



UGANDA BUREAU OF
STATISTICS



THE REPUBLIC OF UGANDA

ANNUAL AGRICULTURE SURVEY

2018



This report presents findings from the 2018 Uganda Annual Agricultural Survey (AAS 2018) undertaken by the Uganda Bureau of Statistics (UBOS)

Additional information about the Survey may be obtained from the Uganda Bureau of Statistics (UBOS), Plot 9 Colville Street, P.O. Box 7186, Kampala Uganda; Telephone: (256-414) 706000; Fax: (256-414) 237553/230370; Email: ubos@ubos.org; Website: www.ubos.org

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FOREWORD

The 2018 Annual Agricultural Survey (AAS 2018) is 6th survey of this kind after two surveys that were conducted after the 1963/65 Agriculture Census by the Ministry of Agriculture, followed by another two conducted after the 1990/91 National Census of Agriculture and Livestock, again conducted by the Ministry of Agriculture and then one conducted in 2017 by UBOS in close collaboration with MAAIF.

The overall objective of the AAS is to provide high quality and timely current agricultural data on priority core macro and micro development indicators pertaining the performance of agriculture sector as well as indicators on crop, livestock and environment interaction for better agricultural policy making in inter-censal periods.

Unlike the previous Annual Agricultural Surveys, the AAS 2018 adopted the Agricultural Integrated Survey (AGRIS) methodology which recommends a Core module (Crop & Livestock production) and periodical rotating modules on thematic topics, such as the holding economy, labour input, production methods and environment, and machinery/equipment/assets. This survey was conducted by Uganda Bureau of Statistics (UBOS) in close collaboration with the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) and Food and Agriculture Organization of the UN (FAO).

UBOS and MAAIF are extremely grateful to FAO and other development partners for the funding and the technical cooperation during the exercise. Similar gratitude is also extended to the national staff from UBOS, MAAIF and the Local Governments not forgetting all the respondents for their great cooperation.

A handwritten signature in blue ink, consisting of a stylized 'C' followed by a long, sweeping horizontal line.

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ACRONYMS AND ABBREVIATIONS

Ag HH	Agricultural Household
AAS	Annual Agricultural Survey
CAADP	Comprehensive Africa Agriculture Development Programme
CAPI	Computer Assisted Personal Interview
EA	Enumeration Area
FAO	Food and Agriculture Organization of the United Nations
GDP	Gross Domestic Product
GPS	Global Positioning System
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
NDP	National Development Plan
SSU	Secondary Sampling Unit
UBOS	Uganda Bureau of Statistics
UGX	Ugandan Shilling
UNHS	Uganda National Household Survey
ZARDI	Zonal Agricultural Research and Development Institute

EXECUTIVE SUMMARY

The agricultural sector is the largest employer in Uganda, and it remains essential to secure the livelihood of the Ugandan population.

The findings of the Annual Agricultural Survey 2018 confirm that the agricultural sector ranks first in terms of labour force in the Uganda economy. Approximately 7.4 million households operate agricultural land and/or rear livestock. Within these agricultural households, 81.2 percent of the adult members report to be mainly engaged in agricultural activities.

The percentage of the household members engaged mainly in agriculture further increases to 90 percent when focusing solely on the female agricultural population. Agriculture represents an important employer for the youth although to a lesser extent, with about 38 percent of the agricultural household members in the 15 to 30 years age class reporting 'agriculture' as first occupation.

Around 80 percent of the agricultural households engage in crop and livestock production both for own consumption and to generate income, while 9 percent of the households declare to engage in those activities only for own consumption. As such, agriculture remains backbone in securing subsistence and income to a large portion of the population.

A skewed land distribution characterizes the agricultural landscape with a predominance of households operating on less than one hectare

Information obtained in the AAS 2018 indicates that the average holding size has increased over the last decade to reach an average area per household of 1.35 Ha compared to 1.1 Ha in 2008/09 Uganda Census of Agriculture. Yet, disparities in the land distribution is observed with 66.2 percent of households operating less than 1 Ha of agricultural land and only 13 percent of households farming more than 2 Ha of agricultural land.

During the survey, agricultural households listed all parcels used partially or completely for agricultural activities. Results indicate that, at national level, agricultural households utilized on average two parcels per season with an average size of 0.78 Ha per parcel. A mere 13 percent of agricultural households use 5 parcels or more.

Some variations in the physical characteristics of the holdings is observed between ZARDIs. The adjacent bubble chart captures three dimensions: the average holding size, the average number of parcels by holding and the average parcel size (size of the bubble).

Nabuin is characterized by small size holdings, which tend to operate just one parcel of an average size of 0.3 Ha. At the opposite end, in the ZARDI of Ngetta, the average size of the holdings is 3.9 Ha and the holdings tend to operate an average of 2.4 parcels of mean size 1.8 Ha. In all other ZARDIs, we observe very similar holding structures in terms of the average holding size and the average number of parcels. Yet, the average parcel size varies across the ZARDIs. For instance, in the Abi ZARDI, the average parcel size is 0.3 Ha while in Bulindi the average parcel size is 1.2 Ha.

The survey unfolds the presence of a gap between men and women in terms of tenure rights over agricultural land. Yet, women work on the land more than men.

The survey reveals that 39.6 percent of the adults (18+) living in agricultural households are owners or right holders over the agricultural land they cultivate. Such percentage gets as high as 48.7 percent among the men, while it goes down to 31.1 percent among the women (SDG 5.a.1). Yet, women cultivate crops more frequently than men and for longer hours.

Despite a relatively wide variety of agricultural production, maize, banana-food, cassava and beans are the primary food crops grown in Uganda

- **Maize** is one of the crops identified as a priority crop in Uganda. In the agricultural year 2018, it was grown by 55 percent of the agricultural households on a land area of about 2.5 million Ha (cumulated both 1st and 2nd seasons). The production of maize in 2018 was 3.4 million tonnes with a yield of 1.7 MT/Ha in second season.
- **Banana Food**, commonly known as “Matooke”, is a major crop grown mainly in the Western, Central and parts of Eastern Uganda. Banana food is grown by 47 percent of the agricultural households on a land area of about 579,000 Ha. The annual total production of banana food in 2018, was 6.5 million tonnes with a yield of 12.3 MT/Ha.
- **Cassava** is one of most the important staple food crops in the country. It is useful in manufacturing industry. Cassava is grown mainly in the Central, Northern and North-Western parts of Uganda. The crop is grown by about 29 percent of the agricultural households. In 2018, about 4.4 million tonnes were produced from a land area of about 941,000 Ha. The annual yield of cassava was 8.7 MT/Ha.
- **Beans** are pulses rich in protein; they are desired by farmers as cover crops because of their nitrogen fixing ability. They are cultivated by 54 percent of the agricultural households; they are common in most parts of Uganda and mainly grown by smallholder farmers. In 2018, the total area planted with beans was about 1.2M Ha and the annual total production of beans was 728,000 tonnes with a yield of 0.6 MT/Ha in second season.

Despite not being one top crop in terms of area cultivated or production, coffee deserves attention because it is a cash crop and it has been identified a strategic crop for Uganda. Two types of coffee are grown in the country - i.e., Arabica and Robusta. Arabica coffee is grown by 17 percent of the agricultural households, majorly in the areas of Elgon, Tooro, Kigezi, and West Nile, while Robusta coffee is grown by 8 percent of the agricultural households and it is not concentrated in specific areas of the country. The AAS 2018 findings reveal that the total production of coffee was about 308,000 MT from a land area of 428,000 Ha. Arabica coffee contributed about 24 percent to total coffee production. Arabica and Robusta have approximately the same yield (1.0 MT/Ha for Arabica and 0.9 MT/Ha for Robusta).

The Ugandan soil fertility has reduced and hence it needs enhancements. However, agricultural households applying fertilisers are a minority

According to the Uganda National Fertiliser Policy, the loss of soil nutrients in Uganda remains one of the highest of the African continent. Therefore, the Government of Uganda has put in place interventions that enhance access to and use of fertilisers.

Despite the governmental efforts that advocate for an increased use of fertilisers, the AAS 2018 results indicate that only 24 percent of agricultural households used fertilisers. Most of the farmers (40%) do not apply fertilisers because they are too expensive while 25 percent believe that the soil is fertile enough.

Most households applying fertilisers used organic fertilisers while 32 percent used inorganic fertilizers. Mbarara (64.8%) had the highest percentage of Ag HHs using fertilisers followed by Kachwekano (39.6%), while Nabuin (3.0%) had the lowest percentage of Ag HHs using fertilisers.

Use of disease control products has not increased in the past decade

As part of the strategy to increase agricultural production and improve food security, between 2015 and 2020, the Agricultural Sector Strategic Plan (ASSP) focused on pests, vectors and disease control, especially for the priority and strategic commodities and along the entire value chain. The AAS 2018 results indicate that about 21 percent of agricultural households used agro-chemicals, with Bulindi (34%) having the highest percentage and Ngetta (6%) having the lowest percentage.

The current adoption of agro-chemicals is consistent with the results obtained during the Uganda Census of Agriculture (UCA) 2008/9 when the percentage of agricultural household applying agro-chemicals was as high as 17 percent.

Further effort is needed to modernise the agricultural sector

The survey results present a highly rain fed crop production, mainly based on traditional seeds and characterized by a low penetration of extension services. At national level, 2 percent of the agricultural households use irrigation, 23 percent use improved seeds, 12 percent received advisory services in the 12 months prior to the survey. The chart below shows breakdown by ZARDI.

There is need to increase investments in the livestock sector to match the increasing demand for livestock and livestock products

There was an increase in the population of cattle, goats, sheep, pigs and rabbits from 11.4 million, 12.5 million, 3.4 million, 3.18 million, and 373,000 respectively in UCA 2008 to 12.1 million, 15.6 million, 4.4 million, 4.5 million and 628,000 respectively in 2018. On the other hand, the population of chicken was 37.4 million in 2008 while in 2018 it was recorded at 35.4 million.

Finally, about a half of the Ag HHs reported food shortage and there is significant variation in the proportion of households experiencing shocks in agricultural production across ZARDIs

During the 2018 agricultural year about 47 percent of Ag HHs experienced a food shortage compared to 57 percent reported in UCA 2008/09. Ag HHs continue to experience shocks i.e. sudden losses in food and livestock production may be due to extreme weather conditions, such as drought, hailstorms; insecurity; geopolitical crises etc. that are a great threat to food security. Overall, 74 percent of Ag HHs reported a shock. Among these, 82 percent reported a drought, 40 percent faced pests and diseases while floods affected 17 percent of Ag HHs. At the ZARDI level, Serere (96%), Ngetta (94%), and Nabuin (92%) ZARDIs had the highest percentage of Ag HHs that reported shocks in 2018 while Rwebitaba (54%) and Kachwekano (52%) had the least percentage of Ag HHs that experienced shocks.

CHAPTER 1: INTRODUCTION¹

1.1 Background

Agriculture is one of the most important sectors in Uganda's economy. According to the Uganda National Household Survey (UNHS) 2016/17, agriculture was reported to be one of the main economic activities, which employed the highest percentage of the working population (64.3%) and accounted for the largest share of employment (36%). The sector is currently the third most important sector after manufacturing contributing about 21.9 percent to Gross Domestic Product (GDP (UBOS, 2019). The Uganda National Population and Housing Census (NPHC 2014) estimated about 80 percent of households in the country involved in agriculture and of these about 90 percent were in the rural.

Uganda's National Development Plans, NDP I and NDP II, identified agriculture as one of the priority sector for investment as a basis for the growth of other sectors including manufacturing and services and with a great potential to significantly enhance economic growth, food security and poverty reduction efforts.

As a result, the NDP II has prioritized agriculture as one of the main sectors to invest in with the greatest multiplier effect on the economy. It emphasizes commercialization of agriculture to increase production and productivity along the value chains, agro-processing and marketing as a launch path to industrialization. In order to monitor progress on the plan, there is need for timely and reliable statistics. Although agriculture plays a significant role in poverty reduction, it is also considered a contributor to global warming, water scarcity and pollution as well as land degradation resulting from attempts to increase production to feed a growing world population. Thus, regular statistics are needed to better understand these cross cutting issues - how population growth, demand for natural resources, competing uses of food crops, and the effects of extreme weather and climate change effect on food security and poverty reduction efforts.

It is therefore pertinent that quality agricultural statistics are provided for evidence-based decision-making and policy development to improve the performance of the sector so to meet the national food security needs and reduce poverty through employment creation.

This publication is the second part of a series of annual agricultural survey reports, and aim at addressing the emerging data requirements posed by the Sustainable Development Goals (SDGs) such as data on biofuels, global warming, and the environment as well as food security. It aims at providing data with high-quality statistical evidence for the implementation and monitoring of development programs and policy such as the Comprehensive Africa Agriculture Development Programme (CAADP, 2015-2025), the NDP II, and the National agricultural Sector policies and programmes.

It provides statistical information on a wide range of agricultural production indicators. Under crop statistics, the indicators include harvested crop area, production and yield per hectare, fertilizer application, water management, number of holdings and livestock population, Information on the agricultural holder

¹ All the tables of this chapter have been extracted from the data collected in the second season of the agricultural year 2018 and they refer to the second season visits.

characteristics such as gender is covered as well to name a few.

1.2 Objectives

The overall objective of the Annual Agricultural Survey (AAS) is to provide high quality and timely current agricultural statistics on priority core macro and micro development indicators.

More specifically, AAS aims to provide timely data and information:

- i. on crop and livestock production, agricultural land area, prices of agricultural outputs and inputs, market information, farm income, food security, gender and environment;
- ii. for assessing the adoption of appropriate agricultural production practices in different agro ecological zones in Uganda and;
- iii. on adoption and use of livestock production technologies.

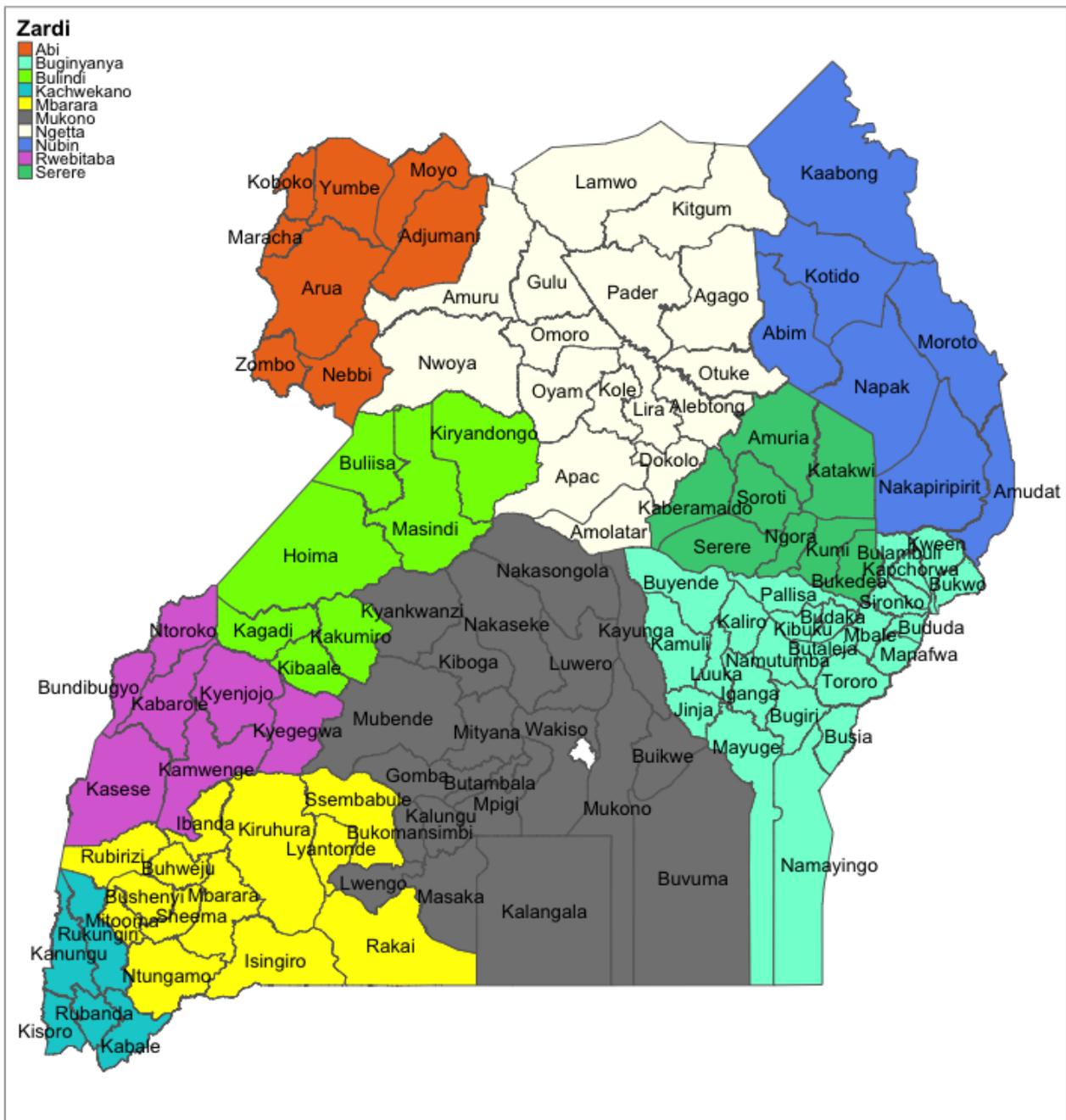
1.3 Scope and coverage

The AAS collects data for the timespan of an agricultural year (e.g. from January to December 2018). An Agricultural year has two seasons i.e. first and second seasons. The first season is January-June and Second season runs July to December. For each season, Agricultural Households (Ag HHs) are interviewed twice: during the post-planting and the post harvesting visits.

The AAS covered all the 10 Agro-ecological zones (ZARDIs) in Uganda and 14 statistical sub-Regions. These ZARDIs have same climate, land use and cropping patterns, which was relevant in designing and developing the sampling strategy.

Below are the maps of ZARDI and Sub-regions while the detailed list of the the districts within each ZARDI and Sub-region can be found and in Annex I, Table 1-1.

Figure 1.1: Map of the ZARDs in Uganda



The survey covered both crop and livestock farming households and collected data on various structural characteristics of the agricultural holding such as:

- i. Number and size of holding
- ii. Land tenure system
- iii. Demographic and social characteristics
- iv. Agricultural Inputs

The current statistics such as:

- v. Crop area and production
- vi. Livestock numbers
- vii. Crop Prices

1.4 Survey methodology

In order to ensure timely, reliable and quality output, the focus of the survey execution was efficient statistical process. The main activities undertaken include survey organization; sampling design; tabulation, plan preparation; design of survey questionnaires; training of trainers/supervisors, and enumerators; data collection; field supervision and consistency checks; data processing.

1.4.1 Survey organization and data collection

The survey was implemented by the Uganda Bureau of Statistics (UBOS), in collaboration with the Ministry of Agriculture, Animal Industries and Fisheries (MAAIF) and of the Food and Agriculture Organization of the United Nations (FAO). It was funded by the Government of Uganda and the FAO through its AGRISurvey Programme. The Headquarter team had the responsibility of overseeing the planning, operation and management of the entire survey process. This comprised of the headquarter staff from the Directorate of Agricultural and Environment Statistics of UBOS. A centralized approach to data collection was employed. This involved 14 field teams dispatched to different sub-regions from which Enumeration Areas (EAs) had been sampled. Each team consisted, on average, one supervisor, three enumerators and a driver.

The dates of data collection were as follows:

Post-Planting:

- Start: 1st July 2018
- End: 31st December 2018

Post-Harvest:

- Start: 1st March 2019
- End: 31st May 2019

The mode used for data collection was the Computer Assisted Personal Interview (CAPI).

1.4.2 Sampling design

A two-stage sampling design was adopted. In order to increase the efficiency of the sample design for the AAS 2018, the sampling frame was divided into 10 Zonal Agricultural Research and Development Institutes (ZARDI). The first stage was the selection of the Primary Sampling Unit (PSU), which is the EA, and the second stage was the selection of the Secondary Sampling Unit (SSU), which are the Ag HHs.

1.4.3 Sample size

The survey was planned to generate national, regional and sub-regional level estimates. A sample of 607 EAs and an average of 12 Ag HHs were selected from each EA.

1.4.4 Response rate

Over all, a sample of 7,157 Ag HHs were selected for AAS 2017 survey. The same sample was utilized in the AAS 2018 round. The response rate was about 86 percent on the first visit of 2018 and 78 percent during the second season of 2018. This report presents production data based on both seasons; however, more in-depth analysis has been conducted on the second season.

1.4.5 Questionnaire design and other instruments

For each season, Ag HHs are interviewed twice: during the post-planting and the post-harvesting visit.

The AAS 2018 implemented two main questionnaires: the Post-Planting and the Post-Harvest questionnaire. The latter, also includes modules on livestock and holding information (only administered in second season).

The Post-Planting questionnaire used during the post-planting season is called the:

Crop area module and collects information on:

- Household member socio-demographic characteristics
- Agricultural enterprises undertaken by the household in the current agricultural season
- Land use (Parcel and plots used by the Ag HHs) i.e. Access to land, land use rights, decision-making, land area, seed/seedlings utilization, etc.
- Land disputes

The main objective of this questionnaire is to estimate land areas for crops planted; this is done combining objective measurements (i.e., GPS) on the plots & parcels and then collecting the share of land area covered by each crop on each plot (based on farmer's assessment). This questionnaire contains a roster of household members, a roster of parcels, a roster of plots for each parcel and a list of crops by plot. In addition, the questionnaire collects information on land tenure status and inputs.

The questionnaire used for the post-harvest visit is called:

Crop production, household and holding characteristics module and collects information on:

- Household member socio-demographic characteristics (only for new household members)
- Crop production and disposals
- Use of agricultural inputs for crop production
- Cost of labour used for crop production
- Labour input used on the agricultural household
- Animal raised on the holding
- Inputs used for livestock production
- Livestock production and dispositions
- Access to agricultural information
- Access to means of transport
- Access to storage facilities
- Access to agricultural credit
- Fixed costs of the agricultural household
- Shocks and food security of the agricultural household
- Access to extension services

The main objective of this questionnaire is to collect data on the crops harvested by the Agricultural household, based on farm declarations. In addition, the questionnaire collects information concerning the disposition of crops, labour input and use of inputs such as seed/seedlings. Furthermore, it aims to collect livestock capital, animal production and inputs over a 12-month reference period, thus covering the entire agricultural year.

The post-harvest questionnaire also collects information concerning household and holding characteristics, such as the access to market and information, household food security, shocks and their impact on food security etc.

The questionnaire was first designed in paper before transferring it to the electronic copy in survey solutions. The electronic version of the questionnaires were pretested and refined before using as final during the enumeration exercise.

1.4.6 Training and fieldwork

After recruitment of field staff, both supervisors and enumerators were then trained on the concepts and definitions, interview process and how to use CAPI for data collection. The training involved field-tests of both the post-planting and post-harvest questionnaires hence ensuring the quality of the data to be collected.

First season data collection happened between May and September 2018 and between October 2018 and

April 2019 for second season. Enumerators visited the respondent four times during the agricultural year and conducted face-to-face interview using CAPI and measured agricultural land area using GPS device.

To ensure high data quality, the headquarters team maintained close monitoring of field activities through field supervision to provide technical backstopping. Each team leaders/supervisors electronically reviewed all interviews conducted daily to ensure consistency before synchronizing. These interviews were also reviewed at the headquarters before being approved.

1.4.7 Data processing and management

All the data captured from the field were stored in the cloud with a local backup. Editing and validation was done electronically using STATA software before analysis. Before analysis, dummy tables were prepared based on a predesigned tabulation plan. Final tables were run using the STATA package.

1.4.8 Sampling error estimates

The accuracy of the survey results depends on both the sampling and the non-sampling errors. The AAS 2018 had a large enough and representative sample hence limiting errors due to sampling. On the other hand, the non-sampling errors usually, errors that arise during data collection, were controlled through thorough training of the data collectors, field supervision by the headquarters team, and a well-developed CAPI program. The standard errors and Coefficients of Variations (CVs) for selected indicators at national, ZARDI & sub-regional levels are presented in the Annex tables.

1.5 Structure of the report

The report comprises the following seven chapters: Introduction, Agricultural Households and Holding characteristics, Agricultural land, Agricultural practices and Inputs, Agricultural Services, Household Food Security, Crop Production and Livestock.

CHAPTER 2: AGRICULTURAL HOUSEHOLDS AND HOLDING CHARACTERISTICS²

2.0 Introduction

This chapter presents information on the distribution of Ag HHs, the classification of Ag HH Heads by sex and ZARDI, their educational level attainment literacy; economic activities of Ag HH members, youth employment, status of main activity as well as training in agriculture.

2.1 Distribution of Ag HHs by ZARDI

The estimated number of Ag HHs was 7.4 million. Buginyanya ZARDI had the highest percentage of Ag HHs (19.8%), followed by Nabuin with 14.0 percent while Kachwekano ZARDI had the least (4.0%).

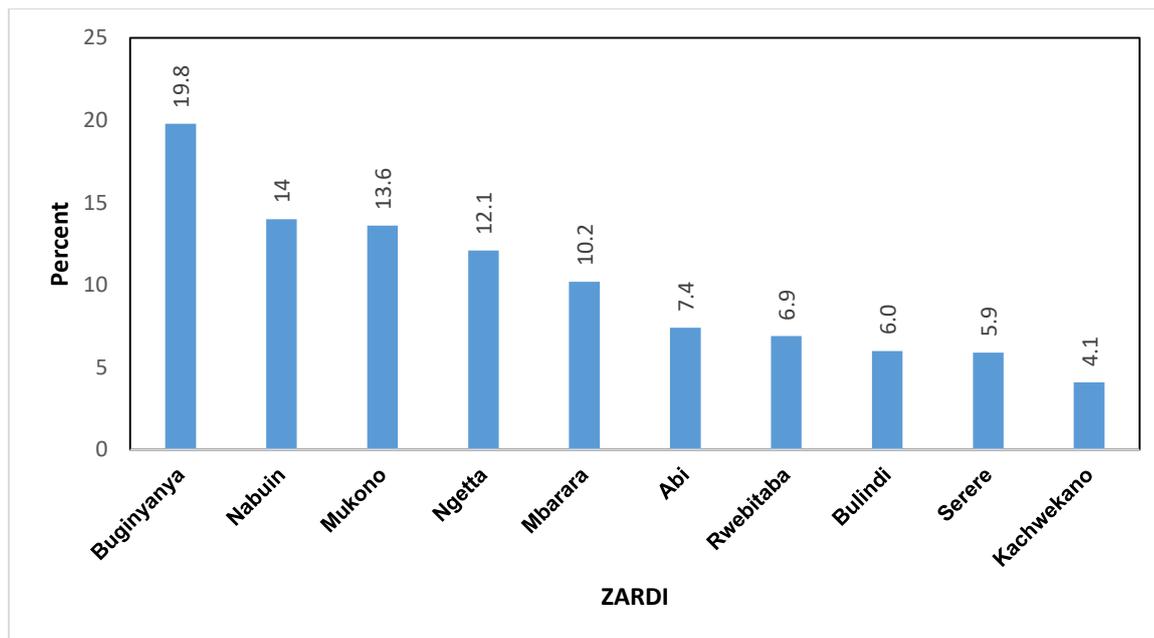
The details are shown in Table 2.1 and Figure 2.1.

Table 2.1: Distribution of Ag HHs by ZARDI

ZARDIs	Number of Ag HHs
Abi	497,260
Buginyanya	1,438,621
Bulindi	428,171
Kachwekano	333,577
Mukono	1,074,785
Ngetta	808,775
Nabuin	1,231,335
Serere	350,476
Mbarara	738,695
Rwebitaba	512,188
UGANDA	7,413,883

² All the tables of this chapter have been extracted from the data collected in the second season of the agricultural year 2018.

Figure 2.1: Percentage distribution of Ag HHs by ZARDI



2.2 Ag HH heads classified by sex of household head

Concerning the distribution of the Ag HHs by sex of the heads, we observe that 74.7 percent (5.2 million) are headed by males and the remaining 25.3 percent (1.8 million) were headed by females³. Ag HHs.

In every ZARDI, over 70 percent of Ag HH heads were males with the Bulindi and Buginyanya ZARDIs having the highest percentage of 83.5 and 82.4 percent respectively, apart from Nabuin with 57.7%. It is worth noting that Nabuin ZARDI had the highest percentage (42.3%) of females being Ag HH heads.

The details are provided in Table 2.2.

³The sum of the male and female-headed Ag HHs is lower than the estimated total number of Ag HHs because some observations missed the sex of the Ag HH head.

Table 2.2: Percent distribution of Ag HHs, by sex of the household head and ZARDI (*)

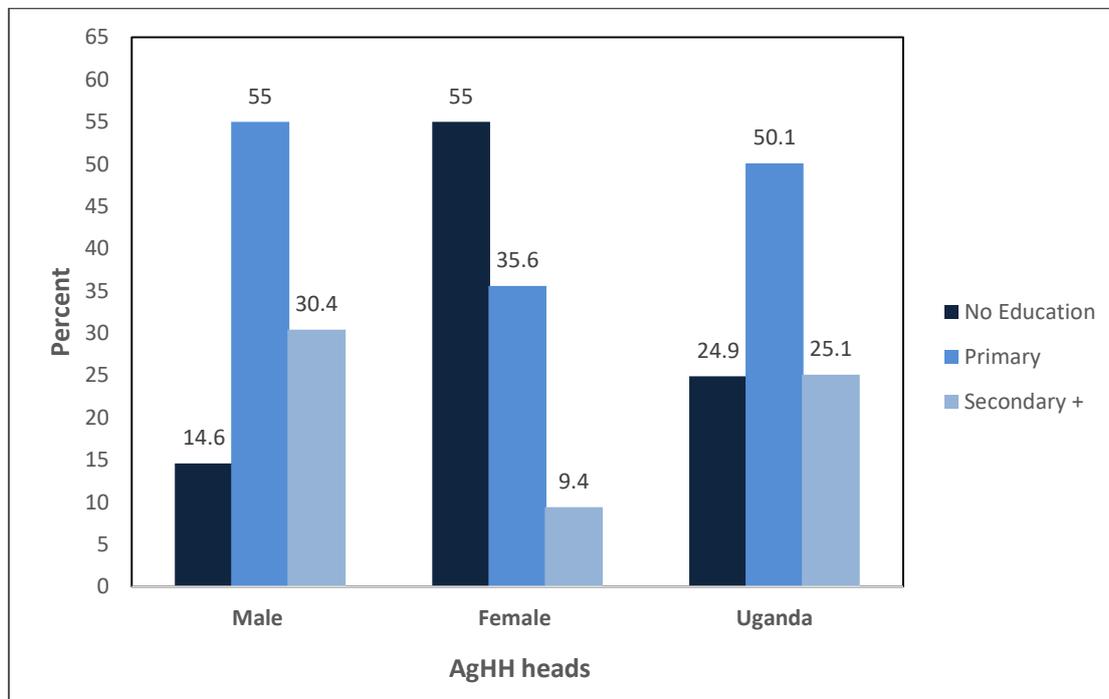
		Male Headed HHs	Female Headed HHs	Total
Abi	Number	380,150	103,242	483,392
	Percentage	78.6	21.4	100.0
Buginyanya	Number	1,100,534	235,609	1,336,143
	Percentage	82.4	17.6	100.0
Bulindi	Number	331,772	65,627	397,399
	Percentage	83.5	16.5	100.0
Kachwekano	Number	258,708	59,162	317,869
	Percentage	81.4	18.6	100.0
Mukono	Number	682,138	284,773	966,910
	Percentage	70.5	29.5	100.0
Ngetta	Number	593,965	191,435	785,400
	Percentage	75.6	24.4	100.0
Nabuin	Number	635,354	465,930	1,101,284
	Percentage	57.7	42.3	100.0
Serere	Number	258,859	71,217	330,076
	Percentage	78.4	21.6	100.0
Mbarara	Number	523,010	167,587	690,597
	Percentage	75.7	24.3	100.0
Rwebitaba	Number	401,125	106,535	507,660
	Percentage	79.0	21.0	100.0
UGANDA	Number	5,165,615	1,751,115	6,916,729
	Percentage	74.7	25.3	100.0

(*) This table has been computed using data of season 2 Post-Harvest visits

2.3 Education level attained by Ag HH heads by sex and ZARDI

The survey collected information on the highest level of education completed by Ag HH heads. Data was collected on those who had never been to school, attained up to primary level, attained Secondary level and beyond.

Figure 2.2: Level of education attained by Ag HH heads by sex



Generally, the majority of Ag HH heads (50.1%) had attained primary level of education whereas the proportion of those that had never attended school and those that had attained secondary education and beyond were close with 24.9 percent and 25.1 percent respectively.

Disaggregation of data by sex shows that, the proportion of female heads with no formal education (55%) was more than thrice that of their male counterparts (14.6%). The male heads who had attained primary secondary education and beyond (30.4%) were more than three times the female heads at 9.4 percent.

In all the ZARDIs, over 50% of the Ag HH heads had attained primary education apart from Nabuin (12.4%).

The details are provided in Table 2.3 and Figure 2.2.

Table 2.3: Distribution of Ag HH heads by highest educational level attained, by sex and ZARDI*

		No Education		Primary		Secondary +		TOTAL	
		No.	%	No.	%	No.	%	No.	%
Abi	M	8,791	2.3	249,230	65.6	122,129	32.1	380,150	100.0
	F	54,742	53.0	39,583	38.3	8,917	8.6	103,242	100.0
	T	63,533	13.1	288,813	59.7	131,046	27.1	483,392	100.0
Buginyanya	M	49,690	4.5	677,695	61.6	373,148	33.9	1,100,534	100.0
	F	95,530	40.5	107,943	45.8	32,136	13.6	235,609	100.0
	T	145,220	10.9	785,638	58.8	405,284	30.3	1,336,143	100.0
Bulindi	M	38,285	11.5	213,900	64.5	79,587	24.0	331,772	100.0
	F	18,832	28.7	37,765	57.5	9,030	13.8	65,627	100.0
	T	57,116	14.4	251,666	63.3	88,616	22.3	397,399	100.0
Kachwekano	M	20,905	8.1	150,583	58.4	86,429	33.5	257,917	100.0
	F	39,073	66.0	18,554	31.4	1,535	2.6	59,162	100.0
	T	59,978	18.9	169,137	53.3	87,964	27.7	317,079	100.0
Mukono	M	46,801	6.9	386,113	56.6	249,223	36.5	682,138	100.0
	F	79,127	27.8	141,568	49.7	64,078	22.5	284,773	100.0
	T	125,928	13.0	527,681	54.6	313,301	32.4	966,910	100.0
Ngetta	M	27,273	4.6	342,554	57.8	222,424	37.6	592,252	100.0
	F	102,509	53.5	72,201	37.7	16,725	8.7	191,435	100.0
	T	129,782	16.6	414,755	52.9	239,149	30.5	783,686	100.0
Nabuin	M	451,303	71.0	102,977	16.2	81,075	12.8	635,354	100.0
	F	432,427	92.8	33,503	7.2	0	0.0	465,930	100.0
	T	883,729	80.2	136,480	12.4	81,075	7.4	1,101,284	100.0
Serere	M	21,344	8.3	160,219	62.2	76,186	29.6	257,749	100.0
	F	31,822	44.7	34,597	48.6	4,798	6.7	71,217	100.0
	T	53,166	16.2	194,817	59.2	80,984	24.6	328,966	100.0
Mbarara	M	57,533	11.1	290,245	55.8	172,337	33.1	520,115	100.0
	F	75,338	45.0	79,398	47.4	12,850	7.7	167,587	100.0
	T	132,871	19.3	369,643	53.8	185,188	26.9	687,702	100.0
Rwebitaba	M	32,691	8.1	264,356	65.9	104,078	25.9	401,125	100.0
	F	33,785	31.7	58,281	54.7	14,469	13.6	106,535	100.0
	T	66,476	13.1	322,637	63.6	118,547	23.4	507,660	100.0
UGANDA	M	754,617	14.6	2,837,873	55.0	1,566,616	30.4	5,159,105	100.0
	F	963,184	55.0	623,393	35.6	164,538	9.4	1,751,115	100.0
	T	1,717,800	24.9	3,461,266	50.1	1,731,154	25.1	6,910,220	100.0

(*) This table has been computed using data of season 2 Post-Harvest visits

In addition, the survey findings indicate that most of the adult Ag HH members in Uganda (47.9%) had attained primary level of education and beyond and only (19.9%) had never been to school.

Disaggregated by sex, most of the male and female adults Ag HH members indicated to have a similar attainment of primary education 48.1 percent and 47.6 percent respectively. However, more males (39.8%) had attained secondary education and beyond compared to the female counterparts (25.3%). More females had never been to school (27.1%) as compared to males (12.1%).

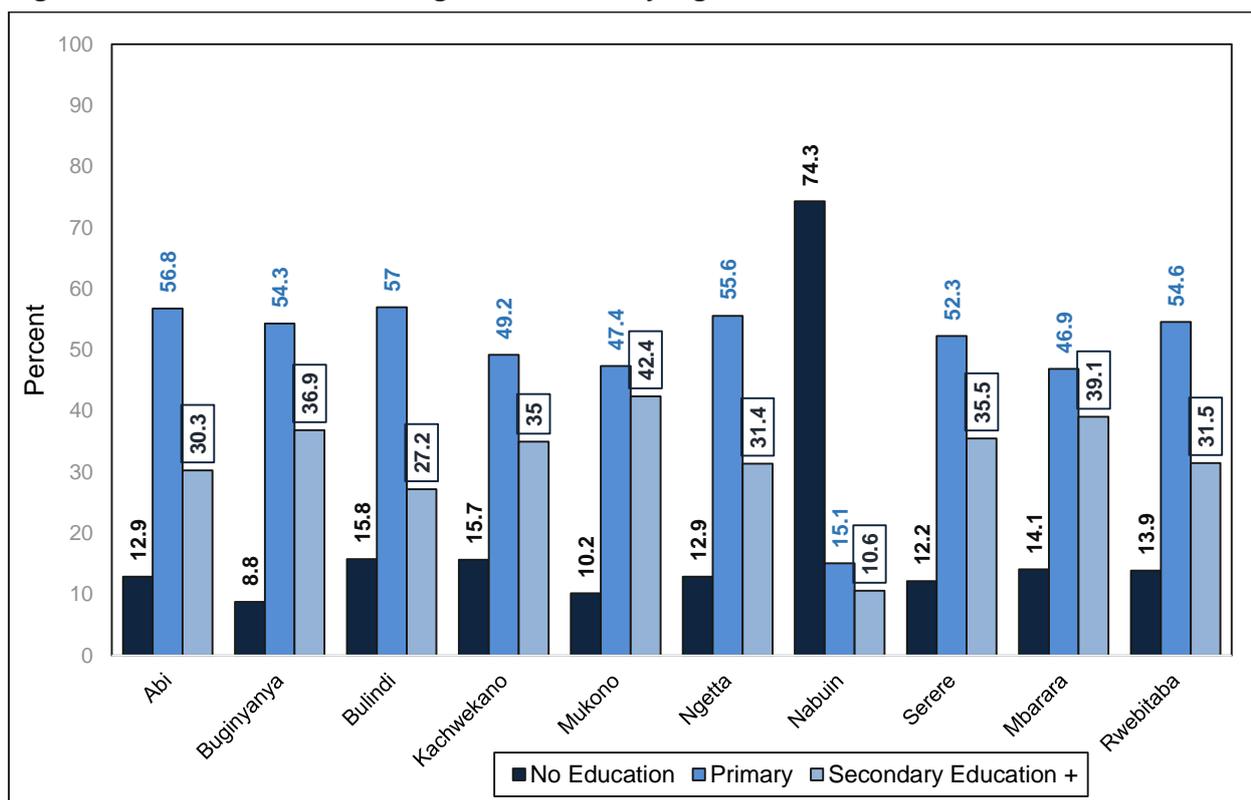
At ZARDI level, over 45% of the adult Ag HH members within each ZARDI had attained primary level of education apart from Nabuin (15.1%). In addition, the percentage of those that had attained secondary education was significantly high across all ZARDIs mostly over 30%. Nabuin ZARDI had the highest percentage of adult Ag HH members (74.3%) that had never been to school.

The details are provided in Table 2.4, Figure 2.3 and in Annex II, Tables 2-4 and 2-5.

Table 2.4: Percent distribution of adult members by highest education level attained, by sex and ZARDI

Characteristic	Level of Education			Total
	No Education	Primary	Secondary +	
Sex				
Male	12.1	48.1	39.8	8,947,595
Female	27.1	47.6	25.3	9,751,948
ZARDI				
Abi	12.9	56.8	30.3	1,477,121
Buginyanya	8.8	54.3	36.9	3,573,748
Bulindi	15.8	57	27.2	1,102,689
Kachwekano	15.7	49.2	35	816,400
Mukono	10.2	47.4	42.4	2,428,234
Ngetta	12.9	55.6	31.4	2,311,112
Nabuin	74.3	15.1	10.6	2,340,693
Serere	12.2	52.3	35.5	1,135,265
Mbarara	14.1	46.9	39.1	2,098,169
Rwebitaba	13.9	54.6	31.5	1,416,112
UGANDA	19.9	47.9	32.2	18,699,543

Figure 2.3: Distribution of adult Ag HH members by highest education level attained and ZARDI



2.4 Literacy of Ag HH heads

During the AAS 2018, data was collected on literacy of Ag HH heads. The estimated number of Ag HH heads who responded to the question on literacy was 6.9 million, of which 4.2 million reported being able to read and write, and 2.7 million reporting being unable to read and write. Out of the 4.2 million who reported that they could read and write, 3.6 million (87.3%) were male heads while 0.53 million (12.7%) were female heads.

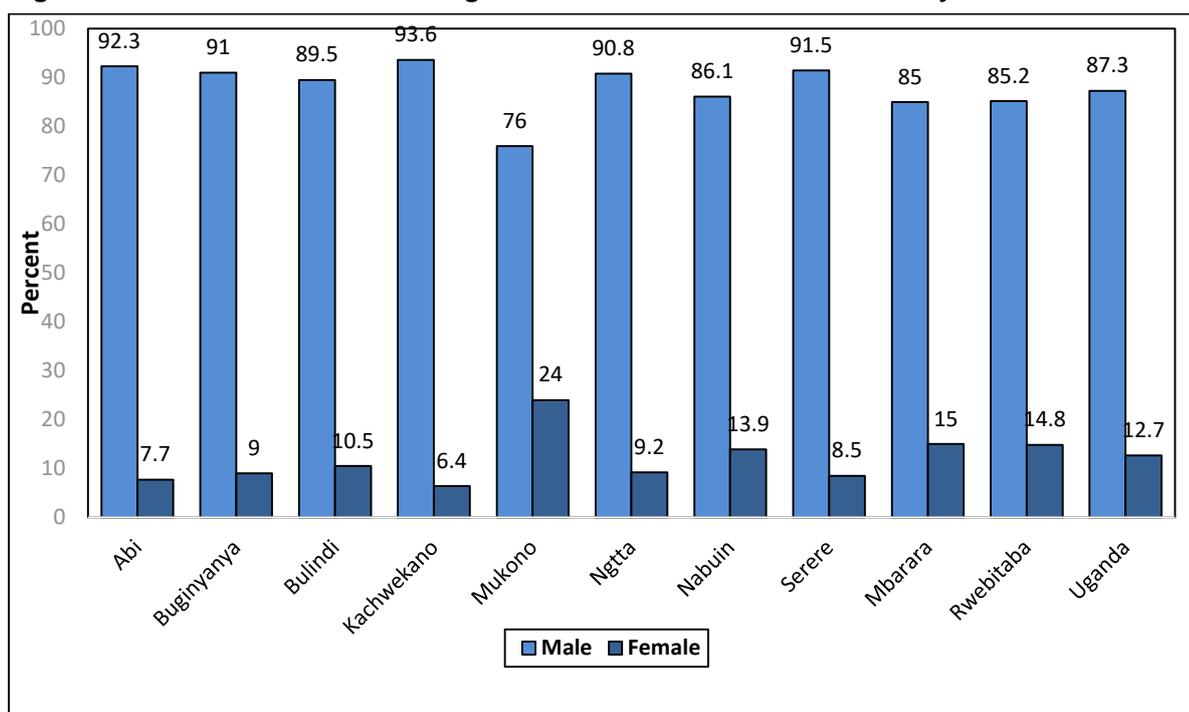
The ZARDI distribution indicated that all the ZARDIs had over 70 percent of the male heads being able to read and write, with Kachwekano ZARDI having the highest percentage (93.6%). However, the percentage of female heads that were capable of reading and writing in all the ZARDIs was very low, with most having less than 20 percent apart from Mukono ZARDI that had 24 percent. The details are provided in Table 2.5 and in Annex II, Table 2-3.

Table 2.5: Percentage distribution of Ag HH heads who can read and write by sex and ZARDI (*)

ZARDI	Can Read and Write					Total %
	Male		Female		Number	
	Number	%	Number	%		
Abi	309,872	92.3	25,794	7.7	335,666	100
Buginyanya	792,020	91.0	77,883	9.0	869,903	100
Bulindi	237,251	89.5	27,763	10.5	265,014	100
Kachwekano	213,235	93.6	14,497	6.4	227,732	100
Mukono	501,765	76.0	158,787	24.0	660,551	100
Ngtta	501,452	90.8	50,898	9.2	552,350	100
Nabuin	143,051	86.1	23,018	13.9	166,069	100
Serere	197,386	91.5	18,389	8.5	215,776	100
Mbarara	420,951	85.0	74,569	15.0	495,520	100
Rwebitaba	330,641	85.2	57,559	14.8	388,200	100
Uganda	3,647,623	87.3	529157	12.7	4,176,780	100

(*) This table has been computed using data of season 2 post-harvest visits

Figure 2.4: Percent distribution of Ag HH heads who can read and write by sex and ZARDI



2.5 Economic activities of Ag HH members

Economic activity refers to work people do to enhance their quality of life. This involves production of goods and services for sale or own consumption. A person may be engaged in more than one and in that case, the most important activity according to time spent (and not in monetary terms) is the main economic activity. Information was collected on economic activity for persons aged 10 years and above. Information on economic activity was analysed for all Ag HH members and heads and this breakdown applies for the main activity.

2.5.1 Main activity for Ag HH heads

The AAS 2018 asked Ag HH heads about their main economic activity in terms of where they spent most of their time. The main activity of the Ag HH head was categorized as mainly engaged in agricultural activities and mainly engaged in non-agricultural activities.

Majority of the Ag HH heads (81.2%) in Uganda were mainly engaged in agricultural activities. Findings also revealed that within female-headed Ag HHs, the percentage of Ag HH heads engaged in agricultural activities (88.9%) were higher compared to 78.6% male Ag HH heads in male-headed Ag HHs.

Table 2.6: Distribution of Ag HH heads by main economic activity, sex of head and ZARDI

	Male Ag HH head			Female Ag HH head			All Ag HHs		
	Mainly engaged in agriculture	Mainly engaged in non-agricultural	Total	Mainly engaged in agriculture	Mainly engaged in non-agricultural	Total	Mainly engaged in agriculture	Mainly engaged in non-agricultural	Total
Abi	84.2	15.8	100	95.1	4.9	100	86.5	13.5	100
Buginyanya	76.0	24.0	100	86.0	14.0	100	77.7	22.3	100
Bulindi	85.6	14.4	100	87.3	12.7	100	85.9	14.1	100
Kachwekano	63.2	36.8	100	90.2	9.8	100	68.3	31.7	100
Mukono	69.2	30.8	100	82.3	17.7	100	73.0	27.0	100
Ngetta	85.8	14.2	100	89.5	10.5	100	86.7	13.3	100
Nabuin	87.2	12.8	100	90.2	9.8	100	88.5	11.5	100
Serere	95.2	4.8	100	93.7	6.3	100	94.9	5.1	100
Mbarara	61.0	39.0	100	90.9	9.1	100	68.3	31.7	100
Rwebitaba	88.0	12.0	100	94.1	5.9	100	89.3	10.7	100
UGANDA	78.6	21.4	100	88.9	11.1	100	81.2	18.8	100

The majority of the adult Ag HH members in Uganda (81.2%) were mainly engaged in agricultural activities than the non-agricultural activities. There were more female adults (88.9%) than males (78.6%) mainly engaged in agriculture (see Table 2.5.2).

Serere and Rwebitaba ZARDIs had the most adult Ag HH members (94.9% and 89.3% respectively) mainly engaged in agricultural activities. Serere ZARDI had the most male adults (95.2%) mainly engaged in agricultural activities followed by Rwabitaba and Nabuin ZARDIs with 88 and 87.2 percent, respectively. Mbarara ZARDI had the least percentage (61%) of adult males engaged in agricultural activities. On the other hand, Abi, Rwebitaba, Serere, and Mbarara ZARDIs had the most female adults engaged in Agricultural activities with 95.1, 94.1, 93.7 and 90.9 percent, respectively. Mukono ZARDI still had the least percentage of females (82.3%) mainly engaged in agriculture.

Table 2.7: Percentage of adult members by main economic activity, sex, and ZARDI

	Males			Females			Total		
	Mainly engaged in agriculture	Mainly engaged in non-agricultural activities	Total	Mainly engaged in agriculture	Mainly engaged in non-agricultural activities	Total	Mainly engaged in agriculture	Mainly engaged in non-agricultural activities	Total
Abi	84.2	15.8	100	95.1	4.9	100	86.5	13.5	100
Buginyanya	76	24	100	86	14	100	77.7	22.3	100
Bulindi	85.6	14.4	100	87.3	12.7	100	85.9	14.1	100
Kachwekano	63.2	36.8	100	90.2	9.8	100	68.3	31.7	100
Mukono	69.2	30.8	100	82.3	17.7	100	73	27	100
Ngetta	85.8	14.2	100	89.5	10.5	100	86.7	13.3	100
Nabuin	87.2	12.8	100	90.2	9.8	100	88.5	11.5	100
Serere	95.2	4.8	100	93.7	6.3	100	94.9	5.1	100
Mbarara	61	39	100	90.9	9.1	100	68.3	31.7	100
Rwebitaba	88	12	100	94.1	5.9	100	89.3	10.7	100
UGANDA	78.6	21.4	100	88.9	11.1	100	81.2	18.8	100

2.5.2 Youth employment

About 38.2 percent of youth in Ag HHs in Uganda were mainly engaged in agricultural activities. Nabuin ZARDI had most of its youth (65.0%) while Mbarara had the least youth (36.3%) mainly engaged in agriculture. In general, there were more male youth (41.2%) than females (38.0%) mainly engaged in agriculture.

Table 2.8: Percent distribution of youth (15-30) by main economic activity, sex, and ZARDI

	Males			Females			Total		
	Mainly engaged in agriculture	Mainly engaged in non-agricultural activities	Total	Mainly engaged in agriculture	Mainly engaged in non-agricultural activities	Total	Mainly engaged in agriculture	Mainly engaged in non-agricultural activities	Total
Abi	43.1	56.9	100	54.5	45.5	100	48.8	51.2	100
Buginyanya	29.4	70.6	100	45.7	54.3	100	37.7	62.3	100
Bulindi	50.7	49.3	100	55.2	44.8	100	52.9	47.1	100
Kachwekano	32.1	67.9	100	55.4	44.6	100	42.9	57.1	100
Mukono	34.5	65.5	100	41.8	58.2	100	38.3	61.7	100
Ngetta	49.7	50.3	100	61.4	38.6	100	55.8	44.2	100
Nabuin	57.3	42.7	100	70.9	29.1	100	65.0	35.0	100
Serere	43.2	56.8	100	45.2	54.8	100	44.3	55.7	100
Mbarara	34.3	65.7	100	38.4	61.6	100	36.3	63.7	100
Rwebitaba	50.2	49.8	100	62.3	37.7	100	56.5	43.5	100
UGANDA	41.2	58.8	100	38.0	62.0	100	38.2	61.8	100

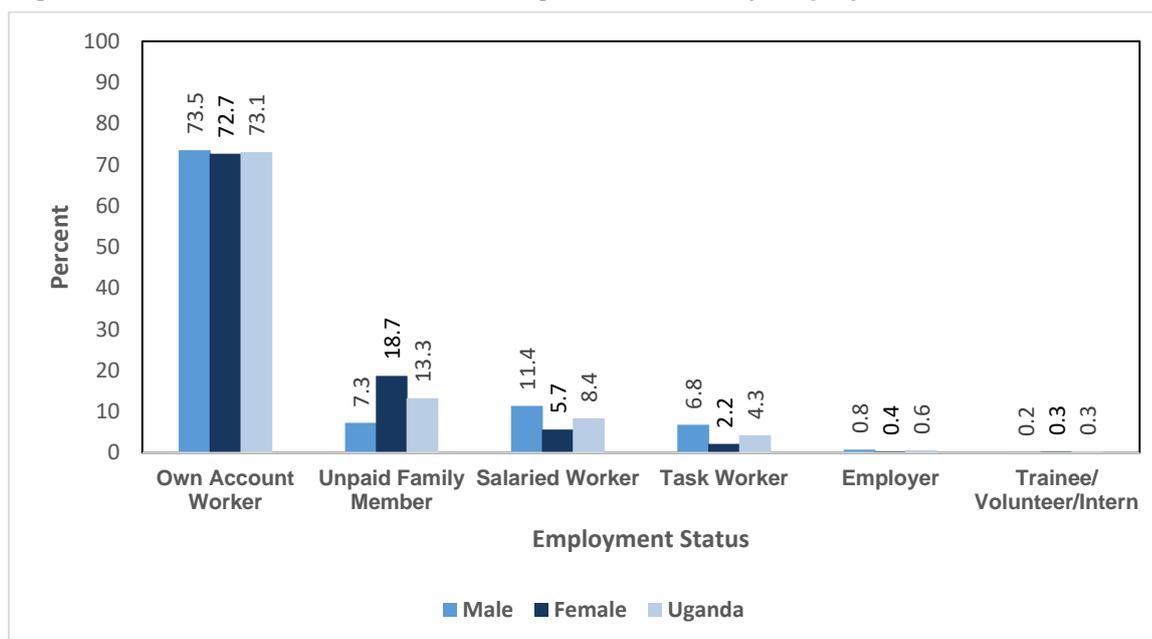
2.6 Status of main activity

The AAS 2018 asked Ag HH members about their main activity. Findings in Table 2.9 indicated that majority (73.1%) of the adult Ag HH members in Uganda were own account workers followed by unpaid family member (13.3%). The least Ag HH members were employers and trainees with 0.6 percent and 0.3 percent respectively. More details can be found in Annex II, Table 2-12.

Table 2.9: Percent distribution of adult Ag HH members by employment status, sex and ZARDI

	Own Account	Employer	Salaried Worker	Task Worker	Unpaid Family Member	Trainee/ Volunteer/Intern	Total
Sex							
Male	73.5	0.8	11.4	6.8	7.3	0.2	7,465,200
Female	72.7	0.4	5.7	2.2	18.7	0.3	8,386,440
ZARDI							
Abi	88	0.2	5.5	0.6	5	0.5	1,250,968
Buginyanya	78	1.4	6.7	4.8	8.8	0.2	2,855,109
Bulindi	82.6	2.6	6.2	5.9	2.4	0.3	972,777
Kachwekano	72	0.5	13.4	8.8	5.3	0	697,333
Mukono	71.4	0.3	9.2	8.6	10.2	0.3	2,076,657
Ngetta	58.8	0	7.1	1.3	32.7	0.1	1,990,618
Nabuin	83.4	0	3.2	1.4	11.9	0.2	2,064,951
Serere	52.8	0	8.7	0.7	37.6	0.2	886,628
Mbarara	61.1	0.2	19.2	8.5	10.2	0.7	1,782,381
Rwebitaba	80.2	0.4	7.3	2.6	9.2	0.2	1,274,220
Uganda	73.1	0.6	8.4	4.3	13.3	0.3	15,900,000

Figure 2.5: Percent distribution of adult Ag HH members by employment status and sex



2.7 Training in agriculture for Ag HHs

The AAS 2018 asked Ag HHs if at least one of their members had received a training in agriculture. The majority of them (88%) in all ZARDI declared that no one of their members had received any training on agriculture.

Table 2.10: Distribution of Ag HHs with at least one member trained on agriculture by ZARDI

	Ag HH with at least one member trained		Total
	At least one person	None	
Abi	10.4	89.6	100
Buginyanya	13	87	100
Bulindi	8.4	91.6	100
Kachwekano	17.3	82.7	100
Mukono	16.1	83.9	100
Ngetta	9.5	90.5	100
Nabuin	8.8	91.2	100
Serere	2.2	97.8	100
Mbarara	13.9	86.1	100
Rwebitaba	16.5	83.5	100
Uganda	11.9	88.1	100

CHAPTER 3: AGRICULTURAL LAND⁴

3.0 Introduction

This chapter explores information on land ownership; number and size of parcels, average holding size, parcels use rights, tenure system and the legality of the documents for all parcels utilized by farmers during the year 2018. These attributes are important since they directly affect the Ag HH attitude towards the land and the agricultural activities. The type of use rights, for example, directly affects the type of investments on the land, which, in turn, have an impact on the land productivity.

3.1 Agricultural land

Agricultural land is the total of cropland⁵, permanent meadows and pastures⁶. According to National Forestry Authority, about 43 percent of the total land area of Uganda formed agricultural land in 2015. Given the importance of land in agriculture and the growing population in the country that could put pressure on the existing agriculture land, the AAS 2018 collected information on access to agricultural land, the structure of the agricultural land, agricultural practices used in the holding, etc. so as to inform, formulate, and monitor policies and programmes that relate to land.

3.1.1 Number and size of parcels

A parcel is any piece of land of one land tenure type, surrounded entirely by other land, water, road, forest or other features not forming part of the holding, or forming part of the holding under a different land tenure type⁷. An Ag HH may use one or more land parcels⁸, located in the same or separate areas, or in the same or different administrative units. During the AAS 2018, Ag HHs were asked to list all parcels that they were using within their enumeration area (incl. parcels used for farmhouse, stables, storehouses, and other uses)⁹ and parcels located elsewhere. Land owned by members of an Ag HH but rented out to others was not be included. Conversely, land not owned by members of a Ag HH but rented in from others for agricultural production purposes was included among the parcels.

Information obtained in the AAS 2018 indicates that, at the national level, Ag HHs utilized on average two parcels per season with an average size of 0.8 Ha per parcel.

Kachwekano recorded the highest number of parcels (3.2) utilized by Ag HHs with an average size of 0.7 Ha per parcel. See Table 3.1. for details.

⁴ All the tables of this chapter have been extracted from the data collected in the second season of the agricultural year 2018 and they refer to this season.

⁵ Cropland includes land under temporary and permanent crops, land temporarily fallow and land under temporary meadows and pastures (FAO, 2015).

⁶ FAO (2015), World Programme for the Census of Agriculture 2020. Volume 1: Programme, concepts and definitions.

⁷ FAO (2015), World Programme for the Census of Agriculture 2020. Volume 1: Programme, concepts and definitions.

⁸ This parcel definition may not be consistent with that used in cadastral work.

⁹ Parcels may be used for different types of activities and very frequently Ag HHs use their own dwelling for living and for storing agricultural inputs and outputs.

Table 3.1: Physical characteristics of the holdings (*)

ZARDI	Parcels		
	Total number	Average number	Average size
Abi	1,400,672	2.8	0.3
Buginyanya	3,003,701	2.1	0.4
Bulindi	864,057	2.0	1.2
Kachwekano	1,059,796	3.2	0.7
Mukono	2,155,378	2.0	0.9
Ngetta	1,957,838	2.4	1.8
Nabuin	1,122,042	0.9	0.3
Serere	633,320	1.8	1
Mbarara	1,958,472	2.7	0.8
Rwebitaba	1,049,795	2.0	0.5
UGANDA	15,205,071	2.1	0.8

(*) AAS 2018-second season data

3.1.2 Holding size

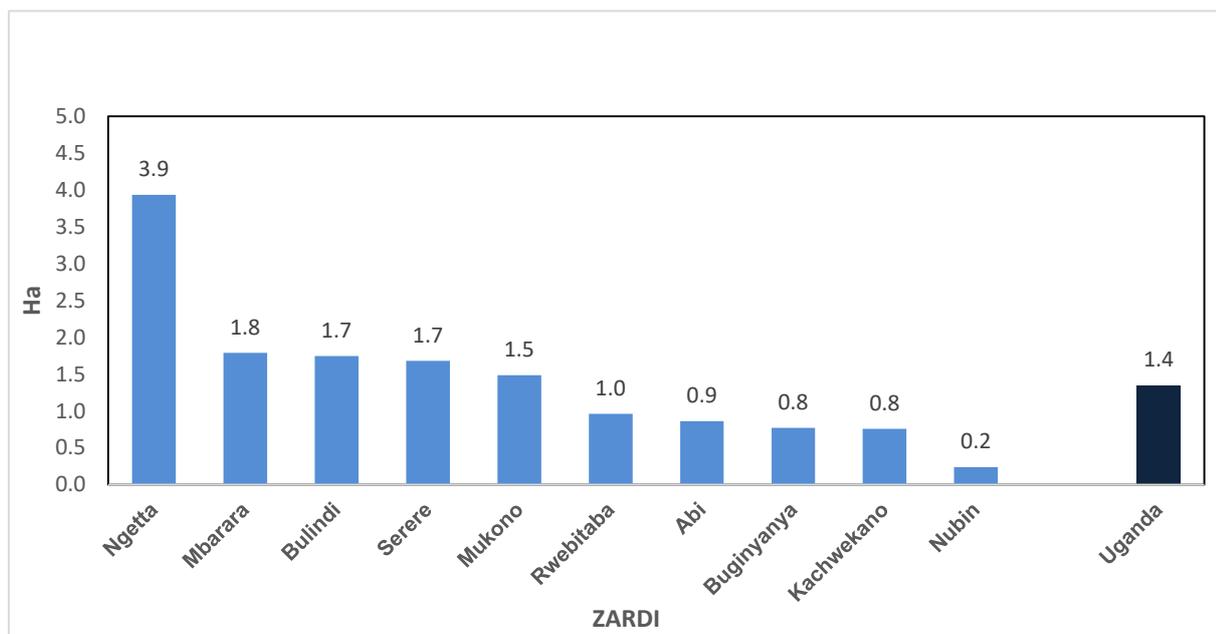
Nationally, approximately 80 percent of the Ag HHs hold less than three hectares of land. Ngetta records the highest average holding size, with 3.9 Hectares per Ag HH. Nabuin, Kachwekano, Buginyanya and Abi had the lowest average holding size, with 0.2, 0.8, 0.8 and 0.9 Ha respectively.

Table 3.2: Physical characteristics of the holdings (*) by holding size and planted area

	Holding size		Planted area	
	average	total	average	total
Abi	0.86	428,247	0.72	357,007
Buginyanya	0.77	1,111,063	0.67	966,096
Bulindi	1.75	747,985	1.44	616,936
Kachwekano	0.76	252,992	0.65	217,973
Mukono	1.49	1,596,749	1.01	1,084,158
Ngetta	3.94	3,183,179	0.98	793,673
Nabuin	0.24	295,423	0.08	94,431
Serere	1.68	589,644	0.91	317,541
Mbarara	1.79	1,321,754	0.78	573,741
Rwebitaba	0.96	492,841	0.78	397,111
Uganda	1.35	10,019,877	0.73	5,418,666

The survey also revealed that agricultural holdings occupy a total of 10,019,877 hectares of land during the year 2018. See Figure 3.13.1 below for details.

Figure 3.1: Average holding size by ZARDI



3.1.3 Parcels use rights

Land use rights refer to the right to use or enjoy land property even though the one using it is not the owner of the property. The right to use land does not necessarily transfer the actual ownership of the land, but it grants specific use entitlements over the property. The type of use rights affects the type of investment a Ag HH can undertake on the piece of land.

Information obtained in the AAS 2018 indicates that, at national level, 77.3 percent of the parcels utilized by Ag HHs were owned, and about 14.9 percent were rented-in¹⁰.

Nabuin ZARDI (Karamoja Region) has the highest percentage of parcels owned (with 91.6%) followed by Ngetta ZARDI (Lango Sub-region) (with 84.9%). Mbarara, Rwebitaba and Bulindi ZARDIs, with 19.2, 18.5 and 18.3 percent respectively, have the highest number of parcels rented-in, while Nabuin with 0.3 percent has the lowest. Bulindi ZARDI recorded the highest (16%) number of parcels under other use rights. Details are provided in Table 3.3.

¹⁰ For an agreed amount of money or exchange of services.

Table 3.3: Percent distribution of parcels by use-rights

ZARDI	Total Number of Parcels	Use Rights			Total
		Owned	Rented	Other use rights	
Abi	1,400,672	80.7	11.7	7.6	100
Buginyanya	3,003,701	76.8	17.4	5.8	100
Bulindi	864,057	65.7	18.3	16	100
Kachwekano	1,059,796	80.1	15.4	4.5	100
Mukono	2,155,378	69.1	17.5	13.4	100
Ngetta	1,957,838	84.9	10.8	4.3	100
Nabuin	1,122,042	91.6	0.3	8.1	100
Serere	633,320	76.2	15.6	8.2	100
Mbarara	1,958,472	73.3	19.2	7.5	100
Rwebitaba	1,049,795	76.7	18.5	4.9	100
UGANDA	15,205,071	77.3	14.9	7.8	100

(*) AAS 2018- second season data

3.1.4 Parcel tenure system

The Constitution of Uganda provides for land to be held in four categories of tenure, namely: Customary, Mailo, Freehold and Leasehold tenure. Therefore, information was collected from Ag HHs regarding land tenure for each parcel owned.

Results at national level indicate that about 71.1 percent of parcels owned by Ag HHs have a customary system of tenure and 28.9 percent are either freehold, leasehold, public land or Mailo. Agricultural Parcels under Mailo system of land tenure were mainly in Serere and Mukono ZARDIs.

Table 3.4: Percent distribution of owned parcels by tenure of parcel

ZARDI	Tenure System						TOTAL
	Freehold	Leasehold	Mailo	Customary	Public	Not	
Abi	0.0	0.1	0.0	99.5	0.3	0.1	100
Buginyanya	19.8	0.7	0.0	77.3	1.0	1.2	100
Bulindi	28.0	0.6	0.4	55.3	14.3	1.3	100
Kachwekano	2.6	0.0	0.0	94.9	0.8	1.7	100
Mukono	2.3	0.2	85.9	0.1	6.4	5.1	100
Ngetta	11.0	0.1	0.0	87.7	1.0	0.2	100
Nabuin	0.0	0.0	0.0	98.6	1.4	0.0	100
Serere	2.7	0.6	94.1	1.0	1.5	0.1	100
Mbarara	10.3	62.9	0.0	1.1	3.0	22.7	100
Rwebitaba	0.5	97.7	0.0	0.6	1.2	0.0	100
UGANDA	11.1	0.3	13.5	71.1	2.4	1.7	100

(*) AAS 2018- second season data

3.1.5 Presence of legal document for parcel

A legal document for a parcel is a piece of written, printed, or electronic matter that provides information or evidence or serves as an official record concerning the use rights over the parcel. The survey collected data on whether the Ag HHs had formal document issued by or registered with government authorities. If an Ag HH had none, it implied that the Ag HH operated a parcel without a legally recognized document and vice versa. The list of legal documents considered by the survey included a title deed, a customary certificate of ownership, a certificate of occupancy, a certificate of hereditary acquisition, a written sale agreement, and a rental or lease contract.

The results show that about 70.3 percent of the parcels were operated without a legally recognized document and 29.7 percent had legally recognized documents.

Nabuin and Abi, with 94.7 and 93.2 percent respectively, reported the highest number of parcels operated without a legally recognized document. Mukono, on the other hand, reported the highest number (58.6%) of Parcels with Legally recognized documentations. For details, see Table 3.5.

Table 3.5: Percent distribution of owned parcels by possession of a documentation

ZARDI	Tenure System						TOTAL
	Freehold	Leasehold	Mailo	Customary	Public	Not	
Abi	0.0	0.1	0.0	99.5	0.3	0.1	100
Buginyanya	19.8	0.7	0.0	77.3	1.0	1.2	100
Bulindi	28.0	0.6	0.4	55.3	14.3	1.3	100
Kachwekano	2.6	0.0	0.0	94.9	0.8	1.7	100
Mukono	2.3	0.2	85.9	0.1	6.4	5.1	100
Ngetta	11.0	0.1	0.0	87.7	1.0	0.2	100
Nabuin	0.0	0.0	0.0	98.6	1.4	0.0	100
Serere	2.7	0.6	94.1	1.0	1.5	0.1	100
Mbarara	10.3	62.9	0.0	1.1	3.0	22.7	100
Rwebitaba	0.5	97.7	0.0	0.6	1.2	0.0	100
UGANDA	11.1	0.3	13.5	71.1	2.4	1.7	100

(*) AAS 2018 – second season data

3.1.6 Gender-based disparities over the land (SDG 5.a.1)

The AAS 2018 collected the data required to monitor gender disparities in tenure rights over agricultural land as suggested by the 2020 Sustainable Development Agenda, through the Sustainable Development Indicator (SDG) 5.a.1.

SDG 5.a.1 is composed of two sub-indicators:

- a) The percentage of adults (18+) agricultural population with ownership or secure tenure rights over agricultural land, by sex;

b) The share of women among owners or rights holders, by tenure type.

According to the indicator methodology, an individual is considered to have ownership or rights over the land, if s/he has a legal document in his/her name or if s/he enjoys alienation rights (can sell / can bequeath the land). One of the three proxies is sufficient to be considered an owner or a right holder.

The data reveals that 39.6 percent of the adults living in Ag HHs are owners or right holders over agricultural land. Such percentage gets as high as 48.7 percent among the men, while it is 31.1 percent among the women. Consistently, the share of women among owners/rights holders is 40.8 percent. In conclusion, the data discloses the presence of a gap between men and women. Such trend is present in all the ZARDIs except in Kachwekano, where the percentage of owners / right holders is higher among the female population (59.9%). Details are in Table 3.6.

Table 3.6: Adults (18+) with ownership or tenure rights over agricultural land, by sex and share (%) of women among the owners/rights holder over agricultural land

	Percentage of adults with ownership or tenure rights over agricultural land, by sex			Share (%) of women among the owners/rights holders
	(SDG 5a1 – part a)			(SDG 5a1 – part b)
	Total	Adult males	Adult females	
Abi	32.3	50.8	15.1	24.1
Buginyanya	41.6	49.5	33.6	40.1
Bulindi	37.2	44.3	30	40.2
Kachwekano	57.6	55.3	59.9	51.1
Mukono	51.5	47.6	24	36.2
Ngetta	35.1	54.8	35.2	41.4
Nabuin	44.5	39.2	24	44.2
Serere	30.7	35.8	8.3	20.6
Mbarara	46.3	53	50	49
Rwebitaba	21.3	56.4	37.3	42.4
UGANDA	39.6	48.7	31.1	40.8

Similar results are observed considering only the strongest of the three proxy conditions – i.e., having the name on a legally recognized document. Overall, 13.3 percent of the agricultural population have a legally recognized document for a parcel in their name. Such percentage is higher among men (18.3%) than women (8.7%).

Table 3.7: Distribution of adult (18+) agricultural population with a land document in their name by sex

	Percentage of Adults		
	with a tenure right document in their name		
	Total	Males	Females
Abi	4.4	6.7	2.3
Buginyanya	17.8	23.5	12.0
Bulindi	18.6	23.3	13.9
Kachwekano	14.3	15.0	13.6
Mukono	18.9	29.5	9.6
Ngetta	8.0	10.5	5.8
Nabuin	1.9	3.2	0.8
Serere	4.3	6.7	2.3
Mbarara	18.3	23.7	13.0
Rwebitaba	25.0	33.2	17.6
UGANDA	13.3	18.3	8.7

CHAPTER 4: AGRICULTURAL PRACTICES AND INPUTS¹¹

4.0 Introduction

The overall objective of the Uganda national agriculture policy is to achieve food and nutrition security and improve Ag HH incomes through coordinated interventions that focus on enhancing sustainable agricultural productivity and value addition. In addition, the National Development Plan II (NDP II) aims at increasing agricultural production and productivity through commercialization of agriculture. Increasing agricultural productivity augments production and counters food and nutrition insecurity. However, changes in agriculture productivity strongly depends on the agricultural inputs used and their impact on the natural resources. Given the importance of inputs in agriculture productivity, the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) has put efforts to foster the access to agricultural inputs, such as the promotion of financial services for farmers.

This chapter discusses the utilization of some critical non-labour agricultural inputs such as fertilisers, seeds, and chemicals.

4.1 Agricultural inputs

Agricultural productivity is generally low in Africa and it is particularly low in Uganda, despite her potential to feed its population and the surrounding countries. This low productivity is due to various reasons, including low yielding varieties, extensive land practices, low fertiliser use and dependence on rain fed agriculture. According to the Uganda National Fertilisers Policy, the loss of soil nutrients in Uganda remains one of the highest in the African continent. Therefore, the Government of Uganda has put in place interventions that enhance access to and use of fertilisers.

4.1.1 Fertilisers

The survey results show that about 24 percent of the Ag HHs used fertilisers during the agricultural year 2018. Of these, about 77 percent used organic fertilisers and 32 percent used inorganic fertilisers. The Table 4.1 below shows details of the percentage of Ag HHs that used fertilisers by type.

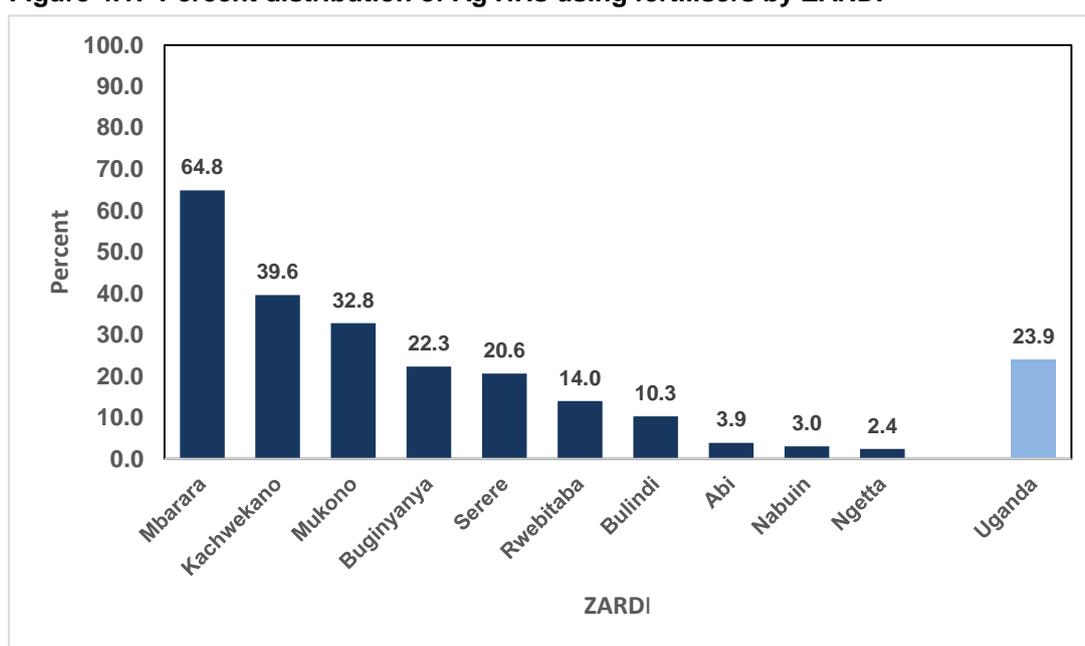
Mbarara (64.8%) had the highest percentage of Ag HHs using fertilisers followed by Kachwekano (39.6%), while Nabuin (3.0%) had the lowest percentage of Ag HHs using fertilisers. The majority of Ag HHs using fertilisers applied organic fertilisers (77.0%). This is valid in all ZARDIs, except Bulindi and Rwabitaba with 23 and 40 percent respectively. Details are shown in Table 4.1, and Annex IV, Tables 4-14 and 4-15.

¹¹ All the tables of this chapter have been extracted from the data collected in the second season of the agricultural year 2018 and they refer to this season

Table 4.1: Percent distribution of Ag HHs using fertilisers by ZARDI

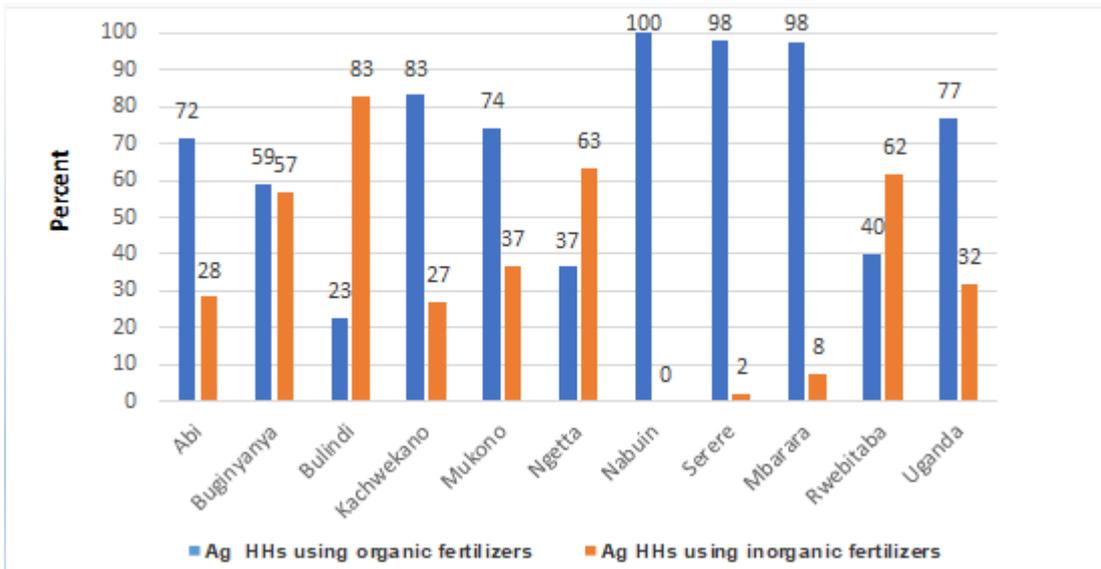
	Percentage of Ag HHs using fertilisers	Percentage of Ag HHs using fertilisers by type of fertilizer used	
		Organic Fertilisers	Inorganic Fertilisers
Abi	3.9	72	28.4
Buginyanya	22.3	59	57.0
Bulindi	10.3	23	83.0
Kachwekano	39.6	83	27.2
Mukono	32.8	74	36.8
Ngetta	2.4	37	63.3
Nabuin	3.0	100	-
Serere	20.6	98	2.2
Mbarara	64.8	98	7.7
Rwebitaba	14.0	40	61.6
Uganda	23.9	77	31.9

Figure 4.1: Percent distribution of Ag HHs using fertilisers by ZARDI



Regarding the Ag HHs that used organic fertilizers, Nabuin (100%), Serere (98%) and Mbarara (98%) had the highest users of organic fertilisers followed by Kachwekano (83%), Mukono (74%) and Abi (72%). Among inorganic fertiliser users, Bulindi (83%) and Ngetta (63.3%) had the highest percentages of AgHHs using inorganic fertilisers, while Serere (2.2%) had the smallest percentage of inorganic fertiliser users. Details are shown in Figure 4.2 and in Annex IV, Table 4-14.

Figure 4.2: Distribution of Ag HHs using organic and inorganic fertilizers



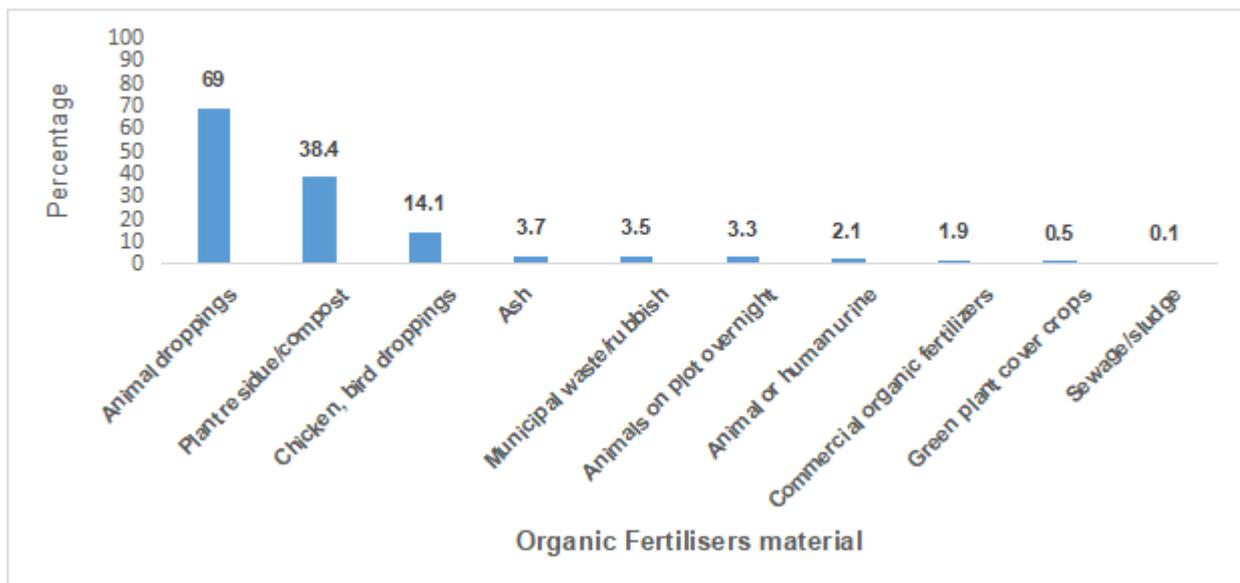
Note: (Computed on Ag HHs using fertilisers)

4.1.2 Fertiliser use by kind

Most of the Ag HHs utilizing organic fertilizers applied animal droppings (69%), plant residues or compost (38%) while cover crops and Sewage/sludge were used by less than one percent of Ag HHs. See

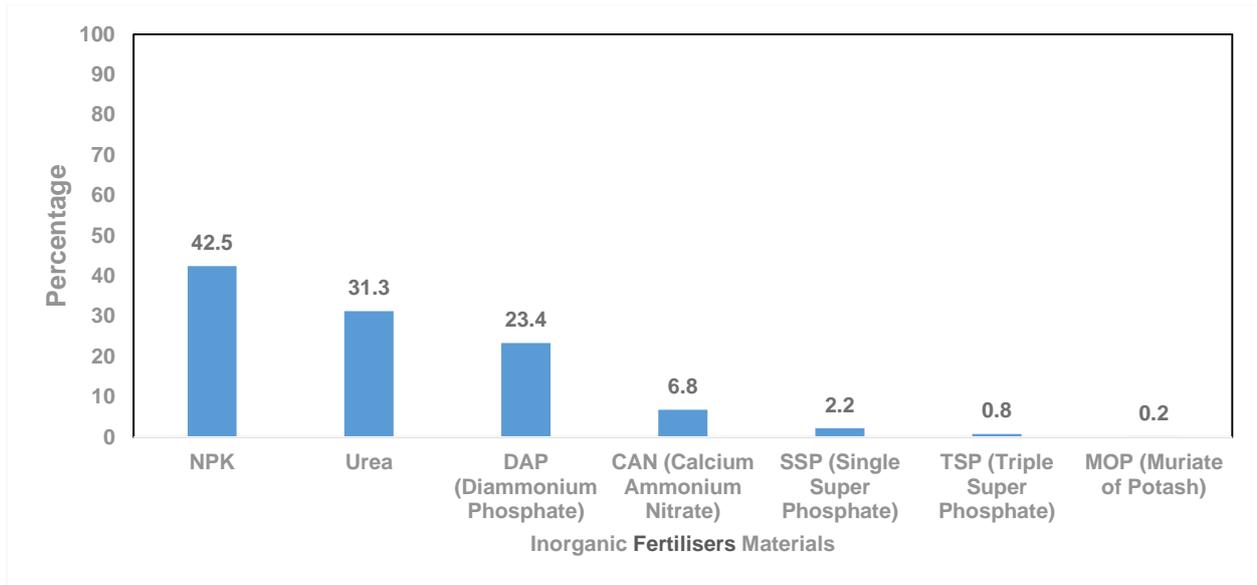
Figure 24.3 below for details.

Figure 2: Percentage distribution of Ag HHs using organic fertilisers by kind



As mentioned above, 32 percent of the Ag HHs utilize inorganic fertilizers. Among these, NPK is the most used material, applied by 42.5 percent of the Ag HHs, followed by Urea (31.3%) while Triple Super Phosphate (TSP) and Muriate of Potash (MOP) are the least used (i.e., reported by less than one percent of Ag HHs). Figure 4.4 gives details.

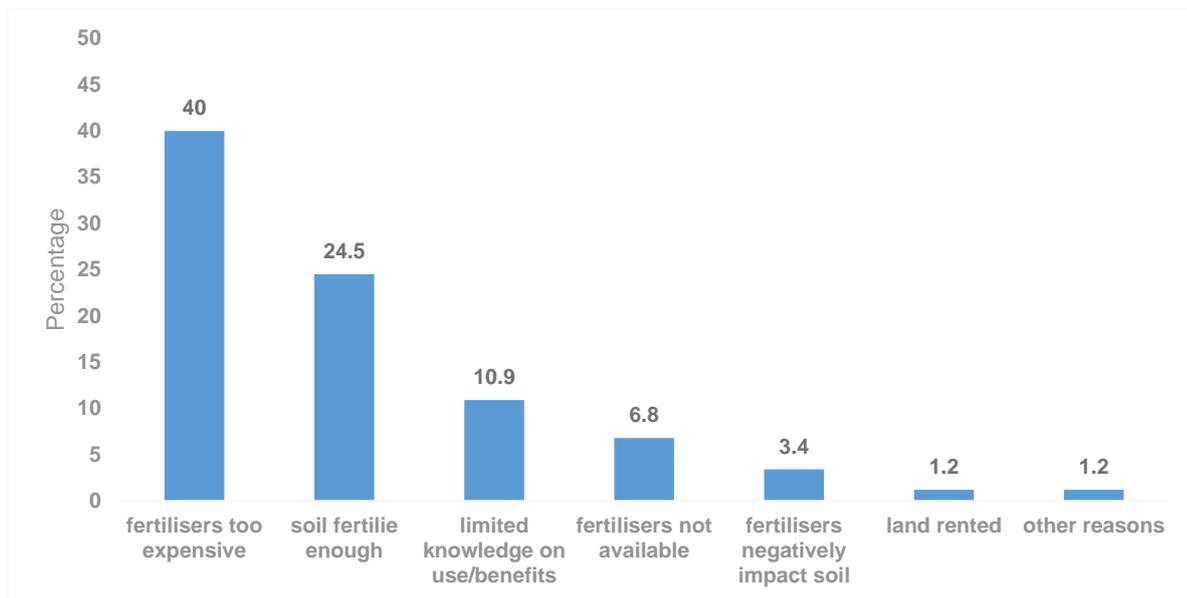
Figure 3: Percent distribution of AgHHs using inorganic fertilisers



4.1.3 Reasons for non-use of inorganic fertilisers

Despite the governmental efforts that advocate for an increased use of fertilisers, the majority of Ag HHs (79%) did not use fertilisers. Figure 4.5 shows the reasons for not using inorganic fertilisers as reported by the Ag HH that do not apply fertilisers.

Figure 4.5: Percent distribution of Ag HHs by main reason for not using fertilisers



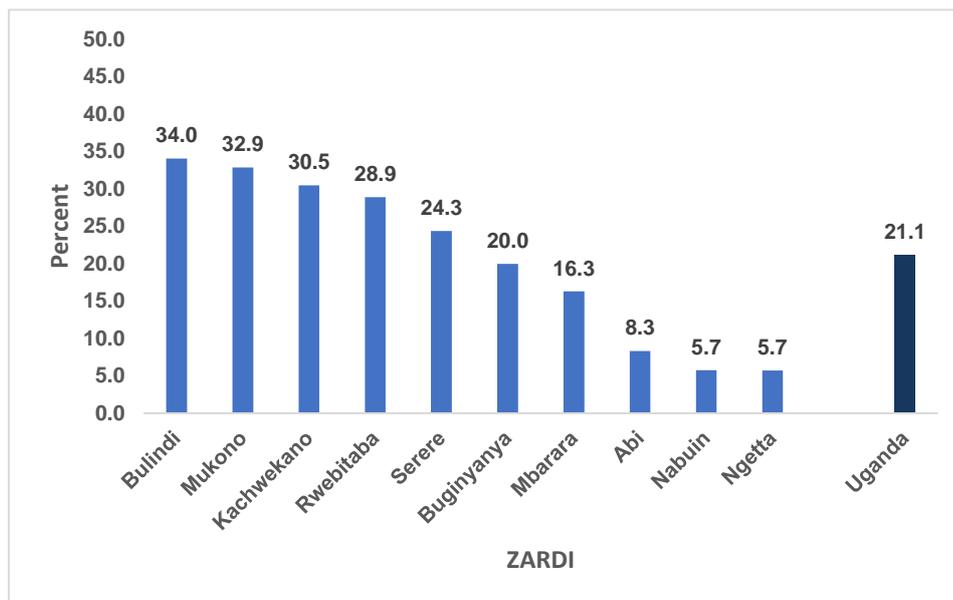
Forty percent of the Ag HHs reported fertilisers as being costly; followed by 24 percent that believed that the soil was fertile enough and does not need fertilisers. Only 1.2 percent did not apply fertilisers because the land was rented in (hence no motivation for use).

4.1.4 Chemicals

As part of the strategy to increase agricultural production and improve food security, between 2015 and 2020, the Agriculture Sector Strategic Plan (ASSP) of MAAIF intended to focus on pests, vectors and disease control, especially for the priority and strategic commodities and even along their value chains.

Information obtained from the survey reported that 21.1 percent of the Ag HHs used agro-chemicals (herbicide, insecticide, fungicide and rodenticide). This shows an increase of 4 percent from the 17 percent reported in the UCA 2008/9.

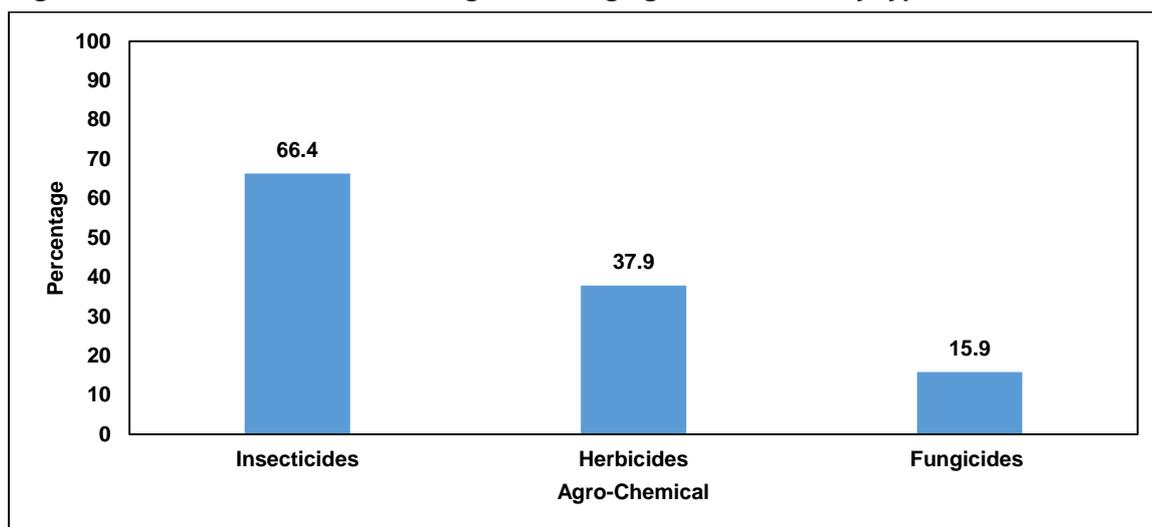
Figure 4.6: Percent distribution of Ag HHs using agro-chemicals by ZARDI



As shown in Figure 4.6 Bulindi and Mukono had the highest percentage of Ag HHs using agro-chemicals (34.0% and 32.9% respectively); they were followed by Kachwekano (30.5%) and Rwebitaba (28.9%) while Nabuin and Ngetta had the lowest percentage of Ag HHs (5.7 % each).

Among Ag HHs using agro-chemicals, insecticides are the most used (66%), followed by herbicides (38%) and fungicides (16%) while almost none use rodenticides.

Figure 4.7: Percent distribution of Ag HHs using agro-chemicals, by type



4.1.5 Seeds

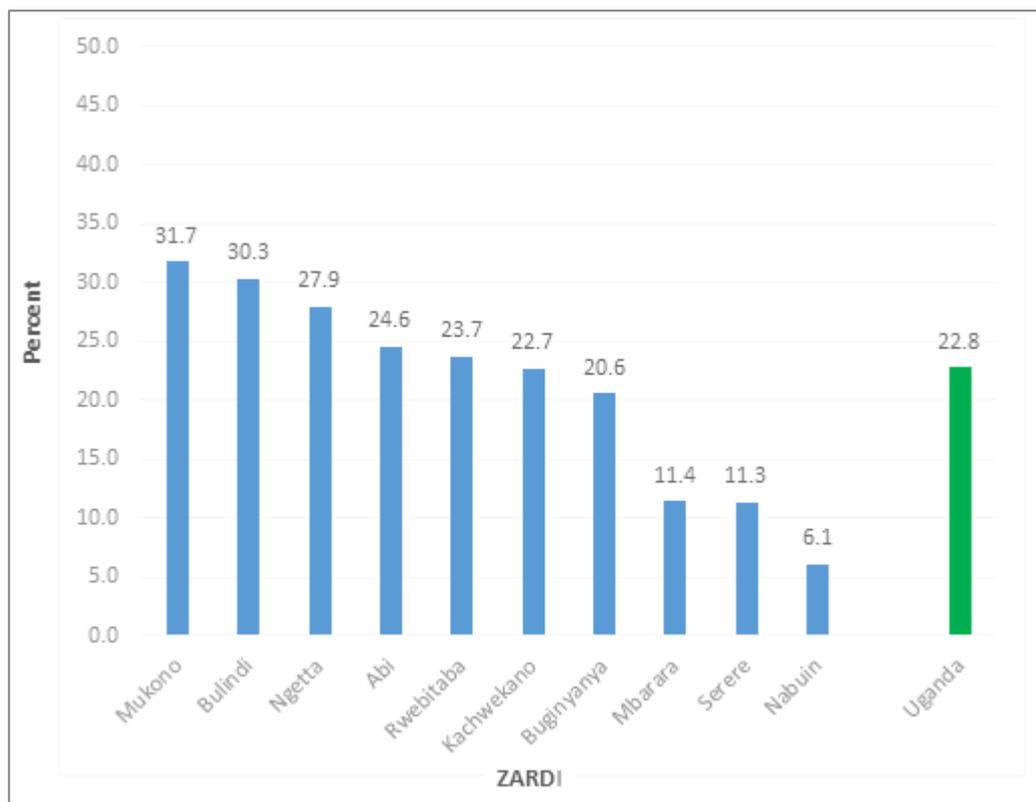
Access to critical farm inputs remains a challenge to small holders hence hindering increase of agricultural productivity. The NDP II notes that during the five-year period, government would improve access to high quality animal breeds, seeds and planting materials.

Self-reported information obtained during the survey indicates that 98 percent of the Ag HHs uses traditional seeds, which is consistent with the estimate reported in UCA 2008/9. On the other hand, the percentage of Ag HHs using improved seems to be slightly reduced from 31 percent in 2008/9 to 23 percent in 2018.

Table 4.2: Percent distribution of Ag HHs by type of seeds used, by ZARDIs

ZARDIs	Traditional seeds	Improved seeds
Abi	98.1	24.6
Buginyanya	97.1	20.6
Bulindi	97.0	30.3
Kachwekano	99.8	22.7
Mukono	98.7	31.7
Ngetta	98.0	27.9
Nabuin	93.9	6.1
Serere	99.1	11.3
Mbarara	98.3	11.4
Rwebitaba	99.1	23.7
Uganda	98.1	22.8

Figure 4.8: Percent distribution of Ag HHs using improved seeds, by ZARDI



4.2 Agricultural Practices

4.2.1 Irrigation

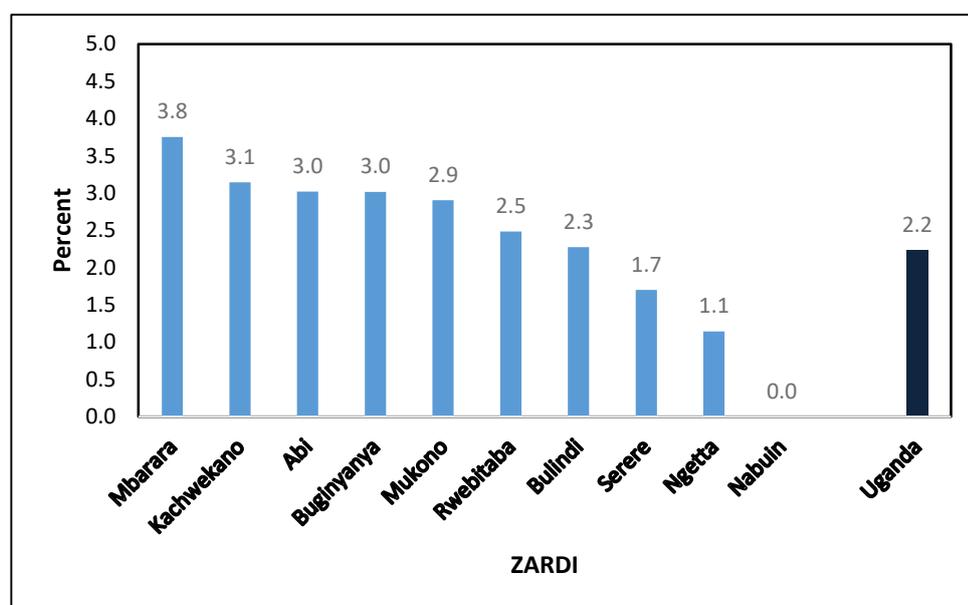
In an effort to increase agriculture production and to modernise of the agricultural sector, which is usually hampered by over reliance on rainfall, the government is intervening by increasing capacity of the farmers to access and use water for crop, livestock and fishery production.

Survey results show a significant change in the percentage of Ag HHs using irrigation for crop activities, from 0.4 percent in 2017 to 2.2 percent in 2018.

Figure 4.9 below shows this percentage across the ZARDIs. More details can be found in Annex IV, Tables 4-11, 4-12.

Table 4.3: Percentage of Ag HHs using irrigation by ZARDI

ZARDIs	Yes	No	TOTAL
Abi	3.0	97.0	100
Buginyanya	3.0	97.0	100
Bulindi	2.3	97.7	100
Kachwekano	3.1	96.9	100
Mukono	2.9	97.1	100
Ngetta	1.1	98.9	100
Nabuin	0.0	100.0	100
Serere	1.7	98.3	100
Mbarara	3.8	96.2	100
Rwebitaba	2.5	97.5	100
Uganda	2.2	97.8	100

Figure 4.9: Percent distribution of Ag HHs using irrigation, by ZARDI

4.2.2 Fixed Costs

The expenditure on seeds, fertilisers, chemicals and labour are considered as ‘variable costs’, because their value increases as the production increases. In addition to these expenses, Ag HHs also face fixed costs – i.e., costs whose amount is not directly related with the area planted or the production. This category includes costs such as insurance, repair of equipment, etc.

Ag HHs were asked if they spent money on the any of the fixed costs listed in Table 4.4 in the period between January and December 2018. National level results indicate that most of the Ag HHs spent money on rent of land for agriculture (17%), followed by purchase or repair of vehicle/tractor/equipment (4.5%) and interest on

loans (4.3%).

The Ag HHs that rent agricultural land spent, on average, 177,414 Shillings per year on rentals. Those that purchased or repaired a vehicle, a tractor or an equipment spent invested, on average, 126,766 Shillings. Finally, the Ag HHs that had to reimburse loans disbursed 162,871 Shillings on average on interest.

Table 4.4: Fixed costs

Asset type	Average Amount*	% Ag HHs
Rent of buildings	338,786	1.5
Rent of land for agriculture	177,414	17.3
Interest on loans	162,871	4.3
Agricultural insurance	28,497	0.0
Licenses, fees and other statutory permits	86,315	0.3
Maintenance and repair of farm buildings	368,715	0.6
Purchase/repair of vehicle /tractor /equipment	126,766	4.5
Water for crop irrigation, animal feeding	98,625	2.8
Electricity for agricultural purposes	196,595	0.1

() calculated on the Ag HHs that reported having spent on that particular item*

CHAPTER 5: AGRICULTURAL SERVICES¹²

5.0 Introduction

Agricultural services play an important role in helping farmers to make the most of the resources they have. Apart from the physical resources such as land and seeds, farmers need knowledge in order to produce the quality and quantity of produce that meets demand. These services are designed to guide and advise farmers right from the period before planting to the post-harvest period. The AAS 2018 collected data about Ag HH participation on farmer trainings and advisory services received from extension services.

5.1 Advisory services received by Ag HHs by ZARDI

The results at national level revealed that 11.9 percent of the Ag HHs participated to a farmer training and 11.7 percent received advisory services in the 12 months prior to the survey. The Kachwekano comes first on order as 17 percent of Ag HHs declared to have received advisory services.

Table 5.1: Percentage of Ag HHs that received extension services in the last 12 months, by ZARDI

	Total Ag HHs	% Ag HHs
Abi	61,858	12.8
Buginyanya	181,823	13.5
Bulindi	36,240	9.2
Kachwekano	52,207	17.0
Mukono	121,841	12.7
Ngetta	106,051	13.6
Nabuin	77,880	7.0
Serere	15,003	4.5
Mbarara	90,666	13.3
Rwebitaba	65,859	13.0
UGANDA	809,428	11.7

5.2 Source of advisory service, received training topic and method to acquire the advice

The AAS 2018 collected data about the source of advisory services, training topics from extension services as well as the method to acquire advice and farmers satisfaction towards the advice.

¹² All the tables of this chapter have been extracted from the data collected in the second season of the agricultural year 2018. The reference period is the last 12 months - ie., the period between March 2018 and February 2019.

Table 5.2: Distribution of Ag HHs that received advisory services by source of advisory service

Source	Number of Ag HHs	% of Ag HHs
Local Government	578,238	51.0
Input Supplier	57,258	5.1
NGOs	302,008	26.6
Cooperatives and Farmer Associations	117,943	10.4
Model Farmers	66,207	5.8
Other	11,705	1.0

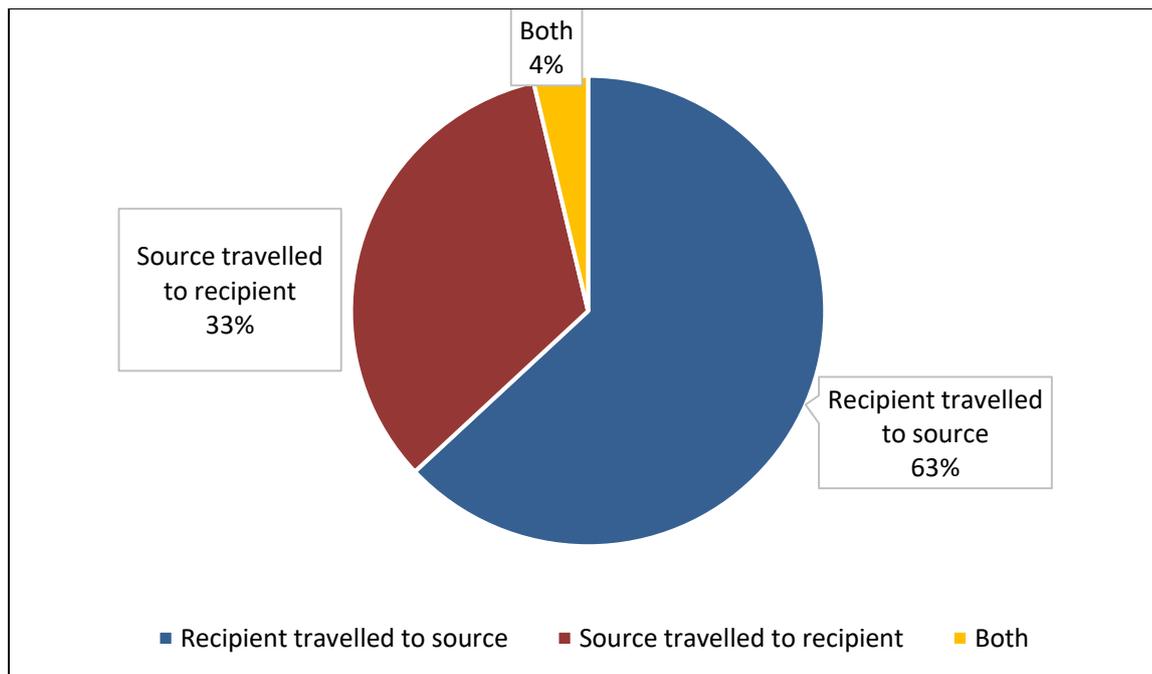
Fifty-one percent of the Ag HHs that received advisory services reported to have received such services from the Local Government, 26.6 percent from NGOs. Local input suppliers and model farmers are the least used service providers with 5.1 and 5.8 percent respectively.

Table 5.3: Distribution of Ag HHs that received advisory services by training topic

TOPIC	Number of Ag HHs	% of Ag HHs
Agricultural production	926,140	81.7
Agricultural prices	315,121	27.8
Agro processing	169,883	15.0
Crop marketing	273,405	24.1
Livestock marketing	161,078	14.2
Fish production	31,978	2.8
Meat production	121,083	10.7
Milk production	141,443	12.5
Livestock breeding, feeding, etc.	221,073	19.5
Crop and livestock diseases	463,649	40.9
Safe use and handling of chemicals	216,782	19.1
Input use	356,157	31.4
Labour rights	55,052	4.9
Entrepreneurship and business	112,571	9.9

A majority of Ag HHs that received advisory services reported to have received trainings related to agricultural production (81.7%). This was followed by, trainings related to crop and livestock diseases and input use with 40.9 percent and 31.4 percent, respectively.

Figure 5.1: Distribution of Ag HHs that received advisory services by method to acquire the advice



Both means the AgHH had an extension service provider travel to them and also AgHH travelled to the provider.

Figure 5.1 shows the percentage of Ag HHs that were visited and reported that they had received advisory services. Out of them, 63 percent declared to have travelled to the source, so to acquire advisory services (63.1%).

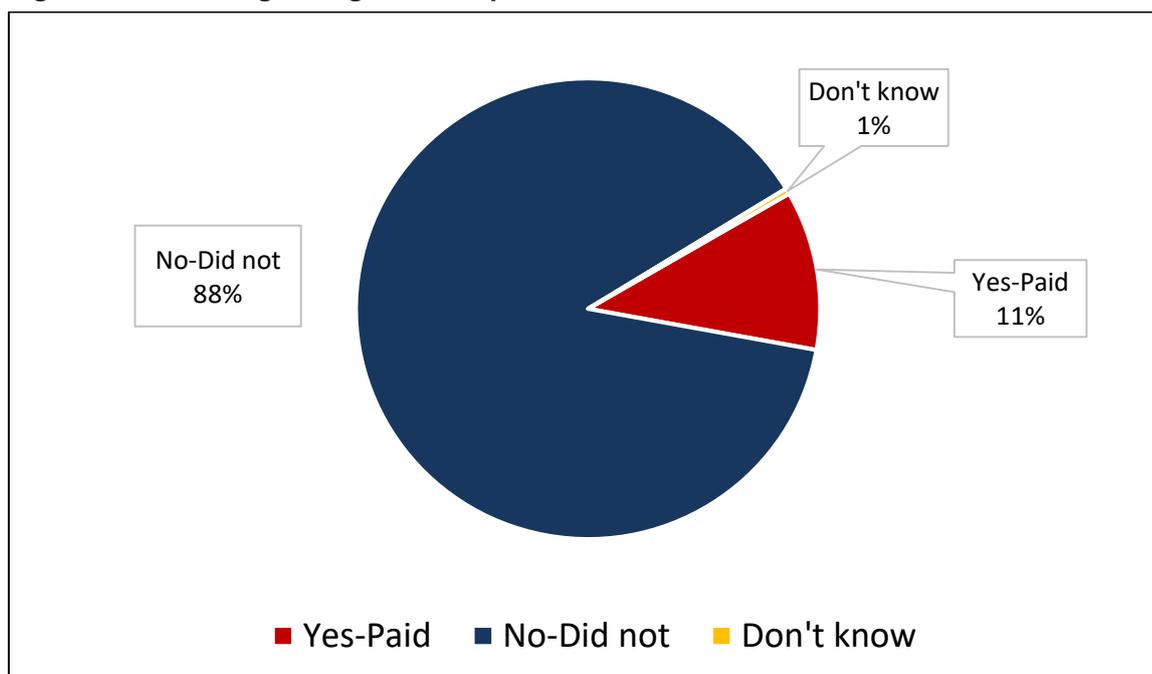
Table 5.4: Distribution of Ag HHs that received advisory services by level of satisfaction

	Sources		
	All	Local Government	NGOs
Good	84.4	81.0	88.4
Average	14.3	17.5	10.5
Bad	1.3	1.4	1.1

Over 80 percent of Ag HHs reported that the level of satisfaction on the advisory services received from the two sources: local government as well as NGOs was good.

Figure 5.2 shows that 88.4 percent of them did not pay for any received extension service.

Figure 1 : Percentage of Ag HHs that paid for the extension service



5.3 Accessibility of Ag HHs to various sources of credit and amount received

The AAS 2018 also collected data on the accessibility of Ag HHs to the various sources for obtaining credit. Results indicate that, of the Ag HHs that received credit, the main source of credit to the Ag HHs was the Self-help groups (45%) of the Ag HHs who received agricultural credit. The source with the least number of Ag HHs reporting to have received credit was the Government Agency and Agricultural Product Processors with each reporting less than one percent of the Ag HHs who received credit. Details are as shown in Table 5.5.

Table 5.5: Distribution of Ag HHs by type of credit source

Credit Source	Number	Percentage
Commercial banks	40,339	5.4
Micro Finance Institutions	60,781	8.2
SACCOs	119,071	16.1
Money Lenders	19,801	2.7
Input suppliers	16,016	2.2
Self-help groups	331,302	44.7
Family and friends	56,532	7.6
Agricultural product processors	3,968	0.5
agricultural production traders	17,632	2.4
Farmer Associations	41,794	5.6
Government Agency/Department	1,241	0.2
NGOs	17,673	2.4
Others	15,659	2.1
TOTAL	741,809	100.0

During the AAS 2018, Ag HHs were asked the amount of loan that was received for agricultural purposes. The results indicate that, at national level, the total agricultural loans received by the Ag HHs amounted to about million with an average Ag HH borrowing about 551,000 Shillings.

At ZARDI level, Mukono, Nbuin, Mbarara and Buginyanya had the highest total loan amounts with 103 billion, 78.2 billion, 60.4 billion and 45.2 billion Shillings, respectively. On the other hand, Ngetta and Serere had the lowest total loan amounts of 11.2 billion and 1.2 billion Shillings, respectively.

On the other hand, Mukono ZARDI had the highest average loan amounts of 1,099,200 Shillings and was followed by Mbarara ZARDI with an average of 732,112 Shillings, while Ngetta ZARDI had the lowest average loan amount of 151,494 Shillings as shown in Table 5.6.

Table 5.6: Average amount of loan received, by ZARDI

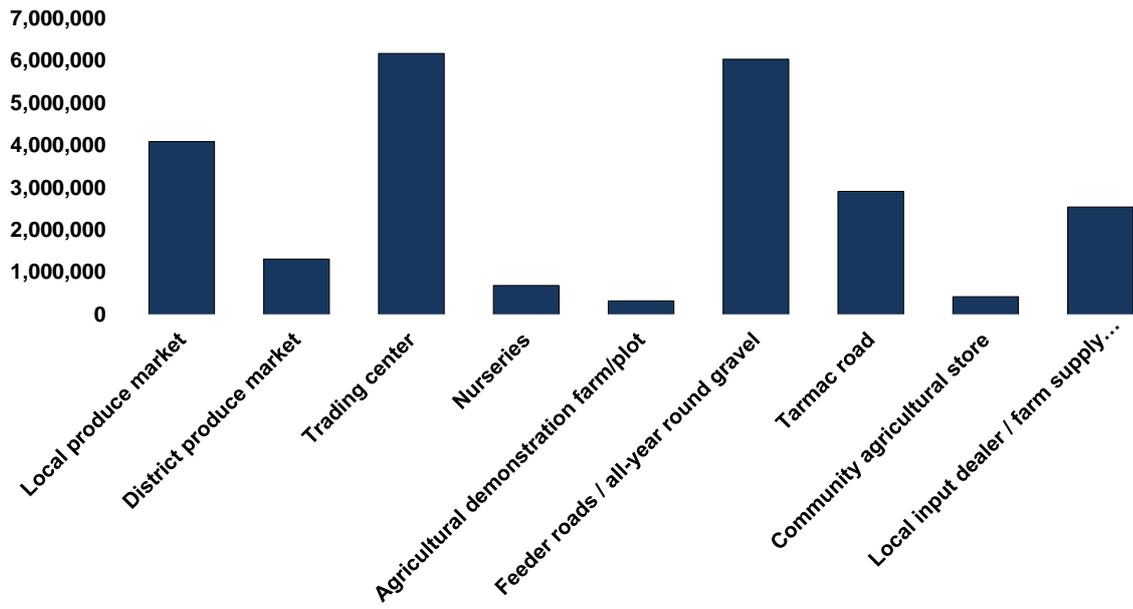
ZARDI	TOTAL (UGX, Millions)	AVERAGE LOAN (UGX)
Abi	30,436	344,715
Buginyanya	45,194	401,263
Bulindi	16,994	461,949
Kachwekano	21,327	375,525
Mukono	103,059	1,099,200
Ngetta	11,196	151,494
Nabuin	78,214	621,166
Serere	1,242	159,239
Mbarara	60,388	732,112
Rwebitaba	40,290	656,066
UGANDA	408,340	551,978

During the AAS 2018, Ag HHs were asked if they had access to some facilities. The results at national level revealed that, about 88.7 percent of the Ag HHs had access to a trading centre while 86.7 percent had access to a Feeder road / all-year round gravel road. On the other hand, Agricultural demonstration farm/plot (4.8%) and Community agricultural stores (6.2%) were the least accessed by Ag HHs. Details are as shown in Table 5.7.

Table 5.7: Distribution of Ag HHs by access to facilities and type of facility

Facility	Number	Percentage
Local produce market	4,091,163	58.8
District produce market	1,317,454	18.9
Trading center	6,171,974	88.7
Nurseries	694,864	10.0
Agricultural demonstration farm/plot	330,869	4.8
Feeder roads / all-year round gravel	6,034,971	86.7
Tarmac road	2,910,966	41.8
Community agricultural store	429,165	6.2
Local input dealer / farm supply shops	2,545,126	36.6

Figure 5.3: Number of Ag HHs with access to facilities



CHAPTER 6: HOUSEHOLD FOOD SECURITY¹³

6.0 Introduction

Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food, which meets their dietary needs and food preferences for an active and healthy life. During the AAS, this concept has been applied to the Ag HHs, with individuals within Ag HHs as focus of concern.

According to the FAO (2019), about 810 million people (1 out of 9) were estimated to be undernourished in the period 2016-18. In the same period, about 14 percent was estimated to be undernourished in lower-middle income and 41 percent was estimated to be undernourished in Uganda.

The Uganda Demographic and Health Survey (UDHS) 2016, indicated that about 29 percent of children under 5 years were stunted and 7.3 percent were malnourished. In an effort to end hunger, the Government of Uganda (GoU) has put in place interventions aimed at increasing agricultural production, such as: increase investment in agricultural research and extension services; boost technology development; implement resilient agricultural practices that increase productivity; ensure secure and equal access to land, productive resources, inputs and financial services; facilitate timely access to market information (including on food reserves).

6.1 Presence of shocks and shortage

The AAS 2018, sought to find out if there were any Ag HHs that experienced shock or food shortage during the agricultural year 2018.

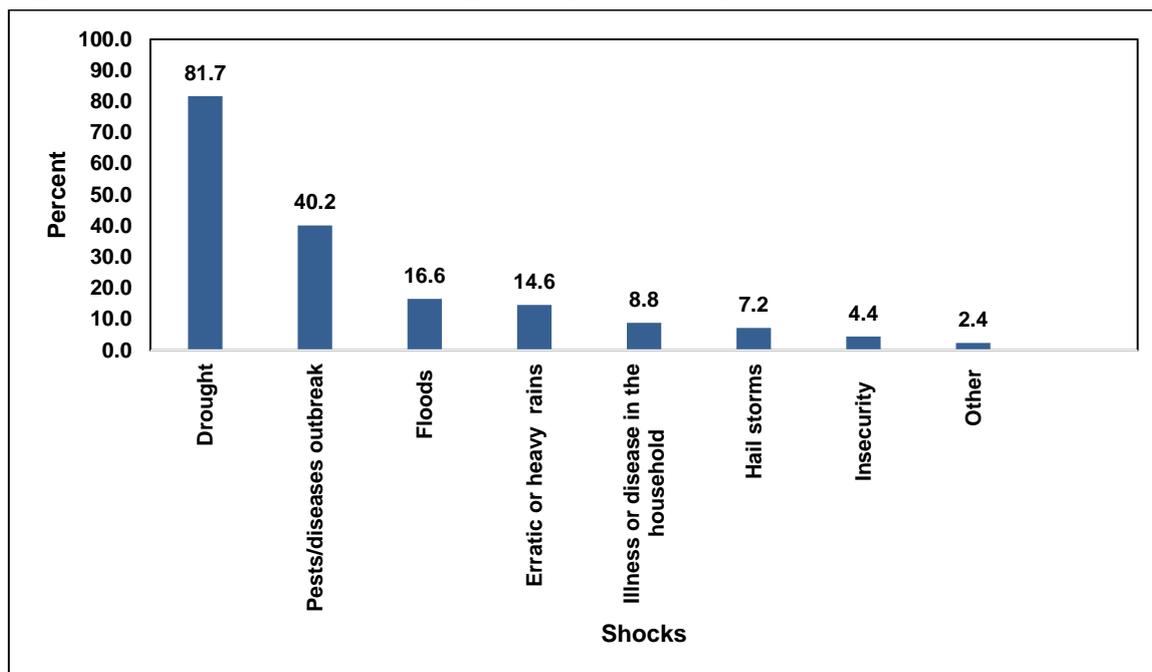
6.1.1 Shocks

Shocks included sudden losses in food and livestock production may be due to extreme weather conditions, such as drought, hailstorms; insecurity; geopolitical crises etc. that are a great threat to food security.

Overall, 74 percent of Ag HHs reported a shock. Among these, 82 percent reported a drought, 40 percent faced pests and diseases while floods affected 17 percent of Ag HHs. The drought could have been a spill over of the extensive droughts experienced in 2016 and 2017, while the pest and diseases may have been reported by the maize-growers affected by the maize ball-worm during the first season of 2018. Details are provided in Figure 6.1 below.

¹³ All the tables of this chapter have been extracted from the data collected in the second season of the agricultural year 2018. The reference period is the last 12 months.

Figure 6.1: Percent distribution of Ag HHs by shocks experienced



At the ZARDI level, Serere (96%), Ngetta (94%), and Nabuin (92%) ZARDIs had the highest percentage of Ag HHs that reported shocks in 2018 while Rwebitaba (54%) and Kachwekano (52%) had the least percentage of Ag HHs that experienced shocks.

Looking at the distribution of shocks within the ZARDIs, we observe that drought was reported by about 20 percent of Ag HHs in Buginyanya, and about 17 percent in Ngetta and Nabuin; pests and diseases were reported by 24 percent of Ag HHs in Nabuin, 19 percent in Buginyanya and 12 percent in Ngetta; floods were reported by 64 percent of Ag HHs in Nabuin and about 9 percent in Ngetta. Finally, insecurity was mostly reported in Serere (30%). It is nevertheless important to note that Nabuin recorded high percentages on almost all the shocks. See details in the Table 6.1.

Table 6.1: Percentage distribution of Ag HHs that experienced a shock by type of shock and ZARDI

ZARDI	Shock Experienced							
	Drought	Pests diseases	Floods	Erratic or heavy rains	Disease	Hailstorms	Insecurity	Other
Abi	8.2	7.7	1.1	3.2	3.2	5.0	4.7	3.5
Buginyanya	19.5	18.5	3.5	11.3	14.1	16.9	10.5	20.9
Bulindi	6.4	2.9	0.6	3.6	5.4	10.6	2.2	14.9
Kachwekano	1.7	2.6	4.4	3.6	1.3	1.7	0.6	1.8
Mukono	9.4	8.7	4.6	7.9	6.4	14.6	13.6	3.6
Ngetta	17.2	12.0	9.0	4.6	15.1	21.4	4.6	32.1
Nabuin	16.5	23.6	63.1	49.8	32.4	9.2	14.6	3.9
Serere	7.5	12.7	7.4	2.8	5.9	11.7	30.3	0.7
Mbarara	9.5	5.8	5.6	5.3	5.3	9.1	10.5	18.8
Rwebitaba	3.9	5.6	0.7	8.0	11.1	0.0	8.4	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Uganda	81.7	40.2	16.6	14.6	8.8	7.2	4.4	2.4

The shocks affected the Ag HHs in different ways, as shown in the Table 6.2. According to the Ag HHs that experienced a shock, very frequently the shocks caused moderate and severe damages.

Table 6.2: Percentage distribution of Ag HHs that experienced shock by extent of damage

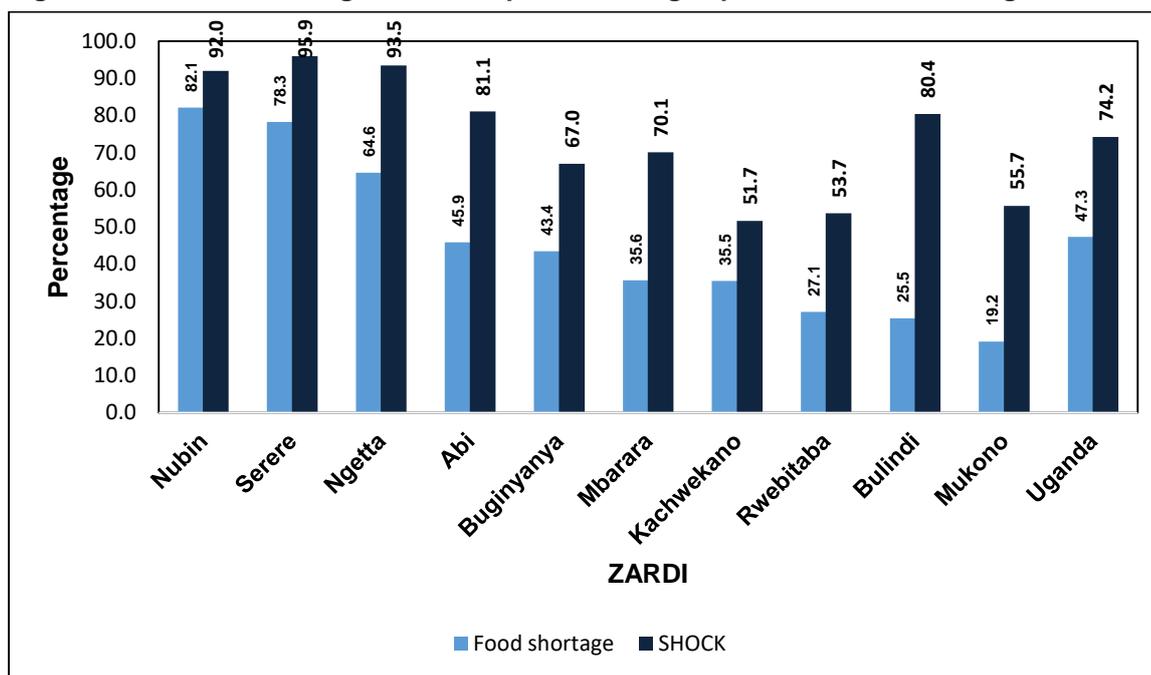
Shock Experienced	Extent of damage				
	None	Slight	Moderate	Severe	Total
Drought	0.3	8.3	29.5	61.9	100
Pests/diseases outbreak	0.2	17.7	43.6	38.6	100
Erratic or heavy rains	-	9.2	50.6	40.2	100
Hailstorms	1.1	23.3	39.7	36.0	100
Floods and tidal waves	0.6	11.0	40.6	47.7	100
Illness or disease in the Ag HH	1.7	19.2	43.1	36.0	100
Insecurity	1.1	28.1	25.5	45.3	100
Other	-	11.9	25.7	62.3	100

6.1.2 Food shortage

The results show that during the 2018 agricultural year about 47 percent of Ag HHs experienced a food shortage compared to 57 percent reported in UCA 2008/9¹⁴.

Across ZARDIs, Nabuin (82%), Serere (78%) and Ngetta (65%) had the highest percentages of Ag HHs reporting food shortage while Bulindi (26%) and Mukono (19%) had the least percentages. In all the ZARDIs the percentage of Ag HHs reporting shocks was higher than the percentage of Ag HHs reporting a food shortage. For example, in Bulindi, the percentage of Ag HHs affected by a shock is more than three times the percentage of Ag HHs that reported food shortage. See Figure 4 below for details.

Figure 4: Distribution of Ag HHs that reported having experienced food shortage and shocks



6.1.3 Reasons for the food shortage

Respondents were asked about the reason (seasonal or long-term factors) of the food shortage experienced in the past 12 months. Similar to 2008/9, when 71 percent of Ag HHs reported loss of crop and/or insufficient production, in 2018 the main reason of the food shortage is low production (93% of Ag HHs).

Loss of crop and/or insufficient production was followed by lack of capital (17%) and lack of adequate land (12%). These were the same reasons mentioned in 2008/9 by 19 percent and 10 percent of Ag HHs respectively. See Table 6.3 for details.

¹⁴ The questionnaire asked if between January 2018 and December 2018 there have been months in which the Ag HH members could not afford to eat what they normally eat. Such question was asked only to the Ag HHs that experienced at least one shock.

Table 6.3: Distribution of Ag HHs by reason of food shortage

Reason for food shortage	Rank of reason		
	1st	2nd	3rd
Loss of crops / insufficient production	93.0	2.5	1.0
Over selling produce	1.6	3.2	0.4
Loss of livestock	0.1	5.6	1.0
Inability to work (due to illness, disability, injury or old age)	1.4	5.6	2.3
Lack of adequate land	1.3	12.0	4.7
Lack of capital	1.9	17.1	7.9
Lack of labourers on the farm	-	2.8	1.4
Lack of job opportunity outside the holding	0.5	5.0	7.2
Other	0.2	0.3	0.2
No other reason	-	45.9	73.8
Total	100.0	100.0	100.0

Most ZARDIs had over 80 percent of Ag HHs their Ag HHs reporting loss of crop and/or insufficient production as main reason for food shortage. Lack of capital was more frequently reported in Ngetta (26%), Serere (23%), Nabuin (22%) and in Abi (20%), while lack of adequate land was more frequently reported in Serere (28%), Rwebitaba (20%) and Buginyanya (19%). National level figures can be found in Table 6.4.

Table 6.4: Percentage distribution of Ag HHs by reason for food shortage

Reason for food shortage	Rank of reason		
	1st	2nd	3rd
Loss of crops / insufficient production	93.0	2.5	1.0
Over selling produce	1.6	3.2	0.4
Loss of livestock	0.1	5.6	1.0
Inability to work (due to illness, disability, injury or old age)	1.4	5.6	2.3
Lack of adequate land	1.3	12.0	4.7
Lack of capital	1.9	17.1	7.9
Lack of labourers on the farm	0.0	2.8	1.4
Lack of job opportunity outside the holding	0.5	5.0	7.2
Other	0.2	0.3	0.2
No other reason	-	45.9	73.8
Total	100.0	100.0	100.0

6.1.4 Timing of food shortage

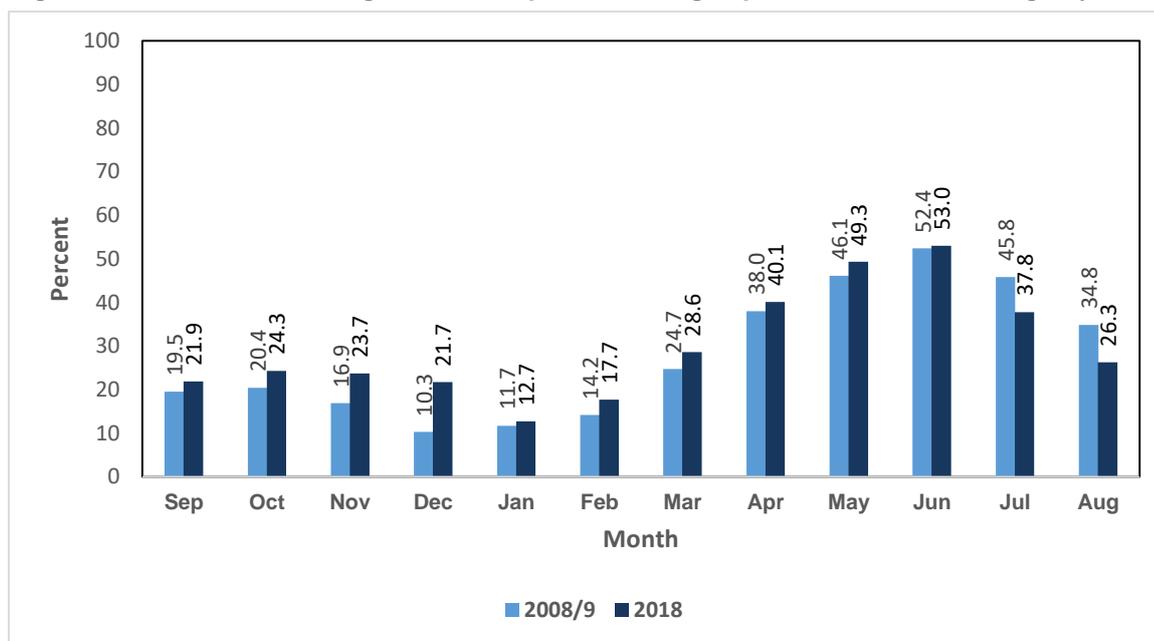
Data on the months in which the food shortage occurred is useful to assess the seasonality of food insecurity and relate it with other events, such as pre-harvest periods or natural calamities.

Fifty Three percent of the Ag HHs experience food shortage in June, followed by 49, 40 and 38 percent in May,

April and July respectively. This pattern was similar to that of 2008/9 when June was the month in which most of the Ag HHs (52%) experienced food shortage, followed by 46 percent of Ag HHs in the months of May and July.

In addition, the percentage of Ag HHs that experienced food shortage decreases from September to January and eventually consistently rise up to June similar to what happened in 2008/9. The details are provided in Figure 6.3.

Figure 6.3: Distribution of Ag HHs that reported having experienced food shortage by month (*)



(*) While 2018 was calendar year, 2008/9 –runs from September 2008 to August 2009

6.2 Immediate response to food shortage

6.2.1 Changing eating patterns

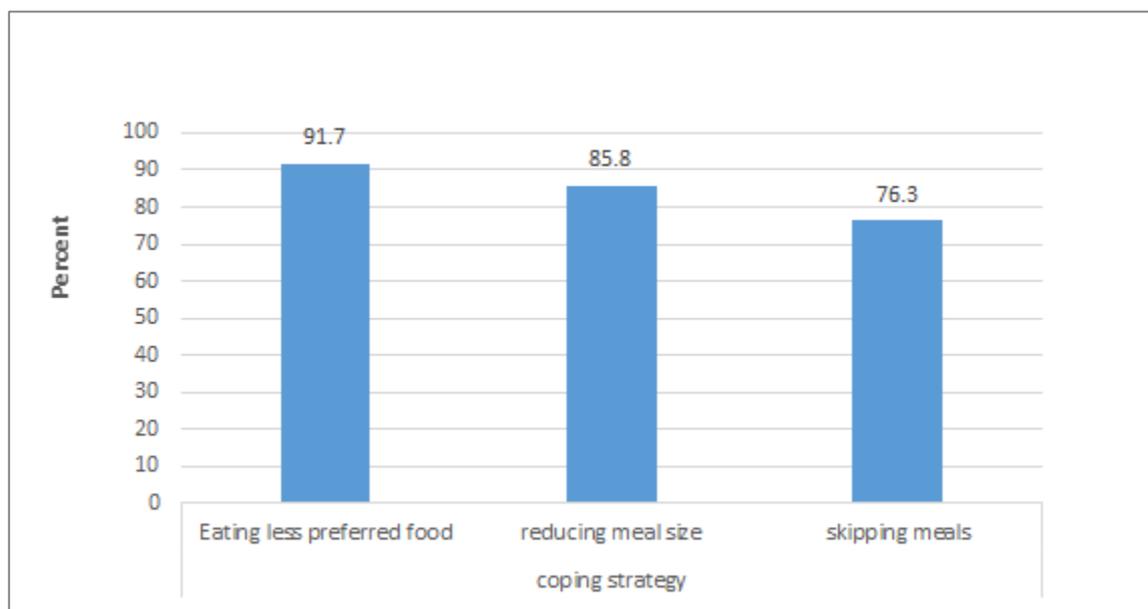
For Ag HHs that reported they could not afford to eat what they would normally eat, information was sought on the change in eating pattern. These changes were collected for adults, youths and children by sex and included response categories such as skipping meals, eating less preferred food and reducing meal size.

The results show that the Ag HH members mainly affected were the female and male adult individuals, with 73 and 83 percent respectively that changed eating pattern. See Table 6.5 below for details across ZARDI and Figure 6.4 for coping strategy adopted.

Table 6.5: Distribution of Ag HHs that changed eating patterns by age group, sex and ZARDI

ZARDI	Age group					
	Adults		Youths		Children	
	Male	Female	Male	Female	Male	Female
Abi	58.1	63.6	43.4	39.3	60.9	57.9
Buginyanya	80.0	86.1	41.2	43.2	45.8	43.7
Bulindi	87.6	87.0	49.9	47.3	70.6	70.7
Kachwekano	82.0	88.8	20.5	27.9	27.7	32.9
Mukono	63.6	89.1	36.7	46.0	54.3	49.0
Ngetta	76.3	78.8	40.6	51.3	32.8	33.5
Nabuin	65.7	86.7	28.6	35.2	60.3	56.3
Serere	80.4	77.9	22.9	27.4	33.1	35.9
Mbarara	75.1	90.2	33.9	30.8	56.3	54.0
Rwebitaba	84.3	81.2	39.0	30.1	17.9	14.7
Uganda	73.4	83.2	35.0	39.1	47.6	45.9

Figure 6.4: Percentage distribution of Ag HHs that reported having adopted a coping strategy



6.2.2 Skipping Meals

The results revealed that 76 percent of the Ag HHs that experienced food shortage resorted to skipping meals. The coping strategy of skipping meals varied within age groups afor example 83 percent of the cases had the adult women skipped meals as immediate response to food shortage while 72 percent of the cases reported

that their adult males adopted this strategy. These percentages are higher than those reported in 2008/9 (53% and 51% for adult females and males respectively).

Bulindi (83%), Kachwekano (81%) and Serere (80%) had the highest percentage of Ag HHs reporting that adult males skipped meals while Abi (59%) had the smallest percentage. Kachwekano (89%), Bulindi (88%), Mbarara (87%) and Abi (70%) had the highest of Ag HHs reporting that adult females skipped meals.

Bulindi (66%, 64%), Nabuin (54%, 52%) and Abi (44%, 42%) had the highest percentage of Ag HHs reporting that children skipped meals, while Rwebitaba had the least (3%, 4%). Details are shown in Table 6.6.

Table 6.6: Distribution of Ag HHs that adopted skipping of meals strategy by age group, sex and ZARDI

ZARDI	Age group					
	Adults		Youths		Children	
	Male	Female	Male	Female	Male	Female
Abi	58.7	69.5	32.0	34.8	44.4	41.6
Buginyanya	79.8	86.8	42.3	42.9	41.2	38.5
Bulindi	83.4	88.0	44.8	39.4	66.0	64.5
Kachwekano	80.5	88.5	18.7	17.6	23.0	27.5
Mukono	61.1	83.2	34.7	35.5	36.4	36.3
Ngetta	76.5	76.9	39.0	50.0	30.1	29.9
Nabuin	65.0	84.9	28.6	36.9	54.0	52.2
Serere	80.1	77.3	19.9	26.5	26.9	26.7
Mbarara	72.6	87.3	32.0	23.7	45.5	42.9
Rwebitaba	79.1	78.6	29.5	23.0	2.8	4.2
Uganda	72.3	82.5	39.9	37.6	41.2	39.9

6.2.3 Eating less preferred food

The results show that 92 percent of the Ag HHs that experienced food shortage resorted to eating less preferred food.

Eighty-two percent of Ag HHs reported that adult females ate less preferred food while 73 percent had adult males taking up same strategy. These percentages are higher than those observed in 2008/9 where about 61 percent and 56 percent of Ag HHs with food shortage declared that their adult females and males ate less preferred food.

In addition, in 41 percent of the Ag HHs with food shortage young females ate less preferred food compared to 36 percent young males. Such gender-based discrepancy is not seen for the children. See Table 6.7 for details.

Table 6.7: Distribution of Ag HHs that ate less preferred meals by age group, sex and ZARDI

ZARDI	Age group					
	Adults		Youths		Children	
	Male	Female	Male	Female	Male	Female
Abi	70.3	73.1	41.1	41.8	66.9	65.0
Buginyanya	77.8	84.1	41.5	41.2	51.9	50.0
Bulindi	86.0	89.1	48.3	45.4	77.9	76.8
Kachwekano	79.4	87.6	22.7	30.7	38.3	41.9
Mukono	63.8	77.5	33.9	40.5	61.7	63.4
Ngetta	75.7	77.6	43.0	54.0	41.0	41.4
Nabuin	66.0	84.9	30.1	36.6	60.5	57.5
Serere	80.6	80.1	28.8	34.8	42.5	45.5
Mbarara	74.8	83.4	39.9	36.7	62.6	59.3
Rwebitaba	84.7	80.1	39.5	31.8	22.5	22.1
Uganda	73.4	82.1	36.4	40.5	53.2	52.1

6.2.4 Reduced size of a meal

The results revealed that 86 percent of the Ag HHs with food shortage responded reducing size of meals. Table 6.8 shows the percent distribution of Ag HHs who reduced size of meal by age group, sex and ZARDI.

Eighty Two percent of Ag HHs reported that their adult female reduced size of meals compared to 73 percent of AG HHs that reported that their adult males reduced size of meals. These percentages were higher than those observed in 2008/9 (68% and 62% for adult females and males respectively).

Similarly, the percentage of Ag HHs with food shortage that reported children skipping meals in 2018 was slightly higher (53%, 50%) than the percentage reported in 2008/9 (49%).

Finally, there were more Ag HHs (40%) that reported young females having reduced size of meals compared to the percent of Ag HHs that reported that young males reduced size of meals (36%).

Table 6.8 : Distribution of Ag HHs which reduced size of a meal by age group, sex and ZARDI

ZARDI	Age group					
	Adults		Youth		Children	
	Male	Female	Male	Female	Male	Female
Abi	55.7	60.5	43.4	40.9	67.8	66.9
Buginyanya	79.3	86.2	43.1	43.1	50.0	47.7
Bulindi	86.6	88.5	49.5	44.3	69.1	70.8
Kachwekano	80.3	88.5	27.1	34.6	43.1	45.7
Mukono	64.9	84.5	32.8	40.5	57.2	54.2
Ngetta	76.8	77.8	40.8	52.5	35.8	35.3
Nabuin	66.0	86.0	27.8	34.8	61.0	55.0
Serere	78.8	78.4	28.6	34.3	40.4	42.0
Mbarara	73.5	83.3	39.1	32.2	61.0	55.9
Rwebitaba	90.5	83.9	39.1	37.8	46.1	43.6
Uganda	72.7	82.4	35.7	40.0	52.7	50.1

CHAPTER 7: AREA, PRODUCTION AND DISPOSITION OF MAJOR CROPS

7.0 Introduction

The AAS collected information on crop area, production and disposition of crops during the two seasons of agricultural year 2018. This chapter discusses this information by season.

Unlike the other chapters, this chapter presents the information by sub-regions in order to facilitate the comparison with previous statistical reports¹⁵. The results by zardi are shown in Annex VII. The following tables report the total area planted, total area harvested, total production and the yield.

For the **seasonal crops**:

- The *total area planted* is presented for the first and second season and for the agricultural year 2018. The annual area planted results from the sum of the two seasonal areas.
- The *total area harvested* is presented only for the second season; it has been estimated excluding those observations that reported zero production¹⁶. As shown in the Annex tables, the main reason for reporting zero production on the seasonal crops is when the total harvest is destroyed.
- The *total production* is presented for the first and second season and for the agricultural year 2018. The annual production is the sum of the seasonal productions. The *Coefficient of Variation (CV)* of the total production is shown in Annex VII.
- The *yield based on area harvested* is the ratio between the production (MT) and the area harvested (Ha). Being the area harvested available only for the second season, the yield on area harvested is presented only for the second season.
- The *yield based on area planted* is the ratio between the production (MT) and the area planted (Ha). This yield, available for both seasons and for the year, can be found in the Annex VII.

For the **permanent crops and cassava**:

- The *total area planted* is presented for the first and second season and for the agricultural year 2018. Unlike the seasonal crops, permanent crops and cassava are not re-planted with the new season; therefore, the annual area for these crops is assumed to be equal to the area planted in the second season. Other common strategies, such as using the area planted in the first season or calculating the average of the two seasonal areas, would lead to similar results.
- The *total area harvested* is presented only for the second season; it has been estimated excluding

¹⁵ A definition of sub-regions can be found in the introduction.

¹⁶ A better estimate could be derived by taking into account the area actually harvested by the Ag HHs that reported some production. This information was not available in the AAS 2018.

those observations that reported zero production.¹⁷

- The *total production* is presented for the first and second season and for the agricultural year 2018. The total annual production is the sum of the production of the two seasons. The *Coefficient of Variation (CV)* of the total production is shown in Annex VII.
- For the permanent crops and cassava, the following tables report the annual yield, which is based on area harvested of the second season.
- The *yield based on area planted* can be found in the Annex VII.

7.1 Production and area of major crops

7.1.1 Maize

Uganda is characterized by a host of small-scale farmers. Most of them grow maize for Ag HH consumption and income generation. Maize has also become an increasingly important non-traditional export crop. Finally, it is an industrial crop for the animal feed industry and has high potential for value addition to support the agro-processing industry. Maize is one of the priority commodities in the Agriculture Sector Strategic Plan – ASSP (MAAIF, 2016).

Results from the AAS 2018 survey indicate that the total production of maize in Uganda was estimated to be 3.4 million metric tonnes (MT), from an estimated planted area of about 2.5 Million Hectares (Ha). The first season registered a higher maize production (2.1 million MT) compared to second season with 1.3 million MT.

Looking at the sub-regions, North Buganda with 837,700 MT registered the highest maize production, followed by Bunyoro (656,300 MT) and Busoga (320,300 MT). The sub-regions with the least production of maize were Acholi with 55,300 MT and Kigezi (26,300 MT).

The second season estimates reveal that the national maize yield¹⁸ was 1.7 MT/Ha, with Teso and South Buganda registering the highest yield (3 and 2.5 MT/Ha respectively) while Bukedi, Karamoja and Acholi had the lowest yields (1 MT/Ha) (see Table 7.1). These yields are below the potential of 5 MT/Ha (MAAIF, 2016).

At ZARDI level, results show that Mukono with 1,068,600 MT and Bulindi (656,300 MT) had the highest maize production whereas Kachwekano (26,300MT) had the least maize production respectively as seen in Annex VII, Table 7-2.

The production trend showed an increase in maize production by about 5 times from 739,000 MT of the UNHS 1999/2000 compared with 3.4 million MT of the AAS 2018 survey. The details are provided in Figure 7.1.

¹⁷ A better estimate could be derived by taking into account the area actually harvested by the Ag HH that reported some production, but this information was not available in the AAS 2018.

¹⁸ Ratio between production (MT) and area (Ha) calculated only on observations where production is available (not missing) and higher than zero. Thus, the Ag HHs that had not started the harvest at the time of the interview or whose harvest was destroyed are not included in the calculation.

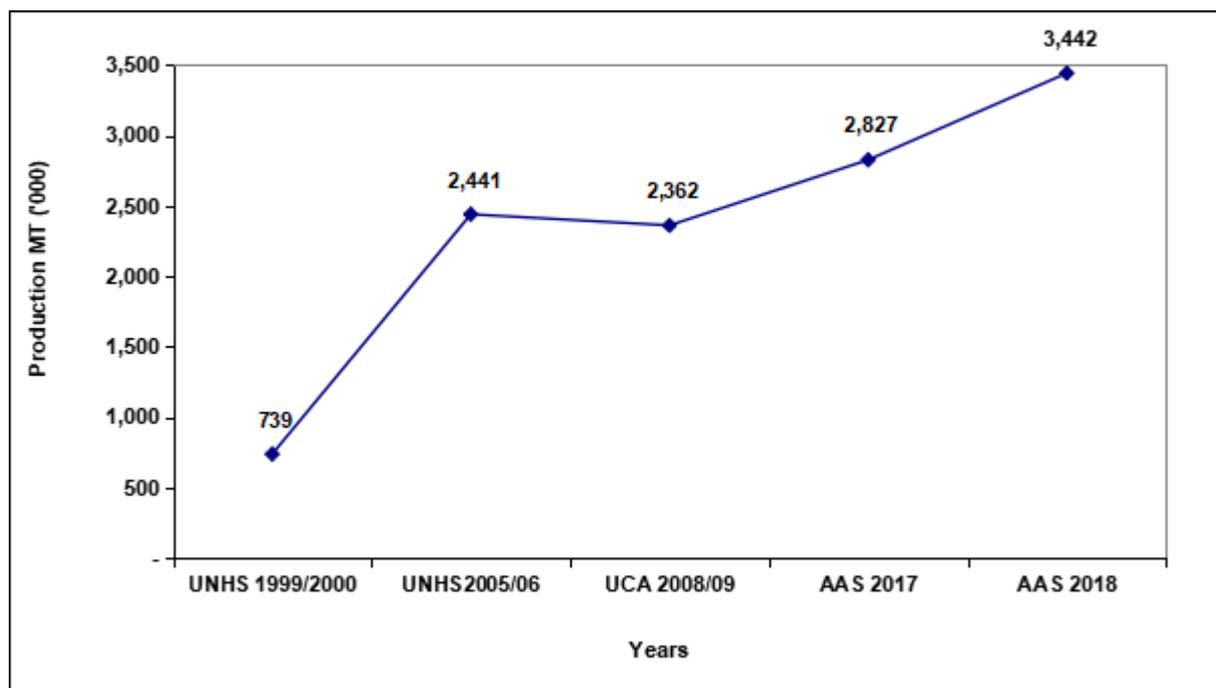
Table 7.1: Total area and total production of maize by sub-region

Sub-Region	First season 2018		Second season 2018				Total 2018	
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	Yield**	Area Planted (Ha)	Production (MT)
S Buganda	118,026	150,590	65,790	57,062	144,894	2.5	183,817	295,484
N Buganda	364,012	525,077	205,357	150,464	312,612	2.1	569,368	837,689
Busoga	175,729	218,821	112,417	78,781	101,493	1.3	288,146	320,313
Bukedi	74,121	112,515	64,398	55,486	55,403	1.0	138,519	167,918
Elgon	89,409	111,627	14,034	7,284	21,521	3.0	103,443	133,148
Teso	48,091	47,853	33,409	24,067	29,036	1.2	81,500	76,890
Karamoja	104,220	130,763	4,305	4,004	3,922	1.0	108,524	134,685
Lango	113,457	159,430	98,194	85,884	113,624	1.3	211,650	273,054
Acholi	49,660	45,640	10,287	9,589	9,677	1.0	59,946	55,317
West Nile	47,424	52,328	14,400	13,561	28,484	2.1	61,825	80,811
Bunyoro	251,162	377,379	200,414	166,383	278,906	1.7	451,575	656,285
Tooro	79,997	149,279	60,392	59,349	121,757	2.1	140,389	271,036
Ankole	25,677	41,894	33,428	31,004	71,626	2.3	59,105	113,521
Kigezi	8,648	12,279	13,642	12,258	14,000	1.1	22,290	26,279
Uganda	1,549,631	2,135,475	930,466	755,176	1,306,955	1.7	2,480,097	3,442,430

(*) The total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

Figure 7.1: Maize production trend ('000), 1999/2000 – 2018



7.1.2 Millet

Millet is a cereal rich in calories, proteins, dietary fibres and minerals. Apart from being a staple for the Western, Eastern and Northern regions of Uganda, it is a source of income for an increasing number of Ag HHs.

Results from the survey indicate that the national Millet production during the 2018 agricultural year was 142,100 MT, grown on an estimated planted area of about 282,600 Ha. The first season with 83,400 MT registered more production than the second season (58,500 MT).

The Sub-Regional dimension indicates that Ankole with 26,300 MT had the highest production, followed by Acholi (22,900 MT) and Teso (17,600 MT). South Buganda with 1,000 MT and North Buganda (2,000 MT) registered the smallest production of this crop.

Looking at the second season, the national millet yield¹⁹ was 0.6 MT/Ha. At the sub-regional level, South Buganda with 1.1 MT/Ha registered the highest yield, followed by Ankole (0.7 MT/Ha), Tooro (0.7 MT/Ha) and West Nile (0.7 MT/Ha) while Busoka (0.2 MT/Ha) had the least yield. See Table 7.2.

In terms of ZARDIs, Ngetta registered the highest production of millet (36,600 MT), followed by Mbarara (27,000 MT) and Buginyanya (25,600 MT). The ZARDIs with the lowest production of this crop were Bulindi (2,400 MT) and Mukono with 2,200 MT.

The production trend indicates a decline in millet production of about 23 percent between UNHS 1999/2000

¹⁹ Ratio between production (MT) and area (Ha) calculated only on observations where production is available (not missing) and higher than zero. Thus, the Ag HHs that had not started the harvest at the time of the interview or whose harvest was destroyed are not included in the calculation.

(184,000 MT) and AAS 2018 (142, 000 MT), as seen in Figure 7.2

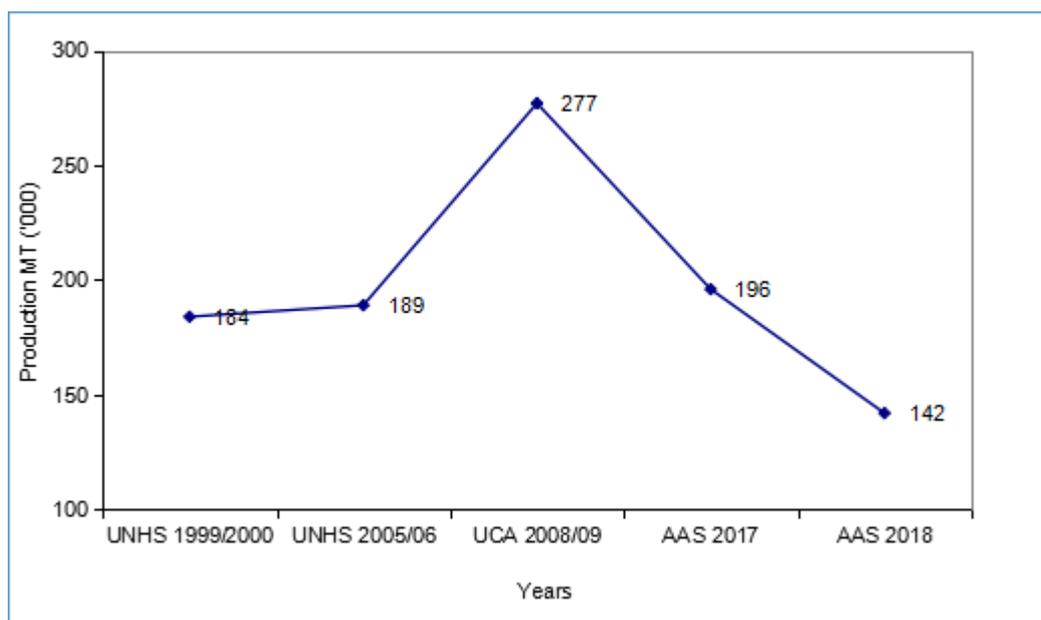
Table 7.2: Total area and total production of millet by sub-region

Sub-Region	First season 2018		Second season 2018				2018	
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	Yield**	Area Planted (Ha)	Production (MT)
S. Buganda	50	35	940	940	988	1.1	990	1,023
N. Buganda	2,723	1,496	1,813	1,141	553	0.5	4,536	2,048
Busoga	15,859	8,718	1,159	773	166	0.2	17,018	8,885
Bukedi	29,526	13,303	2,958	2,190	650	0.3	32,484	13,953
Elgon	4,491	2,761	0	0	0		4,491	2,761
Teso	33,714	16,152	7,213	5,025	1,466	0.3	40,927	17,618
Karamoja	14,851	6,988	0	0	0		14,851	6,988
Lango	28,917	10,835	10,659	8,123	2,864	0.4	39,575	13,699
Acholi	35,063	19,188	9,506	9,270	3,686	0.4	44,569	22,875
West Nile	1,102	1,235	11,229	10,544	7,129	0.7	12,331	8,364
Bunyoro	1,276	568	2,974	2,909	1,815	0.6	4,250	2,383
Tooro	832	419	5,205	5,038	3,712	0.7	6,037	4,131
Ankole	152	268	38,143	36,878	26,050	0.7	38,294	26,318
Kigezi	2,059	1,468	20,194	19,499	9,467	0.5	22,253	10,935
Uganda	170,613	83,435	111,994	102,330	58,547	0.6	282,607	141,982

(*) The total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

Figure 7.2: Millet production trend ('000), 1999/2000 – 2018



7.1.3 Sorghum

Sorghum is a cereal mainly grown by small-scale farmers all over Uganda. Like maize, sorghum is a staple food and has increasingly become a source of income and an important non-traditional export crop. It is also used as a raw material in the brewing industry.

The national production of Sorghum was estimated to be 268,500 MT from an estimated planted area of 492,000 Ha. A higher output was realized in the first season 2018 (216,200 MT) as compared to the second season (52,300 MT).

In terms of sub-regions, Karamoja with 132,100 MT had the highest sorghum production, followed by Teso (35,700 MT) and Kigezi (24,900 MT) while North Buganda with 447 MT and South Buganda (300 MT) had the least production.

Estimates at ZARDI level revealed that Nabuin (132,100 MT) was the highest producer of Sorghum followed by Serere with 35,000 MT and Ngetta (34,400 MT). Bulindi with 3,300 MT and Mukono (450 MT) recorded the least production.

Based on the second season, the national yield²⁰ of sorghum was estimated to be 0.5 MT/Ha and this was lower than the 0.9 MT/Ha registered during UCA 2008/9. The sub-region of Tooro (1.MT/Ha) had the highest yield in the country, while Lango (0.3 MT/Ha) and Busoga (0.3 MT/Ha) registered the lowest values. The details are in Table 7.3.

Despite a positive trend between 1999/2000 and 2008/9 from of 113,000 MT to 376,000 MT, there was a

²⁰ Ratio between production (MT) and area (Ha) calculated only on observations whose production is available (not missing) and higher than zero. Thus, the Ag HHs that had not started the harvest at the time of the interview or whose harvest was destroyed are not included in the calculation.

decline of 46.4 percent in sorghum production from 376,000 MT reported by UCA 2008/09 to 201,400 MT of the AAS 2017. The period 2017 to 2018 indicated that the production of this crop increased by 33.3 percent.

The details are provided Table 7.3, Figure 7.3 and Annex VII, Table 7-10.

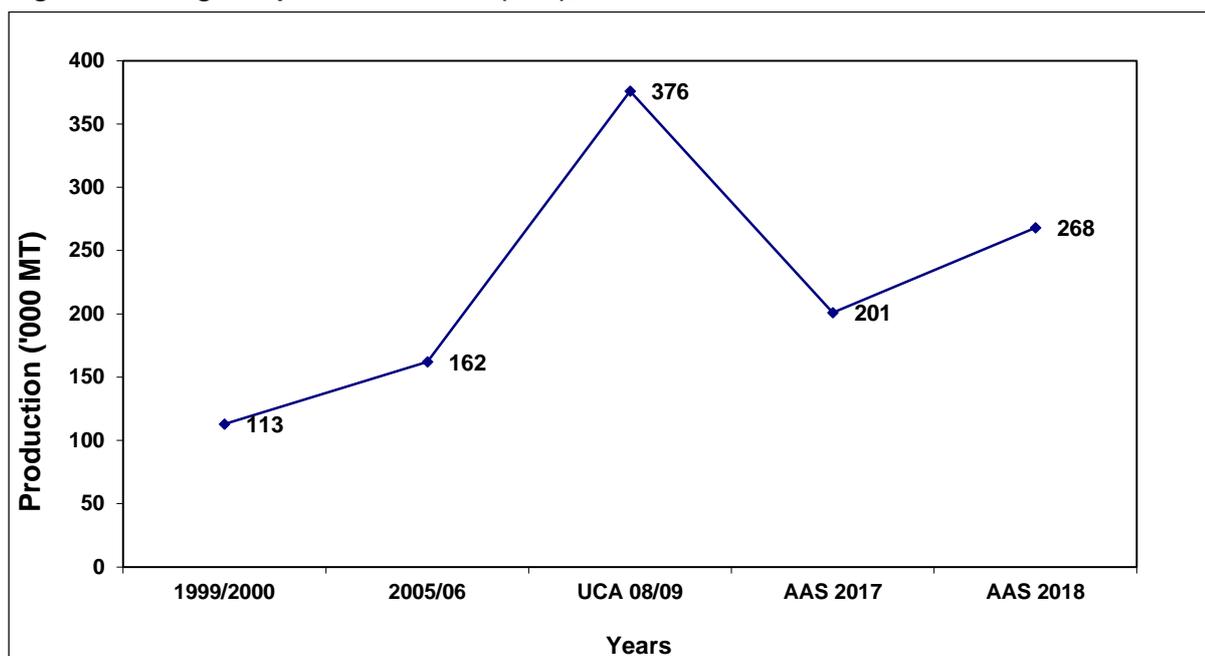
Table 7.3: Total area and total production of sorghum by sub-region

Sub-Region	First season 2018		Second season 2018				2018	
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	Yield**	Area Planted (Ha)	Production (MT)
S. Buganda	91	225	143	143	79	0.6	234	304
N. Buganda	323	320	288	288	126	0.4	611	447
Busoga	5,464	3,369	521	269	72	0.3	5,985	3,441
Bukedi	17,496	10,083	4,199	3,857	1,791	0.5	21,695	11,874
Elgon	981	351	2,709	1,310	692	0.5	3,690	1,043
Teso	43,485	24,122	35,804	28,066	11,561	0.4	79,289	35,682
Karamoja	239,165	132,138	5,096	0	0	-	244,261	132,138
Lango	7,413	3,836	23,450	17,934	5,617	0.3	30,863	9,454
Acholi	20,250	12,265	16,132	15,312	12,675	0.8	36,382	24,940
West Nile	7,786	3,656	17,460	16,523	11,314	0.7	25,246	14,970
Bunyoro	1,746	1,169	4,203	3,746	2,092	0.6	5,948	3,261
Tooro	3,720	4,008	3,438	3,282	3,382	1.0	7,159	7,390
Ankole	5,684	3,636	4,681	4,444	2,285	0.5	10,365	5,921
Kigezi	18,645	16,999	1,538	1,322	631	0.5	20,183	17,629
Uganda	372,250	216,176	119,661	96,496	52,317	0.5	491,911	268,493

(*) The total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

Figure 7.3: Sorghum production trend ('000), 1999/2000 – 2018



7.1.4 Beans

Beans are widely grown in Uganda on a subsistence level. Beans are a cheap source of protein, thus they are highly demanded and are important to the dietary regimes of the poor. As a legume, they also contribute to improving and sustaining soil fertility through atmospheric nitrogen fixation (MAAIF, 2016).

The total production of beans in the country was estimated to be 727,700 MT, from an estimated planted area of 1.2 million Ha. Out of this production, 293,300 MT was realized in the second season whilst 434,400 MT in the first season.

The sub-regional analysis indicates that North Buganda (142,400 MT) registered the highest beans production, followed by Bunyoro (134,400 MT) and Ankole (91,300 MT) while Acholi (10,200 MT), West Nile (9,000 MT) and Teso (3,000 MT) had the least production.

In terms of ZARDI, Mukono with 193,100 MT registered the highest beans production in Uganda, followed by Bulindi (134,400 MT) and Mbarara (111,700 MT). Abi (9,000 MT) and Serere (2,800 MT) had the least production among all the ZARDIs (see Annex VII, Table 7-14).

Basing on the second season, the yield²¹ of beans in the country was estimated to be 0.6 MT/Ha. This is less than half of the 1.5 MT/Ha registered during UCA 2008/9. Results are very similar across the sub-regions; Lango is the sub-region that registered the lowest yield (0.3 MT/Ha). See Table 7.4.

Despite a positive trend in the production of beans between 1999/2000 and 2008/9, the production declined from 929,000 MT in 2008/09 to 727,700 MT in 2018, as seen in Figure 7.4: Beans production ('000),

²¹ Ratio between production (MT) and area (Ha) calculated only on observations where production is available (not missing) and higher than zero. Thus, the Ag HHs that had not started the harvest at the time of the interview or whose harvest was destroyed are not included in the calculation.

1999/2000 – 2018

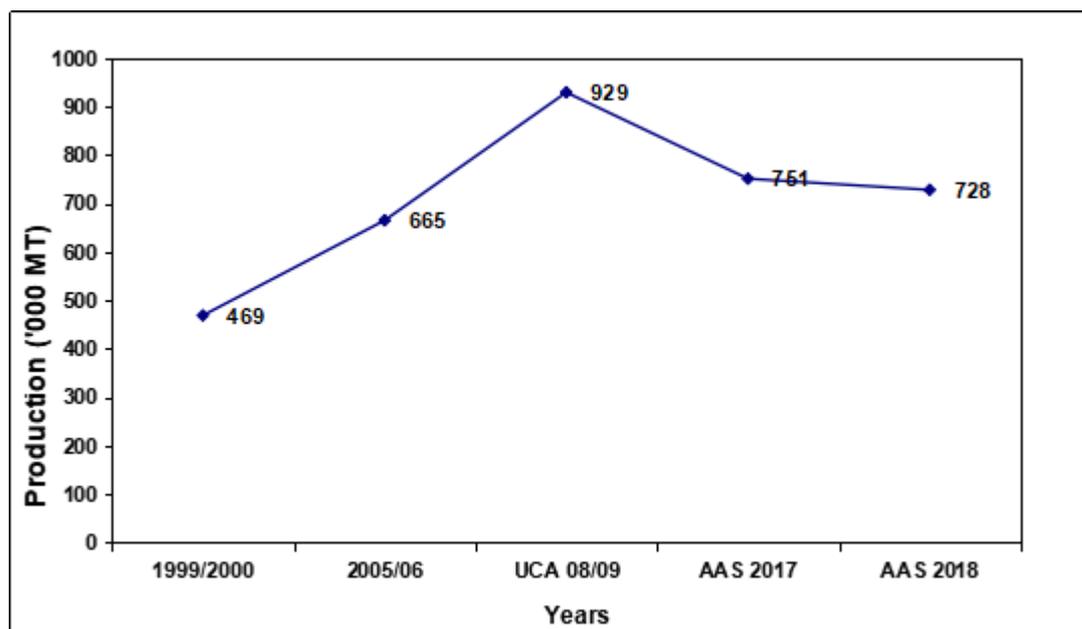
Table 7.4: Total area and total production of beans by sub-region

Sub-Region	First season 2018		Second season 2018				2018	
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	Yield**	Area Planted (Ha)	Production (MT)
S. Buganda	53,574	35,046	66,753	60,918	38,430	0.6	120,327	73,476
N. Buganda	110,838	87,177	103,868	94,309	55,256	0.6	214,705	142,433
Busoga	30,030	16,299	23,770	10,817	4,074	0.4	53,800	20,372
Bukedi	17,826	8,111	25,416	17,654	6,834	0.4	43,242	14,945
Elgon	56,830	35,520	54,545	41,651	21,181	0.5	111,375	56,701
Teso	3,905	1,915	5,273	3,087	1,099	0.4	9,178	3,014
Karamoja	25,204	14,407	1,955	1,955	811	0.4	27,159	15,218
Lango	53,609	27,274	54,238	35,602	12,454	0.3	107,847	39,728
Acholi	9,073	4,970	7,624	7,421	5,198	0.7	16,698	10,168
West Nile	5,256	2,739	9,031	8,679	6,263	0.7	14,287	9,003
Bunyoro	90,895	89,748	71,778	62,327	44,616	0.7	162,673	134,364
Tooro	56,145	37,071	52,121	49,710	32,480	0.7	108,266	69,551
Ankole	79,417	53,544	58,712	55,260	37,736	0.7	138,129	91,280
Kigezi	29,968	20,547	47,855	44,827	26,852	0.6	77,823	47,399
Uganda	622,569	434,367	582,940	494,216	293,285	0.6	1,205,509	727,652

(*) The total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

Figure 7.4: Beans production ('000), 1999/2000 – 2018



7.1.5 Banana food

Banana-food is one of the main contributors to food production in the country. It is one of the three types of bananas with the others being banana-sweet and banana-beer. It is mainly grown by small-scale farmers around the Lake Victoria crescent, the western districts and the Elgon area. Like other food crops, banana-food is a staple food and has increasingly become a source of income and an important non-traditional export crop. It is also used as a raw material in the local brewing industry.

Being a perennial crop, banana-food occupies almost the same area in both seasons. The survey estimated that the area planted in the agricultural year 2018 was equal to 578,757 Ha²² and that the total year production was approximately 6.5 million MT. Most of the production was attributed to the second season (4.0 million MT) as compared to the first season (2.5 million MT).

In terms of sub-regions, the highest production of banana-food was in Ankole (2.5 million MT), remotely followed by North Buganda (978,800 MT) and Tooro (919,300 MT) while Acholi (3,900 MT), Teso (3,200 MT) and Karamoja (1,100 MT) recorded the least production.

Estimates at ZARDI level revealed that the highest banana-food production was from Mbarara (2.6 million MT). This was followed by Mukono (1.4 million MT) and Rwebitaba (1.0 million MT). The least production was recorded in Serere (3,600 MT) and Nabuin (1,100 MT) (see Annex VII, Table 7-18).

At the national level, one hectare of banana-food yields²³ 12.3 MT. Sub regional analysis indicates that the highest yields were recorded in Ankole and Tooro (16 and 14.1 MT/Ha respectively) while the lowest were in

²² Reference date is the end of the season. Therefore, the area planted in the second season is used as a proxy for the annual planted area.

²³ Ratio between production (MT) and the area harvested (Ha). Reference date for area harvested is the second season. Therefore, annual area harvested is equal to the area harvested in the second season.

Bukedi and Teso (6 MT/Ha). See Table 7.5.

Between 1999/2000 and 2008/09, the production of banana-food steadily decreased from 5.5 to 4 million MT. The production thereafter showed an upward trend from 4 million MT in 2008/09 to 6.5 million MT in 2018. The details are provided Table 7.5 and Figure 5.

Table 7.5: Total area and total production of banana food by sub-region

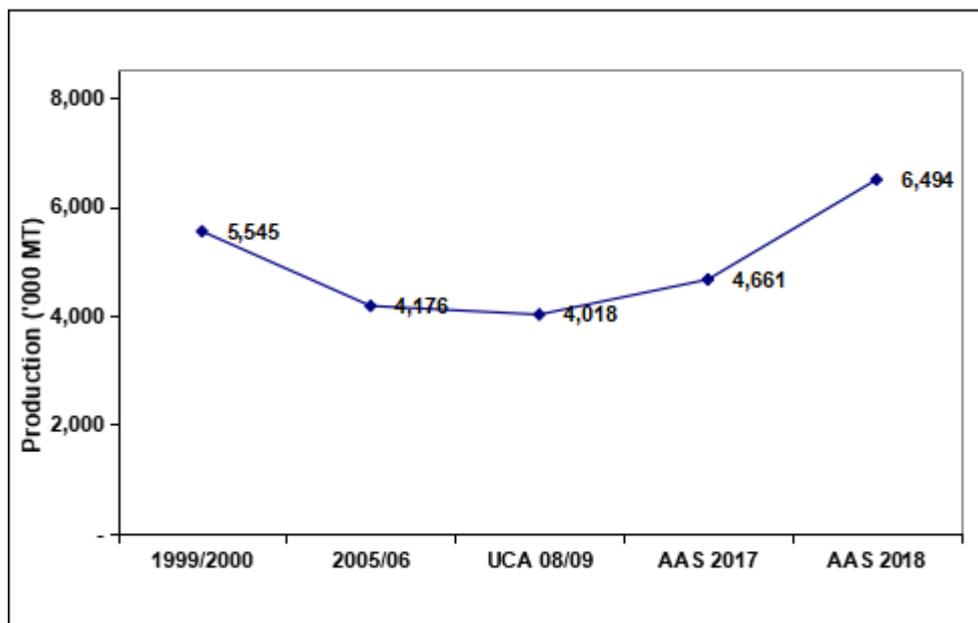
Sub-Region	First season 2018		Second season 2018			2018		
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	Area Planted** (Ha)	Production (MT)	Yield***
S. Buganda	62,526	237,172	76,617	72,595	418,846	76,617	656,018	9.0
N. Buganda	99,902	410,444	112,416	97,552	568,371	112,416	978,815	10.0
Busoga	20,276	67,099	19,822	16,258	69,066	19,822	136,165	8.4
Bukedi	247	1,016	1,135	956	4,726	1,135	5,742	6.0
Elgon	31,739	134,968	46,229	36,603	230,505	46,229	365,473	10.0
Teso	89	303	698	533	2,880	698	3,183	6.0
Karamoja	0	0	3,687	128	1,079	3,687	1,079	8.4
Lango	3,711	12,861	3,151	2,708	17,009	3,151	29,870	11.0
Acholi	532	1,812	567	408	2,097	567	3,909	9.6
West Nile	1,232	6,145	2,454	2,118	13,691	2,454	19,836	9.4
Bunyoro	51,650	215,638	62,666	57,506	434,350	62,666	649,988	11.3
Tooro	51,691	248,585	67,567	65,053	670,671	67,567	919,256	14.1
Ankole	161,745	1,014,637	160,593	153,961	1,449,923	160,593	2,464,560	16.0
Kigezi	22,157	102,146	21,157	20,324	158,017	21,157	260,163	12.8
Uganda	507,497	2,452,825	578,757	526,702	4,041,231	578,757	6,494,056	12.3

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) The annual area planted in 2018 is equal to the area planted in the second season (ie., reference date for area planted is equal to the end of the reference period).

(***) Ratio between production (MT) and area harvested (Ha) in the second season.

Figure 5 : Banana (food type) production trend ('000), 1999/2000 – 2018



7.1.6 Cassava

Cassava is grown by a wide range of small-scale farmers in Uganda. This tuber is one of the few annual crops which stays in the field for over a year; for this reason, it is an important food security crop contributing to food availability. The crop can be processed to add value in form of flour that can be eaten or sold.

The AAS 2018 survey results indicate that the national production of cassava was 4.4 million MT, from an estimated planted area of 940,000 Hectares.²⁴ The bigger percentage (52.1% or 2.3 million MT) of this production was in the second season.

The national yield²⁵ of cassava was estimated to be 8.7 MT/Ha with Bunyoro (11.6 MT/Ha) registering the highest yield and Karamoja the lowest (4.3 MT/Ha), as shown in Table 7.6.

In terms of Sub-Regions, Lango (755,400 MT), North Buganda (613,700 MT) and Bunyoro (602,500 MT) were the highest producers of Cassava in 2018 whilst Elgon (52,000 MT), Karamoja (48,700 MT) and Kigezi (32,200 MT) had the least production.

²⁴ Reference date is the end of the season. Therefore, the area planted in the second season is used as a proxy for the annual planted area.

²⁵ Ratio between production (MT) and the area harvested (Ha). Reference date for area harvested is the second season. Therefore, annual area harvested is equal to the area harvested in the second season.

Table 7.6: Total area and total production of cassava by sub-region

Sub-Region	First season 2018		Second season 2018			2018		
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	Area Planted** (Ha)	Total Production (MT)	Yield***
S. Buganda	19,801	59,187	28,912	19,044	107,695	28,912	166,882	8.8
N. Buganda	113,381	361,450	74,630	41,074	252,236	74,630	613,686	14.9
Busoga	63,497	169,748	95,252	60,944	208,121	95,252	377,869	6.2
Bukedi	41,761	108,258	38,544	17,740	58,756	38,544	167,014	9.4
Elgon	6,131	18,350	14,198	8,374	33,645	14,198	51,995	6.2
Teso	64,506	142,841	128,262	63,498	299,059	128,262	441,900	7.0
Karamoja	11,818	20,223	11,192	11,192	28,442	11,192	48,665	4.3
Lango	119,545	362,486	111,884	99,497	392,899	111,884	755,385	7.6
Acholi	56,083	149,483	58,236	37,443	204,338	58,236	353,821	9.4
West Nile	108,818	255,580	198,319	67,675	312,401	198,319	567,981	8.4
Bunyoro	118,425	345,967	123,455	51,957	256,483	123,455	602,450	11.6
Tooro	23,878	58,023	37,019	9,185	41,269	37,019	99,292	10.8
Ankole	11,955	34,280	14,762	10,706	76,835	14,762	111,115	10.4
Kigezi	5,441	15,170	6,236	3,421	17,010	6,236	32,180	9.4
Uganda	765,040	2,101,043	940,902	501,748	2,289,188	940,902	4,390,231	8.7

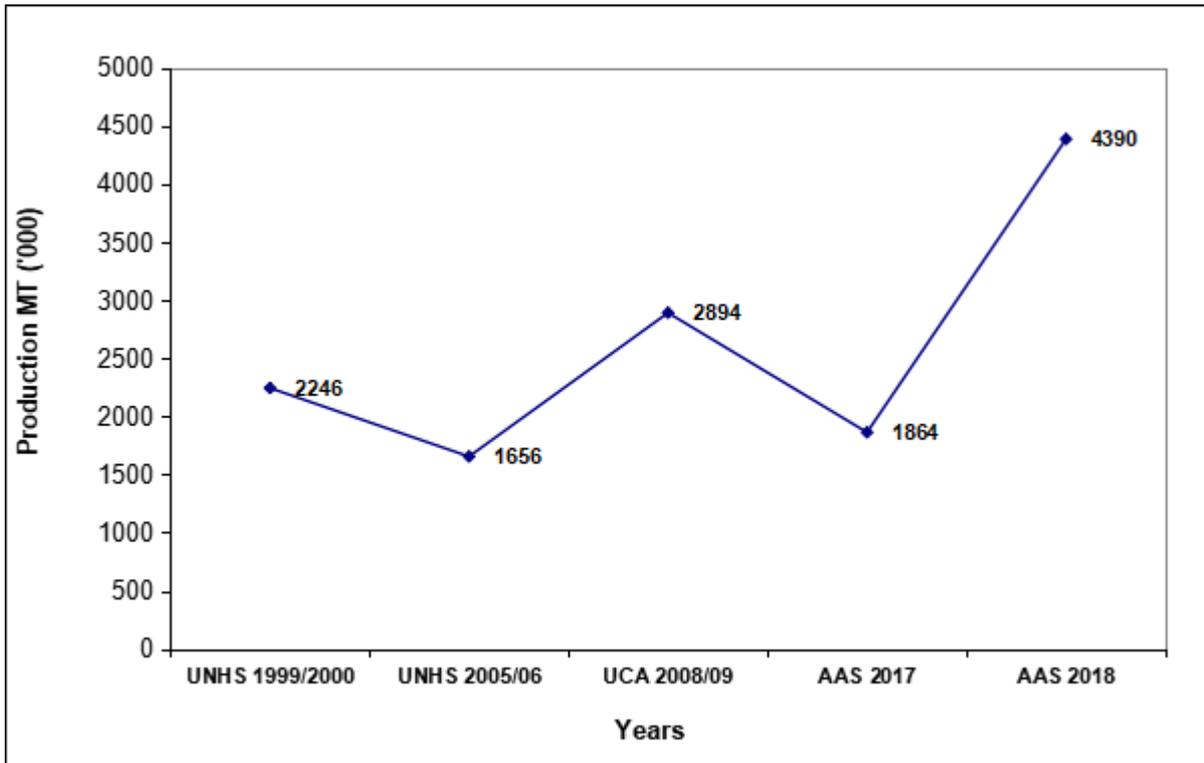
(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) The annual area planted in 2018 is equal to the area planted in the second season (ie., reference date for area planted is equal to the end of the reference period).

(***) Ratio between production (MT) and area harvested (Ha) in the second season.

The cassava production trend has been cyclic from 1999/2000 to AAS 2018, featuring increments and decrements. Between 2017 and 2018, the production of this crop more than doubled (from 1.7 million MT to 4.4 million MT respectively).

Figure 7.6: Cassava production trend ('000), 1999/2000 – 2018



Analysis at ZARDI level revealed that Ngetta with 1.1 million MT registered the highest cassava production, followed by Mukono (745,500 MT) and Bulindi (602,500 MT). Nabuin (48,700 MT) and Kachwekano (32,200 MT) had the least production, as seen in Annex VII, Table 7-44.

7.1.7 Sweet potatoes

Sweet potatoes are a tuber grown by mainly small-scale farmers in the country. It is a temporary crop very important for food security. It is one of the most important starchy crops and herbaceous crop.

The survey revealed that the total production of sweet potatoes was estimated to be 1.5 million MT, from an estimated planted area of 626,400 Hectares (Ha), with the bigger proportion (62.5% or 927,900 MT) recorded in the second season.

In terms of sub-regions, North Buganda with 425,700 MT registered the highest production, followed by Busoga (251,000 MT) and Lango (110,100 MT). The least production of this crop was from Acholi (16,000 MT), Elgon (15,700 MT) and Karamoja (15,600 MT).

In the second season, the national-level yield²⁶ was estimated to be 3.3 MT/Ha with West Nile and Acholi having the highest values (4.9 MT/Ha and 4.8 MT/Ha respectively) and Karamoja and Bukedi having the lowest (1.8 and 2.1 MT/Ha respectively). See Table 7.7.

At ZARDI level, Mukono (511,200 MT) registered the highest sweet potatoes production, followed by Buginyanya (324,500 MT) and Ngetta (126,100 MT). Rwebitaba with 57,500 MT and Nabuin (126,100 MT) had the least production.

The sweet potatoes production has been fluctuating between periods 1999/2000-2005/06, 2005/06-2017 and 2017-2018. In particular, we observe a sharp decline in the sweet potatoes production (43.5%) between 2017 and 2018, as seen in Figure 7.7.

²⁶ Ratio between production (MT) and area (Ha) calculated only on observations where production is available (not missing) and higher than zero. Thus, the Ag HHs that had not started the harvest at the time of the interview or whose harvest was destroyed are not included in the calculation.

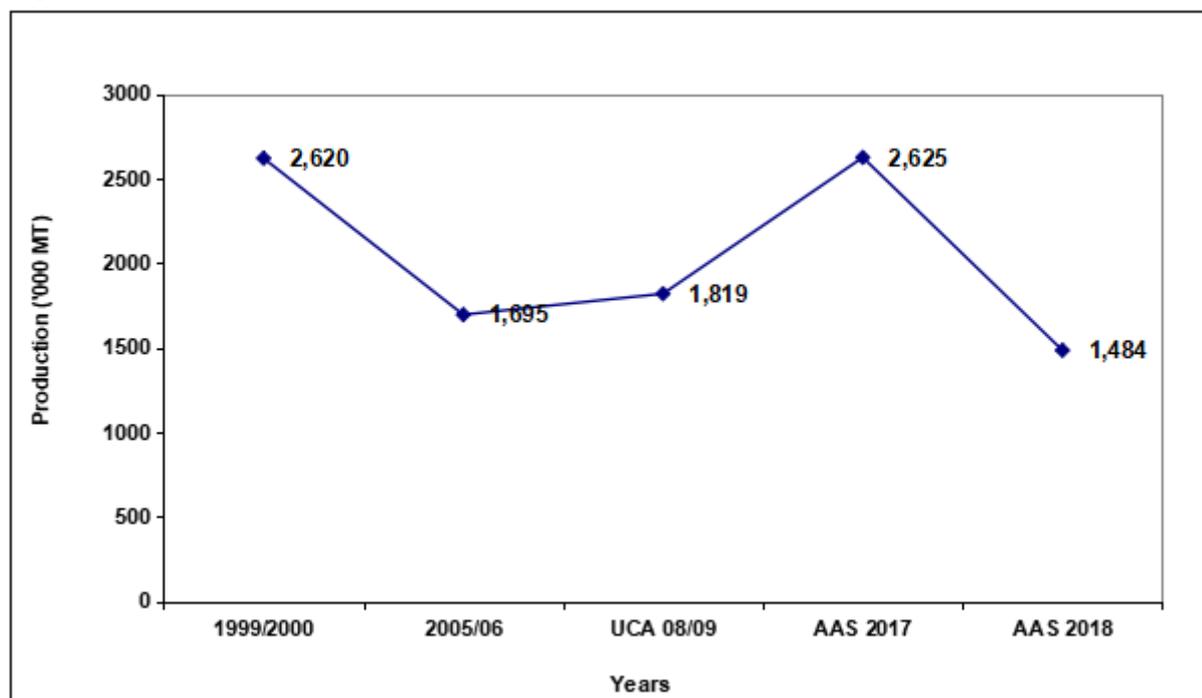
Table 7.7: Total area and total production of sweet potatoes by sub-region

Sub-Region	First season 2018		Second season 2018				2018	
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	Yield**	Area Planted (Ha)	Production (MT)
S. Buganda	18,632	31,640	21,188	19,006	61,275	3.2	39,819	92,915
N. Buganda	89,611	183,411	72,809	58,657	242,257	4.1	162,420	425,668
Busoga	59,330	104,991	68,017	54,844	146,005	2.7	127,348	250,996
Bukedi	13,730	23,882	18,606	15,875	33,935	2.1	32,336	57,817
Elgon	3,643	7,354	3,665	2,551	8,342	3.3	7,308	15,695
Teso	7,792	12,485	26,875	21,803	51,640	2.4	34,668	64,125
Karamoja	4,617	8,359	5,557	3,912	7,203	1.8	10,174	15,562
Lango	12,442	20,463	24,989	24,717	89,638	3.6	37,432	110,100
Acholi	3,101	5,226	3,478	2,268	10,792	4.8	6,579	16,018
West Nile	7,162	22,217	15,918	15,584	75,684	4.9	23,080	97,901
Bunyoro	19,300	34,281	20,340	16,612	61,184	3.7	39,641	95,465
Tooro	12,944	21,458	11,452	9,876	32,860	3.3	24,396	54,318
Ankole	18,489	40,853	13,090	10,674	41,939	3.9	31,579	82,791
Kigezi	18,820	39,689	30,806	22,460	65,101	2.9	49,627	104,790
Uganda	289,614	556,308	336,792	278,840	927,855	3.3	626,406	1,484,163

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

Figure 7.7: Sweet potatoes production trend ('000), 1999/2000 – 2018



7.1.8 Groundnuts

Groundnuts is an oil crop widely grown in Uganda on a subsistence level. Groundnuts are a cheap source of protein making them highly demanded and important to the dietary regimes of the poor.

The total production of Groundnuts in the country was estimated to be 253,300 MT from an estimated planted area of 515,000 Ha. Out of this production, 62.5 percent (158,300 MT) was realized in the first season whilst 95,000 MT in the second season of the agricultural year.

Sub-regional analysis indicates that Bunyoro (34,900 MT) registered the highest production, followed by Ankole (23,400 MT) and Tooro (23,200 MT) while South Buganda (11,000 MT), Elgon (6,600 MT) and Kigezi (6,100 MT) had the least production. See Table 7.8.

In terms of ZARDIs, Buginyanya, with 45,100 MT, registered the highest production, followed by Bulindi (34,900 MT) and Mukono (30,700 MT). Nabuin (14,200 MT) and Kachwekano (6,100 MT) had the least production (see Annex VII, Table 7-28).

The national yield²⁷ of groundnuts in the second season was estimated to be 0.5 MT/Ha, which is lower than the 0.8 MT/Ha registered during 2017. Relating to sub-regions, Bunyoro with 0.8 MT/Ha had the highest yield and Lango the lowest (0.3 MT/Ha), as seen in Table 7.8.

The production of groundnuts followed an upward trend between 1999/2000 to 2008/09. However, the period 2008/09 - 2017 showed a decline in production from 245,000 MT to 198,000 MT. The period 2017 to 2018 showed an increment of 27.8 percent in the production as seen in Figure 7.8.

²⁷ Ratio between production (MT) and area (Ha) calculated only on observations whose production is available (not missing) and higher than zero. Thus, the Ag HHs that had not started the harvest at the time of the interview or whose harvest was destroyed are not included in the calculation.

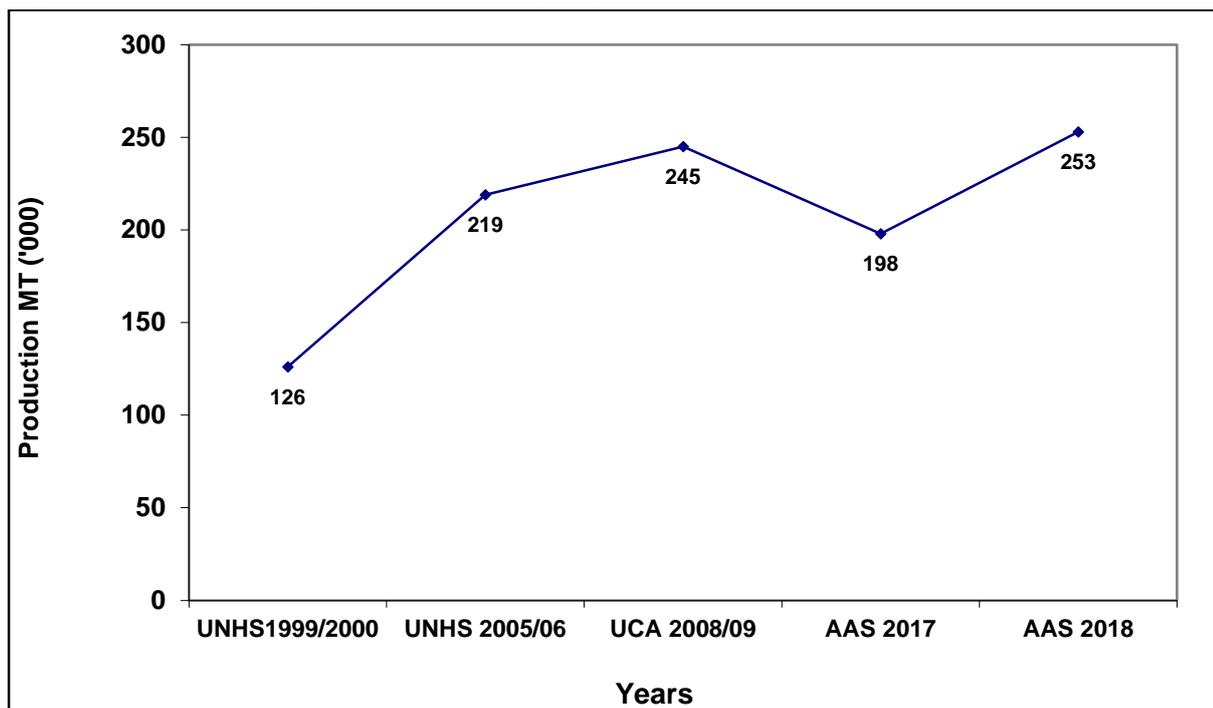
Table 7.8: Total area and total production of groundnuts by sub-region

Sub-Region	First season 2018		Second season 2018				2018	
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	Yield**	Area Planted (Ha)	Production (MT)
S. Buganda	8,835	4,690	11,901	11,808	6,350	0.5	20,736	11,040
N. Buganda	23,115	13,482	19,478	15,928	8,792	0.6	42,593	22,274
Busoga	27,307	13,559	24,055	19,161	9,384	0.5	51,362	22,942
Bukedi	27,820	12,003	11,238	8,889	3,565	0.4	39,058	15,568
Elgon	8,877	5,029	4,493	2,909	1,592	0.5	13,370	6,621
Teso	46,185	20,232	4,911	4,688	1,869	0.4	51,095	22,101
Karamoja	26,108	12,060	6,930	5,934	2,169	0.4	33,039	14,228
Lango	21,684	9,679	14,687	12,923	4,240	0.3	36,371	13,919
Acholi	21,294	9,207	9,098	8,804	5,532	0.6	30,393	14,739
West Nile	22,110	10,234	19,810	18,752	12,044	0.6	41,920	22,278
Bunyoro	28,391	16,400	27,110	24,207	18,477	0.8	55,500	34,878
Tooro	19,819	11,719	21,929	20,689	11,433	0.6	41,748	23,152
Ankole	29,688	15,797	15,172	14,646	7,604	0.5	44,860	23,401
Kigezi	7,823	4,179	5,172	5,026	1,959	0.4	12,995	6,138
Uganda	319,057	158,269	195,984	174,364	95,009	0.5	515,041	253,279

(*) The total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

Figure 7.8: Groundnuts production trend ('000), 1999/2000 – 2018



7.2.9 Irish potatoes

Grown by mainly small-scale farmers in highland areas, the Irish potatoes are a very important food security crop. Based on the survey results, the national production of Irish potatoes was estimated to be 327,300 MT, from an estimated planted area of 111,100 Hectares (Ha). Of this production, the second season (188,000 MT or 57.4%) had the biggest share as compared to the first season.

The production of Irish potatoes was significant in only 8 out of 14 sub-regions. Kigezi with 82,800 MT registered the highest production, followed by Tooro (80,400 MT) and Elgon (42,400 MT). The least production of this crop was from Bunyoro (17,000 MT) and West Nile (6,000 MT).

The production of Irish potatoes generally followed an upward trend from 155,000 MT in 2005/06 to 327,000 MT in 2018 as seen in Figure 7.9.

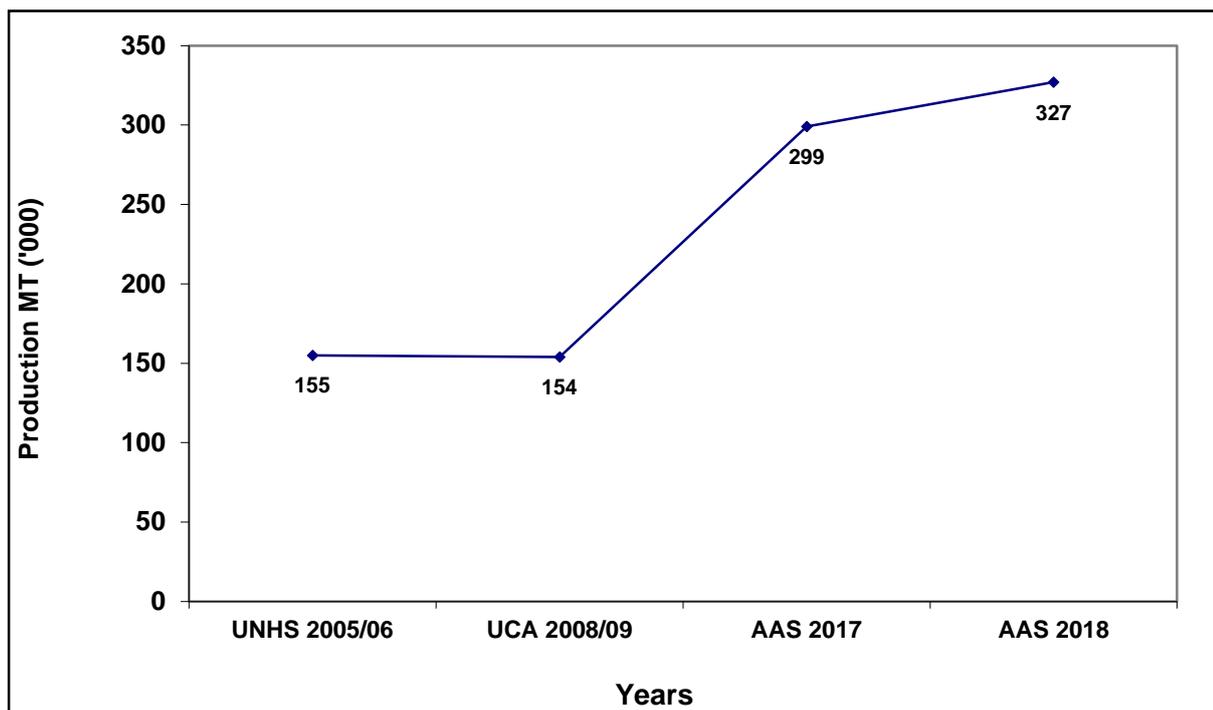
Table 7.9: Total area and total production of Irish potatoes by sub-region

Sub-Region	First season 2018		Second season 2018				2018	
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	Yield**	Area Planted (Ha)	Production (MT)
S. Buganda	7,005	19,886	12,572	6,739	16,557	2.5	19,576	36,443
N. Buganda	2,586	11,968	6,366	5,709	21,863	3.8	8,951	33,831
Busoga	0	0	0	0	0		0	0
Bukedi	0	0	0	0	0		0	0
Elgon	9,324	28,890	2,773	2,667	13,489	5.1	12,097	42,379
Teso	0	0	0	0	0		0	0
Karamoja	0	0	0	0	0		0	0
Lango	0	0	0	0	0		0	0
Acholi	0	0	0	0	0		0	0
West Nile	943	2,549	527	527	3,480	6.6	1,469	6,029
Bunyoro	2,183	5,856	3,005	2,986	11,172	3.7	5,187	17,028
Tooro	11,965	27,316	16,128	15,391	53,061	3.4	28,093	80,377
Ankole	5,706	14,927	5,606	5,222	13,512	2.6	11,311	28,439
Kigezi	8,565	27,942	15,874	14,602	54,864	3.8	24,439	82,806
Uganda	48,275	139,332	62,849	53,842	187,999	3.5	111,124	327,331

(*) The total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

Figure 7.9: Irish potatoes production trend ('000), 2005/06 – 2018



At national level, the yield²⁸ of the Irish potatoes in the second season was estimated to be 3.5 MT/Ha. The highest yield was recorded in West Nile (6.6 MT/Ha) and this was followed by Elgon with 5.1 MT/Ha. Ankole (2.6 MT/Ha) and South Buganda (2.5 MT/Ha) registered the lowest yields. See Table 7.9.

Kachwekano and Rwebitaba registered the highest Irish potatoes production (82,800 MT and 81,400 MT respectively). Among those that had some production, Serere (131 MT) had the lowest (see Annex VII, Table 7-24).

7.1.10 Rice

In Uganda, rice growing is considered one of the strategic agricultural enterprises with the potential to contribute to increasing rural incomes. There are two types of rice in Uganda: paddy rice and upland rice. Paddy rice is the most grown rice in Uganda. It requires wetlands to grow well, while the upland rice does not.

The results revealed that the national production of rice was estimated to be 199,300 MT, from an estimated planted area of 199,500 Ha.

The production of rice was significant in 12 out of 14 sub-regions. Busoga with 55,200 MT registered the highest rice production, followed by Bukedi (31,700 MT) and Acholi (27,100 MT). The least production of this crop was from South Buganda (4,100 MT) and West Nile (4,400 MT).

²⁸ The yield is the ratio between the production and the area planted. Such ratio has been calculated on the observations where production was available (not missing) and higher than zero. Thus, the Ag HHs that had not started harvesting at the time of the interview or whose harvest was destroyed are not included in the ratio.

At national level, the yield²⁹ of rice in the second season was estimated to be 1.1 MT/Ha. The highest yield was recorded in South Buganda (4.8 MT/Ha) and this was followed by Tooro with 1.7 MT/Ha. North Buganda (0.7 MT/Ha) and Lango (0.6 MT/Ha) registered the lowest yields during the second agricultural season. See Table 7.10.

Analysis at ZARDI level revealed that Buginyanya with 102,300 MT registered the highest production, followed by Ngetta (40,900 MT) and Bulindi (18,900 MT). Among those that registered some production, Rwebitaba (5,100 MT) and Abi (4,400 MT) had the least. See Annex VII, Tables 7-31, 7-32.

The production of rice generally followed an upward trend between 2005/06 and 2018 from 180,000 MT to 198,000 MT respectively. However, the period 2008/09 - 2017 showed a decline in production from 191,000 MT to 189,000 MT. The period 2017 to 2018 showed an increment of 5.3 percent in the production as seen in Figure 7.10.

²⁹ Ratio between production (MT) and area (Ha) calculated only on observations whose production is available (not missing) and higher than zero. Thus, the Ag HHs that had not started the harvest at the time of the interview or whose harvest was destroyed are not included in the calculation.

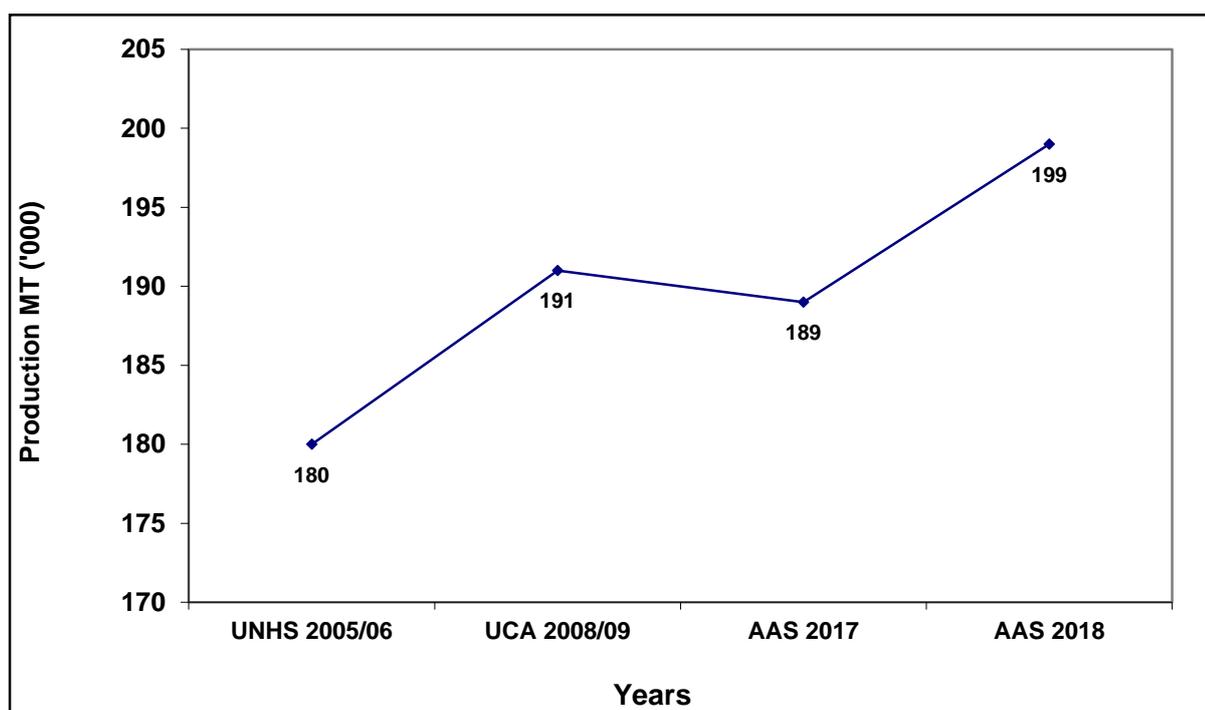
Table 7.10: Total area and total production of rice by sub-region

Sub-Region	First season 2018		Second season 2018				2018	
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	Yield**	Area Planted (Ha)	Production (MT)
S. Buganda	1,608	1,746	484	484	2,314	4.8	2,093	4,059
N. Buganda	3,881	3,566	6,421	5,896	4,010	0.7	10,301	7,576
Busoga	31,264	34,685	22,660	17,682	20,539	1.2	53,924	55,224
Bukedi	19,209	19,457	16,178	12,763	12,202	1.0	35,387	31,660
Elgon	12,442	13,767	1,910	1,910	1,667	0.9	14,352	15,433
Teso	5,378	5,837	6,251	5,065	4,143	0.8	11,629	9,981
Karamoja	0	0	0	0	0		0	0
Lango	7,196	7,769	12,123	9,637	5,996	0.6	19,318	13,764
Acholi	14,928	15,018	9,077	8,953	12,119	1.4	24,006	27,137
West Nile	387	377	3,278	3,241	3,997	1.2	3,665	4,374
Bunyoro	2,056	2,528	15,543	14,671	16,391	1.1	17,599	18,918
Tooro	26	7	3,022	3,022	5,101	1.7	3,048	5,107
Ankole	0	0	0	0	0		0	0
Kigezi	370	709	3,846	3,846	5,323	1.4	4,216	6,032
Uganda	98,745	105,464	100,792	87,169	93,801	1.1	199,538	199,266

(*) The total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

Figure 7.10: Rice production trend ('000), 2005/06 – 2018



7.1.11 Soya beans

Soya beans are frequently consumed as flour that is rich in nutrients when taken as porridge. It is also a source of income to the farmers.

The national production of soya beans was estimated to be 107,600 MT, from an estimated planted area of 189,700 Hectares (Ha). The first season (74,700 MT or 69.5%) had the bigger share as compared to the second. Lango with 74,000 MT registered the highest soya beans production, followed by Busoga (11,100 MT). The least production of was from Kigezi (291 MT) and Bunyoro (248 MT).

The national level yield³⁰ of soya beans was estimated to be 0.4 MT/Ha in the second season of 2018. South Buganda (1.3 MT/Ha) recorded highest yield, followed by Kigezi (0.9 MT/Ha). Teso (0.2 MT/Ha) and Bunyoro (0.2 MT/Ha) registered the lowest yields during the second season. See Table 7.11.

At ZARDI level, Ngetta with 80,100 MT registered the highest Soya beans production, followed by Buginyanya (19,600 MT) and Serere (3,000 MT). Among those that registered some production, Kachwekano (291 MT) and Bulindi (248 MT) had the least. See Annex VII, Table 7-36.

The production of soya beans exhibited an upward trend between 2005/06 and 2018 from 20,000 MT to 108,000 MT respectively as seen in Figure 7.11.

³⁰ Ratio between production (MT) and area (Ha) calculated only on observations whose production is available (not missing) and higher than zero. Thus, the Ag HHs that had not started the harvest at the time of the interview or whose harvest was destroyed are not included in the calculation.

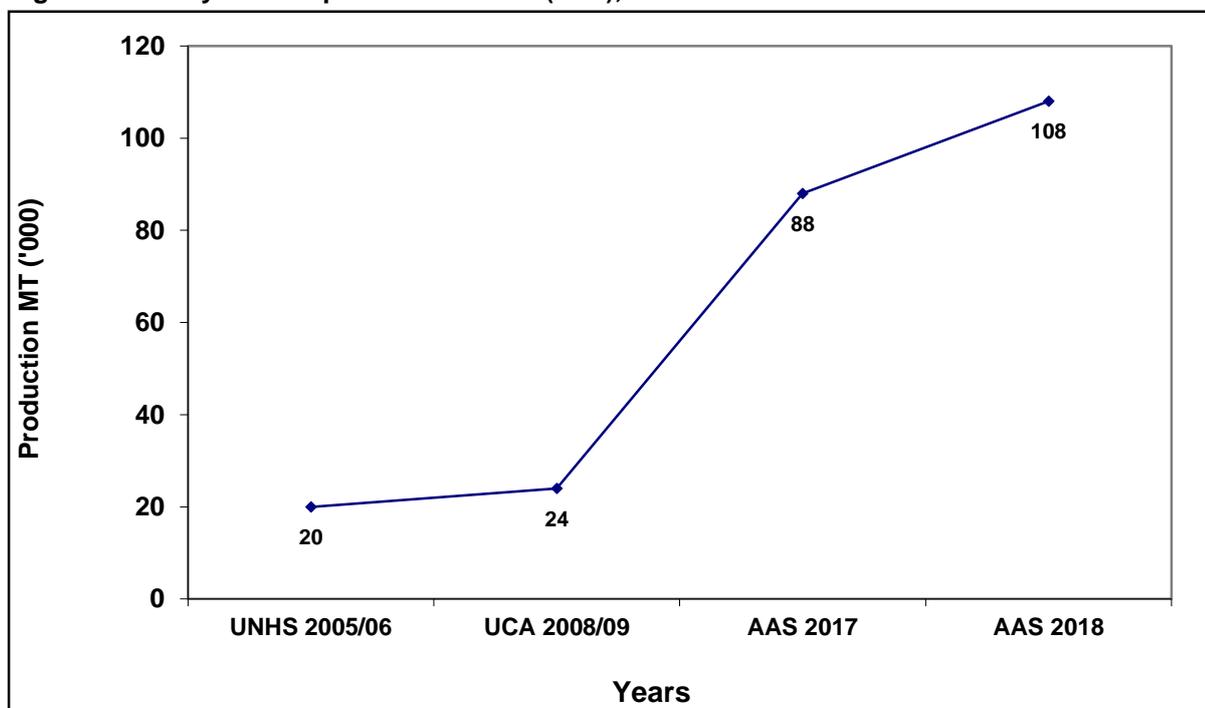
Table 7.11: Total area and total production of soya beans by sub-region

Sub-Region	First season 2018		Second season 2018				2018	
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	Yield**	Area Planted (Ha)	Production (MT)
S. Buganda	32	18	401	242	311	1.3	433	329
N. Buganda	1,243	667	1,901	1,523	684	0.4	3,144	1,351
Busoga	12,036	6,943	13,705	11,002	4,151	0.4	25,741	11,095
Bukedi	5,430	2,465	15,754	10,414	3,138	0.3	21,185	5,603
Elgon	1,256	461	5,844	4,315	2,425	0.6	7,099	2,886
Teso	3,083	1,660	7,515	6,004	1,415	0.2	10,598	3,074
Karamoja	0	0	0	0	0		0	0
Lango	61,509	56,479	39,540	35,655	17,490	0.5	101,049	73,969
Acholi	9,208	4,584	4,074	4,074	1,576	0.4	13,282	6,161
West Nile	811	279	844	798	386	0.5	1,655	665
Bunyoro	8	9	1,020	1,020	239	0.2	1,028	248
Tooro	1,234	803	1,830	1,830	635	0.3	3,064	1,438
Ankole	368	212	617	612	302	0.5	985	514
Kigezi	312	168	135	135	123	0.9	447	291
Uganda	96,530	74,749	93,180	77,626	32,874	0.4	189,710	107,624

(*) The total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

Figure 7.11: Soya beans production trend ('000), 2005/06 – 2018



7.1.12 Simsim

Sesame or simsim is mainly grown in warm areas with little rainfall like Northern Uganda. Simsim is an oil crop that is used as raw material for production of cooking oil. It is also used for food and a source of income for farmers.

Based on the survey results, the total production of SimSim in Uganda was estimated to be 45,300 MT, from an estimated planted area of 190,300 Hectares (Ha). The second season with 31,300 MT (69.0%), recorded a higher simsim production as compared to the first season.

Analysis at sub-region level revealed that Lango (16,000 MT) recorded highest production, followed by Acholi with 11,800 MT and West Nile (7,000 MT). The least production of this crop featured in Bukedi (188 MT) and South Buganda with 140 MT, as seen in Table 7.12.

During the second season, the national-level simsim yield³¹ was estimated to be 0.2 MT/Ha. The highest yields were registered in Tooro and North Buganda (0.6 and 0.5 MT/Ha respectively). Most of the other sub-regions recorded the same yield as the national yield. See Table 7.12.

There was a decline in the production of simsim from 27,000 MT in 2005/06 to 11,000MT in 2008/09. The period 2008/09 to 2018 showed an increase in production from 11,000 MT in 2008/09 to 45,000 MT in 2018 as seen in Figure 7.12.

³¹ Ratio between production (MT) and area (Ha) calculated only on observations whose production is available (not missing) and higher than zero. Thus, the Ag HHs that had not started the harvest at the time of the interview or whose harvest was destroyed are not included in the calculation.

Table 7.12: Total area and total production of simsim by sub-region

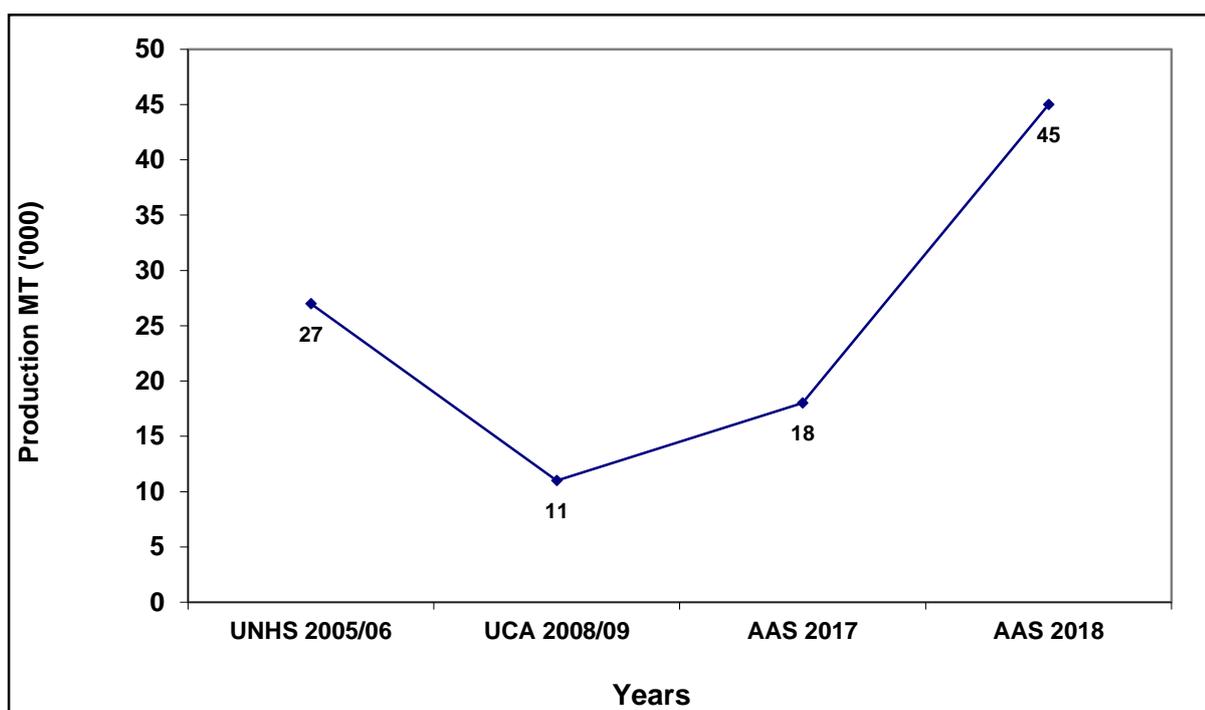
Sub-Region	First season 2018		Second season 2018				2018	
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	Yield**	Area Planted (Ha)	Production (MT)
S. Buganda	328	0	1,336	1,336	140	0.1	1,664	140
N. Buganda	NA	209	474	198	94	0.5	NA	303
Busoga	1,050	235	1,081	1,042	190	0.2	2,131	425
Bukedi	352	125	766	670	63	0.1	1,118	188
Elgon	0	0	0	0	0		0	0
Teso	4,306	1,369	8,664	8,256	1,810	0.2	12,970	3,179
Karamoja	3,270	807	0	0	0		3,270	807
Lango	12,710	5,176	57,528	44,417	10,824	0.2	70,238	16,000
Acholi	2,869	882	52,564	49,576	10,876	0.2	55,433	11,758
West Nile	121	84	31,157	30,509	6,944	0.2	31,278	7,028
Bunyoro	8,154	4,764	2,152	2,129	322	0.2	10,306	5,086
Tooro	1,402	396	41	41	26	0.6	1,443	422
Ankole	0	0	0	0	0		0	0
Kigezi	0	0	0	0	0		0	0
Uganda	34,561	14,047	155,763	138,174	31,287	0.2	190,324	45,334

(*) The total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

NA= Not Available

Figure 7.12: Simsim production trend ('000), 2005/06 – 2018



7.1.13 Coffee Robusta (all types)

Coffee is a traditional cash crop in Uganda. It is not only a source of income to the growing farmers, it is also consumed as a beverage. It is processed to add value in form of beverage that can be consumed or sold.

The results revealed that the overall production of Coffee Robusta³² was estimated to be 232,500 MT from an estimated planted area of 340 thousand Hectares (Ha). Of this production, the first season (147,500 MT or 63.4%) had the bigger share as compared to the second season.

Coffee robusta is significantly grown only in 7 out of 14 sub-regions. Bunyoro with 76,600 MT registered the highest coffee robusta production, followed by North Buganda (64,800 MT) and South Buganda (34,400 MT). The least production of this crop was from Tooro (4,200 MT).

The overall Coffee Robusta yield was estimated to be 0.9 MT/Ha³³. The highest yield was recorded in Bunyoro 9.7 MT/Ha. See Table 7.13.

Analysis at ZARDI revealed that Mukono with 91,500 MT registered the highest Coffee Robusta all production, followed by Bulindi (76,600 MT) while Rwebitaba (5,100 MT) and Kachwekano (8,600 MT) registered the least production as seen in the Annex VII Table 7-48.

³² Reference date is the end of the season. Therefore, the area planted in the second season is used as a proxy for the annual planted area.

³³ Ratio between production (MT) and the area harvested (Ha). Reference date for area harvested is the second season. Therefore, annual area harvested is equal to the area harvested in the second season.

Table 7.13: Total area and total production of coffee Robusta by sub-region

Sub-Region	First season 2018		Second season 2018			2018		
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	Area Planted** (Ha)	Total Production (MT)	Yield***
S. Buganda	51,846	11,008	92,914	74,976	23,392	92,914	34,400	0.5
N. Buganda	121,605	28,426	139,757	109,521	36,402	139,757	64,828	0.6
Busoga	22,170	6,183	25,536	21,689	7,640	25,536	13,823	0.6
Bukedi	0	0	47	47	31	47	31	0.7
Elgon	39	15				39	15	
Teso	0	0	0	0	0	0	0	
Karamoja	0	0	0	0	0	0	0	
Lango	1,166	0	53	0	0	53	0	
Acholi	0	0	259	0	0	259	0	
West Nile	0	0	10	0	0	10	0	
Bunyoro	204,063	74,133	11,727	7,902	2,455	11,727	76,588	9.7
Tooro	5,303	1,808	10,572	7,713	2,390	10,572	4,198	0.5
Ankole	39,947	22,616	41,708	19,619	7,469	41,708	30,085	1.5
Kigezi	11,405	3,297	17,274	15,340	5,263	17,274	8,560	0.6
Uganda	457,543	147,486	339,855	256,808	85,043	339,855	232,529	0.9

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) The annual area planted in 2018 is equal to the area planted in the second season (ie., reference date for area planted is equal to the end of the reference period)

(***) Ratio between production (MT) and area harvested (Ha) in the second season

7.1.14 Coffee Arabica

Coffee Arabica is a traditional cash crop. It is not only a source of income to the growing farmers, it is also consumed as beverage. It is processed to add value in form of beverage that can be consumed or sold.

The AAS 2018 results showed that the national production of Coffee Arabica was estimated to be 75,000 MT, from an estimated planted area of 88,300 Hectares (Ha)³⁴. Among the sub-regions, Elgon and Tooro (29,300 MT and 29,700 MT respectively) registered the highest production. The least production of this crop was from West Nile (671 MT) and North Buganda (428 MT).

The overall Coffee Arabica yield was estimated to be 1.0 MT/Ha with South Buganda showing the highest yield (2.2 MT/Ha). See Table 7.14.

Analysis at ZARDI level revealed that Buginyanya with 30,800 MT had the highest Coffee Arabica production, followed by Rwebitaba (29,700 MT). Among those that registered some production, Mukono (992 MT) and Abi

³⁴ Reference date is the end of the season. Therefore, the area planted in the second season is used as a proxy for the annual planted area.

(672 MT) had the least production. See Annex VII, table 7-46.

Table 7.14: Total area and total production of coffee Arabica by sub-region

Sub-Region	First season 2018		Second season 2018			2018		
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	Area Planted** (Ha)	Total Production (MT)	Yield***
S. Buganda	306	195	359	359	579	359	774	2.2
N. Buganda	595	312	1,456	523	116	1,456	428	0.8
Busoga	274	146	3,334	2,955	1,343	3,334	1,489	0.5
Bukedi	0	0	0	0		0	0	
Elgon	26,362	13,462	30,466	26,166	15,817	30,466	29,279	1.1
Teso	0	0	0	0		0	0	
Karamoja	0	0	0	0		0	0	
Lango	0	0	0	0		0	0	
Acholi	0	0	0	0		0	0	
West Nile	186	99	1,804	1,676	572	1,804	671	0.4
Bunyoro	7,370	3,364	10,136	7,700	2,704	10,136	6,068	0.8
Tooro	26,904	14,182	35,602	27,753	15,522	35,602	29,704	1.1
Ankole	2,903	2,052	2,964	2,367	1,699	2,964	3,751	1.6
Kigezi	1,653	1,489	2,164	2,057	1,329	2,164	2,818	1.4
Uganda	66,553	35,301	88,286	71,556	39,681	88,286	74,982	1.0

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) The annual area planted in 2018 is equal to the area planted in the second season (ie., reference date for area planted is equal to the end of the reference period)

(***) Ratio between production (MT) and area harvested (Ha) in the second season

CHAPTER 8: LIVESTOCK³⁵

8.0 Introduction

This section gives an overview of the number of Ag HHs raising livestock, the livestock population and the production. The section also reports the use of livestock inputs and their cost. Given the survey design, the figures below do not include livestock raised by nomadic populations, nor by holdings that pertain to the non-household sector.

8.1 Livestock population

The AAS 2018 collected information about the number of livestock owned by type for each Ag HH. For cattle, the information was collected in the last 12 months prior to the date of interviews, for small ruminants, pigs, rabbits and colonized bee hives, the information was collected for the last six months whereas information on poultry (chickens, ducks and turkeys) was collected for the last three months.

Table 8.1 shows that the total population of cattle was 12.1 million, goats were 15.6 million, poultry were 38.3 million, sheep and pigs were 4.4 and 4.5 million respectively, rabbits were 628 thousand and colonized beehives 2.3 million. The highest cattle population was in Nabuin (34.3%) whereas the lowest cattle population was recorded in Serere (2.4%).

It can also be seen that 34.1 percent of the goats were in Nabuin while Bulindi (2.9%) had the least percentage of goats. The highest population of sheep was in Nabuin (54.5%) while the least population was in Buginyanya (1.0%) and Serere (1.0%). 27.2 percent of the pigs were in Mukono, yet Kachwekano had the least with only 2.4 percent of the pigs produced in the region. The highest population of poultry was in Mukono (18.5%) and only 1.0 percent of this population was raised in Kachwekano.

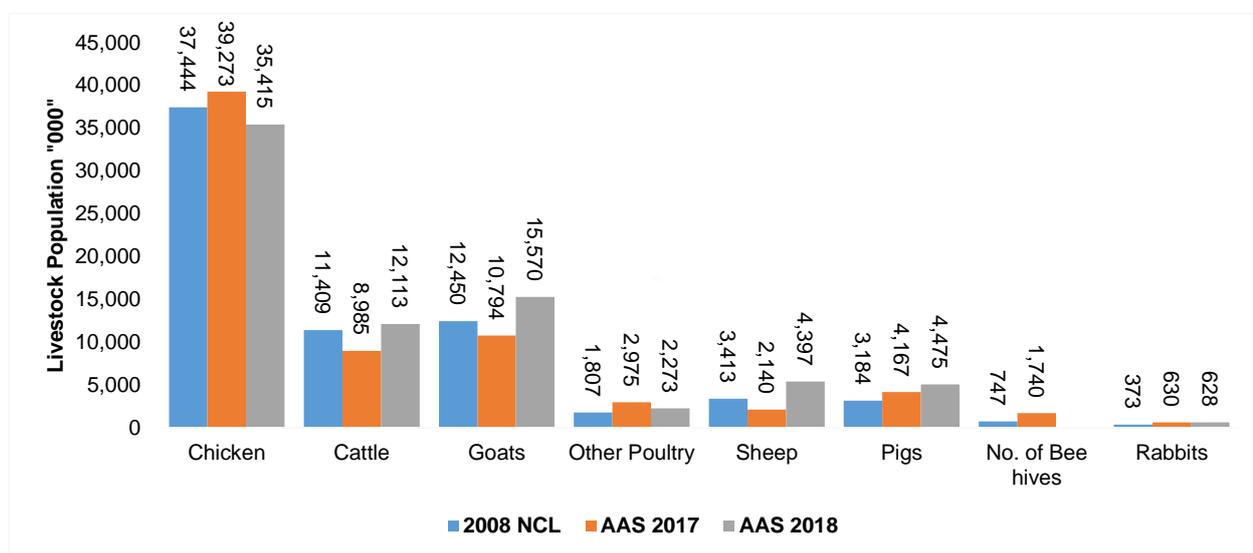
³⁵ All the tables of this chapter have been extracted from the data collected in the second season of the agricultural year 2018. The reference period is the last 12 months – ie., the period between March 2018 and February 2019.

Table 8.1: Percent distribution of livestock type by ZARDI

ZARDI	Livestock Type							
	Cattle	Donkeys	Goats	Sheep	Pigs	Chickens	Turkeys, Ducks, Geese	Rabbits
Abi	6.4	-	11.8	3.7	3.7	7.3	13.2	8.9
Buginyanya	11.5	-	10.3	1.0	9.8	16.4	25.0	8.0
Bulindi	4.8	-	2.8	19.7	22.0	5.9	7.2	5.0
Kachwekano	1.4	-	3.1	2.6	2.4	1.0	2.0	19.0
Mukono	11.0	-	9.9	3.2	27.3	18.5	13.9	28.1
Ngetta	10.5	-	9.7	4.1	4.1	9.8	11.4	1.2
Nabuin	34.8	99.2	34.1	54.5	5.6	9.8	12.7	-
Mbarara	6.8	0.8	3.4	6.4	5.9	7.2	4.7	3.4
Rwebitaba	10.5	-	9.5	3.6	12.2	17.7	5.7	19.6
Serere	2.4	-	5.5	1.0	6.9	6.6	4.2	6.9
Total	100	100	100	100	100	100	100	100
UGANDA	12,112,544	146,492	15,570,416	4,397,084	4,475,423	35,414,530	2,272,507	628,060

8.2 Livestock trends

There was an increase in the population of cattle, goats, sheep, pigs and rabbits from 11.4 million, 12.5 million, 3.4 million, 3.18 million, and 373,000 respectively in 2008 to 12.1 million, 15.6 million, 4.4 million, 4.5 million and 628,000 respectively in 2018. On the other hand, the population of chicken was 37.4 million in 2008 while in 2018 it was recorded at 35.4 million. Figure 8.1 shows the changes in livestock numbers between the year 2008 and 2018.

Figure 8.1: Livestock population trends

8.2.1 Ag HHs raising livestock

According to Table 8.2, the number of Ag. HHs raising cattle was estimated to be 2.4 million in 2018, with an average of five heads of cattle per cattle-raising Ag HH. The data shows that the number of Ag HHs raising cattle increased over time, with 1.7 million in 2008, 1.9 million in 2017 and 2.4 million in 2018.

Similarly, the number of Ag HHs that reported keeping goats increased from 2.4 million in 2008 to 3 million in 2018 with an average of five heads per goat raising Ag HH. Additionally, the number of Ag HHs with sheep, pigs, and chicken increased from 572 thousand, 1.1 million and 3.2 million in 2008 to 796 thousand, 1.3 million and 3.4 million in 2018 respectively. The average heads raised in 2018 was seven for the sheep-keeping Ag HHs, four for the pig-keeping Ag HHs and seven birds for the chicken-keeping Ag HHs.

Finally, the number of Ag HHs keeping rabbits increased from 71 thousand to 128 thousand between 2008 and 2017 but then reduced to 88 thousand Ag HHs in 2018 with an average of ten rabbits per Ag HH.

Table 8.2: Number of Ag HHs raising livestock and average number of livestock per Ag HH

Livestock Type	Number of Ag HHs with livestock "000"			Average number of livestock per livestock keeping Ag HH
	2008	2017	2018	
Cattle	1,663	1,933	2,479	5
Goats	2,497	2,760	3,050	5
Sheep	572	549	796	7
Pigs	1,135	1,502	1,345	4
Chickens	3,194	-	3,442	10
Rabbits	71	128	88	10

8.2.2 Livestock production

The Annual Agricultural Survey also sought information on the quantity of sales, the average unit price and the total value of sales for various livestock categories. This section presents statistics on livestock production by livestock category during the agricultural year 2018.

8.2.3 Sales of alive animals

The survey sought information on sale of live animals 12 months prior to the survey. The findings reveal that 25 percent of the Ag HHs raising cattle and pack animals sold at least one alive animal during the agricultural year 2018, at an average price of 766,000 UGX. Overall, 1.2 million animals were sold, with Ag HHs selling on average 2.5 animals. The total value of sales from the animals was estimated at 1.06 trillion Uganda Shillings. The estimated value for the current stock for cattle and large animals is 8.02 trillion Ugandan Shillings.

In addition, 34 percent of the Ag HHs that raised small ruminants and pigs sold at least one alive animal, at an average price of 108,000 UGX. Overall, 6 million animals were sold during the agricultural year 2018, with Ag HHs selling on average six animals. The total value from sales was 695 billion Ugandan Shillings and the current stock is estimated at 4.6 trillion Ugandan Shillings. The details are shown in Table 8.3.

Finally, 24 percent of the Ag HHs raising poultry sold at least one alive bird at an average price of 15,000 UGX. Over 25 million chicken were sold during the agricultural year 2018, with Ag HHs selling on average 51 birds. The sales from the birds totalled to 342 billion Ugandan Shillings and the current stock is estimated at 2.5 trillion Ugandan Shillings.

Table 8.3: Sales of live animals by livestock category*

	% Ag HHs that sold an animal	Number of animals sold	Average unit price per head	Average number of animals sold per Ag HHs	Total value of sales (in million UGX)	Estimated value of current stock (in million UGX)
Cattle and pack animals	25.0	1,205,832	766,742	2.5	1,059,505	8,019,553
Small ruminants, pigs	34.0	5,997,522	108,583	6.1	695,303	4,645,831
Poultry	24.0	25,103,771	15,978	51	342,732	2,448,111

(*) Reference period: March 2018-February 2019

8.2.4 Meat production

This section presents results related to meat sold from cattle and pack animals and from small ruminants and pigs. Since most Ag HHs sell chickens alive (instead of their meat), poultry meat sales at farm level are excluded from this section.

As shown in Table 8.4, 27 percent of Ag HHs sold the meat of cattle and pack animals. The total quantity of the meat sold was 1,163 tons with an average price of 7,400 UGX per kilogram. Additionally, it was estimated that the total meat produced from cattle and pack animals amounted to 8.7 billion Shillings.³⁶ The table also indicates that 15 percent of Ag HHs sold the meat of small ruminants and pigs. The total quantity of meat sold was 5 million tons at an average price of 4,000 UGX per kilogram. It was estimated that the total meat produced from small ruminants and pigs had a value of 16.4 billion Shillings.³⁷

Table 8.4: Annual meat production by livestock category*

	% Ag HHs that sold meat	Total quantity of meat sold (in Tons)	Average unit price of a kg of meat sold	Total value of meat produced (in million UGX)
Cattle and pack animals	27	1,163	7,495	8,762
Small ruminants, pigs	15	4,997	4,078	16,429

(*) reference period: March 2018-February 2019

8.2.5 Milk production

This section presents results related to milk produced (and sold) from cattle and large animals as well as from small ruminants.

The survey results show that 1.2 billion litres of milk were produced annually from cattle and pack animals whereas 15.6 million litres were produced from small ruminants (on average, 1,004 litres and 303 litres per Ag HH respectively).

The total quantity of milk of cattle and large animals sold was 603 million litres, for an average price of 986 UGX per litre. It was estimated that the total milk produced from cattle and large animals had a value of 851

³⁶ The value of the total meat produced is given by the amount of meat produced multiplied by the unit price.

³⁷ As above.

billion Shillings³⁸. The total quantity of milk of small ruminants sold was 3.5 million litres, for an average price of 1,000 UGX per litre. It was estimated that the total milk produced from small ruminants had a value of 6.9 billion Shillings³⁹. The details are as shown in Table 8.5.

Table 8.5: Annual milk production by livestock category*

	Total quantity of milk produced (Million Litres)	Average quantity of milk produced per HH (litres)	Total quantity of milk sold (Million litres)	Share of milk sold on quantity produced (%)	Average price of a litre of milk (UGX)	Total value of milk produced (Million UGX)
Cattle, pack animals	1,186	1,004	603.2	50.9	985.7	850,984.9
Small ruminants	15.6	302.6	3.5	22.7	1,000.0	6,958.2

(*) reference period: March 2018-February 2019

8.3 Livestock inputs

The results in Table 8.6 that 14.2 percent of Ag HHs raising cattle and large animals practiced controlled mating. Only 4.4 percent have paid for feeding and 8.8 percent have paid for the water. 47.4 percent used vaccines, 57.8 percent used anti-parasites and 47.5 percent used curative treatments.

In addition, 10.5 percent of the households raising small ruminants and pigs practiced controlled mating. Only 8.6 percent paid the feeding and 7.5 percent paid for the water. Vaccinations and medical treatments seem to be less used for the small ruminants compared to the large ruminants. Indeed, 22 percent reported to have used vaccines, 34.5 percent used anti-parasites and 23.1 percent applied curative treatments.

Finally, the table indicates that controlled mating is very rarely done on poultry and rabbits (only 1.7% of Ag HHs) and low is also the use of vaccines (12.3% of Ag HHs), anti-parasites (4.5%) and curative treatments (7%). Feeding and water are paid only by 7.9 and 7 percent of the Ag HHs.

Table 8.6: Ag HHs by input paid

	% Ag HHs						
	N Ag HHs raising livestock	practicing controlled mating	paying feed	paying water	using vaccines	Using anti-parasites	applied curative treatments
Cattle and pack animals	2,478,687	14.2	4.4	8.8	47.4	57.8	47.5
Small ruminants and pigs	4,263,308	10.5	8.6	7.5	22.0	34.5	23.1
Poultry and rabbits	3,649,809	1.7	7.9	7.0	12.3	4.5	7.0

The average annual cost of the inputs paid by the Ag HHs for raising and treating their animals was computed and results were disaggregated by livestock type and input category and they refer to the period March 2018-March 2019. Feeding represented the main expense for the Ag HHs. During the reference period, AgHHs on average, paid 259,700 UGX for feeding their cattle and pack animals; 137,297 UGX for small ruminants and

³⁸ The value of the total milk produced is given by the amount of milk produced multiplied by the unit price.

³⁹ As above.

pigs, and 357,731 UGX for poultry and rabbits as shown in Table 8.7.

Table 8.7: Cost of inputs for livestock production by input and livestock category (in UGX)

	Average Annual Costs (UGX) per Ag HH					
	Mating	Feeding	Water	Vaccines	Parasites	Curative Treatments
Cattle and pack animals	32,065	259,700	70,293	38,824	61,178	48,355
Small ruminants and pigs	28,171	137,297	16,204	22,905	14,416	18,752
Poultry and rabbits	13,996	357,731	18,940	10,866	12,920	13,247

Table 8.8 presents the distribution of Ag HHs raising livestock by type of labour used for livestock and by ZARDI. In general, livestock is mainly raised by Ag HH members (94.1% of Ag HHs uses only Ag HH labour), with a minority of Ag HHs (5.1%) that combined household and hired labour and only 1% that employed only hired labour.

Table 8.8: Distribution of Ag HHs raising livestock by type of labour used and ZARDI

	HH Labor only	Hired Labor Only	Both
Abi	95.7	0.3	4.1
Buginyanya	95.8	0.3	3.8
Bulindi	93.0	0.6	6.4
Kachwekano	88.7	2.8	8.6
Mukono	91.3	1.8	6.9
Ngetta	95.8	1.0	3.2
Nabuin	93.8	1.2	5.0
Serere	42.0	0.7	57.3
Mbarara	0.8	10.1	89.2
Rwebitaba	4.5	0.0	95.5
UGANDA	94.1	0.9	5.1

ANNEXES

Annex 1

NOTE: Except tables 1-1 and 1-2, all the tables of this Annex have been extracted from the data collected in the second season of the agricultural year 2018 and they refer to the second season visits.

Table 1- 1: List of districts within the ZARDIs

Abi	Buginyanya	Bulindi	Kachwekano	Mukono	Ngetta	Nabuin	Serere	Mbarara	Rwebitaba
Adjumani	Bugiri	Hoima	Kabale	Kalangala	Apac	Kotido	Katakwi	Rakai	Bundibugyo
Arua	Busia	Kibaale	Kisoro	Kiboga	Gulu	Moroto	Kumi	Ssembabule	Kabarole
Moyo	Iganga	Masindi	Rukungiri	Luwero	Kitgum	Nakapiripirit	Soroti	Lyantonde	Kasese
Nebbi	Jinja	Buliisa	Kanungu	Masaka	Lira	Abim	Kaberamaido	Bushenyi	Kamwenge
Yumbe	Kamuli	Kiryandongo	Rubanda	Mpigi	Pader	Kaabong	Amuria	Mbarara	Kyenjojo
Koboko	Kapchorwa	Kagadi		Mubende	Amolatar	Amudat	Bukedea	Ntungamo	Kyegegwa
Maracha	Mbale	Kakumiro		Mukono	Amuru	Napak	Ngora	Ibanda	
Zombo	Pallisa			Nakasongola	Dokolo		Serere	Isingiro	
	Tororo			Kayunga	Oyam			Kiruhura	
	Mayuge			Wakiso	Agago			Buhweju	
	Sironko			Mityana	Alebtong			Mitooma	
	Budaka			Nakaseke	Kole			Rubirizi	
	Bududa			Buikwe	Lamwo			Sheema	
	Bukwo			Bukomansimbi	Nwoya				
	Butaleja			Butambala	Otuke				
	Kaliro			Buvuma	Omoro				
	Manafwa			Gomba					
	Namutumba			Kalungu					
	Bulambuli			Kyankwanzi					
	Buyende			Lwengo					
	Kibuku								
	Kween								
	Luuka								
	Namayingo								

Table 1- 2: List of districts within the sub-regions

S Buganda	N Buganda	West Nile	Lango	Acholi	Kigezi	Bunyoro	Tooro	Busoga	Teso	Bukedi	Elgon	Karamoja	Ankole
Kalangala	Kiboga	Adjumani	Apac	Gulu	Kabale	Hoima	Bundibugyo	Bugiri	Katakwi	Busia	Kapchorwa	Kotido	Bushenyi
Masaka	Luwero	Arua	Lira	Kitgum	Kisoro	Kibaale	Kabarole	Iganga	Kumi	Pallisa	Mbale	Moroto	Mbarara
Mpigi	Mubende	Moyo	Amolatar	Pader	Rukungiri	Masindi	Kasese	Jinja	Soroti	Tororo	Sironko	Nakapiripirit	Ntungamo
Rakai	Mukono	Nebbi	Dokolo	Amuru	Kanungu	Buliisa	Kamwenge	Kamuli	Kaberamaido	Budaka	Bududa	Abim	Ibanda
Ssembabule	Nakasongola	Yumbe	Oyam	Agago	Mitooma	Kiryandongo	Kyenjojo	Mayuge	Amuria	Butaleja	Bukwo	Kaabong	Isingiro
Wakiso	Kayunga	Koboko	Alebtong	Lamwo	Rubirizi	Kagadi	Kyegegwa	Kaliro	Bukedea	Kibuku	Manafwa	Amudat	Kiruhura
Lyantonde	Mityana	Maracha	Kole	Nwoya	Rubanda	Kakumiro		Namutumba	Ngora		Bulambuli	Napak	Buhweju
Bukomansimbi	Nakaseke	Zombo	Otuke	Omoro				Buyende	Serere		Kween		Sheema
Butambala	Buikwe							Luuka					
Gomba	Buvuma							Namayingo					
Kalungu	Kyankwanzi												
Lwengo													

Table 1- 3: Response rate, by visit and ZARDI

	Both visits	Post-Planting only	Post-Harvesting only	Complete non response	Total	Response Rate
Abi	476	24	0	40	540	88.1
Buginyanya	1,175	128	45	215	1,563	75.2
Bulindi	439	56	11	50	556	79.0
Kachwekano	401	47	8	47	503	79.7
Mukono	743	151	19	196	1,109	67.0
Ngetta	738	44	13	91	886	83.3
Nabuin	256	58	11	63	388	66.0
Serere	367	42	10	34	453	81.0
Mbarara	691	67	13	84	855	80.8
Rwebitaba	498	8	0	38	544	91.5
Uganda	5,784	625	130	858	7,397	78.2

Table 1- 4: Average and median duration of the post-planting interviews, by ZARDI

	Mean Duration in minutes	Median Duration in minutes
Abi	53	49
Buginyanya	51	39
Bulindi	78	68
Kachwekano	52	41
Mukono	55	49
Ngetta	58	41
Nabuin	16	11
Serere	55	48
Mbarara	63	52
Rwebitaba	50	41
Uganda	55	44

Table 1- 5: Average and median duration of the post-harvest interviews, by ZARDI

	Mean Duration in minutes	Median Duration in minutes
Abi	73.8	62.6
Buginyanya	71.3	52.0
Bulindi	61.1	53.3
Kachwekano	49.7	35.0
Mukono	64.5	52.3
Ngetta	65.9	53.3
Nabuin	47.7	37.3
Serere	51.3	47.5
Mbarara	62.9	55.3
Rwebitaba	48.3	42.0
Uganda	62.2	49.8

Table 1- 6: Percent distribution of the post-planting interviews, by duration and ZARDI

	< 15 minutes	15-30 minutes	30-45 minutes	45-60 minutes	60-75 minutes	75 minutes+	Total
Abi	2.5	12.3	27.1	25.3	18.7	14.2	100.0
Buginyanya	7.2	27.2	25.5	17.1	9.1	13.9	100.0
Bulindi	1.8	8.0	16.3	15.4	18.3	40.2	100.0
Kachwekano	4.7	22.5	28.6	23.2	9.9	11.1	100.0
Mukono	4.6	17.6	23.6	17.8	17.4	19.0	100.0
Ngetta	3.7	19.9	33.3	18.1	9.6	15.3	100.0
Nabuin	72.3	19.5	4.6	2.1	0.0	1.4	100.0
Serere	2.9	20.4	21.2	18.3	13.8	23.5	100.0
Mbarara	2.5	11.0	23.7	25.1	15.4	22.2	100.0
Rwebitaba	3.4	17.2	36.7	21.4	10.2	11.0	100.0
Uganda	7.4	18.5	25.4	18.9	12.5	17.3	100.0

Table 1- 7: Percent distribution of the post-harvest interviews, by duration and ZARDI

	< 15 minutes	15-30 minutes	30-45 minutes	45-60 minutes	60-75 minutes	75 minutes+	Total
Abi	1.3	8.9	18.8	15.9	21.1	34.0	100.0
Buginyanya	4.3	16.3	20.3	17.7	15.7	25.6	100.0
Bulindi	1.2	9.9	25.6	25.6	12.7	24.9	100.0
Kachwekano	6.6	32.7	28.1	11.4	7.1	14.2	100.0
Mukono	3.4	14.1	22.4	19.8	13.2	27.1	100.0
Ngetta	2.4	11.0	21.9	25.0	16.9	22.9	100.0
Nabuin	9.8	23.8	35.7	17.6	5.3	7.8	100.0
Serere	3.0	18.9	25.1	24.3	13.4	15.3	100.0
Mbarara	0.9	10.3	21.8	24.9	15.9	26.3	100.0
Rwebitaba	1.6	21.0	35.9	22.4	9.8	9.2	100.0
Uganda	3.3	15.6	24.2	20.4	14.0	22.5	100.0

Annex 2

NOTE: All the tables of this Annex have been extracted from the data collected in the second season of the agricultural year 2018.

Table 2- 1: Distribution of Ag HHs, by ZARDI*

	Number of Ag HHs
Abi	497,260
Buginyanya	1,438,621
Bulindi	428,171
Kachwekano	333,577
Mukono	1,074,785
Ngetta	808,775
Nabuin	1,231,335
Serere	350,476
Mbarara	738,695
Rwebitaba	512,188
Uganda	7,413,883

(*) calculated on post-harvest data

Table 2- 2: Number and percentage of Ag HHs, by sex of the head and ZARDI

	Unit of Measure	Male Headed HHs	Female Headed HHs	Total
Abi	Number	380,150	103,242	483,392
	Percentage	78.6	21.4	100.0
Buginyanya	Number	1,100,534	235,609	1,336,143
	Percentage	82.4	17.6	100.0
Bulindi	Number	331,772	65,627	397,399
	Percentage	83.5	16.5	100.0
Kachwekano	Number	258,708	59,162	317,869
	Percentage	81.4	18.6	100.0
Mukono	Number	682,138	284,773	966,910
	Percentage	70.5	29.5	100.0
Ngetta	Number	593,965	191,435	785,400
	Percentage	75.6	24.4	100.0
Nabuin	Number	635,354	465,930	1,101,284
	Percentage	57.7	42.3	100.0
Serere	Number	258,859	71,217	330,076
	Percentage	78.4	21.6	100.0
Mbarara	Number	523,010	167,587	690,597
	Percentage	75.7	24.3	100.0
Rwebitaba	Number	401,125	106,535	507,660
	Percentage	79.0	21.0	100.0
Uganda	Number	5,165,615	1,751,115	6,916,729
	Percentage	74.7	25.3	100.0

Table 2- 3: Percent distribution of literate Ag HH heads, by sex and ZARDI

		Literate	Illiterate	Total	% Literate
Abi	Male	309,872	70,278	380,150	81.5
	Female	25,794	77,448	103,242	25.0
	Total	335,666	147,726	483,392	69.4
Buginyanya	Male	792,020	307,474	1,099,493	72.0
	Female	77,883	157,726	235,609	33.1
	Total	869,903	465,200	1,335,102	65.2
Bulindi	Male	237,251	93,544	330,795	71.7
	Female	27,763	37,863	65,627	42.3
	Total	265,014	131,407	396,421	66.9
Kachwekano	Male	213,235	43,491	256,726	83.1
	Female	14,497	44,665	59,162	24.5
	Total	227,732	88,155	315,887	72.1
Mukono	Male	501,765	180,373	682,138	73.6
	Female	158,787	125,986	284,773	55.8
	Total	660,551	306,359	966,910	68.3
Ngetta	Male	501,452	90,800	592,252	84.7
	Female	50,898	140,537	191,435	26.6
	Total	552,350	231,337	783,686	70.5
Nabuin	Male	143,051	492,303	635,354	22.5
	Female	23,018	442,912	465,930	4.9
	Total	166,069	935,214	1,101,284	15.1
Serere	Male	197,386	59,173	256,559	76.9
	Female	18,389	52,828	71,217	25.8
	Total	215,776	112,001	327,776	65.8
Mbarara	Male	420,951	98,530	519,481	81.0
	Female	74,569	93,018	167,587	44.5
	Total	495,520	191,548	687,068	72.1
Rwebitaba	Male	330,641	70,485	401,125	82.4
	Female	57,559	48,975	106,535	54.0
	Total	388,200	119,460	507,660	76.5
Uganda	Male	3,647,623	1,506,450	5,154,073	70.8
	Female	529,157	1,221,958	1,751,115	30.2
	Total	4,176,780	2,728,407	6,905,187	60.5

Table 2- 4: Percent distribution of Ag HH heads, by highest educational level, sex and ZARDI

		No Education		Primary		Secondary +		Total	
		N	%	N	%	N	%	N	%
Abi	Males	8,791	2.3	249,230	65.6	122,129	32.1	380,150	100.0
	Females	54,742	53.0	39,583	38.3	8,917	8.6	103,242	100.0
	Total	63,533	13.1	288,813	59.7	131,046	27.1	483,392	100.0
Buginyanya	Males	49,690	4.5	677,695	61.6	373,148	33.9	1,100,534	100.0
	Females	95,530	40.5	107,943	45.8	32,136	13.6	235,609	100.0
	Total	145,220	10.9	785,638	58.8	405,284	30.3	1,336,143	100.0
Bulindi	Males	38,285	11.5	213,900	64.5	79,587	24.0	331,772	100.0
	Females	18,832	28.7	37,765	57.5	9,030	13.8	65,627	100.0
	Total	57,116	14.4	251,666	63.3	88,616	22.3	397,399	100.0
Kachwekano	Males	20,905	8.1	150,583	58.4	86,429	33.5	257,917	100.0
	Females	39,073	66.0	18,554	31.4	1,535	2.6	59,162	100.0
	Total	59,978	18.9	169,137	53.3	87,964	27.7	317,079	100.0
Mukono	Males	46,801	6.9	386,113	56.6	249,223	36.5	682,138	100.0
	Females	79,127	27.8	141,568	49.7	64,078	22.5	284,773	100.0
	Total	125,928	13.0	527,681	54.6	313,301	32.4	966,910	100.0
Ngetta	Males	27,273	4.6	342,554	57.8	222,424	37.6	592,252	100.0
	Females	102,509	53.5	72,201	37.7	16,725	8.7	191,435	100.0
	Total	129,782	16.6	414,755	52.9	239,149	30.5	783,686	100.0
Nabuin	Males	451,303	71.0	102,977	16.2	81,075	12.8	635,354	100.0
	Females	432,427	92.8	33,503	7.2	0	0.0	465,930	100.0
	Total	883,729	80.2	136,480	12.4	81,075	7.4	1,101,284	100.0
Serere	Males	21,344	8.3	160,219	62.2	76,186	29.6	257,749	100.0
	Females	31,822	44.7	34,597	48.6	4,798	6.7	71,217	100.0
	Total	53,166	16.2	194,817	59.2	80,984	24.6	328,966	100.0
Mbarara	Males	57,533	11.1	290,245	55.8	172,337	33.1	520,115	100.0
	Females	75,338	45.0	79,398	47.4	12,850	7.7	167,587	100.0
	Total	132,871	19.3	369,643	53.8	185,188	26.9	687,702	100.0
Rwebitaba	Males	32,691	8.1	264,356	65.9	104,078	25.9	401,125	100.0
	Females	33,785	31.7	58,281	54.7	14,469	13.6	106,535	100.0
	Total	66,476	13.1	322,637	63.6	118,547	23.4	507,660	100.0
Uganda	Males	754,617	14.6	2,837,873	55.0	1,566,616	30.4	5,159,105	100.0
	Females	963,184	55.0	623,393	35.6	164,538	9.4	1,751,115	100.0
	Total	1,717,800	24.9	3,461,266	50.1	1,731,154	25.1	6,910,220	100.0

Table 2- 5: Percent distribution of adult* members, by highest education level attained, sex and ZARDI

		No Education		Primary		Secondary +		Total	
		N	%	N	%	N	%	N	%
Abi	Males	12,857	1.8	407,023	56.7	297,871	41.5	717,751	100.0
	Females	178,305	23.5	432,037	56.9	149,028	19.6	759,370	100.0
	Total	191,162	12.9	839,060	56.8	446,899	30.3	1,477,121	100.0
Buginyanya	Males	62,387	3.5	927,507	52.2	788,384	44.3	1,778,279	100.0
	Females	251,786	14.0	1,014,275	56.5	529,409	29.5	1,795,469	100.0
	Total	314,173	8.8	1,941,782	54.3	1,317,793	36.9	3,573,748	100.0
Bulindi	Males	50,426	9.2	316,941	57.9	180,103	32.9	547,470	100.0
	Females	123,622	22.3	312,128	56.2	119,469	21.5	555,220	100.0
	Total	174,048	15.8	629,069	57.0	299,573	27.2	1,102,689	100.0
Kachwekano	Males	27,758	6.7	197,463	47.6	189,991	45.8	415,212	100.0
	Females	100,719	25.1	204,325	50.9	96,143	24.0	401,188	100.0
	Total	128,477	15.7	401,788	49.2	286,135	35.0	816,400	100.0
Mukono	Males	67,490	5.9	540,798	47.3	534,185	46.8	1,142,474	100.0
	Females	179,876	14.0	610,175	47.5	495,710	38.6	1,285,760	100.0
	Total	247,366	10.2	1,150,973	47.4	1,029,895	42.4	2,428,234	100.0
Ngetta	Males	51,398	4.7	563,444	51.6	476,733	43.7	1,091,575	100.0
	Females	247,063	20.3	722,391	59.2	250,083	20.5	1,219,536	100.0
	Total	298,461	12.9	1,285,835	55.6	726,816	31.4	2,311,112	100.0
Nabuin	Males	648,072	64.5	184,902	18.4	171,780	17.1	1,004,754	100.0
	Females	1,092,163	81.8	168,243	12.6	75,534	5.7	1,335,940	100.0
	Total	1,740,234	74.3	353,145	15.1	247,314	10.6	2,340,693	100.0
Serere	Males	31,613	6.0	276,942	52.5	218,455	41.5	527,010	100.0
	Females	107,090	17.6	316,422	52.0	184,743	30.4	608,255	100.0
	Total	138,703	12.2	593,364	52.3	403,198	35.5	1,135,265	100.0
Mbarara	Males	85,418	8.1	502,086	47.8	463,407	44.1	1,050,911	100.0
	Females	209,494	20.0	481,152	45.9	356,612	34.1	1,047,258	100.0
	Total	294,912	14.1	983,238	46.9	820,019	39.1	2,098,169	100.0
Rwebitaba	Males	46,001	6.8	389,409	57.9	236,751	35.2	672,160	100.0
	Females	150,227	20.2	383,876	51.6	209,849	28.2	743,952	100.0
	Total	196,228	13.9	773,284	54.6	446,600	31.5	1,416,112	100.0
Uganda	Males	1,083,419	12.1	4,306,515	48.1	3,557,661	39.8	8,947,595	100.0
	Females	2,640,344	27.1	4,645,023	47.6	2,466,581	25.3	9,751,948	100.0
	Total	3,723,764	19.9	8,951,538	47.9	6,024,242	32.2	18,699,543	100.0

(*) 18 years old or more

Table 2- 6: Percent distribution of Ag HH heads, by age, sex and ZARDI

		0-34 years old		35-44 years old		45-64 years old		65 years +		Total	
		N	%	N	%	N	%	N	%	N	%
Abi	Males	1,287,580	79.9	117,467	7.3	164,835	10.2	41,116	2.6	1,610,998	100.0
	Females	1,213,857	77.1	149,845	9.5	147,347	9.4	63,299	4.0	1,574,348	100.0
	Total	2,501,438	78.5	267,312	8.4	312,182	9.8	104,415	3.3	3,185,347	100.0
Buginyanya	Males	3,389,058	79.1	306,254	7.1	477,193	11.1	113,043	2.6	4,285,547	100.0
	Females	3,395,391	79.8	344,206	8.1	401,850	9.4	112,372	2.6	4,253,820	100.0
	Total	6,784,449	79.4	650,460	7.6	879,043	10.3	225,415	2.6	8,539,367	100.0
Bulindi	Males	1,041,660	79.5	111,854	8.5	124,659	9.5	32,020	2.4	1,310,193	100.0
	Females	1,038,358	80.9	122,057	9.5	103,230	8.0	20,406	1.6	1,284,052	100.0
	Total	2,080,018	80.2	233,911	9.0	227,889	8.8	52,426	2.0	2,594,244	100.0
Kachwekano	Males	675,034	76.3	80,307	9.1	96,709	10.9	32,305	3.7	884,354	100.0
	Females	652,844	74.7	105,638	12.1	82,675	9.5	32,340	3.7	873,497	100.0
	Total	1,327,878	75.5	185,944	10.6	179,384	10.2	64,645	3.7	1,757,851	100.0
Mukono	Males	2,286,600	79.8	230,432	8.0	285,409	10.0	64,316	2.2	2,866,756	100.0
	Females	2,323,695	78.5	260,046	8.8	263,380	8.9	111,760	3.8	2,958,881	100.0
	Total	4,610,295	79.1	490,478	8.4	548,789	9.4	176,076	3.0	5,825,638	100.0
Ngetta	Males	2,091,976	81.9	211,501	8.3	184,833	7.2	67,209	2.6	2,555,520	100.0
	Females	2,186,385	82.0	188,436	7.1	202,333	7.6	88,115	3.3	2,665,269	100.0
	Total	4,278,362	81.9	399,938	7.7	387,166	7.4	155,324	3.0	5,220,789	100.0
Nabuin	Males	2,326,860	81.4	223,463	7.8	203,534	7.1	105,646	3.7	2,859,502	100.0
	Females	2,517,623	79.6	187,238	5.9	346,648	11.0	109,772	3.5	3,161,280	100.0
	Total	4,844,483	80.5	410,701	6.8	550,182	9.1	215,417	3.6	6,020,783	100.0
Serere	Males	1,009,726	82.3	88,022	7.2	102,706	8.4	25,787	2.1	1,226,241	100.0
	Females	1,048,326	80.6	94,624	7.3	105,614	8.1	51,408	4.0	1,299,972	100.0
	Total	2,058,053	81.5	182,646	7.2	208,319	8.2	77,195	3.1	2,526,213	100.0
Mbarara	Males	1,747,834	78.1	177,055	7.9	232,484	10.4	79,833	3.6	2,237,206	100.0
	Females	1,668,281	76.7	192,354	8.8	234,827	10.8	78,753	3.6	2,174,215	100.0
	Total	3,416,115	77.4	369,409	8.4	467,311	10.6	158,586	3.6	4,411,421	100.0
Rwebitaba	Males	1,158,082	78.8	111,852	7.6	153,442	10.4	46,486	3.2	1,469,863	100.0
	Females	1,163,298	78.0	116,186	7.8	165,405	11.1	46,014	3.1	1,490,903	100.0
	Total	2,321,380	78.4	228,038	7.7	318,848	10.8	92,500	3.1	2,960,766	100.0
Uganda	Males	17,014,410	79.9	1,658,208	7.8	2,025,804	9.5	607,761	2.9	21,306,182	100.0
	Females	17,208,060	79.2	1,760,630	8.1	2,053,309	9.4	714,238	3.3	21,736,236	100.0
	Total	34,222,469	79.5	3,418,837	7.9	4,079,113	9.5	1,321,998	3.1	43,042,418	100.0

Table 2- 7: Dependency rate, by ZARDI

	Individuals aged 0-14 or 65+		Individuals aged 15-64		Dependency rate	
	N	% of total population	N	% of total population		%
Abi	1,575,492	49.2	1,627,127	50.8		96.8
Buginyanya	4,545,566	53.1	4,022,654	46.9		113.0
Bulindi	1,336,540	51.3	1,266,527	48.7		105.5
Kachwekano	885,281	50.0	884,929	50.0		100.0
Mukono	3,172,120	54.1	2,686,467	45.9		118.1
Ngetta	2,636,206	50.4	2,598,794	49.6		101.4
Nabuin	3,574,830	59.1	2,478,567	40.9		144.2
Serere	1,272,880	50.1	1,268,255	49.9		100.4
Mbarara	2,130,706	48.2	2,294,301	51.8		92.9
Rwebitaba	1,454,711	48.9	1,517,491	51.1		95.9
Uganda	22,584,331	52.2	20,645,111	47.8		109.4

Table 2- 8: Percent distribution of Ag HH heads, by main economic activity, sex of the head and ZARDI

	Male head			Female head			All heads		
	Mainly engaged in ag activities	Mainly engaged in non-ag activities	Total	Mainly engaged in ag activities	Mainly engaged in non-ag activities	Total	Mainly engaged in ag activities	Mainly engaged in non-ag activities	Total
Abi	84.2	15.8	100	95.1	4.9	100	86.5	13.5	100
Buginyanya	76.0	24.0	100	86.0	14.0	100	77.7	22.3	100
Bulindi	85.6	14.4	100	87.3	12.7	100	85.9	14.1	100
Kachwekano	63.2	36.8	100	90.2	9.8	100	68.3	31.7	100
Mukono	69.2	30.8	100	82.3	17.7	100	73.0	27.0	100
Ngetta	85.8	14.2	100	89.5	10.5	100	86.7	13.3	100
Nabuin	87.2	12.8	100	90.2	9.8	100	88.5	11.5	100
Serere	95.2	4.8	100	93.7	6.3	100	94.9	5.1	100
Mbarara	61.0	39.0	100	90.9	9.1	100	68.3	31.7	100
Rwebitaba	88.0	12.0	100	94.1	5.9	100	89.3	10.7	100
Uganda	78.6	21.4	100	88.9	11.1	100	81.2	18.8	100

Table 2- 9: Percent distribution of adult* members, by main economic activity, sex, and ZARDI

	Males			Females			Total		
	Mainly engaged in ag activities	Mainly engaged in non-ag activities	Total	Mainly engaged in ag activities	Mainly engaged in non-ag activities	Total	Mainly engaged in ag activities	Mainly engaged in non-ag activities	Total
Abi	95.2	4.8	100	80	20	100	93.2	6.8	100
Buginyanya	56.6	43.4	100	73.3	26.7	100	65	35	100
Bulindi	96.8	3.2	100	79.1	20.9	100	94.7	5.3	100
Kachwekano	49.6	50.4	100	74.3	25.7	100	61.7	38.3	100
Mukono	55.9	44.1	100	67.1	32.9	100	61.8	38.2	100
Ngetta	69.8	30.2	100	80.3	19.7	100	75.4	24.6	100
Nabuin	77.4	22.6	100	84.5	15.5	100	81.4	18.6	100
Serere	70.3	29.7	100	70	30	100	70.1	29.9	100
Mbarara	90.4	9.6	100	65.6	34.4	100	86.5	13.5	100
Rwebitaba	96.4	3.6	100	82.5	17.5	100	94.6	5.4	100
Uganda	87.2	12.8	100	75.4	24.6	100	84	16	100

(*) 18 years old or more

Table 2- 10: Percent distribution of youth*, by main economic activity, sex, and ZARDI

	Males			Females			Total		
	Mainly engaged in ag activities	Mainly engaged in non-ag activities	Total	Mainly engaged in ag activities	Mainly engaged in non-ag activities	Total	Mainly engaged in ag activities	Mainly engaged in non-ag activities	Total
Abi	43.1	56.9	100	54.5	45.5	100	48.8	51.2	100
Buginyanya	29.4	70.6	100	45.7	54.3	100	37.7	62.3	100
Bulindi	50.7	49.3	100	55.2	44.8	100	52.9	47.1	100
Kachwekano	32.1	67.9	100	55.4	44.6	100	42.9	57.1	100
Mukono	34.5	65.5	100	41.8	58.2	100	38.3	61.7	100
Ngetta	49.7	50.3	100	61.4	38.6	100	55.8	44.2	100
Nabuin	57.3	42.7	100	70.9	29.1	100	65.0	35.0	100
Serere	43.2	56.8	100	45.2	54.8	100	44.3	55.7	100
Mbarara	34.3	65.7	100	38.4	61.6	100	36.3	63.7	100
Rwebitaba	50.2	49.8	100	62.3	37.7	100	56.5	43.5	100
Uganda	41.2	58.8	100	38.0	62.0	100	38.2	61.8	100

(*) 15-34 years old

Table 2- 11: Percent distribution of adult* members that belong to a farmer organization, by sex and ZARDI

		Belongs to a farmer organization		Does not belong to a farmer organization		Total	
		N	%	N	%	N	%
Abi	Males	86,718	15.2	484,051	84.8	570,770	100.0
	Females	89,405	14.4	532,932	85.6	622,337	100.0
	Total	176,123	14.8	1,016,984	85.2	1,193,107	100.0
Buginyanya	Males	135,341	9.8	1,242,491	90.2	1,377,832	100.0
	Females	134,622	9.1	1,349,762	90.9	1,484,384	100.0
	Total	269,963	9.4	2,592,253	90.6	2,862,216	100.0
Bulindi	Males	48,952	11.0	394,564	89.0	443,516	100.0
	Females	55,865	12.6	386,726	87.4	442,592	100.0
	Total	104,817	11.8	781,290	88.2	886,107	100.0
Kachwekano	Males	44,077	13.4	285,860	86.6	329,937	100.0
	Females	53,617	15.3	297,599	84.7	351,216	100.0
	Total	97,694	14.3	583,459	85.7	681,153	100.0
Mukono	Males	64,301	7.0	853,610	93.0	917,912	100.0
	Females	51,486	4.8	1,028,289	95.2	1,079,775	100.0
	Total	115,787	5.8	1,881,899	94.2	1,997,686	100.0
Ngetta	Males	188,592	22.7	643,435	77.3	832,027	100.0
	Females	214,439	22.6	733,018	77.4	947,458	100.0
	Total	403,031	22.6	1,376,454	77.4	1,779,485	100.0
Nabuin	Males	25,503	3.0	825,308	97.0	850,811	100.0
	Females	17,187	1.4	1,170,804	98.6	1,187,991	100.0
	Total	42,690	2.1	1,996,112	97.9	2,038,802	100.0
Serere	Males	43,654	11.3	342,722	88.7	386,376	100.0
	Females	36,741	8.1	418,538	91.9	455,279	100.0
	Total	80,395	9.6	761,260	90.4	841,655	100.0
Mbarara	Males	54,615	6.4	794,491	93.6	849,106	100.0
	Females	58,988	6.7	816,048	93.3	875,036	100.0
	Total	113,603	6.6	1,610,540	93.4	1,724,143	100.0
Rwebitaba	Males	57,718	10.5	492,966	89.5	550,685	100.0
	Females	68,289	11.4	531,881	88.6	600,171	100.0
	Total	126,008	10.9	1,024,848	89.1	1,150,856	100.0
Uganda	Males	749,472	10.5	6,359,498	89.5	7,108,971	100.0
	Females	780,639	9.7	7,265,599	90.3	8,046,238	100.0
	Total	1,530,111	10.1	13,625,097	89.9	15,155,209	100.0

(*) 18 years old or more

Table 2- 12: Percent distribution of adult members, by employment status, sex and ZARDI

		Own Account		Employer		Salaried Worker		Task Worker		Unpaid		Trainee/Volunteer/Intern		Other		Total	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Abi	M	505,096	84.3	0	0.0	48,153	8.0	8,102	1.4	31,467	5.3	6,324	1.1	0	0.0	599,143	100.0
	F	596,036	91.4	2,176	0.3	21,252	3.3	0	0.0	31,530	4.8	0	0.0	832	0.1	651,825	100.0
	T	1,101,131	88.0	2,176	0.2	69,405	5.5	8,102	0.6	62,997	5.0	6,324	0.5	832	0.1	1,250,968	100.0
Buginyanya	M	1,092,733	79.9	25,414	1.9	126,242	9.2	76,603	5.6	44,975	3.3	1,677	0.1	490	0.0	1,368,133	100.0
	F	1,135,324	76.4	14,460	1.0	66,270	4.5	61,049	4.1	206,525	13.9	2,764	0.2	584	0.0	1,486,976	100.0
	T	2,228,057	78.0	39,874	1.4	192,512	6.7	137,652	4.8	251,500	8.8	4,442	0.2	1,073	0.0	2,855,109	100.0
Bulindi	M	373,995	77.3	19,602	4.0	40,644	8.4	37,483	7.7	10,395	2.1	1,954	0.4	0	0.0	484,074	100.0
	F	429,630	87.9	5,783	1.2	19,411	4.0	19,754	4.0	12,680	2.6	1,445	0.3	0	0.0	488,704	100.0
	T	803,625	82.6	25,385	2.6	60,056	6.2	57,237	5.9	23,075	2.4	3,399	0.3	0	0.0	972,777	100.0
Kachwekano	M	215,241	63.7	1,754	0.5	60,801	18.0	51,630	15.3	8,406	2.5	0	0.0	0	0.0	337,832	100.0
	F	286,719	79.8	1,907	0.5	32,365	9.0	9,767	2.7	28,743	8.0	0	0.0	0	0.0	359,501	100.0
	T	501,960	72.0	3,660	0.5	93,166	13.4	61,397	8.8	37,149	5.3	0	0.0	0	0.0	697,333	100.0
Mukono	M	689,936	69.6	6,720	0.7	124,681	12.6	129,845	13.1	39,743	4.0	0	0.0	0	0.0	990,925	100.0
	F	792,256	73.0	537	0.0	67,068	6.2	49,060	4.5	171,311	15.8	5,500	0.5	0	0.0	1,085,732	100.0
	T	1,482,192	71.4	7,257	0.3	191,749	9.2	178,905	8.6	211,054	10.2	5,500	0.3	0	0.0	2,076,657	100.0
Ngetta	M	616,224	67.4	704	0.1	88,098	9.6	21,006	2.3	188,859	20.6	0	0.0	0	0.0	914,892	100.0
	F	554,255	51.5	0	0.0	52,461	4.9	5,660	0.5	461,301	42.9	2,049	0.2	0	0.0	1,075,726	100.0
	T	1,170,479	58.8	704	0.0	140,560	7.1	26,666	1.3	650,160	32.7	2,049	0.1	0	0.0	1,990,618	100.0
Nabuin	M	759,058	85.9	0	0.0	53,529	6.1	28,034	3.2	39,399	4.5	3,855	0.4	0	0.0	883,875	100.0
	F	962,795	81.5	0	0.0	12,676	1.1	0	0.0	205,606	17.4	0	0.0	0	0.0	1,181,076	100.0
	T	1,721,852	83.4	0	0.0	66,205	3.2	28,034	1.4	245,005	11.9	3,855	0.2	0	0.0	2,064,951	100.0
Serere	M	272,161	64.6	0	0.0	42,328	10.1	3,896	0.9	101,574	24.1	1,207	0.3	0	0.0	421,166	100.0
	F	195,824	42.1	0	0.0	34,531	7.4	2,268	0.5	231,907	49.8	932	0.2	0	0.0	465,462	100.0
	T	467,985	52.8	0	0.0	76,859	8.7	6,164	0.7	333,481	37.6	2,139	0.2	0	0.0	886,628	100.0
Mbarara	M	491,652	56.5	505	0.1	215,824	24.8	122,628	14.1	36,207	4.2	1,665	0.2	1,791	0.2	870,272	100.0
	F	598,130	65.6	2,623	0.3	126,128	13.8	29,061	3.2	145,237	15.9	10,930	1.2	0	0.0	912,109	100.0
	T	1,089,782	61.1	3,128	0.2	341,953	19.2	151,689	8.5	181,444	10.2	12,595	0.7	1,791	0.1	1,782,381	100.0
Rwebitaba	M	471,649	79.3	3,293	0.6	51,811	8.7	26,320	4.4	40,576	6.8	1,242	0.2	0	0.0	594,891	100.0
	F	549,656	80.9	1,932	0.3	41,832	6.2	6,993	1.0	76,613	11.3	1,187	0.2	1,116	0.2	679,329	100.0
	T	1,021,305	80.2	5,224	0.4	93,643	7.3	33,313	2.6	117,189	9.2	2,430	0.2	1,116	0.1	1,274,220	100.0
Uganda	M	5,487,744	73.5	57,991	0.8	852,111	11.4	505,546	6.8	541,601	7.3	17,926	0.2	2,281	0.0	7,465,200	100.0
	F	6,100,624	72.7	29,417	0.4	473,995	5.7	183,612	2.2	1,571,453	18.7	24,806	0.3	2,532	0.0	8,386,440	100.0
	T	11,600,000	73.1	87,409	0.6	1,326,106	8.4	689,158	4.3	2,113,054	13.3	42,732	0.3	4,813	0.0	15,900,000	100.0

Table 2- 13: Percentage of Ag HHs with at least one member trained in agriculture*, by ZARDI

	% of Ag HHs with at least one person trained in agriculture	% of Ag HHs without a person trained in agriculture	Total
Abi	10.4	89.6	100.0
Buginyanya	13.0	87.0	100.0
Bulindi	8.4	91.6	100.0
Kachwekano	17.3	82.7	100.0
Mukono	16.1	83.9	100.0
Ngetta	9.5	90.5	100.0
Nabuin	8.8	91.2	100.0
Serere	2.2	97.8	100.0
Mbarara	13.9	86.1	100.0
Rwebitaba	16.5	83.5	100.0
Uganda	11.9	88.1	100.0

(*) reference period are the last 12 months

Table 2- 14: Distribution of adult* members trained in agriculture, by sex and ZARDI**

		Adult males	Adult females	Total
Abi	Number	34,774	22,219	56,993
	Percentage	4.8	2.9	3.9
Buginyanya	Number	121,191	77,512	198,703
	Percentage	6.8	4.3	5.5
Bulindi	Number	20,285	14,667	34,952
	Percentage	3.7	2.6	3.2
Kachwekano	Number	21,437	36,301	57,738
	Percentage	5.2	9.0	7.1
Mukono	Number	105,994	61,766	167,759
	Percentage	9.3	4.8	6.9
Ngetta	Number	47,251	32,518	79,769
	Percentage	4.3	2.7	3.4
Nabuin	Number	40,387	72,943	113,330
	Percentage	4.0	5.5	4.8
Serere	Number	6,379	777	7,156
	Percentage	1.2	0.1	0.6
Mbarara	Number	51,717	47,215	98,932
	Percentage	4.9	4.5	4.7
Rwebitaba	Number	57,014	51,062	108,076
	Percentage	8.5	6.9	7.6
Uganda	Number	506,430	416,979	923,409
	Percentage	5.6	4.3	4.9

(*) 18 years old or more

(**) reference period are the last 12 months

Table 2- 15: Distribution of Ag HHs engaged in crop production*, by sex of the head and ZARDI

ZARDI		Total Number of Ag HHs	Number of Ag HHs engaged in	Percentage of Ag HHs
Abi	Male Headed	380,150	376,261	99.0
	Female Headed	103,242	103,242	100.0
	Total	483,392	479,503	99.2
Buginyanya	Male Headed	1,100,534	1,068,654	97.1
	Female Headed	235,609	224,714	95.4
	Total	1,336,143	1,293,368	96.8
Bulindi	Male Headed	331,772	310,444	93.6
	Female Headed	65,627	65,627	100.0
	Total	397,399	376,070	94.6
Kachwekano	Male Headed	258,708	258,708	100.0
	Female Headed	59,162	57,864	97.8
	Total	317,869	316,571	99.6
Mukono	Male Headed	682,138	666,728	97.7
	Female Headed	284,773	279,047	98.0
	Total	966,910	945,775	97.8
Ngetta	Male Headed	593,965	579,420	97.6
	Female Headed	191,435	179,570	93.8
	Total	785,400	758,990	96.6
Nabuin	Male Headed	635,354	108,680	17.1
	Female Headed	465,930	35,143	7.5
	Total	1,101,284	143,823	13.1
Serere	Male Headed	258,859	257,107	99.3
	Female Headed	71,217	70,440	98.9
	Total	330,076	327,547	99.2
Mbarara	Male Headed	523,010	521,639	99.7
	Female Headed	167,587	167,587	100.0
	Total	690,597	689,225	99.8
Rwebitaba	Male Headed	401,125	400,479	99.8
	Female Headed	106,535	106,535	100.0
	Total	507,660	507,014	99.9
Uganda	Male Headed	5,165,615	4,548,119	88.0
	Female Headed	1,751,115	1,289,769	73.7
	Total	6,916,729	5,837,887	84.4

(*) reference period are the last 12 months

Table 2- 16: Distribution of Ag HHs raising livestock*, by sex of the head and ZARDI

		N Ag HHs	N Ag HHs in livestock production	% Ag HHs in livestock production
Abi	Male Headed	380,150	312,484	82.2
	Female Headed	103,242	80,683	78.2
	Total	483,392	393,168	81.3
Buginyanya	Male Headed	1,100,534	866,763	78.8
	Female Headed	235,609	169,105	71.8
	Total	1,336,143	1,035,868	77.5
Bulindi	Male Headed	331,772	288,610	87.0
	Female Headed	65,627	49,342	75.2
	Total	397,399	337,952	85.0
Kachwekano	Male Headed	258,708	155,349	60.0
	Female Headed	59,162	27,057	45.7
	Total	317,869	182,406	57.4
Mukono	Male Headed	682,138	541,998	79.5
	Female Headed	284,773	220,760	77.5
	Total	966,910	762,759	78.9
Ngetta	Male Headed	593,965	539,101	90.8
	Female Headed	191,435	160,914	84.1
	Total	785,400	700,015	89.1
Nabuin	Male Headed	635,354	489,200	77.0
	Female Headed	465,930	295,930	63.5
	Total	1,101,284	785,130	71.3
Serere	Male Headed	258,859	242,522	93.7
	Female Headed	71,217	61,915	86.9
	Total	330,076	304,437	92.2
Mbarara	Male Headed	523,010	364,879	69.8
	Female Headed	167,587	105,292	62.8
	Total	690,597	470,171	68.1
Rwebitaba	Male Headed	401,125	307,208	76.6
	Female Headed	106,535	86,307	81.0
	Total	507,660	393,515	77.5
Uganda	Male Headed	5,165,615	4,108,114	79.5
	Female Headed	1,751,115	1,257,306	71.8
	Total	6,916,729	5,365,420	77.6

(*) reference period are the last 12 months

Table 2- 17: Distribution of Ag HHs practicing aquaculture*, by sex of the head and ZARDI

		N Ag HHs	N Ag HHs in aquaculture	% Ag HHs in aquaculture
Abi	Male Headed	380,150	0	0.0
	Female Headed	103,242	0	0.0
	Total	483,392	0	0.0
Buginyanya	Male Headed	1,100,534	2,465	0.2
	Female Headed	235,609	0	0.0
	Total	1,336,143	2,465	0.2
Bulindi	Male Headed	331,772	1,972	0.6
	Female Headed	65,627	0	0.0
	Total	397,399	1,972	0.5
Kachwekano	Male Headed	258,708	563	0.2
	Female Headed	59,162	0	0.0
	Total	317,869	563	0.2
Mukono	Male Headed	682,138	5,595	0.8
	Female Headed	284,773	0	0.0
	Total	966,910	5,595	0.6
Ngetta	Male Headed	593,965	0	0.0
	Female Headed	191,435	0	0.0
	Total	785,400	0	0.0
Nabuin	Male Headed	635,354	0	0.0
	Female Headed	465,930	0	0.0
	Total	1,101,284	0	0.0
Serere	Male Headed	258,859	753	0.3
	Female Headed	71,217	0	0.0
	Total	330,076	753	0.2
Mbarara	Male Headed	523,010	0	0.0
	Female Headed	167,587	0	0.0
	Total	690,597	0	0.0
Rwebitaba	Male Headed	401,125	1,311	0.3
	Female Headed	106,535	0	0.0
	Total	507,660	1,311	0.3
Uganda	Male Headed	5,165,615	12,659	0.2
	Female Headed	1,751,115	0	0.0
	Total	6,916,729	12,659	0.2

(*) reference period are the last 12 months

Table 2- 18: Distribution of Ag HHs practicing apiculture*, by sex of the head and ZARDI

		N Ag HHs	N Ag HHs in apiculture	%f Ag HHs in apiculture
Abi	Male Headed	380,150	36,135	9.5
	Female Headed	103,242	2,572	2.5
	Total	483,392	38,707	8.0
Buginyanya	Male Headed	1,100,534	4,958	0.5
	Female Headed	235,609	0	0.0
	Total	1,336,143	4,958	0.4
Bulindi	Male Headed	331,772	13,202	4.0
	Female Headed	65,627	2,033	3.1
	Total	397,399	15,235	3.8
Kachwekano	Male Headed	258,708	7,960	3.1
	Female Headed	59,162	0	0.0
	Total	317,869	7,960	2.5
Mukono	Male Headed	682,138	22,104	3.2
	Female Headed	284,773	5,473	1.9
	Total	966,910	27,577	2.9
Ngetta	Male Headed	593,965	46,173	7.8
	Female Headed	191,435	5,022	2.6
	Total	785,400	51,196	6.5
Nabuin	Male Headed	635,354	17,059	2.7
	Female Headed	465,930	8,795	1.9
	Total	1,101,284	25,855	2.3
Serere	Male Headed	258,859	15,248	5.9
	Female Headed	71,217	0	0.0
	Total	330,076	15,248	4.6
Mbarara	Male Headed	523,010	10,819	2.1
	Female Headed	167,587	910	0.5
	Total	690,597	11,730	1.7
Rwebitaba	Male Headed	401,125	1,133	0.3
	Female Headed	106,535	1,128	1.1
	Total	507,660	2,261	0.4
Uganda	Male Headed	5,165,615	174,792	3.4
	Female Headed	1,751,115	25,935	1.5
	Total	6,916,729	200,727	2.9

(*) reference period are the last 12 months

Table 2- 19: Distribution of Ag HHs engaged in forestry*, by sex of the head and ZARDI

		Total Number of Ag HHs	Number of Ag HHs engaged in forestry	Percentage of Ag HHs engaged in forestry
Abi	Male Headed	380,150	17,548	4.6
	Female Headed	103,242	3,453	3.3
	Total	483,392	21,002	4.3
Buginyanya	Male Headed	1,100,534	22,241	2.0
	Female Headed	235,609	675	0.3
	Total	1,336,143	22,916	1.7
Bulindi	Male Headed	331,772	24,858	7.5
	Female Headed	65,627	5,474	8.3
	Total	397,399	30,332	7.6
Kachwekano	Male Headed	258,708	46,616	18.0
	Female Headed	59,162	4,979	8.4
	Total	317,869	51,595	16.2
Mukono	Male Headed	682,138	92,626	13.6
	Female Headed	284,773	27,684	9.7
	Total	966,910	120,310	12.4
Ngetta	Male Headed	593,965	16,412	2.8
	Female Headed	191,435	1,470	0.8
	Total	785,400	17,881	2.3
Nabuin	Male Headed	635,354	0	0.0
	Female Headed	465,930	0	0.0
	Total	1,101,284	0	0.0
Serere	Male Headed	258,859	0	0.0
	Female Headed	71,217	0	0.0
	Total	330,076	0	0.0
Mbarara	Male Headed	523,010	11,015	2.1
	Female Headed	167,587	2,390	1.4
	Total	690,597	13,406	1.9
Rwebitaba	Male Headed	401,125	4,930	1.2
	Female Headed	106,535	757	0.7
	Total	507,660	5,688	1.1
Uganda	Male Headed	5,165,615	236,246	4.6
	Female Headed	1,751,115	46,884	2.7
	Total	6,916,729	283,130	4.1

(*) reference period are the last 12 months

Table 2- 20: Distribution of Ag HHs, by type of enterprise, sex of the head and ZARDI

	sex	Only crop production		Crop Prod + other ag activities		Only other ag activities		Total	
		N	%	N	%	N	%	N	%
Abi	Male	60,493	16.0	315,768	83.7	784	0.2	377,045	100.0
	Female	22,558	21.8	80,683	78.2	0	0.0	103,242	100.0
	Total	83,051	17.3	396,451	82.5	784	0.2	480,287	100.0
Buginyanya	Male	214,932	19.8	853,722	78.8	15,146	1.4	1,083,800	100.0
	Female	60,291	26.2	164,423	71.5	5,357	2.3	230,071	100.0
	Total	275,222	20.9	1,018,146	77.5	20,503	1.6	1,313,871	100.0
Bulindi	Male	36,363	11.1	274,081	83.8	16,567	5.1	327,011	100.0
	Female	13,285	20.2	52,342	79.8	0	0.0	65,627	100.0
	Total	49,647	12.6	326,423	83.1	16,567	4.2	392,637	100.0
Kachwekano	Male	93,028	36.0	165,680	64.0	0	0.0	258,708	100.0
	Female	29,452	50.9	28,412	49.1	0	0.0	57,864	100.0
	Total	122,480	38.7	194,091	61.3	0	0.0	316,571	100.0
Mukono	Male	117,584	17.5	549,144	81.6	6,348	0.9	673,076	100.0
	Female	58,339	20.7	220,709	78.4	2,602	0.9	281,649	100.0
	Total	175,922	18.4	769,853	80.6	8,950	0.9	954,725	100.0
Ngetta	Male	45,071	7.7	534,349	91.4	5,311	0.9	584,731	100.0
	Female	21,686	11.8	157,884	86.2	3,604	2.0	183,174	100.0
	Total	66,757	8.7	692,233	90.1	8,915	1.2	767,905	100.0
Nabuin	Male	18,225	3.6	90,455	17.7	403,083	78.8	511,763	100.0
	Female	9,158	3.0	25,985	8.5	269,945	88.5	305,088	100.0
	Total	27,383	3.4	116,441	14.3	673,028	82.4	816,851	100.0
Serere	Male	15,554	6.0	241,553	93.6	969	0.4	258,076	100.0
	Female	9,302	13.1	61,138	85.8	777	1.1	71,217	100.0
	Total	24,856	7.5	302,691	91.9	1,746	0.5	329,293	100.0
Mbarara	Male	154,846	29.6	366,792	70.1	1,371	0.3	523,010	100.0
	Female	60,727	36.2	106,860	63.8	0	0.0	167,587	100.0
	Total	215,573	31.2	473,652	68.6	1,371	0.2	690,597	100.0
Rwebitaba	Male	93,019	23.2	307,460	76.6	646	0.2	401,125	100.0
	Female	20,228	19.0	86,307	81.0	0	0.0	106,535	100.0
	Total	113,247	22.3	393,767	77.6	646	0.1	507,660	100.0
Uganda	Male	849,114	17.0	3,699,004	74.0	450,226	9.0	4,998,344	100.0
	Female	305,025	19.4	984,743	62.6	282,285	18.0	1,572,054	100.0
	Total	1,154,140	17.6	4,683,748	71.3	732,511	11.1	6,570,398	100.0

Table 2- 21: Percent distribution of Ag HHs, by type of enterprise and main purpose

	Crop production	Livestock production	Aquaculture production	Apiculture production	Agroforestry production
Only for sale	10.6	11.1	7.7	14.0	15.9
Mainly for sale with some own consumption	34.4	36.7	61.4	42.2	41.7
Mainly for own consumption and some for sale	45.5	43.8	23.1	35.9	33.6
Only for own consumption	9.5	8.5	7.7	7.9	8.9
Total	100.0	100.0	100.0	100.0	100.0

Table 2- 22: Percent distribution of Ag HHs, by type of enterprise and sex of members involved

	Crop production	Livestock production	Aquaculture production	Apiculture production	Agroforestry production
Only males	8.3	7.5	32.2	32.1	14.9
Only females	12.7	11.5	0.0	4.7	10.6
Mostly males	12.6	16.2	19.2	16.2	20.7
Mostly females	19.5	18.1	18.8	8.8	19.9
Equally males and females	46.9	46.8	29.8	38.2	33.9
Total	100.0	100.0	100.0	100.0	100.0

Annex 3

NOTE: All the tables of this Annex have been extracted from the data collected in the second season of the agricultural year 2018 and they refer to this season.

Table 3- 1: Average number of parcels and average parcel size (ha)

	average number of parcels				total number of parcels				average parcel size			
	Mean	SE(*)	lower 95	upper 95	Total	SE(*)	lower 95	upper 95	Mean	SE(*)	lower 95	upper 95
Abi	2.84	0.06	2.72	2.96	1,400,672	30,138	1,341,591	1,459,753	0.32	0.01	0.30	0.35
Buginyanya	2.14	0.03	2.08	2.20	3,003,701	45,038	2,915,411	3,091,991	0.39	0.01	0.36	0.42
Bulindi	2.04	0.05	1.94	2.15	864,057	23,028	818,914	909,201	1.16	0.10	0.96	1.35
Kachwekano	3.20	0.14	2.92	3.47	1,059,796	47,021	967,618	1,151,974	0.72	0.47	- 0.21	1.65
Mukono	2.04	0.04	1.96	2.12	2,155,378	43,784	2,069,546	2,241,210	0.90	0.10	0.71	1.09
Ngetta	2.49	0.05	2.39	2.58	1,957,838	38,647	1,882,075	2,033,600	1.80	0.81	0.21	3.39
Nabuin	1.26	0.04	1.18	1.34	1,122,042	36,699	1,050,098	1,193,985	0.29	0.04	0.21	0.36
Serere	1.83	0.05	1.74	1.92	633,320	16,102	601,755	664,885	1.00	0.13	0.75	1.26
Mbarara	2.70	0.07	2.56	2.83	1,958,472	50,066	1,860,325	2,056,619	0.77	0.12	0.54	1.00
Rwebitaba	2.05	0.05	1.95	2.15	1,049,795	25,919	998,986	1,100,605	0.46	0.04	0.38	0.54
Uganda	2.18	0.02	2.14	2.22	15,200,000	129,999	15,000,000	15,500,000	0.78	0.11	0.56	0.99

(*) Standard Error

Table 3- 2: Average number of plots and average plot size (ha)

	average number plots per parcel				total number of plots				average plot size			
	Mean	SE(*)	lower	upper	Total	SE(*)	lower	upper	Mean	SE(*)	lower	upper
			95	95			95	95			95	95
Abi	1.97	0.04	1.89	2.04	2,757,308	53,477	2,652,487	2,862,130	0.16	0.00	0.15	0.16
Buginyanya	1.89	0.03	1.83	1.95	5,678,730	87,302	5,507,606	5,849,854	0.20	0.01	0.19	0.21
Bulindi	3.14	0.09	2.96	3.33	2,717,116	80,934	2,558,474	2,875,757	0.28	0.01	0.25	0.30
Kachwekano	1.89	0.07	1.74	2.03	1,997,933	79,265	1,842,563	2,153,304	0.13	0.01	0.12	0.14
Mukono	2.36	0.04	2.27	2.44	5,077,626	95,015	4,891,384	5,263,868	0.32	0.03	0.26	0.37
Ngetta	2.34	0.04	2.26	2.41	4,575,051	74,730	4,428,571	4,721,531	0.70	0.35	0.02	1.38
Nabuin	1.17	0.05	1.08	1.26	1,311,960	52,474	1,209,105	1,414,816	0.23	0.02	0.18	0.27
Serere	3.50	0.08	3.33	3.66	2,215,162	53,177	2,110,929	2,319,395	0.27	0.03	0.21	0.32
Mbarara	2.17	0.04	2.08	2.25	4,246,653	84,015	4,081,972	4,411,334	0.32	0.05	0.22	0.41
Rwebitaba	2.61	0.06	2.49	2.73	2,744,567	64,399	2,618,336	2,870,797	0.17	0.01	0.14	0.20
Uganda	2.19	0.02	2.16	2.22	33,300,000	247,908	32,800,000	33,800,000	0.30	0.05	0.21	0.40

(*) Standard Error

Table 3- 3: Percent distribution of Ag HHs, by number of parcels and ZARDI

	2 parcels or less	3 to 4 parcels	5 or more parcels	Total
Abi	27.8	54.5	17.6	100.0
Buginyanya	52.9	39.7	7.4	100.0
Bulindi	55.8	34.8	9.3	100.0
Kachwekano	20.3	43.8	35.9	100.0
Mukono	54.8	37.1	8.1	100.0
Ngetta	39.0	44.7	16.3	100.0
Nabuin	91.7	8.3	0.0	100.0
Serere	63.4	35.3	1.3	100.0
Mbarara	31.0	42.7	26.3	100.0
Rwebitaba	55.3	36.0	8.7	100.0
Uganda	47.6	39.0	13.4	100.0

Table 3- 4: Percent distribution of Ag HHs, by number of plots and ZARDI

	1 or 2 plots	3 to 5 plots	6 or more plots	Total
Abi	7.9	46.0	46.0	100.0
Buginyanya	22.2	58.6	19.2	100.0
Bulindi	9.0	38.1	52.9	100.0
Kachwekano	4.2	40.6	55.2	100.0
Mukono	13.7	53.3	33.0	100.0
Ngetta	5.9	42.5	51.6	100.0
Nabuin	90.1	7.9	2.0	100.0
Serere	1.6	38.6	59.8	100.0
Mbarara	11.0	39.3	49.7	100.0
Rwebitaba	6.0	53.6	40.4	100.0
Uganda	21.7	43.1	35.1	100.0

Table 3- 5: Total area, by use and ZARDI

	Holding size		Planted area	
	average	total	average	total
Abi	0.86	428,247	0.72	357,007
Buginyanya	0.77	1,111,063	0.67	966,096
Bulindi	1.75	747,985	1.44	616,936
Kachwekano	0.76	252,992	0.65	217,973
Mukono	1.49	1,596,749	1.01	1,084,158
Ngetta	3.94	3,183,179	0.98	793,673
Nabuin	0.24	295,423	0.08	94,431
Serere	1.68	589,644	0.91	317,541
Mbarara	1.79	1,321,754	0.78	573,741
Rwebitaba	0.96	492,841	0.78	397,111
Uganda	1.35	10,019,877	0.73	5,418,666

Table 3- 6: Percent distribution of Ag HH, by size of the holding and ZARDI

	size classes				Total
	< 0.5 Ha	0.5-1 Ha	1-2 Ha	Over 2 Ha	
Abi	44.8	32.7	17.9	4.6	100
Buginyanya	50.6	27.6	15.8	6.0	100
Bulindi	22.5	25.7	27.4	24.4	100
Kachwekano	56.7	25.2	12.8	5.3	100
Mukono	38.4	26.4	21.3	13.9	100
Ngetta	15.9	21.6	32.9	29.6	100
Nabuin	45.0	34.1	11.7	9.1	100
Serere	16.5	27.3	35.2	21.0	100
Mbarara	43.6	25.2	19.1	12.1	100
Rwebitaba	45.5	32.3	15.6	6.6	100
Uganda	39.0	27.2	20.8	13.0	100

Table 3- 7: Percent distribution of parcels, by use right and ZARDI

		Parcels Owned	Parcels Rented	Parcels under other use rights	Total
Abi	N	1,130,554	164,154	105,965	1,400,672
	Percentage	80.7	11.7	7.6	100.0
	Total area (ha)	388,985	71,693	28,146	488,824
Buginyanya	N	2,306,984	523,858	172,860	3,003,701
	Percentage	76.8	17.4	5.8	100.0
	Total area (ha)	964,676	213,997	46,385	1,225,058
Bulindi	N	568,064	158,037	137,957	864,057
	Percentage	65.7	18.3	16.0	100.0
	Total area (ha)	952,973	128,850	143,730	1,225,553
Kachwekano	N	848,936	162,833	48,027	1,059,796
	Percentage	80.1	15.4	4.5	100.0
	Total area (ha)	673,737	22,558	5,231	701,527
Mukono	N	1,488,768	377,376	289,234	2,155,378
	Percentage	69.1	17.5	13.4	100.0
	Total area (ha)	1,981,830	187,235	103,334	2,272,399
Ngetta	N	1,661,275	212,411	84,152	1,957,838
	Percentage	84.9	10.8	4.3	100.0
	Total area (ha)	3,852,872	126,301	112,893	4,092,066
Nabuin	N	1,027,313	3,518	91,211	1,122,042
	Percentage	91.6	0.3	8.1	100.0
	Total area (ha)	461,133	171	43,042	504,345
Serere	N	482,853	98,591	51,876	633,320
	Percentage	76.2	15.6	8.2	100.0
	Total area (ha)	583,365	38,800	18,969	641,134
Mbarara	N	1,435,261	376,330	146,880	1,958,472
	Percentage	73.3	19.2	7.5	100.0
	Total area (ha)	1,395,868	58,610	30,759	1,485,237
Rwebitaba	N	804,904	193,813	51,079	1,049,795
	Percentage	76.7	18.5	4.9	100.0
	Total area (ha)	418,817	71,508	16,896	507,221
Uganda	N	11,754,911	2,270,920	1,179,239	15,205,071
	Percentage	77.3	14.9	7.8	100.0
	Total area (ha)	11,674,258	919,724	549,383	13,143,365

Table 3- 8: Percentage of parcels with a legally recognized document that certifies legal tenure rights

	Parcels with no legal document		Parcels with no legal document		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
Abi	1,306,111	93.2	94,561	6.8	1,400,672	100.0
Buginyanya	2,051,133	68.3	952,568	31.7	3,003,701	100.0
Bulindi	526,805	61.0	337,252	39.0	864,057	100.0
Kachwekano	843,644	79.6	216,152	20.4	1,059,796	100.0
Mukono	892,141	41.4	1,263,238	58.6	2,155,378	100.0
Ngetta	1,722,729	88.0	235,108	12.0	1,957,838	100.0
Nabuin	1,062,604	94.7	59,438	5.3	1,122,042	100.0
Serere	523,984	82.7	109,336	17.3	633,320	100.0
Mbarara	1,158,265	59.1	800,206	40.9	1,958,472	100.0
Rwebitaba	607,165	57.8	442,630	42.2	1,049,795	100.0
Uganda	10,694,582	70.3	4,510,489	29.7	15,205,071	100.0

Table 3- 9: Percent distribution of parcels, by type of legal document and ZARDI

		Title Deed	Certificate Customary	Certificate Occupancy	Certificate Hereditary	Written Sale Agreement	Rental Contract	Lease Contract	Other	Total
Abi	N	9,885	3,093	1,995	990	67,384	6,499	1,275	3,441	94,561
	%	10.5	3.3	2.1	1.0	71.3	6.9	1.3	3.6	100.0
Buginyanya	N	7,658	38,331	1,984	11,171	843,957	42,674	5,827	967	952,568
	%	0.8	4.0	0.2	1.2	88.6	4.5	0.6	0.1	100.0
Bulindi	N	15,271	4,730	0	1,302	302,862	13,088	0	0	337,252
	%	4.5	1.4	0.0	0.4	89.8	3.9	0.0	0.0	100.0
Kachwekano	N	0	0	0	30,574	184,985	0	593	0	216,152
	%	0.0	0.0	0.0	14.1	85.6	0.0	0.3	0.0	100.0
Mukono	N	320,675	0	16,121	21,307	826,270	71,635	7,230	0	1,263,238
	%	25.4	0.0	1.3	1.7	65.4	5.7	0.6	0.0	100.0
Ngetta	N	6,799	3,816	4,946	0	162,059	55,162	2,327	0	235,108
	%	2.9	1.6	2.1	0.0	68.9	23.5	1.0	0.0	100.0
Nabuin	N	0	15,832	8,738	0	34,867	0	0	0	59,438
	%	0.0	26.6	14.7	0.0	58.7	0.0	0.0	0.0	100.0
Serere	N	16,504	12,353	1,656	12,390	61,636	3,589	0	1,207	109,336
	%	15.1	11.3	1.5	11.3	56.4	3.3	0.0	1.1	100.0
Mbarara	N	61,970	0	7,379	45,065	680,974	4,818	0	0	800,206
	%	7.7	0.0	0.9	5.6	85.1	0.6	0.0	0.0	100.0
Rwebitaba	N	7,686	682	3,807	1,158	429,297	0	0	0	442,630
	%	1.7	0.2	0.9	0.3	97.0	0.0	0.0	0.0	100.0
Uganda	N	446,448	78,837	46,626	123,956	3,594,292	197,465	17,252	5,615	4,510,489
	%	9.9	1.7	1.0	2.7	79.7	4.4	0.4	0.1	100.0

Table 3- 10: Percent distribution of parcels, by tenure type and ZARDI

	Freehold	Leasehold	Mailo	Customary	Public land	Not Known	Total
Abi	0.0	0.1	0.0	99.5	0.3	0.1	100.0
Buginyanya	19.8	0.7	0.0	77.3	1.0	1.2	100.0
Bulindi	28.0	0.6	0.4	55.3	14.3	1.3	100.0
Kachwekano	2.6	0.0	0.0	94.9	0.8	1.7	100.0
Mukono	2.3	0.2	85.9	0.1	6.4	5.1	100.0
Ngetta	11.0	0.1	0.0	87.7	1.0	0.2	100.0
Nabuin	0.0	0.0	0.0	98.6	1.4	0.0	100.0
Serere	2.7	0.6	94.1	1.0	1.5	0.1	100.0
Mbarara	10.3	62.9	0.0	1.1	3.0	22.7	100.0
Rwebitaba	0.5	97.7	0.0	0.6	1.2	0.0	100.0
Uganda	11.1	0.3	13.5	71.1	2.4	1.7	100.0

Table 3- 11: Percent distribution of adult* ag population with ownership or tenure rights over agricultural land, by sex

	% of adults with ownership or tenure rights over ag land, by sex			Share (%) of women among the owners/rights holders	
	(SDG 5a1 – part a)			(SDG 5a1 – part b)	
	Total	Adult males	Adult females		
Abi	32.3	50.8	15.1		24.1
Buginyanya	41.6	49.5	33.6		40.1
Bulindi	37.2	44.3	30		40.2
Kachwekano	57.6	55.3	59.9		51.1
Mukono	51.5	47.6	24		36.2
Ngetta	35.1	54.8	35.2		41.4
Nabuin	44.5	39.2	24		44.2
Serere	30.7	35.8	8.3		20.6
Mbarara	46.3	53	50		49
Rwebitaba	21.3	56.4	37.3		42.4
Uganda	39.6	48.7	31.1		40.8

(*) 18 years or more

Table 3- 12: Percentage distribution of adult* agricultural population with a tenure right document in their name, by sex

	Percentage of adult with a tenure right document in their name		
	Total	Adult males	Adult females
Abi	4.4	6.7	2.3
Buginyanya	17.8	23.5	12.0
Bulindi	18.6	23.3	13.9
Kachwekano	14.3	15.0	13.6
Mukono	18.9	29.5	9.6
Ngetta	8.0	10.5	5.8
Nabuin	1.9	3.2	0.8
Serere	4.3	6.7	2.3
Mbarara	18.3	23.7	13.0
Rwebitaba	25.0	33.2	17.6
Uganda	13.3	18.3	8.7

(*) 18 years or more

Annex 4

NOTE: All the tables of this Annex have been extracted from the data collected in the second season of the agricultural year 2018 and they refer to this season.

Table 4- 1: Percent distribution of crop plots, by sex of the plot manager and ZARDI

	Solely Men	Solely Women	Jointly Men and Women	Total
Abi	3.2	2.9	93.9	100.0
Buginyanya	2.9	3.3	93.8	100.0
Bulindi	6.7	1.9	91.4	100.0
Kachwekano	2.2	4.1	93.7	100.0
Mukono	7.6	4.2	88.2	100.0
Ngetta	1.2	2.5	96.3	100.0
Nabuin	5.9	0.0	94.1	100.0
Serere	2.3	1.5	96.2	100.0
Mbarara	2.5	3.3	94.2	100.0
Rwebitaba	5.8	3.6	90.6	100.0
Uganda	4.0	3.1	92.9	100.0

Table 4- 2: Distribution of plots, by use and ZARDI

	Cultivated with crops	Left fallow / left bare after ploughing	Used as grazing land	Used for forestry	Other non-agricultural uses	Total
Abi	2,215,837	41,239	4,536	1,128	494,568	2,757,308
Buginyanya	4,253,610	158,042	3,512	38,124	1,225,442	5,678,730
Bulindi	2,220,791	65,123	16,751	38,990	375,461	2,717,116
Kachwekano	1,578,019	45,427	42,120	10,607	321,760	1,997,933
Mukono	4,098,227	82,783	10,372	52,477	833,767	5,077,626
Ngetta	2,742,736	927,171	7,796	165,298	732,050	4,575,051
Nabuin	279,495	54,328	4,338	135,926	837,874	1,311,960
Serere	1,394,046	438,724	2,048	50,041	330,302	2,215,162
Mbarara	3,224,525	113,460	90,306	128,514	689,848	4,246,653
Rwebitaba	2,172,998	49,918	9,277	40,247	472,127	2,744,567
Uganda	24,180,283	1,976,216	191,057	661,351	6,313,200	33,322,106

Table 4- 3: Percent distribution of plots, by use and ZARDI

	Cultivated with crops	Left fallow / bare after ploughing	Used for grazing	Used for forestry	Other non-agricultural uses	Total
Abi	80.4	1.5	0.2	0.0	17.9	100.0
Buginyanya	74.9	2.8	0.1	0.7	21.6	100.0
Bulindi	81.7	2.4	0.6	1.4	13.8	100.0
Kachwekano	79.0	2.3	2.1	0.5	16.1	100.0
Mukono	80.7	1.6	0.2	1.0	16.4	100.0
Ngetta	59.9	20.3	0.2	3.6	16.0	100.0
Nabuin	21.3	4.1	0.3	10.4	63.9	100.0
Serere	62.9	19.8	0.1	2.3	14.9	100.0
Mbarara	75.9	2.7	2.1	3.0	16.2	100.0
Rwebitaba	79.2	1.8	0.3	1.5	17.2	100.0
Uganda	72.6	5.9	0.6	2.0	18.9	100.0

Table 4- 4: Number of plots and plot area, by cropping system and ZARDI

		pure	mixed	total
Abi	Area (ha)	287,389	95,294	382,682
	N	1,712,263	503,574	2,215,837
Buginyanya	Area (ha)	612,222	405,458	1,017,681
	N	2,498,220	1,755,390	4,253,610
Bulindi	Area (ha)	451,806	246,337	698,143
	N	1,178,317	1,042,473	2,220,791
Kachwekano	Area (ha)	101,652	58,628	160,279
	N	1,112,116	465,903	1,578,019
Mukono	Area (ha)	549,914	683,285	1,233,199
	N	2,007,226	2,091,001	4,098,227
Ngetta	Area (ha)	730,602	183,640	914,241
	N	2,288,004	454,732	2,742,736
Nabuin	Area (ha)	110,122	29,759	139,881
	N	217,255	62,240	279,495
Serere	Area (ha)	255,101	68,892	323,993
	N	1,129,687	264,358	1,394,046
Mbarara	Area (ha)	203,481	384,200	587,681
	N	1,278,936	1,945,589	3,224,525
Rwebitaba	Area (ha)	175,840	213,254	389,094
	N	1,071,665	1,101,333	2,172,998
Uganda	Area (ha)	3,478,129	2,368,746	5,846,875
	N	14,493,689	9,686,594	24,180,283

Table 4- 5: Percent distribution of plots and plot area, by cropping system and ZARDI

		pure	mixed	total
Abi	Area (ha)	75.1	24.9	100.0
	N	77.3	22.7	100.0
Buginyanya	Area (ha)	60.2	39.8	100.0
	N	58.7	41.3	100.0
Bulindi	Area (ha)	64.7	35.3	100.0
	N	53.1	46.9	100.0
Kachwekano	Area (ha)	63.4	36.6	100.0
	N	70.5	29.5	100.0
Mukono	Area (ha)	44.6	55.4	100.0
	N	49.0	51.0	100.0
Ngetta	Area (ha)	79.9	20.1	100.0
	N	83.4	16.6	100.0
Nabuin	Area (ha)	78.7	21.3	100.0
	N	77.7	22.3	100.0
Serere	Area (ha)	78.7	21.3	100.0
	N	81.0	19.0	100.0
Mbarara	Area (ha)	34.6	65.4	100.0
	N	39.7	60.3	100.0
Rwebitaba	Area (ha)	45.2	54.8	100.0
	N	49.3	50.7	100.0
Uganda	Area (ha)	59.5	40.5	100.0
	N	59.9	40.1	100.0

Table 4- 6: Percentage of plots and plot area in swampland, by ZARDI

		Plots in swamp areas	Plots not in swamp areas	Cultivated plots
Abi	Percentage	2.3	97.7	100.0
	Area (Ha)	68,446	2,147,391	2,215,837
Buginyanya	Percentage	17.2	82.8	100.0
	Area (Ha)	527,067	3,726,543	4,253,610
Bulindi	Percentage	2.7	97.3	100.0
	Area (Ha)	47,212	2,173,578	2,220,791
Kachwekano	Percentage	5.7	94.3	100.0
	Area (Ha)	91,667	1,486,352	1,578,019
Mukono	Percentage	9.1	90.9	100.0
	Area (Ha)	377,370	3,719,315	4,096,685
Ngetta	Percentage	3.6	96.4	100.0
	Area (Ha)	107,335	2,635,401	2,742,736
Nabuin	Percentage	0.0	100.0	100.0
	Area (Ha)	0	279,495	279,495
Serere	Percentage	1.9	98.1	100.0
	Area (Ha)	18,499	1,375,547	1,394,046
Mbarara	Percentage	2.8	97.2	100.0
	Area (Ha)	111,704	3,111,246	3,222,950
Rwebitaba	Percentage	3.4	96.6	100.0
	Area (Ha)	61,991	2,111,007	2,172,998
Uganda	Percentage	6.7	93.3	100.0
	Area (Ha)	1,411,291	22,765,875	24,177,165

Table 4- 7: Percent distribution of Ag HHs, by land preparation method and ZARDI *

		Conventional Tillage	Holes Tillage	Zero Tillage	Mulching Tillage	Ridge Tillage
Abi	Number	487,136	11,797	0	0	130,526
	Percentage	100.6	2.4	0.0	0.0	27.0
Buginyanya	Number	1,165,075	196,393	64,368	0	135,054
	Percentage	86.1	14.5	4.8	0.0	10.0
Bulindi	Number	395,901	115,075	9,685	1,501	159,813
	Percentage	98.9	28.7	2.4	0.4	39.9
Kachwekano	Number	277,110	50,814	65,964	50,574	154,031
	Percentage	86.9	15.9	20.7	15.9	48.3
Mukono	Number	963,745	119,870	416,587	36,730	141,651
	Percentage	99.3	12.3	42.9	3.8	14.6
Ngetta	Number	724,158	27,000	0	0	57,663
	Percentage	92.1	3.4	0.0	0.0	7.3
Nabuin	Number	141,671	0	8,289	0	0
	Percentage	12.7	0.0	0.7	0.0	0.0
Serere	Number	345,631	1,531	7,206	0	0
	Percentage	104.0	0.5	2.2	0.0	0.0
Mbarara	Number	652,604	225,722	311,800	19,443	114,925
	Percentage	94.5	32.7	45.1	2.8	16.6
Rwebitaba	Number	453,719	119,123	337,188	1,198	176,791
	Percentage	89.2	23.4	66.3	0.2	34.8
Uganda	Number	5,606,751	867,326	1,221,088	109,445	1,070,456
	Percentage	80.6	12.5	17.6	1.6	15.4

(*) the sum of the row percentages may be different from 100 because Ag HHs may use more than one tillage method

Table 4- 8: Percent distribution of Ag HHs, by type of seeds used and ZARDI *

	Traditional	Improved
Abi	98.1	24.6
Buginyanya	97.1	20.6
Bulindi	97.0	30.3
Kachwekano	99.8	22.7
Mukono	98.7	31.7
Ngetta	98.0	27.9
Nabuin	93.9	6.1
Serere	99.1	11.3
Mbarara	98.3	11.4
Rwebitaba	99.1	23.7
Uganda	98.1	22.8

(*) the sum of the row percentages may be different from 100 because Ag HHs may use seeds of different types

Table 4- 9: Percentage of plots where crops were planted with improved seeds, by ZARDI

A. Percentage of plots where maize was planted with improved seeds by ZARDI

	Percentage
Abi	16.0
Buginyanya	16.2
Bulindi	22.4
Kachwekano	7.7
Mukono	25.2
Ngetta	15.5
Nabuin	0.0
Serere	5.4
Mbarara	9.8
Rwebitaba	6.7
Uganda	17.9

B. Percentage of plots where millet was planted with improved seeds by ZARDI

	Percentage
Abi	0.0
Buginyanya	17.9
Bulindi	0.0
Kachwekano	0.0
Mukono	0.0
Ngetta	0.0
Serere	0.0
Mbarara	0.0
Rwebitaba	0.0
Uganda	0.6

C. Percentage of plots where sorghum was planted with improved seeds by ZARDI

Percentage	
Abi	4.3
Buginyanya	0.0
Bulindi	0.0
Kachwekano	0.0
Mukono	0.0
Ngetta	12.3
Nabuin	0.0
Serere	7.7
Mbarara	0.0
Rwebitaba	0.7
Uganda	7.7

D. Percentage of plots where beans were planted with improved seeds by ZARDI

Percentage	
Abi	3.1
Buginyanya	2.6
Bulindi	2.4
Kachwekano	3.6
Mukono	4.2
Ngetta	0.6
Nabuin	0.0
Serere	3.0
Mbarara	1.7
Rwebitaba	0.1
Uganda	2.6

E. Percentage of plots where sweet potatoes were planted with improved seeds by ZARDI

	Percentage
Abi	1.9
Buginyanya	1.6
Bulindi	0.2
Kachwekano	0.0
Mukono	3.6
Ngetta	0.0
Nabuin	0.0
Serere	0.0
Mbarara	0.0
Rwebitaba	0.9
Uganda	1.5

F. Percentage of plots where Irish potatoes were planted with improved seeds by ZARDI

	Percentage
Abi	26.2
Buginyanya	39.0
Bulindi	1.5
Kachwekano	10.7
Mukono	2.8
Mbarara	14.2
Rwebitaba	3.6
Uganda	9.4

G. Percentage of plots where groundnuts were planted with improved seeds by ZARDI

	Percentage
Abi	1.0
Buginyanya	2.5
Bulindi	1.0
Kachwekano	0.0
Mukono	0.5
Ngetta	0.0
Nabuin	0.0
Serere	0.2
Mbarara	0.0
Rwebitaba	0.1
Uganda	0.8

Percentage of plots where rice was planted with improved seeds by ZARDI

	Percentage
Abi	2.3
Buginyanya	0.0
Bulindi	4.5
Kachwekano	0.0
Mukono	0.0
Ngetta	6.6
Serere	0.0
Rwebitaba	22.0
Uganda	3.4

H. Percentage of plots where soya beans were planted with improved seeds by ZARDI

	Percentage
Abi	27.6
Buginyanya	2.9
Bulindi	0.0
Kachwekano	0.0
Mukono	2.6
Ngetta	0.0
Serere	0.0
Mbarara	0.0
Rwebitaba	0.0
Uganda	1.8

I. Percentage of plots where simsim was planted with improved seeds by ZARDI

	Percentage
Abi	4.5
Buginyanya	0.0
Bulindi	0.0
Mukono	0.0
Ngetta	0.5
Serere	0.0
Rwebitaba	0.0
Uganda	1.1

J. Percentage of plots where banana food was planted with improved seeds by ZARDI

	Percentage
Abi	0.0
Buginyanya	1.5
Bulindi	1.2
Kachwekano	5.3
Mukono	5.2
Ngetta	42.2
Nabuin	0.0
Serere	0.0
Mbarara	0.8
Rwebitaba	3.9
Uganda	3.4

K. Percentage of plots where cassava was planted with improved seeds by ZARDI

	Percentage
Abi	20.6
Buginyanya	6.3
Bulindi	8.7
Kachwekano	0.0
Mukono	2.9
Ngetta	27.3
Nabuin	0.0
Serere	1.6
Mbarara	1.7
Rwebitaba	1.6
Uganda	6.5

L. Percentage of plots where coffee arabica (old) was planted with improved seeds by ZARDI

	Percentage
Buginyanya	11.2
Bulindi	58.8
Kachwekano	0.0
Mukono	100.0
Mbarara	0.0
Rwebitaba	59.2
Uganda	33.5

M. Percentage of plots where coffee robusta (old) was planted with improved seeds by ZARDI

	Percentage
Abi	100.0
Buginyanya	64.4
Bulindi	16.6
Kachwekano	0.0
Mukono	69.2
Mbarara	8.7
Rwebitaba	34.0
Uganda	61.4

N. Percentage of plots where coffee arabica (new) was planted with improved seeds by ZARDI

	Percentage
Buginyanya	94.6
Bulindi	37.5
Rwebitaba	100.0
Uganda	64.0

O. Percentage of plots where coffee robusta (clonal) was planted with improved seeds by ZARDI

	Percentage
Buginyanya	65.3
Bulindi	95.7
Kachwekano	0.0
Mukono	75.3
Ngetta	0.0
Mbarara	42.9
Rwebitaba	69.8
Uganda	71.0

Table 4- 10: Value of purchased seeds, by crop

Crop	Value of Purchased Seeds (000' UGX)	Crop	Value of Purchased Seeds (000' UGX)
Wheat	25,615	Sweet Potatoes	7,264,278
Maize	15,600,000	Cassava	7,246,029
Rice	16,900,000	Yams	51,948
Sorghum	2,404,909	Tea	125,004
Barley	52,100	Cocoa	30,777
Millet	3,818,041	Vanilla, raw	1,740,580
Cabbages	63,700,000	Beans	148,000,000
Cauliflower, broccoli	8,310,913	Bambara beans-Empande	0
Lettuce	17,038	Broad Beans	384,397
Nakati-(Solanum aethiopicum)	.	Chick Peas	149,172
Cucumber	0	Cow Peas	2,933,094
Egg plants-biringanya	24,100,000	Field peas	5,679,893
Tomatoes	325,000,000	Bitter berries-Katunkuma	0
Water melons	23,000,000	Chia	459,118
Pumpkin	18,552	Green Grams	451,908
Okra	603,952	Pigeon Peas	1,042,079
Ntula-Garden eggs	63,806	Lima Beans-Buyindiyindi	0
Carrots	284,353	Beetroot	222,586
Garlic	0	Sugar cane	44,100,000
Onions	461,000,000	Tobacco	78,288
Avocado	1,480	Other (Specify)	179,537
Mangoes	264,824	Gobbe (Cow peas leaves/Bbo)	42,751
Pawpaw	0	Sukuma Wiki	3,967,346

Crop	Value of Purchased Seeds (000' UGX)	Crop	Value of Purchased Seeds (000' UGX)
Pineapples	580,047	Amaranthus-Doodo	1,390
Jackfruit	0	Malakwang	16,581
Lemon and Limes	5,237	Banana (Food)	38,800,000
Oranges	8,805,902	Banana (Sweet)	23,243
Passion Fruit	106,000,000	Banana (Beer)	31,340
Apples	11,362	Coffee Arabica (old)	657,000,000
Soya Beans	10,200,000	Coffee Robusta (old)	1,546,441
Groundnuts	34,400,000	Coffee Arabica (new)	657,000,000
Caster Beans	1,273	Coffee Robusta (clonal)	277,226
Simsim	6,291,192	Chillies and peppers	4,707,398
Sunflower	10,700,000	Green peppers	2,836,138
Irish Potatoes	37,300,000	Cotton	2,494,696

Table 4- 11: Percentage of Ag HHs using irrigation in at least one plot, by ZARDI

	Not irrigated	Irrigated	Total
Abi	97.0	3.0	100.0
Buginyanya	97.0	3.0	100.0
Bulindi	97.7	2.3	100.0
Kachwekano	96.9	3.1	100.0
Mukono	97.1	2.9	100.0
Ngetta	98.9	1.1	100.0
Nabuin	100.0	0.0	100.0
Serere	98.3	1.7	100.0
Mbarara	96.2	3.8	100.0
Rwebitaba	97.5	2.5	100.0
Uganda	97.8	2.2	100.0

Table 4- 12: Irrigated area, by ZARDI

	Irrigated area (Ha)	Area planted with crops (Ha)	Percentage of irrigated area on area planted
Abi	3,229	379,326	0.9
Buginyanya	20,682	1,004,739	2.1
Bulindi	2,505	693,984	0.4
Kachwekano	818	155,294	0.5
Mukono	9,804	1,212,452	0.8
Ngetta	4,191	904,969	0.5
Nabuin	0	138,965	0.0
Serere	1,090	323,668	0.3
Mbarara	7,543	584,895	1.3
Rwebitaba	5,077	387,910	1.3
Uganda	54,939	5,786,203	0.9

Table 4- 13: Percentage of Ag HHs using fertilizers, by ZARDI

	Ag HHs not using Fertilizers (%)	Ag HHs using Fertilizers (%)	Total
Abi	96.1	3.9	100.0
Buginyanya	77.7	22.3	100.0
Bulindi	89.7	10.3	100.0
Kachwekano	60.4	39.6	100.0
Mukono	67.2	32.8	100.0
Ngetta	97.6	2.4	100.0
Nabuin	97.0	3.0	100.0
Serere	79.4	20.6	100.0
Mbarara	35.2	64.8	100.0
Rwebitaba	86.0	14.0	100.0
Uganda	76.1	23.9	100.0

Table 4- 14: Distribution of Ag HHs using fertilizers, by type of fertilizers and ZARDI

	Percentage of Ag HHs using fertilisers	Percentage of Ag HHs using fertilisers by type of fertilizer used	
		Organic Fertilisers	Inorganic Fertilisers
Abi	3.9	72	28.4
Buginyanya	22.3	59	57.0
Bulindi	10.3	23	83.0
Kachwekano	39.6	83	27.2
Mukono	32.8	74	36.8
Ngetta	2.4	37	63.3
Nabuin	3.0	100	0.0
Serere	20.6	98	2.2
Mbarara	64.8	98	7.7
Rwebitaba	14.0	40	61.6
Uganda	23.9	77	31.9

Table 4- 15: Percentage of Ag HHs using fertilizers, by type of fertilizers

Type	% Ag HHs
Commercial organic fertilizers	1.9
Animal droppings	69.0
Animal or human urine	2.1
Animals on plot overnight	3.3
Chickens, bird droppings	14.1
Plant residue/compost	38.4
Green plant cover crops	0.5
Ash	3.7
Municipal waste/rubbish	3.5
Sewage/sludge	0.1
CAN (Calcium Ammonium Nitrate)	6.8
Urea	31.3
DAP (Diammonium Phosphate)	23.4
SSP (Single Super Phosphate)	2.2
TSP (Triple Super Phosphate)	0.8
MOP (Muriate of Potash)	0.2
NPK (Nitrogen, Phosphorus, Potassium)	42.5

Table 4- 16: Total amount spent on fertilizers in the second season 2018

Type of Fertilizer	Million UGX
Organic fertilizers	145,491
Inorganic fertilizers	1,534,469

Table 4- 17: Amount of fertilizers applied and purchased in the second season 2018

	Unit of measure	Quantities
Solid inorganic fertilizers applied	kg	81,873,682
Solid inorganic fertilizers bought	kg	74,928,900
Liquid inorganic fertilizers applied	Liter	286,551
Liquid inorganic fertilizers bought	Liter	1,784,285

Table 4- 18: Percentage distribution of Ag HHs not using inorganic fertilizers, by reason

	Percentage
No need for fertilizer - the soil is fertile enough	24.5
Available fertilizer is of poor quality, counterfeit	0.3
Land is rented in - no motivation to apply fertilizer	1.2
Lack of knowledge on use or benefits of fertilizer	10.9
Fertilizer use is costly - farmer can't afford	40.0
Fertilizer not locally available	6.8
Fertilizer use will not improve crop yield	0.4
Fertilizers burn crops when rains are low	0.4
Fertilizers increase the amount of weeds	0.1
Fertilizers have negative effects on soil quality	3.2
Fertilizer application is impractical	0.0

Table 4- 19: Percentage of Ag HHs using pesticides, by ZARDI

	Using pesticides	Not using pesticides	Total
Abi	8.5	91.5	100.0
Buginyanya	20.3	79.7	100.0
Bulindi	34.5	65.5	100.0
Kachwekano	31.6	68.4	100.0
Mukono	35.3	64.7	100.0
Ngetta	5.7	94.3	100.0
Nabuin	0.8	99.2	100.0
Serere	25.3	74.7	100.0
Mbarara	17.1	82.9	100.0
Rwebitaba	29.0	71.0	100.0
Uganda	18.7	81.3	100.0

Table 4- 20: Percent distribution of Ag HHs using pesticides, by type of pesticide and ZARDI

	Herbicides	Insecticides	Fungicides	Rodenticides	N Ag HHs
Abi	2.9	96.2	6.7	0.0	40,950
Buginyanya	19.0	83.2	20.8	0.0	275,335
Bulindi	44.8	63.0	12.3	0.0	138,176
Kachwekano	14.3	55.1	48.3	4.0	100,927
Mukono	67.0	48.6	13.6	0.0	343,015
Ngetta	14.9	74.9	17.8	0.0	44,607
Nabuin	0.0	100.0	0.0	0.0	8,795
Serere	0.9	100.0	1.3	0.0	84,158
Mbarara	63.4	43.6	15.4	0.8	117,772
Rwebitaba	34.6	74.0	5.6	0.0	147,388
Uganda	37.9	66.5	16.0	0.4	1,301,123

Table 4- 21: Percent distribution of Ag HHs, by type of labor input used for crop cultivation and ZARDI

ZARDI	% Ag HHs using household labour	% Ag HHs using hired labour
Abi	95.3	46.7
Buginyanya	94.2	37.8
Bulindi	94.6	43.9
Kachwekano	97.9	49.7
Mukono	96.4	45.3
Ngetta	95.8	52.6
Nabuin	11.8	4.5
Serere	98.7	45.8
Mbarara	99.2	44.6
Rwebitaba	99.4	52.9
Uganda	82.9	38.9

Table 4- 22: Percent distribution of Ag HHs, by type of labor and activities

	Only HH members	Only hired workers	Both household members and hired workers	Total
Land preparation	66.9	7.8	25.4	100.0
Planting	77.7	3.9	18.4	100.0
Weeding	67.8	5.8	26.4	100.0
Mulching	92.5	3.9	3.6	100.0
Fertilizing, manure application	91.7	3.6	4.7	100.0
Spraying	80.3	12.4	7.3	100.0
Irrigation/watering	96.3	1.7	1.9	100.0
Pruning	93.9	2.5	3.6	100.0
Guarding of the garden	94.5	4.2	1.3	100.0
Harvesting	85.1	2.7	12.2	100.0
Transport farm to home/store	91.5	2.4	6.1	100.0
Transport to market	94.4	2.3	3.2	100.0
Drying, packing, and storage	98.2	0.8	1.0	100.0

Table 4- 23: Average cost of labor for crop production activities, by ZARDI

	Average amount spent on labor provided by Ag HH members (UGX)	Average amount spent on labor provided by external workers (UGX)
Abi	15,466	110,000
Buginyanya	83,412	230,000
Bulindi	66,577	400,000
Kachwekano	100,000	170,000
Mukono	140,000	360,000
Ngetta	23,933	170,000
Nabuin	.	75,592
Serere	.	200,000
Mbarara	550,000	230,000
Rwebitaba	40,077	250,000
Uganda	280,000	240,000

Table 4- 24: Labor input for crop production activities, by ZARDI

	Average number of laborers per Ag HH					Average male man-days	Average female man-days
	Male Ag HH members	Female Ag HH members	Relative, neighbors and community members	Hired men	Hired women		
Abi	1	1	1	2	1	24	28
Buginyanya	1	2	0	1	1	29	33
Bulindi	1	1	1	2	1	65	65
Kachwekano	1	1	1	1	3	47	83
Mukono	1	1	0	2	1	49	48
Ngetta	1	2	1	4	4	52	59
Nabuin	0	0	0	0	1	22	28
Serere	2	2	0	2	2	29	32
Mbarara	1	2	1	1	2	61	79
Rwebitaba	1	2	1	1	2	61	73
Uganda	2	2	1	2	2	45	52

Table 4- 25: Fixed costs, by cost category*

Asset type	Average Amount**	% Ag HHs
Rent of buildings	338,786	1.5
Rent of land for agriculture	177,414	17.3
Interest on loans	162,871	4.3
Agricultural insurance	28,497	0.0
Licenses, fees and other statutory permits	86,315	0.3
Maintenance and repair of farm buildings	368,715	0.6
Purchase or repair of vehicle /tractor /equipment	126,766	4.5
Water for crop irrigation, animal feeding	98,625	2.8
Electricity for agricultural purposes	196,595	0.1

(*) reference period: agricultural year 2018

(**) calculated on the Ag HHs that reported having spent on that particular item

Table 4- 26: Percent distribution of Ag HHs using agro-chemicals, by ZARDI

	Percent
Abi	8.3
Buginyanya	20.0
Bulindi	34.0
Kachwekano	30.5
Mukono	32.9
Ngetta	5.7
Nabuin	5.7
Serere	24.3
Mbarara	16.3
Rwebitaba	28.9
Uganda	21.1

Annex 5

NOTE: All the tables of this Annex have been extracted from the data collected in the second season of the agricultural year 2018. The reference period is the last 12 months - ie., the period between March 2018 and February 2019.

Table 5- 1: Percentage of Ag HHs that received a farmer training in the previous 12 months

	N	Percentage	SE*	lower95	upper95
Abi	50,060	10.4	1.5	7.5	13.3
Buginyanya	174,124	13.0	1.2	10.6	15.4
Bulindi	33,556	8.4	1.3	5.8	11.1
Kachwekano	53,625	17.3	4.1	9.3	25.3
Mukono	154,886	16.1	1.5	13.2	19.1
Ngetta	74,409	9.5	1.2	7.2	11.8
Nabuin	97,821	8.8	2.8	3.3	14.2
Serere	7,156	2.2	0.8	0.7	3.6
Mbarara	95,689	13.9	2.4	9.2	18.7
Rwebitaba	83,875	16.5	2.9	10.9	22.2
Uganda	825,199	11.9	0.7	10.6	13.3

(*) Standard Error

Table 5- 2: Percentage of Ag HHs that received extension services in the previous 12 months

	N	Percentage	SE*	lower95	upper95
Abi	61,858	12.8	1.6	9.6	15.9
Buginyanya	181,823	13.5	1.2	11.2	15.8
Bulindi	36,240	9.2	1.6	5.9	12.4
Kachwekano	52,207	17.0	4.0	9.1	24.8
Mukono	121,841	12.7	1.5	9.7	15.6
Ngetta	106,051	13.6	1.7	10.3	16.9
Nabuin	77,880	7.0	2.3	2.4	11.6
Serere	15,003	4.5	1.1	2.3	6.8
Mbarara	90,666	13.3	1.6	10.2	16.4
Rwebitaba	65,859	13.0	2.0	9.0	16.9
Uganda	809,428	11.7	0.6	10.5	12.9

(*) Standard Error

Table 5- 3: Distribution of Ag HHs that received advisory services, by topic of the training

A. AGRICULTURAL PRODUCTION

	N	Percentage	SE*	lower95	upper95
Abi	68,975	90.4	5.5	79.6	101.3
Buginyanya	190,203	85.3	3.3	78.8	91.8
Bulindi	38,760	74.7	5.6	63.7	85.7
Kachwekano	52,438	82.8	5.7	71.6	94.0
Mukono	172,762	84.7	3.7	77.4	91.9
Ngetta	94,774	66.7	5.5	55.8	77.5
Nabuin	94,066	69.7	12.2	45.7	93.7
Serere	14,453	96.3	3.9	88.7	103.9
Mbarara	99,140	86.1	4.1	78.1	94.1
Rwebitaba	100,568	93.5	2.9	87.7	99.2
Uganda	926,140	81.7	2.0	77.8	85.6

(*) Standard Error

B. AGRICULTURAL PRICES

	N	Percentage	SE	lower95	upper95
Abi	9,376	12.3	5.6	1.3	23.3
Buginyanya	90,731	40.7	4.3	32.2	49.2
Bulindi	8,643	16.7	6.0	4.9	28.4
Kachwekano	20,138	31.8	9.5	13.2	50.4
Mukono	45,489	22.3	4.3	13.7	30.8
Ngetta	34,701	24.4	4.5	15.6	33.2
Nabuin	24,389	18.1	7.9	2.5	33.6
Serere	4,619	30.8	12.6	6.1	55.5
Mbarara	23,517	20.4	5.4	9.8	31.0
Rwebitaba	53,519	49.7	4.9	40.0	59.5
Uganda	315,121	27.8	2.0	24.0	31.6

C. AGRO PROCESSING

	N	Percentage	SE	lower95	upper95
Abi	5,084	6.7	3.2	0.4	13.0
Buginyanya	46,655	20.9	4.1	12.9	29.0
Bulindi	4,782	9.2	4.1	1.1	17.4
Kachwekano	7,221	11.4	4.8	1.9	20.9
Mukono	18,206	8.9	2.7	3.6	14.3
Ngetta	22,474	15.8	3.7	8.6	23.0
Nabuin	16,444	12.2	5.5	1.4	23.0
Serere	2,719	18.1	9.0	0.4	35.8
Mbarara	13,608	11.8	5.1	1.8	21.9
Rwebitaba	32,689	30.4	6.3	18.1	42.7
Uganda	169,883	15.0	1.5	12.0	18.0

D. CROP MARKETING

	N	Percentage	SE	lower95	upper95
Abi	10,310	13.5	5.6	2.5	24.5
Buginyanya	75,809	34.0	4.6	25.0	43.0
Bulindi	5,963	11.5	5.5	0.6	22.4
Kachwekano	9,012	14.2	4.9	4.7	23.8
Mukono	45,272	22.2	4.3	13.7	30.6
Ngetta	43,960	30.9	4.3	22.4	39.4
Nabuin	20,871	15.5	7.6	0.5	30.5
Serere	3,642	24.3	13.4	-2.1	50.7
Mbarara	12,028	10.4	3.7	3.3	17.6
Rwebitaba	46,537	43.2	6.5	30.5	56.0
Uganda	273,405	24.1	1.9	20.3	28.0

E. LIVESTOCK MARKETING

	N	Percentage	SE	lower95	upper95
Abi	6,383	8.4	5.0	-1.5	18.2
Buginyanya	54,277	24.3	3.7	17.1	31.6
Bulindi	8,101	15.6	6.4	3.1	28.1
Kachwekano	13,176	20.8	7.5	6.0	35.6
Mukono	28,664	14.0	3.1	7.9	20.2
Ngetta	18,402	12.9	3.3	6.5	19.4
Nabuin	16,444	12.2	5.5	1.4	23.0
Serere	2,774	18.5	10.0	-1.1	38.1
Mbarara	6,867	6.0	3.2	-0.3	12.2
Rwebitaba	5,990	5.6	2.7	0.2	11.0
Uganda	161,078	14.2	1.5	11.3	17.1

F. FISH PRODUCTION

	N	Percentage	SE	lower95	upper95
Abi	938	1.2	1.2	-1.2	3.6
Buginyanya	12,063	5.4	1.9	1.6	9.2
Bulindi	408	0.8	0.8	-0.8	2.4
Kachwekano	1,701	2.7	1.9	-1.1	6.5
Mukono	8,958	4.4	2.2	0.0	8.8
Ngetta	3,851	2.7	1.4	-0.1	5.5
Nabuin	-	0.0	(omitted)		
Serere	1,787	11.9	8.0	-3.9	27.7
Mbarara	1,314	1.1	1.1	-1.1	3.4
Rwebitaba	957	0.9	0.9	-0.9	2.7
Uganda	31,978	2.8	0.6	1.6	4.1

G. MEAT PRODUCTION

	N	Percentage	SE	lower95	upper95
Abi	2,702	3.5	2.6	-1.6	8.7
Buginyanya	42,138	18.9	3.5	12.1	25.7
Bulindi	3,080	5.9	2.7	0.6	11.3
Kachwekano	14,538	23.0	8.8	5.7	40.2
Mukono	19,699	9.7	2.7	4.4	14.9
Ngetta	7,724	5.4	2.0	1.5	9.4
Nabuin	18,816	13.9	6.2	1.7	26.2
Serere	1,787	11.9	8.0	-3.9	27.7
Mbarara	7,851	6.8	2.7	1.4	12.2
Rwebitaba	2,747	2.6	1.5	-0.5	5.6
Uganda	121,083	10.7	1.3	8.0	13.3

H. MILK PRODUCTION

	N	Percentage	SE	lower95	upper95
Abi	-	0.0	(omitted)		
Buginyanya	53,333	23.9	3.8	16.4	31.4
Bulindi	2,634	5.1	2.6	-0.1	10.3
Kachwekano	9,073	14.3	5.7	3.2	25.5
Mukono	24,188	11.9	2.9	6.2	17.5
Ngetta	12,845	9.0	4.4	0.3	17.8
Nabuin	24,809	18.4	5.2	8.3	28.5
Serere	1,787	11.9	8.0	-3.9	27.7
Mbarara	8,846	7.7	2.9	2.0	13.3
Rwebitaba	3,929	3.7	1.9	-0.1	7.4
Uganda	141,443	12.5	1.4	9.8	15.2

I. LIVESTOCK BREEDING, FEEDING, ETC

	N	Percentage	SE	lower95	upper95
Abi	1,982	2.6	1.6	-0.6	5.8
Buginyanya	73,135	32.8	4.1	24.7	40.9
Bulindi	7,052	13.6	6.1	1.7	25.5
Kachwekano	11,280	17.8	6.7	4.6	31.0
Mukono	43,791	21.5	3.3	15.0	27.9
Ngetta	23,557	16.6	3.1	10.4	22.8
Nabuin	37,019	27.4	7.7	12.4	42.5
Serere	4,657	31.0	12.8	5.9	56.2
Mbarara	13,609	11.8	3.5	5.0	18.6
Rwebitaba	4,990	4.6	2.2	0.4	8.9
Uganda	221,073	19.5	1.7	16.2	22.8

J. CROP AND LIVESTOCK DISEASES

	N	Percentage	SE	lower95	upper95
Abi	8,806	11.5	5.9	0.0	23.1
Buginyanya	113,882	51.1	4.7	41.9	60.2
Bulindi	11,172	21.5	4.9	11.8	31.2
Kachwekano	37,553	59.3	11.5	36.7	81.8
Mukono	73,042	35.8	4.8	26.3	45.3
Ngetta	68,815	48.4	4.2	40.1	56.8
Nabuin	49,990	37.1	11.7	14.1	60.0
Serere	6,194	41.3	13.1	15.5	67.0
Mbarara	54,294	47.1	7.9	31.6	62.7
Rwebitaba	39,901	37.1	5.8	25.7	48.4
Uganda	463,649	40.9	2.4	36.2	45.6

K. SAFE USE AND HANDLING OF CHEMICALS

	N	Percentage	SE	lower95	upper95
Abi	1,791	2.3	2.3	-2.2	6.9
Buginyanya	67,477	30.3	4.2	22.0	38.5
Bulindi	7,503	14.5	4.7	5.1	23.8
Kachwekano	36,678	57.9	11.7	34.9	80.9
Mukono	41,001	20.1	3.5	13.2	27.0
Ngetta	19,285	13.6	3.1	7.5	19.6
Nabuin	8,795	6.5	6.8	-6.8	19.9
Serere	2,774	18.5	10.0	-1.1	38.1
Mbarara	22,806	19.8	5.8	8.3	31.3
Rwebitaba	8,672	8.1	2.5	3.1	13.0
Uganda	216,782	19.1	2.0	15.2	23.1

L. INPUT USE

ZARDI	N	Percentage	SE	lower95	upper95
Abi	6,448	8.5	4.7	-0.8	17.7
Buginyanya	92,589	41.5	4.5	32.6	50.4
Bulindi	16,238	31.3	7.2	17.1	45.4
Kachwekano	19,597	30.9	9.3	12.7	49.2
Mukono	61,612	30.2	4.1	22.0	38.3
Ngetta	35,939	25.3	3.6	18.2	32.3
Nabuin	64,370	47.7	9.0	30.0	65.4
Serere	1,787	11.9	8.0	-3.9	27.7
Mbarara	34,453	29.9	6.4	17.3	42.6
Rwebitaba	23,125	21.5	4.6	12.5	30.5
Uganda	356,157	31.4	2.0	27.5	35.3

M. LABOUR RIGHTS

	N	Percentage	SE	lower95	upper95
Abi	1,791	2.3	2.3	-2.2	6.9
Buginyanya	25,837	11.6	3.1	5.5	17.7
Bulindi	642	1.2	1.3	-1.3	3.7
Kachwekano	2,806	4.4	2.4	-0.3	9.2
Mukono	12,687	6.2	2.0	2.2	10.2
Ngetta	4,945	3.5	2.0	-0.4	7.3
Nabuin	-	0.0	(omitted)		
Serere	1,787	11.9	8.0	-3.9	27.7
Mbarara	3,012	2.6	2.6	-2.6	7.8
Rwebitaba	1,546	1.4	1.1	-0.8	3.7
Uganda	55,052	4.9	0.9	3.2	6.6

N. ENTERPREUNERSHIP AND BUSINESS

	N	Percentage	SE	lower95	upper95
Abi	3,565	4.7	2.7	-0.7	10.1
Buginyanya	32,891	14.8	3.3	8.2	21.3
Bulindi	642	1.2	1.3	-1.3	3.7
Kachwekano	8,366	13.2	5.0	3.5	23.0
Mukono	13,548	6.6	2.3	2.0	11.2
Ngetta	22,568	15.9	3.5	8.9	22.8
Nabuin	3,925	2.9	3.1	-3.1	8.9
Serere	2,774	18.5	10.0	-1.1	38.1
Mbarara	14,997	13.0	4.3	4.5	21.6
Rwebitaba	9,295	8.6	2.9	3.0	14.3
Uganda	112,571	9.9	1.2	7.6	12.3

Table 5- 4: Distribution of Ag HHs that received advisory services, by service provider

A. LOCAL GOVERNMENT

ZARDI	N	Percentage	SE	lower95	upper95
Abi	46,790	61.3	5.6	50.4	72.3
Buginyanya	126,001	56.5	4.3	48.0	65.0
Bulindi	27,423	52.8	7.8	37.6	68.1
Kachwekano	42,757	67.5	10.0	47.9	87.2
Mukono	103,053	50.5	4.0	42.6	58.4
Ngetta	68,929	48.5	4.9	38.9	58.0
Nabuin	48,553	36.0	15.4	5.7	66.3
Serere	13,367	89.1	7.0	75.3	102.9
Mbarara	61,169	53.1	4.3	44.7	61.6
Rwebitaba	40,197	37.4	8.5	20.7	54.0
Uganda	578,238	51.0	2.6	45.9	56.1

B. INPUT SUPPLIER

ZARDI	N	Percentage	SE	lower95	upper95
Abi	-	0.0	(omitted)		
Buginyanya	16,781	7.5	2.8	2.0	13.1
Bulindi	5,604	10.8	3.4	4.1	17.5
Kachwekano	3,194	5.0	2.9	-0.7	10.8
Mukono	19,266	9.4	3.0	3.5	15.4
Ngetta	9,834	6.9	2.1	2.7	11.1
Nabuin	-	0.0	(omitted)		
Serere	-	0.0	(omitted)		
Mbarara	1,794	1.6	1.2	-0.8	3.9
Rwebitaba	784	0.7	0.7	-0.7	2.1
Uganda	57,258	5.1	0.9	3.3	6.8

C. NGOs

	N	Percentage	SE	lower95	upper95
Abi	13,166	17.3	4.4	8.6	25.9
Buginyanya	42,818	19.2	4.2	10.9	27.5
Bulindi	10,604	20.4	6.8	7.0	33.9
Kachwekano	11,938	18.8	7.2	4.6	33.1
Mukono	33,354	16.3	3.6	9.2	23.4
Ngetta	44,783	31.5	4.9	21.9	41.1
Nabuin	77,550	57.5	15.6	26.7	88.2
Serere	1,636	10.9	7.0	-2.9	24.7
Mbarara	26,452	23.0	5.4	12.4	33.5
Rwebitaba	39,707	36.9	7.3	22.6	51.2
Uganda	302,008	26.6	2.6	21.5	31.8

D. COOPERATIVES AND FARMER ASSOCIATIONS

ZARDI	N	Percentage	SE	lower95	upper95
Abi	13,183	17.3	4.9	7.7	26.9
Buginyanya	15,768	7.1	2.3	2.5	11.7
Bulindi	1,960	3.8	2.1	-0.3	7.8
Kachwekano	2,976	4.7	2.9	-1.1	10.5
Mukono	30,073	14.7	3.4	8.1	21.3
Ngetta	9,395	6.6	2.0	2.7	10.5
Nabuin	-	0.0	(omitted)		
Serere	-	0.0	(omitted)		
Mbarara	20,937	18.2	3.9	10.5	25.8
Rwebitaba	23,653	22.0	5.4	11.3	32.7
Uganda	117,943	10.4	1.1	8.2	12.6

E. MODEL FARMERS

	N	Percentage	SE	lower95	upper95
Abi	3,131	4.1%	2.0	0.1	8.1
Buginyanya	17,344	7.8	2.0	3.9	11.6
Bulindi	2,901	5.6	3.0	-0.4	11.5
Kachwekano	2,472	3.9	2.1	-0.2	8.0
Mukono	16,664	8.2	2.5	3.2	13.1
Ngetta	8,093	5.7	4.1	-2.5	13.8
Nabuin	8,795	6.5	6.8	-6.8	19.9
Serere	-	0.0	(omitted)		
Mbarara	4,817	4.2	1.9	0.5	7.9
Rwebitaba	1,988	1.8	1.2	-0.5	4.2
Uganda	66,207	5.8	1.2	3.5	8.1

Table 5- 5: Distribution of Ag HHs that received advisory services, by method to acquire the advice

	Percentage
recipient travelled to source	63.1
Source travelled to recipient	33.3
Both	3.7
Total	100

Table 5- 6: Percentage of Ag HHs that paid for the extension service

Percentage	
Yes	11.2
No	88.4
Don't know	0.4
Total	100

Table 5- 7: Distribution of Ag HHs that received advisory services, by level of satisfaction

	Sources		
	All	Local Government	NGOs
Good	84.4	81.0	88.4
Average	14.3	17.5	10.5
Bad	1.3	1.4	1.1

Table 5- 8: Distribution of Ag HHs that received credit, by type of credit source

Credit Source	N	Percentage
Commercial banks	40,339	5.4
Micro Finance Institutions	60,781	8.2
SACCOs	119,071	16.1
Money Lenders	19,801	2.7
Input suppliers	16,016	2.2
Self-help groups	331,302	44.7
Family and friends	56,532	7.6
Agricultural product processors	3,968	0.5
agricultural production traders	17,632	2.4
Farmer Associations	41,794	5.6
Government	1,241	0.2
NGOs	17,673	2.4
Other	15,659	2.1
Total	741,809	100

Table 5- 9: Total and average amount of loans (UGX), by ZARDI

	Total loans	Average loan
Abi	30,436	344,715
Buginyanya	45,194	401,263
Bulindi	16,994	461,949
Kachwekano	21,327	375,525
Mukono	103,059	1,099,200
Ngetta	11,196	151,494
Nabuin	78,214	621,166
Serere	1,242	159,239
Mbarara	60,388	732,112
Rwebitaba	40,290	656,066
Uganda	408,340	551,978

Table 5- 10: Distribution of Ag HHs, by access to services

	N	Percentage
Local produce market	4,091,163	58.8
District produce market	1,317,454	18.9
Trading center	6,171,974	88.7
Nurseries	694,864	10.0
Agricultural demonstration farm/plot	330,869	4.8
Feeder roads / all-year round gravel road	6,034,971	86.7
Tarmac road	2,910,966	41.8
Community agricultural store	429,165	6.2
Local input dealer / farm supply shops	2,545,126	36.6

Annex 6

NOTE: All the tables of this Annex have been extracted from the data collected in the second season of the agricultural year 2018. The reference period is the last 12 months - ie., the period between March 2018 and February 2019.

Table 6- 1: Percent distribution of Ag HHs that experienced a shock, by type of shock and ZARDI

ZARDI	Shock Experienced							Other
	Drought	Pests/diseases outbreak	Floods	Erratic or heavy rains	Disease in the Ag HH	Hailstorms	Insecurity	
Abi	8.2	7.7	1.1	3.2	3.2	5	4.7	3.5
Buginyanya	19.5	18.5	3.5	11.3	14.1	16.9	10.5	20.9
Bulindi	6.4	2.9	0.6	3.6	5.4	10.6	2.2	14.9
Kachwekano	1.7	2.6	4.4	3.6	1.3	1.7	0.6	1.8
Mukono	9.4	8.7	4.6	7.9	6.4	14.6	13.6	3.6
Ngetta	17.2	12	9	4.6	15.1	21.4	4.6	32.1
Nabuin	16.5	23.6	63.1	49.8	32.4	9.2	14.6	3.9
Serere	7.5	12.7	7.4	2.8	5.9	11.7	30.3	0.7
Mbarara	9.5	5.8	5.6	5.3	5.3	9.1	10.5	18.8
Rwebitaba	3.9	5.6	0.7	8	11.1	0	8.4	0
Total	100	100	100	100	100	100	100	100
Uganda	81.7	40.2	16.6	14.6	8.8	7.2	4.4	2.4

Table 6- 2: Percent distribution of Ag HHs that experienced a shock, by extent of the damage

Shock Experienced	Extent of damage				Total
	None	Slight	Moderate	Severe	
Drought	0.3	8.3	29.5	61.9	100
Pests/diseases outbreak	0.2	17.7	43.6	38.6	100
Erratic or heavy rains	0	9.2	50.6	40.2	100
Hailstorms	1.1	23.3	39.7	36	100
Floods and tidal waves	0.6	11	40.6	47.7	100
Illness or disease in the Ag HH	1.7	19.2	43.1	36	100
Insecurity	1.1	28.1	25.5	45.3	100
Other	0	11.9	25.7	62.3	100

Table 6- 3: Percent distribution of Ag HHS that reported food shortage or shocks, by ZARDI

	Food shortage	Shock
Nabuin	82.1	92
Serere	78.3	95.9
Ngetta	64.6	93.5
Abi	45.9	81.1
Buginyanya	43.4	67
Mbarara	35.6	70.1
Kachwekano	35.5	51.7
Rwebitaba	27.1	53.7
Bulindi	25.5	80.4
Mukono	19.2	55.7
Uganda	47.3	74.2

Table 6- 4: Distribution of Ag HHs, by reason of food shortage

	Reasons		
	Main	Second	Third
Loss of crops / insufficient production	93	2.5	1
Over selling produce	1.6	3.2	0.4
Loss of livestock	0.1	5.6	1
Inability to work (due to illness, disability, injury or old age)	1.4	5.6	2.3
Lack of adequate land	1.3	12	4.7
Lack of capital	1.9	17.1	7.9
Lack of laborers on the farm	0	2.8	1.4
Lack of job opportunity outside the holding	0.5	5	7.2
Other	0.2	0.3	0.2
No other reason	-	45.9	73.8
Total	100	100	100

Table 6- 5: Percentage distribution of Ag HH, by reason for food shortage and ZARDI

	Reasons		
	Main	Second	Third
	Loss of Crops/ insufficient production	Lack of capital	Lack of adequate land
Abi	94.3	20.2	4.6
Buginyanya	90.9	12.6	19.2
Bulindi	80.1	8.6	10.7
Kachwekano	95.1	1.9	13.8
Mukono	84.4	2.8	10.4
Ngetta	90.5	26	15.1
Nabuin	97	21.7	0.8
Serere	97.9	23.2	28
Mbarara	92.4	8.7	16.5
Rwebitaba	93.6	9.7	19.9
Uganda	93	17.1	12

Table 6- 6: Percentage distribution of Ag HHs that reported food shortage, by month

Months	2018	2008/9
Sept	21.9	19.5
Oct	24.3	20.4
Nov	23.7	16.9
Dec	21.7	10.3
Jan	12.7	11.7
Feb	17.7	14.2
Mar	28.6	24.7
Apr	40.1	38.0
May	49.3	46.1
Jun	53.0	52.4
Jul	37.8	45.8
Aug	26.3	34.8

Table 6- 7: Percent distribution of Ag HHs changing eating patterns, by age and sex of the members who changed eating patterns

	Age group					
	Adults		Youths		Children	
	Male	Female	Male	Female	Male	Female
Abi	58.1	63.6	43.4	39.3	60.9	57.9
Buginyanya	80	86.1	41.2	43.2	45.8	43.7
Bulindi	87.6	87	49.9	47.3	70.6	70.7
Kachwekano	82	88.8	20.5	27.9	27.7	32.9
Mukono	63.6	89.1	36.7	46	54.3	49
Ngetta	76.3	78.8	40.6	51.3	32.8	33.5
Nabuin	65.7	86.7	28.6	35.2	60.3	56.3
Serere	80.4	77.9	22.9	27.4	33.1	35.9
Mbarara	75.1	90.2	33.9	30.8	56.3	54
Rwebitaba	84.3	81.2	39	30.1	17.9	14.7
Uganda	73.4	83.2	35	39.1	47.6	45.9

Table 6- 8: Distribution of Ag HHs skipping meals, by age and sex of members who skipped meals

	Age group					
	Adults		Youths		Children	
	Male	Female	Male	Female	Male	Female
Abi	58.7	69.5	32	34.8	44.4	41.6
Buginyanya	79.8	86.8	42.3	42.9	41.2	38.5
Bulindi	83.4	88	44.8	39.4	66	64.5
Kachwekano	80.5	88.5	18.7	17.6	23	27.5
Mukono	61.1	83.2	34.7	35.5	36.4	36.3
Ngetta	76.5	76.9	39	50	30.1	29.9
Nabuin	65	84.9	28.6	36.9	54	52.2
Serere	80.1	77.3	19.9	26.5	26.9	26.7
Mbarara	72.6	87.3	32	23.7	45.5	42.9
Rwebitaba	79.1	78.6	29.5	23	2.8	4.2
Uganda	72.3	82.5	39.9	37.6	41.2	39.9

Table 6- 9: Distribution of Ag HHs eating less preferred meals, by age and sex of the members who ate less preferred meals

	Age group					
	Adults		Youths		Children	
	Male	Female	Male	Female	Male	Female
Abi	70.3	73.1	41.1	41.8	66.9	65
Buginyanya	77.8	84.1	41.5	41.2	51.9	50
Bulindi	86	89.1	48.3	45.4	77.9	76.8
Kachwekano	79.4	87.6	22.7	30.7	38.3	41.9
Mukono	63.8	77.5	33.9	40.5	61.7	63.4
Ngetta	75.7	77.6	43	54	41	41.4
Nabuin	66	84.9	30.1	36.6	60.5	57.5
Serere	80.6	80.1	28.8	34.8	42.5	45.5
Mbarara	74.8	83.4	39.9	36.7	62.6	59.3
Rwebitaba	84.7	80.1	39.5	31.8	22.5	22.1
Uganda	73.4	82.1	36.4	40.5	53.2	52.1

Table 6- 10: Distribution of Ag HHs reducing the meal size, by age and sex of the members who reduced meal size

	Age group					
	Adults		Youth		Children	
	Male	Female	Male	Female	Male	Female
Abi	55.7	60.5	43.4	40.9	67.8	66.9
Buginyanya	79.3	86.2	43.1	43.1	50	47.7
Bulindi	86.6	88.5	49.5	44.3	69.1	70.8
Kachwekano	80.3	88.5	27.1	34.6	43.1	45.7
Mukono	64.9	84.5	32.8	40.5	57.2	54.2
Ngetta	76.8	77.8	40.8	52.5	35.8	35.3
Nabuin	66	86	27.8	34.8	61	55
Serere	78.8	78.4	28.6	34.3	40.4	42
Mbarara	73.5	83.3	39.1	32.2	61	55.9
Rwebitaba	90.5	83.9	39.1	37.8	46.1	43.6
Uganda	72.7	82.4	35.7	40	52.7	50.1

Annex 4

Table 7- 1: Maize - area, production and yields, by sub-region

	First season 2018			Second season 2018						Total 2018		
	Area Planted	Production (MT)	Yield*** (MT/Ha)	Area Planted	Area Harvested*	Production (MT)	CV Production	Yield** (MT/Ha)	Yield*** (MT/Ha)	Area Planted	Production (MT)	Yield*** (MT/Ha)
S. Buganda	118,026	150,590	1.3	65,790	57,062	144,894	19.6	2.5	2.2	183,817	295,484	1.6
N. Buganda	364,012	525,077	1.4	205,357	150,464	312,612	20.4	2.1	1.5	569,368	837,689	1.5
Busoga	175,729	218,821	1.2	112,417	78,781	101,493	18.8	1.3	0.9	288,146	320,313	1.1
Bukedi	74,121	112,515	1.5	64,398	55,486	55,403	11.2	1.0	0.9	138,519	167,918	1.2
Elgon	89,409	111,627	1.2	14,034	7,284	21,521	60.9	3.0	1.5	103,443	133,148	1.3
Teso	48,091	47,853	1.0	33,409	24,067	29,036	22.1	1.2	0.9	81,500	76,890	0.9
Karamoja	104,220	130,763	1.3	4,305	4,004	3,922	70.2	1.0	0.9	108,524	134,685	1.2
Lango	113,457	159,430	1.4	98,194	85,884	113,624	18.3	1.3	1.2	211,650	273,054	1.3
Acholi	49,660	45,640	0.9	10,287	9,589	9,677	22.9	1.0	0.9	59,946	55,317	0.9
West Nile	47,424	52,328	1.1	14,400	13,561	28,484	22.5	2.1	2.0	61,825	80,811	1.3
Bunyoro	251,162	377,379	1.5	200,414	166,383	278,906	14.4	1.7	1.4	451,575	656,285	1.5
Tooro	79,997	149,279	1.9	60,392	59,349	121,757	18.5	2.1	2.0	140,389	271,036	1.9
Ankole	25,677	41,894	1.6	33,428	31,004	71,626	44.6	2.3	2.1	59,105	113,521	1.9
Kigezi	8,648	12,279	1.4	13,642	12,258	14,000	19.4	1.1	1.0	22,290	26,279	1.2
Uganda	1,549,631	2,135,475	1.4	930,466	755,176	1,306,955		1.7	1.4	2,480,097	3,442,430	1.4

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

(***) Ratio between production (MT) and area planted (Ha)

Table 7- 2: Maize - area, production and yields, by ZARDI

	First season 2018			Second season 2018						Total 2018		
	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Yield** (MT/Ha)	Yield*** (MT/Ha)	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)
Abi	47,424	52,328	1.1	14,400	13,561	28,484	22.5	2.1	2.0	61,824	80,812	1.3
Buginyanya	339,258	442,963	1.3	190,850	141,551	178,417	13.4	1.3	0.9	530,108	621,380	1.2
Bulindi	251,162	377,379	1.5	200,414	166,383	278,906	14.4	1.7	1.4	451,576	656,285	1.5
Kachwekano	8,648	12,279	1.4	13,642	12,258	14,000	19.4	1.1	1.0	22,290	26,279	1.2
Mukono	461,700	637,965	1.4	251,394	193,011	430,650	16.3	2.2	1.7	713,094	1,068,615	1.5
Ngetta	163,116	205,070	1.3	108,480	95,473	123,301	17.0	1.3	1.1	271,596	328,371	1.2
Nabuin	104,220	130,763	1.3	4,305	4,004	3,922	70.2	1.0	0.9	108,525	134,685	1.2
Mbarara	46,015	79,597	1.7	49,597	41,935	86,927	37.3	2.1	1.8	95,612	166,524	1.7
Rwebitaba	79,997	149,279	1.9	65,847	64,804	138,161	17.2	2.1	2.1	145,844	287,440	2.0
Serere	48,091	47,853	1.0	31,538	22,196	24,188	16.8	1.1	0.8	79,629	72,041	0.9
Uganda	1,549,631	2,135,475	1.4	930,465	755,176	1,306,955	7.3	1.7	1.4	2,480,096	3,442,430	1.4

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

(***) Ratio between production (MT) and area planted (Ha)

Table 7- 3: Maize - Status of the at the time of the interview (season 2), by sub-region

	Status of the harvest at the time of the interview							Total
	Not harvested yet	Some harvested	All harvested	most destroyed	All destroyed	Sold the garden	Does not belong to respondent	
S. Buganda	6.7	4.8	60.2	17.8	10.0	0.6	0.0	100
N. Buganda	3.0	1.1	75.5	2.6	17.9	0.0	0.0	100
Busoga	0.4	0.5	51.8	14.8	32.4	0.2	0.1	100
Bukedi	0.0	0.0	73.2	11.6	15.3	0.0	0.0	100
Elgon	1.4	0.0	36.2	16.1	46.4	0.0	0.0	100
Teso	0.0	0.8	67.5	3.6	28.2	0.0	0.0	100
Karamoja	0.0	0.0	83.1	0.0	16.9	0.0	0.0	100
Lango	0.0	0.0	49.4	34.2	16.4	0.0	0.0	100
Acholi	0.8	0.0	82.3	8.7	7.8	0.4	0.0	100
West Nile	0.0	0.0	79.1	11.5	9.4	0.0	0.0	100
Bunyoro	0.6	0.2	64.7	15.9	17.4	0.9	0.2	100
Tooro	0.0	0.0	90.3	4.9	4.2	0.2	0.4	100
Ankole	1.5	0.2	57.4	27.8	13.0	0.0	0.0	100
Kigezi	5.5	0.5	74.7	4.1	14.6	0.7	0.0	100
Uganda	1.5	0.7	66.7	13.7	17.1	0.3	0.1	100

Table 7- 4: Maize - Status of the at the time of the interview (season 2), by ZARDI

	Status of the harvest at the time of the interview							Total
	Not harvested yet	Some harvested	All harvested	most destroyed	All destroyed	Sold the garden	Does not belong to respondent	
Abi	0.0	0.0	79.1	11.5	9.4	0.0	0.0	100
Buginyanya	0.3	0.3	58.5	13.7	27.1	0.1	0.1	100
Bulindi	0.6	0.2	64.7	15.9	17.4	0.9	0.2	100
Kachwekano	5.5	0.5	74.7	4.1	14.6	0.7	0.0	100
Mukono	3.0	1.2	74.2	6.4	15.0	0.2	0.0	100
Ngetta	0.2	0.0	56.6	28.6	14.5	0.1	0.0	100
Nabuin	0.0	0.0	83.1	0.0	16.9	0.0	0.0	100
Mbarara	3.6	2.0	54.7	26.3	13.6	0.0	0.0	100
Rwebitaba	0.0	0.0	90.3	4.9	4.2	0.2	0.4	100
Serere	0.0	0.8	67.5	3.6	28.2	0.0	0.0	100
Uganda	1.5	0.7	66.7	13.7	17.1	0.3	0.1	100

Table 7- 5: Millet - area, production and yields, by sub-region

	First season 2018			Second season 2018						2018		
	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Yield** (MT/Ha)	Yield*** (MT/Ha)	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)
S. Buganda	50	35	0.7	940	940	988	56.6	1.1	1.1	990	1,023	1.0
N. Buganda	2,723	1,496	0.5	1,813	1,141	553	58.5	0.5	0.3	4,536	2,048	0.5
Busoga	15,859	8,718	0.5	1,159	773	166	64.0	0.2	0.1	17,018	8,885	0.5
Bukedi	29,526	13,303	0.5	2,958	2,190	650	49.3	0.3	0.2	32,484	13,953	0.4
Elgon	4,491	2,761	0.6	0	0	0	0.0			4,491	2,761	0.6
Teso	33,714	16,152	0.5	7,213	5,025	1,466	30.2	0.3	0.2	40,927	17,618	0.4
Karamoja	14,851	6,988	0.5	0	0	0	0.0			14,851	6,988	0.5
Lango	28,917	10,835	0.4	10,659	8,123	2,864	39.0	0.4	0.3	39,575	13,699	0.3
Acholi	35,063	19,188	0.5	9,506	9,270	3,686	30.4	0.4	0.4	44,569	22,875	0.5
West Nile	1,102	1,235	1.1	11,229	10,544	7,129	58.0	0.7	0.6	12,331	8,364	0.7
Bunyoro	1,276	568	0.4	2,974	2,909	1,815	23.1	0.6	0.6	4,250	2,383	0.6
Tooro	832	419	0.5	5,205	5,038	3,712	21.6	0.7	0.7	6,037	4,131	0.7
Ankole	152	268	1.8	38,143	36,878	26,050	11.3	0.7	0.7	38,294	26,318	0.7
Kigezi	2,059	1,468	0.7	20,194	19,499	9,467	26.1	0.5	0.5	22,253	10,935	0.5
Uganda	170,613	83,435	0.5	111,994	102,330	58,547	10.2	0.6	0.5	282,607	141,982	0.5

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

(***) Ratio between production (MT) and area planted (Ha)

Table 7- 6: Millet - area, production and yields, by ZARDI

	First season 2018			Second season 2018						Total 2018		
	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Yield** (MT/Ha)	Yield*** (MT/Ha)	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)
Abi	1,102	1,235	1.1	11,229	10,544	7,129	58.0	0.7	0.6	12,331	8,364	0.7
Buginyanya	49,876	24,782	0.5	4,117	2,964	816	41.4	0.3	0.2	53,993	25,598	0.5
Bulindi	1,276	568	0.4	2,974	2,909	1,815	23.1	0.6	0.6	4,250	2,383	0.6
Kachwekano	2,059	1,468	0.7	20,194	19,499	9,467	26.1	0.5	0.5	22,253	10,935	0.5
Mukono	2,772	1,531	0.6	1,931	1,258	628	52.5	0.5	0.3	4,703	2,159	0.5
Ngetta	63,980	30,023	0.5	20,165	17,393	6,550	24.2	0.4	0.3	84,145	36,573	0.4
Nabuin	14,851	6,988	0.5	0	-	0	0.0			14,851	6,988	0.5
Mbarara	152	268	1.8	38,679	37,415	26,761	11.2	0.7	0.7	38,831	27,029	0.7
Rwebitaba	832	419	0.5	5,698	5,531	4,064	20.3	0.7	0.7	6,530	4,483	0.7
Serere	33,714	16,152	0.5	7,007	4,819	1,317	29.1	0.3	0.2	40,721	17,469	0.4
Uganda	170,613	83,434	0.5	111,994	102,330	58,547	10.2	0.6	0.5	282,607	141,981	0.5

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

(***) Ratio between production (MT) and area planted (Ha)

Table 7- 7: Millet – Status of the harvest at the time of the interview (season 2), by sub-region

	Status of the harvest at the time of the interview					Total
	Not harvested yet	Some harvested	All harvested	most destroyed	All destroyed	
S. Buganda	0.0	0.0	78.0	22.1	0.0	100
N. Buganda	0.0	0.0	51.1	0.0	49.0	100
Busoga	0.0	0.0	14.3	31.5	54.2	100
Bukedi	0.0	0.0	71.0	0.0	29.0	100
Teso	0.0	0.0	62.5	5.9	31.6	100
Lango	0.0	0.0	37.1	30.2	32.8	100
Acholi	0.0	0.0	84.4	10.6	5.1	100
West Nile	0.0	0.0	84.7	4.6	10.6	100
Bunyoro	1.2	0.0	84.0	6.2	8.6	100
Tooro	0.0	0.0	96.3	0.0	3.7	100
Ankole	0.2	0.2	67.6	26.5	5.4	100
Kigezi	2.5	0.0	86.2	6.9	4.4	100
Uganda	0.5	0.1	72.4	16.8	10.2	100

Table 7- 8: Millet – Status of the harvest at the time of the interview (season 2), by ZARDI

	Status of the harvest at the time of the interview					Total
	Not harvested yet	Some harvested	All harvested	most destroyed	All destroyed	
Abi	0.0	0.0	84.7	4.6	10.6	100
Buginyanya	0.0	0.0	50.2	11.6	38.3	100
Bulindi	1.2	0.0	84.0	6.2	8.6	100
Kachwekano	2.5	0.0	86.2	6.9	4.4	100
Mukono	0.0	0.0	54.8	3.4	41.8	100
Ngetta	0.0	0.0	60.8	20.3	18.9	100
Mbarara	0.2	0.2	67.8	26.4	5.3	100
Rwebitaba	0.0	0.0	96.3	0.0	3.7	100
Serere	0.0	0.0	62.5	5.9	31.6	100
Uganda	0.5	0.1	72.4	16.8	10.2	100

Table 7- 9: Sorghum area, production and yields, by sub-region

	First season 2018			Second season 2018						2018		
	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Yield** (MT/Ha)	Yield*** (MT/Ha)	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)
S. Buganda	91	225	2.5	143	143	79	97.4	0.6	0.6	234	304	1.3
N. Buganda	323	320	1.0	288	288	126	66.6	0.4	0.4	611	447	0.7
Busoga	5,464	3,369	0.6	521	269	72	55.6	0.3	0.1	5,985	3,441	0.6
Bukedi	17,496	10,083	0.6	4,199	3,857	1,791	26.7	0.5	0.4	21,695	11,874	0.5
Elgon	981	351	0.4	2,709	1,310	692	74.9	0.5	0.3	3,690	1,043	0.3
Teso	43,485	24,122	0.6	35,804	28,066	11,561	17.4	0.4	0.3	79,289	35,682	0.5
Karamoja	239,165	132,138	0.6	5,096	0	0	0.0	-	-	244,261	132,138	0.5
Lango	7,413	3,836	0.5	23,450	17,934	5,617	17.9	0.3	0.2	30,863	9,454	0.3
Acholi	20,250	12,265	0.6	16,132	15,312	12,675	21.7	0.8	0.8	36,382	24,940	0.7
West Nile	7,786	3,656	0.5	17,460	16,523	11,314	18.1	0.7	0.6	25,246	14,970	0.6
Bunyoro	1,746	1,169	0.7	4,203	3,746	2,092	39.4	0.6	0.5	5,948	3,261	0.5
Tooro	3,720	4,008	1.1	3,438	3,282	3,382	46.9	1.0	1.0	7,159	7,390	1.0
Ankole	5,684	3,636	0.6	4,681	4,444	2,285	36.7	0.5	0.5	10,365	5,921	0.6
Kigezi	18,645	16,999	0.9	1,538	1,322	631	34.4	0.5	0.4	20,183	17,629	0.9
Uganda	372,250	216,176	0.6	119,661	96,496	52,317	8.8	0.5	0.4	491,911	268,493	0.5

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

(***) Ratio between production (MT) and area planted (Ha)

Table 7- 10: Sorghum area, production and yields, by ZARDI

	First season 2018			Second season 2018						Total 2018		
	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Yield** (MT/Ha)	Yield*** (MT/Ha)	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)
Abi	7,786	3,656	0.5	17,460	16,523	11,314	18.1	0.7	0.6	25,246	14,970	0.6
Buginyanya	23,941	13,803	0.6	7,429	5,436	2,555	27.7	0.5	0.3	31,370	16,358	0.5
Bulindi	1,746	1,169	0.7	4,203	3,746	2,092	39.4	0.6	0.5	5,949	3,261	0.5
Kachwekano	18,645	16,999	0.9	1,538	1,322	631	34.4	0.5	0.4	20,183	17,630	0.9
Mukono	323	320	1.0	290	290	128	65.6	0.4	0.4	613	448	0.7
Ngetta	27,662	16,101	0.6	39,582	33,246	18,293	16.0	0.6	0.5	67,244	34,394	0.5
Nabuin	239,165	132,138	0.6	5,096	-	0	0.0			244,261	132,138	0.5
Mbarara	5,775	3,861	0.7	5,540	5,303	2,833	26.4	0.5	0.5	11,315	6,694	0.6
Rwebitaba	3,720	4,008	1.1	3,648	3,492	3,595	44.5	1.0	1.0	7,368	7,603	1.0
Serere	43,485	24,122	0.6	34,875	27,137	10,877	18.0	0.4	0.3	78,360	34,999	0.4
Uganda	372,250	216,176	0.6	119,661	96,496	52,317	8.8	0.5	0.4	491,911	268,493	0.5

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

(***) Ratio between production (MT) and area planted (Ha)

Table 7- 11: Sorghum – Status of the harvest at the time of the interview (season 2), by sub-region

	Status of the harvest at the time of the interview				Total
	Not harvested yet	All harvested	most destroyed	All destroyed	
S. Buganda	0.0	100.0	0.0	0.0	100
N. Buganda	0.0	100.0	0.0	0.0	100
Busoga	0.0	60.8	9.0	30.2	100
Bukedi	0.0	84.3	2.5	13.3	100
Elgon	0.0	51.3	8.5	40.2	100
Teso	0.0	76.1	0.8	23.1	100
Karamoja	0.0	0.0	0.0	100.0	100
Lango	0.0	41.6	35.2	23.2	100
Acholi	0.0	79.2	10.0	10.8	100
West Nile	0.6	91.4	3.9	4.2	100
Bunyoro	7.3	84.0	0.0	8.8	100
Tooro	0.0	88.4	3.1	8.5	100
Ankole	0.0	53.8	37.2	9.0	100
Kigezi	3.3	59.7	14.4	22.5	100
Uganda	0.6	75.1	9.6	14.8	100

Table 7- 12: Sorghum – Status of the harvest at the time of the interview (season 2), by ZARDI

	Status of the harvest at the time of the interview				Total
	Not harvested yet	All harvested	most destroyed	All destroyed	
Abi	0.6	91.4	3.9	4.2	100
Buginyanya	0.0	75.9	4.4	19.8	100
Bulindi	7.3	84.0	0.0	8.8	100
Kachwekano	3.3	59.7	14.4	22.5	100
Mukono	0.0	100.0	0.0	0.0	100
Ngetta	0.0	63.3	20.7	16.0	100
Nabuin	0.0	0.0	0.0	100.0	100
Mbarara	0.0	55.4	35.9	8.7	100
Rwebitaba	0.0	88.4	3.1	8.5	100
Serere	0.0	76.1	0.8	23.1	100
Uganda	0.6	75.1	9.6	14.8	100

Table 7- 13: Beans area, production and yields, by sub-region

	First season 2018			Second season 2018						2018		
	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Yield** (MT/Ha)	Yield*** (MT/Ha)	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)
S. Buganda	53,574	35,046	0.7	66,753	60,918	38,430	16.8	0.6	0.6	120,327	73,476	0.6
N. Buganda	110,838	87,177	0.8	103,868	94,309	55,256	14.4	0.6	0.5	214,705	142,433	0.7
Busoga	30,030	16,299	0.5	23,770	10,817	4,074	19.3	0.4	0.2	53,800	20,372	0.4
Bukedi	17,826	8,111	0.5	25,416	17,654	6,834	20.9	0.4	0.3	43,242	14,945	0.3
Elgon	56,830	35,520	0.6	54,545	41,651	21,181	14.9	0.5	0.4	111,375	56,701	0.5
Teso	3,905	1,915	0.5	5,273	3,087	1,099	35.1	0.4	0.2	9,178	3,014	0.3
Karamoja	25,204	14,407	0.6	1,955	1,955	811	68.2	0.4	0.4	27,159	15,218	0.6
Lango	53,609	27,274	0.5	54,238	35,602	12,454	15.7	0.3	0.2	107,847	39,728	0.4
Acholi	9,073	4,970	0.5	7,624	7,421	5,198	53.1	0.7	0.7	16,698	10,168	0.6
West Nile	5,256	2,739	0.5	9,031	8,679	6,263	26.5	0.7	0.7	14,287	9,003	0.6
Bunyoro	90,895	89,748	1.0	71,778	62,327	44,616	14.3	0.7	0.6	162,673	134,364	0.8
Tooro	56,145	37,071	0.7	52,121	49,710	32,480	11.7	0.7	0.6	108,266	69,551	0.6
Ankole	79,417	53,544	0.7	58,712	55,260	37,736	12.5	0.7	0.6	138,129	91,280	0.7
Kigezi	29,968	20,547	0.7	47,855	44,827	26,852	16.8	0.6	0.6	77,823	47,399	0.6
Uganda	622,569	434,367	0.7	582,940	494,216	293,285	5.2	0.6	0.5	1,205,509	727,652	0.6

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

(***) Ratio between production (MT) and area planted (Ha)

Table 7- 14: Beans area, production and yields, by ZARDI

	First season 2018			Second season 2018						Total 2018		
	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Yield** (MT/Ha)	Yield*** (MT/Ha)	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)
Abi	5,256	2,739	0.5	9,031	8,679	6,263	26.5	0.7	0.7	14,287	9,002	0.6
Buginyanya	104,685	59,930	0.6	103,732	70,122	32,089	11.1	0.5	0.3	208,417	92,019	0.4
Bulindi	90,895	89,748	1.0	71,778	62,327	44,616	14.3	0.7	0.6	162,673	134,364	0.8
Kachwekano	29,968	20,547	0.7	47,855	44,827	26,852	16.8	0.6	0.6	77,823	47,399	0.6
Mukono	147,686	111,137	0.8	146,819	134,095	81,972	12.5	0.6	0.6	294,505	193,109	0.7
Ngetta	62,682	32,244	0.5	61,863	43,023	17,652	19.1	0.4	0.3	124,545	49,896	0.4
Nabuin	25,204	14,407	0.6	1,955	1,955	811	68.2	0.4	0.4	27,159	15,218	0.6
Mbarara	96,142	64,630	0.7	79,204	73,082	47,077	12.2	0.6	0.6	175,346	111,707	0.6
Rwebitaba	56,145	37,071	0.7	55,704	53,293	35,097	11.1	0.7	0.6	111,849	72,168	0.6
Serere	3,905	1,915	0.5	5,000	2,814	855	34.9	0.3	0.2	8,905	2,770	0.3
Uganda	622,569	434,367	0.7	582,940	494,216	293,285	5.2	0.6	0.5	1,205,509	727,652	0.6

Table 7- 15: Beans – Status of the harvest at the time of the interview (season 2), by sub-region

	Status of the harvest at the time of the interview								Total
	Not harvested yet	Some harvested	All harvested	most destroyed	All destroyed	Sold the garden	Does not belong to respondent		
S. Buganda	0.0	0.2	65.3	20.7	13.1	0.5	0.2	100	
N. Buganda	0.0	0.0	76.9	6.8	16.3	0.0	0.0	100	
Busoga	2.0	0.0	33.2	8.4	56.4	0.0	0.0	100	
Bukedi	0.0	0.0	62.1	6.9	30.2	0.0	0.8	100	
Elgon	0.3	0.1	67.7	11.8	20.1	0.0	0.0	100	
Teso	0.0	2.9	42.6	8.7	45.8	0.0	0.0	100	
Karamoja	0.0	0.0	48.5	51.5	0.0	0.0	0.0	100	
Lango	0.7	0.0	30.4	34.7	34.2	0.0	0.0	100	
Acholi	0.0	0.0	66.4	24.9	8.7	0.0	0.0	100	
West Nile	0.0	0.0	85.5	8.8	5.7	0.0	0.0	100	
Bunyoro	0.2	0.1	66.0	19.7	13.4	0.2	0.4	100	
Tooro	0.5	0.0	89.5	6.4	3.4	0.0	0.2	100	
Ankole	0.1	0.0	64.4	31.0	4.4	0.0	0.1	100	
Kigezi	0.1	0.1	84.9	8.9	6.0	0.0	0.0	100	
Uganda	0.3	0.1	69.8	15.8	13.9	0.1	0.1	100	

Table 7- 16: Beans – Status of the harvest at the time of the interview (season 2), by ZARDI

	Status of the harvest at the time of the interview								Total
	Not harvested yet	Some harvested	All harvested	most destroyed	All destroyed	Sold the garden	Does not belong to respondent		
Abi	0.0	0.0	85.5	8.8	5.7	0.0	0.0	100	
Buginyanya	0.7	0.1	57.7	9.8	31.6	0.0	0.2	100	
Bulindi	0.2	0.1	66.0	19.7	13.4	0.2	0.4	100	
Kachwekano	0.1	0.1	84.9	8.9	6.0	0.0	0.0	100	
Mukono	0.0	0.0	74.6	10.2	14.9	0.2	0.1	100	
Ngetta	0.6	0.0	36.0	33.2	30.3	0.0	0.0	100	
Nabuin	0.0	0.0	48.5	51.5	0.0	0.0	0.0	100	
Mbarara	0.1	0.1	63.6	29.9	6.3	0.0	0.1	100	
Rwebitaba	0.5	0.0	89.5	6.4	3.4	0.0	0.2	100	
Serere	0.0	2.9	42.6	8.7	45.8	0.0	0.0	100	
Uganda	0.3	0.1	69.8	15.8	13.9	0.1	0.1	100	

Table 7- 17: Banana-food area, production and yields, by sub-region

	First season 2018		Second season 2018				2018			
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Area Planted** (Ha)	Production (MT)	Yield*** (MT/Ha)	Yield**** (MT/Ha)
S. Buganda	62,526	237,172	76,617	72,595	418,846	10.5	76,617	656,018	9.0	8.6
N. Buganda	99,902	410,444	112,416	97,552	568,371	12.5	112,416	978,815	10.0	8.7
Busoga	20,276	67,099	19,822	16,258	69,066	19.6	19,822	136,165	8.4	6.9
Bukedi	247	1,016	1,135	956	4,726	47.9	1,135	5,742	6.0	5.1
Elgon	31,739	134,968	46,229	36,603	230,505	16.4	46,229	365,473	10.0	7.9
Teso	89	303	698	533	2,880	70.3	698	3,183	6.0	4.6
Karamoja	0	0	3,687	128	1,079	100.0	3,687	1,079	8.4	0.3
Lango	3,711	12,861	3,151	2,708	17,009	93.1	3,151	29,870	11.0	9.5
Acholi	532	1,812	567	408	2,097	40.4	567	3,909	9.6	6.9
West Nile	1,232	6,145	2,454	2,118	13,691	39.7	2,454	19,836	9.4	8.1
Bunyoro	51,650	215,638	62,666	57,506	434,350	32.2	62,666	649,988	11.3	10.4
Tooro	51,691	248,585	67,567	65,053	670,671	18.1	67,567	919,256	14.1	13.6
Ankole	161,745	1,014,637	160,593	153,961	1,449,923	9.1	160,593	2,464,560	16.0	15.3
Kigezi	22,157	102,146	21,157	20,324	158,017	20.6	21,157	260,163	12.8	12.3
Uganda	507,497	2,452,825	578,757	526,702	4,041,231	6.1	578,757	6,494,056	12.3	11.2

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) The annual area planted in 2018 is equal to the area planted in the second season (ie., reference date for area planted is equal to the end of the reference period)

(***) Ratio between production (MT) and area harvested (Ha) in the second season

(****) Ratio between production (MT) and annual area planted (Ha)

Table 7- 18: Banana-food area, production and yields, by ZARDI

	First season 2018		Second season 2018				2018			
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Area Planted** (Ha)	Production (MT)	Yield*** (MT/Ha)	Yield**** (MT/Ha)
Abi	1,232	6,145	2,454	2,118	13,691	39.7	2,454	19,836	9.4	8.1
Buginyanya	52,262	203,082	67,185	53,817	304,297	13.2	67,185	507,379	9.4	7.6
Bulindi	51,650	215,638	62,666	57,506	434,350	32.2	62,666	649,988	11.3	10.4
Kachwekano	22,157	102,146	21,157	20,324	158,017	20.6	21,157	260,163	12.8	12.3
Mukono	139,303	557,885	151,158	133,894	801,593	9.8	151,158	1,359,478	10.2	9.0
Ngetta	4,244	14,673	3,718	3,115	19,106	83.0	3,718	33,779	10.8	9.1
Nabuin	0	0	3,687	128	1,079	100.0	3,687	1,079	8.4	0.3
Mbarara	184,870	1,104,368	188,467	180,213	1,522,196	9.2	188,467	2,626,564	14.6	13.9
Rwebitaba	51,691	248,585	77,473	74,958	783,589	16.5	77,473	1,032,174	13.8	13.3
Serere	89	303	793	628	3,313	61.8	793	3,616	5.8	4.6
Uganda	507,497	2,452,826	578,757	526,702	4,041,232	6.1	578,757	6,494,058	12.3	11.2

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) The annual area planted in 2018 is equal to the area planted in the second season (ie., reference date for area planted is equal to the end of the reference period)

(***) Ratio between production (MT) and area harvested (Ha) in the second season

(****) Ratio between production (MT) and annual area planted (Ha)

Table 7- 19: Sweet potatoes area, production and yields, by sub-region

	First season 2018			Second season 2018						2018		
	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Yield** (MT/Ha)	Yield*** (MT/Ha)	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)
S. Buganda	18,632	31,640	1.7	21,188	19,006	61,275	17.9	3.2	2.9	39,819	92,915	2.3
N. Buganda	89,611	183,411	2.0	72,809	58,657	242,257	31.2	4.1	3.3	162,420	425,668	2.6
Busoga	59,330	104,991	1.8	68,017	54,844	146,005	15.1	2.7	2.1	127,348	250,996	2.0
Bukedi	13,730	23,882	1.7	18,606	15,875	33,935	12.6	2.1	1.8	32,336	57,817	1.8
Elgon	3,643	7,354	2.0	3,665	2,551	8,342	27.6	3.3	2.3	7,308	15,695	2.1
Teso	7,792	12,485	1.6	26,875	21,803	51,640	13.4	2.4	1.9	34,668	64,125	1.8
Karamoja	4,617	8,359	1.8	5,557	3,912	7,203	66.7	1.8	1.3	10,174	15,562	1.5
Lango	12,442	20,463	1.6	24,989	24,717	89,638	13.9	3.6	3.6	37,432	110,100	2.9
Acholi	3,101	5,226	1.7	3,478	2,268	10,792	29.0	4.8	3.1	6,579	16,018	2.4
West Nile	7,162	22,217	3.1	15,918	15,584	75,684	29.8	4.9	4.8	23,080	97,901	4.2
Bunyoro	19,300	34,281	1.8	20,340	16,612	61,184	15.3	3.7	3.0	39,641	95,465	2.4
Tooro	12,944	21,458	1.7	11,452	9,876	32,860	18.4	3.3	2.9	24,396	54,318	2.2
Ankole	18,489	40,853	2.2	13,090	10,674	41,939	14.5	3.9	3.2	31,579	82,791	2.6
Kigezi	18,820	39,689	2.1	30,806	22,460	65,101	14.8	2.9	2.1	49,627	104,790	2.1
Uganda	289,614	556,308	1.9	336,792	278,840	927,855	9.2	3.3	2.8	626,406	1,484,163	2.4

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

(***) Ratio between production (MT) and area planted (Ha)

Table 7- 20: Sweet potatoes area, production and yields, by ZARDI

	First season 2018			Second season 2018						Total 2018		
	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Yield** (MT/Ha)	Yield*** (MT/Ha)	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)
Abi	7,162	22,217	3.1	15,918	15,584	75,684	29.8	4.9	4.8	23,080	97,901	4.2
Buginyanya	76,703	136,227	1.8	90,289	73,271	188,282	12.0	2.6	2.1	166,992	324,509	1.9
Bulindi	19,300	34,281	1.8	20,340	16,612	61,184	15.3	3.7	3.0	39,640	95,465	2.4
Kachwekano	18,820	39,689	2.1	30,806	22,460	65,101	14.8	2.9	2.1	49,626	104,790	2.1
Mukono	106,559	211,260	2.0	91,915	76,250	299,940	25.5	3.9	3.3	198,474	511,200	2.6
Ngetta	15,544	25,689	1.7	28,467	26,985	100,429	12.8	3.7	3.5	44,011	126,118	2.9
Nabuin	4,617	8,359	1.8	5,557	3,912	7,203	66.7	1.8	1.3	10,174	15,562	1.5
Mbarara	20,174	44,643	2.2	15,967	12,882	48,863	13.1	3.8	3.1	36,141	93,506	2.6
Rwebitaba	12,944	21,458	1.7	12,236	10,660	35,998	17.4	3.4	2.9	25,180	57,456	2.3
Serere	7,792	12,485	1.6	25,295	20,223	45,169	13.5	2.2	1.8	33,087	57,654	1.7
Uganda	289,614	556,308	1.9	336,792	278,840	927,854	9.2	3.3	2.8	626,406	1,484,162	2.4

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

(***) Ratio between production (MT) and area planted (Ha)

Table 7- 21: Sweet potatoes – Status of the harvest at the time of the interview (season 2), by sub-region

Status of the harvest at the time of the interview									
	Not harvested yet	Some harvested	All harvested	most destroyed	All destroyed	Sold the garden	Does not belong to respondent	Total	
S. Buganda	10.2	22.2	40.7	13.3	8.4	5.1	0.0	100	
N. Buganda	7.5	14.5	60.9	3.6	11.5	2.1	0.0	100	
Busoga	6.9	14.0	61.5	4.1	13.6	0.0	0.0	100	
Bukedi	1.7	8.1	73.6	5.7	10.4	0.0	0.5	100	
Elgon	12.8	14.7	44.6	3.6	24.3	0.0	0.0	100	
Teso	0.3	1.0	74.2	2.2	22.3	0.0	0.0	100	
Karamoja	0.0	0.0	33.4	33.4	33.2	0.0	0.0	100	
Lango	0.0	1.9	81.8	14.5	1.9	0.0	0.0	100	
Acholi	24.5	5.3	59.8	2.4	6.0	0.0	2.1	100	
West Nile	1.3	4.2	82.9	7.5	3.0	1.2	0.0	100	
Bunyoro	9.2	16.6	55.7	6.4	9.9	2.1	0.3	100	
Tooro	17.2	15.9	62.4	1.5	2.2	0.7	0.0	100	
Ankole	15.1	15.4	52.2	11.9	5.0	0.5	0.0	100	
Kigezi	28.6	22.5	44.1	1.0	3.6	0.3	0.0	100	
Uganda	9.4	13.0	60.8	6.0	9.6	1.1	0.1	100	

Table 7- 22: Sweet potatoes – Status of the harvest at the time of the interview (season 2), by ZARDI

	Status of the harvest at the time of the interview								
	Not harvested yet	Some harvested	All harvested	most destroyed	All destroyed	Sold the garden	Does not belong to respondent		Total
Abi	1.3	4.2	82.9	7.5	3.0	1.2	0.0		100
Buginyanya	6.1	12.7	63.1	4.4	13.6	0.0	0.1		100
Bulindi	9.2	16.6	55.7	6.4	9.9	2.1	0.3		100
Kachwekano	28.6	22.5	44.1	1.0	3.6	0.3	0.0		100
Mukono	7.4	15.6	58.0	5.5	10.6	2.8	0.0		100
Ngetta	5.7	2.7	76.7	11.7	2.8	0.0	0.5		100
Nabuin	0.0	0.0	33.4	33.4	33.2	0.0	0.0		100
Mbarara	16.4	17.3	47.4	12.1	6.1	0.8	0.0		100
Rwebitaba	17.2	15.9	62.4	1.5	2.2	0.7	0.0		100
Serere	0.3	1.0	74.2	2.2	22.3	0.0	0.0		100
Uganda	9.4	13.0	60.8	6.0	9.6	1.1	0.1		100

Table 7- 23: Irish potatoes area, production and yields, by sub-region

	First season 2018			Second season 2018						2018		
	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Yield** (MT/Ha)	Yield*** (MT/Ha)	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)
S. Buganda	7,005	19,886	2.8	12,572	6,739	16,557	30.4	2.5	1.3	19,576	36,443	1.9
N. Buganda	2,586	11,968	4.6	6,366	5,709	21,863	38.0	3.8	3.4	8,951	33,831	3.8
Busoga	0	0		0	0	0	0.0			0	0	
Bukedi	0	0		0	0	0	0.0			0	0	
Elgon	9,324	28,890	3.1	2,773	2,667	13,489	61.6	5.1	4.9	12,097	42,379	3.5
Teso	0	0		0	0	0	0.0			0	0	
Karamoja	0	0		0	0	0	0.0			0	0	
Lango	0	0		0	0	0	0.0			0	0	
Acholi	0	0		0	0	0	0.0			0	0	
West Nile	943	2,549	2.7	527	527	3,480	69.4	6.6	6.6	1,469	6,029	4.1
Bunyoro	2,183	5,856	2.7	3,005	2,986	11,172	39.4	3.7	3.7	5,187	17,028	3.3
Tooro	11,965	27,316	2.3	16,128	15,391	53,061	23.4	3.4	3.3	28,093	80,377	2.9
Ankole	5,706	14,927	2.6	5,606	5,222	13,512	26.7	2.6	2.4	11,311	28,439	2.5
Kigezi	8,565	27,942	3.3	15,874	14,602	54,864	24.6	3.8	3.5	24,439	82,806	3.4
Uganda	48,275	139,332	2.9	62,849	53,842	187,999	12.3	3.5	3.0	111,124	327,331	2.9

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

(***) Ratio between production (MT) and area planted (Ha)

Table 7- 24: Irish potatoes area, production and yields, by ZARDI

	First season 2018			Second season 2018						Total 2018		
	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Yield** (MT/Ha)	Yield*** (MT/Ha)	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)
Abi	943	2,549	2.7	527	527	3,480	69.4	6.6	6.6	1,470	6,029	4.1
Buginyanya	9,324	28,890	3.1	2,773	2,667	13,489	61.6	5.1	4.9	12,097	42,379	3.5
Bulindi	2,183	5,856	2.7	3,005	2,986	11,172	39.4	3.7	3.7	5,188	17,028	3.3
Kachwekano	8,565	27,942	3.3	15,874	14,602	54,864	24.6	3.8	3.5	24,439	82,806	3.4
Mukono	5,022	18,154	3.6	11,436	9,522	30,837	30.1	3.2	2.7	16,458	48,991	3.0
Ngetta	0	0		0	-	0	0.0			-	-	
Nabuin	0	0		0	-	0	0.0			-	-	
Mbarara	10,274	28,627	2.8	12,784	7,824	19,944	23.6	2.5	1.6	23,058	48,571	2.1
Rwebitaba	11,965	27,316	2.3	16,416	15,680	54,082	23.0	3.4	3.3	28,381	81,398	2.9
Serere				35	35	131	100.0	3.7	3.7	35	131	3.7
Uganda	48,275	139,332	2.9	62,849	53,842	187,999	12.3	3.5	3.0	111,124	327,331	2.9

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

(***) Ratio between production (MT) and area planted (Ha)

Table 7- 25: Irish potatoes – Status of the harvest at the time of the interview (season 2), by sub-region

	Status of the harvest at the time of the interview						Total
	Not harvested yet	Some harvested	All harvested	most destroyed	All destroyed	Sold the garden	
S. Buganda	9.7	4.6	48.0	25.6	12.0	0.0	100
N. Buganda	1.7	3.8	77.5	9.1	7.9	0.0	100
Elgon	0.0	0.0	77.8	9.8	12.5	0.0	100
West Nile	0.0	0.0	100.0	0.0	0.0	0.0	100
Bunyoro	0.0	0.0	73.9	22.3	3.8	0.0	100
Tooro	1.4	0.0	91.7	3.9	3.1	0.0	100
Ankole	0.0	0.0	53.9	34.7	11.4	0.0	100
Kigezi	2.7	1.3	80.5	7.5	7.7	0.3	100
Uganda	2.2	1.2	77.1	12.3	7.1	0.1	100

Table 7- 26: Irish potatoes – Status of the harvest at the time of the interview (season 2), by ZARDI

	Status of the harvest at the time of the interview						Total
	Not harvested yet	Some harvested	All harvested	most destroyed	All destroyed	Sold the garden	
Abi	0.0	0.0	100.0	0.0	0.0	0.0	100
Buginyanya	0.0	0.0	77.8	9.8	12.5	0.0	100
Bulindi	0.0	0.0	73.9	22.3	3.8	0.0	100
Kachwekano	2.7	1.3	80.5	7.5	7.7	0.3	100
Mukono	2.3	5.0	73.8	11.8	7.1	0.0	100
Mbarara	4.2	0.7	49.4	32.6	13.1	0.0	100
Rwebitaba	1.4	0.0	91.7	3.9	3.1	0.0	100
Uganda	2.2	1.2	77.1	12.3	7.1	0.1	100

Table 7- 27: Groundnuts area, production and yields, by sub-region

	First season 2018			Second season 2018						2018		
	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Yield** (MT/Ha)	Yield*** (MT/Ha)	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)
S. Buganda	8,835	4,690	0.5	11,901	11,808	6,350	19.8	0.5	0.5	20,736	11,040	0.5
N. Buganda	23,115	13,482	0.6	19,478	15,928	8,792	17.5	0.6	0.5	42,593	22,274	0.5
Busoga	27,307	13,559	0.5	24,055	19,161	9,384	27.4	0.5	0.4	51,362	22,942	0.4
Bukedi	27,820	12,003	0.4	11,238	8,889	3,565	24.8	0.4	0.3	39,058	15,568	0.4
Elgon	8,877	5,029	0.6	4,493	2,909	1,592	56.2	0.5	0.4	13,370	6,621	0.5
Teso	46,185	20,232	0.4	4,911	4,688	1,869	59.0	0.4	0.4	51,095	22,101	0.4
Karamoja	26,108	12,060	0.5	6,930	5,934	2,169	51.3	0.4	0.3	33,039	14,228	0.4
Lango	21,684	9,679	0.4	14,687	12,923	4,240	25.6	0.3	0.3	36,371	13,919	0.4
Acholi	21,294	9,207	0.4	9,098	8,804	5,532	27.6	0.6	0.6	30,393	14,739	0.5
West Nile	22,110	10,234	0.5	19,810	18,752	12,044	23.7	0.6	0.6	41,920	22,278	0.5
Bunyoro	28,391	16,400	0.6	27,110	24,207	18,477	11.9	0.8	0.7	55,500	34,878	0.6
Tooro	19,819	11,719	0.6	21,929	20,689	11,433	14.6	0.6	0.5	41,748	23,152	0.6
Ankole	29,688	15,797	0.5	15,172	14,646	7,604	28.9	0.5	0.5	44,860	23,401	0.5
Kigezi	7,823	4,179	0.5	5,172	5,026	1,959	40.2	0.4	0.4	12,995	6,138	0.5
Uganda	319,057	158,269	0.5	195,984	174,364	95,009	6.6	0.5	0.5	515,041	253,279	0.5

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

(***) Ratio between production (MT) and area planted (Ha)

Table 7- 28: Groundnuts area, production and yields, by ZARDI

	First season 2018			Second season 2018						Total 2018		
	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Yield** (MT/Ha)	Yield*** (MT/Ha)	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)
Abi	22,110	10,234	0.5	19,810	18,752	12,044	23.7	0.6	0.6	41,920	22,278	0.5
Buginyanya	64,004	30,591	0.5	39,786	30,958	14,540	19.7	0.5	0.4	103,790	45,131	0.4
Bulindi	28,391	16,400	0.6	27,110	24,207	18,477	11.9	0.8	0.7	55,501	34,877	0.6
Kachwekano	7,823	4,179	0.5	5,172	5,026	1,959	40.2	0.4	0.4	12,995	6,138	0.5
Mukono	29,987	17,219	0.6	27,886	24,296	13,475	13.9	0.6	0.5	57,873	30,694	0.5
Ngetta	42,978	18,886	0.4	23,786	21,727	9,772	19.2	0.4	0.4	66,764	28,658	0.4
Nabuin	26,108	12,060	0.5	6,930	5,934	2,169	51.3	0.4	0.3	33,038	14,229	0.4
Mbarara	31,651	16,749	0.5	15,158	14,579	7,027	17.6	0.5	0.5	46,809	23,776	0.5
Rwebitaba	19,819	11,719	0.6	25,303	24,064	13,617	18.8	0.6	0.5	45,122	25,336	0.6
Serere	46,185	20,232	0.4	5,043	4,820	1,928	57.2	0.4	0.4	51,228	22,160	0.4
Uganda	319,057	158,269	0.5	195,984	174,364	95,009	6.6	0.5	0.5	515,041	253,278	0.5

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

(***) Ratio between production (MT) and area planted (Ha)

Table 7- 29: Groundnuts – Status of the harvest at the time of the interview (season 2), by sub-region

	Status of the harvest at the time of the interview						Total
	Not harvested yet	All harvested	most destroyed	All destroyed	Sold the garden	Does not belong to respondent	
S. Buganda	0.8	78.9	17.6	2.7	0.0	0.0	100
N. Buganda	0.0	78.6	4.0	17.4	0.0	0.0	100
Busoga	0.0	64.8	12.0	22.7	0.4	0.0	100
Bukedi	0.0	69.1	5.0	24.6	1.3	0.0	100
Elgon	0.0	75.8	4.2	20.0	0.0	0.0	100
Teso	0.0	89.7	3.4	7.0	0.0	0.0	100
Karamoja	24.6	75.4	0.0	0.0	0.0	0.0	100
Lango	0.0	54.6	30.5	14.9	0.0	0.0	100
Acholi	0.0	82.2	13.1	4.8	0.0	0.0	100
West Nile	0.4	87.4	8.3	3.9	0.0	0.0	100
Bunyoro	0.5	76.9	11.3	11.0	0.0	0.3	100
Tooro	0.0	89.0	6.4	4.6	0.0	0.0	100
Ankole	0.0	57.6	35.3	7.1	0.0	0.0	100
Kigezi	0.0	88.1	5.9	6.0	0.0	0.0	100
Uganda	0.7	76.4	11.8	11.0	0.1	0.0	100

Table 7- 30: Groundnuts – Status of the harvest at the time of the interview (season 2), by ZARDI

	Status of the harvest at the time of the interview						Total
	Not harvested yet	All harvested	most destroyed	All destroyed	Sold the garden	Does not belong to respondent	
Abi	0.4	87.4	8.3	3.9	0.0	0.0	100
Buginyanya	0.0	67.2	9.4	22.8	0.6	0.0	100
Bulindi	0.5	76.9	11.3	11.0	0.0	0.3	100
Kachwekano	0.0	88.1	5.9	6.0	0.0	0.0	100
Mukono	0.0	78.8	7.2	14.0	0.0	0.0	100
Ngetta	0.0	66.1	23.2	10.7	0.0	0.0	100
Nabuin	24.6	75.4	0.0	0.0	0.0	0.0	100
Mbarara	0.5	60.6	32.9	6.0	0.0	0.0	100
Rwebitaba	0.0	89.0	6.4	4.6	0.0	0.0	100
Serere	0.0	89.7	3.4	7.0	0.0	0.0	100
Uganda	0.7	76.4	11.8	11.0	0.1	0.0	100

Table 7- 31: Rice area, production and yields, by sub-region

	First season 2018			Second season 2018						2018		
	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Yield** (MT/Ha)	Yield*** (MT/Ha)	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)
S. Buganda	1,608	1,746	1.1	484	484	2,314	100.0	4.8	4.8	2,093	4,059	1.9
N. Buganda	3,881	3,566	0.9	6,421	5,896	4,010	55.0	0.7	0.6	10,301	7,576	0.7
Busoga	31,264	34,685	1.1	22,660	17,682	20,539	33.2	1.2	0.9	53,924	55,224	1.0
Bukedi	19,209	19,457	1.0	16,178	12,763	12,202	24.8	1.0	0.8	35,387	31,660	0.9
Elgon	12,442	13,767	1.1	1,910	1,910	1,667	95.3	0.9	0.9	14,352	15,433	1.1
Teso	5,378	5,837	1.1	6,251	5,065	4,143	40.8	0.8	0.7	11,629	9,981	0.9
Karamoja	0	0		0	0	0				0	0	
Lango	7,196	7,769	1.1	12,123	9,637	5,996	43.2	0.6	0.5	19,318	13,764	0.7
Acholi	14,928	15,018	1.0	9,077	8,953	12,119	75.6	1.4	1.3	24,006	27,137	1.1
West Nile	387	377	1.0	3,278	3,241	3,997	51.1	1.2	1.2	3,665	4,374	1.2
Bunyoro	2,056	2,528	1.2	15,543	14,671	16,391	35.8	1.1	1.1	17,599	18,918	1.1
Tooro	26	7	0.3	3,022	3,022	5,101	99.4	1.7	1.7	3,048	5,107	1.7
Ankole	0	0		0	0	0	0.0			0	0	
Kigezi	370	709	1.9	3,846	3,846	5,323	66.7	1.4	1.4	4,216	6,032	1.4
Uganda	98,745	105,464	1.1	100,792	87,169	93,801	16.5	1.1	0.9	199,538	199,266	1.0

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

(***) Ratio between production (MT) and area planted (Ha)

Table 7- 32: Rice area, production and yields, by ZARDI

	First season 2018			Second season 2018						Total 2018		
	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Yield** (MT/Ha)	Yield*** (MT/Ha)	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)
Abi	387	377	1.0	3,278	3,241	3,997	51.1	1.2	1.2	3,665	4,374	1.2
Buginyanya	62,915	67,909	1.1	40,748	32,355	34,408	22.2	1.1	0.8	103,663	102,317	1.0
Bulindi	2,056	2,528	1.2	15,543	14,671	16,391	35.8	1.1	1.1	17,599	18,919	1.1
Kachwekano	370	709	1.9	3,846	3,846	5,323	66.7	1.4	1.4	4,216	6,032	1.4
Mukono	5,489	5,311	1.0	6,905	6,380	6,324	50.5	1.0	0.9	12,394	11,635	0.9
Ngetta	22,124	22,786	1.0	21,200	18,590	18,115	52.6	1.0	0.9	43,324	40,901	0.9
Nabuin	0	0		0	-	0	0.0			-	-	
Mbarara	0	0		0	-	0	0.0			-	-	
Rwebitaba	26	7	0.3	3,022	3,022	5,101	99.4	1.7	1.7	3,048	5,108	1.7
Serere	5,378	5,837	1.1	6,251	5,065	4,143	40.8	0.8	0.7	11,629	9,980	0.9
Uganda	98,745	105,464	1.1	100,792	87,169	93,801	16.5	1.1	0.9	199,537	199,265	1.0

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

(***) Ratio between production (MT) and area planted (Ha)

Table 7- 33: Rice – Status of the harvest at the time of the interview (season 2), by sub-region

	Status of the harvest at the time of the interview					Total
	Not harvested yet	All harvested	most destroyed	All destroyed	Sold the garden	
S. Buganda	0.0	100.0	0.0	0.0	0.0	100
N. Buganda	0.0	74.8	9.5	15.7	0.0	100
Busoga	2.2	56.4	8.2	33.2	0.0	100
Bukedi	0.0	74.0	4.0	22.0	0.0	100
Elgon	0.0	39.4	44.7	15.9	0.0	100
Teso	0.0	79.6	0.0	20.5	0.0	100
Lango	0.0	44.7	32.3	23.0	0.0	100
Acholi	0.0	73.5	13.4	13.1	0.0	100
West Nile	0.0	68.8	20.9	10.4	0.0	100
Bunyoro	0.0	54.8	35.1	9.2	0.9	100
Tooro	0.0	93.2	6.8	0.0	0.0	100
Kigezi	0.0	92.0	8.0	0.0	0.0	100
Uganda	0.5	66.1	15.1	18.2	0.2	100

Table 7- 34: Rice – Status of the harvest at the time of the interview (season 2), by ZARDI

	Status of the harvest at the time of the interview					Total
	Not harvested yet	All harvested	most destroyed	All destroyed	Sold the garden	
Abi	0.0	68.8	20.9	10.4	0.0	100
Buginyanya	1.1	63.4	8.1	27.4	0.0	100
Bulindi	0.0	54.8	35.1	9.2	0.9	100
Kachwekano	0.0	92.0	8.0	0.0	0.0	100
Mukono	0.0	77.9	8.3	13.8	0.0	100
Ngetta	0.0	57.8	23.8	18.5	0.0	100
Rwebitaba	0.0	93.2	6.8	0.0	0.0	100
Serere	0.0	79.6	0.0	20.5	0.0	100
Uganda	0.5	66.1	15.1	18.2	0.2	100

Table 7- 35: Soya beans area, production and yields, by sub-region

	First season 2018			Second season 2018						2018		
	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Yield** (MT/Ha)	Yield*** (MT/Ha)	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)
S. Buganda	32	18	0.6	401	242	311	76.1	1.3	0.8	433	329	0.8
N. Buganda	1,243	667	0.5	1,901	1,523	684	36.9	0.4	0.4	3,144	1,351	0.4
Busoga	12,036	6,943	0.6	13,705	11,002	4,151	30.5	0.4	0.3	25,741	11,095	0.4
Bukedi	5,430	2,465	0.5	15,754	10,414	3,138	25.7	0.3	0.2	21,185	5,603	0.3
Elgon	1,256	461	0.4	5,844	4,315	2,425	56.4	0.6	0.4	7,099	2,886	0.4
Teso	3,083	1,660	0.5	7,515	6,004	1,415	34.0	0.2	0.2	10,598	3,074	0.3
Karamoja	0	0		0	0	0	0.0			0	0	
Lango	61,509	56,479	0.9	39,540	35,655	17,490	21.5	0.5	0.4	101,049	73,969	0.7
Acholi	9,208	4,584	0.5	4,074	4,074	1,576	38.5	0.4	0.4	13,282	6,161	0.5
West Nile	811	279	0.3	844	798	386	38.3	0.5	0.5	1,655	665	0.4
Bunyoro	8	9	1.1	1,020	1,020	239	65.4	0.2	0.2	1,028	248	0.2
Tooro	1,234	803	0.7	1,830	1,830	635	49.8	0.3	0.3	3,064	1,438	0.5
Ankole	368	212	0.6	617	612	302	76.4	0.5	0.5	985	514	0.5
Kigezi	312	168	0.5	135	135	123	97.2	0.9	0.9	447	291	0.7
Uganda	96,530	74,749	0.8	93,180	77,626	32,874	13.3	0.4	0.4	189,710	107,624	0.6

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

(***) Ratio between production (MT) and area planted (Ha)

Table 7- 36: Soya beans area, production and yields, by ZARDI

	First season 2018			Second season 2018						Total 2018		
	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Yield** (MT/Ha)	Yield*** (MT/Ha)	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)
Abi	811	279	0.3	844	798	386	38.3	0.5	0.5	1,655	665	0.4
Buginyanya	18,722	9,870	0.5	35,303	25,731	9,714	20.9	0.4	0.3	54,025	19,584	0.4
Bulindi	8	9	1.1	1,020	1,020	239	65.4	0.2	0.2	1,028	248	0.2
Kachwekano	312	168	0.5	135	135	123	97.2	0.9	0.9	447	291	0.7
Mukono	1,274	685	0.5	2,302	1,766	995	34.8	0.6	0.4	3,576	1,680	0.5
Ngetta	70,718	61,063	0.9	43,614	39,729	19,066	20.0	0.5	0.4	114,332	80,129	0.7
Nabuin	0	0		0	-	0	0.0			-	-	
Mbarara	368	212	0.6	747	743	393	63.1	0.5	0.5	1,115	605	0.5
Rwebitaba	1,234	803	0.7	1,830	1,830	635	49.8	0.3	0.3	3,064	1,438	0.5
Serere	3,083	1,660	0.5	7,385	5,874	1,323	36.3	0.2	0.2	10,468	2,983	0.3
Uganda	96,530	74,749	0.8	93,180	77,626	32,874	13.3	0.4	0.4	189,710	107,623	0.6

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

(***) Ratio between production (MT) and area planted (Ha)

Table 7- 37: Soya beans – Status of the harvest at the time of the interview (season 2), by sub-region

	Status of the harvest at the time of the interview					Total
	Not harvested yet	Some harvested	All harvested	most destroyed	All destroyed	
S. Buganda	15.9	0.0	67.6	0.0	16.5	100
N. Buganda	0.0	0.0	62.9	8.4	28.8	100
Busoga	0.0	0.0	56.8	19.2	24.0	100
Bukedi	0.0	0.0	67.5	6.7	25.8	100
Elgon	0.0	0.0	61.0	9.9	29.1	100
Teso	0.0	0.0	74.3	0.0	25.8	100
Lango	0.7	0.6	51.7	36.7	10.4	100
Acholi	0.0	0.0	75.2	24.9	0.0	100
West Nile	0.0	0.0	88.4	0.0	11.6	100
Bunyoro	0.0	0.0	81.3	18.7	0.0	100
Tooro	0.0	0.0	100.0	0.0	0.0	100
Ankole	0.0	0.0	67.4	24.0	8.6	100
Kigezi	0.0	0.0	100.0	0.0	0.0	100
Uganda	0.3	0.1	63.9	16.9	18.8	100

Table 7- 38: Soya beans – Status of the harvest at the time of the interview (season 2), by ZARDI

	Status of the harvest at the time of the interview					Total
	Not harvested yet	Some harvested	All harvested	most destroyed	All destroyed	
Abi	0.0	0.0	88.4	0.0	11.6	100
Buginyanya	0.0	0.0	62.4	12.0	25.6	100
Bulindi	0.0	0.0	81.3	18.7	0.0	100
Kachwekano	0.0	0.0	100.0	0.0	0.0	100
Mukono	2.3	0.0	63.6	7.2	27.0	100
Ngetta	0.7	0.5	54.3	35.4	9.2	100
Mbarara	0.0	0.0	67.4	24.0	8.6	100
Rwebitaba	0.0	0.0	100.0	0.0	0.0	100
Serere	0.0	0.0	74.3	0.0	25.8	100
Uganda	0.3	0.1	63.9	16.9	18.8	100

Table 7- 39: Simsim area, production and yields, by sub-region

	First season 2018			Second season 2018						2018		
	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Yield** (MT/Ha)	Yield*** (MT/Ha)	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)
S. Buganda	328	0	0.0	1,336	1,336	140	81.7	0.1	0.1	1,664	140	0.1
N. Buganda	NA	209	NA	474	198	94	65.9	0.5	0.2	NA	303	0.6
Busoga	1,050	235	0.2	1,081	1,042	190	35.7	0.2	0.2	2,131	425	0.2
Bukedi	352	125	0.4	766	670	63	53.1	0.1	0.1	1,118	188	0.2
Elgon	0	0		0	0	0				0	0	
Teso	4,306	1,369	0.3	8,664	8,256	1,810	31.0	0.2	0.2	12,970	3,179	0.2
Karamoja	3,270	807	0.2	0	0	0				3,270	807	0.2
Lango	12,710	5,176	0.4	57,528	44,417	10,824	22.3	0.2	0.2	70,238	16,000	0.2
Acholi	2,869	882	0.3	52,564	49,576	10,876	15.6	0.2	0.2	55,433	11,758	0.2
West Nile	121	84	0.7	31,157	30,509	6,944	26.4	0.2	0.2	31,278	7,028	0.2
Bunyoro	8,154	4,764	0.6	2,152	2,129	322	67.2	0.2	0.1	10,306	5,086	0.5
Tooro	1,402	396	0.3	41	41	26	100.0	0.6	0.6	1,443	422	0.3
Ankole	0	0		0	0	0				0	0	
Kigezi	0	0		0	0	0				0	0	
Uganda	34,561	14,047	0.4	155,763	138,174	31,287	11.3	0.2	0.2	190,324	45,334	0.2

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

(***) Ratio between production (MT) and area planted (Ha)

NA = Not Available

Table 7- 40: Simsim area, production and yields, by ZARDI

	First season 2018			Second season 2018						Total 2018		
	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Yield** (MT/Ha)	Yield*** (MT/Ha)	Area Planted (Ha)	Production (MT)	Yield*** (MT/Ha)
Abi	NA	84	NA	31,157	30,509	6,944	26.4	0.2	0.2	NA	7,028	NA
Buginyanya	NA	362	NA	1,847	1,712	253	29.9	0.1	0.1	NA	615	NA
Bulindi	NA	4,764	NA	2,152	2,129	322	67.2	0.2	0.1	NA	5,086	NA
Kachwekano	NA	NA	NA	0	-	0	0.0			NA	NA	NA
Mukono	NA	209	NA	1,810	1,534	233	55.6	0.2	0.1	NA	442	NA
Ngetta	NA	6,058	NA	110,092	93,993	21,700	13.6	0.2	0.2	NA	27,758	NA
Nabuin	NA	NA	NA	0	-	0	0.0			NA	NA	NA
Mbarara	NA	NA	NA	949	949	223	50.0	0.2	0.2	NA	223	NA
Rwebitaba	NA	396	NA	41	41	26	100.0	0.6	0.6	NA	422	NA
Serere	NA	1,369	NA	7,715	7,307	1,587	33.8	0.2	0.2	NA	2,956	NA
Uganda	34,561	13,241	0.4	155,763	138,174	31,288	11.3	0.2	0.2	190,324	44,529	0.2

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) Ratio between production (MT) and area harvested (Ha)

(***) Ratio between production (MT) and area planted (Ha)

NA= Not Available

Table 7- 41: Simsim – Status of the harvest at the time of the interview (season 2), by sub-region

	Status of the harvest at the time of the interview				Total
	Some harvested	All harvested	most destroyed	All destroyed	
S. Buganda	0.0	100.0	0.0	0.0	100
N. Buganda	0.0	79.4	0.0	20.6	100
Busoga	0.0	70.8	18.1	11.1	100
Bukedi	0.0	72.1	9.3	18.6	100
Teso	0.0	81.1	9.4	9.5	100
Lango	0.0	35.2	41.9	22.9	100
Acholi	0.7	73.9	17.7	7.7	100
West Nile	0.0	81.5	13.1	5.4	100
Bunyoro	0.0	74.5	15.9	9.6	100
Tooro	0.0	100.0	0.0	0.0	100
Uganda	0.2	65.1	22.7	12.1	100

Table 7- 42: Soya beans – Status of the harvest at the time of the interview (season 2), by ZARDI

	Status of the harvest at the time of the interview				Total
	Some harvested	All harvested	most destroyed	All destroyed	
Abi	0.0	81.5	13.1	5.4	100
Buginyanya	0.0	71.2	15.6	13.2	100
Bulindi	0.0	74.5	15.9	9.6	100
Mukono	0.0	82.6	0.0	17.4	100
Ngetta	0.3	53.8	30.3	15.6	100
Rwebitaba	0.0	100.0	0.0	0.0	100
Serere	0.0	81.1	9.4	9.5	100
Uganda	0.2	65.1	22.7	12.1	100

Table 7- 43: Cassava area, production and yields, by sub-region

	First season 2018		Second season 2018				2018			
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Area Planted** (Ha)	Total Production (MT)	Yield*** (MT/Ha)	Yield**** (MT/Ha)
S. Buganda	19,801	59,187	28,912	19,044	107,695	15.1	28,912	166,882	8.8	5.8
N. Buganda	113,381	361,450	74,630	41,074	252,236	17.0	74,630	613,686	14.9	8.2
Busoga	63,497	169,748	95,252	60,944	208,121	15.5	95,252	377,869	6.2	4.0
Bukedi	41761	108,258	38,544	17,740	58,756	17.9	38,544	167,014	9.4	4.3
Elgon	6,131	18,350	14,198	8,374	33,645	22.3	14,198	51,995	6.2	3.7
Teso	64506	142841	128262	63,498	299,059	16.0	128,262	441,900	7.0	3.4
Karamoja	11818	20223	11,192	11,192	28,442	100.0	11,192	48,665	4.3	4.3
Lango	119,545	362,486	111,884	99,497	392,899	9.5	111,884	755,385	7.6	6.8
Acholi	56083	149,483	58236	37,443	204,338	19.5	58,236	353,821	9.4	6.1
West Nile	108,818	255,580	198,319	67,675	312,401	14.3	198,319	567,981	8.4	2.9
Bunyoro	118,425	345,967	123,455	51,957	256,483	15.4	123,455	602,450	11.6	4.9
Tooro	23,878	58,023	37,019	9,185	41,269	19.0	37,019	99,292	10.8	2.7
Ankole	11,955	34,280	14,762	10,706	76,835	44.8	14,762	111,115	10.4	7.5
Kigezi	5,441	15,170	6,236	3,421	17,010	34.7	6,236	32,180	9.4	5.2
Uganda	765,040	2,101,043	940,902	501,748	2,289,188	5.2	940,902	4,390,231	8.7	4.7

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) The annual area planted in 2018 is equal to the area planted in the second season (ie., reference date for area planted is equal to the end of the reference period)

(***) Ratio between production (MT) and area harvested (Ha) in the second season

(****) Ratio between production (MT) and annual area planted (Ha)

Table 7- 44: Cassava area, production and yields, by ZARDI

	First season 2018		Second season 2018				2018			
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Area Planted** (Ha)	Total Production (MT)	Yield*** (MT/Ha)	Yield**** (MT/Ha)
Abi	108,818	255,580	198,319	67,675	312,401	14.3	198,319	567,981	8.4	2.9
Buginyanya	111,390	296,356	147,995	87,057	300,523	11.5	147,995	596,879	6.9	4.0
Bulindi	118,425	345,967	123,455	51,957	256,483	15.4	123,455	602,450	11.6	4.9
Kachwekano	5,441	15,170	6,236	3,421	17,010	34.7	6,236	32,180	9.4	5.2
Mukono	130,099	410,859	97,847	55,712	334,634	13.6	97,847	745,493	13.4	7.6
Ngetta	175,628	511,968	170,120	136,941	597,237	9.1	170,120	1,109,205	8.1	6.5
Nabuin	11818	20223	11,192	11,192	28,442	100.0	11,192	48,665	4.3	4.3
Mbarara	15,038	44,057	23,670	18,324	133,992	26.8	23,670	178,049	9.7	7.5
Rwebitaba	23,878	58,023	42,278	14,443	80,600	43.1	42,278	138,623	9.6	3.3
Serere	64506	142841	119791	55,027	227,868	14.1	119,791	370,709	6.7	3.1
Uganda	765,040	2,101,043	940,901	501,748	2,289,188	5.2	940,901	4,390,231	8.7	4.7

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) The annual area planted in 2018 is equal to the area planted in the second season (ie., reference date for area planted is equal to the end of the reference period)

(***) Ratio between production (MT) and area harvested (Ha) in the second season

(****) Ratio between production (MT) and annual area planted (Ha)

Table 7- 45: Coffee arabica area, production and yields, by sub-region

	First season 2018		Second season 2018				2018			
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Area Planted** (Ha)	Total Production (MT)	Yield*** (MT/Ha)	Yield**** (MT/Ha)
S. Buganda	306	195	359	359	579	54.8	359	774	2.2	2.2
N. Buganda	595	312	1,456	523	116	59.4	1,456	428	0.8	0.3
Busoga	274	146	3,334	2,955	1,343	43.1	3,334	1,489	0.5	0.4
Bukedi	0	0	0	0	0		0	0		
Elgon	26,362	13,462	30,466	26,166	15,817	0.0	30,466	29,279	1.1	1.0
Teso	0	0	0	0	0		0	0		
Karamoja	0	0	0	0	0		0	0		
Lango	0	0	0	0	0		0	0		
Acholi	0	0	0	0	0		0	0		
West Nile	186	99	1,804	1,676	572	53.2	1,804	671	0.4	0.4
Bunyoro	7,370	3,364	10,136	7,700	2,704	38.4	10,136	6,068	0.8	0.6
Tooro	26,904	14,182	35,602	27,753	15,522	26.8	35,602	29,704	1.1	0.8
Ankole	2,903	2,052	2,964	2,367	1,699	55.9	2,964	3,751	1.6	1.3
Kigezi	1,653	1,489	2,164	2,057	1,329	42.3	2,164	2,818	1.4	1.3
Uganda	66,553	35,301	88,286	71,556	39,681	14.6	88,286	74,982	1.0	0.8

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) The annual area planted in 2018 is equal to the area planted in the second season (ie., reference date for area planted is equal to the end of the reference period)

(***) Ratio between production (MT) and area harvested (Ha) in the second season

(****) Ratio between production (MT) and annual area planted (Ha)

Table 7- 46: Coffee arabica area, production and yields, by ZARDI

	First season 2018		Second season 2018				2018			
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Area Planted** (Ha)	Total Production (MT)	Yield*** (MT/Ha)	Yield**** (MT/Ha)
Abi	186	99	1,793	1,676	572	53.2	1,793	671	0.4	0.4
Buginyanya	26,635	13,608	33,800	29,121	17,160	21.7	33,800	30,768	1.1	0.9
Bulindi	7,370	3,364	10,136	7,700	2,704	38.4	10,136	6,068	0.8	0.6
Kachwekano	1,653	1,489	2,164	2,057	1,329	42.3	2,164	2,818	1.4	1.3
Mukono	901	506	1,740	797	486	52.5	1,740	992	1.2	0.6
Ngetta	0	0	0	-	0	0.0	0	0		
Nabuin	0	0	0	-	0	0.0	0	0		
Mbarara	2,903	2,052	3,029	2,433	1,892	50.6	3,029	3,944	1.6	1.3
Rwebitaba	26,904	14,182	35,586	27,736	15,538	26.8	35,586	29,720	1.1	0.8
Serere	0	0	36,78266	37	29	100.0	37	29	0.8	0.8
Uganda	66,553	35,301	88,286	71,556	39,681	14.6	88,286	74,982	1.0	0.8

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) The annual area planted in 2018 is equal to the area planted in the second season (ie., reference date for area planted is equal to the end of the reference period)

(***) Ratio between production (MT) and area harvested (Ha) in the second season

(****) Ratio between production (MT) and annual area planted (Ha)

Table 7- 47: Coffee robusta area, production and yields, by sub-region

	First season 2018		Second season 2018				2018			
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Area Planted** (Ha)	Total Production (MT)	Yield*** (MT/Ha)	Yield**** (MT/Ha)
S. Buganda	51,846	11,008	92,914	74,976	23,392	15.0	92,914	34,400	0.5	0.4
N. Buganda	121,605	28,426	139,757	109,521	36,402	15.4	139,757	64,828	0.6	0.5
Busoga	22,170	6,183	25,536	21,689	7,640	19.7	25,536	13,823	0.6	0.5
Bukedi	0	0	47	47	31	100.0	47	31	0.7	0.7
Elgon	39	15	0	0	0	0.0	39	15		0.4
Teso	0	0	0	0	0	0.0	0	0		
Karamoja	0	0	0	0	0	0.0	0	0		
Lango	1,166	0	53	0	0	0.0	53	0		0.0
Acholi	0	0	259	0	0	0.0	259	0		0.0
West Nile	0	0	10	0	0	0.0	10	0		0.0
Bunyoro	204,063	74,133	11,727	7,902	2,455	25.3	11,727	76,588	9.7	6.5
Tooro	5,303	1,808	10,572	7,713	2,390	28.8	10,572	4,198	0.5	0.4
Ankole	39,947	22,616	41,708	19,619	7,469	18.2	41,708	30,085	1.5	0.7
Kigezi	11,405	3,297	17,274	15,340	5,263	31.1	17,274	8,560	0.6	0.5
Uganda	457,543	147,486	339,855	256,808	85,043	8.4	339,855	232,529	0.9	0.7

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) The annual area planted in 2018 is equal to the area planted in the second season (ie., reference date for area planted is equal to the end of the reference period)

(***) Ratio between production (MT) and area harvested (Ha) in the second season

(****) Ratio between production (MT) and annual area planted (Ha)

Table 7- 48: Coffee robusta area, production and yields, by ZARDI

	First season 2018		Second season 2018				2018			
	Area Planted (Ha)	Production (MT)	Area Planted (Ha)	Area Harvested* (Ha)	Production (MT)	CV Production	Area Planted** (Ha)	Total Production (MT)	Yield*** (MT/Ha)	Yield**** (MT/Ha)
Abi			10	-	0	0.0	10	0		0.0
Buginyanya	22,209	6,197	25,583	21,737	7,672	19.7	25,583	13,869	0.6	0.5
Bulindi	204,063	74,133	11,727	7,902	2,455	25.3	11,727	76,588	9.7	6.5
Kachwekano	11,405	3,297	17,274	15,340	5,263	31.1	17,274	8,560	0.6	0.5
Mukono	162,005	37,500	196,142	157,121	54,020	12.2	196,142	91,520	0.6	0.5
Ngetta	1,200		312	-	0	0.0	312	0		
Nabuin			0	-	0	0.0	0	0		
Mbarara	51,392	24,550	76,262	45,021	12,324	19.5	76,262	36,874	0.8	0.5
Rwebitaba	5,303	1,808	12,546	9,687	3,310	24.8	12,546	5,118	0.5	0.4
Serere			0	-	0	0.0	0	0		
Uganda	457,577	147,486	339,855	256,808	85,043	8.4	339,855	232,529	0.9	0.7

(*) the total area harvested is the total area planted calculated on those observations whose production is available (not missing) and higher than zero.

(**) The annual area planted in 2018 is equal to the area planted in the second season (ie., reference date for area planted is equal to the end of the reference period)

(***) Ratio between production (MT) and area harvested (Ha) in the second season

(****) Ratio between production (MT) and annual area planted (Ha)

Annex 8

NOTE: All the tables of this Annex have been extracted from the data collected in the second season of the agricultural year 2018. The reference period is the last 12 months – ie., the period between March 2018 and February 2019.

Table 8- 1: Percentage of Ag HHs raising livestock, by ZARDI

	Yes	No	Total
Abi	81.6	18.4	100.0
Buginyanya	77.0	23.0	100.0
Bulindi	79.3	20.7	100.0
Kachwekano	60.9	39.1	100.0
Mukono	73.8	26.2	100.0
Ngetta	84.7	15.3	100.0
Nabuin	82.2	17.8	100.0
Serere	93.0	7.0	100.0
Mbarara	68.1	31.9	100.0
Rwebitaba	77.5	22.5	100.0
Uganda	77.9	22.1	100.0

Table 8- 2: Percent distribution of Ag HHs raising livestock, type of animal raised and ZARDI*

Livestock	Abi	Buginyanya	Bulindi	Kachwekano	Mukono	Ngetta	Nabuin	Serere	Mbarara	Rwebitaba	Uganda
Calves	18.0	25.3	11.5	11.6	18.1	17.2	51.4	35.3	19.7	8.8	24.8
Bulls	17.8	16.3	12.5	7.3	15.5	29.9	29.6	10.0	13.9	5.7	18.3
Steer	1.0	0.4	2.3	2.1	0.3	4.4	1.7	1.4	3.0	0.0	1.5
Oxen	0.4	4.1	0.6	0.0	0.0	18.7	29.2	40.4	0.0	0.0	10.3
Heifers	21.4	11.7	4.9	7.3	13.1	12.4	18.1	7.5	15.2	5.9	12.8
Cows	27.7	39.7	13.3	25.1	21.3	32.4	55.1	51.0	23.2	12.7	33.2
Donkeys	0.0	0.0	0.0	0.0	0.0	0.0	6.9	0.4	0.0	0.0	1.2
Goats	78.1	55.9	48.5	61.0	44.6	67.6	72.3	58.7	62.8	63.9	61.3
Sheep	16.3	3.1	5.7	22.4	6.6	10.4	43.3	36.7	11.1	3.4	15.6
Pigs	17.5	20.1	51.1	36.5	53.8	21.9	5.6	39.7	43.1	37.1	29.0
Broilers	22.5	37.3	59.9	9.1	25.1	60.7	52.5	73.6	19.4	39.8	41.0
Layers	44.6	44.7	35.7	28.8	52.4	21.8	5.1	36.7	31.1	37.6	33.1
Turkeys	11.9	11.3	9.3	5.7	8.1	6.8	7.9	7.5	7.3	5.1	8.5
Rabbits	1.3	1.0	1.2	10.4	2.3	0.3	0.0	1.3	5.3	2.4	1.8

(*) Percentages are calculated on the Ag HHs that report having animals

Table 8- 3: Number of Ag HHs raising animals, total and average number of animals raised, by animal type

	Number of Ag HHs raising animals	Total number of animals raised	Average number of animals per Ag HH
Calves	1,199,217	2,878,174	2.14
Bulls	825,340	1,658,343	1.68
Steers	68,104	153,952	1.87
Oxen	492,847	1,071,571	1.95
Heifers	593,126	1,677,830	2.44
Cows	1,581,295	4,672,673	2.59
Donkeys	62,617	146,492	2.34
Goats	3,050,310	15,570,416	4.66
Sheep	796,034	4,397,084	5.23
Pigs	1,344,804	4,475,423	2.85
Broiler chickens	1,957,090	15,743,131	7.07
Layer chickens	1,620,356	19,671,398	11.00
Turkeys Ducks Geese	430,492	2,272,506	4.99
Rabbits	87,776	628,060	6.53

Table 8- 4: Number of Ag HHs raising animals, total and average number of animals raised, by animal type per ZARDI

A. Abi

	Number of Ag HHs raising animals	Total number of animals raised	Average number of animals per Ag HH
Calves	64,648	159,316	2.2
Bulls	60,576	116,577	1.7
Steers	3,811	8,756	2.3
Oxen	1,413	4,293	2.6
Heifers	76,445	187,904	2.2
Cows	94,362	303,256	2.8
Goats	302,810	1,806,917	5.8
Sheep	62,294	201,375	3.1
Pigs	66,636	186,742	2.7
Broiler chickens	83,365	653,342	7.3
Layer chickens	174,331	1,915,237	10.8
Turkeys Ducks Geese	45,966	300,975	6.4
Rabbits	5,183	55,914	10.8

	Number of Ag HHs raising animals	Total number of animals raised	Average number of animals per Ag HH
cattle	301,255	780,101	2.3
chickens	257,696	2,568,578	9.6
Other	482,889	2,551,922	5.1

B. Buginyanya

	Number of Ag HHs raising animals	Total number of animals raised	Average number of animals per Ag HH
Calves	227,524	330,514	1.3
Bulls	141,839	225,224	1.3
Steers	4,266	10,054	2.4
Oxen	38,119	86,604	2.0
Heifers	110,842	163,101	1.3
Cows	356,322	574,844	1.4
Goats	526,694	1,567,915	2.7
Sheep	24,225	53,077	1.7
Pigs	175,247	496,421	2.4
Broiler chickens	313,533	2,672,004	6.9
Layer chickens	406,708	3,136,704	6.7
Turkeys Ducks Geese	107,989	567,949	4.8
Rabbits	10,675	50,081	4.7

	Number of Ag HHs raising animals	Total number of animals raised	Average number of animals per Ag HH
cattle	878,912	1,390,342	1.4
chickens	720,241	5,808,708	6.8
Other	844,830	2,735,443	2.9

C. Bulindi

	Number of Ag HHs raising animals	Total number of animals raised	Average number of animals per Ag HH
Calves	30,365	153,870	4.1
Bulls	27,528	63,293	1.6
Steers	4,766	9,444	1.3
Oxens	1,815	3,631	2.0
Heifers	12,784	102,049	6.5
Cows	34,501	247,532	5.8
Goats	143,255	704,259	4.5
Sheep	15,988	58,909	3.2
Pigs	142,112	520,632	3.1
Broiler chickens	165,778	1,428,062	7.4
Layer chickens	101,313	648,540	5.6
Turkeys Ducks Geese	27,106	162,805	5.4
Rabbits	3,780	31,298	8.3

	Number of Ag HHs raising animals	Total number of animals raised	Average number of animals per Ag HH
cattle	111,759	579,818	4.0
chickens	267,091	2,076,602	6.7
Other	332,240	1,477,904	3.9

D. Kachwekano

	Number of Ag HHs raising animals	Total number of animals raised	Average number of animals per Ag HH
Calves	16,910	27,357	1.2
Bulls	11,812	18,892	1.3
Steers	3,966	6,173	1.6
Heifers	12,695	19,967	1.4
Cows	42,790	95,704	2.0
Goats	113,805	466,500	3.9
Sheep	41,271	141,886	3.3
Pigs	67,417	121,593	1.7
Broiler chickens	16,847	88,479	5.0
Layer chickens	55,616	279,114	5.0
Turkeys Ducks Geese	10,557	45,850	4.2
Rabbits	18,726	119,370	6.0

	Number of Ag HHs raising animals	Total number of animals raised	Average number of animals per Ag HH
cattle	88,174	168,093	1.6
chickens	72,464	367,593	5.0
Other	251,776	895,200	3.4

E. Mukono

	Number of Ag HHs raising animals	Total number of animals raised	Average number of animals per Ag HH
Calves	100,127	315,513	2.4
Bulls	77,738	119,381	1.1
Steers	2,376	3,364	1.4
Heifers	81,033	324,169	3.5
Cows	132,411	569,414	3.7
Goats	292,560	1,507,246	4.7
Sheep	44,763	175,540	3.7
Pigs	352,770	1,382,670	3.6
Broiler chickens	158,770	1,245,723	6.9
Layer chickens	339,782	5,293,463	14.0
Turkeys Ducks Geese	53,744	315,253	5.5
Rabbits	14,472	176,195	10.8

	Number of Ag HHs raising animals	Total number of animals raised	Average number of animals per Ag HH
cattle	393,686	1,331,841	2.7
chickens	498,552	6,539,187	11.7
Other	758,309	3,556,904	4.3

F. Ngetta

	Number of Ag HHs raising animals	Total number of animals raised	Average number of animals per Ag HH
Calves	103,035	203,811	1.8
Bulls	156,998	336,521	1.7
Steers	19,500	48,189	1.7
Oxen	107,543	223,792	1.8
Heifers	55,404	103,804	1.3
Cows	179,829	351,112	1.6
Goats	384,801	1,489,389	3.3
Sheep	64,475	223,541	3.3
Pigs	74,659	209,291	1.4
Broiler chickens	346,079	3,034,644	7.5
Layer chickens	128,214	435,454	3.0
Turkeys Ducks Geese	39,918	258,805	5.8
Rabbits	1,870	7,480	3.3

	Number of Ag HHs raising animals	Total number of animals raised	Average number of animals per Ag HH
cattle	622,309	1,267,230	1.7
chickens	474,293	3,470,098	6.3
Other	565,723	2,188,506	3.1

G. Nabuin

	Number of Ag HHs raising animals	Total number of animals raised	Average number of animals per Ag HH
Calves	439,749	1,178,752	2.5
Bulls	246,401	584,560	2.2
Steers	14,359	42,348	2.9
Oxen	228,650	493,778	1.9
Heifers	145,361	442,395	2.7
Cows	453,865	1,470,639	2.9
Donkeys	61,411	145,285	2.4
Goats	626,422	5,212,986	7.9
Sheep	372,797	2,946,795	7.6
Pigs	50,144	286,446	5.7
Broiler chickens	431,596	2,910,939	6.1
Layer chickens	46,239	544,192	11.8
Turkeys Ducks Geese	70,631	288,881	4.1

	Number of Ag HHs raising animals	Total number of animals raised	Average number of animals per Ag HH
cattle	1,528,384	4,212,472	2.5
chickens	477,835	3,455,130	6.6
Other	1,181,404	8,880,393	7.2

H. Mbarara

	Number of Ag HHs raising animals	Total number of animals raised	Average number of animals per Ag HH
Calves	101,095	171,643	1.6
Bulls	26,995	43,148	1.4
Steers	3,399	4,330	1.0
Oxen	115,307	259,473	2.1
Heifers	22,328	35,005	1.6
Cows	142,105	313,531	2.0
Donkeys	1,207	1,207	1.0
Goats	164,342	515,266	2.8
Sheep	107,135	346,571	3.1
Pigs	109,518	301,129	2.5
Broiler chickens	208,615	1,879,244	8.3
Layer chickens	106,319	661,135	5.9
Turkeys Ducks Geese	22,707	107,160	4.7
Rabbits	3,856	21,659	5.6

	Number of Ag HHs raising animals	Total number of animals raised	Average number of animals per Ag HH
cattle	411,229	827,130	1.9
chickens	314,934	2,540,379	7.5
Other	408,765	1,292,991	2.9

I. Rwebitaba

	Number of Ag HHs raising animals	Total number of animals raised	Average number of animals per Ag HH
Calves	85,130	269,313	2.9
Bulls	57,005	120,736	1.8
Steers	11,660	21,293	1.6
Heifers	56,981	258,510	3.7
Cows	100,994	600,957	5.4
Goats	276,648	1,451,750	4.9
Sheep	50,921	195,537	3.7
Pigs	177,829	620,779	3.0
Broiler chickens	82,989	779,245	8.5
Layer chickens	138,774	5,483,806	37.2
Turkeys Ducks Geese	33,344	129,411	3.8
Rabbits	21,092	122,884	4.9

	Number of Ag HHs raising animals	Total number of animals raised	Average number of animals per Ag HH
cattle	311,769	1,270,809	3.6
chickens	221,763	6,263,051	26.2
Other	559,833	2,520,360	4.1

J. Serere

	Number of Ag HHs raising animals	Total number of animals raised	Average number of animals per Ag HH
Calves	30,633	68,085	1.9
Bulls	18,448	30,013	1.3
Heifers	19,253	40,926	1.8
Cows	44,117	145,684	2.9
Goats	218,972	848,187	3.4
Sheep	12,167	53,853	4.0
Pigs	128,471	349,721	2.4
Broiler chickens	149,518	1,051,449	6.7
Layer chickens	123,059	1,273,754	8.7
Turkeys Ducks Geese	18,532	95,418	4.8
Rabbits	8,123	43,179	4.7

	Number of Ag HHs raising animals	Total number of animals raised	Average number of animals per Ag HH
cattle	112,451	284,707	2.2
chickens	272,577	2,325,203	7.6
Other	386,265	1,390,358	3.1

Table 8- 5: Ag HHs in the first two quintiles of the tropical livestock units distribution, by ZARDI

		Third quintile and above	First and second quintile	Total
Abi	Number	190,114	205,032	395,146
	Percentage	48.1	51.9	100.0
Buginyanya	Number	618,043	423,299	1,041,341
	Percentage	59.4	40.6	100.0
Bulindi	Number	169,523	147,970	317,493
	Percentage	53.4	46.6	100.0
Kachwekano	Number	99,861	94,271	194,131
	Percentage	51.4	48.6	100.0
Mukono	Number	424,512	292,379	716,891
	Percentage	59.2	40.8	100.0
Ngetta	Number	444,585	221,823	666,408
	Percentage	66.7	33.3	100.0
Nabuin	Number	701,129	213,408	914,537
	Percentage	76.7	23.3	100.0
Serere	Number	236,806	72,019	308,825
	Percentage	76.7	23.3	100.0
Mbarara	Number	226,324	244,033	470,356
	Percentage	48.1	51.9	100.0
Rwebitaba	Number	168,399	225,882	394,281
	Percentage	42.7	57.3	100.0
Uganda	Number	3,279,295	2,140,115	5,419,410
	Percentage	60.5	39.5	100.0

Table 8- 6: Distribution of Ag HHs, by input purchased and livestock category

		Raising livestock	Practicing controlled mating	Paying for feeding the livestock	Paying for livestock water	using vaccines	Using anti-parasites	Using curative treatments
Cattle and Pack Animals	N	2,478,687	350,821	109,436	218,435	1,175,966	1,433,915	1,177,047
	%	100.0	14.2	4.4	8.8	47.4	57.8	47.5
Small Ruminants and Pigs	N	4,263,308	447,604	366,986	320,015	939,341	1,472,557	983,589
	%	100.0	10.5	8.6	7.5	22.0	34.5	23.1
Poultry and Rabbits	N	3,649,809	62,287	287,194	255,486	448,849	163,773	255,828
	%	100.0	1.7	7.9	7.0	12.3	4.5	7.0

Table 8- 7: Average cost of inputs per Ag HHs, by input type and livestock category

	Mating Costs	Feeding Costs	Water Costs	Vaccinations	Parasites	Curative Treatment
Cattle and Pack Animals	32,065	259,700	70,293	38,824	61,178	48,355
Small Ruminants and Pigs	28,171	137,297	16,204	22,905	14,416	18,752
Poultry and Rabbits	13,996	357,731	18,940	10,866	12,920	13,247

Table 8- 8: Percent distribution of Ag HHs, by type of livestock labor and ZARDI

	Household labor only	Hired labor only	Both HH and hired labor	Total
Abi	95.7	0.3	4.1	100.0
Buginyanya	95.8	0.3	3.8	100.0
Bulindi	93.0	0.6	6.4	100.0
Kachwekano	88.7	2.8	8.6	100.0
Mukono	91.3	1.8	6.9	100.0
Ngetta	95.8	1.0	3.2	100.0
Nabuin	93.8	1.2	5.0	100.0
Serere	42.0	0.7	57.3	100.0
Mbarara	0.8	10.1	89.2	100.0
Rwebitaba	4.5	0.0	95.5	100.0
Uganda	94.1	0.9	5.1	100.0

Table 8- 9: Cost of livestock labor, by ZARDI

	Total cost of livestock labor (Million UGX)	Average cost per Ag HH of livestock labor (UGX)	Average cost per head of livestock labor (UGX)
Abi	1,445	3,657	13,968
Buginyanya	2,037	1,956	10,057
Bulindi	2,742	8,637	26,977
Kachwekano	1,242	6,400	12,361
Mukono	8,060	11,243	17,180
Ngetta	1,218	1,827	6,680
Nabuin	1,880	2,055	3,813
Serere	223	723	3,471
Mbarara	4,200	8,929	8,679
Rwebitaba	1,416	3,590	12,079
Uganda	24,463	4,514	11,255

Table 8- 10: Sales of live animals and stock value, by livestock group

	% of HHs that sold an animal	Total number of animals sold	Average unit price earned per animal sold	Average number of animals sold per Ag HH	Total value of sales (Million UGX)	Estimated value of animal stock (Million UGX)
Cattle and pack animals	25.0	1,205,832	766,742	2.5	1,059,505	8,019,553
Small ruminants and pigs	34.0	5,997,522	108,583	6.1	695,303	4,645,831
Poultry	24.0	25,103,771	15,978	51	342,732	2,448,111
Total	28.0	32,307,124	235,826	16	2,097,540	15,113,494

Table 8- 11: Sales of meat, by livestock group*

	% of HHs that sold meat	No. of Ag HHs that sold meat	Total quantity of meat sold (KGS)	Average price for a KG of meat sold	Total value of meat produced (Million UGX)
Cattle and pack animals	27	17,172	1,163,016	7,495	8,762
Small ruminants, pigs	15	40,561	4,996,698	4,078	16,429
Poultry	.56	7,391	68,324	1,931	141
Total	3.9	65,124	6,228,038	4,720	25,332

Table 8- 12: Milk production, by livestock group

	Total quantity of milk produced (Million Liters)	Average quantity of milk produced per Ag HH (Liters)	Total quantity of milk sold (Million Liters)	Share of milk sold (%)	Average price of a litre of milk (UGX)	Total value of milk produced (Million UGX)
Cattle and pack animals	1186.0	1004.7	603.2	50.9	985.7	850984.9
Small ruminants	15.6	302.6	3.5	22.7	1000.0	6958.2
Total	1201.6	975.3	606.7	50.5	985.9	857943.1

Table 8- 13: Annual egg production

Ag HHs with poultry (%)	52%
Total quantity of eggs produced (Million)	2,483
Average quantity of eggs produced per Ag HH	687
Average price of one egg (UGX)	370
Average unit price of a tray (30 eggs) (UGX)	10,280

QUESTIONNAIRES

Area Questionnaire

Strictly Confidential



UGANDA BUREAU OF STATISTICS
ANNUAL AGRICULTURAL SURVEY 2018
AAS Form 4: Crop Area Module



Section 4.1: Identification Particulars

4.1.1 Holding Particulars

No.	Particulars	Code			
(Qn 01)	District Name				
(Qn 02)	County Name				
(Qn 03)	Sub-county Name				
(Qn 04)	Parish Name				
(Qn 05)	Village Name				
(Qn 06)	Enumeration Area Name				
(Qn 07)	Batch Number				
(Qn 08)	Name of Holder				
(Qn 09)	Holder's physical address description				

(Qn 10A) GPS COORDINATES OF THE DWELLING USING CAPI

North/South (write S for south & N for North in the bold box)		East	
1	Decimal Degrees	2	Decimal Degrees

(Qn 10B) RECORD THE GPS COORDINATES OF THE DWELLING USING GPS

North/South (write S for south & N for North in the bold box)		East	
1	Decimal Degrees	2	Decimal Degrees

(Qn 11A) Date of start of Interview D D M M Y Y Y Y

(Qn 11A) Time start of Interview H H M M

(Qn 12) Record reference season 1st 2nd

(Qn 13) Record reference year 2017 2018 2019 2020

(Qn 14)	"Are you able to continue with the interview? Select NO, if : 1) the household refused the interview, 2) there was no competent respondent at the time of the visit, 3) none was at home for an extended period of time, 4) the household moved to another unknown location, 5) the dwelling was not found. Select YES if the household accepted the interview."	YES <input type="checkbox"/>	NO <input type="checkbox"/>

Sect 4.2 - Household Roster

(Qn 15): Now I would like to ask you information regarding the people living in this household. I would like to make a complete list of all the household members including guests who slept here last night. (follow the probing instructions below)															
H01	H02	H03	H04	H05	H06	H07	H08	H09	H10	H11	H12	H13	H14	H15	H16
								FOR AGE 3+	FOR AGE 3+	FOR AGE 10+ and IF H09=<3	FOR AGE 10+	FOR AGE 10+	FOR AGE 15+		
PERSON ID	PERSON NAME		What is the sex of [NAME]?	What is [NAME]'s relationship to household head?	How old is [NAME] in completed years?	What is the residential status of [NAME]?	What is [NAME]'s current marital status?	What is the highest level of formal education that [NAME] attended?	What grade did [NAME] attain?	Can [NAME] read and write in any language?	What was [NAME]'s main economic activity in the last 12 months?	In this main activity, was [NAME] a(n)... <i>(enumerator reads all the responses below)</i>	Does [NAME] belong to a farmers' group?	Have you confirmed and finalized the list of the household members?	Who is the respondent for the interview?
	NAME	SURNAME	1=Male 2=Female	1= Head 2= Spouse 3= Son/Daughter/Step Child 4= Parent 5= Other Relative 6= Non-Relative		1=Usual Member 2=Regular Member 3=Guest → go to next member	1= Married 2= Divorced/ Separated 3= Widowed 4= Never been married	(See codes below)		1=Yes 2=No		(See codes below)	1=Own Account Worker (Independent) 2=Employer 3=Salaried Worker 4=Task Worker 5=Unpaid Family Member 6=Trainee/Volunteer/Intern 8=Member of Cooperative 9=Other (Specify)	1=Yes 2=No	1=Yes, confirmed and finalised 2=No, revisions are necessary

PROBING INSTRUCTIONS FOR THE HOUSEHOLD ROSTER (Col H02 and H03)

INTERVIEWER!

- Ensure that all household members are listed, starting from the household head.
- Use the probing questions below to ensure a complete listing:

- Are there other persons such as small children or infants that we have not been listed? If yes, what are their names?
- Are there other people who may not be members of your family such as domestic servants, lodgers or friends who usually live here? If yes, what are their names?
- Are there any guests or temporary visitors, or anyone else who stayed here last night, who have not been listed? If yes, what are their names?

Codes for Col H09

- 1= Nursery or never been to school
- 2= Did not complete Primary One
- 3= Primary
- 4= Junior
- 5= Senior
- 6= Certificate
- 7= Diploma
- 8= Degree
- 9= Post Graduate
- 10= Functional Adult Literacy training
- 11= Vocational Training
- 12= Complementary Opportunity for Primary Education

Codes for Col H10

- 3= P1
- 4= P2
- 5= P3
- 6= P4
- 7= P5
- 8= P6
- 9= P7
- 10= J1
- 11= J2
- 12= J3
- 13= S1
- 14= S2
- 15= S3
- 16= S4
- 17= S5
- 18= S6
- 19= Incomplete certificate training
- 20= Complete Certificate training
- 21= Incomplete diploma training
- 22= Complete Diploma training
- 23= Incomplete degree
- 24= Complete Degree
- 25= Incomplete Post Graduate training
- 26= Complete Post Graduate training
- 27= Functional Adult Literacy training
- 28= Complementary Opportunity for Primary Ed
- 29= Incomplete vocational training
- 30= Complete vocational training

Codes for Col H12

- 1= Crop Production
- 2= Livestock Production
- 3= Fisheries
- 4= Forestry
- 5= Horticulture
- 6= Fruiticulture
- 7= Apiary - Bee Keeping
- 8= Trader
- 9= Artisan - worker in a skilled trade
- 10= Agricultural paid job outside the holding
- 11= Non-agricultural paid job
- 12= No activity - looking for work
- 13= No activity - not looking for work
- 14= Student
- 15= Household work

Sect 4.3 - Enterprise Identification

	E01	E02	E03
ENTERPRISE	Did you or your household undertake [ENTERPRISE] in the current agricultural season?	Who undertook [ENTERPRISE]?	What is the main purpose of production of [ENTERPRISE]?
	1= Yes 2=No	1 = Only males 2 = Only females 3 = Mostly males 4 = Mostly females 5 = Equally	1= Only for sale 2= Mainly for sale with some own consumption 3= Mainly for own consumption and some for sale 4= Only for own consumption
Crop growing	_	_	_
Livestock/Poultry Rearing	_	_	_
Aquaculture-Fish Farming	_	_	_
Apiculture-Bee Keeping	_	_	_
Agro-forestry	_	_	_

Sect 4.4 - Parcel Roster

(Qn 16): Now, I would like to ask you about all the parcels of land used by the household for agricultural activities. Please consider all agricultural parcels - ie., owned, rented in, occupied, etc.													
PA01	PA02	PA03	PA04a	PA04b	PA04c	PA05	PA06	PA07	PA08	PA09	PA10	PA11	PA12
							IF PA05 = 2			IF PA08=1,5,6 OR 9		IF PA08=1,5,6 OR 9	
P A R C E L I D	PARCEL NAME	Where is the location of [PARCEL NAME]?	Who manages [PARCEL NAME]? (use PIDs)			Was the whole, or part, of [PARCEL NAME] a bush before this season?	What proportion of [PARCEL NAME] was bush last season?	What is the farmer's area estimate of [PARCEL NAME] (in acres)? Record the area in Acres up to three decimal places	What is the household's use-right on this [PARCEL NAME]?	How did your household acquire this [PARCEL NAME]?	In what year was this [PARCEL NAME] acquired?	What is the tenure system on [PARCEL NAME]?	Is there an official document for [PARCEL NAME], such as a formal certificate of title, a customary certificate of ownership, a certificate of occupancy, a lease or a rental contract?
		see codes below	PID 1	PID 2	PID 3	(See codes below)	see codes below	(acres)	see codes below	see codes below	-98 = Dont Know / Dont Remember	see codes below	1 = Yes 2 = No 3 = Dont know

Codes question PA03
 1= Within EA/village
 2= Outside EA/village, but within the Parish
 3= Outside parish but within same SubCounty
 4= Elsewhere in the District
 5=Outside the District

Codes for PA05
 1 = Yes, whole parcel was bush before this season
 2 = Yes, a proportion of the parcel was bush before this season
 3 = No, the parcel was not bush before this season

Codes for PA06
 10 = 10%
 20 = 20%
 25 = One quarter
 30 = 30%
 40 = 40%
 50 = A half
 60 = 60%
 70 = 70%
 75 = Three quarters
 80 = 80%
 90 = 90%

Codes for PA08
 1=Owned
 2=Rented for agreed amount of money
 3=Rented for share of produce
 4=Rented in exchange for services
 5= Borrowed for free
 6=Just walked in
 7 = Leased in
 9=Other (Specify)

Codes for PA09
 1=Purchased
 2=Inherited after the death of a family member
 3=Allocated by family
 4=Allocated by clan/traditional authority
 5 = Allocated from Local Government
 6=Gift from non-household member
 7=Other government program
 8=Squatting
 9 = Other

Codes for PA11
 1= Freehold
 2= Leasehold
 3= Mailo
 4= Customary
 5= Public land
 6= Don't know
 9= Other (specify)

Sect 4.4 - Parcel Roster - Cont'd

(Qn 16): Now, I would like to ask you about all the parcels of land used by the household for agricultural activities. Please consider all agricultural parcels - ie., owned, rented in, occupied, etc.														
PA01	PA02	PA13	PA14	PA15	PA16a	PA16b	PA16c	PA17	PA18	PA19	PA20	PA21a	PA21b	PA21c
		IF PA12=1	IF PA12=1	IF PA12=1	IF PA15=1			IF PA12=1	IF PA17=1			IF PA20=1		
P A R C E L I D	PARCEL NAME <i>(Now, I would like to ask you about all the parcels of land used by the household for agricultural activities. Please consider all agricultural parcels - ie., owned, rented in, occupied, etc.)</i>	What type of document does your household have for this [PARCEL NAME]?	Was this document issued by legal authorities or registered with legal authorities?	Is any household member listed on the document as the owner or use rights holder?	Which household members are listed as owners or use rights holders in this document? (use PIDs)			Is there a second official document for [PARCEL NAME]?	What type of second document does your household have for [PARCEL NAME]?	Was this document issued by legal authorities or registered with legal authorities?	Is any household member listed on the document as the owner or use rights holder?	Which household members are listed as owners or use rights holders in this second document? (use PIDs)		
		see codes below	1 = Yes 2 = No 3 = Dont know	see codes below	PID 1	PID 2	PID 3	1= Yes 2= No	see codes below	1 = Yes 2 = No 3 = Dont know	see codes below	PID 1	PID 2	PID 3

Codes for PA13
 1=Title Deed
 2=Certificate of Customary Ownership
 3=Certificate of Occupancy
 4=Certificate of Hereditary Acquisition
 5=Written Sale Agreement
 6= Rental Contract
 7= Lease Contract
 9= Other (Specify)

Codes question PA15 and PA20
 1 = Yes
 2 = No, extended family members appear on the document
 3 = No, neither household members, nor extended family members appear on document
 98 = Refused to tell
 99 = Dont Know

Codes question PA18
 1=Title Deed
 2=Certificate of Customary Ownership
 3=Certificate of Occupancy
 4=Certificate of Hereditary Acquisition
 5=Written Sale Agreement
 6= Rental Contract
 7= Lease Contract
 9= Other (Specify)

Sect 4.4 - Parcel Roster - Cont'd

		(Qn 16): Now, I would like to ask you about all the parcels of land used by the household for agricultural activities. Please consider all agricultural parcels - ie., owned, rented in, occupied, etc.												
PA01	PA02	PA22	PA23a	PA23b	PA23c	PA24	PA25a	PA25b	PA25c	PA26	PA27a	PA27b	PA27c	PA28
		IF PA08=1,5,6,7 OR 9	IF PA08=1,5,6,7 OR 9 & PA22=1			IF PA08=1,5,6,7 OR 9	IF PA08=1,5,6,7 OR 9 & PA24=1			IF PA08=1,5,6,7 OR 9	IF PA08=1,5,6,7 OR 9 & PA26=1			IF PA03 = 1 or 2 and PA07<=10 acres
P A R C E L I D	PARCEL NAME <i>(Now, I would like to ask you about all the parcels of land used by the household for agricultural activities. Please consider all agricultural parcels - ie., owned, rented in, occupied, etc.)</i>	Can anyone in the household decide whether to sell [PARCEL NAME] either alone or with someone else?	Who in this household can decide whether to sell [PARCEL NAME] either alone or with someone else?			Can anyone in the household decide whether to use [PARCEL NAME] as a collateral either alone or with someone else?	Who in this household can decide whether to use [PARCEL NAME] as a collateral, either alone or with someone else?			Can anyone in the household bequeath [PARCEL NAME]?	Who in this household can bequeath [PARCEL NAME]? (use PIDs)			What is the area of [PARCEL NAME] in acres, using GPS device?
		1 = Yes 2 = No	PID 1	PID 2	PID 3	1 = Yes 2 = No	PID 1	PID 2	PID 3	1 = Yes 2 = No	PID 1	PID 2	PID 3	

Sect 4.5 - Plot Roster

(Qn 17): List ALL the agricultural plots within each parcel and fill in the information for each plot.																		
PL01	PL02	PL03	PL04	PL05	PL06	PL07	PL08	PL09a	PL09b	PL09c	PL10	PL11a	PL11b	PL11c	PL12	PL13a	PL13b	PL13c
					IF PL05 = 7	IF PL05 = 1, 2, 3, OR 4	IF PL05 = 1, 2, 3, OR 4	IF PL05 = 1, 2, 3, OR 4 & PL08 = 1			IF PL05 = 1, 2, 3, OR 4	IF PL05 = 1, 2, 3, OR 4 & PL10 = 1			IF PL05 = 1, 2, 3, OR 4	IF PL05 = 1, 2, 3, OR 4 & PL12 = 1		
P A R C E L I D	PARCEL NAME	P L O T I D	PLOT NAME	What stands on [PLOT NAME]?	What is the main purpose of the farm building/structure on this [PLOT NAME]?	Was this [PLOT NAME] cultivated during the previous season by the household or by another party?	Is the plot manager for [PLOT NAME] a member of this household?	Who among the household members is the manager of [PLOT NAME]?			Does the person who decides what kind of input is used in plot [PLOT NAME] and in which quantity live in this household?	Who in the household decides what kind of input is used in [PLOT NAME] and in which quantity?			Does the person who prepared the land for planting on this [PLOT NAME] live in this household?	Who in the household prepared the land for planting on this [PLOT NAME]?		
					see codes below	1 = Yes 2 = No 3 = Dont know	1=Yes 2=No	PID 1	PID 2	PID 3	1=Yes 2=No	PID 1	PID 2	PID 3	1=Yes 2=No	PID 1	PID 2	PID 3

Codes question Col PL05
 1 = Pure Stand
 2 = Mixed Stand
 3 = INTENDED pure stand (not planted yet)
 4 = INTENDED mixed stand (not planted yet)
 5 = Fallow
 6 = Left bare after ploughing
 7 = Farm building or Home Dwelling
 8 = Pond for aquaculture
 9 = Grazing land
 10 = Nurseries
 11 = Trees
 12 = Forests
 99 = Other (specify)

Codes for Col PL06
 1 = Dwelling
 2 = Storing produce
 3 = Keeping poultry
 4 = Keeping other livestock
 5 = Not in use
 9 = Other (Specify)

SECTION 4.7 INTERVIEW FINALIZATION

I1	I2	I3	I4	I5	I6	I7	I8	I9
	IF Col I1 = 2, 3	IF Col I2 = 9	IF I1 < 3	IF Col I4 = 1				IF Col I8 = 1
INTERVIEWER: Record the result of the Interview.	INTERVIEWER: Record the reason for a partially completed interview, or for an interview not done.	OTHER reason for incomplete interview	INTERVIEWER: record if respondent is willing to provide his/her phone number	Now I would like to have your telephone number in preparation for the next visit. What is your telephone number?	INTERVIEWER: Record time end of Interview	INTERVIEWER: Record time end of Interview	INTERVIEWER: DO YOU HAVE ANY COMMENTS?	ADD COMMENTS
1 = Interview completed 2 = Partially done 3 = Not done			1 = Yes, willing to provide phone number 2 = No, has no phone 3 = No, has phone but unwilling to provide the number				1=Yes 2=No	

Codes for Col I2
 1 = Refused
 2 = Household moved / shifted to unknown location
 3 = Dwelling destroyed
 4 = No competent respondent at time of visit
 5 = No one at home for extended period of time
 6 = Dwelling not found

Codes for Col I4
 1 = Yes, willing to provide phone number
 2 = No, has no phone
 3 = No, has phone but unwilling to provide the number

Annex 1					
Crop Codes for Sect 4.6 - Col C05 and C06					
Crop Group	Crop Name	Crop Code	Crop Group	Crop Name	Crop Code
1. Cereals	Wheat	0111	5. Leguminous crops	Beans	0711
	Maize	0112		Broad Beans	0721
	Rice	0113		Chick Peas	0731
	Sorghum	0114		Cow Peas	0741
	Barley	0115		Lentils	0751
	Oats	0117		Peas	0771
	Millets	0118		Pigeon Peas	0781
	Mixed Cereals	1191		Leguminous crops n.e.c	0791
	Other	1192			
2. Vegetables and Melons	Asparagus	0212	6. Sugar crops	Sugar beet	0811
	Cabbages	0213		Sugar cane	0821
	Cauliflowers & broccoli	0214		Sweet sorghum	0831
	Lettuce	0215		Other sugar crops n.e.c	0891
	Spinach	0216	7. Other crops	Cotton	9211
	Chicory	0217		Flax, Hemp	9213
	Other leafy/ stem vegetables n.e.c	0219		Other temporary fibre crops	9219
	Cucumber	0221		Tobacco	0961
	Egg plant	0222	Other crops-temporary	9911	
	Tomatoes	0223	8. Fruits and Nuts	Avocado	0311
	Water melons	0224		Banana (Food)	3121
	Pumpkin	0226		Banana (Sweet)	3122
	Other fruit bearing vegetables	0229		Banana (Beer)	3123
	Carrots	0231		Mangoes	0315
	Turnips	0232		Pawpaw	0316
	Garlic	0233		Pineapples	0317
	Onions	0234		Other	0319
	Other root, bulbs or tuberous vegetables n.e.c	0239		Grape fruit & pomelo	0321
	Mushroom	0241		Lemon and Limes	0322
	Vegetables n.e.c	0291		Oranges	0323
3. Oil seed crops	Soya Beans	0411		Tangerines & Mandarines	0324
	G/nuts	0421		Other citrus fruits	0329
	Caster Beans	0431		Strawberries	0345
	Linseed	0432		Currants	0341
	Mustard	0433		Apples	0351
	Simsim	0437	Apricots	0352	
	Sunflower	0438	Pears	0355	
			Plums	0356	
4. Root/Tuber Crops with High Starch or Insulin content	Irish Potatoes	0511	Cashew nuts	0362	
	Sweet Potatoes	0521	Coffee Arabica (old)	6111	
	Cassava	0531	Coffee Robusta (old)	6112	
	Yams	0541	Coffee Arabica (new)	6113	
	Other root crops and tubers n.e.c	0591	Coffee Robusta (clonal)	6114	
			6114		
			Tea	0612	
			Cocoa	0614	
			Other Beverages n.e.c	0619	

Annex 2	
Codes for Section 4.2 - Col H09	
What is the highest level of formal education that [NAME] attended?	
1	Never been to school
2	Did not complete primary one (P1)
3	Primary
4	Junior
5	Senior
6	Certificate
7	Diploma
8	Degree
9	Post Graduate
10	Functional Adult Literacy training
11	Vocational Training
12	Complementary Opportunity for Primary Education
99	Other (Specify)
Codes for Section 4.2 - Col H10	
What grade did [NAME] attain under the highest level of formal education?	
3	P1
4	P2
5	P3
6	P4
7	P5
8	P6
9	P7
10	J1
11	J2
12	J3
13	S1
14	S2
15	S3
16	S4
17	S5
18	S6
19	Incomplete certificate training
20	Complete Certificate training
21	Incomplete diploma training
22	Complete Diploma training
23	Incomplete degree
24	Complete Degree
25	Incomplete Post Graduate training
26	Complete Post Graduate Training
27	Incomplete vocational training
28	Complete Vocational Training
29	Functional Adult Literacy training
30	Complementary Opportunity for Primary Education

Annex 3: Codes for Sect. 4.6 Unit of Quantity (Col C17)

Sr. No.	UNIT	CODE		Sr.	UNIT	CODE
1	Kilogram (kg)	01		39	Basket (5 kg)	39
2	Gram	02		40	Basket (2 kg)	40
9	Sack (120 kgs)	09		49	Packet (2 kg)	49
10	Sack (100 kgs)	10		50	Packet (1 kg)	50
11	Sack (80 kgs)	11		51	Packet (500 g)	51
12	Sack (50 kgs)	12		52	Packet (250 g)	52
14	Jerrican (20 lts)	14		53	Packet (100 g)	53
15	Jerrican (10 lts)	15		66	Bundle (Unspecified)	66
16	Jerrican (5 lts)	16		71	Gourd (1 - 5 lts)	71
17	Jerrican (3 lts)	17		72	Gourd (5 - 10 lts)	72
18	Jerrican (2 lts)	18		73	Gourd (Above 10 lts)	73
19	Jerrican (1 lt)	19		74	Gologolo (4 - 5 lts)	74
20	Tin (20 lts)	20		75	Calabash (1 - 5 lts)	75
21	Tin (5 lts)	21		76	Calabash (Above 5 lts)	76
22	Plastic Basin (20 lts)	22		77	Jug (2 lts)	77
29	Kimbo/Cowboy/Blueband Tin (2 kg)	29		78	Jug (1.5 lts)	78
30	Kimbo/Cowboy/Blueband Tin (1 kg)	30		79	Jug (1 lt)	79
31	Kimbo/Cowboy/Blueband Tin (0.5 kg)	31		80	Tot (50 ml)	80
32	Cup/Mug (0.5 lt)	32		85	Number of Units (General)	85
33	Nice Cup(0.48lt)	322		88	Tonnes	88
37	Basket (20 kg)	37		87	Other Units (Specify)	99
38	Basket (10 kg)	38				

Annex 4: Codes for Sect 4.6 unit of quantity of Harvest (Col C21)

Sr. No.	UNIT	CODE	Sr. No.	UNIT	CODE
1	Kilogram (kg)	1	28	Packet (1 kg)	50
2	Gram	2	29	Packet (500 g)	51
3	Litre	3	30	Packet (250 g)	52
4	Sack (120 kgs)	9	31	Packet (100 g)	53
5	Sack (100 kgs)	10	32	Crate	63
6	Sack (80 kgs)	11	33	Heap (Unspecified)	64
7	Sack (50 kgs)	12	34	Dozen	65
8	Sack (unspecified)	13	35	Bundle (Unspecified)	66
9	Jerrican (20 lts)	14	36	Bunch (Big)	67
10	Jerrican (10 lts)	15	37	Bunch (Medium)	68
11	Jerrican (5 lts)	16	38	Bunch (Small)	69
12	Jerrican (3 lts)	17	39	Cluster (Unspecified)	70
13	Jerrican (2 lts)	18	40	Gourd (1 - 5 lts)	71
14	Jerrican (1 lt)	19	41	Gourd (5 - 10 lts)	72
15	Tin (20 lts)	20	42	Gourd (Above 10 lts)	73
16	Tin (5 lts)	21	43	Gologolo (4 - 5 lts)	74
17	Plastic Basin (20 lts)	22	44	Calabash (1 - 5 lts)	75
18	Kimbo/Cowboy/Blueband Tin (2 kg)	29	45	Calabash (Above 5 lts)	76
19	Kimbo/Cowboy/Blueband Tin (1 kg)	30	46	Jug (2 lts)	77
20	Kimbo/Cowboy/Blueband Tin (0.5 kg)	31	47	Jug (1.5 lts)	78
21	Cup/Mug (0.5 lt)	32	48	Jug (1 lt)	79
22	Nice Cup(0.48lt)	332	49	Tot (50 ml)	80
23	Basket (20 kg)	37	50	Tobacco leaf (Number)	83
24	Basket (10 kg)	38	51	Pair	84
25	Basket (5 kg)	39	52	Number of Units (General)	85
26	Basket (2 kg)	40	53	Tonnes	88
27	Packet (2 kg)	49	54	Other Units (Specify)	99

Crop production and livestock questionnaire

Strictly Confidential



UGANDA BUREAU OF STATISTICS
ANNUAL AGRICULTURAL SURVEY 2018



AAS Form 52: Crop Production and Agricultural Household and Holding Module

Section 5.1: Identification Particulars

5.1.1 Holding Particulars

No.	Particulars	Code			
(Qn 01)	District Name				
(Qn 02)	County Name				
(Qn 03)	Sub-county Name				
(Qn 04)	Parish Name				
(Qn 05)	Village Name				
(Qn 06)	Enumeration Area Name				
(Qn 07)	Batch Number				
(Qn 08)	Name of Holder				
(Qn 09)	Holder's physical address description				

(Qn 10A) GPS COORDINATES OF THE DWELLING USING CAPI

North/South (write S for south & N for North in the bold box)		East	
1	Decimal Degrees	2	Decimal Degrees

(Qn 10B) RECORD THE GPS COORDINATES OF THE DWELLING USING GPS

North/South (write S for south & N for North in the bold box)		East	
1	Decimal Degrees	2	Decimal Degrees

(Qn 11A) Date of start of Interview D D M M Y Y Y Y

(Qn 11A) Time start of Interview H H M M

(Qn 12) Record reference season 1st 2nd

(Qn 13) Record reference year 2017 2018 2019 2020

(Qn 14) "Are you able to continue with the interview?
 Select NO, if : 1) the household refused the interview, 2) there was no competent respondent at the time of the visit, 3) none was at home for an extended period of time, 4) the household moved to another unknown location, 5) the dwelling was not found.
 Select YES if the household accepted the interview."

YES NO

Sect 5.2 - Household Roster

(Qn 15):We would like to make a complete list of all the household members including guests who slept here last night. During our last visit in [LAST VISIT] we recorded the household members below. Kindly confirm the list of members and add members (if necessary)

H01	H02	H03	H04	H05	H06	H07	H08	H09	H09b	H10	H11	H12	H13	H14	H15	H16
								FOR AGE 3+	IF H09 = 99	FOR AGE 3+	FOR AGE 10+ and IF H09=<3	FOR AGE 10+	FOR AGE 10+	IF H14 = 9		
PERSON ID	PERSON NAME		What is the sex of [NAME]?	What is [NAME]'s relationship to household head?	What is the residential status of [NAME]?	How old is [NAME] in completed years?	What is [NAME]'s current marital status?	What is the highest level of formal education that [NAME] attended?	OTHER level of education	What grade did [NAME] attain?	Can [NAME] read and write in any language?	What was [NAME]'s main economic activity in the last 12 months?	In this main activity, was [NAME] a(n)... <i>(enumerator reads all the responses below)</i>	OTHER status in main economic activity	Have you confirmed and finalized the list of the household members?	Who is the respondent for the interview?
	NAME	SURNAME	1=Male 2=Female	1= Head 2= Spouse 3= Son/Daughter/Step Child 4= Parent 5= Other Relative	1=Usual Member 2=Regular Member 3=Guest → go to next member		1= Married 2= Divorced/ Separated 3= Widowed 4= Never been married	(See codes below)		(See codes below)	1=Yes 2=No	(See codes below)	1=Own Account Worker (independent) 2=Employer 3=Salaried Worker 4=Task Worker 5=Unpaid Family Member 6=Trainee/Volunteer/Intern 8=Member of Cooperative 9=Other (Specify)		1=Yes, confirmed and finalised 2=No, revisions are necessary	PID

PROBING INSTRUCTIONS FOR THE HOUSEHOLD ROSTER (Col H02 and H03)

INTERVIEWER!

1. Ensure that all household members are listed starting from the household head.

2. Use the probing questions below to ensure a complete listing:

a) Are there any other persons such as small children or infants that we have not been listed? If yes, what are their names?

b) Are there any other people who may not be members of your family such as domestic servants, lodgers or friends who usually live here? If yes, what are their names?

c) Are there any guests or temporary visitors staying here, or anyone else who stayed here last night, who have not been listed? If yes, what are their names?

Codes for Col H09

1= Nursery or never been to school
 2= Did not complete Primary One
 3= Primary
 4= Junior
 5= Senior
 6= Certificate
 7= Diploma
 8= Degree
 9= Post Graduate
 10= Functional Adult Literacy training
 11= Vocational Training
 12= Complementary Opportunity for Primary Ed
 99= Other (Specify)

Codes for Col H11

3= P1	17= S5
4= P2	18= S6
5= P3	19= Incomplete certificate training
6= P4	20= Complete Certificate training
7= P5	21= Incomplete diploma training
8= P6	22= Complete Diploma training
9= P7	23= Incomplete degree
10= J1	24= Complete Degree
11= J2	25= Incomplete Post Graduate training
12= J3	26= Complete Post Graduate training
13= S1	27= Functional Adult Literacy training
14= S2	28= Complementary Opportunity for Primary Ed
15= S3	29= Incomplete vocational training
16= S4	30= Complete vocational training

Codes for Col H13

1= Crop Production
 2= Livestock Production
 3= Fisheries
 4= Forestry
 5= Horticulture
 6= Fruitculture
 7= Apiary - Bee Keeping
 8= Trader
 9= Artisan - worker in a skilled trade
 10= Agricultural paid job outside the holding
 11= Non-agricultural paid job
 12= No activity - looking for work
 13= No activity - not looking for work
 14= Student
 15= Household work

Section 5.3 Production and Disposition of Crops (cont'd)

PA01	PA02	PL01	PL02	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25
SECOND HARVEST STATE OF [CROP NAME]																
				IF C03 > 1	IF C13 = 1	IF C13 = 1	IF C13 = 1	IF C13 = 1 & C16 = 99	IF C13 = 1	IF C13 = 1 & C18 > 0	IF C13 = 1 & C19 = 99	IF C13 = 1	IF C09 > 0 or C18 > 0	IF C22 = 9	IF C09 > 0 or C18 > 0	IF C24 = 9
PARCEL ID	PARCEL NAME	PLOT ID	PLOT NAME	INTERVIEWER: Is there a second state of harvest for [CROP NAME]?	What is the second condition or state [CROP NAME] was harvested in?	How much of the [CROP NAME] did you harvest under this second condition?	Unit of measure of harvest of [CROP NAME] under second harvest condition	OTHER unit of measure of harvest of [CROP NAME] under second harvest condition	How much of [CROP NAME] did you sell under the second harvest condition?	Unit of measure of sales under second harvest condition for [CROP NAME]	OTHER unit of measure of sales under second harvest condition for [CROP NAME]	What was the total value of the sales of [CROP NAME] under second condition, in SHS?	Where is most of the production of [CROP NAME] sold?	OTHER market of sale of produce of [CROP NAME]	Who is the main buyer for [CROP NAME] in [PLOT]?	OTHER main crop buyer of [CROP NAME]
				1=Yes 2=No	(See Annex 3)	quantity	(See Annex 2)		quantity	(See Annex 2)		UGX				
										Codes question Col C22 1=Wholesale market 2=Retail market 3=Sales on the farm or home 4=Direct delivery to the consumer 5=Production contract 9=Other (Specify)			Codes question Col C24 1=Government 2=local organization 3=private trader 4=consumer 5=neighbour 6=relative 9=Other (Specify)			

Section 5.3 Production and Disposition of Crops (cont'd)

PA01	PA02	PL01	PL02	C26	C27	C28	C29	C30	C31	C32	C33	C34	C35	C36	C37	C38
DISPOSITION STATE 1																
					IF C26 = 1	IF C26 = 1	IF C28 = 99	IF C26 = 2	IF C26 = 2	IF C31 = 99	IF C26 = 3	IF C26 = 3	IF C34 = 99	IF C26 = 4	IF C26 = 4	IF C37 = 99
PARCEL ID	PARCEL NAME	PLOT ID	PLOT NAME	How was [CROP NAME] disposed of?	How much of the [CROP NAME] was processed for sale?	Unit of measure for the [CROP NAME] processed for sale.	OTHER unit of measure of disposition of [CROP NAME]	How much of the [CROP NAME] was used as animal feed?	Unit of measure for the [CROP NAME] used as animal feed.	OTHER unit of measure of disposition of [CROP NAME]	How much of the [CROP NAME] was given to the landlord?	Unit of measure for the [CROP NAME] given to the landlord.	OTHER unit of measure of disposition of [CROP NAME]	How much of the [CROP NAME] was consumed by the household including that before harvest?	Unit of measure for the [CROP NAME] consumed by the household including that before harvest.	OTHER unit of measure of disposition of [CROP NAME]
						(See Annex 2)			(See Annex 2)			(See Annex 2)		quantity	(See Annex 2)	
					<p>Codes question Col C26 1 = processed for sale 2 = used as animal feed 3 = given to the landlord 4 = consumed by the household including that before harvest 5 = set aside for seeds 6 = is currently in storage 7 = given to others 8 = lost after harvest</p>											

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Section 5.4 AGRICULTURAL INPUTS

(Qn 19): Now, I would like to ask you a series of questions about the use of fertilizers and other chemicals in the past completed agricultural season, from July 2018 and December 2018

				IF Q01 = 1	IF Q02 = 9	IF Q01 = 1		IF Q05=9	IF Q01= 1	IF Q06=9	IF Q07 contains 2	IF Q07= 2	IF Q10= 9	IF Q07= 2	
				(Q01)	(Q02)	(Q03)	(Q04)	(Q05)	(Q06)	(Q07)	(Q08)	(Q09)	(Q10)	(Q11)	(Q12)
ORGANIC FERTILIZER USE															
P A R C E L I d	P A R C E L N a m e	P L O T I D	P L O T N a m e	Did you/your household use any ORGANIC fertilizer on this [PLOT NAME] during the last agricultural season?	What types of fertilizer did you apply on the plot? <i>(if more than one fertilizer type, use one line per fertilizer)</i>	OTHER type of organic fertilizer applied on [PLOT NAME]	How much [ORGANIC FERTILIZER] did you apply to this [PLOT NAME]?	What is the unit of measure of [ORGANIC FERTILIZER] that was applied?	OTHER unit of measure for [ORGANIC FERTILIZER]	How did you obtain the [ORGANIC FERTILIZER] used on this [PLOT NAME]?	OTHER way you obtained [ORGANIC FERTILIZER] used on this [PLOT NAME]?	How much of the [ORGANIC FERTILIZER] applied to [PLOT NAME] was purchased?	Unit of measure of the [ORGANIC FERTILIZER] that was bought	OTHER unit of measure for [ORGANIC FERTILIZER]	What was the cost in SHS of one [ORGANIC FERTILIZER UNIT] of [ORGANIC FERTILIZER] purchased for this [PLOT NAME]?
							QTY			(Tick all that apply)					UGX
				1= Yes 2= No >> go to Q13						1= Home made 2= Purchased 3= Received for free 9 = Other (Specify) <i>(if option 2 is not selected >> go to Q13)</i>					
				Codes for Q02 1 = Commercial organic Fertilizer (e.g Fertiplus, Biochar) 2 = Animal Droppings 3 = Animal Urine 4 = Chicken droppings 5 = Plant residue/compost 6 = green plant cover crops 7 = Ash 8 = Municipal waste 9 = Sewage/sludge 99 = Other (Specify)				Codes for Q05, Q10 1= Kilogram (Kg) 2=Wheel barrow 3=Sack Small 4=Sack Large 5=Pickup Truck 6=Truck Elf 7 = Litre 9=Other (Specify)							

Section 5.4 AGRICULTURAL INPUTS (cont'd)

				IF Q26= 1	IF Q26= 1	IF Q26= 1 & Q28 =9	IF Q26= 1	IF Q26= 1	IF Q26= 1 & Q31 = 9	IF Q26= 1 & Q31 =1	IF Q26= 1 & Q31 =1	IF Q26= 1 & Q34 =9	IF Q26= 1 & Q31 =1		IF Q37= 9	
				(Q26)	(Q27)	(Q28)	(Q29)	(Q30)	(Q31)	(Q32)	(Q33)	(Q34)	(Q35)	(Q36)	(Q37)	(Q38)
AGRICULTURAL CHEMICALS																
P A R C E L I d	P A R C E L N a m e	P L O T I D	P L O T N a m e	Did you use any of these pesticides on this [PLOT NAME] during this agricultural season? <i>(if more than one pesticide type, use one line per pesticide)</i>	How much [PESTICIDE TYPE] did you apply to this [PLOT NAME]?	Unit of measurement of [PESTICIDE TYPE] applied.	OTHER unit of measure of [PESTICIDE TYPE]	How many times did you apply [PESTICIDE TYPE] on [PLOT NAME]?	How did you obtain the [PESTICIDE TYPE] that was used?	OTHER source of chemical	How much of the [PESTICIDE TYPE] applied to this [PLOT NAME] was purchased?	Unit of measurement of [PESTICIDE TYPE] purchased	OTHER unit of measure of [PESTICIDE TYPE] purchased	What was the unit cost of [PESTICIDE TYPE] purchased for this [PLOT NAME] (in SHS)?	During the last completed season, what are the main reasons you didn't apply any INORGANIC fertilizers on the holding?	OTHER reason inorganic fertilizer not used
					QTY	unit code			(Tick all that apply)		QTY	unit code		UGX		
				1= Herbicides 2= Insecticides 3= Fungicides 4= Rodenticides					1= Purchased 2= Received for free 9= Other <i>(if option 2 is not selected >> go to Next Section)</i>			1=Kg 2=Liter 9=Other				

Codes for Q28 and Q34
 1 = Kilograms
 2 = Litre
 3 = Mili Litre
 9 = Other

Section 5.5 PRODUCTION ACTIVITIES AND THEIR COSTS

		(Q01)	IF Q01 = 99 (Q01b)	(Q02)	IF Q02 = 99 (Q02b)	IF Q02 =1 (Q03)	IF Q02 =1 (Q04)
ACTIVITY CODE	ACTIVITY NAME	During the last agricultural season, between August 2018 and Feb 2019 , in which of the following activities did you or any household members participate in?	OTHER production activity	During the last agricultural season did you hire any workers for any of the following activities?	OTHER activity for which workers were hired	What was the total amount paid to hired labourers for performing [ACTIVITY NAME] during the last agricultural season (in SHS)?	What was the amount of in-kind payments paid to hired labourers for performing [ACTIVITY NAME] in the last agricultural season (in SHS)?
		1= Yes 2=No		1=Yes 2=No >> go to next line			Enter 0 if No payment in kind
01	Land preparation						
02	Planting						
03	Weeding						
04	Mulching						
05	Fertilizing/manure application						
06	Spraying						
07	Irrigation/watering						
08	Pruning						
09	Guarding of the garden						
10	Harvesting, threshing, bailing, picking, uprooting						
11	Transporting produce from farm to home/store						
12	Transporting produce from farm/home/store to market						
13	Drying, packing and storage						
99	Other (Specify)						

5.6 LABOUR INPUT ON THE HOLDING

(Qn 20): Now I would like to ask you some questions regarding the time worked on the holding by the household members

MALE HH MEMBER LABORERS

Q01		How many male household members (adults and children) worked on the holding during the last completed season (between August 2018 and February 2019)? <i>(if none, write 0. If 0 go to Q04)</i>	
Q02	IF Q01 > 0	What is, on average, the number of days worked by the male household members during the last completed season (between August 2018 and February 2019)?	
Q03	IF Q01 > 0	What is the length in hours of a typical working day of the male household members during the last completed season (between August 2018 and February 2019)? <i>(in hours)</i>	

FEMALE HH MEMBER LABORERS

Q04		How many female household members (adults and children) worked on the holding during the last completed season (between August 2018 and February 2019)? <i>(if none, write 0. If 0 go to Q07)</i>	
Q05	IF Q04 > 0	What is, on average, the number of days worked by the female household members during the last completed season (between August 2018 and February 2019)?	
Q06	IF Q04 > 0	What is the length in hours of a typical working day for female household members during the last completed season? <i>(in hours)</i>	

ENABLE THIS SUB-SECTION ONLY IF SECT 5.5 Q3 = 1 ON AT LEAST ONE ACTIVITY

HIRED LABOUR INPUT

Q07		How many male hired workers (adults and children) worked on the holding during the last completed season ((between August 2018 and February 2019))? <i>(if none, write 0. If 0 >> Q10)</i>	
Q08	IF Q07 > 0	What was the average number of days worked by the male hired workers during the last completed season (between August 2018 and February 2019)?	
Q09	IF Q07 > 0	What is the length in hours of a typical working day of the male hired workers during the last completed season (between August 2018 and February 2019)? <i>(in hours)</i>	
Q10		How many female hired workers (adults and children) worked on the holding during the last completed season (between August 2018 and February 2019)? <i>(if none, write 0.)</i>	
Q11	IF Q10 > 0	What was the average number of days worked by the female hired workers during the last completed season (between August 2018 and February 2019)?	
Q12	IF Q10 > 0	What is the length in hours of a typical working day of the female hired workers during the last completed season (between August 2018 and February 2019)? <i>(in hours)</i>	
Q13		What was the average daily wage in SHS for a man doing agricultural work in this village?	
Q14		What was the average daily wage in SHS for a woman doing agricultural work in this village?	

Section 5.7.1: Cattle and Pack Animals

(Qn 21): Now, I would like to ask you questions regarding the cattle and pack animals raised by your or any other member of the household and the changes over the past 12 months, that is from [MONTH, YEAR] to [MONTH, YEAR]

		OWNERSHIP / RAISE OF LIVESTOCK							
			IF Q02=1	IF Q02=1		IF Q02=1			
		<i>single response</i>	<i>numeric, integer</i>	<i>numeric, integer</i>	<i>numeric, integer</i>	<i>numeric, integer</i>	<i>single response</i>	<i>numeric, integer</i>	<i>numeric, integer</i>
		Q02	Q03	Q04	Q05	Q06	Q07	Q08	Q09
LIVESTOCK TYPE CODE	LIVESTOCK TYPE NAME	Did you raise/keep any of the following animals in the last 12 months?	How many [LIVESTOCK TYPE] are raised/ kept by you or your household now? <i>(consider all animals kept, including owned and non owned)</i>	Out of these [LIVESTOCK TYPE] kept/raised, how many [LIVESTOCK TYPE] are owned by you or your household now?	Out of these [LIVESTOCK TYPE] kept/raised, how many [LIVESTOCK TYPE] are <u>exotic or cross-breed?</u>	How many of the [LIVESTOCK TYPE] kept belong to women?	Do you or any member of your household own any [LIVESTOCK TYPE] kept by someone else outside this household?	How many of such [LIVESTOCK TYPE] are owned by you or your household, but are kept by someone else?	How many [LIVESTOCK TYPE] did you keep exactly 12 months ago?
		1 = Yes 2 = No >> next line		If none, write 0			1 = Yes 2 = No		If none, write 0
	CATTLE AND PACK ANIMAL								
101	Calves (9 months or younger)								
103	Bulls								
105	Steers								
107	Oxen								
109	Heifers								
111	Cows								
114	Donkeys								
116	Horses								
118	Camels								

Section 5.7.1: Cattle and Pack Animals

CHANGE IN STOCK																			
		IF Q02=1	IF Q02=1	IF Q02=1	IF Q02=1	IF Q02=1	IF Q02=1	IF Q02=1	IF Q16 = 1	IF Q16 = 1	IF Q16 = 1		IF Q20=1	IF Q02=1					
		<i>numeric, integer</i>	<i>numeric, integer</i>	<i>numeric, integer</i>	<i>numeric, integer</i>	<i>numeric, integer</i>	<i>single response</i>	<i>single response</i>	<i>numeric, integer</i>	<i>numeric, integer</i>	<i>multi response, linked with HH roster</i>	<i>single response</i>	<i>numeric, integer</i>	<i>multi response, linked with HH roster</i>					
		Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22					
LIVESTOCK TYPE CODE	LIVESTOCK TYPE NAME	During the last 12 months, how many [LIVESTOCK TYPE] were born to the household?	During the last 12 months, how many [LIVESTOCK TYPE] were received as gifts, dowry or in-kind payment?	During the last 12 months, how many [LIVESTOCK TYPE] did you buy?	What was the price of the last [LIVESTOCK TYPE] you bought?	During the last 12 months, how many [LIVESTOCK TYPE] were given away as gifts, dowry or in-kind payment?	During the last 12 months how many [LIVESTOCK TYPE] died for any reason (illness, accident, etc) or were lost due to theft?	Did the household sell any [LIVESTOCK TYPE] during the last 12 months?	During the last 12 months, how many [LIVESTOCK TYPE] did you/the household sell?	What was the price in SHS of the last [LIVESTOCK TYPE] you sold?	Among household members, who decided how to use the earnings from the sale of [LIVESTOCK TYPE]? <i>(record all the individuals)</i> <i>(use PIDs)</i>	During the 12 months, did the household slaughter any [LIVESTOCK TYPE] either at a slaughter center or home?	How many [LIVESTOCK TYPE] did you slaughter during the last 12 months?	Who, over the last 12 months, primarily took decisions on how to dispose of [LIVESTOCK TYPE] (give it away, use it as a payment, sell it, slaughter it, etc.) <i>(record all the individuals)</i> <i>(use PIDs)</i>					
		If none, write 0	If none, write 0	If none, write 0		If none, write 0	If none, write 0	1 = Yes 2 = No 3 = Don't Know		UGX	PID	PID	PID	1 = Yes 2 = No	(Don't ask for Donkeys, Horses, Camels)	PID	PID	PID	
	CATTLE AND PACK ANIMAL																		
101	Calves (9 months or younger)																		
103	Bulls																		
105	Steers																		
107	Oxen																		
109	Heifers																		
111	Cows																		
114	Donkeys																		
116	Horses																		
118	Camels																		

Section 5.7.2: Small Ruminants

(Qn 21): Now, I would like to ask you questions regarding the Small Ruminants raised by your or any other member of the household and the changes over the past 6 months, that is from [MONTH, YEAR] to [MONTH, YEAR]

		OWNERSHIP / RAISE OF LIVESTOCK							
			IF Q02=1	IF Q02=1		IF Q02=1			
		<i>single response</i>	<i>numeric, integer</i>	<i>numeric, integer</i>	<i>numeric, integer</i>	<i>numeric, integer</i>	<i>single response</i>	<i>numeric, integer</i>	<i>numeric, integer</i>
		Q02	Q03	Q04	Q05	Q06	Q07	Q08	Q09
LIVESTOCK TYPE CODE	LIVESTOCK TYPE NAME	Did you raise/keep any of the following animals in the last 6 months?	How many [LIVESTOCK TYPE] are raised/ kept by you or your household now? <i>(consider all animals kept, including owned and non owned)</i>	Out of these [LIVESTOCK TYPE] kept/raised, how many [LIVESTOCK TYPE] are owned by you or your household now?	Out of these [LIVESTOCK TYPE] kept/raised, how many [LIVESTOCK TYPE] are <u>exotic or cross-breed?</u>	How many of the [LIVESTOCK TYPE NUMER] kept belong to women?	Do you or any member of your household own any [LIVESTOCK TYPE] kept by someone else outside this household?	How many of such [LIVESTOCK TYPE] are owned by you or your household, but are kept by someone else?	How many [LIVESTOCK TYPE] did you keep exactly 6 months ago?
		1 = Yes 2 = No >> next line		If none, write 0			1 = Yes 2 = No		If none, write 0
	SMALL RUMINANTS								
201	Goats								
204	Sheep								
206	Pigs								

Section 5.7.2: Small Ruminants

		CHANGE IN STOCK																
		IF Q02=1	IF Q02=1	IF Q02=1	IF Q02=1	IF Q02=1	IF Q02=1	IF Q02=1	IF Q16 = 1	IF Q16 = 1	IF Q16 = 1			IF Q20=1	IF Q02=1			
		<i>numeric, integer</i>	<i>numeric, integer</i>	<i>numeric, integer</i>	<i>numeric, integer</i>	<i>numeric, integer</i>	<i>single response</i>	<i>single response</i>	<i>numeric, integer</i>	<i>numeric, integer</i>	<i>multi response, linked with HH roster</i>			<i>single response</i>	<i>numeric, integer</i>	<i>multi response, linked with HH roster</i>		
		Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19			Q20	Q21	Q22		
LIVESTOCK TYPE CODE	LIVESTOCK TYPE NAME	During the last 6 months, how many [LIVESTOCK TYPE] were born to the household?	During the last 6 months, how many [LIVESTOCK TYPE] were received as gifts, dowry or in-kind payment?	During the last 6 months, how many [LIVESTOCK TYPE] did you buy?	What was the price of the last [LIVESTOCK TYPE] you bought?	During the last 6 months, how many [LIVESTOCK TYPE] were given away as gifts, dowry or in-kind payment?	During the last 6 months how many [LIVESTOCK TYPE] died for any reason (illness, accident, etc) or were lost due to theft?	Did the household sell any [LIVESTOCK TYPE] during the last 6 months?	During the last 6 months, how many [LIVESTOCK TYPE] did you/the household sell?	What was the price in SHS of the last [LIVESTOCK TYPE] you sold?	Among household members, who decided how to use the earnings from the sale of [LIVESTOCK TYPE]? <i>(record all the individuals)</i> <i>(use PIDs)</i>			During the 6 months, did the household slaughter any [LIVESTOCK TYPE] either at a slaughter center or home?	How many [LIVESTOCK TYPE] did you slaughter during the last 6 months?	Who, over the last 6 months, primarily took decisions on how to dispose of [LIVESTOCK TYPE] (give it away, use it as a payment, sell it, slaughter it, etc.) <i>(record all the individuals)</i> <i>(use PIDs)</i>		
		If none, write 0	If none, write 0	If none, write 0		If none, write 0	If none, write 0	1 = Yes 2 = No 3 = Don't Know		UGX	PID	PID	PID	1 = Yes 2 = No		PID	PID	PID
	SMALL RUMINANTS																	
201	Goats																	
204	Sheep																	
206	Pigs																	

Section 5.7.3: POULTRY

(Qn 21): Now, I would like to ask you questions regarding the poultry raised by your or any other member of the household and the changes over the past 3 months, that is from [MONTH, YEAR] to [MONTH, YEAR]

		OWNERSHIP / RAISE OF LIVESTOCK							
			IF Q02=1	IF Q02=1		IF Q02=1			
		<i>single response</i>	<i>numeric, integer</i>	<i>numeric, integer</i>	<i>numeric, integer</i>	<i>numeric, integer</i>	<i>single response</i>	<i>numeric, integer</i>	<i>numeric, integer</i>
		Q02	Q03	Q04	Q05	Q06	Q07	Q08	Q09
LIVESTOCK TYPE CODE	LIVESTOCK TYPE NAME	Did you raise/keep any of the following animals in the last 3 months?	How many [LIVESTOCK TYPE] are raised/ <u>kept</u> by you or your household now? <i>(consider all animals kept, including owned and non owned)</i>	Out of these [LIVESTOCK TYPE] kept/raised, how many [LIVESTOCK TYPE] are owned by you or your household now?	Out of these [LIVESTOCK TYPE] kept/raised, how many [LIVESTOCK TYPE] are <u>exotic or cross-breed</u> ?	How many of the [LIVESTOCK TYPE NUMER] kept belong to women?	Do you or any member of your household own any [LIVESTOCK TYPE] kept by someone else outside this household?	How many of such [LIVESTOCK TYPE] are owned by you or your household, but are kept by someone else?	How many [LIVESTOCK TYPE] did you keep exactly 3 months ago?
		1 = Yes 2 = No >> next line		If none, write 0			1 = Yes 2 = No		If none, write 0
	POULTRY								
301	Chicken Broilers								
303	Chicken Layers								
306	Turkeys, Ducks or Geese								
308	Rabbits								

Section 5.7.3: POULTRY

CHANGE IN STOCK																
		IF Q02=1	IF Q02=1	IF Q02=1	IF Q02=1	IF Q02=1	IF Q16 = 1	IF Q16 = 1	IF Q16 = 1			IF Q20=1	IF Q02=1			
		numeric, integer	numeric, integer	numeric, integer	single response	single response	numeric, integer	numeric, integer	multi response, linked with HH roster			single response	numeric, integer	multi response, linked with HH roster		
		Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19			Q20	Q21	Q22		
LIVESTOCK TYPE CODE	LIVESTOCK TYPE NAME	During the last 3 months, how many [LIVESTOCK TYPE] did you buy?	What was the price of the last [LIVESTOCK TYPE] you bought?	During the last 3 months, how many [LIVESTOCK TYPE] were given away as gifts, dowry or in-kind payment?	During the last 3 months how many [LIVESTOCK TYPE] died for any reason (illness, accident, etc) or were lost due to theft?	Did the household sell any [LIVESTOCK TYPE] during the last 3 months?	During the last 3 months, how many [LIVESTOCK TYPE] did you/the household sell?	What was the price in SHS of the last [LIVESTOCK TYPE] you sold?	Among household members, who decided how to use the earnings from the sale of [LIVESTOCK TYPE]? <i>(record all the individuals)</i> <i>(use PIDs)</i>			During the 3 months, did the household slaughter any [LIVESTOCK TYPE] either at a slaughter center or home?	How many [LIVESTOCK TYPE] did you slaughter during the last 3 months?	Who, over the last 3 months, primarily took decisions on how to dispose of [LIVESTOCK TYPE] (give it away, use it as a payment, sell it, slaughter it, etc.) <i>(record all the individuals)</i> <i>(use PIDs)</i>		
		If none, write 0		If none, write 0	If none, write 0	1 = Yes 2 = No 3 = Don't Know		UGX	PID	PID	PID	1 = Yes 2 = No		PID	PID	PID
	POULTRY															
301	Chicken Broilers															
303	Chicken Layers															
306	Turkeys, Ducks or Geese															
308	Rabbits															

Section 5.8.1: Cattle and Pack Animals: Input Costs

(Qn 22): Now I would like to ask you some questions concerning the costs incurred by the household to keep cattle and pack animals during the past 12 months, that means from [MONTH, YEAR] to [MONTH, YEAR].												
LIVESTOCK GROUP CODE	LIVESTOCK GROUP SHOULD APPEAR ONLY IF AT LEAST ONE ANIMAL WAS REPORTED IN SECTION 5.7	MATING / BREEDING			FEEDING				WATERING			
		IF Q01=1	IF Q02=1	IF Q04=9	IF Q05=1	IF Q07 = 9	IF Q08=1					
		<i>single response</i>	<i>single response</i>	<i>numeric, integer</i>	<i>multi response</i>	<i>Text</i>	<i>single response</i>	<i>numeric, integer</i>	<i>multi response</i>	<i>text</i>	<i>single response</i>	<i>numeric, integer</i>
		Q01	Q02	Q03	Q04	Q04b	Q05	Q06	Q07	Q07b	Q08	Q09
		In the past 12 months, has this household practiced any controlled mating or other breeding strategy for [LIVESTOCK GROUP], such as selection of reproductive animals, artificial insemination, etc?	In the past 12 months, has this household incurred any costs related to mating or breeding of [LIVESTOCK GROUP]?	In the past 12 months, how much has the household paid for mating or breeding services for [LIVESTOCK GROUP] (in SHS)?	In the past 12 months, what have been the two major feeding practices of [LIVESTOCK GROUP]?	OTHER major feeding practices of [LIVESTOCK GROUP] used the 12 months	In the past 12 months, has this household ever paid to feed its [LIVESTOCK GROUP]?	What was the total cost of the feed used for [LIVESTOCK GROUP] in the past 12 months (in SHS)?	In the past 12 months, what have been the main two sources of water for [LIVESTOCK GROUP]?	OTHER main source of water for [LIVESTOCK GROUP] in the last 12 months	In the past 12 months, has this household ever paid for water for [LIVESTOCK GROUP]?	How much has this household paid for water for [LIVESTOCK GROUP] in the past 12 months (in SHS)?
		1 = Yes 2 = No 3 = Don't Know	1 = Yes 2 = No 3 = Don't Know	UGX	See codes below		1 = Yes 2 = No >>Q07		See codes below		1 = Yes 2 = No >>Q10	UGX
1	Cattle and Pack animals											

Codes for Q04
 1 = Grazing/scavenging only
 2 = Mainly grazing/scavenging with some feeding
 3 = Mainly feeding with some grazing /scavenging
 4 = Only feeding
 5 = Tethering with ropes
 9 = Other (Specify)

Codes for Q07
 1 = Borehole / well
 2 = Dam
 3 = River/Lake / Spring / Stream
 4 = Constructed small pan /ponds / valley tanks
 5 = Rainwater harvesting
 6 = Piped onto holding
 9 = Other (Specify)

Section 5.8.1: Cattle and Pack Animals: Input Costs (Cont'd)

ANIMAL HEALTH													
			IF Q10 < 3		IF Q12=1		IF Q14=1		IF Q16 = 99	IF Q16 has Yes on any option	IF Q16 has Yes on any option	IF Q16 has Yes on any option	IF Q19 = 9
		<i>single response</i>	<i>numeric, integer</i>	<i>single response</i>	<i>numeric, integer</i>	<i>single response</i>	<i>numeric, integer</i>	<i>multiple response</i>	<i>text</i>	<i>single response</i>	<i>single response</i>		
		Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q16b	Q17	Q18	Q19	Q19b
LIVESTOCK GROUP CODE	LIVESTOCK GROUP NAME	In the past 12 months, has this household vaccinated any [LIVESTOCK GROUP]?	What was the total cost of vaccination, including vaccine and professional fees for [LIVESTOCK GROUP] in the past 12 months?	In the past 12 months, has this household treated [LIVESTOCK GROUP] against internal and external parasites?	What was the total cost of anti-parasite treatments for [LIVESTOCK GROUP] in the past 12 months?	In the past 12 months, have [LIVESTOCK GROUP] received any curative treatment?	What was the total cost of treatments for [LIVESTOCK GROUP] in the past 12 months (in SHS)?	In the past 12 months, has any member of your household used any of these medicines called antibiotics on [LIVESTOCK GROUP], such as ...	OTHER name of antibiotic drug	What was the main purpose for giving antibiotics to [LIVESTOCK GROUP]?	In the last 12 months, how often did you give antibiotics to your [LIVESTOCK GROUP]?	Who gave you advice to use antibiotics for [LIVESTOCK GROUP]?	OTHER source of advice on which antibiotics for [LIVESTOCK GROUP]
		1 = Yes, all of them 2 = Yes, some of them 3 = No >>Q12	UGX	1= Yes, 2= No >> Q14	UGX	1= Yes, 2= No >> Q16	UGX	Go over the list and tick all that apply		(See codes below)	(See codes below)	(See codes below)	
1	Cattle and Pack animals												

<p>Codes for Q16</p> <ul style="list-style-type: none"> 1 = Alamycin 2 = Asampro 3 = Betamox LA 4 = Dipen 5 = Gentamycin 6 = Hitet 120 7 = Limoxin 8 = Norodine 9 = Oxystar 	<ul style="list-style-type: none"> 10 = Oxytet 11 = Oxytetracycline 12 = Oxytravet Powder 13 = Penstrep 14 = Tetroxy 15 = Tylosin 99 = Other (Specify) 	<p>Codes for Q17</p> <ul style="list-style-type: none"> 1 = Curative treatment 2 = To promote animal growth 3 = As a preventive measure against disease 4 = For vaccination purposes 5 = Don't know 9 = Other (Specify) 	<p>Codes for Q18</p> <ul style="list-style-type: none"> 1 = Regularly, at least once per week 2 = Regularly, at least once per month 3 = Occasionally 9 = Don't know / Don't remember 	<p>Codes for Q19</p> <ul style="list-style-type: none"> 1 = NGO (Non Government Org) 2 = Public Veterinary Officer 3 = Private Veterinary Officer 4 = Extension worker 5 = Input dealer (drugshop, pharmacy) 6 = MY OWN DECISION-CONSULTED NO ONE 9 = Other (Specify)
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Section 5.8.1: Cattle and Pack Animals: Input Costs (Cont'd)

LABOR									
			IF Q20 > 0	IF Q20 > 0		IF Q23>0	IF Q23>0	IF Q23>0	IF Q16 has Yes on any option
		<i>numeric, integer</i>	<i>numeric, integer</i>	<i>numeric, decimals</i>	<i>single response</i>	<i>numeric, integer</i>	<i>numeric, decimals</i>	<i>numeric, integer</i>	
		Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27
LIVESTOCK GROUP CODE	LIVESTOCK GROUP NAME	How many household members worked to keep, herd, milk [LIVESTOCK GROUP] in the last month?	During the past month, what was the AVERAGE number of days worked by the household members to keep, herd, milk [LIVESTOCK GROUP]?	During the past month, how many hours per day on average household members spent to keep, herd, milk [LIVESTOCK GROUP]?	How many hired laborers worked to keep, herd, milk [LIVESTOCK GROUP] in the past month?	During the past month, what was the AVERAGE number of days worked by the hired laborers to keep, herd, milk [LIVESTOCK GROUP]?	During the past month, how many hours per day on average hired laborers spent to keep, herd, milk [LIVESTOCK GROUP]?	How much did you pay in total during the past month for keeping/herding/milking [LIVESTOCK GROUP] (in SHS)?	Before we move on, let us revisit antibiotic use in animals briefly. How much do agree with the following statement: If antibiotics are often given to animals, the antibiotic will become less effective in curing sick animals
		if none, write 0 and go to Q23			if none, write 0 and go to next line / section			UGX	
1	Cattle and Pack animals								

Codes for Q27
 1 = Fully Agree
 2 = Agree
 3 = Disagree
 4 = Completely agree
 9 = Don't Know

Section 5.8.2: Small Ruminants: Input Costs

LIVESTOCK GROUP SHOULD APPEAR ONLY IF AT LEAST ONE ANIMAL WAS REPORTED IN SECTION 5.7	MATING / BREEDING				FEEDING				WATERING			
		IF Q01=1	IF Q02=1		IF Q04=9		IF Q05=1		IF Q07 = 9		IF Q08=1	
	<i>single response</i>	<i>single response</i>	<i>numeric, integer</i>	<i>multi response</i>	<i>Text</i>	<i>single response</i>	<i>numeric, integer</i>	<i>multi response</i>	<i>text</i>	<i>single response</i>	<i>numeric, integer</i>	
	Q01	Q02	Q03	Q04	Q04b	Q05	Q06	Q07	Q07b	Q08	Q09	
LIVESTOCK GROUP CODE	LIVESTOCK GROUP NAME	In the past 6 months, has this household practiced any controlled mating or other breeding strategy for [LIVESTOCK GROUP], such as selection of reproductive animals, artificial insemination, etc?	In the past 6 months, has this household incurred any costs related to mating or breeding of [LIVESTOCK GROUP]?	In the past 6 months, how much has the household paid for mating or breeding services for [LIVESTOCK GROUP] (in SHS)?	In the past 6 months, what have been the two major feeding practices of [LIVESTOCK GROUP]?	OTHER major feeding practices of [LIVESTOCK GROUP] used the 6 months	In the past 6 months, has this household ever paid to feed its [LIVESTOCK GROUP]?	What was the total cost of the feed used for [LIVESTOCK GROUP] in the past 6 months (in SHS)?	In the past 6 months, what have been the main two sources of water for [LIVESTOCK GROUP]?	OTHER main source of water for [LIVESTOCK GROUP] in the last 6 months	In the past 6 months, has this household ever paid for water for [LIVESTOCK GROUP]?	How much has this household paid for water for [LIVESTOCK GROUP] in the past 6 months (in SHS)?
		1 = Yes 2 = No 3 = Don't Know	1 = Yes 2 = No 3 = Don't Know	UGX	See codes below		1 = Yes 2 = No >>Q07		See codes below		1 = Yes 2 = No >>Q10	UGX
2	Small Ruminants											

Codes for Q04
 1 = Grazing/scavenging only
 2 = Mainly grazing/scavenging with some feeding
 3 = Mainly feeding with some grazing /scavenging
 4 = Only feeding
 5 = Tethering with ropes
 9 = Other (Specify)

Codes for Q07
 1 = Borehole / well
 2 = Dam
 3 = River/Lake / Spring / Stream
 4 = Constructed small pan /ponds / valley tanks
 5 = Rainwater harvesting
 6 = Piped onto holding
 9 = Other (Specify)

Section 5.8.2: Small Ruminants: Input Costs (cont'd)

ANIMAL HEALTH													
	LIVESTOCK GROUP SHOULD APPEAR ONLY IF AT LEAST ONE ANIMAL WAS REPORTED IN SECTION 5.7		IF Q10 < 3		IF Q12=1		IF Q14=1		IF Q16 = 99	IF Q16 has Yes on any option	IF Q16 has Yes on any option	IF Q16 has Yes on any option	IF Q19 = 9
		<i>single response</i>	<i>numeric, integer</i>	<i>single response</i>	<i>numeric, integer</i>	<i>single response</i>	<i>numeric, integer</i>	<i>multiple response</i>	<i>text</i>	<i>single response</i>	<i>single response</i>		
		Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q16b	Q17	Q18	Q19	Q19b
LIVESTOCK GROUP CODE	LIVESTOCK GROUP NAME	In the past 6 months, has this household vaccinated any [LIVESTOCK GROUP]?	What was the total cost of vaccination, including vaccine and professional fees for [LIVESTOCK GROUP] in the past 6 months?	In the past 6 months, has this household treated [LIVESTOCK GROUP] against internal and external parasites?	What was the total cost of anti-parasite treatments for [LIVESTOCK GROUP] in the past 6 months?	In the past 6 months, have [LIVESTOCK GROUP] received any curative treatment?	What was the total cost of treatments for [LIVESTOCK GROUP] in the past 6 months (in SHS)?	In the past 6 months, has any member of your household used any of these medicines called antibiotics on [LIVESTOCK GROUP], such as...	OTHER name of antibiotic drug	What was the main purpose for giving antibiotics to [LIVESTOCK GROUP]?	In the last 6 months, how often did you give antibiotics to your [LIVESTOCK GROUP]?	Who gave you advice to use antibiotics for [LIVESTOCK GROUP]?	OTHER source of advice on which antibiotics for [LIVESTOCK GROUP]
		1 = Yes, all of them 2 = Yes, some of them 3 = No >>Q12	UGX	1= Yes, 2= No >> Q14	UGX	1= Yes, 2= No >> Q16	UGX	Go over the list and tick all that apply		(See codes below)	(See codes below)	(See codes below)	
2	Small Ruminants												

Codes for Q16
 1 = Alamycin
 2 = Asampro
 3 = Betamox LA
 4 = Dipen
 5 = Gentamycin
 6 = Hllet 120
 7 = Limoxin
 8 = Norodine
 9 = Oxytar
 10 = Oxyet
 11 = Oxytetracycline
 12 = Oxytravet Powder
 13 = Penstrep
 14 = Tetrox
 15 = Tylosin
 99 = Other (Specify)

Codes for Q17
 1 = Curative treatment
 2 = To promote animal growth
 3 = As a preventive measure against disease
 4 = For vaccination purposes
 5 = Don't know
 9 = Other (Specify)

Codes for Q18
 1 = Regularly, at least once per week
 2 = Regularly, at least once per month
 3 = Occasionally
 9 = Don't know / Don't remember

Codes for Q19
 1 = NGO (Non Government Org)
 2 = Public Veterinary Officer
 3 = Private Veterinary Officer
 4 = Extension worker
 5 = Input dealer (drugshop, pharmacy)
 6 = MY OWN DECISION-CONSULTED NO ONE
 9 = Other (Specify)

Section 5.8.2: Small Ruminants: Input Costs (cont'd)

		LABOR							
	LIVESTOCK GROUP SHOULD APPEAR ONLY IF AT LEAST ONE ANIMAL WAS REPORTED IN SECTION 5.7		IF Q20 > 0	IF Q20 > 0		IF Q23>0	IF Q23>0	IF Q23>0	IF Q16 has Yes on any option
		<i>numeric, integer</i>	<i>numeric, integer</i>	<i>numeric, decimals</i>	<i>single response</i>	<i>numeric, integer</i>	<i>numeric, decimals</i>	<i>numeric, integer</i>	
		Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27
LIVESTOCK GROUP CODE	LIVESTOCK GROUP NAME	How many household members worked to keep, herd, milk [LIVESTOCK GROUP] in the last month?	During the past month, what was the AVERAGE number of days worked by the household members to keep, herd, milk [LIVESTOCK GROUP]?	During the past month, how many hours per day on average household members spent to keep, herd, milk [LIVESTOCK GROUP]?	How many hired laborers worked to keep, herd, milk [LIVESTOCK GROUP] in the past month?	During the past month, what was the AVERAGE number of days worked by the hired laborers to keep, herd, milk [LIVESTOCK GROUP]?	During the past month, how many hours per day on average hired laborers spent to keep, herd, milk [LIVESTOCK GROUP]?	How much did you pay in total during the past month for keeping/herding/milking [LIVESTOCK GROUP] (in SHS)?	Before we move on, let us revisit antibiotic use in animals briefly. How much do agree with the following statement: If antibiotics are often given to animals, the antibiotic will become less effective in curing sick animals
		if none, write 0 and go to Q23			if none, write 0 and go to next line / section			UGX	
2	Small Ruminants								

Codes for Q27
 1 = Fully Agree
 2 = Agree
 3 = Disagree
 4 = Completely agree
 9 = Don't Know

Section 5.8.3: Poultry: Input Costs

		MATING / BREEDING			FEEDING				WATERING			
	LIVESTOCK GROUP SHOULD APPEAR ONLY IF AT LEAST ONE ANIMAL WAS REPORTED IN SECTION 5.7											
		IF Q01=1	IF Q02=1		IF Q04=9		IF Q05=1		IF Q07 = 9		IF Q08=1	
		<i>single response</i>	<i>single response</i>	<i>numeric, integer</i>	<i>multi response</i>	<i>Text</i>	<i>single response</i>	<i>numeric, integer</i>	<i>multi response</i>	<i>text</i>	<i>single response</i>	<i>numeric, integer</i>
		Q01	Q02	Q03	Q04	Q04b	Q05	Q06	Q07	Q07b	Q08	Q09
LIVESTOCK GROUP CODE	LIVESTOCK GROUP NAME	In the past 3 months, has this household practiced any controlled mating or other breeding strategy for [LIVESTOCK GROUP], such as selection of reproductive animals, artificial insemination, etc?	In the past 3 months, has this household incurred any costs related to mating or breeding of [LIVESTOCK GROUP]?	In the past 3 months, how much has the household paid for mating or breeding services for [LIVESTOCK GROUP] (in SHS)?	In the past 3 months, what have been the two major feeding practices of [LIVESTOCK GROUP]? (list up to 2 main feeding practices)	OTHER major feeding practices of [LIVESTOCK GROUP] used the 3 months	In the past 3 months, has this household ever paid to feed its [LIVESTOCK GROUP]?	What was the total cost of the feed used for [LIVESTOCK GROUP] in the past 3 months (in SHS)?	In the past 3 months, what have been the main two sources of water for [LIVESTOCK GROUP]? (list up to 2 main sources)	OTHER main source of water for [LIVESTOCK GROUP] in the last 3 months	In the past 3 months, has this household ever paid for water for [LIVESTOCK GROUP]?	How much has this household paid for water for [LIVESTOCK GROUP] in the past 3 months (in SHS)?
		1 = Yes 2 = No 3 = Don't Know	1 = Yes 2 = No 3 = Don't Know	UGX	See codes below		1 = Yes 2 = No >>Q07		See codes below		1 = Yes 2 = No >>Q10	UGX
3	Poultry											

Codes for Q04
 1 = Grazing/scavenging only
 2 = Mainly grazing/scavenging with some feeding
 3 = Mainly feeding with some grazing /scavenging
 4 = Only feeding
 5 = Tethering with ropes
 9 = Other (Specify)

Codes for Q07
 1 = Borehole / well
 2 = Dam
 3 = River/Lake / Spring / Stream
 4 = Constructed small pan /ponds /valley tanks
 5 = Rainwater harvesting
 6 = Piped onto holding
 9 = Other (Specify)

Section 5.8.3: Poultry: Input Costs

ANIMAL HEALTH											
	LIVESTOCK GROUP SHOULD APPEAR ONLY IF AT LEAST ONE ANIMAL WAS REPORTED IN SECTION 5.7		IF Q12=1		IF Q14=1		IF Q16 = 99	IF Q16 has Yes on any option	IF Q16 has Yes on any option	IF Q16 has Yes on any option	IF Q19 = 9
		<i>single response</i>	<i>numeric, integer</i>	<i>single response</i>	<i>numeric, integer</i>	<i>multiple response</i>	<i>text</i>	<i>single response</i>	<i>single response</i>		
		Q12	Q13	Q14	Q15	Q16	Q16b	Q17	Q18	Q19	Q19b
LIVESTOCK GROUP CODE	LIVESTOCK GROUP NAME	In the past 3 months, has this household treated [LIVESTOCK GROUP] against internal and external parasites?	What was the total cost of anti-parasite treatments for [LIVESTOCK GROUP] in the past 3 months?	In the past 3 months, have [LIVESTOCK GROUP] received any curative treatment?	What was the total cost of treatments for [LIVESTOCK GROUP] in the past 3 months (in SHS)?	In the past 3 months, has any member of your household used any of these medicines called antibiotics on [LIVESTOCK GROUP], such as...	OTHER name of antibiotic drug	What was the main purpose for giving antibiotics to [LIVESTOCK GROUP]?	In the last 3 months, how often did you give antibiotics to your [LIVESTOCK GROUP]?	Who gave you advice to use antibiotics for [LIVESTOCK GROUP]?	OTHER source of advice on which antibiotics for [LIVESTOCK GROUP]
		1= Yes, 2= No >> Q14	UGX	1= Yes, 2= No >> Q16	UGX	Go over the list and tick all that apply		(See codes below)	(See codes below)	(See codes below)	
3	Poultry										

Codes for Q16

1 = Alamycin	10 = Oxytet
2 = Asampro	11 = Oxytetracycline
3 = Betamox LA	12 = Oxytravet Powder
4 = Dipen	13 = Penstrep
5 = Gentamycin	14 = Tetroxy
6 = Hitet 120	15 = Tylosin
7 = Limoxin	99 = Other (Specify)
8 = Norodine	
9 = Oxystar	

Codes for Q17

- 1 = Curative treatment
- 2 = To promote animal growth
- 3 = As a preventive measure against disease
- 4 = For vaccination purposes
- 5 = Don't know
- 9 = Other (Specify)

Codes for Q18

- 1 = Regularly, at least once per week
- 2 = Regularly, at least once per month
- 3 = Occasionally
- 9 = Don't know / Don't remember

Codes for Q19

- 1 = NGO (Non Government Org)
- 2 = Public Veterinary Officer
- 3 = Private Veterinary Officer
- 4 = Extension worker
- 5 = Input dealer (drugshop, pharmacy)
- 6 = MY OWN DECISION-CONSULTED NO ONE
- 9 = Other (Specify)

Section 5.8.3: Poultry: Input Costs (cont'd)

		LABOR							
	LIVESTOCK GROUP SHOULD APPEAR ONLY IF AT LEAST ONE ANIMAL WAS REPORTED IN SECTION 5.7		IF Q20 > 0	IF Q20 > 0		IF Q23>0	IF Q23>0	IF Q23>0	IF Q16 has Yes on any option
		<i>numeric, integer</i>	<i>numeric, integer</i>	<i>numeric, decimals</i>	<i>single response</i>	<i>numeric, integer</i>	<i>numeric, decimals</i>	<i>numeric, integer</i>	
		Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27
LIVESTOCK GROUP CODE	LIVESTOCK GROUP NAME	How many household members worked to keep, herd, milk [LIVESTOCK GROUP] in the last month?	During the past month, what was the AVERAGE number of days worked by the household members to keep, herd, milk [LIVESTOCK GROUP]?	During the past month, how many hours per day on average household members spent to keep, herd, milk [LIVESTOCK GROUP]?	How many hired laborers worked to keep, herd, milk [LIVESTOCK GROUP] in the past month?	During the past month, what was the AVERAGE number of days worked by the hired laborers to keep, herd, milk [LIVESTOCK GROUP]?	During the past month, how many hours per day on average hired laborers spent to keep, herd, milk [LIVESTOCK GROUP]?	How much did you pay in total during the past month for keeping/herding/milking [LIVESTOCK GROUP] (in SHS)?	Before we move on, let us revisit antibiotic use in animals briefly. How much do agree with the following statement: If antibiotics are often given to animals, the antibiotic will become less effective in curing sick animals
		if none, write 0 and go to Q23			if none, write 0 and go to next line / section			UGX	
3	Poultry								

Codes for Q27
 1 = Fully Agree
 2 = Agree
 3 = Disagree
 4 = Completely agree
 9 = Don't Know

Section 5.9.1: Cattle meat

(Qn 23): Now, I would like to talk about the [NUMBER OF ANIMALS] that were slaughtered in the past 12 months

LIVESTOCK GROUP SHOULD APPEAR ONLY IF AT LEAST ONE ANIMAL WAS REPORTED IN SECTION 5.7													
		Q01	Q02	IF Q02=1 Q03	IF Q02=1 Q04	IF Q02=1 Q05	IF Q02=1 Q06	IF Q06=9 Q06b	IF Q02=1 Q07	IF Q07=9 Q07b	IF Q02=1 Q08	IF Q08=1 Q09	IF Q09=9 Q09b
LIVESTOCK GROUP CODE	LIVESTOCK GROUP NAME	What was the live weight, on average, of the [LIVESTOCK GROUP] that was slaughtered in the last 12 months (in Kgs)?	During the last 12 months, did the household sell meat from [LIVESTOCK GROUP]?	How much of the [LIVESTOCK GROUP] meat produced did you sell (in Kgs) during the 12 months?	How much in SHS has this household earned by selling [LIVESTOCK GROUP] meat during the last 12 months?	Who controls the revenue from [LIVESTOCK GROUP] meat sold during the last 12 months? <i>(record up to two individuals)</i> <i>(use PIDs)</i>	In the past 12 months, where was most of the meat from [LIVESTOCK GROUP] meat sold?	OTHER market where most of the meat from [LIVESTOCK GROUP] is sold	To whom did you mainly sell meat from the [LIVESTOCK GROUP] in the past 12 months?	OTHER main [LIVESTOCK GROUP] meat market	Has the household experienced constraints in the commercialization of meat from [LIVESTOCK GROUP] in the past 12 months?	What was the most important constraint concerning the commercialization of meat from [LIVESTOCK GROUP] in the past 12 months?	OTHER commercialization constraint of [LIVESTOCK GROUP] meat in the past 12 months
		Kg/hd	1= Yes 2= No			PID 1 PID 2	UGX				1= Yes 2= No	(see codes below)	
101	Cattle and pack animals												

Codes for Q06
 1 = Wholesale market
 2 = Retail market
 3 = Sales on the farm or home
 4 = Direct delivery to the consumer
 5 = Production contract
 9 = Other (Specify)

Codes for Q07
 1 = Government
 2 = Local Organization
 3 = Private Trader
 4 = Consumer
 5 = Neighbour
 6 = Relative
 9 = Other (Specify)

Codes for Q09
 1 = Poor access to market (e.g. distance, lack of roads, cost or lack of transport, poor organization of the industry chain)
 2 = Low profitability (e.g. saturation of the market, low prices)
 3 = Cold chain (e.g. processing, packaging, storage)
 4 = Low productivity or low quality
 9 = Other (Specify)

Section 5.9.2: Small Ruminants meat

(Qn 23): Now, I would like to talk about the [NUMBER OF ANIMALS] that were slaughtered in the past 6 months

LIVESTOCK GROUP SHOULD APPEAR ONLY IF AT LEAST ONE ANIMAL WAS REPORTED IN SECTION 5.7													
				IF Q02=1	IF Q02=1	IF Q02=1	IF Q02=1	IF Q06=9	IF Q02=1	IF Q07=9	IF Q02=1	IF Q08=1	IF Q09=9
		numeric, integer	single response	numeric, integer	numeric, integer	multi response, linked with HH	single response	text	single response	text	single response	single response	text
		Q01	Q02	Q03	Q04	Q05	Q06	Q06b	Q07	Q07b	Q08	Q09	Q09b
LIVESTOCK GROUP CODE	LIVESTOCK GROUP NAME	What was the live weight, on average, of the [LIVESTOCK GROUP] that was slaughtered in the last 6 months (in Kgs)?	During the last 12 months, did the household sell meat from [LIVESTOCK GROUP]?	How much of the [LIVESTOCK GROUP] meat produced did you sell (in Kgs) during the 6 months?	How much in SHS has this household earned by selling [LIVESTOCK GROUP] meat during the last 6 months?	Who controls the revenue from [LIVESTOCK GROUP] meat sold during the last 6 months? <i>(record up to two individuals)</i>	In the past 6 months, where was most of the meat from [LIVESTOCK K GROUP] sold?	OTHER market where most of the meat from [LIVESTOCK GROUP] is sold	To whom did you mainly sell meat from the [LIVESTOCK GROUP] in the past 12 months?	OTHER main [LIVESTOCK GROUP] meat market	Has the household experienced constraints in the commercialization of meat from [LIVESTOCK GROUP] in the past 12 months?	What was the most important constraint concerning the commercialization of meat from [LIVESTOCK GROUP] in the past 12 months?	OTHER commercialization constraint of [LIVESTOCK GROUP] meat in the past 12 months
		Kg/hd	1= Yes 2= No			PID 1 PID 2	UGX				1= Yes 2= No		
102	Small ruminants and pigs												

Codes for Q06

- 1 = Wholesale market
- 2 = Retail market
- 3 = Sales on the farm or home
- 4 = Direct delivery to the consumer
- 5 = Production contract
- 9 = Other (Specify)

Codes for Q07

- 1 = Government
- 2 = Local Organization
- 3 = Private Trader
- 4 = Consumer
- 5 = Neighbour
- 6 = Relative
- 9 = Other (Specify)

Codes for Q09

- 1 = Poor access to market (e.g. distance, lack of roads, cost or lack of transport, poor organization of the industry chain)
- 2 = Low profitability (e.g. saturation of the market, low prices)
- 3 = Cold chain (e.g. processing, packaging, storage)
- 4 = Low productivity or low quality
- 9 = Other (Specify)

Section 5.9.3: Poultry Meat

(Qn 23): Now, I would like to talk about the [NUMBER OF ANIMALS] that were slaughtered in the past 3 months

LIVESTOCK GROUP SHOULD APPEAR ONLY IF AT LEAST ONE ANIMAL WAS REPORTED IN SECTION 5.7													
		Q01	Q02	IF Q02=1 Q03	IF Q02=1 Q04	IF Q02=1 Q05	IF Q02=1 Q06	IF Q06=9 Q06b	IF Q02=1 Q07	IF Q07=9 Q07b	IF Q02=1 Q08	IF Q08=1 Q09	IF Q09=9 Q09b
LIVESTOCK GROUP CODE	LIVESTOCK GROUP NAME	What was the live weight, on average, of the [LIVESTOCK GROUP] that was slaughtered in the last 3 months (in Kgs)?	During the last 3 months, did the household sell meat from [LIVESTOCK GROUP]?	How much of the [LIVESTOCK GROUP] meat produced did you sell (in Kgs) during the 3 months?	How much in SHS has this household earned by selling [LIVESTOCK GROUP] meat during the last 3 months?	Who controls the revenue from [LIVESTOCK GROUP] meat sold during the last 3 months? <i>(record up to two individuals)</i>	In the past 3 months, where was most of the meat from [LIVESTOCK GROUP] sold?	OTHER market where most of the meat from [LIVESTOCK GROUP] is sold	To whom did you mainly sell meat from the [LIVESTOCK GROUP] in the past 3 months?	OTHER main [LIVESTOCK GROUP] meat market	Has the household experienced constraints in the commercialization of meat from [LIVESTOCK GROUP] in the past 3 months?	What was the most important constraint concerning the commercialization of meat from [LIVESTOCK GROUP] in the past 3 months?	OTHER commercialization constraint of [LIVESTOCK GROUP] meat in the past 3 months
		Kg/hd	1= Yes 2= No			PID 1 PID 2	UGX				1= Yes 2= No		
103	Poultry												

Codes for Q06
 1 = Wholesale market
 2 = Retail market
 3 = Sales on the farm or home
 4 = Direct delivery to the consumer
 5 = Production contract
 9 = Other (Specify)

Codes for Q07
 1 = Government
 2 = Local Organization
 3 = Private Trader
 4 = Consumer
 5 = Neighbour
 6 = Relative
 9 = Other (Specify)

Codes for Q09
 1 = Poor access to market (e.g. distance, lack of roads, cost or lack of transport, poor organization of the industry chain)
 2 = Low profitability (e.g. saturation of the market, low prices)
 3 = Cold chain (e.g. processing, packaging, storage)
 4 = Low productivity or low quality
 9 = Other (Specify)

Section 5.9.4 Cattle milk

enabling conditions	LIVESTOCK GROUP APPEARS ONLY IF AT LEAST ONE ANIMAL WAS REPORTED IN THE SECTION 'OWN_RAISE_CHANGE'																			
		Q01=1	Q01=1	Q01=1		IF Q01=1	Q01=1	Q07>0	Q07>0	IF Q07>0		IF Q09>0 or Q10>0	IF Q12 = 9	IF Q09>0 or Q10>0	IF Q12 = 9	IF Q09>0 or Q10>0	IF Q07 >0 or Q09 >0	IF Q07 >0 or Q09 >0	IF Q16 = 9	
		Q01	Q02	Q03	Q04	Q05	Q06	Q07	Q08	Q09	Q10	Q11	Q12	Q12b	Q13	Q13b	Q14	Q15	Q16	Q16b
LIVESTOCK GROUP CODE	LIVESTOCK GROUP NAME	Did you milk any [LIVESTOCK GROUP] in the last 12 months?	How many [LIVESTOCK GROUP] were milked in the past 12 months?	For how many months on average were the [LIVESTOCK GROUP] milked in the past 12 months?	During these [NUMBER OF MONTHS] in which the [LIVESTOCK GROUP] were milked, what was the average quantity in LITERS milked per day?	In general, do you allow the calves to suckle directly from the milked [LIVESTOCK GROUP]?	Out of the total milk produced daily from [LIVESTOCK GROUP], on average how many litres are consumed daily by the household in the form of liquid milk?	Out of the total milk produced daily on average from [LIVESTOCK GROUP], how many litres are sold daily in the form of liquid milk?	What is the price of one liter of milk you produced from [LIVESTOCK GROUP]?	How much did you earn from selling [LIVESTOCK GROUP] milk per week, in SHS?	Out of the total milk produced daily on average from [LIVESTOCK GROUP], how much in litres is converted into processed dairy products (ghee, yoghurt, etc)?	How much did you earn from selling [LIVESTOCK GROUP] milk products (such as ghee, yoghurt, etc) per week in SHS?	Where is most of the milk and milk products from [LIVESTOCK GROUP] sold?	OTHER main milk market	Who mostly buys the milk and milk products from [LIVESTOCK GROUP]?	OTHER milk buyer	Who, among household members, controls the revenue obtained from selling milk and milk products from [LIVESTOCK GROUP]?	Has the household experienced constraints in the commercialization of milk and milk products from [LIVESTOCK GROUP] in the past 12 months?	What was the most important constraint concerning the commercialization of milk and milk products from [LIVESTOCK GROUP] in the past 12 months?	OTHER commercialization constraint
Instructions	Only Cows, Heifers can be milked in the Ugandan context				Include all milk: consumed, sold, processed															
		1=yes 2=no >> go to next section	number	number	litres/day	1 = No suckling allowed 2 = intermittent suckling 3 = Continuous suckling	litres/day	litres/day	UG SHS	UG SHS	UG SHS	1=Wholesale market 2=Retail market 3=Sales on the farm or home 4=Direct delivery to the consumer 5=Production contract 9=Other (Specify)		1=Government market 2=local organization 3=private trader 4=consumer 5=neighbour 6=relative 9=Other (Specify)		PID 1	PID 2	1 = Yes 2 = No		
1	cattle and pack animals																			

Codes for Q16
 1 = Poor access to market (eg., distance, lack of roads, cost or lack of transport, poor organization of the industry chain)
 2 = Low profitability (eg., saturation of the market, low prices)
 3 = Cold chain (eg., processing, packaging, storage / storage)
 4 = Low production or low quality
 9 - Other (specify)

Section 5.9.5 Small Ruminants milk

enabling conditions	LIVESTOCK GROUP APPEARS ONLY IF AT LEAST ONE ANIMAL WAS REPORTED IN THE SECTION 'OWN_RAISE_CHANGE'																		
		Q01=1	Q01=1	Q01=1		IF Q01=1	Q01=1	Q07>0	Q07>0	IF Q07>0		IF Q09>0 or Q10>0	IF Q12 = 9	IF Q09>0 or Q10>0	IF Q12 = 9	IF Q09>0 or Q10>0	IF Q07 >0 or Q09 >0	IF Q07 >0 or Q09 >0	
		Q01	Q02	Q03	Q04	Q05	Q06	Q07	Q08	Q09	Q10	Q11	Q12	Q12b	Q13	Q13b	Q14	Q15	Q16
LIVESTOCK GROUP CODE	LIVESTOCK GROUP NAME	Did you milk any [LIVESTOCK GROUP] in the last 6 months?	How many [LIVESTOCK GROUP] were milked in the past 6 months?	For how many months on average were the [LIVESTOCK GROUP] milked in the past 6 months?	During these [NUMBER OF MONTHS] in which the [LIVESTOCK GROUP] were milked, what was the average quantity in LITERS milked per day?	In general, do you allow the calves to suckle directly from the milked [LIVESTOCK GROUP]?	Out of the total milk produced daily from [LIVESTOCK GROUP], on average how many litres are consumed daily by the household in the form of liquid milk?	Out of the total milk produced daily on average from [LIVESTOCK GROUP], how many litres are sold daily in the form of liquid milk?	What is the price of one liter of milk you produced from [LIVESTOCK GROUP]?	How much did you earn from selling [LIVESTOCK GROUP] milk per week, in SHS?	Out of the total milk produced daily on average from [LIVESTOCK GROUP] milk products (such as ghee, yorghurt, etc) per week in SHS?	How much did you earn from selling [LIVESTOCK GROUP] milk products (such as ghee, yorghurt, etc) per week in SHS?	Where is most of the milk and milk products from [LIVESTOCK GROUP] sold?	OTHER main milk market	Who mostly buys the milk and milk products from [LIVESTOCK GROUP]?	OTHER milk buyer	Who, among household members, controls the revenue obtained from selling milk and milk products from [LIVESTOCK GROUP]?	Has the household experienced constraints in the commercialization of milk and milk products from [LIVESTOCK GROUP] in the past 6 months?	What was the most important constraint concerning the commercialization of milk and milk products from [LIVESTOCK GROUP] in the past 6
Instructions	Only goats can be milked in the Ugandan context				<i>Include all milk: consumed, sold, processed</i>														
		1=yes 2=no >> go to next section	number	number	litres/day	1 = No suckling allowed 2 = intermittent suckling 3 = Continuous suckling	litres/day	litres/day	UG SHS	UG SHS		UG SHS	1=Wholesale market 2=Retail market 3=Sales on the farm or home 4=Direct delivery to the consumer 5=Production contract 9=Other (Specify)		1=Government 2=local organization 3=private trader 4=consumer 5=neighbour 6=relative 9=Other (Specify)		PID 1	PID 2	1 = Yes 2 = No
2	Small Ruminants																		

Codes for Q16
 1 = Poor access to market (eg., distance, lack of roads, cost or lack of transport, poor organization of the industry chain)
 2 = Low profitability (eg.; saturation of the market, low prices)
 3 = Cold chain (eg., processing, packaging, storage / storage)
 4 = Low production or low quality
 9 - Other (specify)

Section 5.9.6: EGG PRODUCTION

	LIVESTOCK GROUP SHOULD APPEAR ONLY IF AT LEAST ONE ANIMAL WAS REPORTED IN THE SECTION 5.8		IF Q01>0	IF Q01>0 in at least one livestock group		IF Q03>0	IF Q05 = 9	IF Q03>0	IF Q06 = 9	IF Q03>0	IF Q03>0
		Q01	Q02	Q03	Q04	Q05	Q05b	Q06	Q06b	Q07	Q08
LIVESTOCK GROUP CODE	LIVESTOCK GROUP NAME	How many [LIVESTOCK GROUP] laid eggs in the last 3 months?	How many [LIVESTOCK GROUP] eggs did your household produce in the last three months?	How many eggs in total did you sell in the last three months?	Unit of Quantity of Egg Sales	Where were most of the eggs sold in the last three months?	OTHER egg market	To whom did the household mainly sell the eggs in the last three months?	OTHER main purchaser of eggs	How much has the household earned by selling eggs in the last three months (in SHS)?	Who in the household controls the revenue earned from selling eggs? <i>(record up to 2 individuals. Use PIDs)</i>
		Number (if 0 go to next line)	Number	IF 0, GO TO NEXT LINE		See codes below		See codes below		UGX	PID1 PID2
1	Chicken										
2	Other Poultry										

Codes for Q04

1 = Number
2 = Tray of eggs
3 = Dozen of eggs

Codes for Q05

1=Wholesale market
2=Retail market
3=Sales on the farm or home
4=Direct delivery to the consumer
5=Production contract
9=Other (Specify)

Codes for Q06

1 = Government
2 = Local organization
3 = Private trader
4 = Consumer
5 = Neighbour
6 = Relative
9 = Other (Specify)

Section 5.10: Sources of Agricultural Information

(Qn 24): Now I would like to ask you information regarding the sources you and your household use to get information on agriculture				
		(Q01)	(Q02)	(Q02b)
INFORMATION TYPE CODE	INFORMATION TYPE	Between January 2018 and December 2018, did you or the household receive information on [INFORMATION TYPE]?	What was the main source you / your household used for receiving information on [INFORMATION TYPE]?	OTHER source of information on [INFORMATION TYPE]
		1 = Yes 2 = No >> go to next line	see codes below	
01	weather	__	__	
02	crop varieties	__	__	
03	new agricultural practices	__	__	
04	farm machinery	__	__	
05	credit facilities	__	__	
06	prices of commodities	__	__	
07	where to sell the production	__	__	

Codes for Q02

01= Radio	08= Farmer to farmer
02= Television	09= NAADS/Operation Wealth Creation
03= Telephone	10 = Agricultural Shows
04= Internet	11 = NGOs
05= Newspaper	12 = Word of Mouth/Peers
06= Magazines	13 = Demonstration Farms
07= Extension workers	99= Other, specify

Section 5.11: Access to facilities

(Qn 25): I would like to ask you information regarding the household access to facilities and services relevant for agriculture in general.

		(Q01)	(Q02)
		<i>single response</i>	<i>numeric, wt 1 decimal</i>
FACILITY CODE	FACILITY	Between January 2018 and December 2018, did you or your household have access to the following facilities?	What is the distance in kilometers to the nearest [FACILITY]? <i>(record distance in KM up to 1 decimal place)</i>
		1= Yes 2= No >> go to next line	 <i>(Record distance up to 1 decimal place)</i>
01	Local produce market	<input type="checkbox"/>	<input type="text"/>
02	District produce market	<input type="checkbox"/>	<input type="text"/>
03	Trading center	<input type="checkbox"/>	<input type="text"/>
04	Nurseries	<input type="checkbox"/>	<input type="text"/>
05	Agricultural demonstration farm	<input type="checkbox"/>	<input type="text"/>
06	Feeder roads	<input type="checkbox"/>	<input type="text"/>
07	All -year round gravel road	<input type="checkbox"/>	<input type="text"/>
08	Tarmac road	<input type="checkbox"/>	<input type="text"/>
09	Community agricultural store	<input type="checkbox"/>	<input type="text"/>
10	Local input dealer / farm supply shops	<input type="checkbox"/>	<input type="text"/>

Section 5.12: TRANSPORT MEANS

(Qn 26): Now I would like to ask you about the means of transportation used by you and the other household members

	(Q01)	(Q02)
TRANSPORT TYPE	Did you or your household use any of the following means of transport for agricultural activities between January 2018 and December 2018?	How did you or your household mainly access [TRANSPORT TYPE] <i>(record only the main type of access)</i>
	1=Yes 2=No >> go to next line	1= Own 2= Borrowed 3= Hired
Head loading / back loading	<input type="checkbox"/>	<input type="checkbox"/>
Car / pick up	<input type="checkbox"/>	<input type="checkbox"/>
Lorry	<input type="checkbox"/>	<input type="checkbox"/>
Tractor	<input type="checkbox"/>	<input type="checkbox"/>
Motor cycle	<input type="checkbox"/>	<input type="checkbox"/>
Bicycle	<input type="checkbox"/>	<input type="checkbox"/>
Oxen	<input type="checkbox"/>	<input type="checkbox"/>
Donkeys / mules	<input type="checkbox"/>	<input type="checkbox"/>
Boat	<input type="checkbox"/>	<input type="checkbox"/>
Ferry	<input type="checkbox"/>	<input type="checkbox"/>
Wheelbarrow	<input type="checkbox"/>	<input type="checkbox"/>

Section 5.13: STORAGE FACILITIES

(Q01)	(Q02)	(Q02b)
Does the holding have access to any storage facilities?	What storage facility(ies) does the holding normally use? (including household-owned and community facilities)	OTHER storage type that is not classified elsewhere
1= Yes 2= No >> next section	1 = Improved granary 2 = Unimproved granary 3 = Store House / Barn 4 = Specific House/room 5 = Under shelter outside 6 = Cribs 7 = Silos 8 = Cold Storage 9 = Underground storage 10 = Over fire place 11 = Community Storage 12 = Sealed containers 99 = Other (Specify)	

Section 5.14: Access to credit

(Qn 27): I would like to ask you about any loans received by you or members of your household FOR AGRICULTURAL PURPOSES

(Q01) Has any member of the household received an agricultural-related loan service between January 2018 and December 2018?		1= Yes 2= No >> go to Q10													
		IF Q02 = 99										IF Q01 = 1	IF Q08 = 1	IF Q09 = 9	
CODE	LOAN SOURCE	(Q02)	(Q02b)	(Q03)			(Q04)	(Q05)	(Q06)			(Q07)	(Q08)	(Q09)	(Q09b)
	LOAN SOURCE	Please list all the sources that provided a loan for agricultural purposes to you/your household between January 2018 and December 2018	OTHER loan source for agriculture	What were the three main purposes of the loan from [LOAN SOURCE] <i>(see response options below)</i>			What was the duration of the loan received from [LOAN SOURCE]?	What was the loan amount received from [LOAN SOURCE] between January 2018 and December 2018?	Who among the household members received the loan from [LOAN SOURCE]? (use PIDs)			How much of the loan taken from [LOAN SOURCE] has been repaid between January 2018 and December 2018?	Did the household need to provide collateral security for these loans?	What type of collateral security was provided? <i>(tick all that apply)</i>	OTHER collateral security
		1= Yes 2=No >> go to next line		FIRST	SECOND	THIRD		UGX	PID1	PID2	PID3	UGX	1= Yes 2= No >> go to Q11		
01	Commercial Banks	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
02	Micro Finance Institutions	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
03	SACCO: Savings & Credit Cooperative Organizations	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
04	Money Lenders	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
05	Input suppliers	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
06	Self-help Groups	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
07	Family and friends	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
08	Agricultural product processors	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
09	Agricultural produce traders	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
10	Farmer associations	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
11	Government Agency/departments	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
12	Non Governmental Organizations (NGOs)	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
99	Other (Specify)	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				

Codes for Q03
 1 = Pay for Agricultural labor
 2 = Purchase Seeds
 3 = Buy Fertilizers
 4 = Buy Agro-chemicals
 5 = Buy Farm Implements & Machinery
 6 = Set up Irrigation structure
 7 = Livestock
 8 = Aquaculture (Fish farming)
 9 = Apiculture (Bee Keeping)
 10 = Trading agricultural produce
 11 = Fund land purchase
 12 = Repair agricultural Buildings
 13 = Draughtpower
 99= Others (specify)

Codes for Q04
 1 = less than 1 year
 2 = 1-3 years
 3 = More than 3 years

Codes for Q09
 1 = Land Title
 2 = Crop production
 3 = Livestock
 4=Guarantor
 5 = Salary
 6 = Deposit / Savings with the Bank/Group
 7 = Household Items
 8 = Sales Agreement
 9= Other (specify)

Section 5.15: FIXED COSTS

(Qn 28): Now, I would like to put emphasis on costs related to agriculture.

FOR THE ENUMERATOR: For the payments that include household costs, probe for the proportion spent on the agricultural activities.

			IF Q01 = 99	IF Q01 = 1
		Between January 2018 and December 2018, did this household spend money on the following..?		How much money did the household spend on [EXPENDITURE TYPE] between January 2018 and December 2018 (in SHS)?
	EXPENDITURE TYPE	(Q01)	(Q01b)	(Q02)
		1= Yes 2 = No >> go to next line		UGX
01	Rent of buildings for farm use	□□		□□□, □□□□□, □□□□□
02	Rent of land for agriculture	□□		□□□, □□□□□, □□□□□
03	Interest on agricultural loans	□□		□□□, □□□□□, □□□□□
04	Agricultural insurance	□□		□□□, □□□□□, □□□□□
05	Lincences, fees and other statutory permits	□□		□□□, □□□□□, □□□□□
06	Maintenance and repairs of buildings for farm use	□□		□□□, □□□□□, □□□□□
07	Purchase or repair vehicle/tractor/equipment	□□		□□□, □□□□□, □□□□□
08	Water for crop irrigation	□□		□□□, □□□□□, □□□□□
09	Electricity for agricultural purposes	□□		□□□, □□□□□, □□□□□
10	Investment on the holding (e.g set up/ repair for irrigation systems, silos, barns, etc)	□□		□□□, □□□□□, □□□□□
99	Other fixed costs	□□		□□□, □□□□□, □□□□□

Section 5.16: SHOCKS AND FOOD SECURITY

(Q01) Did the household experience any shock between January 2018 and December 2018?		1= Yes 2=No >> go to Q05																															
				IF Q04 = 99				IF Q05 = 1		IF Q05 = 1		IF Q05 = 1		IF Q05 = 1		IF Q05 = 1		IF Q05 = 1															
		(Q02)		(Q03)		(Q04)		(Q04b)		Q05		Q06		Q07		Q08		Q09		Q10		Q11		Q12		Q13		Q14		Q15		Q16	
SHOCK		Did the household experience any of the following shocks between January 2018 and December 2018?	OTHER shock experienced in the last 12 months	What was the extent of damage of [SHOCK] on crop or livestock production?	What was the main response of the household to [SHOCK]?	OTHER response to shock that is not classified	Between January 2018 and December 2018 were there any months in which the household members could not afford to eat what they normally eat?	Between January 2018 and December 2018, in which months did the food shortage occur?	What were the main reason for the food shortage?			Has the household changed eating patterns as an immediate response to food shortage?	Who in the household has changed the eating patterns?	Has the household skipped meals as an immediate response to food shortage?	Who in the household skipped meals?	Has the household eaten less preferred meals as an immediate response to food shortage?	Who in the household ate less preferred meals?	Has the household reduced meal size as immediate response to food shortage?	Who in the household has reduced meal size?	Is the household likely to experience food shortage in the next 12 months?													
		1= Yes 2= No >> go to next line		1 = None 2 = Slight 3 = Moderate 4 = Severe		1= Yes 2=No		Reason 1	Reason 2	Reason 3	1= Yes 2=No	(See codes below)	1= Yes 2=No	(See codes below)	1= Yes 2=No	(See codes below)	1= Yes 2=No	(See codes below)	1= Yes 2=No														
Floods and tidal waves		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>																												
Drought		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>																												
Hailstorms		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>																												
Pests/diseases outbreak		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>																												
Erratic or heavy rains		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>																												
Insecurity		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>																												
Illness or disease in the household		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>																												
Other shock (specify)		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>																												

Codes for Q04
 1 = Sold land and/or buildings
 2 = Sold crops and/or livestock
 3 = Sold holding's other assets e.g. machinery and equipment
 4 = Found other work, not on the holding
 5 = Received help from government
 6 = Received help from NGOs or other organizations
 7 = Received help from relatives
 8 = Reduced expenses for the holding (labour costs, capital costs, etc.)
 9 = Reduced expenses for the household (on health, education, etc.)
 10 = Borrowed/gota loan
 11 = Did nothing

Codes for Q06
 1 = January
 2 = February
 3 = March
 4 = April
 5 = May
 6 = June
 7 = July
 8 = August
 9 = September
 10 = October
 11 = November
 12 = December

Codes for Q07
 1 = Loss of crops / insufficient production
 2 = Over selling produce
 3 = Loss of livestock
 4 = Inability to work because of illness, disability, injury or old age
 5 = Lack of adequate land
 6 = Lack of capital
 7 = Lack of laborers on the farm
 8 = Lack of job opportunity outside the holding
 9 = Other (specify)

Codes for Q09, Q11, Q13 and Q15
 1 = Male adults (over 25 years)
 2 = Male youths (age between 14 - 24)
 3 = Male children (age less than 14 years)
 4 = Female adults (over 25 years)
 5 = Female youths (aged between 14 - 24)
 6 = Female children (aged less than 14 years)

Section 5.17: EXTENSION SERVICES

(Q01)	Has any member of this household attended a farmers' training between January 2018 and December 2018?	1 = Yes 2 = No 3 = Don't Know
(Q02)	Who among the household members attended farmers' training? <i>(mention <u>all</u> the household members who attended a farmer training)</i>	PIDs _ _ _ _
(Q03)	Has any member of this household received advice/information from an extension worker between January 2018 and December 2018?	1 = Yes 2 = No 3 = Don't Know
(Q04)	Between January 2018 and December 2018, was the advice/information about agricultural activities provided by...?	(see codes below)
(Q04b)	OTHER source of extension advice	

Section 5.17: EXTENSION SERVICES

									IF Q08 =1	IF Q08 =1			IF Q12 = 1			
													PAYMENT FOR SERVICE			
		Q05	Q06				Q07	Q08	Q09	Q10	Q11	Q12	Q13	Q13b	Q14	Q15
S O U R C E I D	SOURCE	How was the advice/information from [SOURCE] acquired? <i>(select all that apply)</i>	Which household members received advice/information from [SOURCE]? <i>(record up to 4 person IDs)</i>				Did the [SOURCE] provide advice/information on the following....?	Between January 2018 and December 2018, has any household member sought agricultural advice from [SOURCE]?	Between January 2018 and December 2018, how many times did anyone from [SOURCE] visit the household to provide advise on demand?	Between January 2018 and December 2018, how many times did anyone from [SOURCE] visit the household on routine basis?	Between January 2018 and December 2018, how many times did anyone in the household visit the [SOURCE] to receive extension services?	Between January 2018 and December 2018, did anyone in the household pay anything in order to receive advice from [SOURCE]?	Which services was [SOURCE] paid for?	OTHER extension service paid for?	Between January 2018 and December 2018, how much in total was [SOURCE] paid (in SHS)?	How would you rate the advice received from [SOURCE]?
			PID	PID	PID	PID										
		1 = Household member travelled to the service provider 2 = Service provider visited the household					(See codes Below)	1 = Yes 2 = No 3 = Don't Know				1 = Yes 2 = No 3 = Don't Know	See codes below	UGX	1= Good 2= Average 3= Bad	
1	Local Government	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>			<input type="checkbox"/>	
2	Input Supplier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>			<input type="checkbox"/>	
3	(NGO)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>			<input type="checkbox"/>	
4	Cooperative/Farmer's Association	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>			<input type="checkbox"/>	
5	Model Farmers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>			<input type="checkbox"/>	
6	Other (Specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input type="checkbox"/>			<input type="checkbox"/>	

Codes for Q04
 1 = Local Government
 2 = Input Supplier
 3 = Non Governmental Organization (NGO)
 4 = Cooperative/Farmer's Association
 5 = Model Farmers
 9 = Other (Specify)

Codes for Q07
 1 = Agricultural production
 2 = Agricultural prices
 3 = Agro-processing
 4 = Crop marketing
 5 = Livestock marketing
 6 = Fish production
 7 = Livestock production: Meat
 8 = Livestock production: Milk/eggs
 9 = Livestock breeding/feeding/watering
 10 = Control of livestock diseases
 11 = Safe use and handling of agricultural chemicals
 12 = Agricultural input use
 13 = Labour-rights related aspects (ex. child labour, gender equality at work, etc.)
 14 = Entrepreneurship and business

Codes for Q13
 1 = Agricultural production
 2 = Agricultural prices
 3 = Agro-processing
 4 = Crop marketing
 5 = Livestock marketing
 6 = Fish production
 7 = Livestock production: Meat
 8 = Livestock production: Milk/eggs
 9 = Livestock breeding/feeding/watering
 10 = Control of livestock diseases
 11 = Safe use and handling of agricultural chemicals
 12 = Agricultural input use
 13 = Labour-rights related aspects (ex. child labour, gender equality at work, etc.)
 14 = Entrepreneurship and business
 99 = Other (Specify)

Section 5.18: LAND DISPUTES

MOST RECENT DISPUTE											
I would like to ask you information regarding the most recent dispute (resolved or pending) you/your household have on any agricultural land of the holding.											
IF Q01 = 1		IF Q03 = 1	IF Q04 = 1 or Q01 = 1	IF Q04 = 1 or Q01 = 1 & Q05 = 9	IF Q04 = 1 or Q01 = 1	IF Q04 = 1 or Q01 = 1	IF Q04 = 1 or Q01 = 1	IF Q04 = 1 or Q01 = 1	IF Q04 = 1 or Q01 = 1	IF Q04 = 1 or Q01 = 1 & Q09 = 1	IF Q04 = 1 or Q01 = 1
Q01	Q02	Q03	Q04	Q05	Q05b	Q06	Q07	Q08	Q09	Q10	Q11
Do you or anyone in your household currently have a PENDING land dispute over any land of the holding?	How many pending land disputes do you or anyone in your household currently have?	In the past 5 years, did you or anyone in your household have a RESOLVED land dispute over any land of the holding?	How many resolved land disputes did you or anyone in your household have in the past 5 years?	With whom did you/the household have the dispute? <i>(tick all that apply)</i>	OTHER land dispute person	In which year did the most recent dispute start?	Have you resorted to informal institutions such as village elders, relatives, in an attempt to resolve the most recent dispute?	Have you resorted to formal institutions in an attempt to resolve the most recent dispute?	Has the most recent dispute been resolved?	In which year was the most recent dispute resolved?	What is the most common method in this village/local community of resolving land disputes?
1= Yes 2= No		1= Yes 2= No					1= Yes 2= No	1= Yes 2= No	1= Yes 2= No, still ongoing		

Codes for Q05

- 1 = Family of the husband
- 2 = Family of the wife
- 3 = Brother/Sister/Parents
- 4 = Other relatives
- 5 = Landlord
- 6 = Squatter/Migrant
- 7 = Tenant
- 8 = Neighbour(s)
- 9 = Other (Specify)

Codes for Q11

- 1 = Family
- 2 = Friends/elders
- 3 = Local Council
- 4 = Courts of law
- 5 = Police
- 6 = None
- 9 = Other (Specify)

SECTION 5.19: INTERVIEW FINALIZATION

I1	I2	I2b	I3	I4
	IF Col I1 = 2, 3	IF Col I2 = 9		
INTERVIEWER: Record the result of the Interview.	INTERVIEWER: Record the reason for a partially completed interview, or for an interview not done.	OTHER reason for incomplete interview	ADD COMMENTS	Time: End of interview
1 = Interview completed 2 = Partially done 3 = Not done			INTERVIEWER: Please comment on any and all aspects of the overall interview experience. Which sections did the respondent have difficulty with? Which questions did the respondent have difficulty with? Why do you think so? Which questions do you believe are worth modifying, and why? Anything that you believe is informative and can help improve the overall interview process e.d. for instance the length of the interview, problematic questions, problems with the skips and filters of the questionnaire. There is no restriction on what aspects you can comment on.	

Codes for Col I2
 1 = Refused
 2 = Household moved / shifted to unknown location
 3 = Dwelling destroyed
 4 = No competent respondent at time of visit
 5 = No one at home for extended period of time
 6 = Dwelling not found
 9 = Other (Specify)

Annex 1							
Crop Codes for Sect 4.6 - Col C05 and C06							
Crop Group	Crop Name	Crop Code		Crop Group	Crop Name	Crop Code	
1. Cereals	Wheat	0111		5. Leguminous crops	Beans	0711	
	Maize	0112			Broad Beans	0721	
	Rice	0113			Chick Peas	0731	
	Sorghum	0114			Cow Peas	0741	
	Barley	0115			Lentils	0751	
	Oats	0117			Peas	0771	
	Millet	0118			Pigeon Peas	0781	
	Mixed Cereals	1191			Leguminous crops n.e.c	0791	
	Other	1192					
	2. Vegetables and Melons	Asparagus	0212			6. Sugar crops	Sugar beet
Cabbages		0213		Sugar cane	0821		
Cauliflowers & broccoli		0214		Sweet sorghum	0831		
Lettuce		0215		Other sugar crops n.e.c	0891		
Spinach		0216		7. Other crops	Cotton	9211	
Chicory		0217			Flax, Hemp	9213	
Other leafy/ stem vegetables n.e.c		0219			Other temporary fibre crops	9219	
Cucumber		0221			Tobacco	0961	
Egg plant		0222			Other crops-temporary	9911	
Tomatoes		0223		8. Fruits and Nuts	Avocado	0311	
Water melons		0224			Banana (Food)	3121	
Pumpkin		0226			Banana (Sweet)	3122	
Other fruit bearing vegetables		0229			Banana (Beer)	3123	
Carrots		0231			Mangoes	0315	
Turnips		0232			Pawpaw	0316	
Garlic		0233			Pineapples	0317	
Onions		0234			Other	0319	
Other root, bulbs or tuberous vegetables n.e.c		0239			Grape fruit & pomelo	0321	
Mushroom		0241			Lemon and Limes	0322	
Vegetables n.e.c		0291			Oranges	0323	
3. Oil seed crops	Soya Beans	0411			Tangerines & Mandarines	0324	
	G/nuts	0421			Other citrus fruits	0329	
	Caster Beans	0431			Strawberries	0345	
	Linseed	0432			Currants	0341	
	Mustard	0433		Apples	0351		
	Simsim	0437		Apricots	0352		
	Sunflower	0438		Pears	0355		
4. Root/Tuber Crops with High Starch or Insulin content	Irish Potatoes	0511		Plums	0356		
	Sweet Potatoes	0521		Cashew nuts	0362		
	Cassava	0531		9. Beverages and spice crops	Coffee Arabica (old)	6111	
	Yams	0541			Coffee Robusta (old)	6112	
	Other root crops and tubers n.e.c	0591			Coffee Arabica (new)	6113	
			Coffee Robusta (clonal)		6114		
					6114		
			Tea		0612		
			Cocoa		0614		
			Other Beverages n.e.c		0619		

Annex 2: Codes for unit of quantity

Sr. No.	UNIT	CODE	Sr. No.	UNIT	CODE
1	Kilogram (kg)	01	29	Packet (1 kg)	50
2	Gram	02	30	Packet (500 g)	51
3	Litre	03	31	Packet (250 g)	52
4	Small cup with handle (Akendo)	04	32	Packet (100 g)	53
5	Sack (120 kgs)	09	33	Packet (Unspecified)	54
6	Sack (100 kgs)	10	34	Crate	63
7	Sack (80 kgs)	11	35	Heap (Unspecified)	64
8	Sack (50 kgs)	12	36	Dozen	65
9	Sack (unspecified)	13	37	Bundle (Unspecified)	66
10	Jerrican (20 lts)	14	38	Bunch (Big)	67
11	Jerrican (10 lts)	15	39	Bunch (Medium)	68
12	Jerrican (5 lts)	16	40	Bunch (Small)	69
13	Jerrican (3 lts)	17	41	Cluster (Unspecified)	70
14	Jerrican (2 lts)	18	42	Gourd (1 - 5 lts)	71
15	Jerrican (1 lt)	19	43	Gourd (5 - 10 lts)	72
16	Tin (20 lts)	20	44	Gourd (Above 10 lts)	73
17	Tin (5 lts)	21	45	Gologolo (4 - 5 lts)	74
18	Plastic Basin (20 lts)	22	46	Calabash (1 - 5 lts)	75
19	Kimbo/Cowboy/Blueband Tin (2 kg)	29	47	Calabash (Above 5 lts)	76
20	Kimbo/Cowboy/Blueband Tin (1 kg)	30	48	Jug (2 lts)	77
21	Kimbo/Cowboy/Blueband Tin (0.5 kg)	31	49	Jug (1.5 lts)	78
22	Cup/Mug (0.5 lt)	32	50	Jug (1 lt)	79
23	Nice Cup (0.48 lt)	332	51	Tot (50 ml)	80
24	Basket (20 kg)	37	52	Tobacco leaf (Number)	83
25	Basket (10 kg)	38	53	Pair	84
26	Basket (5 kg)	39	54	Number of Units (General)	85
27	Basket (2 kg)	40	55	Tonnes	88
28	Packet (2 kg)	49	56	Other Units (Specify)	99

Annex 3: code for condition/state

Crop type		Condition and state	
Code	Name	Description	Code
111/115	Wheat/Barley	Dry – grain	45
113	Rice	Dry at harvest - w ith shell	32
		Dry after additional drying – w ith shell	42
		Dry after additional drying – grain	45
112	Maize	Green harvested – w ith shell/cob and w ith stalk	11
		Green harvested – w ith shell/cob w ithout stalk	12
		Green harvested – in the cob	13
		Fresh/raw harvested – w ith shell/cob and w ith stalk	21
		Fresh/raw harvested – w ith shell/cob w ithout stalk	22
		Fresh/raw harvested – in the cob	23
		Dry at harvest – w ith shell/cob and w ith stalk	31
		Dry at harvest – w ith shell/cob w ithout stalk	32
		Dry at harvest – in the cob	33
		Dry after additional drying – in the cob	43
		Dry after additional drying – grain	45
		118/114	Millet/Sorghum
Dry at harvest – state not applicable	39		
Dry after additional drying – state not applicable	49		
Dry after additional drying – grain	45		
711/771/741/781/411	Beans/Field peas/Cow peas/Pigeon peas/Soya beans	Green harvested – in the pods	14
		Fresh/raw harvested – in pods	24
		Dry after additional drying – grain	45
421	Groundnuts	Fresh/raw harvested – w ith shell	22
		Dry after additional drying – w ith shell	42
		Dry after additional drying – grain	45
438/437	Sunflow er/Sim-sim	Dry at harvest – grain	35
		Dry after additional drying – grain	45
213/223/231/234/511/521/541/31 21/3122/3123	Cabbages/Tomatoes/Carrots/Onions/Irish potatoes/Sw eet potatoes / yams/ Banana food/Banana sw eet/Banana beer	Fresh/raw harvested – state not applicable	29

Annex 3: code for condition/state

Crop type		Condition and state	
Code	Name	Description	Code
531	Cassava	Fresh/raw harvested – state not applicable	29
		Dry after additional drying – state not applicable	49
9211/961	Cotton/Tobacco	Dry after additional drying – state not applicable	49
6111	Coffee Arabica (old)	Ripe (fresh) cherries	24
		Dry parchment (pulped and fermented)	50
		Dry unprocessed (Drugar)	49
6112	Coffee Robusta (old)	Ripe (fresh) cherries	24
		Dry cherries (Kiboko)	49
		Clean Coffee (Dry & Milled)	50
6113	Coffee Arabica (new)	Ripe (fresh) cherries	24
		Dry parchment (pulped and fermented)	50
		Dry unprocessed (Drugar)	49
6114	Coffee Robusta (Clonal)	Ripe (fresh) cherries	24
		Dry cherries (Kiboko)	49
		Clean Coffee (Dry & Milled)	50
614	Cocoa	Fresh/raw harvested – in pods or shell/husks	24
		Dry after additional drying – grain	45
612	Tea	Fresh/raw harvested – state not applicable	29