



**THE REPUBLIC OF UGANDA**  
**MINISTRY OF AGRICULTURE, ANIMAL INDUSTRY & FISHERIES**

**FARMER REGISTRATION REPORT**

**MAY 2020**

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## CHAPTER ONE: BACKGROUND

### Introduction

This report presents findings of the pilot farmer registration exercise that was conducted by the Statistics Division team of the Ministry of Agriculture Animal Industry and Fisheries in collaboration with the Agriculture Cluster Development Project (ACDP) Coordination Unit team that provided technical guidance.

### Background

Agriculture is a key driver of Uganda's economy accounting for 70% of employment, contributing half of all exports, and one-quarter of GDP in Uganda. The Agricultural sector was identified as one of the key programs under the National Development plan (NDP) 2020/21-2024/25 that will drive the economy to a middle-income status by 2040. It emphasizes commercialization of Agriculture to increase production and productivity along the value chains, agro-processing and marketing as a launch path to Agro-industrialization. Effective planning and monitoring of sector progress requires timely, reliable, and good statistics to enable effective planning and investment, monitoring, evaluation, and reporting of business activities.

Globally, Statistics is recognized as part of the enabling environment for development and the Uganda National Agriculture Policy calls for investment in Agricultural statistics and defines the need for a 'functional system' that includes all Ministries collecting Agricultural statistics and the District Local Governments. Furthermore, it directs the Ministry of Agriculture, Animal Industries, and Fisheries (MAAIF) to build an Agricultural statistics and management system for use in monitoring and evaluation (MAAIF 2011). Agricultural statistics are used by numerous entities both within and outside of Uganda by various groups to fulfill their respective needs. The various groups include; National and Local Governments; Agribusiness actors; Non-Governmental Organizations (NGOs); Media; Research institutions; Regional organizations; International organizations; and the general public, for effective planning and governance, monitoring and evaluation, policy guidance, investment, accountability, etc.

There are two form of agricultural statistics that is the administrative agricultural statistics and statistics collected through surveys. Administrative agricultural statistics is the responsibility of MAAIF and its various agencies, but has not fully been operationalized. UBOS on the other

hand has been responsible for conducting surveys and it collects agricultural data through the Uganda National Panel Survey disaggregated at National level and recently through the Annual Agricultural Survey which is desegregated at agricultural zones. None of the surveys conducted are disaggregated at district or sub county level which affects planning in the local government. The other source of Agricultural Statistics is the Census of Agriculture which is led by UBOS and conducted every 10 years. However, three censuses have been undertaken since 1967. The Census of Agriculture provides a comprehensive snapshot of Uganda's Agriculture statistics on crops, livestock, economics, socio-demographics, agro-forestry, and irrigation. However, it's not predictable and is based on sample enumeration in selected districts and not complete enumeration.

As a result, the agricultural sector, continues to suffer from lack of reliable, accurate and timely administrative agricultural data to inform decision making. Although a large volume of administrative data is produced, it is not coordinated and the Agricultural statistics system remains fragile, vulnerable and not fully developed. Among the major challenges in the compilation of Agricultural statistics from administrative records is the lack of on-farm records on area planted, animals kept and production levels, which creates gaps in the quality and timeliness of the data. A large proportion of administrative data consists of guess-estimates and is believed to be of questionable quality, partly because it is compiled without employing standard statistical procedures.

In 2013, the Ministry setup a Division of Statistics under the Agricultural Planning Department to provide timely, reliable and accurate data to aid planning and decision making. In order to achieve this the Ministry set up the National Food and Agricultural Statistics System (NFASS) to strengthen its capacity to produce, store, and analyse statistics and administrative data. The overall goal of the NFASS is to ensure that data related to the Agricultural sector is accurate, timely, consistent, disaggregated and accessible to facilitate planning, and decision making. The NFASS focuses on; utilizing the data collected using administrative structures to reduce the cost of data collection; uses harmonized data collection protocols across MDAs and institutional partners; and, establishing a permanent field data collection system. The NFASS is implemented in 3 components namely; the Institutional component, The Data center which houses the database; and, the Routine Agriculture Administrative Data System (RAADS).

The Ministry in collaboration with the World Bank started implementing the Agriculture Cluster Development project (ACDP) in 2016 to support activities that will raise both

productivity and production of maize, beans, cassava, rice, and coffee in 57 districts clustered into 12 high-potential Agricultural areas. The project is implemented through four components namely; (i) support for intensification of on-farm production; (ii) value addition and market access; (iii) policy, regulatory and institutional support; (iv) Project coordination and ICT platform. In 2018, the ACDP project was restructured and a subcomponent 3.3 was introduced to support the implementation of the National Food and Agricultural Statistics System. As part of the efforts to roll out the RAADS, the Agricultural Statistics unit of MAAIF started piloting the Farmer register in 5 pilot districts to draw lessons that can be used in the roll out to the rest of the districts in the country.

### Objectives

The primary purpose of farmer registration is create a central database at the Ministry Data Centre of all farmers in the country who practice agriculture at all levels of government for planning purposes.

The specific objectives are to:

1. Provide a good estimate of the number of farmers at all administrative levels in the country engaged in different Agricultural enterprises or values chains relevant for planning purpose and making investment decisions;
2. Generate a sample frame for the routine data collection and for surveys across the country;
3. Established complete understanding of the farmers' agricultural activities in order to create agricultural policies, as well as to carry out agricultural support programs; and
4. Provide a platform for the development of an auditable, traceable and reportable agri-food system

### Farmer Registration Methodology

#### *Field organization*

The objective of the farmer registration exercise was complete enumeration of all farming households in the five pilot districts. The exercise was headed by the Commissioner Agricultural Planning who was assisted by the Assistant Commissioner Agricultural Statistics. The exercise had all the Statisticians in the Statistics Division of the Ministry who were each responsible for a different pilot district. The registration exercise was supported by experts from the World Bank who offered guidance from the initial processes of tool development



Besides the staff at the headquarters, there were other staff in the District Local Governments who were part of the implementation team. These included:

- i. The Parish chiefs who were responsible for the actual registration of farmers
- ii. The subcounty extension officers who were responsible for the supervision of the parish *chiefs* and data entry.
- iii. The Chief Administration Officers, the District Production Officers and the District Agricultural Officers who were responsible for the overall supervision of the exercise in the district.

Data collected includes information on different farming activity including crop growing, livestock rearing, aquaculture, and apiary that households are involved in. The data collected include the types of crops grown, number of animals reared per household, access to technology and support services and access to inputs. Other household tools will have data on production, sales, food security of households, access to extension services, irrigation, agricultural practices, farm gate prices, type of inputs used, storage facilities, access to agriculture facilities, soil and water management among others. All these are key indicators for formulation of policies and planning for the Agriculture sector in the country.

To ensure that farmer registration yields validity and reliable information, two trainings were carried out. The first training was Training of Trainers (TOT) for the headquarter teams to prepare them for the field supervision and training. Training of the District Extension Officers and Enumerators (Parish Chiefs): The training was facilitated by the team of Statisticians from the Ministry who started by highlighting the importance of the exercise to the participants. During the training, emphasis was put on articulating instructions regarding interviewing techniques and field procedures and a detailed review of the farmers register. The trainings mainly used English, but translations were constantly done to ensure accurate re-translation and adequate understanding in order to assist in application during translation to local languages in the farmer registration exercise.

The training also involved use of visuals and power point presentations. The Parish Chiefs and Extension Staff were also taken through an illustration that they used as a field scenario example. At the end of the trainings, the parish chiefs and extension officers were dispersed to their respective Parishes/Sub counties to start the actual farmer registration. The registration exercise utilised the Paper Assisted Personal Interviewer (PAPI) whereby the farmers' register

books were printed and distributed across parishes. The procedures for supervision and communications between the Statistics Division and the interviewing teams during data collection were specified in the manuals and discussed during training for the farmer registration exercise. Close communication was always maintained between the Statistics Division and districts

#### *Data management and analysis*

A tabulation plan was prepared by the team and thereafter transformed it in tables. The team was requested to keep in mind the main objective of the of providing essential structural data. The completed farmer registration books were assembled at the subcounty headquarters and the Extension staff entered the data in tabs using the Computer Assisted Personal Interviewer (CAPI). The data was subsequently sent to the Ministry headquarters for Cleaning and Analysis. After data entry, the Statisticians extracted and merged all data from the different pilot districts and exported to STATA. Cleaning was done to check out for inconsistencies and outliers. Data was analysed using STATA to obtain statistical outputs including frequencies and percentages in tabular and graphical forms. The statistical outputs were later extracted and presented in more acceptable tables ready for interpretation

#### **Report Structure**

The first chapter presents the objectives as well as the methodology that forms the basis of presentation of the survey findings, it also presents the scope and field organization as well as a brief on the data cleaning and analysis. The second chapter presents the findings from the activities that were implemented. Chapter three presents the achievements realized to date while Chapter four presents the challenges and recommendations for the next phase of implementation.

## CHAPTER TWO: SOCIO ECONOMIC CHARACTERISTICS

### Introduction

This chapter presents information on; the distribution of Administrative units registered; distribution of Agriculture households by district; the classification of Agriculture households by sex and age of household heads by district; and type of farming activity involved in and main purpose.

### Distribution of Administrative Units registered

The Pilot exercise was able to list 156,497 farming households from 2,862 villages, 272 Parishes, 56 sub counties, and in the 5 pilot districts as shown in Table 1. Fifty four percent of farming households registered were male headed while forty five percent were female headed.

**Table 1: Number of administration units registered**

District	Sub-county/ TC	Parish	Village
Ntungamo	22	99	1,239
Kalungu	7	39	271
Amuru	5	32	161
Nebbi	12	51	664
Iganga	10	51	527
<b>Total</b>	<b>56</b>	<b>272</b>	<b>2862</b>

### Gender disaggregation of Farming households

Overall 54% of farming households were male headed. Interestingly, Amuru had a higher proportion of female headed households than male headed households compared to all other districts as shown in Table 2.

**Table 2: Number of farming households by district and sex of household head**

District	Male Proportion	Female Proportion	Total Number
Kalungu	54.7	45.3	24,766
Iganga	54.5	45.5	26,188
Nebbi	55.0	45.0	31,273
Amuru	42.5	57.5	18,096
Ntungamo	55.4	44.6	56,174
<b>Total</b>	<b>53.6</b>	<b>46.4</b>	<b>156,497</b>

A total of 29,683 farming households across the 5 districts were headed by youths (18-30years). Majority of farming households (70,074) were headed by people aged between 31

and 50 years. Crop cultivation was the most common type of farming activity across all age groups followed by livestock rearing.

**Table 3: Number of farming households by district and age of household head**

Farming activity	Below 17	18 - 30 years	31-50 years	51-70years	71 & above
Crop cultivation	64.9	60.2	58.1	57.2	59.8
Livestock rearing	33.8	38.7	40.5	41.3	39.2
Aquaculture	0.0	0.1	0.1	0.1	0.1
Apiculture	1.4	1.0	1.3	1.3	0.9

### Disaggregation by Farming activity

Table 4 shows the proportion of the households by farming activity. The majority of the farming households across all the five districts are involved in crop cultivation. Iganga having the lowest proportion of 91.5% (23,962). Overall, the results from the pilot farmer registration revealed that 66% (103,970) of the households reported to keeping livestock with Kalungu and Amuru having the highest proportion. Ntungamo had a slightly lower percentage than the other districts of the households that reported to have animals. The overall proportion of aquaculture households was 0.1% (193). Amuru district had the highest proportion (0.3%) of fish farming households in the pilot districts. Nebbi had the lowest proportion (0.05%) of households practicing aquaculture.. Sixty-eight (68) percent of the aquaculture households are male headed while 32% are female headed households. The proportion of Apiculture households in the pilot districts was 1.6% (2,527). The highest proportion of apiculture households were in Amuru (4.9%) followed by Nebbi (1.8%). There are more male headed households (72%) involved in apiculture farming compared to female headed households (28%).

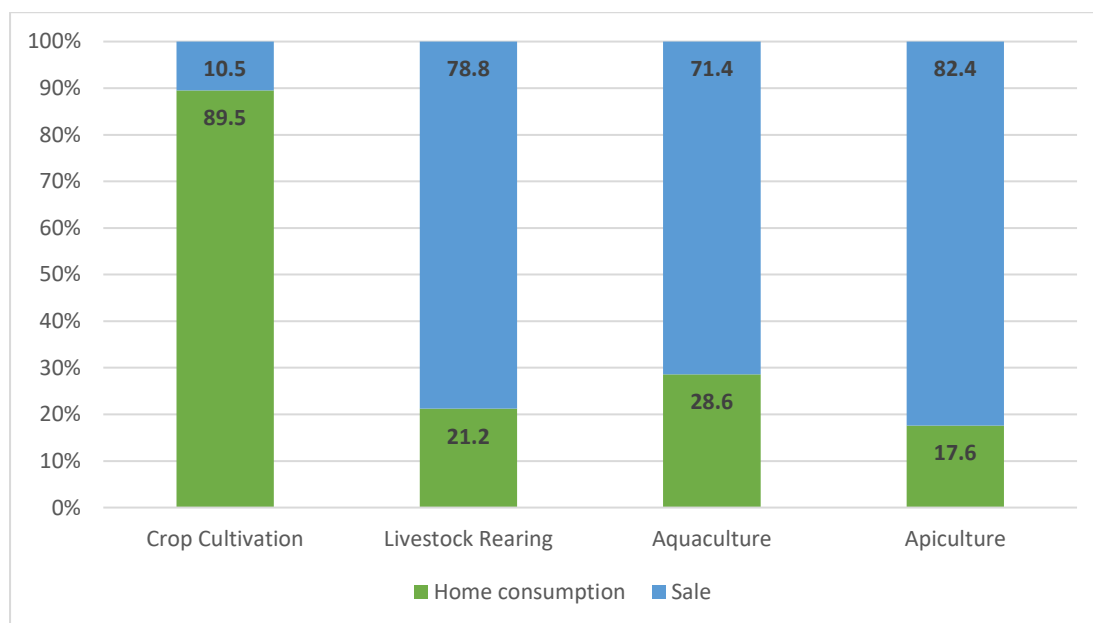
**Table 4: Proportion of households practicing each farming activity by district**

District	Crop	Livestock	Aquaculture	Apiculture
Kalungu	96.7	74.8	0.2	0.6
Iganga	91.5	64.2	0.1	0.02
Nebbi	99.8	72.7	0.05	1.8
Amuru	98.7	74.2	0.3	4.9
Ntungamo	99.1	57.8	0.1	1.7
<b>Total</b>	<b>97.6</b>	<b>66.4</b>	<b>0.1</b>	<b>1.6</b>

### Main purpose of the farming activity

Figure 1 presents the main purpose or reason why farmers engage different activities and the results reveal that sixty percent of farming households are involved in agriculture activities with the main purpose of acquiring food (subsistence farming). Most (89%) of the farming household that grow crops stated that they are engage in crop farming mainly for food while the main purpose of livestock farming is sale. A higher proportion of apiculture and aquaculture households reported the main purpose of the farming activity as sale.

**Figure 1: Main purpose of Farming activity**



## CHAPTER THREE: CROP CULTIVATION

### Introduction

Over 97% of the farming households in the five-pilot district are involved in cultivation of different crops for food and sale. The results in the table 5 below, Cereals were the most widely grown crop category in all the five pilot districts with Amuru having the highest percentage (91%) Fruits were the least grown crop category within the pilot districts except for Amuru. The analysis also showed that over 80% of the households within Kalungu and Ntungamo districts grew Legumes and 97% of the households in Nebbi district grew Root tubers. Over sixty percent (60%) of the households with in Ntungamo and Kalungu districts grew Tree crops. The results further revealed that 90% of the households in Ntungamo district grew Plantains and Legumes. Less than half of the households within pilot districts grew Vegetables. More still, over 50% of the households within the pilot districts grew Oilseeds and Oil palm except for Nebbi and Kalungu while few households grew fruits across the pilot district.

**Table 5: Proportion of households growing the different Crop Categories by district**

District	Cereals	Leguminous	Oil seeds & Palm	Vegetables	Root Tubers	Fruits	Plantains	Tree Crops
Kalungu	88.1	84.8	42.0	21.8	79.9	17.1	79.9	73.3
Iganga	86.4	65.1	54.8	29.2	69.2	9.9	40.7	32.1
Nebbi	80.8	49.2	44.8	47.7	96.7	11.1	17.8	14.9
Amuru	90.8	75.1	63.1	23.1	80.3	16.3	15.0	0.9
Ntungamo	79.9	92.2	53.4	32.0	78.7	23.7	93.3	64.9
<b>Total</b>	<b>83.8</b>	<b>75.9</b>	<b>51.3</b>	<b>32.0</b>	<b>81.1</b>	<b>17.0</b>	<b>58.3</b>	<b>43.3</b>

### Households involved in Crop Production

#### Cereals

#### Proportion of household cultivating different cereal crops by district

Table 6 presents proportion of household growing different cereal crops by district and the results revealed that Maize was the most commonly cultivated cereal by the households within the five pilot districts with Iganga and Kalungu having the highest percentages, 93% and 91% respectively. Wheat was the least grown cereal with in all the districts at less than one percent. Over 50% of the households within Amuru district reported to have grown Finger millet and Sorghum.

The analysis also showed that high percentages of the households within the districts of Amuru and Iganga reported to have grown rice respectively.

**Table 6: Proportion of households growing cereals by district**

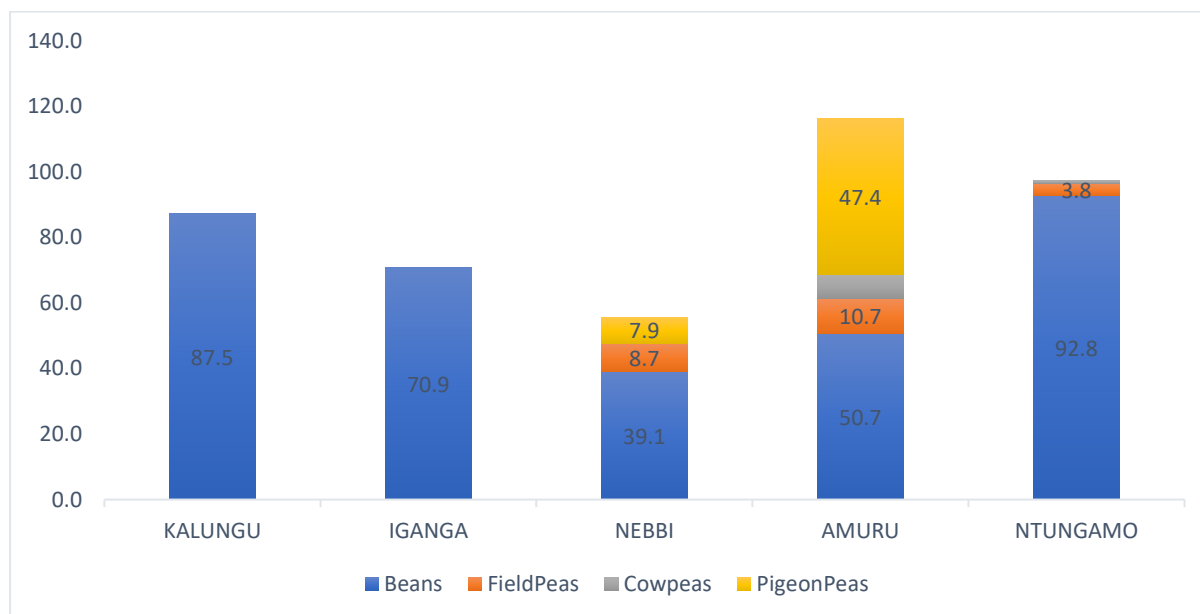
Districts	Cereal Crops				
	Wheat	Rice	Maize	Finger Millet	Sorghum
Kalungu	0.1	0.5	90.8	0.5	0.7
Iganga	0.3	16.1	92.7	5.9	7.0
Nebbi	0.1	5.6	77.9	1.6	23.4
Amuru	0.2	34.6	66.8	56.1	53.1
Ntungamo	0.1	0.1	75.1	36.6	11.7

*Legumes*

**Proportion of household growing Legumes by districts.**

Beans were the most grown legumes by the households within the pilot districts with Ntungamo having the highest percentage of 93% while Cow peas were the least leguminous crops grown within the pilot districts. The results revealed that 47% of the households within Amuru grew Pigeon Peas and 10% grew Field Peas. Less than one percent (1<%) of the households in Ntungamo and Kalungu district grew Pigeon Peas.

**Figure 2: Households growing leguminous plants by district**

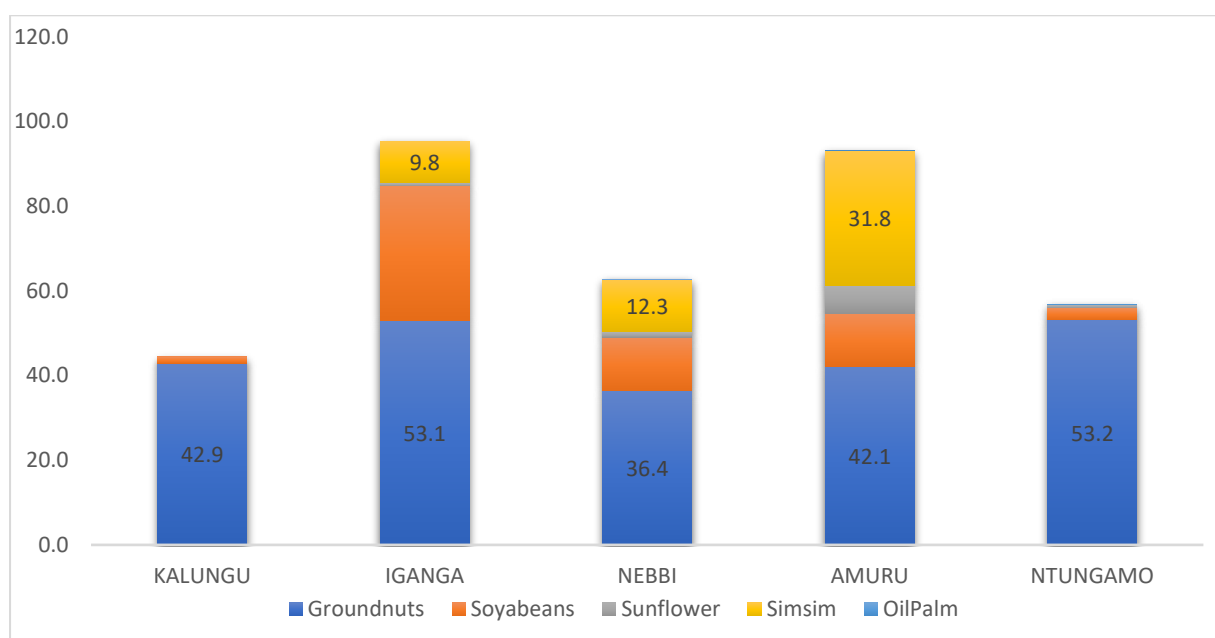


### Oil seeds

#### Proportion of household cultivating different Oil seeds crops by districts.

Figure 3 presents the proportion of the household cultivating different oil seeds and the results show that ground nuts were the most grown Oil seed crop followed by Soya beans within the pilot districts except for Amuru. The analysis revealed that Sunflower and Oil Palm were the least crops grown by the households within all the pilot districts. Less than one percent of the households in Kalungu, Iganga and Ntungamo grew both Oil Palm and Sunflower. The results also revealed that 32 % of the household in Amuru grew Simsim and 7% grew Sunflower. Less than one percent (<1%) of the households within Kalungu and Ntungamo district grew Simsim.

**Figure 3: Households growing Oil seeds by district**



### Vegetables

#### Proportion of household cultivating different vegetable crops by districts.

Table 7 below shows that pumpkins were the most common vegetables with in the districts of Amuru, Nebbi and Ntungamo while eggs –plants were the most common vegetables within the districts of Kalungu and Iganga. This was mainly attributed to the fertile soils and favorable climate in the districts, more still most of both pumpkins and egg plants grown are for sale. Carrots were the least vegetables grown by the households within all the pilot districts at less than one percent (<1%). The results further revealed that 10% of the households with in Nebbi district grew tomatoes and only 1% of the households in Kalungu, Nebbi and Amuru districts grew dodo.



**Table 7: Proportion of households growing Vegetables by district**

District	Cabbages	Tomatoes	Carrots	Onions	Pumpkins	Eggplants	Dodo
Kalungu	3.3	8.9	0.4	1.5	6.2	9.1	0.6
Iganga	5.4	7.8	0.4	1.0	7.2	13.1	0.4
Nebbi	0.8	10.1	0.2	6.3	40.5	10.1	1.2
Amuru	3.0	5.6	0.2	3.1	12.4	9.4	0.8
Ntungamo	2.2	4.0	0.4	4.0	21.9	17.2	0.3

### *Tree Crops*

#### **Proportion of household cultivating different Tree Crops by districts.**

Table 8 presents the proportion of households cultivating different tree crops by district and the results reveal that Coffee was the most commonly grown tree crop by the households within the pilot districts except for Amuru with Kalungu having the highest percentage (75%). Less than one percent (<1%) of the households within all the district grew Tea. The results further showed that less than one percent (<1%) of the households with in all the districts grew both Cashew and Cocoa except for Iganga.

**Table 8: Proportion of households growing Tree Crops by district**

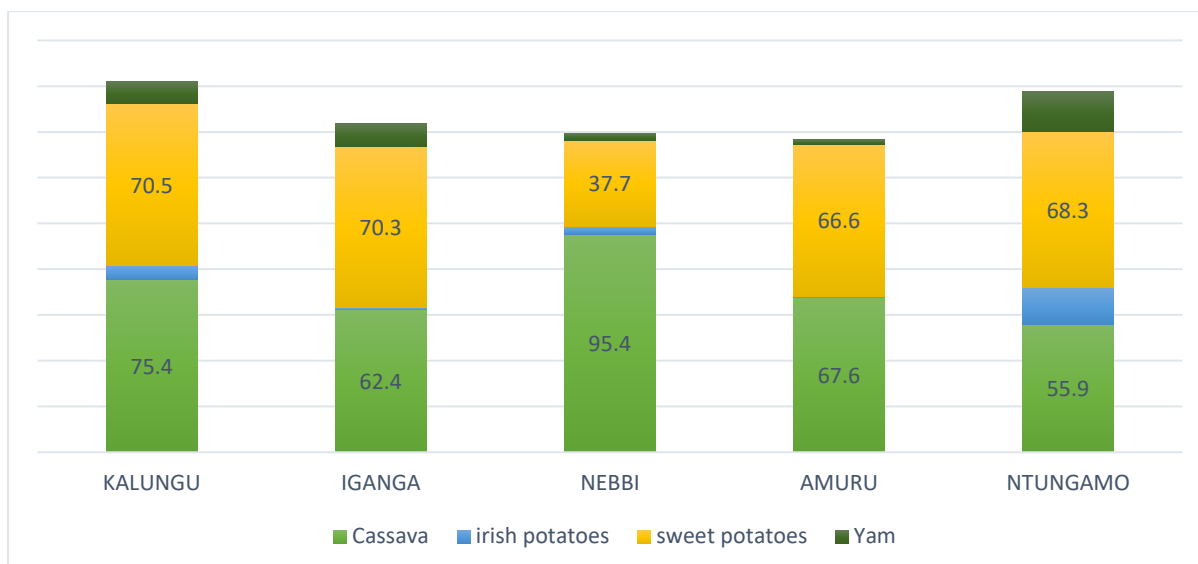
District	Coffee	Cocoa	Tea	Cashew Nuts
Kalungu	75.4	0.4	0.1	0.3
Iganga	34.6	1.0	0.1	0.8
Nebbi	14.7	0.1	0.0	0.1
Amuru	0.3	0.0	0.2	0.5
Ntungamo	65.3	0.2	0.1	0.2

### *Root crops*

#### **Proportion of household cultivating different root crops by districts.**

Cassava and sweet potatoes were the most grown root & tuber crops by the households within the pilot districts. The analysis showed that Nebbi (95%) and Kalungu (74%) had the highest percentages of households growing cassava with in districts while Kalungu (71%), Iganga (70%) and Ntungamo (68%) had the highest percentages of households growing sweet potatoes within the districts. Yams were the least grown root & tuber crop followed by Irish potatoes across all the districts.

**Figure 4: Households growing Root tubers by district**



### Fruits

#### Proportion of household growing Fruits by districts.

Table 9 shows that Mangoes were the most commonly grown fruits in all the pilot districts followed by Avocado in Kalungu and Iganga and Oranges in Kalungu and Amuru. Apples are the least grown fruit with in all the five pilot districts at less than one percent (<1%). The results also revealed that over 7% of the households grew Pawpaw within the districts of Amuru and Ntungamo and over 3% grew passion in Kalungu and Ntungamo districts. Less than one percent (<1%) of the households in the pilot district grew pineapples except for Kalungu and Ntungamo.

**Table 9: Percentage of households growing Fruits by district**

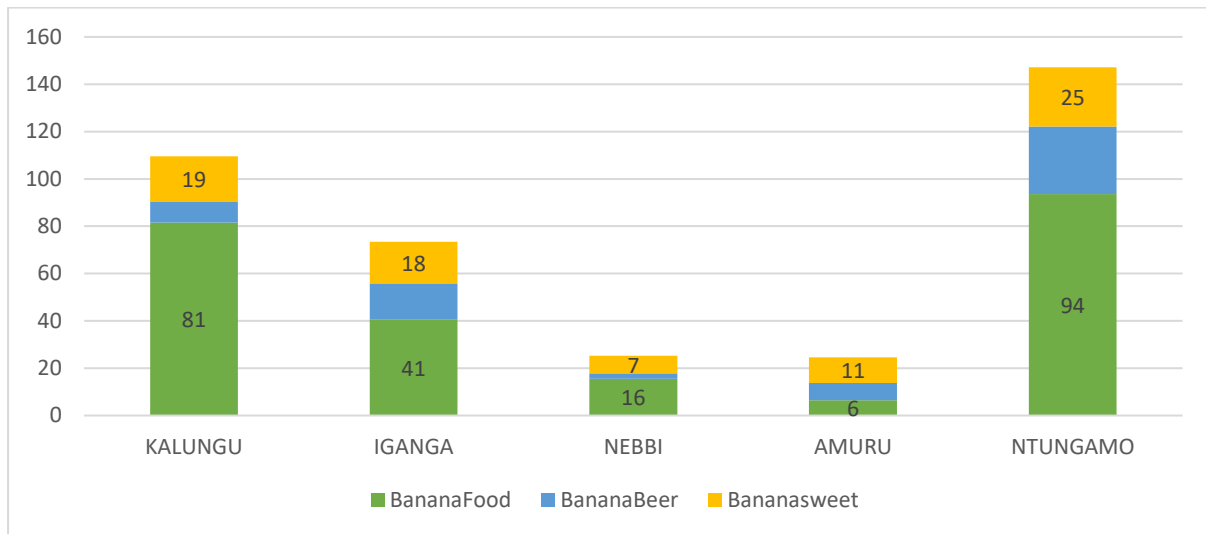
	Orange	Pawpaw	Pineapple	Mango	Avocado	Guava	Apples	Passion
Kalungu	8.7	4.1	1.0	11.3	8.9	2.6	0.1	3.2
Iganga	4.6	3.1	0.5	6.8	5.6	1.3	0.1	1.7
Nebbi	3.6	1.4	0.1	8.8	2.6	0.6	0.0	0.6
Amuru	7.5	6.7	0.6	12.3	3.9	1.4	0.1	2.6
Ntungamo	2.7	9.5	2.8	13.7	16.9	6.2	0.2	4.1

### Plantains

#### Proportion of household growing Plantains by districts.

The results from the figure 5 reveal that Banana Food were the most commonly grown plantains by the households within the pilot districts with Ntungamo having the highest percentages (94%) followed by Sweet Banana in Kalungu, Iganga and Nebbi districts. Banana beer was the least grown plantain with Nebbi having the lowest percentage (2%). Ntungamo district was leading producer of all banana types suggesting that banana is key commodity in district.

**Figure 5: Households growing Plantains by district**

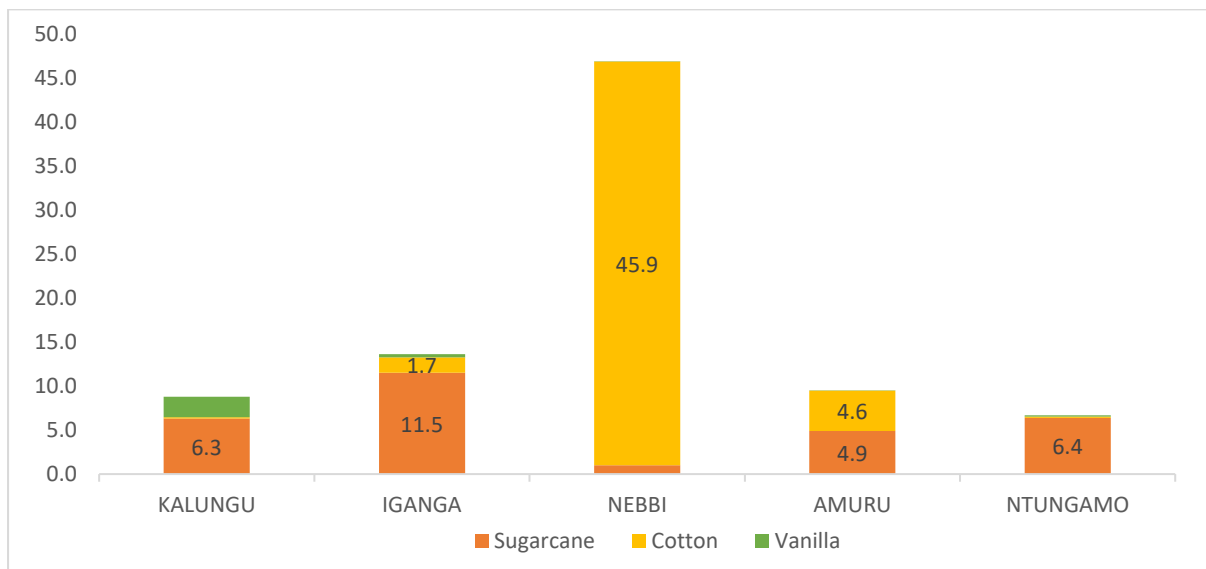


*Sugar Cane, Vanilla and Cotton*

**Proportion of household cultivating Sugar Cane, Vanilla, and Cotton by districts.**

The results from figure 6 reveal that sugar cane was the most cultivated crop compared with cotton and vanilla with Iganga leading the cultivation of the sugar cane, Kalungu leading in the production of vanilla with two percent of the households. Nebbi leading in the cultivation of the cotton with forty-six percent of the households.

**Figure 6: Sugarcane, Vanilla and Cotton**



**Area under Crops in Acres**

According to the Agriculture Annual Survey (AAS) 2018, the National Mean Plot Size (MPS) was estimated to be 0.3 Ha amongst the 10 ZARDIs. For the pilot districts of Iganga, Nebbi, Ntungamo, Kalungu and Amuru belong, to the specific ZARDIs of Buginyanya, Abi, Mbarara,

Mukono, and Ngetta respectively. Amuru had the highest estimated MPS of 0.70 Ha followed by Ntungamo and Kalungu with 0.32 Ha while Nebbi had the least MPS with 0.16 Ha. Iganga had the highest estimated MPS of 0.2Ha

### *Banana Food*

From the listing exercise, the estimated number of plots under Banana food was 120,171 of which 44,803 (48%) were of pure stand and 75,368 (52%) were of mixed stand. More than half of the Banana food plots in the districts of Iganga, Kalungu and Ntungamo were under mixed stand whereas in the districts of Nebbi and Amuru more than half of the Banana plots were under pure stand. Results are shown in Table 10.

**Table 10: Area under Banana Food**

District	Pure	%Pure	Mixed	%Mixed	Total	Area (Ha)	Mean Plot Size (MPS) AAS,2018
Kalungu	9,046	34.5	7,210	65.5	26,256	8,402	0.32
Iganga	3,139	31.8	6,723	68.2	9,862	1,972	0.20
Nebbi	3,739	65.7	1,949	34.3	5,688	910	0.16
Amuru	1,026	73.9	362	26.1	1,388	972	0.70
Ntungamo	7,853	36.2	49,124	63.8	76,977	24,633	0.32
Total	44,803	48.4	75,368	51.6	120,171	36,889	0.34

### *Sweet Potatoes*

Table 11 shows that the estimated number of plots under Sweet Potatoes was 109,429. Out of these, 84,643 were of pure stand while 24,786 were of mixed stand. The district figures indicate that, Nebbi district had the highest percentages of its Sweet potatoes plots in pure stand followed by Amuru and Ntungamo respectively while Kalungu district had the highest number of plots under mixed stand followed by Iganga district.

**Table 11: Area under Sweet potatoes**

Sweet Potato	Pure	%Pure	Mixed	%Mixed	Total	Area(Ha)	Mean Plot Size (MPS) AAS,2018
Kalungu	12,156	59.3	8,327	40.7	20,483	6,555	0.32
Iganga	13,928	72.9	5,178	27.1	19,106	3,821	0.20
Nebbi	11,634	93.7	787	6.3	12,421	1,987	0.16
Amuru	11,585	90.9	1,159	9.1	12,744	8,921	0.70

Ntungamo	35,340	79.1	9,335	20.9	44,675	14,296	0.32
<b>Total</b>	<b>84,643</b>	<b>79.2</b>	<b>24,786</b>	<b>20.8</b>	<b>109,429</b>	<b>35,580</b>	<b>0.34</b>

### *Beans*

The estimated number of plots under Beans was 151,173. Out of these, 42,538 were of pure stand while 108,635 were of mixed stand. Over seventy percent of the bean plots in the districts of Iganga, Kalungu, Amuru and Ntungamo were under mixed stand whereas over twenty percent of bean plots in the districts of Nebbi, Ntungamo , Amuru and Kalungu were under pure stand.

**Table 12: Area under Bean plots**

<b>Beans</b>	<b>Pure</b>	<b>%Pure</b>	<b>Mixed</b>	<b>%Mixed</b>	<b>Total</b>	<b>Area (Ha)</b>	<b>Mean Plot Size (MPS) AAS,2018</b>
Kalungu	5,560	20.05	22,172	79.95	27,732	8,874	0.32
Iganga	3,806	18.6	16,655	81.4	20,461	4,092	0.20
Nebbi	9,245	54.53	7,708	45.47	16,953	2,712	0.16
Amuru	2,630	24.94	7,917	75.06	10,547	7,383	0.70
Ntungamo	21,297	28.22	54,183	71.78	75,480	24,154	0.32
<b>Total</b>	<b>42,538</b>	<b>29.27</b>	<b>108,635</b>	<b>70.73</b>	<b>151,173</b>	<b>47,215</b>	<b>0.34</b>

### *Rice*

The estimated number of plots under rice was 17,297 and of these 54% were of pure stand while 46% were of mixed stand. Iganga district had the highest percentages of its rice plots in pure stand followed by Nebbi and Kalungu respectively while Ntungamo had the highest percentages of its rice plots in mixed stand followed by the Amuru district.

**Table 13: Area under Rice**

District	Pure	%Pure	Mixed	%Mixed	Total	Area (Ha)	Mean Plot Size (MPS) AAS,2018
Kalungu	91	60.7	59	39.3	150	48	0.32
Iganga	4,024	80.7	960	19.3	4,984	996.8	0.20
Nebbi	1,560	65.4	827	34.6	2,387	381.92	0.16
Amuru	3,416	35.2	6,277	64.8	9,693	6785.1	0.70
Ntungamo	25	30.1	58	69.9	83	26.56	0.32
<b>Total</b>	9,116	54.4	8,181	45.6	17,297	8,238	0.34

### *Irish Potatoes*

Table 14 indicates that the estimated number of plots under Irish Potatoes was 13,272. Out of these, 9,056 were of pure stand while 4,216 were of mixed stand. The district figures indicate that, Nebbi district had the highest percentages of its Irish potatoes plots in pure stand followed by Amuru and Ntungamo respectively while Iganga had the highest percentages of its Irish potatoes plots in mixed stand followed by Kalungu district.

**Table 14: Area under Irish Potatoes**

Irish Potato	Pure	%Pure	Mixed	%Mixed	Total	Area (Ha)	Mean Plot Size (MPS) AAS,2018
<b>Kalungu</b>	778	44.9	953	55.1	1,731	554	0.32
<b>Iganga</b>	110	43.3	144	56.7	254	51	0.20
<b>Nebbi</b>	1,016	90.1	112	9.9	1,128	180	0.16
<b>Amuru</b>	73	74.5	25	25.5	98	69	0.70
<b>Ntungamo</b>	7,079	70.4	2,982	29.6	10,061	3220	0.32
	9,056	64.6	4,216	35.4	13,272	4,073	0.34

### *Ground Nuts*

Table 15 shows that the estimated number of plots under Ground Nuts was 84,458. Out of these, 45,464 (48%) were of pure stand while 38,994 (52%) were of mixed stand. The district figures indicate that, Ntungamo district with 71% had the highest percentages of its Ground Nuts plots in pure stand followed by Nebbi (65%) whereas Iganga had the highest percentages (71%) of its Ground Nuts plots in mixed stand followed by Kalungu (67%) and Amuru (56%).

**Table 15: Area under Groundnuts**

<b>Ground Nuts</b>	<b>Pure</b>	<b>%Pure</b>	<b>Mixed</b>	<b>%Mixed</b>	<b>Total</b>	<b>Area(Ha)</b>	<b>Mean Plot Size (MPS) AAS,2018</b>
<b>Kalungu</b>	4,084	32.9	8,348	67.1	12,432	3,978	0.32
<b>Iganga</b>	4,296	28.8	10,622	71.2	14,918	2,984	0.20
<b>Nebbi</b>	8,238	64.5	4,542	35.5	12,780	2,045	0.16
<b>Amuru</b>	4,021	44.1	5,087	55.9	9,108	6,376	0.70
<b>Ntungamo</b>	24,825	70.5	10,395	29.5	35,220	11,270	0.32
	45,464	48.1	38,994	51.9	84,458	26,653	0.34

## CHAPTER FOUR: AQUACULTURE

### Introduction

There are 193 (0.1%) households practicing aquaculture farming in the 5 pilot districts. There were more aquaculture farmers in Ntungamo and Amuru compared to other districts.

### Production Systems

#### *Fish Ponds*

Fishponds were the most common type of production systems in the pilot districts with 95% of aquaculture households owning ponds. On average, an aquaculture household owns two ponds. . At least 78% of ponds are stocked. Aquaculture households own between 1 and 6 ponds. Amuru and Iganga had the least number of stocked ponds.

**Table 16: Fish Ponds Stocked**

District	No. Stocked	No. Un-stocked	Proportion Stocked
Kalungu	95	19	83.3
Iganga	15	6	71.4
Nebbi	19	4	82.6
Amuru	86	40	68.3
Ntungamo	96	17	85.0
<b>Total</b>	<b>311</b>	<b>86</b>	<b>78.3</b>

#### *Fish Tanks and Cages*

Fish tanks and cages were very rare among aquaculture households. Except Kalungu district neither had fish tanks or cages. There was only one cage found in the pilot districts located in Ntungamo district. Two thirds of the tanks are stocked.

**Table 17: Fish Tanks and Cages stocked**

District	Tanks		Cages	
	No. Stocked	No. Un-stocked	No. Stocked	No. Un-stocked
Iganga	2	0		
Nebbi	3	2		
Amuru	2	2		
Ntungamo	3	1	0	1
<b>Total</b>	<b>10</b>	<b>5</b>	<b>0</b>	<b>1</b>



### Type of Fish Stocked

Tilapia was the most common type of fish stocked among aquaculture households. At least 8 in every 10 aquaculture farming households with ponds stocked them with Tilapia. Eight in every ten aquaculture farming households with tanks stocked them with Tilapia. Two in every five households with ponds stocked them with Catfish and only 6% of households with ponds stocked them with Mirror carp. One in every three households with tanks stocked them with Catfish and two in every five households with tanks stocked them with Mirror carp.

**Table 18: Type of fish stocked**

<b>Production System</b>	<b>Tilapia</b>	<b>Catfish</b>	<b>Mirror carp</b>
Ponds	84.9	40.2	6.8
Tanks	80.0	33.3	40.0
Total	84.4	39.3	8.1

## CHAPTER FIVE: LIVESTOCK REARING

### Introduction

Results from the farmer registration revealed that 103,970(66%) of the households reported to keeping livestock which include Cattle, Goats, Pigs, Poultry, Rabbits and Dogs. Across the pilot districts majority of the households reported to keeping poultry and goats as seen in table 18 below.

In Kalungu, 18,520 households reported to keeping livestock with the majority keeping poultry (80%), followed by pigs (57%). Less than 50% reported to keeping other livestock; cattle goats and dogs.

In Iganga, 16,825 of the farming households registered reported to keeping livestock with the majority keeping poultry (86%), followed by cattle and goats 55% and 54% respectively. However less than 10% of the farming households reported to keeping pigs, sheep, rabbits and dogs

Nebbi had 22,724 farming households keeping livestock and majority, over 80% reported to keeping goats and poultry. However, few households reported to keeping the other livestock types with rabbits having the least number of households

In Amuru, 13,429 of the farming households reported to keeping livestock and majority were keeping poultry followed by goats. Only 30% reported to keeping cattle and less than 20% reported to keeping sheep, pigs and rabbits.

In Ntungamo, 32,472 of the farming households reported to keeping livestock and majority were keeping goats (67%) followed by poultry (58%). A low proportion of the households were keeping pigs and cattle.

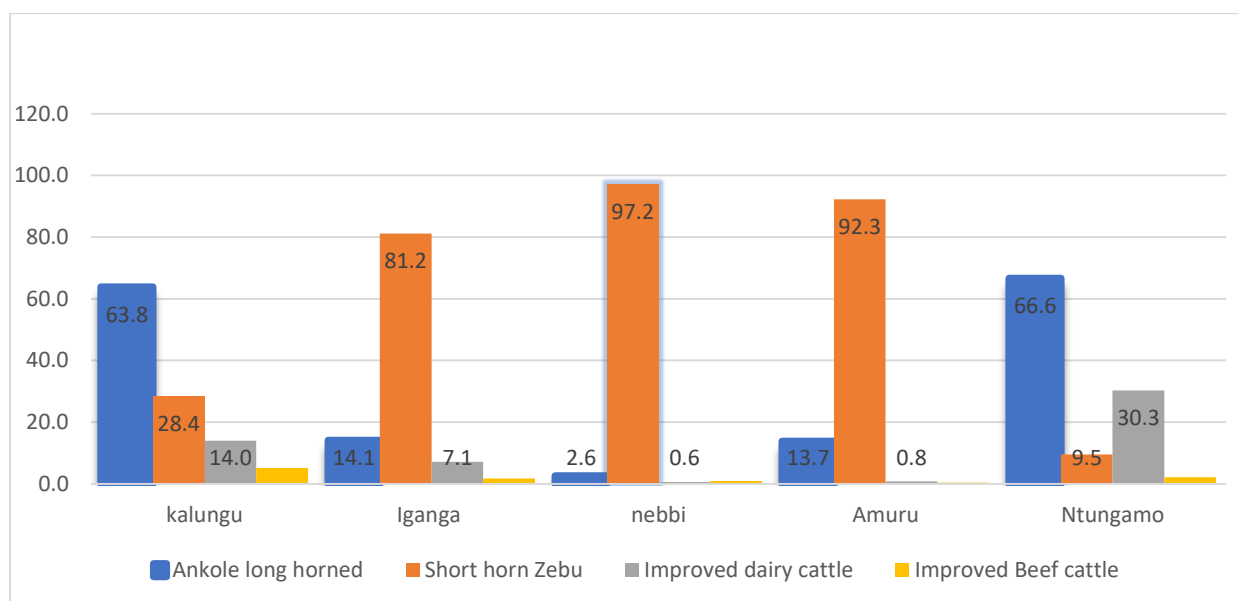
**Table 19: Number of households keeping livestock**

District	Cattle	Goats	Sheep	Pigs	Poultry	Rabbits	Dogs
Kalungu	6,815	8,275	1,092	10,501	14,868	614	1,912
Iganga	9,024	8,615	501	1,200	14,399	245	796
Nebbi	5,037	18,769	1,706	2,929	18,694	340	3881
Amuru	4,039	9,743	1,599	2,884	12,709	115	4,634
Ntungamo	9,668	21,820	3,563	11,048	18,835	2,917	6,955
<b>Total</b>	<b>34,583</b>	<b>67,222</b>	<b>8,461</b>	<b>28,562</b>	<b>79,505</b>	<b>4,231</b>	<b>18,178</b>

### Cattle Keeping

According to farmer registration results, majority of the livestock-keeping households had indigenous breeds with Kalungu and Ntungamo having at least 63% of the households keeping Ankole long horned cattle, whereas Iganga, Nebbi and Amuru had more than 80% of the households keeping short horn zebu. Results also show that Ntungamo had a higher proportion (30%) of households keeping improved dairy breeds than the other districts.

**Figure 7: Proportion of Households keeping Cattle**



### Cattle population by breed

Findings reveal that Farmers keep more numbers of indigenous cattle than exotic cattle. In Iganga, Nebbi and Amuru there were more numbers of short horn zebus than Ankole long horned cattle and on average farmers keep 4 short horn zebu and 3 Ankole long horned cattle. In Ntungamo and Kalungu, higher numbers of the Ankole long horned cattle were recorded and on average farmers keep 5 animals in Ntungamo and 3 in Kalungu.

Across the five districts, more numbers of improved dairy cattle than beef breeds were recorded with the exception of Nebbi .Furthermore, households keep an average of 4 improved cattle; however in Ntungamo households had an average of 11 improved dairy breeds cattle and those who kept improved beef breeds had at least 6 cattle. (Annex)

**Table 20: Cattle population**

<b>Animal Breed</b>	<b>Kalungu</b>	<b>Iganga</b>	<b>Nebbi</b>	<b>Amuru</b>	<b>Ntungamo</b>
Cattle - Ankole Long Horned	10,774	3,109	436	1677	28,334
Cattle - Short Horn Zebu	3,994	21,765	19,375	14,891	4,978
Cattle Improved – Diary	2,818	2093	73	140	30,602
Cattle Improved – Beef	1139	565	161	43	1,159
<b>Total</b>	<b>18,725</b>	<b>27,532</b>	<b>20,045</b>	<b>16,751</b>	<b>65,073</b>

### *Goats*

Farmer Registration results indicate that majority of the households with Goats reported to keeping indigenous breeds of goats with Amuru and Nebbi having the highest proportions (98). Kalungu and Ntungamo reported higher proportions keeping exotic breeds 17% and 14% respectively while the rest of the pilot districts had less than 10% of the households with goats keeping exotic breeds

**Table 21: Households keeping Goats**

<b>District</b>	<b>Exotic Breeds</b>	<b>Indigenous</b>	<b>Total</b>
Kalungu	1,410	6,865	8,145
Iganga	792	7,823	8,505
Nebbi	416	18,353	18,711
Amuru	236	9,507	9,698
Ntungamo	3,076	18,744	21,660

### *Goat Population by breed*

Generally, farmers keep high numbers of indigenous goats compared to exotic breeds were across the pilot districts. Ntungamo and Nebbi had the highest number of indigenous breeds. Ntungamo had the highest number of exotic breeds as well followed by Kalungu. On average, a farmer keeps 4 animals.

**Table 22: Goat population by breed**

<b>District</b>	<b>Exotic</b>	<b>Indigenous</b>
Kalungu	5,009	22,164
Iganga	3,345	28,009
Nebbi	2,213	77,713
Amuru	1,003	47,920
Ntungamo	11,985	77,704

### *Poultry*

It can be seen from the table below that in all the five districts, a high number of households keep indigenous chicken compared to other poultry breeds

**Table 23: Households keeping Poultry**

District	Indigenous chicken	Exotic Broilers	Exotic layers	Breeder Broilers	Breeder Layers	Ducks	Turkeys	Total
Kalungu	12,173	474	292	126	106	1,421	276	14,868
Iganga	12,622	394	280	95	200	533	275	14,399
Nebbi	16,748	96	44	14	42	1,578	172	18,694
Amuru	11,536	139	10	46	14	877	87	12,709
Ntungamo	15,009	724	927	170	262	1,583	160	18,835

### *Poultry Population*

Generally, higher numbers of indigenous chicken compared to other poultry breeds were reported. In Kalungu district households with exotic layers reported high numbers, and on average, a household with exotic layers reported to having 171 birds and those with breeder layers reported to having 129 birds. Households with exotic layers also reported high average numbers 113 birds. Households with ducks and turkeys had an average of 5 birds.

**Table 24: Poultry Population**

Animal Breed	Kalungu	Iganga	Nebbi	Amuru	Ntungamo
Poultry - Indigenous	103,527	149,903	98,477	131,248	76,833
Poultry Exotic - Broilers	31,208	26,389	668	1,461	9,566
Poultry Exotic - Layers	50,047	17,014	467	1,133	20,558
Poultry Breeders- Broilers	8,494	3,032	80	393	2,298
Poultry Breeders – Layers	13,569	5,242	580	70	2,377
Ducks	6,536	3,757	8,608	5,113	4,855
Turkeys	1,098	1,779	861	351	465
<b>Total</b>	<b>214,479</b>	<b>207,116</b>	<b>109,741</b>	<b>139,769</b>	<b>116,952</b>

### *Other livestock*

Higher numbers of indigenous sheep were reported and on average, a household and a household with sheep reported 3 animals. A household with pigs had an average of 3

animals and those with rabbits had an average of 5 animals. However, in Iganga, a household with pigs kept an average of 6 animals and those with rabbits kept an average of 16 animals

**Table 25: Other livestock population**

<b>Animal Breed</b>	<b>Kalungu</b>	<b>Iganga</b>	<b>Nebbi</b>	<b>Amuru</b>	<b>Ntungamo</b>
Sheep - Exotic	921	1,121	305	392	2,124
Sheep - Indigenous	2,077	1,775	5,606	5,871	12,421
Pigs	34,799	6,951	9,076	9,798	21,266
Rabbits	4,635	3,887	1,860	615	16,754
Dogs	3,193	1,948	7,058	8,419	11,237

## CHAPTER SIX: APICULTURE FARMING

### Introduction

There are 2,527 (1.6%) households practicing apiculture farming in the 5 pilot districts. Kalungu (0.6%) and Iganga (0.02%) districts had the least number of apiculture households. Amuru district had the highest proportion (4.9%) of households practicing apiculture followed by Nebbi (1.8%) and Ntungamo (1.7%).

### Type of Beehives

#### *Local beehive*

This was the most common type of beehive in the five pilot districts. Eighty eight percent of apiculture households owned the local bee hive. Seventy three percent (73%) of the local beehives were colonized during the time of registration.

**Table 26: Local Beehives colonized**

District	No. Colonized	No. Un-Colonized	Proportion Colonized
Kalungu	581	180	76.3
Iganga	19	6	76.0
Nebbi	700	291	70.6
Amuru	4350	1104	79.8
Ntungamo	6400	2910	68.7
<b>Total</b>	<b>12050</b>	<b>4491</b>	<b>72.8</b>

#### *Kenya Top Bar Bee hive*

Kenya top bar beehive was the second most common type of bee hive across all districts with 11% of households owning them. Nebbi had the highest proportion (39%) of the kenya top bar compared to other districts. Iganga district had no household with the kenya top bar beehive. Seventy two percent of the hives were colonised at the time.

**Table 27: Kenya Top Bar Beehives colonized**

District	No. Colonized	No. Un-colonized	Proportion Colonized
Kalungu	59	19	75.6
Nebbi	802	337	70.4
Amuru	73	32	69.5
Ntungamo	246	72	77.4
<b>Total</b>	<b>1180</b>	<b>460</b>	<b>72.0</b>

### *Langstroth Beehive*

The langstroth was the least (1.2%) common type of beehive owned by apiculture households. Nebbi and Ntungamo had the highest number of households (11) with the langstroth. Kalungu had 7 households while Amuru district had only one household. Iganga district had no langstroth beehive. Generally, 68% of beehives were colonized. All beehives in Amuru were colonized. Only 55% of beehives were colonized in Kalungu.

**Table 28: Langstroth Beehives colonized**

<b>District</b>	<b>No. Colonized</b>	<b>No. Un-colonized</b>	<b>Proportion Colonized</b>
Kalungu	83	67	55.3
Nebbi	48	24	66.7
Amuru	45	0	100.0
Ntungamo	42	14	75.0
<b>Total</b>	<b>218</b>	<b>105</b>	<b>67.5</b>



## CHAPTER SEVEN: ACCESS TO AGRICULTURE TECHNOLOGIES AND SERVICES

### Adoption of Improved Technologies and Support Services

Table 29 presents the results of the use of agricultural technologies in the five district where the farmer registration was piloted. The results revealed that the three commonly used agricultural inputs or technologies were pesticides (28.9%), improved seeds (26.3%) , and organic fertilizers (26.2%) while the three least used or adopted technologies were tractors (2.4%), artificial insemination (1.6%) and milk coolers (1.4%). Iganga and Amuru had the highest proportion of households using ox ploughs. The use of irrigation was highest in Iganga and Kalungu respectively. Kalungu had the highest proportion of households using organic and inorganic fertilizers. Iganga had the highest proportion of households using artificial insemination and vaccinating animals. Kalungu had the highest proportion of households using pesticides followed by Nebbi and Iganga respectively. The use of improved seeds was highest in Kalungu and Nebbi respectively.

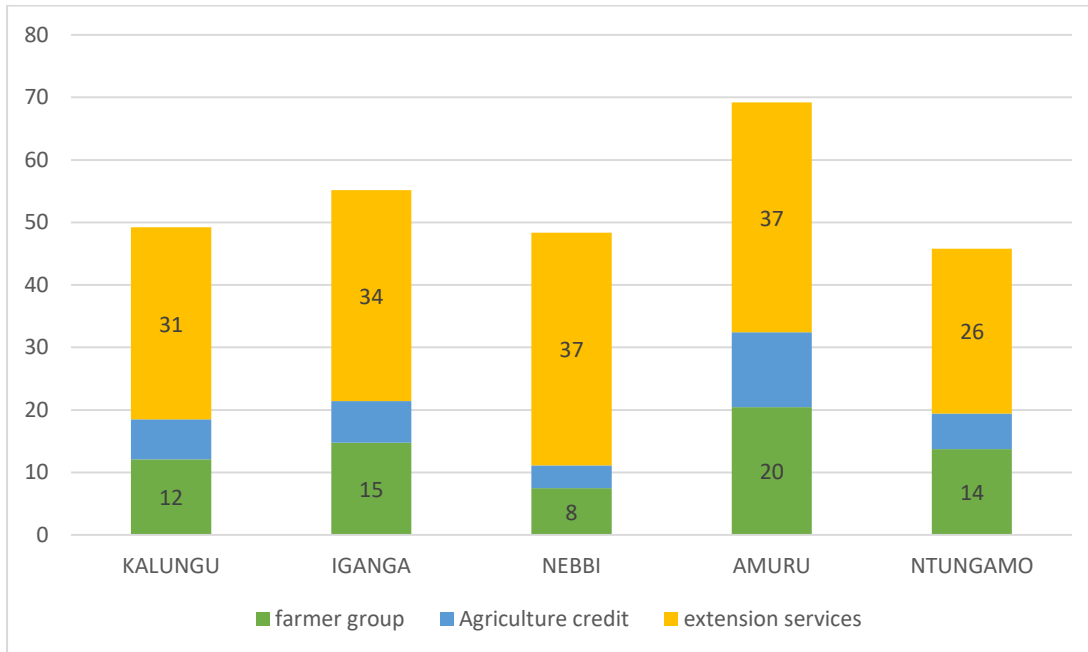
**Table 29: Adoption of improved technologies**

Improved technologies	Kalungu	Iganga	Nebbi	Amuru	Ntungamo	Total
Tractor	0.6	5.5	1.4	8.6	0.3	2.4
Ox plough	0.4	34.5	4.3	23.4	0.2	9.3
Irrigation	10.7	11.2	4.2	2.1	3.4	5.8
Organic Fertilizer	56.1	24.7	8.0	3.4	31.2	26.2
Inorganic Fertilizer	45.2	23.0	2.0	2.9	3.9	13.1
Pesticides	56.5	36.6	46.4	9.8	9.6	28.9
Improved Seed	41.5	32.3	33.3	19.0	15.2	26.3
Milk Cooler	0.7	2.1	0.3	0.7	2.1	1.4
Vaccination	14.3	22.2	7.6	10.2	10.2	12.3
Artificial Insemination	3.3	4.6	0.3	0.7	0.6	1.6

The farmer registration results revealed that 32% of households had received extension services in the previous 12 months. Amuru and Nebbi districts had the highest proportion (37%) of households that had accessed extension services while Ntungamo had the least proportion (26%) of households that had accessed extension services. Overall, 13% of the farming households had at least one member of the household belonging to a farmer group. Amuru district had the highest proportion (20%) of households that had at least one member of the household belonging to a farmer group while Nebbi had the least proportion (8%) of households that had at least one member of the household belonging to a farmer group.

Generally, the proportion of households that had accessed agriculture credit was 6%. . Amuru district had the highest proportion (12%) of households that had accessed agriculture credit while Nebbi had the least proportion (4%) of households that had accessed agriculture credit.

**Figure 8: Proportion of Households accessing Agriculture Support Services**



### Access and Source of free/subsidized inputs

Table 30 presents the share of household that received free or subsidized inputs and the results revealed that on average, 24% of the households received free/subsidized inputs of which 80% were obtained from the government. Kalungu district had the highest proportion of households that received inputs followed by Ntungamo and Iganga respectively. Only 9% of the households in Amuru district received free/subsidized inputs. The main source of the inputs is from government under MAAIF (OWC) followed by local shops, and politicians. The NGOs and cooperatives were least source of free or subsidized inputs. Other sources of inputs were mainly friends and relatives of the farmers. Further analysis, on whether farmers used the free inputs showed that 97.7% used them fully. The major reason cited for non-use of free/subsidized inputs was lack of rainfall and poor quality inputs supplied to the farmers.

**Table 30: Access and Source of free/subsidized inputs**

District	Received free/ inputs		Source of Inputs						Household use of inputs		
	Yes	No	MAAIF	Cooperatives	NGOs	Shops/Local	Politicians	Other	used	Used some	did not use
Kalungu	43.5	56.6	84.3	0.9	0.7	10.5	3.4	0.2	98.0	1.7	0.3
Iganga	21.0	79.0	81.1	1.7	4.2	12.1	0.9	0.1	96.3	2.8	0.9
Nebbi	16.6	83.4	75.1	0.7	1.5	13.5	0.9	8.4	97.8	1.7	0.5
Amuru	9.5	90.5	48.8	3.1	6.6	36.6	2.9	2.0	95.3	3.5	1.2
Ntungamo	24.5	75.5	81.1	1.4	0.5	12.9	3.6	0.5	98.3	1.3	0.4
<b>Total</b>	23.6	76.4	80.3	1.3	1.5	13.0	2.8	1.2	97.7	1.8	0.5

### Access to Agriculture Services

Table 27 presents the access to agriculture credit and extension services. Only six percent of the households reported to access agriculture credit. Amuru district had the highest proportion (12%) of households accessing credit while Nebbi had the least proportion (3.6%) of households accessing credit. Every 3 in 10 households received extension services. Ntungamo had the least proportion of households receiving extension services while Nebbi had the highest proportion of households receiving extension services.

**Table 31: Access to Agriculture services**

District	Agriculture Credit	Extension Services
Kalungu	6.4	30.7
Iganga	6.7	33.8
Nebbi	3.6	37.3

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Amuru	12.0	36.8
Ntungamo	5.7	26.4
<b>Total</b>	<b>6.3</b>	<b>31.7</b>

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## CHAPTER EIGHT: CHALLENGES, RECOMMENDATIONS, CONCLUSION

### Challenges

- a) Slow and incomplete data collection.

Most of the parish chiefs were not able to either complete the exercise in time or complete the registration at all. For some the exercise was not of interest to them while

others were too busy. This was partly because the Parish Chiefs had other activities assigned to them and also the transfers of parish chiefs from one parish to another.

b) Slow and incomplete data entry

Most of the extension staff were not able to complete the data entry. This was also found to be caused by the busy schedules for these officers. Actually all project activities at the district level target extension workers. Additionally, the officers were not facilitated in time to be able to deliver the assignment in time.

c) Lack of adequate equipment for data entry

The pilot was run with data collection being done through paper-based registers which were later on given to extension staff to enter. This was mainly due to the lack enough tablets which could only be given to subcounty extension staff. Additionally, even those at the subcounty were not enough to cover all staff in the district but had to be shared amongst the extension staff.

d) Mandate crossovers

The mandate for deployment of parish chiefs falls under the purview of Ministry of Local Government. The supervision of the parish chiefs by the production officers was very difficult since they report to the senior administrative secretary who directly reports to the chief administrative officer. The senior administrative secretary were not involved from the start which made it difficult to supervise the parish chiefs.

### **Recommendations**

- a) It has been identified that the workload for complete farmer registration is too much for the parish chiefs. The team proposes the use of enumerators to undertake the first complete enumeration of the farmer register. The annual updates thereafter can be done by the parish chiefs
- b) Purchase of more tablets to be used by the enumerators such that data entry is done at the point of data collection. This shall eliminate the duplication of effort and inefficiency that has been observed during the pilot
- c) Review of guidelines for the extension grant to include data collection activities and facilitation for the parish chiefs to update the registers. The job descriptions for the extension staff already include the role for data collection and therefore just need an institutionalised form on facilitation to support sustainability of the process.

- d) Development of a Standard Operating Procedures (SOP) and Memoranda of Understanding (MoU) with the relevant stakeholders in complement to the extension grant guidelines, the team proposes a development of a SOP that shall clearly stipulate the roles and responsibilities of all authorities that have a role to play under RAADRS. This shall also be enforced with signing of MoUs with these relevant authorities to further strengthen the working relationships

### **Planned Way Forward**

- Roll out the crop and livestock tools in the second season of 2020 in the 5 pilot districts. The tools are to be administered by the Parish Chief with support from Extension Workers and LC1 Chairpersons
- A national stakeholder engagement to discuss implementation arrangements during roll out. The output will be an MOU between Ministry of Local Government and MAAIF.
- Phased Data collection to be rolled out starting with 15 districts. This will involve Training Parish Chiefs, Extension Staff and Deployment of Parish Chiefs and Extension Staff
- Implement the Institutional Data Module

### **Conclusion**

The design of RAADRS is a well thought put process that can solve the problem of regular data collection in the agricultural sector. However, the process needs to be incorporated not only the government structures but also in the “culture” of work within the LGs. This calls for a concerted effort from all relevant authorities right from the lowest level of administration up to MAAIF.

## **ANNEX**

### **Average Number of Animals**

<b>Average Number Of Animals</b>	<b>Kalungu</b>	<b>Iganga</b>	<b>Nebbi</b>	<b>Amuru</b>	<b>Ntungamo</b>
Cattle - Ankole Long Horned	3	3	3	3	5
Cattle - Short Horn Zebu	2	3	4	4	6
Cattle Exotic/Improved - Diary	3	4	2	5	11
Cattle Exotic/Improved - Beef	4	4	4	3	6
Goat - Exotic/Improved	4	4	5	4	4

Goat - Indigenous	3	4	4	5	4
Sheep - Exotic/Improved	3	9	4	4	4
Sheep - Indigenous	3	5	3	4	4
Pigs - Indigenous/Exotic/Improved	3	6	3	3	2
Rabbits	8	16	5	5	6
Dogs	2	3	2	2	2
Poultry - Indigenous	9	12	6	11	5
Poultry Exotic - Broilers	66	70	7	11	13
Poultry Exotic - Layers	171	65	11	113	22
Poultry Breeders- Broilers	67	33	6	9	14
Poultry Breeders - Layers	476	27	14	5	9
Ducks	5	7	5	6	3
Turkeys	4	7	5	4	3

### Average Number of Animals by sex of Household Head

LIVESTOCK TYPE	SEX OF HH Head	KALUNGU	IGANGA	NEBBI	AMURU	NTUNGAMO
Cattle - Ankole Long Horned	Male	3	3	4	3	5
	Female	3	3	3	3	5
Cattle - Short Horn Zebu	Male	2	3	4	5	6
	Female	2	3	3	4	6
Cattle Exotic/Improved - Dairy	Male	3	3	2	7	12
	Female	3	4	3	3	10
Cattle Exotic/Improved - Beef	Male	4	4	4	4	7
	Female	3	4	3	2	5
Goat - Exotic/Improved	Male	4	4	5	4	4
	Female	3	4	6	4	3
Goat - Indigenous	Male	3	4	4	6	4
	Female	3	4	4	4	4
Sheep - Exotic/Improved	Male	3	8	4	5	4
	Female	3	11	3	4	3
SHEEP - Indigenous	Male	3	4	3	4	4
	Female	2	5	3	3	4
PIGS	Male	3	6	3	4	2
	Female	3	7	3	3	2
Rabbits	Male	8	16	6	5	6
	Female	6	10	5	5	5
Dogs	Male	2	2	2	2	2
	Female	1	3	2	2	2
POULTRY - Indigenous	Male	9	12	6	13	5
	Female	8	12	6	10	5
POULTRY Exotic - Broilers	Male	92	77	5	10	14
	Female	34	64	10	11	11

POULTRY Exotic - Layers	Male	224	72	10	367	20
	Female	87	55	13	5	27
POULTRY Breeders- Broilers	Male	82	28	3	14	15
	Female	45	41	8	6	12
POULTRY Breeders - Layers	Male	756	25	10	5	12
	Female	52	31	21	6	6
Ducks	Male	5	7	6	6	3
	Female	5	8	5	6	3
Turkeys	Male	4	7	6	3	3
	Female	4	6	5	5	3

### Number of farmers who received free/subsidized inputs in the last 12 months

COMMODITIES	KALUNGU	IGANGA	NEBBI	AMURU	NTUNGAMO	TOTAL
Pasture Seed	82	81	7	14	97	281
Maize Seed	4,972	2,882	2,796	787	11,068	22,505
Bean	3,081	1,395	1,786	396	6,845	13,503
Rice	22	138	23	161	37	381
Coffee	8,850	2,917	1,424	13	3,354	16,558
Tea	20	14	6	6	26	72
Mango	2,469	471	355	366	1,359	5,020
Orange	3,080	705	240	371	122	4,518
Apple	16	10	3	-	4	33
Cocoa	1	55	-	2	1	59
Passion Fruits	61	31	3	10	97	202
Pineapples	4	10	1	2	49	66
Banana Food	893	221	120	45	857	2,136
Cassava	1,091	517	603	296	635	3,142
Pesticides	861	544	206	125	141	1,877
Artificial Fertilisers	559	252	8	55	73	947
Poultry	105	128	99	162	248	742
Veterinary Services	377	217	62	259	222	1,137
Artificial Insemination	23	12	1	2	6	44
Fish	6	6	2	6	7	27
Dairy Cattle	90	46	8	13	167	324
Beef Cattle	11	14	15	41	17	98
Goats	101	61	83	165	582	992
Pigs	197	21	15	69	220	522
<b>Total</b>	<b>26,972</b>	<b>10,748</b>	<b>7,866</b>	<b>3,366</b>	<b>26,234</b>	<b>75,186</b>



