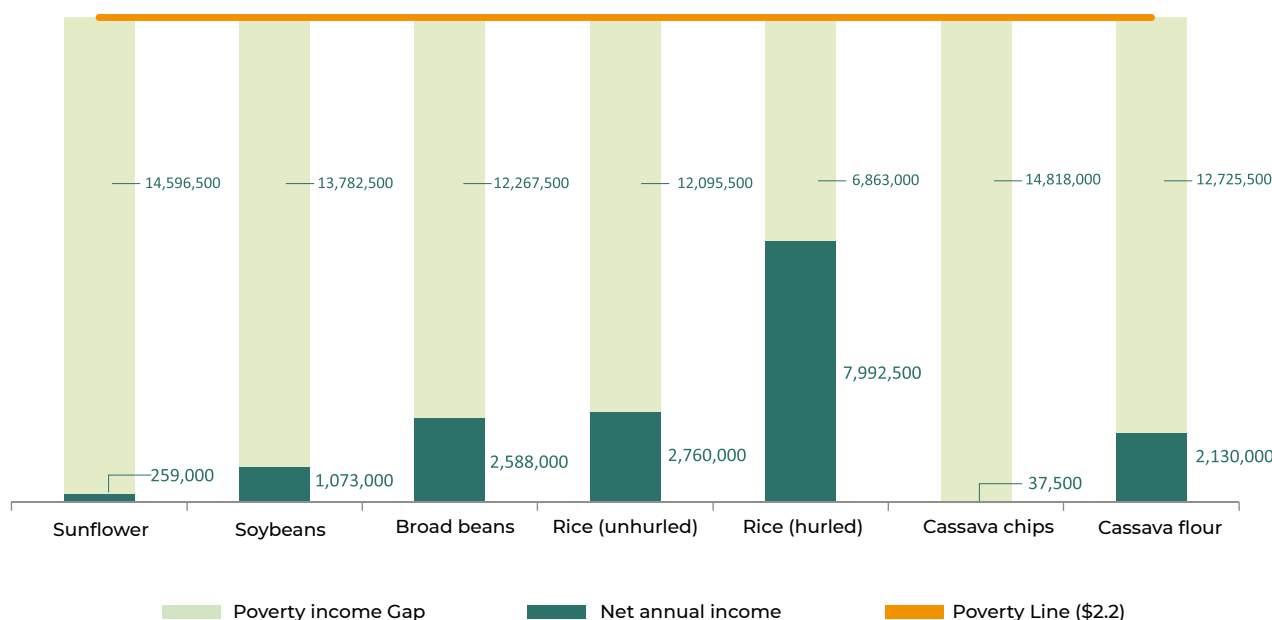
Below we summarize the gross margins of the common emerging agribusinesses that are being promoted and explore their effects on lifting youth out of poverty. The cardinal analysis for the crops is based on 1-acre of land that in almost all the districts was pointed out as the key land size many youth can access to start and grow their enterprises.

A) The traditional crops

Figure 2 (and Table 6) shows that none of the traditional agribusiness commodities (sunflower, soybeans, broad beans, rice, and cassava) have the ability to lift youths out of extreme poverty. They simply have a high income gap to reach the poverty line. This confirms why youth are very reluctant to engage in these enterprises.

A look at the value addition of rice and cassava also shows different income margins calling for a targeted approach to value addition as opposed to the general policy song of agro-industrialization.

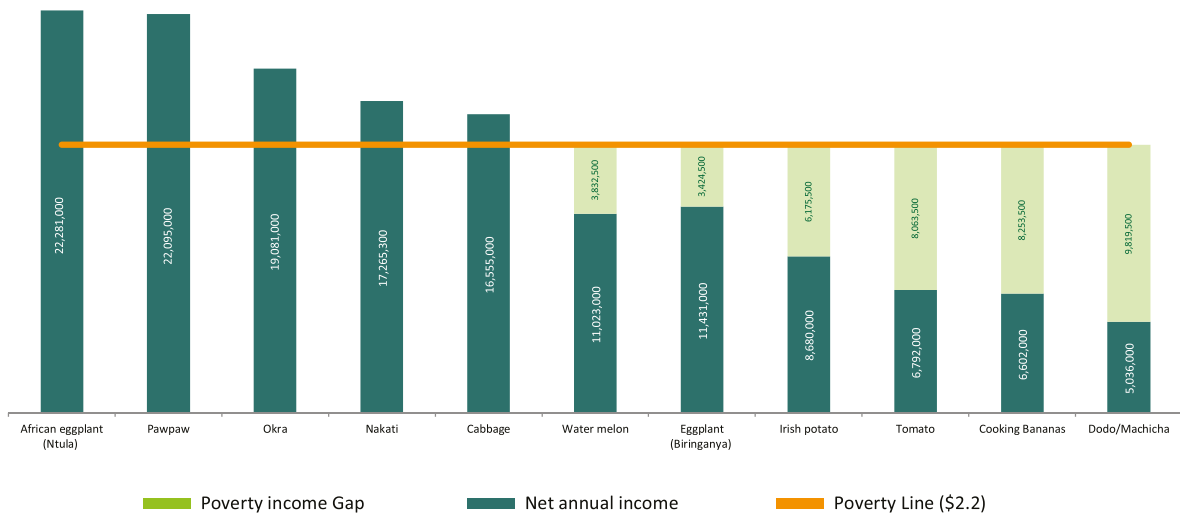
Figure 2: Traditional agro-commodities ability to close the extreme poverty income gaps



B) The emerging new crops

Figure 3 (and Table 7) shows that 05 (ntula, pawpaw, Okra, Nakati, ad Cabbage) out of the 11 emerging annual crops are able to lift youths out of extreme poverty. At least two crops (watermelon and eggplants) have a fairly narrow income gap to close while 4 commodities (Irish potato, tomato, cooking banana, and Dodo) have a huge income gap.

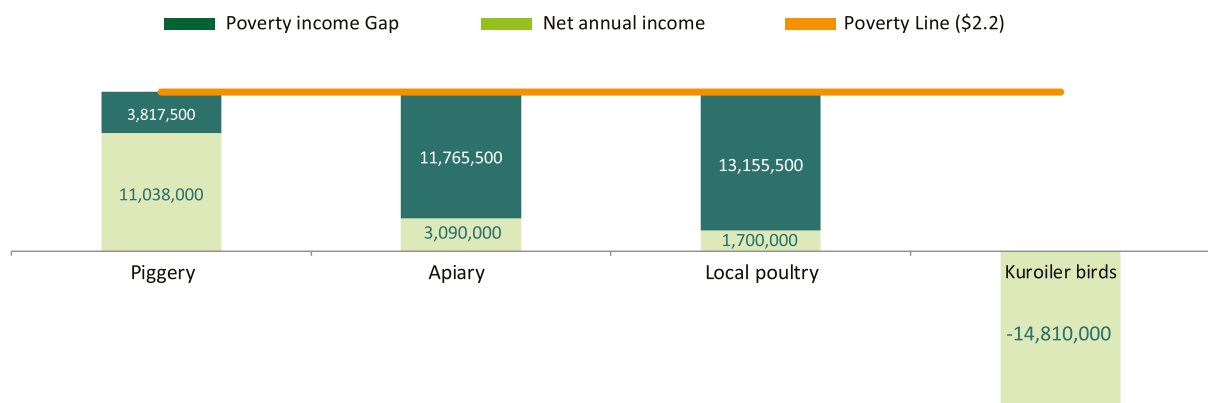
Figure 3: Emerging agro-commodities ability to close the extreme poverty income gaps



C) Small animals

Figure 4 (and Table 8) shows that there are 04 small livestock (piggery, apiary, local poultry, and Kuroiler poultry) that are emerging agribusinesses in the region. Goats too is emerging although it takes over five years to break even. Evident, first is that the Kuroilers agribusiness are operating at a huge loss and many farmers who have started it have finally abandoned their businesses. Likewise, rearing bees and local poultry can only add value to any agribusiness when conducted as complementary enterprises else the small-scale farmers too are left with a huge poverty income gap to close. Only piggery offers promising agribusiness opportunity but it was reported to suffer most from the devastating periodic swine fever.

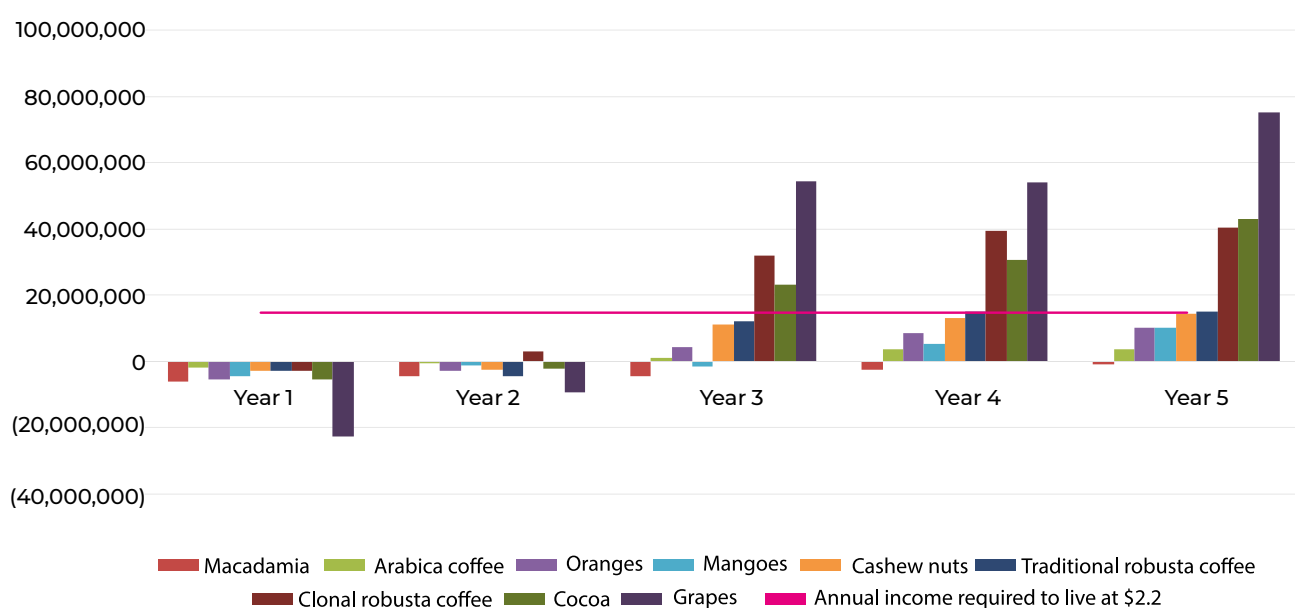
Figure 4: Emerging livestock agribusinesses and the extreme poverty income gaps



D) Perennial crops

Figure 5 presents the 09 perennial agribusiness (macadamia, arabica coffee, traditional robusta coffee, clonal robusta coffee, oranges, mangoes, cashew nuts, cocoa and grapes). Worth noting is that these are long term enterprises. They start yielding and generating revenues from year 3 onwards. They are therefore “patient investment” which unfortunately are not attractive for the youth. Seen closely, only three of these commodities are able in the 3-5 years to generate income above the extreme poverty line – clonal coffee, cocoa, and grapes. Within this period, macadamia is not able to generate any positive revenue at all.

Figure 5: Emerging perennial agro-commodities ability to close the extreme poverty income gaps



Commodity annual returns in 5-years

	Year 1	Year 2	Year 3	Year 4	Year 5	Total 5 years
Annual income required to live at \$2.2	14,855,500	14,855,500	14,855,500	14,855,500	14,855,500	
Macadamia	(6,060,000)	(4,412,500)	(4,491,500)	(2,540,000)	(735,000)	(18,239,000)
Arabica coffee	(1,870,000)	(450,000)	1,228,000	3,690,020	3,559,760	6,157,780
Oranges	(5,487,000)	(2,805,000)	4,318,000	8,560,000	10,100,000	14,686,000
Mangoes	(4,490,000)	(1,325,000)	(1,625,000)	5,440,000	10,185,000	8,185,000
Cashew nuts	(2,828,300)	(2,555,000)	11,022,700	13,081,500	14,416,600	33,137,500
Traditional robusta coffee	(2,787,500)	(4,534,500)	12,258,000	14,958,020	14,930,000	34,824,020
Clonal robusta coffee	(2,787,500)	2,963,000	31,828,000	39,468,020	40,466,000	111,937,520
Cocoa	(5,534,000)	(2,115,000)	23,062,000	30,785,600	43,104,500	89,303,100
Grapes	(22,652,000)	(9,170,000)	54,444,000	54,119,000	75,125,000	151,866,000

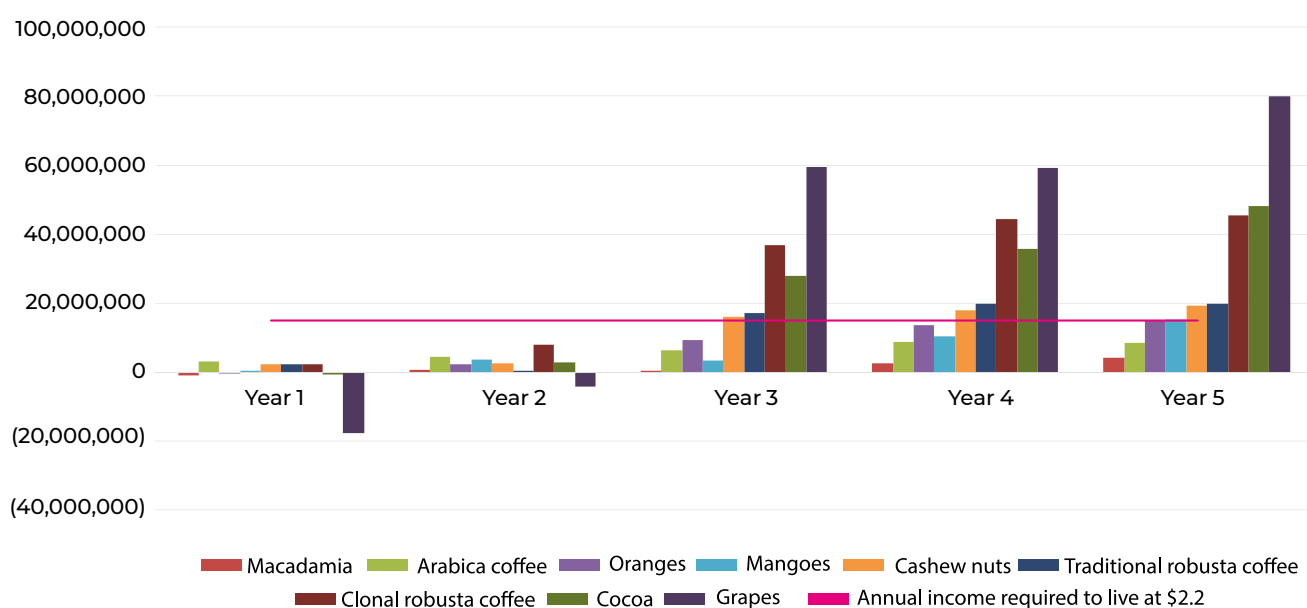
E) Sustainable agriculture intensification approach

Aware that climate change and land fragmentation are real with negative impact on agribusiness (i.e., reduction in productivity) and that overtime youth will age and have limited energy to farm annual crops let alone facing the hard reality of diminished social security amidst no pension for the aged, it is important to adopt a sustainable agricultural intensification approach to make perennial crops attractive in both the short and long run.

Figure 6 shows that the intensification of perennial crops with cooking banana and local poultry is able to generate short term revenue for the youth but in the long run can only enable youth growing cashew nuts and traditional robusta coffee to exit the extreme poverty line from year 3 onwards.

The promotion of oranges, mangoes and macadamia will only need to be done with pawpaw as an intercrop because as figure 3 shows, even half acre of pawpaw will enable youth to earn more than UGX 10 million per year as they wait for these perennial crops to increase their yields and revenue.

Figure 6: Intensification of perennial crops with cooking banana and local poultry



Intensified commodity annual returns in 5-years (with cooking banana and local poultry)

	Year 1	Year 2	Year 3	Year 4	Year 5	Total 5 years
Annual income required to live at \$2.2	14,855,500	14,855,500	14,855,500	14,855,500	14,855,500	
Macadamia	(1,059,000)	588,500	509,500	2,461,000	4,266,000	6,766,000
Arabica coffee	3,131,000	4,551,000	6,229,000	8,691,020	8,560,760	31,162,780
Oranges	(486,000)	2,196,000	9,319,000	13,561,000	15,101,000	39,691,000
Mangoes	511,000	3,676,000	3,376,000	10,441,000	15,186,000	33,190,000
Cashew nuts	2,172,700	2,446,000	16,023,700	18,082,500	19,417,600	58,142,500
Traditional robusta coffee	2,213,500	466,500	17,259,000	19,959,020	19,931,000	59,829,020
Clonal robusta coffee	2,213,500	(2,115,000)	23,062,000	30,785,600	43,104,500	89,303,100
Cocoa	(533,000)	2,886,000	28,063,000	35,786,600	48,105,500	114,308,100
Grapes	(17,651,000)	(4,169,000)	59,445,000	59,120,000	80,126,000	176,871,000

Figure 7 also shows that the integration of local poultry in the production of some selected crops will not enable the youth to exit the extreme poverty line. Alternative IGA promotion may be inevitable when these crops are promoted.

Figure7: Intensification of Emerging annual crops with local poultry

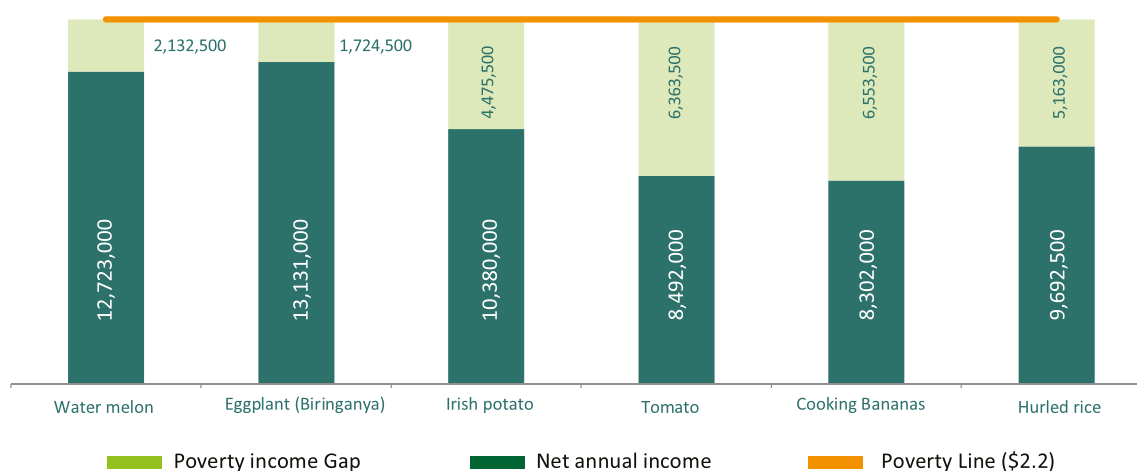


Table 6: The Gross Margins for Traditional Annual Crops Agribusinesses

Aspects	Sunflower	Soybeans	Broad beans	Rice (unhurled)	Rice (hurled)	Cassava chips	Cassava flour
Total production + marketing cost	415,000	676,000	452,000	1,515,000	1,982,500	1,237,500	1,717,500
Yield per acre in Kilogram/Bags/Basins	500	500	600	1,500	1,050	3,000	3,000
Food and loss provision (3%-15%)	5	15	18	75	53	450	750
Sales volume	495	485	582	1,425	998	2,550	2,250
Sale price per unit (UGX)	1100	2500	3000	1500	5000	500	1,000
Gross income (UGX) per season	544,500	1,212,500	1,746,000	2,137,500	4,987,500	1,275,000	2,250,000
Net income (UGX) per season	129,500	536,500	1,294,000	622,500	3,005,000	37,500	532,500
Period of first production in months and years	3	3	3	3	3	1	1
Production cycle /per year	2	2	2	2	2	1	1
Annual net income per year	259,000	1,073,000	2,588,000	2,760,000	7,992,500	37,500	532,500
Average monthly incomes	21,583	89,417	215,667	230,000	666,042	3,125	44,375
Average household size (People)	5	5	5	5	5	5	5
Annual income required to live at \$2.2 per year	14,652,000	14,652,000	14,652,000	14,652,000	14,652,000	14,652,000	14,652,000
Poverty reduction viability (-ve/No)	(14,393,000)	(13,579,000)	(12,064,000)	(11,892,000)	(6,659,500)	(14,614,500)	(14,119,500)

Notes:

1. Production is based on 1 acre of land save for hurled rice and cassava flour that are based on value addition of the yield from the same 1 acre of land.
2. The average yield/out per unit used is from Ministry of Agriculture Animal Industry and Fisheries Calculated Profitability Analysis and Strategic Interventions Per Value Chain.
3. The daily income to enable a member of a household live a decent life is USD 2.2 per person and exchange rate used in the calculation of household poverty reduction aspect is UGX 3,700 for 1 USD. All figures in red shows the income gap needed to cross the extrem poverty line.

Table 7: The Gross Margins for Emerging Annual Crops Agribusinesses

Aspects	African Eggplant (Ntula)	Pawpaw	Okra	Nakati	Cabbage	Water melon	Eggplant (Brinjal)	Irish potato	Tomato	Cooking banana	Dodo/ Amaranth spp
Total production + marketing cost	2,359,500	9,780,000	1,084,500	1,054,500	7,205,000	2,804,500	2,359,500	7,420,000	4,920,000	6,628,000	1,044,500
Yield per acre in Kilogram/Basins/bags	15000	25,000	2500	10,197	24,000	2,800	17000	40	24	1,350	3,750
Food and loss provision (5%-15%)	1,500	3,750	375	510	240	28	850	1	1	27	188
Sales volume	13,500	21,250	2,125	9,687	23,760	2,772	16,150	39	23	1,323	3,563
Sale price per unit (UGX)	1,000	1,500	5,000	1,000	500	3,000	500	150,000	350,000	10,000	1,000
Gross income (UGX) per season	13,500,000	31,875,000	10,625,000	9,687,150	11,880,000	8,316,000	8,075,000	5,850,000	7,980,000	13,230,000	3,562,500
Net income (UGX) per season	11,140,500	22,095,000	9,540,500	8,632,650	4,675,000	5,511,500	5,715,500	(1,570,000)	3,060,000	6,602,000	2,518,000
Period of first production in months and years	3	1 year	3	3	4	4	3	3	4	1 year	3
Production cycle /per year	2	1	2	2	2	2	2	2	2	1	2
Annual net income per year	22,281,000	22,095,000	19,081,000	17,265,300	16,555,000	11,023,000	11,431,000	(3,140,000)	6,120,000	6,602,000	5,036,000
Average monthly incomes	1,856,750	2,455,000	1,590,083	1,438,775	1,379,583	918,583	952,583	(261,667)	510,000	733,556	419,667
Average household size (People)	5	5	5	5	5	5	5	5	5	5	5
Annual income required to live at \$2.2 per year	14,652,000	14,652,000	14,652,000	14,652,000	14,652,000	14,652,000	14,652,000	14,652,000	14,652,000	14,652,000	14,652,000
Poverty reduction viability (Yes)	7,629,000	7,443,000	4,429,000	2,613,300	1,903,000	(3,629,000)	(3,221,000)	(17,792,000)	(8,532,000)	(8,050,000)	(9,616,000)

Notes:

- Production is based on 1 acre of land
- The average yield/out per unit used is from Ministry of Agriculture Animal Industry and Fisheries Calculated Profitability Analysis and Strategic Interventions Per Value Chain.
- The daily income to enable a member of a household live a decent life is USD 2.2 per person and exchange rate used in the calculation of household poverty reduction aspect is UGX 3,700 for 1 USD. All figures in red shows the income gap needed to cross the extrem poverty line.

Table 8: The Gross Margins for Emerging Livestock Agribusinesses

Aspects	Kuroiler Chicken (1000 birds)	Local birds(1Cock and 5 Hens /Pullets)	Piggery (1 Boar, 4 Gilts)	Bee keeping (5 KTB hives)	Goat rearing (11 Buck and 10 Does)
Total production + marketing cost	9,640,000	1,720,000	7,962,000	1,355,000	9,678,500
Output per unit in numbers	475	120	100	150	27
Replacement, food and loss provision (5%)	24	6	5	5	18
Sales volume	451	114	95	145	9
Sale price per unit (UGX)	30,000	30,000	200,000	20000	180000
Gross income (UGX)	11,281,250	3,420,000	19,000,000	2,900,000	1,620,000
Net income (UGX)	1,641,250	1,700,000	11,038,000	1,545,000	(8,058,500)
Period of first production in months and years	6 Months	6 months	8 Months	6 months	1 year
Production cycle /per year	2	2	1	2	2
Annual net income	1,641,250	3,400,000	11,038,000	4,350,000	1,620,000
Average monthly incomes	547,083	283,333	919,833	362,500	(671,542)
Average household size (People)	5	5	5	5	5
Annual income required to live at \$2.2 per year	14,652,000	14,652,000	14,652,000	14,652,000	14,652,000
Poverty reduction viability (Yes)	(13,010,750)	(11,252,000)	(3,614,000)	(10,302,000)	(13,032,000)

Notes

1. The average yield/out per unit used is from Ministry of Agriculture Animal Industry and Fisheries Calculated Profitability Analysis and Strategic Interventions Per Value Chain.
2. The daily income to enable a member of a household live a decent life is USD 2.2 per person and exchange rate used in the calculation of household poverty reduction aspect is UGX 3,700 for 1 USD. All figures in red shows the income gap needed to cross the extrem poverty line.

3.6 What constraints are likely to inhibit the uptake of these enterprises by youth generally and female youth and persons of special needs specifically?

To identify the constraints affecting youth in participating in agribusiness, the respondents were asked to mention the critical challenges that are hindering the youth from engaging in the specific commodity emerging agribusinesses. The study revealed the following commodity specific agribusiness challenges:

3.6.1 Fruits, vegetables and pulses agribusiness challenges

For the youth involved in the growing of fruits, vegetables and pulses, the respondents highlighted they face the challenges below:

- 1) Crop destruction by vermin: The young and adult agripreneurs reported that roaming livestock, monkeys, baboons and other wild animals usually destroy their vegetable crops in the gardens.
- 2) High cost of inputs: There is increased cost of vegetable seeds and seedlings, fertilizers, fungicides, pesticides and farm implement like watering cans and spray pumps. This greatly affect the production of the vegetables as the youth do not have adequate finances to buy them.
- 3) High cost of labor: The use of manual labor to perform the many activities starting from seedbed preparation to taking the harvest to the market is time-consuming and costly as the number and prices of man days continue to rise every season.
- 4) Lack of access to small irrigation facilities: With limited availability of water during the dry seasons, the absence of small irrigation facilities in the districts and the high cost, the youth cannot water vegetables well and therefore loss of yield and income.
- 5) Limited access to market: Both the young and adult agripreneurs, reported the youth lack access to market information and storage facilities for their vegetables and also pay high transportation charges to take their vegetables to the local markets.
- 6) Lack of access to extension services: The young and adult agripreneurs in the study area reported the youth do not have access

to extension workers. This has in turn limited the knowledge and uptake of improved technologies and inputs. The respondents also reported that the youth are not ware and do not have knowledge of the available improved technologies especially high yield varieties, small irrigation facilities, and genuine agrochemicals. This has led them in some cases to buy and apply counterfeit fungicides and pesticides that are not very effective in controlling insect pest and diseases resulting in to yield reduction and high production cost, thus discouraging the youth to continue with the agribusiness.

3.6.2 Perennial crops agribusiness challenges

The young and adult agripreneurs all reported that the youth who are engaged in perennial crop agribusinesses are faced with the exclusive challenges presented below:

- 1) Stray animals: The young and adult agripreneurs reported that roaming livestock usually destroy their crops in the gardens especially during the dry season.
- 2) Lack of ownership and access of land to female youth: The respondents reported that under customary land acquisition procedure, the female youth do not own land but can only use the land for agriculture. This means they cannot plant permanent crops on the land they are allowed to use. In addition, the female youth do not have alternative income sources that they could use to rent and or buy land.
- 3) Long gestation period: The KIIs and IDIs revealed that many perennial crops take more than three (3) years to start yielding income and yet the youth want quick returns making them lose interest and confidence in perennial crops.

3.6.3 Livestock agribusiness challenges

The study found that youth engaged in livestock agribusinesses including bee keeping, Kuroiler birds and piggery are greatly affected by the following challenges:

- 1) High cost of inputs: There is increased cost of improved livestock breeds, feeds, veterinary service, drugs and farm equipment like feed troughs, water troughs and spray pumps. This greatly affect the production of the livestock products as the youth do not have adequate finances to buy them.
- 2) Limited access to market: Both the respondents

reported the youth lack access to market information and pay high transportation charges to take their vegetables to the local markets.

The summary of the commodity specific agribusiness challenges is presented in table 9 below.

3.6.4 Other hindrances to youth engagement in agribusiness

- 1) Inadequate access to start-up capital: youth have limited access to agribusiness credit facilities to enable them to initiate or grow agribusiness. This is because the youth do not get adequate information on agricultural finance, and they lack collaterals.
- 2) Inadequate training: Limited technical, knowledge and skills in agribusiness. The study found that the youth do not receive adequate and regular training in technical aspects of the agribusinesses, financial literacy, agribusiness management, leadership, agribusiness skills, financial management, marketing thus making the few who try to enter into agribusiness fail and thus discouraging the others.
- 3) Inadequate extension support services: The key informants and IDI respondents reported that the youth do not have access to extension workers as they are expected to demand for extension service and yet they fear to reach the extension agents and also cannot afford private extension services. Besides, the red tape bureaucracy in service provision that takes long for the youth to get extension service provision provides disincentive to engage in agribusiness.
- 4) Absence of good role models: The key informants and IDI respondents reported that the youth do not have good role models and also access to mentors in the communities to motivate them to engage in agribusiness. The inadequate career guidance in agribusiness continue to push the youth away from involvement in agribusiness.
- 5) Cultural barriers: The study found that female youth fear to engage in agribusiness because their spouses' control and use income from agribusiness and their role has been reduced to only provision of labor. In addition, they also fear they may not manage the finances and agribusiness activities due to the many household chores they are involved in.
- 6) Negative perceptions and lack of aspirations: The key informants and IDI respondents all reported that the youth have negative mindset and attitudes towards agribusiness as it takes long to get income from it, and they are looking for quick money. In addition, the study also found that the youth lack vision as they have no focus and therefore, they are not committed to doing any work, lazy, impatient, give up easily and only want to engage in easy to do activities like betting, watching international football and involving in high-risk activities including theft especially among the male youth. This makes them not seek for information on agribusiness.



Table 9: Commodity Based Agribusinesses entry barriers

Challenges facing male and female agripreneurs											
Aggregated agribusinesses	Limited access to land	Stray animals and vermin	Gestation period	Labor demand	Cost of inputs	Access of small irrigation facilities	Knowledge of improved technologies and inputs	Access to market information	Access to storage facilities	Transportation cost to markets	Access to extension services
African eggplant	No	No	No- short	High	Low	No	No	No	No	High	No
Eggplant/Brinjal	No	No	No- short	High	Low	No	No	No	No	High	No
Nakati	No	No	No- short	High	Low	No	No	No	No	High	No
Dodo /Amaranth	No	No	No- short	High	Low	No	No	No	No	High	No
Okra	No	No	No- short	High	Low	No	No	No	No	High	No
Tomato	No	Yes	No- short	High	Medium	No	No	No	No	High	No
Watermelon	No	Yes	No- short	High	Low	No	No	No	No	High	No
Mango	Yes	Yes	Yes -Long	High	High	No	No	No	No	Medium	No
Wine making from Grapes	Yes	No	Yes -Medium	Medium	High	No	No	No	No	Low	No
Pawpaw	Yes	Yes	No- short	Low	Low	No	No	No	No	High	No
Orange	Yes	Yes	Yes -Medium	Low	Medium	No	No	No	No	High	No
Banana	Yes	Yes	No- short	Low	Medium	No	No	No	No	Low	No
Cocoa	Yes	Yes	Yes -Medium	Low	High	No	No	No	No	Low	No
Macadamia	Yes	Yes	Yes -Long	Medium	Low	No	No	No	No	Low	No
Cashew nuts	Yes	Yes	Yes -Medium	Low	Low	No	No	No	No	Low	No
Arabica coffee	Yes	Yes	Yes -Medium	Medium	Medium	No	No	No	No	Low	No
Bean	No	No	No- short	Low	Low	No	No	No	No	Low	No
Soybean	No	No	No- short	Low	Low	No	No	No	No	Low	No
Kroiler birds	No	No	No- short	High	High	No	No	No	No	High	No
Piggery	No	No	No- short	Low	High	No	No	No	No	High	No
Bee keeping	No	No	No- short	Low	Low	No	No	No	No	Low	No

3.7 How can youth be encouraged to take up these new enterprises?

Recognizing that the engagement of young people in agribusiness is an important strategy to create employment opportunities, generate more income and improve the well-being of the households and the communities, the KII and IDI respondents were asked to propose what strategies they would use to increase youth engagement in the emerging agribusinesses. The KIIs and IDIs suggested the following strategies to improve perception and intention toward agriculture,

access to resources like technology and finance, skill development, network and linkages in agribusiness value chain and existence of agribusiness role models as the ways appropriate ways of enhancing youth participation in the emerging agribusinesses.

To increase youth engagement in the identified agribusiness, the study recommends that local governments, development partners, cultural and religious institutions, and private sector should collectively do the following:

Challenges	Strategies to solve the challenge
Crop destruction by vermin	• Conduct regular training and demonstration on vermin control measures. • Support vermin control department that is underfunded to execute its roles
High cost of inputs	• Mobilize young Agripreneurs to form groups with VSLA to ensure access to finance. Mature youth VSLA should be linked to friendly financial services like the Agricultural Credit Facility Grant (ACF) that offers 1% monthly interest loan for agribusiness. • Provide start-up agricultural inputs to the young Agripreneurs from which they can see practical success and sustain their enterprise growth • Link youth groups to credible agricultural input suppliers to buy and transport in bulk. • Ensure input suppliers and financial institutions develop youth friendly services • Support AFARD to upscale its booster fund to VSLA currently under pilot to enable youth to borrow for procurement of inputs and refund after harvest.
High cost of labour	• Innovate labour saving technologies such as ox traction. • Increase access to low interest credit facility for the young agripreneurs.
Lack of access to small irrigation facilities	• Establish small irrigation facility demonstration plots and pilot low cost-efficient small irrigation technologies including drip kits, small, motorized pumps, solar pumps, rope and washer pumps to boost uptake by young agripreneurs who hardly know of the technologies and their benefits. • Train selected young agripreneurs' in small irrigation technology including the maintenance and repair of the small irrigation technology equipment. • Promote trade in the sale of small irrigation technology equipment spare parts. • Provide a sustainable irrigation loan schemes and link the suppliers, banks, AFARD Booster fund and the youth
Limited access to extension services curtailing adoption of improved technologies and inputs	• Set up demonstration farms where young people can be provided learning exchange visit to learn new technologies • Build community extension systems so that youth can gain from peer-to-peer agribusiness mentors. • Conduct Open Days that brings together agricultural innovators to expose youth to new technologies • Develop or upgrade and regularly review AFARD's digital FAMIS App with relevant extension information

Limited access to market and market information	• Set up physical boards for agribusiness market information system at LLGs and liaise with extension staff for regular updates. • Engage with media houses (local FMs) to disseminate weekly market information • Promote collective marketing among youth groups based on the different agribusiness value chains to increase their bargaining power. • Especially to reduce post-harvest losses in fruits and vegetables, construct low-cost storage facilities with porous evaporative cooling storage structure and pot-in-pot cooler. • Upscale onboarding of youth on AFARD's digital FAMIS App platform where they can provide and access market information and conduct transaction deals
Destructions by stray animals	• The lower local governments through local council one (LC 1) need to formulate, approve and enforce the implementation of the by-laws on stray animals.
Limited access to land by female youth	• Create awareness on gender equality and land rights issues. • Conduct dialogue meetings with community power holders. • Support community land certification to ensure all people have land rights.
Long gestation period	• Promote crop (seasonal and perennial)-livestock-tree mixed farming to enable youth to earn income in both short and long term. For instance, TRALIDE provides for income from soybeans (3-months), poultry (5-6 months), bananas (9-10 months) on an annual basis while cocoa will start yielding and generating income in 2.5-3 years. In this way, youth will adopt cocoa production without any fear of a very long gestation period. • Build long term growth mindset as opposed to "now gratification mindset."
Negative impact of climate change	• Conduct training and demonstrations on climate smart agribusiness practices. • Increase access to climate resilient agro technologies e.g., seeds, irrigation, cold storage chains, etc.
Negative perceptions and lack of aspirations	• Invest in positive mindset change towards farming as a business (agribusiness). • Invest in the creation of youth role models in agribusiness. • Conduct exposure & learning visits for youth to areas where there are agribusiness role models (agribusiness innovators).

4. ADDED RECOMMENDATIONS

From the policies and programs supporting agribusiness, economic viability analysis of the various agribusinesses, entry barriers and opportunities to motivate and involve youth in agribusiness that have been identified, the study suggests the need to enhance the participation of youth in agribusiness activities through developing interventions that promote youth participation in agricultural activities and businesses in a holistic and functional manner. To achieve this the local governments and development organizations supporting youth need to design and implement interventions based on an integrated approach that considers diversity of youths' aspirations, interests, expectations, and challenges related to access to resources especially livelihood assets using business, gender, work and economic viability-oriented strategies. Based on these, the study further propose the following recommendations:

4.1 Increasing access to land and other resources

- 1) The district local government and development partners to lobby the financial institutions to create awareness among the youth on the available low interest agricultural credit facilities especially the Agricultural Credit Facility (ACF) Grant of 1% per month provided by Bank of Uganda through the commercial banks to enable the youth access agricultural credits to rent/buy land and other inputs.
- 2) The provision of regular training and mentorship in record keeping, business planning and budgeting, personal plan development and financial management skills can enable the youth to start and expand their agribusiness operations to actively engage in farming activities.
- 3) Strengthening the networks and linkages between individual youth and youth groups and private sector players, Non-Governmental Organizations (NGOs) and local governments will enable the youth to mobilize productive assets such as irrigation facilities, planting materials,

livestock breeds, value addition technologies, tractors, implements and tools through the programs and projects in the districts.

- 4) For the perennial crop agribusinesses including coffee, macadamia, cashew nuts, grapes, oranges and mango that require high external input and labor costs that the youth cannot afford, the local governments together with the development partners need to provide planting materials, pesticides, fungicides and herbicides to the youth.

4.2 Promoting positive mindset change towards agribusiness

- 5) The local governments and development partners need to organize digital literacy training for the extension workers/project officer and young agripreneurs on the use of Information and Communication Technologies (ICTs) including social media, Short Messages (SMS), young farmer platforms and agribusiness websites to enable the youth access information on market, pest and disease control strategies, weather forecast, and best agricultural practices.
- 6) Developing youth agribusiness competitive grant and organizing annual best youth agribusiness achievers award will provide incentive and motivation to many youth to start and participate in the emerging agribusinesses.
- 7) From the barriers and profitability analysis angel there is need to promote enterprise mix approach (at least 1 perennial crop, 1 annual crop and 1 livestock enterprise) with emphasis on high income enterprises and contribution to household poverty reduction.
- 8) Local governments and development partners need to organize youth visits to farms of successful youth entrepreneurs or even farms managed by male and female youths separately within the districts and outside the districts. Exposure to national and regional agricultural shows and exhibitions will also provide more learning and networking.

- 9) The provision of regular training, coaching and mentorship should move beyond production but should be accompanied with follow-up and feedback in marketing, pricing, business literacy, selling, business skills, technical leadership, collective marketing and value addition to enhance youth entrepreneurial skills needed to grow their agribusinesses.

4.3 Increasing access to agricultural inputs, technical, financial and agribusiness development services advice to the youth

- 1) The local governments and development partners in the districts need to establish and

equip Agribusiness Clinics (Agri clinics) to enable the youth to get expert advice and services on innovative technologies, crop and livestock practices, market trends, market information and clinical services for animal health which would enhance productivity of crops/animals and increased income to the youth.

- 2) The local governments and development partners must attract private sector to establish agribusiness centres with the relevant quality agricultural inputs to enable the youth acquire farm equipment, agrochemicals and other services for crop and livestock production.



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ANNEXES

Annex 1: Data Collection Tools

Youth Innovator In-Depth Interview Guide

INTRODUCTION AND CONSENT

AFARD secured funding from Wilde Ganzen Foundation's Blue Ambition Fund to implement TRALIDE project that seeks to transform the labor market to increase productive work opportunities for married youth in agriculture sector in Nebbi and Pakwach districts. The specific objective of the project is to facilitate mindset transformation and collective action for 600 underemployed married youths; (2) enhance vocational and agribusiness management skills of 600 underemployed married youth; and strengthen access to business development services, markets, and affordable financial products for 300 underemployed married youth households. A labor market study has been commissioned to identify new commodities, assess their economic viability for wealth creation, and explore entry barriers for males, females, and persons of interest..

I would therefore like to know if you are willing to participate in this study. Yes, proceed. Now. Stop and ask for the reason why.....

If yes, state, I will for the next 1 hour ask you questions that seek credible information about your households/ village particularly in terms of agribusiness with respect to identification of agribusinesses, local policies and programs relevant to agribusiness promotion, emerging agribusinesses, barriers and opportunities. This information will be used confidentially, and no mention of your name will be provided to anyone. Your provision of correct and complete information will be appreciated. Thank you.

Key Informant Interview Guide

Date:	24/02/2025
Prepared for:	TRALIDE project
Prepared by:	Odongo, H. Jawoko

Identification

1. Date of survey:
2. Start time of survey:
3. End time of survey:
4. Name of Enumerator:
5. Name of Supervisor:
6. Name of District:
7. Name of Sub- County:
8. Name of Parish:
9. Name of Village:

Economic analysis of youth emerging agribusiness

- How many months and or years does this enterprise take for you to earn your first income from this new agribusiness?
- What are the costs of production, marketing and sales of this enterprise? Probe for the cost from the innovator and conduct a market survey to double check prevailing market price.
- What size of land in acre (for crops) do you need to profitably operate this new agribusiness?
- How many units (livestock, hives, etc) do you need to profitably operate this new agribusiness?

Entry barriers/constraints for Emerging Agribusiness

- What are the critical challenges that may hinder youth from engaging in this new agribusiness? Probe for category specific challenges – youth generally, female youth, and persons with special needs)
- What solutions do you propose to promote youth engagement in this new agribusiness? Probe for category specific solutions – youth generally, female youth, and persons with special needs)

Recommendations

- What strategies would you recommend for motivating youth to actively participate in the new agribusinesses? Probe: building youth aspirations; existing resources and facilities; norms, capital, duration, profitability



Local Government & Other Development Partner Key Informant Interview Guide

INTRODUCTION AND CONSENT

AFARD secured funding from Wilde Ganzen Foundation's Blue Ambition Fund to implement TRALIDE project that seeks to transform the labor market to increase productive work opportunities for married youth in agriculture sector in Nebbi and Pakwach districts. The specific objective of the project is to facilitate mindset transformation and collective action for 600 underemployed married youths; (2) enhance vocational and agribusiness management skills of 600 underemployed married youth; and strengthen access to business development services, markets, and affordable financial products for 300 underemployed married youth households. A labor market study has been commissioned to identify new commodities, assess their economic viability for wealth creation, and explore entry barriers for males, females, and persons of interest..

I would therefore like to know if you are willing to participate in this study. Yes, proceed. Now. Stop and ask for the reason why.....

If yes, state, I will for the next 1 hour ask you questions that seek credible information about your households/ village particularly in terms of agribusiness with respect to identification of agribusinesses, local policies and programs relevant to agribusiness promotion, emerging agribusinesses, barriers and opportunities. This information will be used confidentially, and no mention of your name will be provided to anyone. Your provision of correct and complete information will be appreciated. Thank you.

Key Informant Interview Guide	
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10. Date of survey:
11. Start time of survey:
12. End time of survey:
13. Name of Enumerator:
14. Name of Supervisor:
15. Name of District:
16. Name of Sub- County:
17. Name of Parish:
18. Name of Village:

Identification of agribusinesses - Your organization has been implementing youth agribusiness programs /projects. What enterprises have you promoted? Probe: - commodity types, value addition, produce marketing - Why were these enterprises preferred - What enterprises did you not promote in your youth agribusinesses programs/projects for the youth? Probe: - commodity types, value addition, produce marketing - reason for exclusion of these enterprises.
Identification of emerging agribusinesses - Apart from the agribusinesses you have mentioned above, what are the new agribusinesses emerging in your district? <i>Probe for the types of enterprises and agribusiness activities.</i> - Who are the innovators engaged in these emerging agribusinesses? <i>List them by gender, status, location</i> - What is the motivation for these new agribusinesses? <i>Probe for the available positive conditions, incentives that encouraged investing in the agribusinesses.</i>
Entry barriers/constraints for Emerging Agribusiness - What are the critical challenges that may hinder youth from engaging in this new agribusiness? <i>Probe for category specific challenges – youth generally, female youth, and persons with special needs)</i> - What solutions do you propose to promote youth engagement in this new agribusiness? <i>Probe for category specific solutions – youth generally, female youth, and persons with special needs)</i>
Recommendations What strategies would you recommend for motivating youth to actively participate in the new agribusinesses? <i>Probe: building youth aspirations; existing resources and facilities; norms, capital, duration, profitability</i>

Selection of Emerging Youth Sensitive Enterprises

Guiding questions for the consultant

- To what extent is this enterprise competitive (or likely to become competitive/to provide untapped opportunities) in either domestic, regional or world/global markets?
- Is there evidence of youth engagement in the enterprise? (low/medium/ high). How does this apply to different groups of youth, like young women, graduates vs unskilled youth, young migrants, younger youth etc.?
- To what extent are young people involved in the enterprise activities?
- To what extent is greater youth inclusion likely to address the enterprise needs? (To what extent is youth inclusion likely to make this enterprise more competitive?)
- What are the main skills youth possess?
- To what extent do these enterprises require the kinds of skills and assets that young people possess? (What is the likelihood of young people becoming more active as agribusiness participants?)
- What is required to build the capacity of youth to enable them to effectively
- participate in the enterprises?
- Does youth inclusion depend upon the removal of binding constraints?
- What are they?
- Can these constraints reasonably be expected to be removed through programmatic interventions?
- To what extent are lead farms and other key actors in this value chain favourably disposed to working with young people?
- To what extent will participation in these enterprises allow young people to build important skills?
- To what extent are young people interested in being part of these agribusinesses?

Annex 2 Market survey tool

Agricultural commodity	Agricultural input	Type of input	Quantity	Price per unit in UGX
Crop production	Land	Hire		
	Planting materials/seed	Improved varieties		
	Farm equipment	Irrigation		
		Watering can		
		Pruning knives		
		Spray pump		
		Panga		
	Storage facility	Gunny bags		
		Buckets		
	Agrochemicals	Pesticides		
		Fungicides		
		Fertilizers		
		Compost manure		
		Herbicides		
	Labor	Casual laborers		
		Permanent		
	Marketing	Transportation		
		Market due		
	Yield	Per acre		
	Selling price			
Livestock production	Livestock breed	Improved breed		
	Watering	Water trough		
	Feeding	Feed trough		
	Housing	Building materials		
	Lighting	Solar unit		
	Honey Processing	Harvesting kit		
	Labor	Casual laborers		
		Permanent		
	Output	Per unit		
	Selling price	Per unit		

Annex 3 List of persons interviewed

District	Name	Designation	Contact
Bulisa	Beropamungu Esra	Farmer	0780168960
	Kermundu Rogers	Farmer	
	Katulinde Wycliff	District Production Officer (DPO)	0771856165
	Babihemaiso Doreen	District Agricultural Officer (DAO)	0775482991
Madi-Okollo	Ondoga Sirach	Secretary for Production	0774501750
	Angutoko Gilbert	District Veterinary Officer (DVO)	0782019383
	Drabe Ismail	Chairperson LC 5	0786997355
Nebbi	Okiria Peter	District Community Development Officer (DCDO)	0772683449
	Nyakuni Leverious	District Production Officer	
	Piwa Joyce	District Agricultural Officer	0772949799
	Pimundu Kemis	Agricultural Officer (AO)	07760645336
	Dr. Abedkane William	District Veterinary Officer	
	Yangcon Andrew	Municipal Production Officer	0774397438
	Opio Tonny	M&E Manager AFCE	0773868515
	Masendi Alfred	Coordinator Caritas Nebbi	0772862458
	Oyirwot Emmanuel	Caritas Nebbi	0782721829
	Ayanya Phoebe	Farmer	0778427811
	Cwinywukwi Denis Rogers	Farmer	0779255791
	Oyergiu Nickson	Farmer	0780773769
	Onencan Kizito	Farmer	0772597112
	Opio Issac	Farmer	0786697614
	Gidaga Pastore	V/C Local Council 5	0772418059
	Subra Saidi	Assistant RDC	0787786066
	Kawambe Felix	District Agricultural Officer	0782410991
Pakwach	Habajja Samuel	District Production Officer	0772342228
	Jakweyo Garistopher	District Commercial Officer (DCO)	0772348812
	Odaga Daniel	Youth Focal Point Person	0773380864
	Canpara Robert	District Veterinary Officer	07722858719
	Oloya Micheal	District Fisheries Officer	0773363313
	Namugaya Dinnah Okello	Secretary Social Services	0781811710
	Akello Jeska Okori	Council member	0779361009
	Kumakech Simon	Farmer	0774950058
	Owachgiu Donald	Farmer	0774139666
	Ongom George	Farmer	0781075349
	Opio Charles	Farmer	0781483228
	Olindi Max Alfred	Farmer	0772622750

Annex 4: Emerging agribusinesses by districts

District	Priority agribusinesses
Pakwach	• Horticulture (Watermelon, tomato, okra, egg plant, and african egg plant) • Fruit growing (Citrus, Mango, Pawpaw, jack fruit) • Cashewnuts • Grapes • Soybean
Nebbi	• Coffee • Fruit growing (Citrus and Mango) • Produce buying and selling • Macadamia • Cashenuts • Cocoa • Grapes • Banana • Piggery • Apiary • Horticulture
Madi-Okollo	• Horticulture (Watermelon, tomato, okra, egg plant, and african egg plant) • Poultry (Kroiler birds) • Fish farming
Bulisa	• Horticulture (Watermelon, tomato, pumpkins, onions, nakati, dodo, cabbage, egg plant, and african egg plant) • Fish mongering and Fish value addition (smoking and sun drying) • Apiary

Annex 5: Priority agribusinesses

Priority old agribusinesses	New agribusinesses	Priority agribusinesses on high up-scale in the districts
• African egg plant • Apiary • Banana • Beans • Bull fattening • Cabbage • Cassava • Cattle • Citrus • Coffee • Dodo • Egg plant, • Fish value addition (smoking and sun drying) • Goat rearing • Grinding mills • Ground Nuts • Horticulture • Irish Potato • Local poultry • Mango • Nakati • Onions • Piggery • Poultry • Produce buying and selling • Rice • Sesame • Tomato • Watermelon	• African egg plant • Apiary • Banana • cabbage • Cashew nuts • Citrus • Cocoa • Coffee • Dodo • Egg plant • Grapes • Macadamia • Mango • Nakati • Okra • Onions • Pawpaw • Piggery • Poultry (Kroiler birds) • Soybean • Tomato • Watermelon	• African egg plant • Apiary • Banana • Beans • Cabbage • Cashew nuts • Cassava • Citrus (oranges) • Cocoa • Coffee (arabica) • Dodo • Egg plant • Goat rearing • Grapes • Ground Nuts • Irish Potato • Macadamia • Mango • Nakati • Okra • Onions • Pawpaw • Piggery • Poultry (local) • Poultry (Kuroiler birds) • Rice • Soybean • Suflower • Tomato • Watermelon

Annex 6: Commodity Agribusiness Profitability Analysis

Variable Input Costs	Sunflower (1 acre)		
	Qty	Unit cost	Total cost
Inputs			
Seed	2	25,000	50,000
Packaging materials	10	1,000	10,000
Oxen hire for 1st ploughing	1	60,000	60,000
Sub total Inputs			120,000
Hire Labor			
Planting	1	60,000	60,000
Weeding	2	50,000	100,000
Harvesting	10	2,500	25,000
Threshing and winnowing	1	25,000	25,000
Sub total labor			210,000
Marketing Costs			
Labor for packaging /loading	10	2,000	20,000
Transport to market	10	3,000	30,000
Market information	1	5,000	5,000
Market dues per bag	10	3,000	30,000
Sub total marketing costs			85,000
Total Variable Costs			415,000
Yield estimates			
Estimated sunflower seed production /acre in kilograms			500
1% loss in threshing, winnowing and storage			5
Quantity for sale			495
Production cycle in months			4
Sales estimates			
Sales price per kilogram			1100
Gross sales			544,500
Net revenue			129,500
Monthly income			32,375
US\$ RATE =UGX 3,700 and average yield per acre is 6-10 bags and @ bag weighs 60-65 Kg			

Variable Costs	Soybean (1 acre)		
	Qty	Unit cost	Total cost
Inputs			
Seed	30	3,500	105,000
Nylon bags	4	1,000	4,000
Sub total Inputs			109,000
Hire Labor			
Labor for 1st ploughing	1	100,000	100,000
Labor for 2nd ploughing	1	80,000	80,000
Planting	1	40,000	40,000
Labor for weeding	2	120,000	240,000
Labor for harvesting	1	70,000	70,000
Threshing and winnowing	1	20,000	20,000
Sub total labor			550,000
Marketing Costs			
Labor for packaging /loading	2	2,000	4,000
Transport to market	2	2,000	4,000
Market information	1	5,000	5,000
Market dues per bag	2	2,000	4,000
Sub total marketing costs			17,000
Total Variable Costs			676,000
Yield estimates			
Estimated soybean production /acre in kilograms			500
Quantity for food (3%)			15
Quantity for sale			485
Production cycle in months			4
Sales estimates			
Sales price per kilogram			2500
Gross sales			1,212,500
Net revenue			536,500
Monthly income			134,125
US\$ RATE =UGX 3,700 and average yield of 800Kg per acre			

Variable Costs	Broad Bean NABE 14 (1 acre)		
	Qty	Unit cost	Total cost
Inputs			
Seed in Kilogram	30	3,000	90,000
Sub total Inputs			90,000
Hire Labor			
Oxen hire for 1st ploughing	1	60,000	60,000
Planting	1	60,000	60,000
Labor for weeding	2	50,000	100,000
Labor for spraying	2	30,000	60,000
Labor for harvesting	6	2,500	15,000
Threshing and winnowing	1	20,000	20,000
Sub total labor			315,000
Marketing Costs			
Packaging materials	6	1,000	6,000
Labor for packaging /loading	6	2,000	12,000
Transport to market	6	2,000	12,000
Market information	1	5,000	5,000
Market dues per bag	6	2,000	12,000
Sub total marketing costs			47,000
Total Variable Costs			452,000
Yield estimates			
Estimated soybean production /acre in kilograms			600
Quantity for food (3%)			18
Quantity for sale			582
Production cycle in a year			2
Sales estimates			
Sales price per kilogram			3000
Gross sales			1,746,000
Net revenue			1,294,000
Monthly income			647,000
US\$ RATE =UGX 3,700 and average yield of 600Kg per acre			

	Rice (1 acre) hurled				Rice (1 acre) unhurled		
Variable Costs	Qty	Unit cost	Total cost		Qty	Unit cost	Total cost
Inputs							
Seed	25	5,000	125,000		25	5,000	125,000
Chemicals-fertilizer (DAP & UREA) + Nylon bags	75	5,000	375,000		75	5,000	375,000
Packaging materials	15	1,000	15,000		15	1,000	15,000
Oxen hire for 1st ploughing	1	80,000	80,000		1	80,000	80,000
Tarpulin	4	50,000	200,000		4	50,000	200,000
Sub total Inputs			595,000				595,000
Hire Labor							
Land hire	1	50,000	50,000		1	50,000	50,000
Land clearing	1	80,000	80,000		1	80,000	80,000
1st ploughing	1	100,000	100,000		1	100,000	100,000
Harrowing	1	80,000	80,000		1	80,000	80,000
Sowing	1	80,000	80,000		1	80,000	80,000
Weeding	2	80,000	160,000		2	80,000	160,000
Thinning	1	30,000	30,000		1	30,000	30,000
Spraying pesticides and fungicides	2	50,000	100,000		2	50,000	100,000
Fertilizer application	1	50,000	50,000		1	50,000	50,000
Bird scaring in man days	30	5,000	150,000		30	5,000	150,000
Harvesting	10	5,000	50,000		10	5,000	50,000
Transport home/store per bag/boda boda	15	2,000	30,000		15	2,000	30,000
Threshing and winnowing	1	50,000	50,000		1	50,000	50,000
Sub total labor			780,000				780,000
Marketing Costs							
Transport to the milling plant per bag	15	2,000	30,000			-	-
hurling/milling fee	1,500	300	450,000			-	-
Labor for packaging /loading	10	5,000	50,000		2	5,000	10,000
Transport to market	10	2,000	20,000		15	2,000	30,000
Market information	5	5,000	25,000		5	5,000	25,000
Market dues per bag	13	5,000	62,500		15	5,000	75,000
Sub total			607,500				140,000
Total Variable Costs			1,982,500			1,515,000	
Yield estimates							
Estimated milled rice production /acre in kilograms			1,050				1,500
Quantity for food/loss (10%)			53				75
Quantity for sale			998				1,425
Production cycle in a year			2				2
Sales estimates							
Sales price per kilogram			5000				1500
Gross sales in a year			9,975,000				4,275,000
Net revenue			7,992,500				2,760,000
Monthly income			666,042				230,000
US\$ RATE =UGX 3,700 and average yield of 1500Kg per acre							

Cost Area	Cassava chips - NASE 14 (1 acre)		
	Qty	Unit cost	Total cost
Production Inputs			
Cassava cuttings & Transportation	7	30,000	210,000
Packaging materials (nylon bags)	15	1,000	15,000
Tarpulin	2	50,000	100,000
Sisal thread (Rolls)	5	10,000	50,000
Sub total			375,000
Hired labor			
Removing tree stamps and shrubs	5	5,000	25,000
1st ploughing	1	100,000	100,000
2nd ploughing	1	80000	80,000
Planting	5	10,000	50,000
Weed Control	3	80,000	240,000
Harvesting	10	5,000	50,000
Transporting home/store	15	2,000	30,000
Sub total for production			575,000
Processing cassava chips			
Peeling	20	5,000	100,000
Fermentation for 5 days	5	5,000	25,000
choppingand spreading	5	5,000	25,000
Drying for 5 days	5	5,000	25,000
Transport to milling plant		2,000	-
Sub total processing			175,000
Marketing			
Packaging materials in bags	25	1,000	25,000
Labor for packaging	25	500	12,500
Market search /information	1	25,000	25,000
Transport to market	25	2,000	50,000
Sub total for marketing			112,500
Total Investment Cost			1,237,500
Estimated yield of cassava chips in Kilogram per acre	3,000	1	3,000
Quantity for food (15%)			450
Quantity for sale			2,550
Production cycle in a year			1
Sales Estimates			
Sales price per unit			500
Gross revenue			1,275,000
Net revenue			37,500
Monthly income			37,500
US\$ RATE =UGX 3,700 and average yield of 1500Kg per acre			

Cost Area	Cassava Flour -NASE 14 (1 acre)		
	Qty	Unit cost	Total cost
Production Inputs			
Cassava cuttings & Transportation	7	30,000	210,000
Packaging materials (nylon bags)	15	1,000	15,000
Tarpulin	4	50,000	200,000
Sisal thread (Rolls)	5	10,000	50,000
Sub total			475,000
Hired labor			
Removing tree stamps and shrubs	10	5,000	50,000
1st ploughing	1	100,000	100,000
2nd ploughing	1	80000	80,000
Planting	5	10,000	50,000
Weeding 3 times a year	3	80,000	240,000
Harvesting	20	5,000	100,000
Transporting home/store	15	2,000	30,000
Sub total for production			650,000
Processing cassava chips			
Peeling	20	5,000	100,000
Fermentation for 5 days	25	5,000	125,000
choppingand spreading	5	5,000	25,000
Drying for 5 days	5	5,000	25,000
Transport to milling plant	15	2,000	30,000
Milling /Grinding fee	2,250	100	225,000
Sub total processing			530,000
Marketing			
Labor for packaging	15	500	7,500
Market search /information	1	25,000	25,000
Transport to market	15	2,000	30,000
Sub total for marketing			62,500
Total Investment Cost			1,717,500
Estimated yield of cassava flour\ in Kilogram per acre	3,000	1	3,000
Quantity for food (25%)			750
Quantity for sale			2,250
Production cycle in a year			1
Sales Estimates			
Sales price per unit			1,000
Gross revenue			2,250,000
Net revenue			532,500
Monthly income			532,500
US\$ RATE =UGX 3,700 and average yield of 1200 Kg per acre			

	African Eggplant (1 acre)		
	Qty	Unit cost	Total cost
Inputs			
Seed (500 gms)	20	5,000	100,000
Pesticides and fungicides	1	152,000	152,000
Packaging materials	1	20,000	20,000
Harvesting knives	5	500	2,500
Hire of land	1	50,000	50,000
Sub total Inputs			324,500
Hire Labor			
Labor for first ploughing	1	80,000	80,000
Labor for harrowing	1	70,000	70,000
Labor for digging farrows	1	60,000	60,000
Labor for sowing	1	50,000	50,000
Labor for thinning	1	100,000	100,000
Labor for 1st weeding	1	60,000	60,000
Labor for 2nd weeding	1	50,000	50,000
Labor for 3rd weeding	1	30,000	30,000
Labor for spraying	4	40,000	160,000
Labor for harvesting	18	5,000	90,000
Packaging and handling in bags	75	1,000	75,000
Transportation	7	150,000	1,050,000
Storage	2	50,000	100,000
Market dues	3	20,000	60,000
Sub total labor			2,035,000
Total Variable Cost			2,359,500
Yield estimates			
Estimated yield /acre in kg /tons			15000
Quantity for food and loss (10%)			1,500
Quantity for sale			13,500
Production cycle in months			1
Sales estimates			
Sales price per bundle			1,000
Gross sales-High yield			13,500,000
Net revenue-High yield			11,140,500
Monthly income-High yield			1,114,050
Sales price per unit			1,000
Gross revenue			2,250,000
Net revenue			532,500
Monthly income			532,500
US\$ RATE =UGX 3,700 and average yield of 1200 Kg per acre			

Costs Areas	Paw paw (1 acre)		
	Qty	Unit cost	Total cost
Inputs			
Land	1	1,500,000	1,500,000
Seedlings	500	2,000	1,000,000
Transporting seedlings	1	500,000	500,000
Tools (Hoes, watering can, Spray pump, Slashers , Pangas, Secateurs)	1	380,000	380,000
Chemicals (pesticides and fungicides)	1	100,000	100,000
Nylon bags	100	1,000	100,000
Sub total inputs			3,580,000
Hire Labor			
Labor for ploughing	1	120,000	120,000
Digging fertigation trenches	4	75,000	300,000
Labor for pitting and putting pegs	1	20,000	20,000
Labor digging holes	500	1,000	500,000
Labor for transplanting	500	500	250,000
Labor for weeding	3	80,000	240,000
Labor for slashing during growth	3	50,000	150,000
Labor for pruning	2	80,000	160,000
Labor for watering	12	45,000	540,000
Labor for spraying	4	50,000	200,000
Labor for harvesting /picking	12	20,000	240,000
Sub total labor			2,600,000
Marketing			
Transport to market/Motor tricycle hire	12	250,000	3,000,000
Market search /information	12	50,000	600,000
Sub total marketing costs			3,600,000
Total Fixed and Variable Costs			9,780,000
Yield estimates			
Estimated yield /acre in number of fruit per tree per year	500	50	25,000
Quantity for home consumption and pest and disease damage (15%)			3,750
Quantity for sale			21,250
Production cycle in months			9
Sales estimates			
Sales price per fruit			1,500
Gross sales			31,875,000
Net revenue			22,095,000
Monthly income in UGX			2,455,000
US\$ RATE =UGX 3,700			

Inputs	Okra (1 acre)		
	Qty	Unit cost	Total cost
Seed	1	50,000	50,000
Pesticides and fungicides	1	152,000	152,000
Packaging materials	1	20,000	20,000
Harvesting knives	5	500	2,500
Hire of land	1	50,000	50,000
Sub total Inputs			274,500
Hire Labor			
Labor for first ploughing	1	80,000	80,000
Labor for harrowing	1	70,000	70,000
Labor for digging farrows	1	60,000	60,000
Labor for planting	1	50,000	50,000
Labor for 1st weeding	1	60,000	60,000
Labor for 2nd weeding	1	50,000	50,000
Labor for 3rd weeding	1	30,000	30,000
Labor for spraying	8	40,000	320,000
Labor for harvesting	18	5,000	90,000
Sub total labor			810,000
Total Variable Cost			1,084,500
Yield estimates			
Estimated yield /acre in kg			2500
Quantity for food (15%)			375
Quantity for sale			2,125
Production cycle in months			2
Sales estimates			
Sales price per basin			5,000
Gross sales-High yield			10,625,000
Net revenue-High yield			9,540,500
Monthly income-High yield			954,050
Quantity for sale			21,250
Production cycle in months			9
Sales estimates			
Sales price per fruit			1,500
Gross sales			31,875,000
Net revenue			22,095,000
Monthly income in UGX			2,455,000

Inputs	Nakati (1 acre)		
	Qty	Unit cost	Total cost
Seed (500 gms)	10	8,000	80,000
Pesticides and fungicides	1	152,000	152,000
Packaging materials	1	20,000	20,000
Harvesting knives	5	500	2,500
Hire of land	1	50,000	50,000
Sub total Inputs			304,500
Hire Labor			
Labor for first ploughing	1	80,000	80,000
Labor for harrowing	1	70,000	70,000
Labor for digging farrows	1	60,000	60,000
Labor for sowing	1	50,000	50,000
Labor for thinning	1	100,000	100,000
Labor for 1st weeding	1	60,000	60,000
Labor for 2nd weeding	1	50,000	50,000
Labor for 3rd weeding	1	30,000	30,000
Labor for spraying	4	40,000	160,000
Labor for harvesting	18	5,000	90,000
Sub total labor			750,000
Total Variable Cost			1,054,500
Yield estimates			
Estimated yield /acre in kg			10,197
Quantity for food (5%)			510
Quantity for sale			9,687
Production cycle in months			1
Sales estimates			
Sales price per bundle			1,000
Gross sales-High yield			9,687,150
Net revenue-High yield			8,632,650
Monthly income-High yield			863,265
Production cycle in months			9
Sales estimates			
Sales price per fruit			1,500
Gross sales			31,875,000
Net revenue			22,095,000
Monthly income in UGX			2,455,000

Variable Input Costs	Cabbage (1 acre)		
	Qty	Unit cost	Total cost
Inputs			
Seed in 20g packets	25	10,000	250,000
Nursery equipment (wheel barrow, watering cans, knives, etc)	1	250,000	250,000
Nursery bed construction materials (wooden poles, sisal strings, grass, etc)	1	200,000	200,000
Small solar powered irrigation facility	1	2,500,000	2,500,000
Pesticides and fungicides	5	25,000	125,000
Compost manure	1	100,000	100,000
Fertilizers	2	150,000	300,000
Transporting inputs to farm	1	100,000	100,000
Sub total Inputs			3,825,000
Labor			
Construction of nursery bed in man days	5	20,000	100,000
Land opening	1	100,000	100,000
Harrowing/ 2nd ploughing	1	80,000	80,000
Nursery management in man days	60	5,000	300,000
Transplanting	10	10,000	100,000
Irrigating the garden in man days	12	10,000	120,000
Weeding	2	50,000	100,000
Spraying pesticides and fungicides two times	5	10,000	50,000
Application of fertilizers in man days	5	10,000	50,000
Application of compost manure in man days	5	10,000	50,000
Harvesting	10	2,500	25,000
Sub total labor			975,000
Marketing Costs			
Packaging materials	200	1,000	200,000
Transport to market	1	200,000	200,000
Market information	1	5,000	5,000
Market dues per bag	200	10,000	2,000,000
Sub total marketing costs			2,405,000
Total Variable Costs			7,205,000
Yield estimates			
Estimated cabbage heads /acre			24,000
Quantity for food 5%			240
Quantity for sale			23,760
Production cycle in a year			2
Sales estimates			
Average sales price per head			500
Gross sales in a year			23,760,000
Net revenue			16,555,000
Monthly income			8,277,500
US\$ RATE =UGX 3,700 and average yield per acre is 24000 heads with spacing of 30*40cm			

Cost Area	Water melon (1 acre)		
	Qty	Unit cost	Total cost
Production			
Seed	1	350,000	350,000
Pesticides, fungicides & fertilizer	1	200,000	200,000
Fertilizers (Foliar NPK, granular NPK, Urea & CAN)	83	6,500	539,500
Mulching materials (rice straw)	1	70,000	70,000
Sisal strings	1	10,000	10,000
Hire of land	1	50,000	50,000
Labor for 1st ploughing	1	80,000	80,000
Labor for 2nd ploughing	1	70,000	70,000
Labor digging farrows	1	60,000	60,000
Labor for planting	1	50,000	50,000
Labor for 1st weeding	1	60,000	60,000
Labor for 2nd weeding	1	50,000	50,000
Labor for 3rd weeding	1	30,000	30,000
Labor for mulching	1	35,000	35,000
Labor for applying fertilizer	1	60,000	60,000
Labor for spraying	1	30,000	30,000
Labor for turning the fruits	2	30,000	60,000
Labor for harvesting	2,800	100	280,000
Sub total for production			2,084,500
Marketing			
Packaging materials in bags	100	1,000	100,000
Labor for loading & offloadng	2,800	100	280,000
Market search /information	3	30,000	90,000
Transport to market in Pakwach	1	250,000	250,000
Sub total for marketing			720,000
Total Investment Cost			2,804,500
Estimated yield in number of fruits per acre	1	2,800	2,800
Quantity for food (1%)			28
Quantity for sale			2,772
Production cycle in months			7
Sales Estimates			
Sales price per unit			3,000
Gross revenue			8,316,000
Net revenue			5,511,500
Monthly income			787,357

	Eggplant / Brinjal (1 acre)		
	Qty	Unit cost	Total cost
Inputs			
Seed (500 gms)	20	5,000	100,000
Pesticides and fungicides	1	152,000	152,000
Packaging materials	1	20,000	20,000
Harvesting knives	5	500	2,500
Hire of land	1	50,000	50,000
Sub total Inputs			324,500
Hire Labor			
Labor for first ploughing	1	80,000	80,000
Labor for harrowing	1	70,000	70,000
Labor for digging farrows	1	60,000	60,000
Labor for sowing	1	50,000	50,000
Labor for thinning	1	100,000	100,000
Labor for 1st weeding	1	60,000	60,000
Labor for 2nd weeding	1	50,000	50,000
Labor for 3rd weeding	1	30,000	30,000
Labor for spraying	4	40,000	160,000
Labor for harvesting	18	5,000	90,000
Packaging and handling in bags	75	1,000	75,000
Transportation	7	150,000	1,050,000
Storage	2	50,000	100,000
Market dues	3	20,000	60,000
Sub total labor			2,035,000
Total Variable Cost			2,359,500
Yield estimates			
Estimated yield /acre in kg /tons			17000
Quantity for food (5%)			850
Quantity for sale			16,150
Production cycle in months			5
Sales estimates			
Sales price per bundle			500
Gross sales-High yield			8,075,000
Net revenue-High yield			5,715,500
Monthly income-High yield			571,550

Cost Area	Irish Potato (1 acre)			Total cost
	Qty	Frequency	Unit cost	
Production inputs				
Seeds & Transportation	8	1	300,000	2,400,000
Farm equipment (Hand hoe, spray pump)	1	1	200,000	200,000
Fertilizers (NPK; DAP; CAN) in kg	2	1	150,000	300,000
Pesticides and fungicides	1	2	50,000	50,000
Small solar powered irrigation facility	1	1	2,500,000	2,500,000
Gunny bags	40	1	1,000	40,000
Sub total				5,490,000
Labor				
Slashing	1	1	50,000	50,000
1st ploughing	1	1	100,000	100,000
Harrowing/ 2nd ploughing	1	1	80,000	80,000
Planting in man days	20	1	5,000	100,000
Irrigating the garden in man days	2	16	5,000	160,000
Weeding in man days	20	2	5,000	200,000
Spraying pesticides and fungicides once in 2 weeks	1	6	10,000	60,000
Application of fertilizers in man days	20	1	5,000	100,000
Harvesting	20	1	5,000	100,000
Transportation to store	40	1	2,000	80,000
Sub total for production				1,030,000
Marketing				
Market due per bag	40	2	5,000	400,000
Labor for packaging	40	2	500	40,000
Market search /information	1	2	30,000	60,000
Transport to market	40	2	5,000	400,000
Sub total for marketing				900,000
Total Investment Cost				7,420,000
Estimated yield per vine in bags per season	1	1	40	40
Quantity for food (2%)				1
Quantity for sale for food				39
Quantity for sale for seed				39
Production cycle in a year				2
Sales Estimates				
Sales price per bag for food				150,000
Sales price per bag for seed				250,000
Gross revenue from table potato				11,760,000
Net revenue from table potato				4,340,000
Monthly income from table potato				361,667
Gross revenue from seed potato				19,500,000
Net revenue from seed potato				12,080,000
Monthly income from seed potato				1,006,667
US\$ RATE =UGX 3,700 and average yield per acre is 40 bags				

Variable Input Costs	Tomatoe (1 acre)		
	Qty	Unit cost	Total cost
Inputs			
Seed in 50g packets	2	225,000	450,000
Nursery equipment (wheel barrow, watering cans, knives, etc)	1	250,000	250,000
Nursery bed construction materials (wooden poles, sisal strings, grass, etc)	1	200,000	200,000
Plastic bottles for irrigation in Kg	80	5,000	400,000
Water for irrigation -20Liter Jerrycans	1,000	500	500,000
Pesticides and fungicides	2	200,000	400,000
Fertilizer	2	150,000	300,000
Tarpulin	2	35,000	70,000
Plastic basins	8	10,000	80,000
Pakaging boxes	20	6,000	120,000
Sub total Inputs			2,770,000
Labor			
Labor for 1st ploughing	1	120,000	120,000
Labor for 2nd ploughing	1	60,000	60,000
Labor for digging farrows	2	45,000	90,000
Nursery management in man days	60	10,000	600,000
Transplanting	1	80,000	80,000
Labor for 1st weeding	1	60,000	60,000
Labor for 2nd weeding	1	50,000	50,000
Labor for 3rd weeding	1	25,000	25,000
Labor for pruning weekly	24	7,500	180,000
Labor for staking	1	100,000	100,000
Spraying pesticides and fungicides two times	12	10,000	120,000
Labor for harvesting per box	12	10,000	120,000
Sub total labor			1,485,000
Marketing Costs			
Transport to market	1	400,000	400,000
Market information	1	25,000	25,000
Market dues per bag	12	20,000	240,000
Sub total marketing costs			665,000
Total Variable Costs			4,920,000
Yield estimates			
Estimated yield in boxes /1 acre	1	24	24
Quantity for food			0
Quantity for sale			24
Production cycle in months			5
Sales estimates			
Sales price per box			350,000
Gross sales			8,316,000
Net revenue			3,396,000
Monthly income			679,200

Costs Areas	Bananas-Cooking Type (1 acre)		
	Qty	Unit cost	Total cost
Inputs			
Planting materials /Suckers	450	2,000	900,000
Transporting suckers	1	100,000	100,000
Sub total Inputs			1,000,000
Hire Labor			
Labor for slashing	1	60,000	60,000
Labor for first plooging	1	180,000	180,000
Labor digging holes	450	500	225,000
Labor for preparing suckers	450	500	225,000
Labor for planting	450	500	225,000
Labor for weeding	3	80,000	240,000
Labor for pruning	2	30,000	60,000
Supporting plants for propping	450	2,000	900,000
Labor for harvesting	12	11,500	138,000
Sub total labor			2,013,000
Marketing			
Labor loading and offloading	1,350	500	675,000
Transport to market/boda boda hire	1,350	1,000	1,350,000
Market search /information	12	20,000	240,000
Sub total marketing costs			2,265,000
Other costs			
Market dues per bunch	1,350	1,000	1,350,000
Sub total other costs			1,350,000
Total Variable Cost			6,628,000
Yield estimates			
Estimated yield /acre in bunhes per year			1,350
Quantity for food (2%)			27
Quantity for sale			1,323
Production cycle in months			9
Sales estimates			
Sales price per bunch			10,000
Gross sales			13,230,000
Net revenue			6,602,000
Monthly income in UGX			733,556
US\$ RATE =UGX 3,700			

	Dodo (1 acre)		
	Qty	Unit cost	Total cost
Inputs			
Seed (500 gms)	20	3,500	70,000
Pesticides and fungicides	1	152,000	152,000
Packaging materials	1	20,000	20,000
Harvesting knives	5	500	2,500
Hire of land	1	50,000	50,000
Sub total Inputs			294,500
Hire Labor			
Labor for first ploughing	1	80,000	80,000
Labor for harrowing	1	70,000	70,000
Labor for digging farrows	1	60,000	60,000
Labor for sowing	1	50,000	50,000
Labor for thinning	1	100,000	100,000
Labor for 1st weeding	1	60,000	60,000
Labor for 2nd weeding	1	50,000	50,000
Labor for 3rd weeding	1	30,000	30,000
Labor for spraying	4	40,000	160,000
Labor for harvesting	18	5,000	90,000
Sub total labor			750,000
Total Variable Cost			1,044,500
Yield estimates			
Estimated yield /acre in kg	1	3,750	3,750
Quantity for food (5%)			188
Quantity for sale			3,563
Production cycle in months			1
Sales estimates			
Sales price per bundle			1,000
Gross sales-High yield			3,562,500
Net revenue-High yield			2,518,000
Monthly income-High yield			251,800

	Bee keeping (10 KTB hives)		
Inputs	Qty	Unit cost (UGX)	Total cost (UGX)
Fixed Costs			
KTB hives	10	100000	1,000,000
Wax	1	15,000	15,000
Harvesting kits	1	225,000	225,000
Buckets	1	20,000	20,000
Sub total fixed costs			1,260,000
Variable Costs and Value of Outputs			
Transporting hives	10	5,000	50,000
Labor for harvesting	2	20,000	40,000
Market search /information	1	5,000	5,000
Total Variable Cost			95,000
Total Investment Cost			1,355,000
Production estimates			
Average processed honey production per hive in kg	10	15	150
Average amount of honey consumed at home			5
Quantity of processed honey for sale			145
Sales estimates			
Sales price per kg of honey			20000
Gross sales			2,900,000
Net revenue			1,545,000
Monthly household income in UGX			257,500

Programmed Hatching				
	Local Poultry (1Cock and 5 Hens /Pullets)			
Free Range (Scavenging birds)	Qty	Unit cost (UGX)	Total cost (UGX)	Year 2
Fixed Costs				
Foundation Stock				
Cock	1	55,000	55,000	
Pullets/Hens	5	30,000	150,000	
Shelter construction	1	1,000,000	1,000,000	
Wooden Feeders	2	10,000	20,000	
Drinkers	3	15,000	45,000	
Solar lamp	1	40,000	40,000	
Jerrycans	1	5,000	5,000	
Basins	1	10,000	10,000	
Buckets	1	5,000	5,000	
Baskets	1	5,000	5,000	
Charcoal stoves	2	25,000	50,000	
Charcoal	1	25,000	25,000	
Sub total fixed costs			1,410,000	
Variable Costs and Value of Outputs				
Veterinary drugs	1	50,000	50,000	
Vaccines	5	5,000	25,000	
Detergents for cleaning	1	15,000	15,000	
Feed supplements (rice & maize bran)	300	250	75,000	
Depreciation of shelter at 5% p.a			50,000	
Labor for drug & vaccines administration	5	5,000	25,000	
Transporting feed and equipment	1	20,000	20,000	
Market search /information	1	50,000	50,000	
Total Variable Cost			310,000	
Total Investment Cost			1,720,000	1,720,000
Production estimates				
Average number of chicks per hen	5	8	40	80
Average number of chicks per year			120	240
Estimated number of cocks and hens for sale less 5%			6	12
Number for sale			114	228
Number of hatchings per hen per year			4	4
Sales estimates				
Sales price per bird			30,000	30,000
Gross sales			3,420,000	6,840,000
Net revenue			1,700,000	5,120,000
Monthly household income in UGX			141,667	426,667
1 USD\$ =3700 UGX				
Note: In the second year the number of pullets increase to 10 for 5 cocks				

	Kroiler chicken (500 birds)		
Inputs	Qty	Unit cost (UGX)	Total cost (UGX)
Fixed Costs			
Start-up Stock			
Kroiler chicks	500	3,500	1,750,000
House construction	1	5,000,000	5,000,000
Feed troughs	5	20,000	100,000
Drinkers	5	20,000	100,000
Solar unit	1	350,000	350,000
Water	4	30,000	120,000
Jerrycans	1	10,000	10,000
Basins	1	10,000	10,000
Buckets	1	5,000	5,000
Baskets	1	5,000	5,000
Charcoal stoves	2	25,000	50,000
Charcoal	1	35,000	35,000
Sub total fixed costs			7,535,000
Variable Costs and Value of Outputs			
Veterinary drugs and vaccines	1	400,000	400,000
Detergents for cleaning	1	15,000	15,000
Feeds	1	800,000	800,000
Depreciation of shelter at 5% p.a			250,000
Labor for drug & vaccines administration	5	5,000	25,000
Transporting feed and equipment	1	20,000	20,000
Litter	1	80,000	80,000
Market search /information	1	65,000	65,000
Labor for unit attendant	3	150,000	450,000
Total Variable Cost			2,105,000
Total Investment Cost			9,640,000
Production estimates			
Estimated number of kroiler birds for sale less 5%	1	475	475
Number for sale			475
Number of batch per year			3
Sales estimates			
Sales price per bird			25000
Gross sales			11,875,000
Net revenue			2,235,000
Monthly household income in UGX			745,000

	Piggery (1 Boar and 4 Gilts)		
Variable Costs	Qty	Unit cost	Total cost
Stock Number (Improved Breed)			
Gilts	4	150,000	600,000
Boar	1	200,000	200,000
Sub total stock number			800,000
Other inputs			
House construction	1	500,000	500,000
Veterinary drugs/services	1	150,000	150,000
Rice bran & maize bran	1	4,752,000	4,752,000
Sub total Inputs			5,402,000
Average furrow size per sow	4	10	40
Hire Labor			
Labor for general management	5	50,000	250,000
Labor for veterinary services	6	50,000	300,000
Sub total labor			550,000
Marketing			
Transporting feed to store per bag	50	2,000	100,000
Market search /information	8	5,000	40,000
Transporting pigs to the market	100	5,000	500,000
Market dues per day	14	5,000	70,000
Sub total marketing costs			710,000
Total Variable Cost			7,962,000
Production estimates			
Furrowing time per year			2.5
Number of piglets per year			100
Number of mature pigs for sale			100
Number of piglets for sale at end of year			100
Production cycle in months			12
Sales estimates			
Sales price per 8 months pig	50		250,000
Sales price per 3 months piglet	50		130,000
Gross sales for 8 months pigs			12,500,000
Gross sales for 3 months piglet			6,500,000
Total Gross Sales			19,000,000
Net revenue			11,038,000
Monthly household income in UGX			919,833
US\$ RATE =UGX 3,700			

Key Aspects

- Variable costs are the costs for feed s, labor for management, depreciation of house and veterinary drugs administered.
- Fixed costs are costs of a house and purchasing a Boar and a Sow for first breeding
- The cost of feed is estimated at UGX 2,557 per month
- The depreciated cost of pig house is estimated at UGX 3,125 per month
- A mature pig is sold at 6-8 months
- To imcrease litter size per sow, it is recommended to use different Boars for breeding
- Average selling price of a piglet is UGX 50,000

- Average selling price of a mature pig is UGX 250,000

Assumptions

- Veterinary drugs, vaccines and feeds are available and affordable all year round
- The youth are able to remain committed to the work.
- Demand for pigs continue to increase.

Risks

- Increase incidences of pig diseases and parasites
- Feeds and water not given at the right quantity and quality

Local Goat Rearing (1 Buck and 10 Does)												
Costs Areas	Qty	Unit cost	Total cost	2nd Year	3rd Yera	4th year	5th year	6th year	7th year	8th year	9th year	10th year
Opening stock and housing materials												
Opening breeding buck	1	250,000	250,000									
Opening breeding does	10	180,000	1,800,000									
Wooden pegs	20	15,000	300,000									
Poles	20	10,000	200,000									
Reeds in bundles	30	20,000	600,000									
Sisal strings in bundles	10	5,000	50,000									
Strats	20	5,000	100,000									
Iron sheets	25	40,000	1,000,000									
Roofing nails in kg	50	3,500	175,000									
Transport of stock	11	20,000	220,000									
Transport of construction materials	1	300,000	300,000									
Sub total opening stock and housing materials			4,995,000									
Equipment, veterinary service, water and feeding foe 11 goats in year 1												
Deworming drugs (Every 3 months)	44	500	22,000	30,000	30,000	35,000	35,000	40,000	35,000	35,000	30,000	35,000
Vaccination (Assorted vaccines atleast 2 times a year)	22	5,000	110,000	120,000	125,000	130,000	130,000	135,000	135,000	140,000	1,350,000	145,000
Tick control using acaricides (Weekly)	52	500	26,000	30,000	30,000	35,000	35,000	35,000	40,000	40,000	45,000	45,000
Supplementary feeding in kg (Mineral leak)	1,419	100	141,900	178,000	180,000	200,000	225,000	240,000	250,000	275,000	300,000	320,000
Water (Each goat consumes 0.2 litres/day)	161	1,000	160,600	233,600	233,600	350,400	350,400	350,400	350,400	547,500	547,500	547,500
House repair and maintenance	1	250,000	250,000	300,000	300,000	300,000	350,000	350,000	350,000	375,000	375,000	375,000
Sub total equipment, veterinary service, water and feeding			710,500	891,600	898,600	1,050,400	1,125,400	1,150,400	1,160,400	1,412,500	2,647,500	1,467,500

Hired Labor													
Construction of goat house in man days	25	50,000	1,250,000										
Veterinary services	12	100,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
Herdsmen	12	100,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
Sub total hired labor			3,650,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000
Marketing													
Loading and offloading	23	1,000	23,000	30,000	50,000	70,000	100,000	150,000	150,000	200,000	200,000	200,000	250,000
Transport to market/vehicle hire	1	250,000	250,000	250,000	350,000	450,000	750,000	750,000	750,000	1,000,000	1,000,000	1,000,000	1,000,000
Market search /information	1	50,000	50,000	50,000	70,000	70,000	75,000	80,000	80,000	85,000	100,000	100,000	120,000
Sub total			323,000	330,000	470,000	590,000	925,000	980,000	1,230,000	1,285,000	1,300,000	1,300,000	1,370,000
Total investment in the year of sale			9,678,500	3,621,600	3,768,600	4,040,400	4,450,400	4,530,400	4,790,400	5,097,500	6,347,500	5,237,500	5,237,500
Stock growth estimates													
Estimated number of kids in 14 months													
Kidding (85%)			9	15	20	26	31	35	49	54	57	57	57
Kids (175%)			18	30	42	53	63	70	79	88	88	88	88
Kids mortality in a year (10%)			2	3	5	5	6	7	8	9	9	9	9
Kids alive			16	27	37	47	57	63	71	79	79	79	79
Replacement rate of 60% in the first year			7	11	14	18	22	24	27	30	30	30	30
Adult goat mortality (3%)			0	1	1	1	2	2	2	2	2	2	2
Closing breeding stock			18	24	30	36	40	45	50	50	50	50	50
Available stock for sale			9	21	30	36	41	58	64	67	67	67	67
Total stock before sale			27	45	60	72	81	103	114	117	117	117	117
Sales estimates													
Sales price per goat			180000	250,000	300,000	350,000	380,000	400,000	450,000	480,000	480,000	480,000	500,000
Gross sales per year			1,620,000	5,250,000	9,000,000	12,600,000	15,580,000	23,200,000	28,800,000	32,160,000	32,160,000	32,160,000	33,500,000
Net revenue			(8,058,500)	1,628,400	5,231,400	8,559,600	11,129,600	18,669,600	24,009,600	27,062,500	25,812,500	28,262,500	28,262,500
Monthly income in UGX				135,700	435,950	713,300	927,467	1,555,800	2,000,800	2,255,208	2,151,042	2,355,208	2,355,208
US\$ RATE = UGX 3,700													

Grapes for wine (640 vines per acre)												
Costs Areas	Qty	Unit cost	Total cost	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Inputs												
Seedlings	640	3,000	1,920,000									
Transporting seedlings	640	500	320,000									
Tools (Hoes, Slashers , Secateurs)	1	80,000	80,000					120,000				
Chemicals (Pesticides and fungicides)	1	100,000	100,000	120,000	125,000	130,000	120,000	140,000	140,000	130,000	125,000	140,000
Manures (Volums/ hole	2	350,000	700,000	700,000	750,000	750,000	800,000	750,000	750,000	820,000	800,000	820,000
Mulches (Grass Bundles)	10	5,000	50,000	50,000	70,000	75,000	75,000	80,000	80,000	75,000	85,000	85,000
Bambo reeds (Bundles)	2	16,000	32,000					50,000				
Poles for trellis	80	8,000	640,000					1,200,000				
Sugar in Kg	750	5,000	3,750,000	3,750,000	3,750,000	3,800,000	3,800,000	3,800,000	3,820,000	3,850,000	3,850,000	3,850,000
Plastic drum	64	100,000	6,400,000					7,000,000				
Jerrycan	64	10,000	640,000					1,280,000				
Sub total inputs			14,632,000	4,620,000	4,695,000	4,755,000	4,795,000	14,420,000	4,790,000	4,875,000	4,860,000	4,895,000
Hire Labor												
Labor for ploughing	1	30,000	30,000									
Digging fertigation trenches	25	20,000	500,000									
Trellis construction	10	30,000	300,000									
Pitng and putting pegs	640	2,000	1,280,000									
Digging holes	640	1,000	640,000									
Transplanting	640	1,000	640,000									
Weeding	640	1,000	640,000	640,000	768,000	768,000	800,000	800,000	896,000	896,000	960,000	960,000
Application of manure	640	1,000	640,000	640,000	768,000	768,000	800,000	800,000	896,000	896,000	960,000	960,000
Application of fertilizer	2	250,000	500,000	500,000	550,000	600,000	650,000	700,000	750,000	800,000	850,000	850,000
Pruning and suckering	50	10,000	500,000	200,000	230,000	240,000	250,000	270,000	280,000	300,000	350,000	350,000
Spraying of pesticides and fungicides	3	150,000	450,000	500,000	550,000	600,000	650,000	700,000	750,000	800,000	850,000	850,000
Harvesting /picking	50	10,000	500,000	550,000	550,000	600,000	650,000	700,000	750,000	800,000	850,000	850,000

Breaking and mixing	20	25,000	500,000	550,000	550,000	550,000	600,000	650,000	700,000	750,000	800,000	850,000	850,000
Transport to market (Hire of tipper)	2	350,000	700,000	750,000	770,000	800,000	850,000	900,000	950,000	1,000,000	1,000,000	1,200,000	1,200,000
Market search /information	2	100,000	200,000	220,000	250,000	275,000	280,000	300,000	350,000	400,000	450,000	450,000	450,000
Sub total labor			8,020,000	4,550,000	4,986,000	5,251,000	5,580,000	5,870,000	6,372,000	6,692,000	7,320,000	7,320,000	7,320,000
Total investment in year of harvest			22,652,000	9,170,000	9,681,000	10,006,000	10,375,000	20,290,000	11,162,000	11,567,000	12,180,000	12,215,000	12,215,000
Yield estimates													
Estimated output in bottles of wine per season (3 tons/acre; 750 liters per ton)	1	2,250			2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250
Quantity lost from processing (5%)					113	113	113	113	113	113	113	113	113
Quantity for sale					2,138	2,138	2,138	2,138	2,138	2,138	2,138	2,138	2,138
Production cycle in a year					2	2	2	2	2	2	2	2	2
Sales estimates													
Sales price per bottle of wine			10,000	10,000	15,000	15,000	20,000	20,000	20,000	20,000	25,000	25,000	25,000
Gross sales			-	-	64,125,000	64,125,000	85,500,000	85,500,000	85,500,000	85,500,000	106,875,000	106,875,000	106,875,000
Net revenue			(22,652,000)	(9,170,000)	54,444,000	54,119,000	75,125,000	65,210,000	74,338,000	95,308,000	94,695,000	94,660,000	94,660,000
Monthly income in UGX			(1,887,667)	(764,167)	4,537,000	4,509,917	6,260,417	5,434,167	6,194,833	7,942,333	7,891,250	7,888,333	7,888,333
US\$ RATE =UGX 3,700													

Cocoa (1 acre)												
Variable Costs	Qty	Unit cost	Total cost	2 nd Year	3rd Year	4th year	5th year	6th year	7th year	8th year	9th year	10th year
Inputs												
Seedlings	440	1,000	440,000								2,250	
Transporting seedlings	1	250,000	250,000									
Tools (Hoes, Slashers , Pangas, Secateurs)	1	150,000	150,000									
Chemicals (Pesticides and fungicides)	1	100,000	100,000	100,000	100,000	130,000	135,000	140,000	147,000	150,000	155,000	160,000
Fertiliser DAP in bags	6	150,000	900,000	300,000	300,000	625,000	630,000	640,000	650,000	700,000	730,000	750,000
Fertiliser MOP in bags	3	125,000	375,000	125,000	125,000	270,000	275,000	280,000	290,000	300,000	320,000	330,000
Manures (2 Lorry trips/year	2	180,000	360,000	360,000	360,000	750,000	750,000	800,000	800,000	850,000	850,000	900,000
Packaging materials	25	1,000			25,000	30,000	35,000	37,000	40,000	44,000	45,000	47,000
Sub total inputs			2,575,000	885,000	910,000	1,805,000	1,825,000	1,897,000	1,927,000	2,044,000	2,100,000	2,187,000
Hire Labor												
Slashing for land preparation	1	60,000	60,000									
Ploughing	1	120,000	120,000									
Digging fertigation trenches	4	75,000	300,000									
Pittng and putting pegs	1	20,000	20,000									
Digging holes for planting shade trees	440	2,000	880,000									
Digging holes for transplanting cocoa	440	1,000	440,000									
Transplanting	440	100	44,000									
Weeding	2	100,000	200,000	200,000	200,000	220,000	220,000	240,000	240,000	250,000	250,000	250,000
Slashing during growth	1	50,000	50,000	50,000	50,000	75,000	75,000	80,000	80,000	100,000	100,000	120,000
Manuring	1	50,000	50,000	75,000	75,000	80,000	80,000	100,000	100,000	120,000	120,000	140,000
Pruning	2	80,000	160,000	180,000	180,000	200,000	220,000	220,000	225,000	225,000	230,000	230,000
Budding	1	15,000	15,000	20,000	20,000	25,000	30,000	25,000	25,000	30,000	30,000	35,000
Application of fertilizer	2	25,000	50,000	60,000	60,000	80,000	80,000	100,000	120,000	120,000	140,000	140,000
Spraying pesticides and fungicides	2	25,000	50,000	75,000	75,000	80,000	80,000	100,000	100,000	120,000	120,000	140,000
Manuring	4	50,000	200,000	250,000	250,000	250,000	275,000	275,000	280,000	280,000	300,000	310,000

Pruning	4	80,000	320,000	320,000	340,000	330,000	320,000	340,000	320,000	340,000	340,000	350,000	350,000
Fermentation	4	75,000		300,000	350,000	355,000	360,000	370,000	375,000	380,000	385,000	385,000	385,000
Drying	4	25,000		100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Storage of dry cocoa beans	40	5,000		200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Sub total		858,100	2,959,000	1,230,000	2,000,000	2,045,000	2,120,000	2,180,000	2,260,000	2,320,000	2,400,000	2,400,000	2,400,000
Marketing													
Loading and offloading	28	2,000		56,000	100,000	120,000	125,000	130,000	140,000	150,000	160,000	160,000	160,000
Transport to market/boda boda hire	28	4,000		112,000	180,000	200,000	220,000	240,000	250,000	260,000	280,000	280,000	280,000
Market search /information	2	10,000		20,000	40,000	45,000	50,000	60,000	70,000	75,000	80,000	80,000	80,000
Sub total marketing costs				188,000	320,000	365,000	395,000	430,000	460,000	485,000	520,000	520,000	520,000
Total investment before year of harvest			5,534,000										
Total investment starting in the year of harvest				2,018,000	2,320,000	2,410,000	2,515,000	2,610,000	2,720,000	2,805,000	2,920,000	2,920,000	2,920,000
Yield estimates													
Percent yield increase per year is 10%					10	10	10	10	10	10	10	10	10
Estimated yield /acre in Kg per year	440	3	-	1,320	1,452	1,597	1,757	1,933	2,126	2,339	2,573	2,573	2,573
Quantity lost from processing (5%)			-	66	73	80	88	97	106	117	129	129	129
Quantity for sale			-	1,254	1,379	1,517	1,669	1,836	2,020	2,222	2,444	2,444	2,444
Production cycle in a year			-	2	2	2	2	2	2	2	2	2	2
Total quantity for sale per year			-	2,508	2,759	3,034	3,338	3,673	4,039	4,444	4,889	4,889	4,889
Sales estimates													
Sales price per Kg of dry cocoa beans			-	10,000	12,000	15,000	12,000	10,000	9,000	12,000	15,000	15,000	15,000
Gross sales			-	25,080,000	33,105,600	45,514,500	40,059,600	36,727,000	36,354,600	53,329,200	73,330,500	73,330,500	73,330,500
Net revenue			(5,534,000)	23,062,000	30,785,600	43,104,500	37,544,600	34,117,000	33,634,600	50,524,200	70,410,500	70,410,500	70,410,500
Monthly income in UGX			(461,167)	1,921,833	2,565,467	3,592,042	3,128,717	2,843,083	2,802,883	4,210,350	5,867,542	5,867,542	5,867,542
US\$ RATE =UGX 3,700													

Clonal Robusta Coffee (1 acre)												
Costs Areas	Qty	Unit cost	Total cost	2nd Year	3rd Year	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Inputs												
Coffee seedlings	450	1,500	675,000	675,000								
Wind breaker tree seedlings	14	1,000	14,000	14,000								
Shade tree seedlings	6	1,000	6,000	6,000								
Transporting seedlings	1	100,000	100,000	100,000								
Tools (Hoes, slashers, bow saw, pruning saw, pangas, secateurs)	1	300,000	300,000	300,000								
Chemicals (Bursban, Fenitrothion)	2	120,000	240,000	120,000	120,000	135,000	140,000	145,000	150,000	150,000	155,000	160,000
Fertiliser NPK (25-5-5) in bags	2	150,000	300,000	150,000	150,000	175,000	180,000	185,000	200,000	220,000	225,000	230,000
Compost manure (3 Lorry trips/ year	2	150,000	300,000	360,000	360,000	400,000	420,000	435,000	440,000	450,000	460,000	470,000
Gunny bags	5	1,000		5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Sub total inputs			1,935,000	1,730,000	635,000	715,000	745,000	770,000	795,000	825,000	845,000	865,000
Hired Labor												
Trailing/bending	4	25,000	100,000	50,000	50,000	120,000	140,000	160,000	190,000	200,000	220,000	240,000
Bush clearing	1	150,000	150,000	150,000								
Land opening	1	180,000	180,000	180,000								
Digging fertigation trenches	4	75,000	300,000	300,000								
Pitng and putting pegs	450	500	225,000	225,000								
Digging holes	450	1,000	450,000	450,000								
Planting	75	500	37,500	37,500								
Weeding	4	100,000	400,000	80,000	80,000	100,000	120,000	120,000	150,000	150,000	170,000	180,000
Gap filling	450	1,500	675,000	675,000								
Application of compost manure	2	25,000	50,000	60,000	60,000	80,000	80,000	100,000	100,000	120,000	120,000	120,000
Application of fertilizer	2	25,000	50,000	60,000	60,000	60,000	60,000	70,000	70,000	80,000	80,000	100,000
Spraying pesticides and fungicides	2	25,000	50,000	60,000	60,000	60,000	60,000	70,000	70,000	80,000	80,000	100,000
Pruning and desuckering	4	30,000	120,000	120,000	120,000	130,000	130,000	140,000	140,000	145,000	150,000	150,000

Sub total hired labor			2,787,500	2,447,500	430,000	550,000	590,000	660,000	720,000	775,000	820,000	890,000
Harvesting and curing												
Harvesting /picking	2	80,000		160,000	160,000	100,000	120,000	125,000	125,000	140,000	150,000	150,000
Drying /curing coffee beans	2	50,000		100,000	100,000	120,000	120,000	130,000	140,000	140,000	150,000	150,000
Loading/offloading	5	1,000		5,000	5,000	7,500	8,000	10,000	12,000	12,000	15,000	15,000
Boda boda hire to transport home	5	2,000		10,000	10,000	12,500	14,000	15,000	15,000	17,000	18,000	20,000
Processing fee per Kg of beans	640	50		32,000	32,000	4,480	48,000	48,000	51,200	51,200	54,400	54,400
Sub total harvesting and processing				307,000	307,000	244,480	310,000	328,000	343,200	360,200	387,400	389,400
Marketing												
Loading and offloading	5	2,000		10,000	10,000	12,500	14,000	15,000	15,000	17,000	18,000	20,000
Transport to market/boda boda hire	5	4,000		20,000	20,000	25,000	25,000	25,000	25,000	25,000	30,000	30,000
Market search /information	2	10,000		20,000	20,000	25,000	30,000	30,000	35,000	35,000	40,000	40,000
Sub total				50,000	50,000	62,500	69,000	70,000	75,000	77,000	88,000	90,000
Total expenses in the year of harvest			2,787,500	4,534,500	1,422,000	1,571,980	1,714,000	1,828,000	1,933,200	2,037,200	2,140,400	2,234,400
Yield estimates												
Clonal robusta coffee												
Estimated yield /acre in Kg per year	1,500	1	1	1,500	1,750	1,800	1,850	2,000	2,000	1,950	1,950	1,900
Quantity lost from processing (5%)				75	88	90	93	100	100	98	98	95
Quantity for sale per season				1,425	1,663	1,710	1,758	1,900	1,900	1,853	1,853	1,805
Production cycle in a year				2	2	2	2	2	2	2	2	2
Total quantity for sale in a year				2,850	3,325	3,420	3,515	3,800	3,800	3,705	3,705	3,610
Sales estimates												
Sales price per Kg				7,500	10,000	12,000	12,000	13,500	13,500	14,000	15,000	15,000
Gross sales per year				21,375,000	33,250,000	41,040,000	42,180,000	51,300,000	51,300,000	51,870,000	55,575,000	54,150,000
Net revenue			(2,787,500)	2,963,000	31,828,000	39,468,020	40,466,000	49,472,000	49,366,800	49,832,800	53,434,600	51,915,600
Monthly income in UGX			(232,292)	246,917	2,652,333	3,289,002	3,372,167	4,122,667	4,113,900	4,152,733	4,452,883	4,326,300
US\$ RATE =UGX 3,700												

Traditional Robusta Coffee (1 acre)												
Costs Areas	Qty	Unit cost	Total cost	2nd Year	3rd Year	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Inputs												
Coffee seedlings	450	1,500	675,000	675,000								
Wind breaker tree seedlings	14	1,000	14,000	14,000								
Shade tree seedlings	6	1,000	6,000	6,000								
Transporting seedlings	1	100,000	100,000	100,000								
Tools (Hoes, slashers , bow saw, pruning saw, pangas, secateurs)	1	300,000	300,000	300,000								
Chemicals (Bursban, Fenitrothion)	2	120,000	240,000	120,000	120,000	135,000	140,000	145,000	150,000	150,000	155,000	160,000
Fertiliser NPK (25-5-5) in bags	2	150,000	300,000	150,000	150,000	175,000	180,000	185,000	200,000	220,000	225,000	230,000
Compost manure (3 Lorry trips/year	2	150,000	300,000	360,000	360,000	400,000	420,000	435,000	440,000	450,000	460,000	470,000
Gunny bags	5	1,000		5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Sub total inputs			1,935,000	1,730,000	635,000	715,000	745,000	770,000	795,000	825,000	845,000	865,000
Hired Labor												
Trailingg/bending	4	25,000	100,000	50,000	50,000	120,000	140,000	160,000	190,000	200,000	220,000	240,000
Bush clearing	1	150,000	150,000	150,000								
Land opening	1	180,000	180,000	180,000								
Digging fertigation trenches	4	75,000	300,000	300,000								
Pitngn and putting pegs	450	500	225,000	225,000								
Digging holes	450	1,000	450,000	450,000								
Planting	75	500	37,500	37,500								
Weeding	4	100,000	400,000	80,000	80,000	100,000	120,000	120,000	150,000	150,000	170,000	180,000
Gap filling	450	1,500	675,000	675,000								
Application of compost manure	2	25,000	50,000	60,000	60,000	80,000	80,000	100,000	100,000	120,000	120,000	120,000
Application of fertilizer	2	25,000	50,000	60,000	60,000	60,000	60,000	70,000	70,000	80,000	80,000	100,000
Spraying pesticides and fungicides	2	25,000	50,000	60,000	60,000	60,000	60,000	70,000	70,000	80,000	80,000	100,000
Pruning and desuckering	4	30,000	120,000	120,000	120,000	130,000	130,000	140,000	140,000	145,000	150,000	150,000
Sub total hired labor			2,787,500	2,447,500	430,000	550,000	590,000	660,000	720,000	775,000	820,000	890,000

Harvesting and curing													
Harvesting /picking	2	80,000		160,000	160,000	100,000	120,000	125,000	125,000	140,000	150,000	150,000	150,000
Drying /curing coffee beans	2	50,000		100,000	100,000	120,000	120,000	130,000	140,000	140,000	150,000	150,000	150,000
Loading/offloading	5	1,000		5,000	5,000	7,500	8,000	10,000	12,000	12,000	15,000	15,000	15,000
Boda boda hire to transport home	5	2,000		10,000	10,000	12,500	14,000	15,000	15,000	17,000	18,000	20,000	20,000
Processing fee per Kg of beans	640	50		32,000	32,000	4,480	48,000	48,000	51,200	51,200	54,400	54,400	54,400
Sub total harvesting and processing				307,000	307,000	244,480	310,000	328,000	343,200	360,200	387,400	389,400	389,400
Marketing													
Loading and offloading	5	2,000		10,000	10,000	12,500	14,000	15,000	15,000	17,000	18,000	20,000	20,000
Transport to market/boda boda hire	5	4,000		20,000	20,000	25,000	25,000	25,000	25,000	25,000	30,000	30,000	30,000
Market search /information	2	10,000		20,000	20,000	25,000	30,000	30,000	35,000	35,000	40,000	40,000	40,000
Sub total				50,000	50,000	62,500	69,000	70,000	75,000	77,000	88,000	90,000	90,000
Total expenses			2,787,500	4,534,500	1,422,000	1,571,980	1,714,000	1,828,000	1,933,200	2,037,200	2,140,400	2,234,400	2,234,400
Yield estimates													
Traditional robusta coffee													
Estimated yield /acre in Kg per year	700	1	-	-	720	725	730	750	750	750	750	750	750
Quantity lost from processing (5%)			-	-	36	36	37	38	38	38	38	38	38
Quantity for sale per season			-	-	684	689	694	713	713	713	713	713	713
Production cycle in a year		2	2	2	2	2	2	2	2	2	2	2	2
Total quantity for sale in a year			-	-	1,368	1,378	1,387	1,425	1,425	1,425	1,425	1,425	1,425
Sales estimates													
Sales price per Kg		-	-	7,500	10,000	12,000	12,000	13,500	13,500	14,000	15,000	15,000	15,000
Gross sales per year		-	-	-	13,680,000	16,530,000	16,644,000	19,237,500	19,237,500	19,950,000	21,375,000	21,375,000	21,375,000
Net revenue			(2,787,500)	(4,534,500)	12,258,000	14,958,020	14,930,000	17,409,500	17,304,300	17,912,800	19,234,600	19,140,600	19,140,600
Monthly income in UGX			(232,292)	246,917	1,021,500	1,246,502	1,244,167	1,450,792	1,442,025	1,492,733	1,602,883	1,595,050	1,595,050
US\$ RATE =UGX 3,700													

	1st Year			Cashew nuts (1 acre)								
	Qty	Unit cost	Total cost	2nd Year	3rd Year	4th year	5th year	6th year	7th year	8th year	9th year	10th year
Inputs												
Seedlings	81	3,000	243,000									
Fertilizer (NPK and DAP)	1	150,000	150,000	150,000	150,000	175,000	200,000	220,000	250,000	240,000	240,000	250,000
Herbicides	1	250,000	250,000	250,000	250,000	270,000	275,000	280,000	300,000	320,000	340,000	350,000
Pesticides and fungicides	1	100,000	100,000	100,000	100,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Packaging materials	25	1,000			25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Sub total Inputs			743,000	500,000	525,000	670,000	700,000	725,000	775,000	785,000	805,000	825,000
Hire Labor												
Land opening	1	120,000	120,000									
Digging holes & planting	81	500	40,500									
Transplanting	81	500	40,500									
Spot weeding	81	300	24,300	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Slashing	5	60,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000
Training and pruning	5	60,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000
Irrigation/watering	150	5,000	750,000	750,000	850,000	850,000	850,000	1,050,000	1,050,000	1,250,000	1,250,000	1,300,000
Application of compost manure	2	25,000	50,000	60,000	70,000	75,000	75,000	80,000	80,000	90,000	100,000	100,000
Application of fertilizer	2	25,000	50,000	60,000	70,000	75,000	75,000	80,000	80,000	90,000	100,000	100,000
Spraying pesticides and fungicides	2	25,000	50,000	60,000	70,000	75,000	75,000	80,000	80,000	90,000	100,000	100,000
Pruning	4	30,000	120,000	160,000	160,000	180,000	180,000	180,000	200,000	200,000	220,000	220,000
Harvesting /picking the nuts	1	80,000	80,000	85,000	85,000	100,000	100,000	120,000	120,000	130,000	130,000	140,000
Harvesting cashew nuts apples	2	80,000	160,000	180,000	180,000	160,000	180,000	185,000	185,000	200,000	200,000	220,000
Sub total labor			2,085,300	2,055,000	2,185,000	2,215,000	2,235,000	2,475,000	2,495,000	2,750,000	2,800,000	2,880,000
Marketing Costs												
Labor for packaging /loading	13	2,000			26,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000
Transport to market	13	2,000			26,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000
Market information	1	25,000			25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Market dues per bag	13	10,000			130,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000
Sub total marketing costs					207,000	193,000	193,000	193,000	193,000	193,000	193,000	193,000

Total investment			2,828,300	2,555,000	2,917,000	3,078,000	3,128,000	3,393,000	3,463,000	3,728,000	3,798,000	3,898,000
Yield estimates												
Estimated raw cashew nut production /acre in kilograms	81	15	-	-	2,430	2,430	2,430	2,430	2,430	2,430	2,430	2,430
Quantity for food (5%)			-	-	122	122	122	122	122	122	122	122
Quantity for sale			-	-	2,309	2,309	2,309	2,309	2,309	2,309	2,309	2,309
Estimated cashew nut apple production /acre in kilograms	2,430	2	-	-	4,860	4,860	4,860	4,860	4,860	4,860	4,860	4,860
Quantity for food (5%)			-	-	243	243	243	243	243	243	243	243
Quantity for sale			-	-	4,617	4,617	4,617	4,617	4,617	4,617	4,617	4,617
Production cycle in a year			-	-	2	2	2	2	2	2	2	2
Sales estimates												
Sales price per kilogram of cashew nut kernel			-	-	5,000	5,500	6,000	6,500	6,500	7,000	7,500	8,000
Sales price per kilogram of cashew nut apples			-	-	500	750	800	800	850	900	950	1,000
Gross sales for cashew nut kernel			-	-	11,542,500	12,696,750	13,851,000	15,005,250	15,005,250	16,159,500	17,313,750	18,468,000
Gross sales for cashew nut apples			-	-	2,308,500	3,462,750	3,693,600	3,693,600	3,924,450	4,155,300	4,386,150	4,617,000
Total gross sales			-	-	13,851,000	16,159,500	17,544,600	18,698,850	18,929,700	20,314,800	21,699,900	23,085,000
Net revenue			(2,828,300)	(2,555,000)	11,022,700	13,081,500	14,416,600	15,305,850	15,466,700	16,586,800	17,901,900	19,187,000
Monthly income			(235,692)	(212,917)	918,558	1,090,125	1,201,383	1,275,488	1,288,892	1,382,233	1,491,825	1,598,917
US\$ RATE =UGX 3,700												

Orange (1 acre)												
Costs Areas	Qty	Unit cost	Total cost	2nd Year	3rd Yera	4th year	5th year	6th year	7th year	8th year	9th year	10th year
Inputs												
Seedlings	120	1,500	180,000									
Transporting seedlings	1	10,000	10,000									
Tools (Hoes, Slashers , Pangas, Secateurs)	1	150,000	150,000		340,000		250,000					
Pesticides and fungicides	1	350,000	350,000	350,000	375,000	375,000	400,000	425,000	450,000	475,000	500,000	550,000
Fertilizer supergrow	1	175,000	175,000	225,000	250,000	260,000	280,000	285,000	300,000	300,000	320,000	3,250,000
Fertiliser NPK (25-5-5) in bags	2	150,000	300,000	150,000	175,000	175,000	200,000	225,000	235,000	250,000	275,000	300,000
Compost manure (3 Lorry trips/ year	3	180,000	540,000	540,000	600,000	600,000	650,000	700,000	750,000	800,000	850,000	900,000
Mulches (555 Bundles)	1	250,000	250,000	250,000	275,000	275,000	300,000	325,000	350,000	375,000	400,000	425,000
Small irrigation facility (Solar powered)	1	1,200,000	1,200,000									
Gunny bags	300	1,000	300,000									
Sub total inputs			3,455,000	1,515,000	2,015,000	1,685,000	2,080,000	1,960,000	2,085,000	2,200,000	2,345,000	5,425,000
Hired Labor												
Slashing for land preparation	1	60,000	60,000									
1st ploughing	1	180,000	180,000									
2nd ploughing	1	100,000	100,000									
Digging fertigation trenches	4	75,000	300,000									
Pittng and putting pegs	1	50,000	50,000									
Digging holes	120	1,000	120,000									
Planting	120	100	12,000		822,000							
Watering	64	5,000	320,000	400,000	420,000	800,000	850,000	900,000	950,000	1,000,000	1,050,000	1,100,000
Weeding	2	100,000	200,000	200,000	220,000	350,000	400,000	450,000	500,000	450,000	400,000	450,000
Application of compost manure	2	25,000	50,000	50,000	75,000	30,000	35,000	40,000	45,000	50,000	55,000	60,000
Application of fertilizer	2	25,000	50,000	50,000	75,000	30,000	35,000	40,000	45,000	50,000	55,000	60,000
Spraying pesticides and fungicides	12	25,000	300,000	300,000	300,000	30,000	35,000	40,000	45,000	50,000	55,000	60,000
Light Pruning	1	50,000	50,000	50,000	50,000	75,000	80,000	80,000	85,000	90,000	85,000	85,000

Heavy pruning per tree	120	2,000	240,000	240,000	240,000	250,000	275,000	300,000	350,000	375,000	400,000	425,000
Harvesting					300,000	350,000	350,000	375,000	350,000	350,000	375,000	400,000
Sub total			2,032,000	1,290,000	2,502,000	1,915,000	2,060,000	2,225,000	2,370,000	2,415,000	2,475,000	2,640,000
Marketing												
Loading and offloading	300	1,000			350,000	350,000	350,000	375,000	350,000	350,000	375,000	400,000
Transport to market/vehicle hire	3	250,000			750,000	750,000	750,000	750,000	800,000	850,000	850,000	900,000
Market search /information	2	10,000			40,000	40,000	50,000	75,000	80,000	85,000	100,000	120,000
Sub total					1,140,000	1,140,000	1,150,000	1,200,000	1,230,000	1,285,000	1,325,000	1,420,000
Total investment in the year of harvest			5,487,000	2,805,000	5,657,000	4,740,000	5,290,000	5,385,000	5,685,000	5,900,000	6,145,000	9,485,000
Yield estimates												
Estimated yield /acre in bags per season					150	175	180	200	220	220	225	230
Quantity lost from processing (5%)					8	9	9	10	11	11	11	12
Quantity for sale					143	166	171	190	209	209	214	219
Production cycle in a year					2	2	2	2	2	2	2	2
Sales estimates												
Sales price per bag					35,000	40,000	45,000	30,000	35,000	35,000	40,000	45,000
Gross sales per year					9,975,000	13,300,000	15,390,000	11,400,000	14,630,000	14,630,000	17,100,000	19,665,000
Net revenue			(5,487,000)	(2,805,000)	4,318,000	8,560,000	10,100,000	6,015,000	8,945,000	8,730,000	10,955,000	10,180,000
Monthly income in UGX			(457,250)	(233,750)	359,833	713,333	841,667	501,250	745,417	727,500	912,917	848,333
US\$ RATE = UGX 3,700												

Mango (1 acre)												
Costs Areas	Qty	Unit cost	Total cost	2nd Year	3rd Year	4th year	5th year	6th year	7th year	8th year	9th year	10th year
Inputs												
Seedlings	60	1,000	60,000			60,000						
Transporting seedlings	1	10,000	10,000			10,000						
Tools (Hoes, watering can, Spray pump, Slashers , Pangas, Secateurs)	1	380,000	380,000			380,000	500,000					
Chemicals (pesticides and fungicides)	2	75,000	150,000	180,000	180,000	200,000	225,000	235,000	250,000	275,000	300,000	325,000
Compost manure	2	100,000	200,000	225,000	225,000	240,000	240,000	250,000	235,000	250,000	275,000	300,000
Small irrigation facility	1	1,200,000	1,200,000									
Packaging containers	10	20,000	200,000									
Sub total inputs			2,200,000	405,000	405,000	820,000	965,000	485,000	485,000	525,000	575,000	625,000
Hire Labor												
Labor for ploughing	1	120,000	120,000			120,000						
Digging fertigation trenches	4	50,000	200,000			200,000						
Pitting and putting pegs	1	20,000	20,000			20,000						
Digging holes	60	3,000	180,000			180,000						
Transplanting	60	1,000	60,000			60,000						
Weeding	3	100,000	300,000	200,000	250,000	350,000	375,000	400,000	450,000	575,000	600,000	620,000
Slashing during growth	3	50,000	150,000	50,000	50,000	115,000	120,000	125,000	150,000	175,000	200,000	225,000
Pruning	5	80,000	400,000	20,000	200,000	175,000	180,000	180,000	185,000	190,000	185,000	185,000
Watering	2	50,000	100,000	100,000	100,000	800,000	850,000	900,000	950,000	1,000,000	1,050,000	1,100,000
Spraying pesticides and fungicides	5	90,000	450,000	200,000	200,000	200,000	225,000	240,000	250,000	275,000	285,000	300,000
Harvesting /picking	2	50,000	100,000	120,000	150,000	175,000	200,000	225,000	235,000	250,000	275,000	300,000
Sub total labor			2,080,000	690,000	950,000	2,395,000	1,950,000	2,070,000	2,220,000	2,465,000	2,595,000	2,730,000

Marketing													
Transport to market/Motor tricycle hire	3	50,000	150,000	150,000	150,000	170,000	175,000	180,000	180,000	180,000	185,000	185,000	185,000
Market search /information	3	20,000	60,000	80,000	80,000	100,000	80,000	85,000	100,000	100,000	85,000	95,000	105,000
Sub total marketing costs			210,000	230,000	270,000	270,000	255,000	265,000	280,000	280,000	270,000	285,000	290,000
Total investment			4,490,000	1,325,000	1,625,000	3,470,000	3,180,000	2,835,000	2,975,000	3,275,000	3,460,000	3,660,000	3,660,000
Yield estimates													
Estimated yield /acre in number of fruit per tree per season	60	150					9,000	9,000	9,000	9,000	9,000	8,750	8,700
Quantity for home consumption and pest and disease damage (1%)							90	90	90	90	88	88	87
Quantity for sale							8,910	8,910	8,910	8,910	8,663	8,663	8,613
Production cycle in years							2	2	2	2	2	2	2
Sales estimates													
Sales price per fruit							500	750	750	800	850	1,000	1,000
Gross sales							8,910,000	13,365,000	13,365,000	14,256,000	14,726,250	17,325,000	17,226,000
Net revenue			(4,490,000)	(1,325,000)	(1,625,000)	(1,625,000)	5,440,000	10,185,000	10,530,000	11,281,000	11,451,250	13,865,000	13,566,000
Monthly income in UGX			(374,167)	(110,417)	(135,417)	(135,417)	453,333	848,750	877,500	940,083	954,271	1,155,417	1,130,500
US\$ RATE =UGX 3,700													

Arabica Coffee (1 acre)												
Costs Areas	Qty	Unit cost	Total cost	2nd Year	3rd Year	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Inputs												
Seedlings	450	1,000	450,000		450,000							
Transporting seedlings	1	100,000	100,000		100,000							
Tools (Hoes, Slashers , Pangas, Secateurs)	1	100,000	100,000		100,000							
Chemicals (Bursban, Fenitrothion	2	120,000	240,000	120,000	120,000	135,000	140,000	145,000	150,000	150,000	155,000	160,000
Fertiliser NPK (25-5-5) in bags	2	150,000	300,000	150,000	150,000	175,000	180,000	185,000	200,000	220,000	225,000	230,000
Compost manure (3 Lorry trips/ year	6	120,000	720,000	360,000	360,000	400,000	420,000	435,000	440,000	450,000	460,000	470,000
Gunny bags	5	1,000		5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Sub total inputs			1,910,000	635,000	1,285,000	715,000	745,000	770,000	795,000	825,000	845,000	865,000
Hired Labor												
Trailingg/bending	4	25,000	100,000	50,000	50,000	120,000	140,000	160,000	190,000	200,000	220,000	240,000
Slashingfor land preparation	1	60,000	60,000		60,000							
ploughing	1	180,000	180,000		180,000							
Digging fertigation trenches	4	75,000	300,000		300,000							
Pitng and putting pegs	1	50,000	50,000		50,000							
Digging holes	450	1,000	450,000		450,000							
Planting	450	100	45,000		45,000							
Weeding	4	100,000	400,000	80,000	80,000	100,000	120,000	120,000	150,000	150,000	170,000	180,000
Application of compost manure	2	25,000	50,000	60,000	60,000	80,000	80,000	100,000	100,000	120,000	120,000	120,000
Application of fertilizer	2	25,000	50,000	60,000	60,000	60,000	60,000	70,000	70,000	80,000	80,000	100,000
Spraying pesticides and fungicides	2	25,000	50,000	60,000	60,000	60,000	60,000	70,000	70,000	80,000	80,000	100,000
Pruning	4	30,000	120,000	120,000	120,000	130,000	130,000	140,000	140,000	145,000	150,000	150,000
Buding	1	15,000	15,000	20,000	25,000	30,000	30,000	35,000	40,000	30,000	40,000	40,000
Sub total hired labor			1,870,000	450,000	1,540,000	580,000	620,000	695,000	760,000	805,000	860,000	930,000

Harvesting and curing												
Harvesting /picking	2	80,000				160,000	100,000	120,000	125,000	125,000	140,000	150,000
Drying /curing coffee beans	2	50,000				100,000	120,000	120,000	130,000	140,000	140,000	150,000
Loading/offloading	5	1,000				5,000	7,500	8,000	10,000	12,000	12,000	15,000
Boda boda hire to transport home	5	2,000				10,000	12,500	14,000	15,000	15,000	17,000	20,000
Processing fee per Kg of beans	640	50				32,000	4,480	48,000	48,000	51,200	51,200	54,400
Sub total harvesting and processing						307,000	244,480	310,000	328,000	343,200	360,200	389,400
Marketing												
Loading and offloading	5	2,000				10,000	12,500	14,000	15,000	15,000	17,000	20,000
Transport to market/boda boda hire	5	4,000				20,000	25,000	25,000	25,000	25,000	25,000	30,000
Market search /information	2	10,000				20,000	25,000	30,000	30,000	35,000	35,000	40,000
Sub total						50,000	62,500	69,000	70,000	75,000	77,000	90,000
Total expenses					1,870,000	3,182,000	1,601,980	1,744,000	1,863,000	1,973,200	2,067,200	2,274,400
Yield estimates												
Estimated yield /acre in Kg per year	450	1	-	-	-	450	450	451	452	453	454	455
Quantity lost from processing (2%)			-	-	-	9	9	9	9	9	9	9
Quantity for sale per season			-	-	-	441	441	442	443	444	445	446
Production cycle in a year			-	-	-	1	1	1	1	1	1	1
Total quantity for sale in a year			-	-	-	441	441	442	443	444	445	446
Sales estimates												
Sales price per Kg						10,000	12,000	12,000	13,500	13,500	14,000	15,000
Gross sales per year						4,410,000	5,292,000	5,303,760	5,979,960	5,993,190	6,228,880	6,688,500
Net revenue					(1,870,000)	1,228,000	3,690,020	3,559,760	4,116,960	4,019,990	4,161,680	4,508,100
Monthly income in UGX					(155,833)	102,333	307,502	296,647	343,080	334,999	346,807	375,675
US\$ RATE =UGX 3,700												

Macadamia (1 acre)													
Variable Costs	1st Year		2nd Year	3rd Year	4th Year	5th Year	6th year	7th year	8th year	9th year	10th year	11th year	12th year
	Qty	Unit cost	Total cost	Total cost	Total cost	Total cost	Total cost	Total cost	Total cost	Total cost	Total cost	Total cost	Total cost
Inputs													
Seedlings	100	15,000	1,500,000										
Fertilizer (NPK and DAP)	1	150,000	150,000	175,000	185,000	200,000	225,000	250,000	250,000	300,000	350,000	350,000	350,000
Herbicides	1	250,000	250,000	187,500	215,000	225,000	250,000	300,000	350,000	375,000	375,000	375,000	375,000
Pesticides and fungicides	1	100,000	100,000	125,000	130,000	135,000	140,000	150,000	150,000	200,000	250,000	250,000	250,000
Compost manure	1	250,000	250,000	300,000	375,000	375,000	400,000	425,000	450,000	475,000	475,000	500,000	525,000
Sub total Inputs			2,000,000	787,500	905,000	935,000	1,015,000	1,125,000	1,200,000	1,350,000	1,450,000	1,475,000	1,500,000
Hire Labor													
Labor for land opening	1	120,000	120,000										
Labor for digging holes & planting	100	500	50,000										
Labor for spot weeding	100	300	30,000										
Labor for slashing	2	60,000	120,000										
Labor for training and pruning	1	60,000	60,000										
Labor for mulching	2	60,000	120,000										
Trailingg/bending	1	50,000		50,000	45,000	35,000	25,000	35,000	45,000	50,000	50,000	50,000	50,000
Weeding/slashing	1	100,000	100,000	100,000	120,000	135,000	140,000	140,000	150,000	160,000	200,000	200,000	200,000
Application of compost manure	1	70,000	70,000	75,000	80,000	80,000	80,000	70,000	90,000	100,000	140,000	140,000	140,000
Application of fertilizer	1	70,000	70,000	75,000	80,000	80,000	80,000	70,000	90,000	100,000	140,000	140,000	140,000
Spraying pesticides and fungicides	1	70,000	70,000	75,000	80,000	80,000	80,000	70,000	110,000	120,000	140,000	140,000	140,000
Pruning per tree for 4 years	100	2,500	250,000	250,000	250,000	250,000	300,000	300,000	500,000	750,000	750,000	750,000	750,000
Plantation management	12	250,000	3,000,000	3,000,000	3,000,000	3,000,000	1,200,000	1,800,000	2,400,000	3,000,000	3,000,000	3,000,000	3,000,000
Harvesting (Dehusking/storage// drying @ 75% harvested volume)	500	60			30,000	30,000	750,000	1,750,000	5,500,000	11,250,000	15,000,000	17,250,000	20,250,000
Sub total			4,060,000	3,625,000	3,655,000	3,710,000	2,655,000	4,235,000	8,885,000	15,530,000	19,420,000	21,670,000	24,670,000

Annex 7: Young Agribusiness Innovators



Onencan Kizito in front of his poultry house being constructed



Rogers at his tree nursery



A farmer in inzimile group spotted weeding his kitchen garden



A member from Nyori Multipurpose in his cocoa with Banana field where water conservation practice has been adopted



A member of Lomiriji Lower Youth Group picking vegetables for food



Angakibo women group harvesting sunflower from the demonstration plot



Betty a member in God's Mercy harvesting kale from her kitchen garden



sweet potato demo planting in Ryekolonyo CSCG in Warathum village, Nyaravur



Simon MF Tiolipa farmers group in his 1 acre maize field



Fatuma a member in Amaecora women pose with a good harvest of egg plants from her kitchen garden



Rukia Onzia taking care of her birds



Members of Ayikoci women group harvesting their group field rice.



A farmer in Gboro youth group showing her cassava field intercropped with maize.

**AGENCY FOR ACCELERATED
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