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FARMER REGISTRATION REPORT

NEBBI DISTRICT

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CHAPTER ONE: BACKGROUND

1.0 Introduction

This report presents findings of the farmer registration pilot 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. 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.

1.1 Background

Over the years, the Agricultural Sector has suffered from lack of reliable, accurate and timely data to inform decision making. Agricultural data are required by a broad spectrum of stakeholders including; Government; the private sector; the NGO's; Academia; the Donor community and the wider public including the farmers for a variety of purposes. Although there are many producers of Agricultural data in the country, they are not coordinated and the Agricultural statistics system remains fragile, vulnerable and not fully developed. This is reflected in the lack of consistent, reliable and data from the several players in the agricultural sector. This prompted Government to establish a one stop center for Agriculture data in the Ministry of Agriculture, Animal Industry and fisheries under the National Food and Agricultural Statistical System (NFASS) Project.

The Ministry's ASSP 2015/16-2019/20 identifiedd setting up an efficient National Food and Agricultural Statistics System as one of the sector priorities if the sector is to provide timely and accurate data for policy and decision making. The overall goal of the NFASS is to ensure that data related to the Agricultural sector is accurate, timely, consistent, disaggregated and accessible so as to facilitate planning, and decision making. The NFASS focuses on; utilizing the data collected optimally so as to reduce the cost of data collection; harmonizing 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. The Ministry started implementing the NFASS project in FY 2015/16 which was mainly government funded and with the help of USAID-

EEA was able to set up a state-of-the-art Data center at MAAIF headquarters and also set up a MAAIF data base.

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 added a subcomponent 3.3 to support the implementation of the National Food and Agricultural Statistics System. Under this sub-component, all administrative data; surveys including systematic surveys of the number and capacity of inputs producers and producer organizations and systematic monitoring and transparent reporting on farmers and efforts to bulk their demand for inputs; sector studies; pest and diseases surveillance data; and any other sector data were to be undertaken.

Implementation of subcomponent 3.3 began in 2019 with all efforts focused on setting up the Routine Agricultural Administrative Data System (RAADS) and in order to set up the RAADS, there was need to have a sampling frame from which sample households for data collection will be drawn. The need for the sampling frame together with the national requirement to register farmers prompted the development of the National farmers register which was to be administered to all farming households in the country. After registration of farmers is completed, data collection using the already developed tools can then commence in the districts.

The Statistics division with assistance from the ACDP-PCU 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.

1.2 Objectives

The primary purpose of this activity was to register and have a central database in the Ministry Data Center of all farmers in the country who practice agriculture for planning purposes.

Specifically, the Farmers' Registration exercise will provide;

1. Government with an estimate of the number of farmers in the country engaged in different Agricultural enterprises or values chains relevant for planning purpose and making investment decisions;
2. A sample frame for the routine data collection
3. A detailed understanding of the agricultural technology adoption in Uganda.
4. Provision of background information about the farmers (ie name, location, farm size, enterprise involved in, etc.) in Uganda

1.3 Methodology, Scope and Field Organization

The exercise started with the training of the Parish Chiefs and Extension staff which was conducted in each of the 5 ACDP pilot districts of Iganga, Amuru, Nebbi, Kalungu and Ntungamo. 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) where by the farmers' register books were printed and distributed across parishes.

During the actual data collection, teams consisting of cluster supervisors from the Ministry headquarters were routinely dispatched to the field after having been trained in data quality control procedures and field work coordination. They were also provided with a supervisor's manual to assist in carrying out their duties. At District level, supervision was also carried out by the District Production & Marketing Officers and the District Agricultural Officer (ACDP focal persons)

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 maintained at all times between the Statistics Division and ACDP- PCU.

The registration covered all farmers in all villages to enable construction of the sampling frame for use in subsequent routine data collection.

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

1.4 Data cleaning and analysis

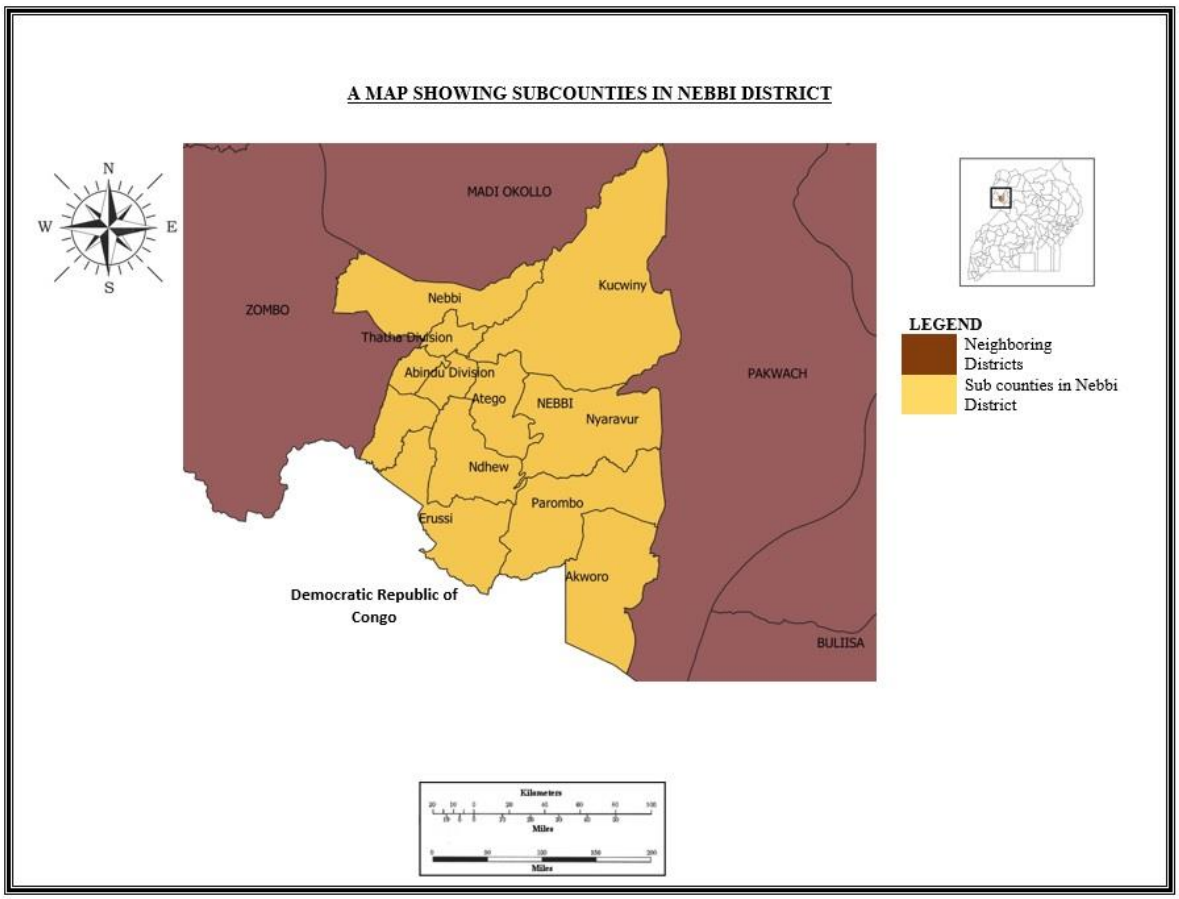
After data collection, the Statisticians extracted and merged all data from the different Pilot districts and exported to STATA. Cleaning was done to check out for inconsistencies and outliers. Data was analysed using STATA to obtain statistical outputs including frequencies and percentages in tabular and graphical forms. The statistical outputs were later extracted and presented in more acceptable tables ready for interpretation

CHAPTER TWO: SOCIO ECONOMIC CHARACTERISTICS

2.0 Introduction

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

Map of Nebbi District showing Sub counties



2.1 Distribution of Administrative Units registered

The Pilot exercise was able to list …. farming households from 664 villages, 51 Parishes and 12 sub counties in the district.

Table 1: Number of administration units registered

District	Sub-county	Parish	Village
Nebbi	12	51	664

2.2 Gender disaggregation of Farming households

Table 2 below shows that 17,191 (54.9%) of farming households registered were male headed while 14,071 (45%) were female headed. There were more male headed households in all Sub Counties except for Abindu Division, Central Division, Thatha Division and Parombo where there were more female headed households.

Table 2: Number of farming households by Sub County and sex of household head

Subcounty	Male	Female	Total
Abindu Division	645	861	1,506
Central Division	348	549	897
Thatha Division	611	773	1,384
Akworo	2,267	1,368	3,635
Atego	534	519	1,053
Erussi	2,544	1,897	4,441
Kucwiny	3,067	1,952	5,019
Ndhew	1,456	1,183	2,639
Nebbi	1,931	1,481	3,412
Nyaravur	1,325	981	2,306
Parombo	2,459	2,504	4,963
Total	17,191	14,071	31,262

A total of 7,501 farming households were headed by youths (18-30years). Majority of farming households (13,191) 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

Subcounty	5-17years	18-30year	31-50year	51-70year	71 And Above	Total
Abindu Division	0	433	658	312	102	1,505
Central Division	0	229	360	252	56	897
Thatha Division	1	394	606	271	101	1,373
Akworo	3	889	1,552	829	348	3,621
Atego	0	197	469	312	71	1,049
Erussi	3	1,156	1,852	1,149	278	4,438
Kucwiny	1	1,174	2,138	1,357	345	5,015
Ndhew	0	635	1,065	641	270	2,611

Subcounty	5-17years	18-30year	31-50year	51-70year	71 And Above	Total
Nebbi	2	775	1,479	809	332	3,397
Nyaravur	0	458	966	661	220	2,305
Parombo	0	1,161	2,042	1,278	448	4,929
Total	**10**	**7,501**	**13,191**	**7,873**	**2,572**	**31,147**

2.3 Households disaggregated by farming activity

Table 4 shows the proportion of the households by farming activity. Majority of the farming households in all sub counties were involved in crop cultivation, Atego having the highest proportion at 100%. Overall, Farmer registration pilot findings revealed that on average, 73.5% of the households reported to keeping livestock with Atego having the highest proportion at 86%. The overall proportion of aquaculture households in all Sub counties was very low at 0.08%. Central Division had the highest proportion of aquaculture households at 1.1%. The proportion of Apiculture households practicing apiculture was 2.21%. The highest proportion of apiculture households were in Kucwiny at 6.2%.

Table 4: Proportion of households practicing each farming activity by Sub County

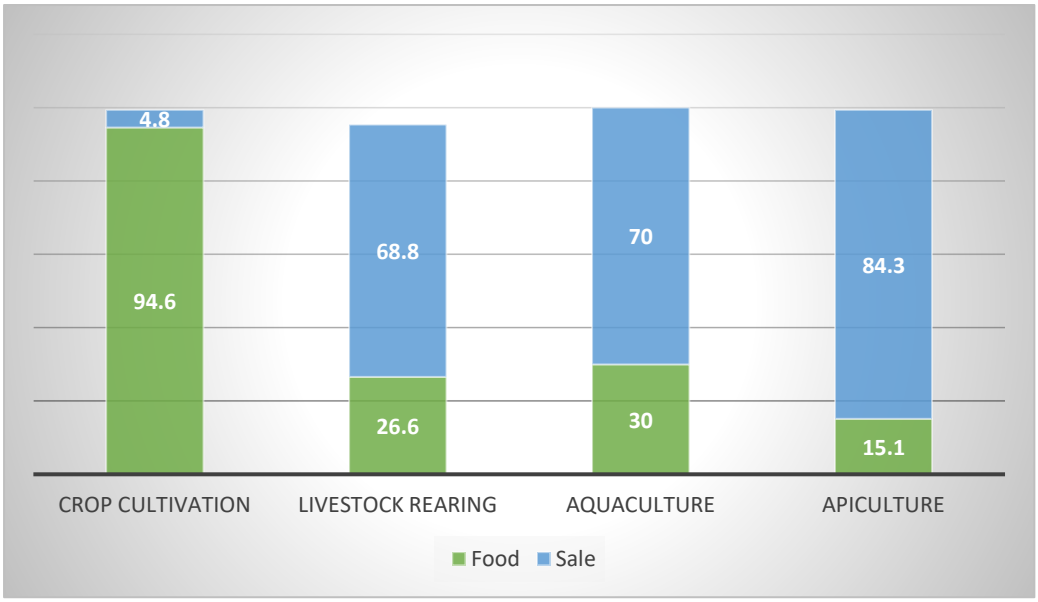
Subcounty	Crop	Livestock	Aquaculture	Apiculture	Agroforestry
Abindu Division	1,497	922	1	14	29
Central Division	893	536	10	12	213
Thatha Division	1,379	1,076		14	108
Akworo	3,628	2,727		55	36
Atego	1,054	907	1	40	139
Erussi	4,437	3,006	5	41	285
Kucwiny	5,016	3,904	1	312	178
Ndhew	2,638	2,086	1	39	14
Nebbi	3,406	2,265	5	67	34
Nyaravur	2,303	1,942	1	50	125
Parombo	4,942	3,605		46	129
Total	**31,200**	**22,980**	**25**	**690**	**1,290**

2.4 Main purpose of the farming activity

Findings revealed that 65.2% of farming households are involved in agriculture activities with the main purpose of acquiring food (subsistence farming). Most (94.6%) of the farming household that grow crops mentioned food as the main purpose of the farming activity 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

3.0 Introduction

3.1 Households growing the different Crop Categories

According to the study results in the table 5 below, Root Tubers were the most commonly grown crop category in all Sub Counties except for Central Division and Thatha Division where cereals were most commonly grown. Atego had the highest proportion of households growing Cereals (98.9%), legumes (83%), Oil seeds (76.4%) and Fruits (58.8%).

Furthermore, over 70% of households in Central Division, Atego and Nyaravur grow Oil Seeds and Palm while over 86% of households in Atego and Kucwiny grow Vegetables.

Tree Crops were least commonly grown in all Sub counties at an average percentage of 11% except for Erussi, Ndhew, Nebbi where fruits were least commonly grown.

The highest proportion of households growing Plantains and Tree Crops were in Erussi at 63.7% and 59.5% respectively.

Table 5: Proportion of households growing the different Crop Categories by Sub County

Sub County	Cereals	Leguminous	Oil seeds &Palm	Vegetables	Root Tubers	Fruits	Plantains	Tree Crops
Abindu Div.	77.1	70.8	41.5	11.3	92.2	3.3	1.5	0.7
Central Div.	91.3	82.6	74.6	26.5	76.8	13.5	17.3	7.9
Thatha Div.	91.0	55.0	58.7	32.7	90.0	21.0	10.5	0.5
Akworo	55.0	10.7	28.0	15.5	99.0	4.4	2.4	0.2
Atego	98.9	83.3	76.4	87.0	99.4	58.8	39.4	21.4
Erussi	65.6	58.8	32.0	37.2	96.4	7.4	63.7	59.5
Kucwiny	94.3	62.2	49.5	88.1	99.2	17.6	4.6	0.5
Ndhew	86.3	70.2	48.3	59.6	97.5	8.6	41.8	46.2
Nebbi	79.4	49.0	32.5	42.0	97.2	4.2	10.5	12.1
Nyaravur	96.9	51.2	73.2	57.2	98.2	6.6	4.1	0.5
Parombo	82.9	22.0	42.2	43.4	97.8	9.9	2.2	0.3
Total	**80.8**	**49.2**	**44.8**	**47.7**	**96.7**	**11.1**	**17.8**	**14.9**

3.1.1 Cereals

The results as shown in the table below revealed that Maize was the most commonly grown cereal in all Sub Counties at an average of 77.9% while Sorghum was the second most commonly grown cereal at 23.4%. Atego Sub County had the highest proportion of households growing Maize and Sorghum at 97.1% and 47.7% respectively. In addition, the highest

proportion of households growing Rice were found in Thatha Division at 50% and the lowest proportion in Erussi (0.5%). Wheat was the least grown cereal in all Sub Counties at less than one percent

Table 6: Proportion of households growing cereals by Sub County

Sub County	Cereal Crops				
	Wheat	**Rice**	**Maize**	**Finger Millet**	**Sorghum**
Abindu Division	0.1	12.1	74.8	0.7	5.0
Central Division	0.7	18.8	83.0	3.5	17.1
Thatha Division	0.1	48.9	85.9	2.9	10.1
Akworo	0.0	0.8	52.9	0.6	10.3
Atego	0.2	0.8	97.1	1.9	47.7
Erussi	0.0	0.5	62.5	0.9	12.9
Kucwiny	0.0	1.2	92.7	2.3	45.4
Ndhew	0.0	0.9	85.2	1.0	30.7
Nebbi	0.3	13.7	73.4	2.3	10.3
Nyaravur	0.1	0.8	96.2	2.0	45.7
Parombo	0.0	2.6	79.6	1.8	19.7
Total	**0.1**	**5.6**	**77.9**	**1.6**	**23.4**

3.1.2 Legumes

Beans were the most commonly grown legumes in all Sub Counties except for Kucwiny where Field Peas were the most commonly grown Leguminous crop at 35%. The highest proportion of households growing Beans were found in Central Division at 82.8%. Furthermore, Kucwiny had the highest proportion of households growing Cow peas and Pigeon peas at 12.6% and 31.7% respectively. Cow peas were least commonly grown in Akworo, Erussi, Kucwiny, Ndhew, Nebbi, Nyaravur, Parombo2 and Parombo while Field Peas were least commonly grown in Abindu Dision, Central Division and Thatha Division.

Table 7: Proportion of households growing Legumes by Sub County

Sub County	Legumes			
	Beans	**Field peas**	**Cowpeas**	**Pigeon peas**
Abindu Division	70.9	0.1	0.7	0.1
Central Division	82.8	0.0	0.5	0.2
Thatha Division	54.4	0.2	2.1	4.8
Akworo	6.2	3.2	1.7	1.9
Atego	80.3	9.0	9.6	5.8
Erussi	58.7	0.2	0.1	0.1
Kucwiny	16.8	35.0	12.6	31.7
Ndhew	69.7	0.9	0.5	1.4
Nebbi	47.0	1.9	0.9	1.0
Nyaravur	33.9	24.1	3.6	18.8
Parombo	18.5	1.7	0.9	3.0
Total	**39.1**	**8.7**	**3.3**	**7.9**

3.1.3 Oil seeds

According to the study results in the table below, Ground nuts were the most commonly grown Oil seeds by the households except in Kucwiny where Simsim was most commonly grown. The highest proportion of households growing Ground nuts were found in Central Division at a proportion of 70% while Atego had the highest proportion of households growing Soya Beans in the district at 41.6%. The analysis further revealed that Sunflower and Oil Palm were the least grown Oil seeds in Nebbi.

Table 8: Proportion of households growing Oil Seeds by Sub County

Sub County	Oil Seeds				
	Groundnuts	**Soya beans**	**Sunflower**	**Simsim**	**Oil palm**
Abindu Division	35.7	7.9	0.2	4.9	0.0
Central Division	70.5	27.2	0.9	4.7	0.1
Thatha Division	55.0	14.9	0.7	10.6	0.1
Akworo	24.6	6.9	0.0	3.4	0.7
Atego	61.5	41.6	1.2	22.2	0.1
Erussi	29.8	3.7	0.1	0.6	0.7
Kucwiny	28.0	20.5	3.9	29.9	0.0
Ndhew	43.7	17.8	2.4	2.4	0.0
Nebbi	26.6	8.1	0.6	2.0	0.0
Nyaravur	58.3	18.9	1.6	41.2	0.0
Parombo	35.9	6.8	0.5	12.3	0.2
Total	**36.4**	**12.7**	**1.2**	**12.3**	**0.2**

3.1.4 Vegetables

The analysis in table 9 below shows that pumpkins were the most commonly grown vegetables in all Sub Counties with Kucwiny having the highest proportion of households growing pumpkins at 86.7%. This is mainly attributed to the fertile soils and favorable climate, more still because pumpkins are mainly grown for sale. Pumpkins were mostly grown in Kucwiny and least grown in Abindu Division.

Less than 1% of households in the district grew cabbages and carrots. Furthermore, the results revealed that 10% of the households grew egg plants and tomatoes while only 1% of households grew dodo.

Analysis at Sub County level revealed that Atego Sub County had over 25% of households growing Tomatoes and Egg plants. Furthermore over 10% of households in Atego, Erussi, Ndhew and Central Division grew onions.

Table 9: Proportion of households growing Vegetables by Sub County

Sub County	Vegetables						
	Cabbages	Tomato	Carrot	Onion	Pumpkin	Egg -Plants	Dodo
Abindu Div	1.2	3.4	0.47	4.09	4	2	0.07
Central Div	5.3	11.5	0.78	12.64	14	6	0.22
Thatha Div	1.5	8.4	0.15	5.74	27	7	0.08
Akworo	0.19	2.32	0	0.47	13.73	0.28	0.19
Atego	0.67	29.9	0	10.48	81.14	25.9	3.81
Erussi	1.35	6.15	0.23	12.04	23.04	6.4	4.31
Kucwiny	0.2	16.7	0.04	1.04	86.73	22.96	2.05
Ndhew	1.25	26.55	0.46	18.09	42.59	21.92	0.04
Nebbi	1.03	6.72	0.53	12.18	28.51	2.67	0.26
Nyaravur	0.39	8.25	0.35	1.35	54.45	8.38	0.09
Parombo	0.3	5.3	0.1	1.6	40.0	7.5	0.2
Total	**0.8**	**10.1**	**0.2**	**6.3**	**40.5**	**10.1**	**1.2**

3.1.5 Tree Crops

Findings as shown in table 10 below reveal that overall, 14.7% of households grow Coffee with Erussi having the highest high proportion at 59.4% while less than 1% of households in Abindu Division, Thatha Division, Akworo, Kucwiny, Nyaravur, Parombo2 and Parombo grew the crop. Overall, less than 1% of households grew cocoa, cashew nuts and tea.

Table 10: Proportion of households growing Tree Crops by Sub County

Sub County	Tree Crops		
	Cashew nuts	**Coffee**	**Cocoa**
Abindu Division	0.2	0.4	0.1
Central Division	0.1	7.6	0.2
Thatha Division	0.4	0.2	-
Akworo	0.1	0.1	0.0
Atego	0.2	21.3	0.1
Erussi	-	59.4	0.3
Kucwiny	0.4	0.1	-
Ndhew	0.1	45.5	0.6
Nebbi	0.1	11.9	0.2

Nyaravur	0.2	0.3	-
Parombo	0.1	0.2	0.0
Total	**0.1**	**14.7**	**0.1**

3.1.6 Root crops

Cassava was the most commonly grown root tuber in all Sub Counties with over 95% of households growing the crop. Akworo, Atego, Kucwiny and Parombo had the highest proportion of households growing Cassava at an average of 98% while Central Division had the lowest proportion growing the crop.

Yams and Irish potatoes were the least grown root crops by households. Erussi Sub County had the highest proportion of households growing Yams and Irish potatoes at 12.2% and 12.1% respectively.

Table 11: Proportion of households growing Root crops by Sub County

Sub County	Root Crops			
	Irish potatoes	**Sweet potatoes**	**Cassava**	**Yam**
Abindu Division	1.2	28.0	90.6	0.8
Central Division	3.8	26.1	71.3	1.3
Thatha Division	0.7	65.2	86.7	0.7
Akworo	0.3	21.9	98.1	0.2
Atego	2.4	74.2	98.5	6.5
Erussi	12.1	13.2	94.6	12.2
Kucwiny	0.4	60.5	98.9	0.5
Ndhew	5.7	37.1	95.0	3.9
Nebbi	5.2	25.3	95.9	2.9
Nyaravur	1.4	71.5	97.1	1.0
Parombo	0.5	31.4	97.2	1.1
Total	**3.3**	**37.7**	**95.4**	**3.1**

3.1.7 Fruits

Table 12 shows that Mangoes were the most commonly grown fruits in all Sub counties except for Erussi where Avocados were the most commonly grown fruit. Atego Sub county had the

highest proportion of households growing mangoes (55%), Avocados (22%) and Oranges (19.5%). Less than one percent of households grew Pineapple, Guava, Apples and Passion.

Table 12: Percentage of households growing Fruits by Sub County

Sub County	Fruits						
	Oranges	**Pawpaw**	**Pineapple**	**Mango**	**Avocado**	**Guava**	**Passion fruit**
Abindu Div.	0.54	0.40	0.13	2.48	0.34	0.27	0.2
Central Div.	1.01	1.34	0.22	11.41	5.48	3.91	1.45
Thatha Div.	7.56	5.74	0.15	18.07	3.55	4.31	2.34
Akworo	1.41	0.55	0.03	3.59	0.14	0.11	1.19
Atego	19.52	4.95	0.1	55.24	22.38	1.52	1.52
Erussi	1.17	0.36	0.29	2.39	5.23	0.18	0.45
Kucwiny	7.08	2.73	0.12	15.24	0.42	0.38	0.24
Ndhew	1.44	1.18	0.46	6.26	5.57	0.34	0.42
Nebbi	1.38	0.29	0.06	2.99	0.68	0.23	0.29
Nyaravur	3.65	0.91	0.09	4.69	0.35	0.48	0.43
Parombo	3.6	0.9	0.0	8.3	0.5	0.1	0.2
Total	**3.6**	**1.4**	**0.1**	**8.8**	**2.6**	**0.6**	**0.6**

3.1.8 Plantains

Banana Food was the most commonly grown plantain in all Sub Counties except for Kucwiny, Nyaravur and Parombo where Banana sweet was the most commonly grown Plantain. Atego had the highest proportion of households growing Banana beer at 24.2%. Furthermore, Erussi had the highest proportion of households growing Banana food at 62.11%. Banana beer was the least grown plantain at an average of 2%.

Table 13: Proportion of households growing Plantains by Sub County

Sub County	Plantain		
	Banana Food	**Banana Beer**	**Banana Sweet**
Abindu Division	1.27	-	0.40
Central Division	13.98	0.56	13.53
Thatha Division	8.39	0.15	3.55
Akworo	2.02	0.50	0.52
Atego	23.05	24.19	21.24
Erussi	62.11	3.74	22.95
Kucwiny	1.88	0.72	3.17
Ndhew	36.44	6.79	21.12

Sub County	Plantain		
	Banana Food	Banana Beer	Banana Sweet
Nebbi	9.75	0.26	1.73
Nyaravur	1.95	1.17	2.48
Parombo	1.5	0.6	1.1
Total	**15.5**	**2.3**	**7.8**

3.1.9 Sugar Cane, Vanilla and Cotton

According to the study results from the table below, Cotton was the most commonly grown crop in the Sub Counties at an average of 45.9% while less than 1% of households grew Sugarcane and Vanilla.

Kucwiny had the highest proportion of households growing Cotton at 76.5% while in Abindu Division, only 3% of households reported to growing the crop.

Table 14: Proportion of households growing Sugar cane, Vanilla and Cotton by Sub County

Sub County	Sugarcane	Cotton	Vanilla
Abindu Division	0.3	3.0	-
Central Division	0.2	3.5	0.3
Thatha Division	0.4	8.3	-
Akworo	0.4	73.9	-
Atego	0.3	48.6	-
Erussi	3.8	7.0	0.1
Kucwiny	0.2	76.5	-
Ndhew	1.1	34.4	-
Nebbi	1.0	25.7	0.1
Nyaravur	0.4	72.9	-
Parombo	0.6	68.8	-
Total	**1.0**	**45.9**	**0**

3.2 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. Nebbi belongs to the specific ZARDI of Abi and had an estimated MPS of 0.16.

3.2.1 Banana Food

The area under Banana food was 910 Ha and the number of plots were 5,688. Out of these 3,739 were of pure stand (65.7%) while 1,949 were of mixed stand (34.3%).

3.2.2 Sweet Potatoes

The area under Sweet Potatoes was 1,987 Ha. Table 16 shows that the estimated number of plots under Beans was 12,421. Out of these, 11,634 were of pure stand (93.7%) while 787 were of mixed stand (6.3%).

3.2.3 Beans

The area under Beans was 2,712 Ha. The estimated number of plots under Beans was 16,953. Out of these, 9,245 were of pure stand (54.53%) while 7,708 were of mixed stand (45.47%).

3.2.4 Rice

Thea area under Rice was 381 Ha and the estimated number of plots were 2,387. Out of these, 1,560 were of pure stand while 827 were of mixed stand. Over 65% of Nebbi's rice plots were under pure stand.

3.2.5 Irish Potatoes

Table 19 indicates that area under Irish Potatoes was 180 Ha and the estimated number of plots were 1,128. Out of these, 1,016 were of pure stand while 112 were of mixed stand. 90% of plots were under pure stand.

3.2.6 Ground Nuts

Table 20 shows that the area under Ground nuts was 2,045 Ha and the estimated number of plots were 12,780. Out of these, 8,238 (64.5%) were of pure stand while 4,542 (35.5%) were of mixed stand.

Table 15: Area under Banana Food

Crop	Pure	%Pure	Mixed	%Mixed	Total	Area(Ha)	Mean Plot Size (MPS) AAS,2018
Banana food	3,739	65.7	1,949	34.3	5,688	910	0.16
Sweet Potato	11,634	93.7	787	6.3	12,421	1,987	0.16
Beans	9,245	54.53	7,708	45.47	16,953	2,712	0.16
Rice	1,560	65.4	827	34.6	2,387	381.92	0.16
Irish Potato	1,016	90.1	112	9.9	1,128	180	0.16
Ground nuts	8,238	64.5	4,542	35.5	12,780	2,045	0.16

CHAPTER FOUR: AQUACULTURE

4.0 Introduction

Aquaculture farming households in Nebbi district comprises of 0.05% (15) of the total farming households in Nebbi district. Aquaculture is practiced in the four sub counties (Nebbi, Erussi, Abindu, and Central division) in Nebbi district with the highest proportion of aquaculture farmers found Central division (0.56%) and Erussi (0.11%).

4.1 Production Systems

4.1.1 Fish Ponds

Fish ponds were the most common type of production systems in the district. Overall, 69% of fish ponds were stocked. The highest number of fish ponds were found in Central Division and the least number were reported by households in Abindu Division. 89.5% of the households with ponds stock Tilapia.

Table 16: Number and proportion of fish ponds stocked

Sub county	Stocked	Un-stocked	Proportion stocked
Abindu Division	2	1	66.7
Central Division	9	2	81.8
Erussi	5	0	100.0
Nebbi	3	1	75.0

4.1.2 Fish Tanks and Cages

Fish tanks were very rare among aquaculture households, and were only reported in Central Division with 3 being stocked and 2 not stocked. There were no cages found during the time of registration.

4.2 Type of Fish Stocked

Tilapia was the most common type of fish stocked among aquaculture households. 92.3% of fish ponds were stocked with tilapia. All tanks were stocked with tilapia. 9.1% of fish ponds were stocked with mirror cap.

CHAPTER FIVE: LIVESTOCK REARING

5.0 Introduction

Nebbi had farming households Results from the farmer registration revealed that 22,724 households reported to keeping livestock with the majority keeping goats (82%), followed by poultry (76%). Results revealed that 22% of households keep cattle and 12% of households keep sheep. Only 1% of households keep rabbits.

Table 17: Number of households keeping livestock

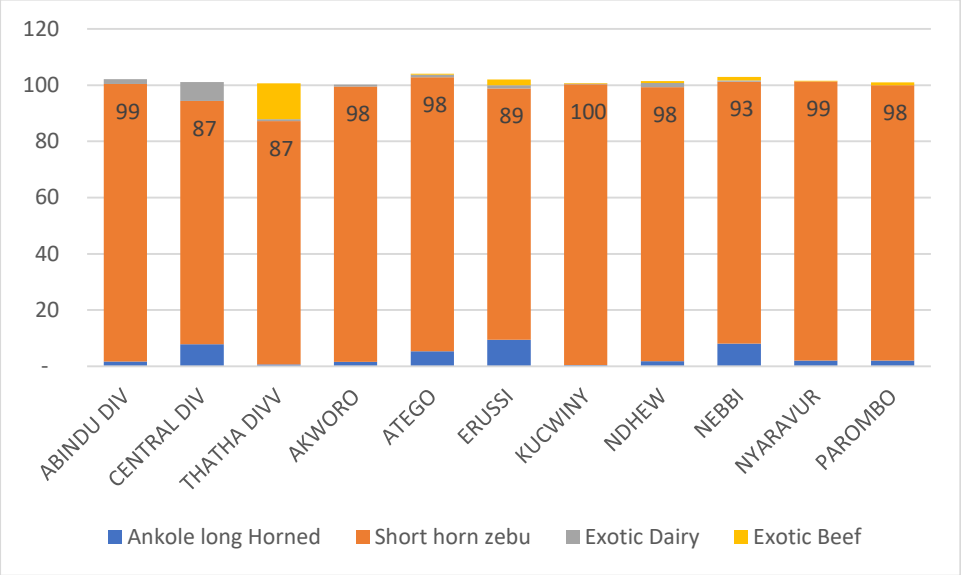
Livestock Type	Cattle	Goats	Sheep	Pigs	Rabbits	Dogs	Poultry
Abindu	235	748	22	45	20	97	641
Central	89	444	21	187	47	210	402
Thatha	157	695	17	25	8	41	692
Akworo	630	2,202	446	394	16	565	2255
Atego	245	787	59	172	7	163	736
Erussi	243	2,446	95	512	40	401	2238
Kucwiny	1,417	3,303	288	478	44	880	3204
Ndhew	282	1,670	145	364	22	391	1577
Nebbi	407	1,900	133	183	82	383	1603
Nyaravur	528	1,517	126	180	25	328	1565
Parombo	736	2,999	343	389	29	422	2,428
Total	**4,969**	**18,711**	**1,695**	**2,929**	**340**	**3,881**	**17,341**

5.1 Cattle Keeping

According to pilot farmer registration, almost all cattle keeping households keep indigenous cattle with, over 95% keeping Short Horn Zebu while on average 3% of livestock keeping households reported to keeping Ankole Longhorn cattle. 100% of cattle keeping households in Kucwiny keep Short Horned Zebu while Erussi Sub County had the highest number of households keeping Ankole Long Horned Cattle at 9%

Results indicate that only 2% of the cattle keeping households have exotic cattle. Thatha division reported the highest proportion of exotic beef at 13% and Central division reported the highest proportion keeping exotic dairy cattle at 7%.

Figure 2: Proportion of households keeping cattle



5.2 Cattle population by breed

Findings reveal that Farmers keep more numbers of indigenous cattle than exotic cattle According to pilot study findings in Table 26 below, there were more numbers of Short Horn Zebu than Ankole Long Horned cattle in all Sub counties. Kucwiny Sub County had the highest number of Short horn zebu with each household keeping on average 4 cattle while Nebbi had the highest number of Ankole long horned cattle; each household keeping on average 4 cattle.

In the case of Exotic cattle, there were more numbers of exotic beef cattle kept in all Sub Counties than exotic dairy. Central Division recorded the highest number of improved dairy with each household keeping an average of 4 cattle while Thatha Division had the highest number of improved beef; each household keeping an average of 4 cattle.

Table 18: Cattle population

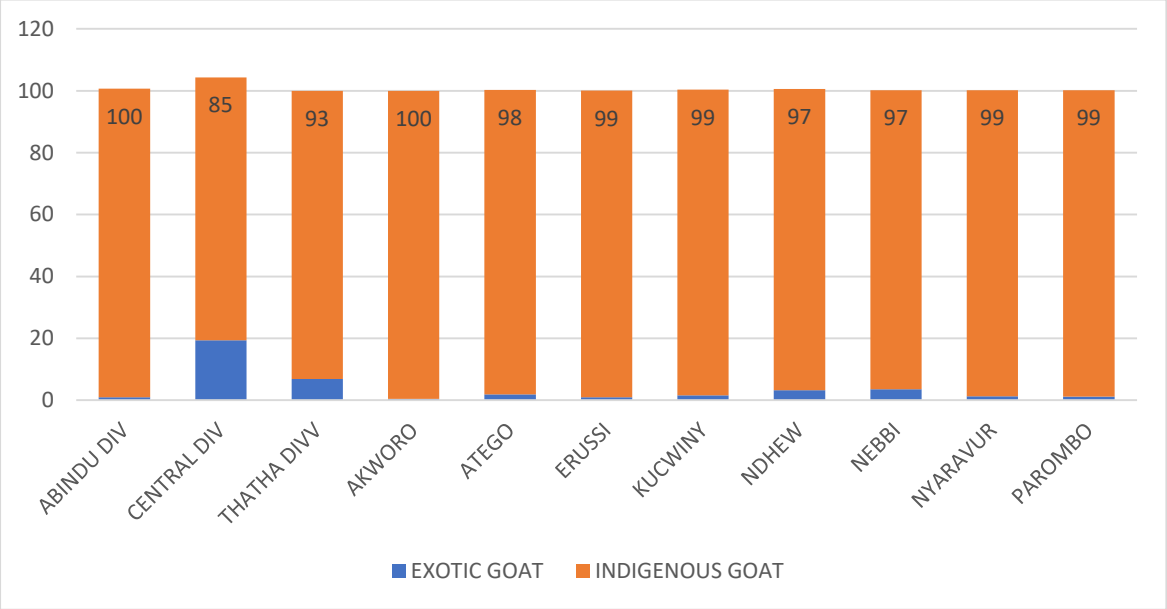
Animal Type	Cattle - Ankole Long Horned	Cattle - Short Horn Zebu	Cattle Exotic/Improved - Diary	Cattle Exotic/Improved - Beef
Abindu Div	12	1158	6	0
Central Div	54	365	24	
Thatha Divv	1	552	3	77
Akworo	18	2894	5	
Atego	32	854	2	1
Erussi	53	542	10	14
Kucwiny	17	5580	11	6
Ndhew	18	750	7	5
Nebbi	141	1227	5	20

Nyaravur	45	2705	3
Parombo	45	2748	35

5.3 Goats

Farmer Registration results indicate that majority of the households with Goats in all Sub Counties reported to keeping indigenous breeds of goats with Abindu Division and Paramo subconties S/C having the highest proportion at 100%. Central Division had the highest proportion (19%) of households keeping exotic goats followed by Thatha Div (7%) in the district.

Figure 3: Households keeping Goats



5.4 Goat Population

There were more households that reported to keeping indigenous goats than exotic goats in the Sub counties. Kucwiny had the highest number of indigenous goats while Central Division had the highest number of Exotic goats.

Table 19: Goat Population

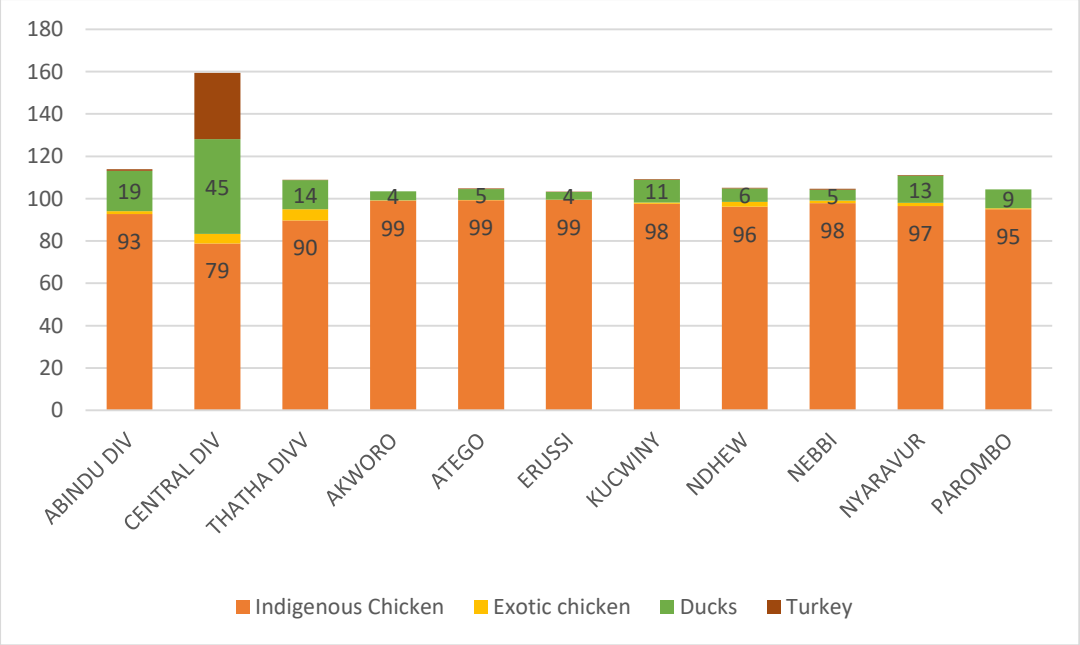
Animal Type	Goat - Exotic/Improved	Goat - Indigenous
Abindu Division	77	3811
Central Division	787	2385
Thatha Division	216	3217

Akworo	37	10088
Atego	72	3292
Erussi	97	8116
Kucwiny	209	14112
Ndhew	170	5556
Nebbi	315	7665
Nyaravur	107	7282
Parombo	126	12189
Total	**2213**	**77713**

5.6 Poultry

Findings reveal that a higher number of households kept indigenous chicken than other poultry in all Sub Counties with Akworo, Atego and Erussi having the highest proportion at 99%. Furthermore, Ducks were the second most commonly kept poultry in the district with Central Div having the highest proportion followed by Abindu Div at 45% and 19% respectively.

Figure 4: Households keeping Poultry



5.7 Poultry Population

Generally, higher numbers of indigenous poultry compared to other poultry breeds were reported to being kept in Nebbi district. Akworo Sub County reported the highest numbers of all indigenous poultry, each household keeping an average of 8 birds. Ndhew Sub County had the highest number of Exotic Broilers, each household keeping an average of 5 birds. In Abindu Division, each household kept an average of 100 Exotic broilers.

Households with ducks and turkeys had an average of 5 birds. Ducks were mostly recorded in Kucwiny Sub County.

Table 20: Poultry Population

Sub County	Poultry – Indigenous	Poultry Exotic – Broilers	Poultry Exotic – Layers	Poultry Breeders- Broilers	Poultry Breeders – Layers	Ducks	Turkeys
Abindu Div	4,759	100	170	30		999	19
Central Div	2,704	32	45	24	142	1,065	655
Thatha Div	3,970	85	53		313	582	5
Akworo	16,969	7	6	3	10	587	
Atego	4,194	2		5		112	11
Erussi	10,615	26	33		15	348	18
Kucwiny	16,879	80	52	5	8	1,637	53
Ndhew	7,073	122		11		397	9
Nebbi	8,473	68	12	0	1	498	28
Nyaravur	10,130	83	15	0	1	1,267	21
Parombo	12,711	63	81	2	90	1,116	42
Total	**98,477**	**668**	**467**	**80**	**580**	**8,608**	**861**

5.8 Other livestock

It was reported that there were higher numbers of pigs being kept than all other livestock. Kucwiny reported to keeping the highest numbers of pigs in the district. Results further revealed that there were higher numbers of indigenous sheep being kept than exotic sheep; Akworo Sub County having the highest number of indigenous sheep. The highest number of Rabbits were recorded in Nebbi Sub County; households keeping an average of 6 animals. Furthermore, the highest number of dogs were recorded in Kucwiny. On average, Households in the district keep 2 dogs.

Table 21: Other livestock population

Sub County	Sheep - Exotic/Improved	Sheep - Indigenous	Pigs - Indigenous/Exotic/Improved	Rabbits	Dogs

Abindu Div		146	326	207	161
Central Div	52	68	1394	225	488
Thatha Div	19	50	151	32	62
Akworo	16	1714	1173	67	1003
Atego	16	221	442	25	312
Erussi	28	306	1186	218	642
Kucwiny	33	875	1205	261	1581
Ndhew	44	363	917	84	696
Nebbi	43	354	540	470	728
Nyaravur	28	398	552	129	677
Parombo	26	1,111	1,190	142	708
Total	**305**	**5,606**	**9,076**	**1,860**	**7,058**

CHAPTER SIX: APICULTURE FARMING

6.0 Introduction

There are 554 (1.77%) households practicing apiculture farming in the district. Kucwiny had the highest proportion of apiculture households at 6%.

6.1 Type of Beehives

6.1.1 Kenya Top Bar beehive

Kenya top bar beehives were the most common type of beehives found in the district. Seventy (70%) of the beehives were colonized at the time of registration. Kucwiny Sub-County had the highest number of Kenya Top Bar beehives, 70% of which were colonised. All Kenya Top Bar beehives in Abindu Division were colonised. There were no Kenya Top Bar beehives reported in Nebbi Sub County, Central and Thatha divisions.

Table 22: Proportion and Number of Kenya Top Bar beehives by Sub-County:

Sub County	Colonized	Un-colonized	Proportion colonized
Abindu Div	55	0	100.0
Akworo	27	0	100.0
Atego	14	0	100.0
Erussi	59	62	48.8
Kucwiny	677	281	70.7
Ndhew	24	28	46.2
Nyaravur	28	24	53.8
Parombo	53	4	93.0

6.1.2 Local Beehives

Local beehives were the second most common beehives found. 70% of the local beehives were colonised. Furthermore, Kucwiny had the highest number of Local beehives, 72% of which were colonised.

Table 23: Proportion and Number of Local beehives by Sub-County:

Sub County	Colonized	Un-colonized	Proportion colonized
Abindu Division	33	3	91.7

Central Division	22	8	73.3
Thatha Division	34	7	82.9
Akworo	86	29	74.8
Atego	30	7	81.1
Erussi	105	34	75.5
Kucwiny	208	85	71.0
Ndhew	45	26	63.4
Nebbi	58	16	78.4
Nyaravur	37	24	60.7
Parombo	54	55	49.5

6.1.3 Langstroth Beehives

Langstroth Beehives were only found in Parombo and Kucwiny Sub-County. All beehives in Parombo were colonized and 82% were colonized in Kucwiny.

Table 24: Number of Langstroth beehives by Sub-County:

Sub County	Colonized	Un-colonized	Proportion colonized
Kucwiny	41	9	82.0
Parombo	8	0	100.0

CHAPTER SEVEN: ACCESS TO AGRICULTURE TECHNOLOGIES AND SERVICES

7.0 Adoption of Improved Technologies

From the farmer registration pilot study, results revealed that on average 38.9% of the farming households accessed critical farm inputs (fertilizer, seed and pesticides). Of the households that accessed critical farm inputs, most of them were using pesticides (80.5%).

At Sub-county level, over 20% of households in Kucwiny had access to Pesticides and Improved seeds. Erussi had the highest proportion of households with access to fertilisers (Organic and Inorganic) while less than 1% of households in Parombo had access to fertilisers.

The proportion of farmers who used labour saving technologies (tractor and ox-plough), for on-farm activities was low at 5%. The proportion of farmers who used tractors for on-farm activities was very low at 2.5% while 7.42% of farmers used the ox-plough. More than half of households in Central Division had access to tractors while less than 1% of households in Akworo, Atego and Parombo had access. Over 46% of households in Parombo 2 reported to have access to ox ploughs compared to less than 1% of households in Ndhew, Atego and Thatha Division.

Results in table 35 further revealed that the proportion of households who used artificial insemination was still low at less than 1%. The low adoption levels may either be a result of the high cost involved or inadequate information flows on the service.

Results also showed that 7.3% of households in Nebbi district used irrigation. Less than 1% of households in Abindu Division, Thatha Division, Akworo, Nebbi and Parombo Sub Counties had access to irrigation while over 39% of households in Erussi had access to the technology.

Furthermore, over half of the farming households used improved seeds (57.8%) in the last 12 months.

Table 25: Adoption of improved technologies

Subcounty	Tractor	Ox plough	Milk Cooler	Irrigation	Organic Fertilizer	Inorganic Fertilizer	Pesticides	Improved Seed	Vaccination	AI
Abindu Div	3.7	1.1	0.1	0.4	1.5	1.3	10.4	9.3	4.3	0.2
Central Div	28.7	13.5	1.0	5.4	3.0	1.2	11.6	13.4	2.8	0.3
Thatha Div	2.5	0.7	0.2	0.2	1.2	3.1	22.7	7.1	6.7	0.1
Akworo	0.1	1.8	0.1	0.4	8.5	1.4	53.0	32.8	9.1	0.4
Atego	0.3	0.5	0.3	7.8	12.8	4.6	51.2	11.1	9.0	0.5
Erussi	0.3	0.4	0.4	11.8	14.5	3.7	32.7	18.7	2.4	0.3
Kucwiny	0.2	1.4	0.6	1.6	0.7	1.1	73.1	51.2	13.4	0.3
Ndhew	0.2	0.0	0.2	1.2	16.5	1.7	66.0	66.3	4.5	0.3
Nebbi	0.7	0.7	0.2	0.3	3.0	1.6	21.6	28.4	2.5	0.2
Nyaravur	0.7	13.8	0.6	13.7	29.6	3.3	69.7	33.4	17.6	0.7
Parombo	0.6	13.8	0.2	4.1	1.9	1.0	45.4	37.3	7.4	0.1
Total	**1.4**	**4.3**	**0.3**	**4.2**	**8.0**	**2.0**	**46.4**	**33.3**	**7.6**	**0.3**

7.1 Access and Source of free/subsidized inputs

Results in table 36 revealed that a higher percentage (83.4%) of the households in Nebbi district reported to not receiving free inputs. Over 98% of farmers in Central Division reported to not having received free inputs.

Overall, 16.6% of households reported to receiving free inputs, with Erussi having the highest proportion of households in the district who reported to receiving the inputs. Of the households that reported to receiving free inputs, 75% received them from NAADS or OWC. Over 98% of households in Parombo 2 reported to receiving inputs from NAADS while only 35% of households in Central Division reported NAADS or OWC as the source of inputs.

Additionally, less than 1% of households in the district reported Cooperatives or Politicians as the source of free/ subsidized inputs.

Furthermore, 28.4% of farmers in Erussi Sub County reported shops as being the source of inputs.

Further analysis on whether farmers used the free inputs showed that 97.8% of households used them fully. Less than 1% of households in the district reported to not having used the inputs.

Table 26: Access and Source of free/subsidized inputs

Sub-County	Received free/ inputs		Source of Inputs						Household use of inputs		
	Yes	No	NAADS/ OWC	Cooperatives	NGOs	Shops/ Local	Politicians	Other	used	Used some	did not use
Abindu Division	4.18	95.82	53.13	4.69	12.5	3.13	25	1.56	78.13	15.63	6.25
Central Division	1.34	98.66	35.14	10.81	16.22	21.62	13.51	2.7	70.27	27.03	2.7
Thatha Division	2.68	97.32	37.84	0	13.51	0	45.95	2.7	100	0	0
Akworo	15.98	84.02	79.2	0.32	2.08	18.4	0	0	96.8	1.92	1.28
Atego	11.97	88.03	94.94	0	5.06	0	0	0	96.63	3.37	0
Erussi	33.67	66.33	48.17	0.25	0.75	28.38	0.08	22.38	98.33	1.54	0.12
Kucwiny	15.03	84.97	79.67	2.17	1.17	13.25	0	3.75	99.75	0.08	0.17
Ndhew	20.58	79.42	96.57	0.27	2.19	0.27	0.14	0.55	94.65	4.25	1.1
Nebbi	2.06	97.94	92.21	0	2.6	1.3	0	3.9	98.7	1.3	0
Nyaravur	19.74	80.26	92.93	0.81	2.22	0.61	3.03	0.4	98.59	0.4	1.01
Parombo	22.53	77.47	98.21	0	0.43	0.09	0.6	0.68	98.89	0.94	0.17
Total	**16.6**	**83.4**	**75.1**	**0.7**	**1.5**	**13.5**	**0.9**	**8.4**	**97.8**	**1.7**	**0.5**

7.2 Reason for non-use of inputs

The major reason cited for non-use of free inputs was lack of rainfall. 39.6% of the farmers cited this as the main reason for non-use. The second major reason was the poor quality of inputs supplied to the farmers.

Akworo, Atego, Erussi and Kucwiny cited lack of rainfall as the main reason for non-use of inputs while poor quality of inputs supplied was the main reason cited by farming households in Abindu Division, Central Division, Kucwiny and Parombo3. 16% of farmers in Atego reported that they lacked sufficient knowledge to use the inputs.

Furthermore, 100% of farmers in Nebbi Sub-County were not interested in the inputs.

Table 27: Reason for non-use of inputs

Sub County	No knowledge	No rainfall	Poor Quality	Not interested	Other
Abindu Division	0	14.29	57.14	7.14	21.43
Central Division	9.09	27.27	45.45	18.18	0
Akworo	0	38.89	22.22	5.56	33.33
Atego	16.67	83.33	0	0	0
Erussi	5	77.5	2.5	2.5	12.5
Kucwiny	0	33.33	33.33	0	33.33
Ndhew	0	24.32	0	0	75.68
Nebbi	0	0	0	100	0
Nyaravur	20	0	20	0	60
Parombo	0	7.69	69.23	0	23.08
Total	**3.4**	**39.6**	**19.5**	**4.0**	**33.6**

CHAPTER EIGHT: CHALLENGES, RECOMMENDATIONS, CONCLUSION

8.0 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 sub county extension staff. Additionally, even those at the sub county 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.

8.1 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

8.2 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

8.3 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

Average Number Of Animals	Nebbi
Cattle - Ankole Long Horned	3
Cattle - Short Horn Zebu	4
Cattle Exotic/Improved - Diary	2
Cattle Exotic/Improved - Beef	4
Goat - Exotic/Improved	5
Goat - Indigenous	4
Sheep - Exotic/Improved	4
Sheep - Indigenous	3
Pigs - Indigenous/Exotic/Improved	3
Rabbits	5
Dogs	2
Poultry - Indigenous	6
Poultry Exotic - Broilers	7
Poultry Exotic - Layers	11
Poultry Breeders- Broilers	6
Poultry Breeders - Layers	14
Ducks	5
Turkeys	5

Average Number of Animals by sex of Household Head

LIVESTOCK TYPE	SEX OF HH Head	NEBBI
Cattle - Ankole Long Horned	Male	4
	Female	3
Cattle - Short Horn Zebu	Male	4
	Female	3
Cattle	Male	2
Exotic/Improved - Diary	Female	3
Cattle	Male	4
Exotic/Improved - Beef	Female	3
Goat - Exotic/Improved	Male	5
	Female	6
Goat - Indigenous	Male	4
	Female	4
Sheep - Exotic/Improved	Male	4
	Female	3
SHEEP - Indigenous	Male	3
	Female	3
PIGS	Male	3
	Female	3
Rabbits	Male	6
	Female	5
Dogs	Male	2
	Female	2
POULTRY - Indigenous	Male	6
	Female	6
POULTRY Exotic - Broilers	Male	5
	Female	10
POULTRY Exotic - Layers	Male	10
	Female	13
POULTRY Breeders- Broilers	Male	3
	Female	8
POULTRY Breeders - Layers	Male	10
	Female	21
Ducks	Male	6
	Female	5
Turkeys	Male	6
	Female	5

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

COMMODITIES	NEBBI

Pasture Seed	7
Maize Seed	2,796
Bean	1,786
Rice	23
Coffee	1,424
Tea	6
Mango	355
Orange	240
Apple	3
Cocoa	-
Passion Fruits	3
Pineapples	1
Banana Food	120
Cassava	603
Pesticides	206
Artificial Fertilisers	8
Poultry	99
Veterinary Services	62
Artificial Insemination	1
Fish	2
Dairy Cattle	8
Beef Cattle	15
Goats	83
Pigs	15
Total	**7,866**