

Uganda - Annual Agricultural Survey, 2019.

Uganda Bureau of Statistics (UBOS)

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Identification

SURVEY ID NUMBER

UGA_2019_AAS_v01_EN_M_v01_A_ESS

TITLE

Annual Agricultural Survey, 2019.

COUNTRY

Name	Country code
Uganda	UGA

STUDY TYPE

Agricultural Survey [ag/oth]

SERIES INFORMATION

The AAS 2019 survey was conducted with the support of the FAO, as part of the AGRISurvey Program. The Program promotes the adoption of an integrated and modular approach, namely the AGRIS method developed under the Global Strategy for the Improvement of Agricultural and Rural Statistics (GSARS).

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.

Among information collected with the AAS there is data on:

- The quantity and value of agricultural production;
- The access to extension services, market information and agricultural facility;
- 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 2019, see the Executive Summary of the AAS 2019 Report (see external resources/downloads section).

KIND OF DATA

Sample survey data [ssd]

UNIT OF ANALYSIS

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

Version

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

Scope

NOTES

The AAS 2019 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 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.

TOPICS

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

KEYWORDS

Keyword
Agricultural production
Crop Yield
Livestock
AGRISurvey
Agricultural practices
Agricultural households

Coverage

GEOGRAPHIC COVERAGE

The AAS is a national survey representative at the regional, sub-regional and zardi level. The National territory has been divided in 10 ZARDIs which are aligned to 10 Agro-ecological zones in Uganda. Each agro-ecological zone includes 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.

UNIVERSE

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

Producers and sponsors

PRIMARY INVESTIGATORS

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

PRODUCERS

Name	Affiliation	Role
Food and Agriculture Organization	United Nations	Technical Support

FUNDING AGENCY/SPONSOR

Name	Abbreviation	Role
US Agency for International Development	USAID	Funding
50x2030 Initiative (www.50x2030.org)	50x2030	Technical and Financial Assistance

Sampling

SAMPLING PROCEDURE

A two-stage sampling design was adopted for the AAS 2019. To increase the efficiency of the sample design, the sampling frame was stratified into 10 ZARDIs. In each stratum, the first stage was the selection of the Primary Sampling Unit (PSU), which is the EA (enumerator area) and the second stage was the selection of the Secondary Sampling Unit (SSU), which are the Ag HHs. The survey covered households cultivating crops and/or raising livestock, including households that were cultivating a few crops or raising a limited number of animals. No minimum threshold on the amount of land cultivated or animals raised was set nor did the survey aim to generate estimates concerning aquaculture, forestry and fisheries.

Sample size

The survey generated national, regional and sub-regional level estimates. A sample of 593 EAs and an average of 12 Ag HHs were selected from each EA.

RESPONSE RATE

The response rate was about the 84%.

WEIGHTING

Sampling weights are included in each microdata files.

Data Collection

DATES OF DATA COLLECTION

Start	End	Cycle
2019-06-15	2019-08-28	First Season,Post-planting
2019-09-16	2019-11-30	First Season,Post-Harvest
2019-12-02	2020-03-14	Second Season,Post-planting
2020-03-05	2020-10-17	Second Season,Post-Harvest

DATA COLLECTION MODE

Computer Assisted Personal Interview [capi]

SUPERVISION

Data collection for the AAS 2018 was performed by 14 teams constituted by, on average, three enumerators and 1 supervisor. After recruitment, both supervisors and enumerators received two trainings, one on the post-planting (PP) and one on the post-harvesting (PH) questionnaires. During these trainings, the CAPI PP and PH applications to be used for data collection were tested and refined.

During the data collection stage, after completing a CAPI interview, enumerators submitted the electronic interview to their supervisors through Survey Solutions. Then, Supervisor checked the quality of data collected and decided on whether accepting or rejecting the completed case. When a supervisor rejected an interview, the interview was sent back to the interviewer tablet in order to be corrected as requested. On the other hand, when the supervisor accepted an interview, this was sent to the headquarter for final validation. This process continued until the quality of collected data was considered as satisfactory.

Questionnaires

QUESTIONNAIRES

The AAS 2019 implemented 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 collects information on:

- 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 questionnaire used for the post-harvesting visit is called "Form 52- Crop Production, Household and Holding Characteristics Module" and collects information on:

- 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

Information 1-5 are collected in both first and second season while 6-16 is asked during the second season only. 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 chemicals. 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 access to market and agricultural information, household food security, shocks and their impact on food security etc.

Data Processing

DATA EDITING

Supervision

Data collection for the AAS 2019 was performed by 15 teams constituted by, on average, three enumerators and 1 supervisor. After recruitment, both supervisors and enumerators received two trainings, one on the post-planting (PP) and one on the post-harvesting (PH) questionnaires. During these trainings, the CAPI PP and PH applications to be used for data collection were tested and refined. During the data collection stage, after completing a CAPI interview, enumerators submitted the electronic interview to their supervisors through Survey Solutions. Then, Supervisor checked the quality of data collected and decided on whether accepting or rejecting the completed case. When a supervisor rejected an interview, the interview was sent back to the interviewer tablet in order to be corrected as requested. On the other hand, when the supervisor accepted an interview, this was sent to the headquarter for final validation. This process continued until the quality of collected data was considered as satisfactory.

Data Appraisal

ESTIMATES OF SAMPLING ERROR

The accuracy of the survey results depends on the sampling and the non-sampling errors. The AAS 2019 had a large enough and representative sample to limit sampling errors. 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 programme. The Coefficients of Variations (CVs) and Confidence Intervals (CIs) for selected indicators at national, ZARDI and sub-regional levels are presented in the Annex tables.

Access policy

CONTACTS

Name	Email	URL
Uganda Bureau of Statistics	ubos@ubos.org	Link

CONFIDENTIALITY

The AAS 2019 microdata has been adequately anonymized before dissemination. Confidentiality of respondents is guaranteed by Article 19 of the Uganda Bureau of Statistics Act, 1998. Before being granted access to the microdata files, all users have to formally agree and sign the UBOS microdata terms of use and conditions for scientific use files.

ACCESS CONDITIONS

The AAS 2019 microdata are disseminated as Scientific Use File (SUF) to accredited users.

CITATION REQUIREMENTS

Uganda Bureau of Statistics. Annual Agricultural Survey (AAS) 2019, Version 1.2 of the scientific use file, provided by the Uganda National Data Archive. www.ubos.org

ACCESS AUTHORITY

Name	Email	URL
Uganda Bureau of Statistics (UBOS)	ubos@ubos.org	Link

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Metadata production

DDI DOCUMENT ID

DDI_UGA_2019_AAS_v01_EN_M_v01_A_ESS_FAO

PRODUCERS

Name	Abbreviation	Affiliation	Role
Uganda Bureau of Statistics	UBOS		
Food and Agriculture Organization	FAO	United Nations	Technical assistance on microdata documentation
Dissemination and Outreach Team, Statistics Division		Food and Agriculture Organization	Metadata adapted for FAM

DDI DOCUMENT VERSION

UGA_2019_AAS_v01_EN_M_v01_A_ESS

Data Dictionary

Data file	Cases	Variables
S1_PH_ACTIVITIES_clean1 This data file contains production activities and their costs in the first season post harvest	6775	9
S1_PH_CHEMICALS_clean_final1 This file contains data on agricultural inputs which are chemicals used in the first season post harvest	2268	19
S1_PH_CROPS_clean_final1 This file contains data on production and disposition of crops in the first season post harvest	30230	55
S1_PH_FORM5_clean1	7115	68
S1_PH_INORGANICFERTILIZER_clean1 This file contains data on agricultural inputs which are inorganic fertilizers in the first season post harvest	890	21
S1_PH_MEMBERS_clean1 This file contains data on household members in the first season post harvest	35275	17
S1_PH_ORGANICFERTILIZER_clean1 This file contains data on agricultural inputs (organic fertilizers) in the first season post harvest	1824	21
S1_PP_agRoster1	11507	9
S1_PP_CROPS1 This file contains data on crops in the first season post planting	30603	26
S1_PP_MEMBERS1 This file contains data on household members in the first season post planting	35300	17
S1_PP_PARCELS1 This file contains data on parcels and ownership in the first season post planting	13434	45
S1_PP_PLOTS1 This file contains data on agricultural plots within parcels for the first season post planting	28768	41
S2_PH_ACTIVITIES_clean1 This file contains data on production activities and their costs for the second season post harvest	5559	9
S2_PH_ANIMAL_INPUT_COSTS_Cleaned1 This file contains data on animal input costs for the second season post harvest	7943	61
S2_PH_animalMilk_Cleaned1 This file contains information on cattle milk for the second season post harvest	3694	27
S2_PH_ANIMALS_Cleaned1 This file contains data on animals in the second season post harvest	11087	39
S2_PH_ANTYPESMEAT_Cleaned1	1221	20
S2_PH_CHEMICALS_clean_final1 This file contains data on agricultural inputs (chemicals) for the second season post harvest	1898	19
S2_PH_CROPS_clean_final1 This file contains data on production and disposition of crops in the second season post harvest	21668	59
S2_PH_EGGS_Cleaned1 This file contains data on egg production during the second season post harvest	2854	11
S2_PH_facilityAccess_clean1 This file contains data on access to facilities during the second season post harvest	20758	8
S2_PH_fixedCostRoster_Cleaned1 This file contains data on fixed costs related to agriculture for the second season post harvest	1935	8
S2_PH_FORM52_clean1	7079	354

S2_PH_infoRoster_Cleaned1	23761	8
S2_PH_infoSource_Cleaned1	465	49
S2_PH_INORGANICFERTILIZER_clean1 This file contains data on agricultural inputs (inorganic fertilizers) for the second season post harvest	843	19
S2_PH_MEMBERS_clean1 This file contains data on household members for the second season post harvest	33985	17
S2_PH_ORGANICFERTILIZER_clean1 This file contains data on agric inputs (organic fertilizers) for the second season post harvest	2296	22
S2_PH_OTHER_ANIMAL_PDCTS_Cleaned1 This file contains data on other animal products for the second season post harvest	1152	24
S2_PH_SHOCKS_Cleaned1 This file contains data on shocks that affected food supply during the second season post harvest	6071	9
S2_PH_sourceOfLoan_Cleaned1 This file contains data on the source of loans and purpose for the second season post harvest	603	29
S2_PH_transportType_Cleaned1 This file contains data on means of transport used for agricultural activities for the second season post harvest	9614	8
S2_PP_agRoster1	10664	10
S2_PP_CROPS1 This file contains data on crops cultivated by the hoiuseholds in the second season post planting	23479	27
S2_PP_MEMBERS1 This file contains data on household members for the second season post planting	34597	18
S2_PP_PARCELS1 This file contains data on parcels of land used by households for agricultural activities for the second season post planting	11675	45
S2_PP_PLOTS1 This file contains data on plots within the parcel for the second season post planting	24325	40