Uganda - Annual Agricultural Survey, 2018-2019 (Second Season).

Uganda Bureau of Statistics (UBOS)

Report generated on: May 30, 2022

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Overview

Identification

ID NUMBER
UGA_2018-2019_AAS_v01_EN_M_v01_A_OCS

Version

NOTES
Due to a change in the survey questionnaire in between the first and second seasons of 2018, data collected during the two seasons are not perfectly comparable and have been treated separately. This DDI only refers to microdata collected during the second season of 2018. Microdata from the first season of the 2018 survey round will not be released

Overview

ABSTRACT
The AAS is an integrated modular survey aiming to provide high quality and timely data on the performance of the Ugandan agricultural sector, as well as core indicators on crop and livestock for better agricultural policy making.

Data collection for the AAS is implemented in two waves, corresponding to the first (January-June) and second (July-December) seasons of the Ugandan agricultural year. For each season, households in the survey's sample are interviewed twice, during the Post-Planting (PP) period and the post-harvesting (PH) period. This results in a total of four visits during the agricultural year. For what concerns the AAS 2018, due to a change in the methodology and questionnaire in between seasons, data collected during the first and second season are not perfectly comparable and have been treated separately. Hence, this DDI only refers to microdata collected during the second season of 2018.

Among information collected with the AAS there is data on:

- The use of agricultural land along with the health and quality of soils in Uganda;

- The quantity and value of agricultural production;

- The access to extension services, market information and agricultural facility;

- Food security of agricultural households;

- Livestock keeping and animal products production;

- The socio-demographic characteristics of agricultural household members.

The collected data is used to produce a set of tables and indicators for tracking and evaluating the impacts of government and development programs on agriculture, and to compute SDG and CAADP indicators related to food and agriculture. For the main findings from the AAS 2018, see the Executive Summary of the AAS 2018 Report.

KIND OF DATA
Sample survey data [ssd]

UNITS OF ANALYSIS
Households

Scope

NOTES

The AAS 2018 collects data for the timespan of an agricultural year. The Ugandan Agricultural year is divided in two seasons, and, for each season, households are interviewed twice: during the post-planting and the post-harvesting periods.

The description of scope for the survey, during the post-planting period includes:

1) Household member socio-demographic characteristics;

2) Agricultural enterprises undertaken by the household in the current agricultural season;

3) Land use (Parcel and plots used by the agricultural households) i.e. Access to land, land use rights, decision making, land area, seed/seedlings utilization, etc.

The main objective of this questionnaire is to estimate land areas for crops planted. This is done combining objective measurement (i.e., GPS) on plots and parcels and then collecting the share of land area covered by each crop on each plot (based on farmer's assessment). In addition, the questionnaire collects information on land tenure and use of agricultural inputs. 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.

The description of scope for the survey, during the post-harvesting period includes:

1) Household member socio-demographic characteristics (only for new household members)

2) Crop production and disposals

3) Use of agricultural inputs for crop production

4) Cost of labour used for crop production

5) Labour input used on the agricultural household

6) Animal raised on the holding

7) Inputs used for livestock production

8) Livestock production and dispositions

9) Access to agricultural information

10) Access to means of transportation

11) Access to storage facilities

12) Access to agricultural credit

13) Fixed costs of the agricultural household

14) Shocks and food security of the agricultural household

15) Access to extension services

16) Land disputes

The main objective of this questionnaire is to collect data on crops harvested by agricultural households, 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-harvesting questionnaire also collects information concerning household and holding characteristics, such as the access to market and agricultural information, household food security, shocks and their impact on food security etc.

TOPICS

Topic	Vocabulary	URI
Agricultural Production	World Bank	
Economy	World Bank	
Labour	World Bank	

KEYWORDS
Agricultural production, Crop Yield, Livestock, AGRISurvey, Agricultural practices, Agricultural households

Coverage

GEOGRAPHIC COVERAGE
Regional Coverage

UNIVERSE
Agricultural households (i.e. agricultural holdings in the household sector)

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
Uganda Bureau of Statistics (UBOS)	Government of Uganda

OTHER PRODUCER(S)

Name	Affiliation	Role
Food and Agriculture Organization	United Nations	Provided technical assistance and trainings to UBOS

FUNDING

Name	Abbreviation	Role
United States Agency for International Development	USAID	Main donor for the AGRISurvey program in Uganda

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Uganda Bureau of Statistics	UBOS		
Food and Agriculture Organization	FAO	United Nations	Technical assistance on microdata documentation
Office of Chief Statistician	OCS	Food and Agriculture Organization	Metadata adapted for FAM

DDI DOCUMENT VERSION
UGA_2018-2019_AAS_v01_EN_M_v01_A_OCS_v01

DDI DOCUMENT ID
DDI_UGA_2018-2019_AAS_v01_EN_M_v01_A_OCS_FAO

Sampling

Sampling Procedure

The sampling frame used for the AAS 2018 was constituted by a complete list of census enumeration areas (EAs) covering the entire national territory of Uganda, for a total of 80183 EAs. An EA represents the smallest ground area portion, mapped with definite boundaries. EAs should not be intended as administrative area categories, but only as ground area portions defined to facilitate the selection of the sample and ease data collection activities. As of 2014, Uganda is divided into 112 administrative districts. In each district, the following hierarchical administrative division is in place: 1) County, 2) Sub county, 3) Parish, 4) Village, 5) Local council area. The frame file contains the administrative affiliation for each EA and number of households at the time of the census. Each EA has also a designated residence type: urban or rural.

The sampling design adopted is a two-stage sampling design. In order to increase the efficiency of the sampling design for the AAS, the sampling frame is divided into 10 Zonal Agricultural Research and Development Institutes (ZARDIs). At the first stage of selection, a sample of EAs (Primary Sampling Units) was drawn. At the second stage, a sample of agricultural households in the selected EAs was drawn (Secondary Sampling Units). The determination of the required number of EAs is based on the approach of Probabilities Proportional to Size (PPS), using the systematic sampling algorithm. The measure of size to be used in selecting the sample is the number of agricultural households resulting from the 2014 Population and Households Census (PHC). The employed sampling procedure led to the production of representative estimates at the region, sub region, and zardi level. Hence, the zardi is the maximum level of geographical disaggregation for which representative estimates can be computed.

Response Rate

The response rate was about the 86% during the post-planting visit, and the 83% during the post-harvesting visit.

Weighting

Sampling weights are included in each microdata files.

Questionnaires

Overview

The AAS 2018 was conducted using two main questionnaires i.e. the Post-Planting, and Post-harvesting questionnaires. For each season, agricultural households are interviewed twice: during the post-planting and the post-harvesting visit.

The questionnaire used during the post-planting season is called "Form 4 - Crop Area Module" and is organized as follows:

- Section 4.1: Cover Page;
- Section 4.2: Household Roster;
- Section 4.3: Enterprise Identification;
- Section 4.4: Parcel Roster;
- Section 4.5: Plot Roster;
- Section 4.6: Crop Roster.

The questionnaire used for the post-harvesting visit is called "Form 52- Crop Production, Household and Holding Characteristics Module" and is organized as follows:
- Section 5.1: Cover Page;
- Section 5.2: Household Roster;
- Section 5.3: Production and Dispositions of Crops;
- Section 5.4: Agricultural Inputs;
- Section 5.5: Production Activities and their Costs;
- Section 5.6: Labour Input on the Holding;
- Section 5.7.1: Cattle and Pack Animals;
- Section 5.7.2: Small Ruminants;
- Section 5.7.3: Poultry;
- Section 5.8.1: Cattle and Pack Animals: Input Costs;
- Section 5.8.2: Small Ruminants: Input Costs;
- Section 5.8.3: Poultry: Input Costs;
- Section 5.9.1: Cattle Meat;
- Section 5.9.2: Small Ruminants Meat;
- Section 5.9.3: Poultry Meat;
- Section 5.9.4: Cattle Milk;
- Section 5.9.5: Small Ruminants Milk;
- Section 5.9.6: Eggs Production;
- Section 5.9.7: Other Animal Products;
- Section 5.10: Sources of Agricultural Information;
- Section 5.11: Access to facilities;
- Section 5.12: Transport Means;
- Section 5.13: Storage Facilities;
- Section 5.14: Access to Credit;
- Section 5.15: Fixed Costs;
- Section 5.16: Shocks and Food Security;
- Section 5.17: Extension Services;
- Section 5.18: Land Disputes.

Data Collection

Data Collection Dates

Start	End	Cycle
2018-10-15	2018-12-20	Post-Planting
2019-02-18	2019-06-06	Post-Harvesting

Data Collection Mode

Computer Assisted Personal Interview [capi]

Data Collection Notes

For the data collection, the national territory has been divided in 10 Zonal Agricultural Research Development Institute (ZARDIs) which are aligned to 10 Agro-ecological zones in Uganda. Each agro-ecological zone include districts with similar climate, land use and cropping patterns. The following are the 10 Zardis considered for the AAS:

1) Abi: districts included are Arua, Nebbi, Moyo, Adjumani, Koboko, Yumbe, Maracha-Terego and Zombo;
2) Buginyanya: districts included are Sironko, Mbale, Iganga, Jinja, Tororo, Mayuge, Namutumba, Namayingo, Luuka,Kamuli, Kaliro, Buyende, Bugiri, Pallisa, Kibuku, Butaleja, Busia, Budaka, Manafwa, Kween, Kapchorwa, Bulambuli, Bukwo and Bududa;
3) Bulindi: districts included are Hoima, Masindi, Kiryandongo, Kibaale, and Buliisa;
4) Kachwekano: districts included are Kabale, Rukungiri, Kanungu and Kisoro;
5) Mukono: districts included are Mukono, Mpigi, Kayunga, Kalangala, Kampala, Luwero, Masaka, Nakasongola, Mubende, Wakiso, Nakaseke, Buikwe, Buvuma, Mityana, Kiboga, Kyankwanzi, Gombe, Kalungu, Bukomansimbi, Butambala and Lwengo;
6) Ngetta: districts included are Lira, Apac, Dokolo, Lamwo, Nwoya, Agago, Albetong, Amolatar, Kole, Otuke, Oyam, Pader,Kitgum, Amuru and Gulu;
7) Nabuin: districts included are Moroto, Nakapiripirit, Kotido, Napak, Amudat, Kaabong and Abim;
8) Serere: districts included are Serere, Kumi, Bukedea Amuria, Ngora, Katakwi, Soroti and Kaberamaido;
9) Mbarara: districts included are Mbarara, Ntungamo, Bushenyi, Kiruhura, Lyantonde, Sheema, Rubirizi, Mitoma, Isingiro,Ibanda, Buhweju, Sembabule, and Rakai;
10) Rwebitaba: districts included are Bundubugyo, Kabarole, Kamwenge, Kasese, Kyegegwa, Kyenjojo and Ntoroko.

Being an urban area, Kampala has been excluded from the survey. Also Ntoroko district was not included in the sample.

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- Section 5.5: Production Activities and their Costs;

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- Section 5.7.1: Cattle and Pack Animals;
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- Section 5.7.3: Poultry;
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- Section 5.8.2: Small Ruminants: Input Costs;
- Section 5.8.3: Poultry: Input Costs;
- Section 5.9.1: Cattle Meat;
- Section 5.9.2: Small Ruminants Meat;
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- Section 5.10: Sources of Agricultural Information;
- Section 5.11: Access to facilities;
- Section 5.12: Transport Means;
- Section 5.13: Storage Facilities;
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- Section 5.15: Fixed Costs;
- Section 5.16: Shocks and Food Security;
- Section 5.17: Extension Services;
- Section 5.18: Land Disputes.

Data Processing

Data Editing

All data cleaning and editing operations were performed using the statistical software Stata.

Other Processing

The anonymization process has been carried out with the aid of the statistical software R and the package sdcMicro with functions for risk measurement and the application of SDC methods.

Data Appraisal

Estimates of Sampling Error

The accuracy of a survey results depends on both sampling and 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 resulting from errors occurring during data collection, were controlled thorough training of the data collectors, field supervision by the headquarter 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 an Appendix of the final Survey Report.