

Uganda - CGAP Smallholder Household Survey 2015, Building the Evidence Base on the Agricultural and Financial Lives of Smallholder Households

Jamie Anderson - The World Bank (GFMGP - CGAP)

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Sampling

Sampling Procedure

The CGAP smallholder household survey in Uganda is a nationally-representative survey with a target sample size of 3,000 smallholder households. The sample was designed to provide reliable survey estimates at the national level and for the following administrative four regions: Central, Eastern, Northern, and Western regions. The Central region includes central metro (i.e., four municipalities surrounding Kampala), the parishes in Kampala with poultry activity but it excludes Kampala city which is entirely urban.

Sampling Frame

The sampling frame for the smallholder household survey is the list of enumeration areas (EAs) created for the 2014 Uganda National Population and Housing Census. Uganda is divided into 112 districts with each district comprised of counties/municipalities. Each county/municipality consists of sub-counties/town councils with each of them being further divided into parishes/wards and villages/cells.

For the 2014 population census, each village and cell was further divided into EAs. Information on the number of agricultural households at the EA level will be available in December 2015, and thus not on time for the smallholder survey. As a result, the sample allocation of the survey was based on the distribution of households per region and urban and rural according to the 2014 Census.

Sample Allocation and Selection

In order to take non-response into account, the target sample size was increased to 3,158 households assuming a household non-response rate of 5% observed in similar national households. The total sample size was first allocated to the four regions proportionally to their number of households. Within each region, the resulting sample was then distributed to urban and rural areas proportionally to their size.

The sample for the smallholder survey is a stratified multistage sample. Stratification was achieved by separating each region into urban and rural areas. The urban/rural classification is based on the 2014 population census. Therefore, eight strata were created and the sample was selected independently in each stratum. Prior to the sample selection, the sampling frame was sorted by the nine agricultural zones called Zardi (Zonal Agriculture Research Development Institute).

In the first stage, 216 EAs were selected as primary sampling units with probability proportional to size, the size being the number of households in the EAs. A household listing operation was carried out in all selected EAs to identify smallholder households according to the definition used in the survey, and to provide a frame for the selection of smallholder households to be included in the sample.

In the second stage, 15 smallholder households were selected in each EA with equal probability. Due to rounding, this yielded a total of 3,240 smallholder households. In each selected household, a household questionnaire was administered to the head of the household, the spouse or any knowledgeable adult household member to collect information about household characteristics. A multiple respondent questionnaire was administered to all adult members in each selected household to collect information on their agricultural activities, financial behaviors and mobile money usage. In addition, in each selected household only one household member was selected using the Kish grid and was administered the single respondent questionnaire.

The full description of the sample design can be found in the user guide for this data set.

Response Rate

The user guide includes household and individual response rates for the CGAP smallholder household survey in Uganda.

Weighting

The sample for the smallholder household survey is not self-weighting, therefore sampling weights were calculated. The first component of the weights is the design weight based on the probability of selection for each stage of selection. The second component is the response rate at both household and individual levels.

The design weights for households were adjusted for non-response at the household level to produce adjusted household weights. Sampling weights for the multiple respondent data file were derived from adjusted household weights by applying to them non-response rates at the individual level. For the single respondent data file, the same process was applied after taking into account the sub-sampling done within the household.

Finally, household and individual sampling weights were normalized separately at the national level so the weighted number of cases equals the total sample size. The normalized sampling weights were attached to the different data files and used during analysis.

Questionnaires

Overview

Building on secondary research on the smallholder sector and discussions with stakeholders, the design process for the survey instrument began. This process involved defining the end goal of the research by:

- Drawing from existing survey instruments;
- Considering the objectives and needs of the project;
- Accounting for stakeholder interests and feedback;
- Learning from the ongoing financial diaries in country; and,
- Building from a series of focus groups conducted early on in the study.

Using this foundation, a framework for the survey instrument was developed to share with stakeholders and capture all the necessary elements of a smallholder household. The framework consisted of five main subject areas: (i) demographics, (ii) household economics, (iii) agricultural practices, (iv) mobile phones, and (v) financial services.

In order to capture the complexity inside smallholder households, the smallholder household survey was divided into three questionnaires: the household questionnaire, the multiple respondent questionnaire and the single respondent questionnaire. In addition to English, the questionnaires were translated into nine local languages: Lugishu, Luganda, Ateso, Lugbara, Runyakole, Lutooro, Ngakaaramojong, Langi, and Acholi.

The household questionnaire collected information on:

- Basic household members' individual characteristics (age, gender, education attainment, schooling status, relationship with the household head)
- Whether each household member contributes to the household income or participates in the household's agricultural activities. This information was later used to identify all household members eligible for the other two questionnaires.
- Household assets and dwelling characteristics

Both the Multiple and Single Respondent questionnaires collected different information on:

- Agricultural practices: farm information such as size, crop types, livestock, decision-making, farming associations and markets
- Household economics: employment, income, expenses, shocks, borrowing and saving habits, and investments

In addition, the Single respondent questionnaire collected information on:

- Mobile phones: attitudes toward phones, usage, access, ownership, desire and importance
- Financial services: attitudes towards financial products and services such as banking and mobile money, including ownership, usage, access and importance.

Following the finalization of questionnaires, a script was developed to support data collection on mobile phones. The script was tested and validated before its use in the field.

Data Collection

Data Collection Dates

Start	End	Cycle
2015-08-16	2015-09-07	N/A

Data Collection Mode

Computer Assisted Personal Interview [capi]

DATA COLLECTION NOTES

InterMedia's local field partner conducted the recruitment of interviewers and supervisors for the main fieldwork taking into account their language skills. Following the recruitment of 130 field staff, the training was conducted 3-8 August 2015 in Kampala. Five independent field quality control staff directly hired by InterMedia also attended the training. The training consisted of instructions on interview techniques and field procedures, a detailed review of the survey questionnaires, mock interviews between participants in the classroom, and a field practice with real respondents in the areas outside the sampled EAs.

Twenty-six interviewing teams carried out data collection for the survey on mobile phones. Each team consisted of one supervisor and five interviewers. Four staff members from InterMedia's local field partner coordinated and supervised fieldwork activities in addition to the five independent quality control (QC) team hired by InterMedia. The QC team stayed with the survey teams during fieldwork to closely supervise and monitor them. Data collection took place from 16 August to 07 September 2015. During data collection, InterMedia received weekly partial data from the field which was analyzed for quality control and used to provide timely feedback to field staff.

The final data file was checked for inconsistencies and errors by InterMedia and corrections were made as necessary and where possible.

Data Collectors

Name	Abbreviation	Affiliation
Ipsos Uganda		

SUPERVISION

InterMedia's local field partner recruited 130 field that included interviewers and supervisors. In addition five independent field quality control staff were directly hired by InterMedia. Each team consisted of one supervisor and four to five interviewers. Four staff members from InterMedia's local field partner coordinated and supervised fieldwork activities and the independent quality control (QC) team hired by InterMedia oversaw the overall quality function of data collection. The QC team stayed with the survey teams during fieldwork to closely supervise and monitor them.

Data Processing

Data Editing

During data collection, InterMedia received a weekly partial SPSS data file from the field which was analyzed for quality control and used to provide timely feedback to field staff while they were still on the ground. The partial data files were also used to check and validate the structure of the data file.

The full data file was also checked for completeness, inconsistencies and errors by InterMedia and corrections were made as necessary and where possible.

Other Processing

Following the finalization of questionnaires, a script was developed using Dooblo to support data collection on smart phones. The script was thoroughly tested and validated before its use in the field.

Data Appraisal

Estimates of Sampling Error

The sample design for the smallholder household survey was a complex sample design featuring clustering, stratification and unequal probabilities of selection. For key survey estimates, sampling errors taking into account the design features were produced using either the SPSS Complex Sample module or STATA based on the Taylor series approximation method.

Related Materials

Questionnaires

Uganda CGAP Smallholder Household Survey Questionnaire Single Respondent

Title Uganda CGAP Smallholder Household Survey Questionnaire Single Respondent
Country Uganda
Language English
Filename cgap_smallholder_household_survey_questionnaire_uga_2015_single_respondent_17_jul_15.pdf

Uganda CGAP Smallholder Household Survey Questionnaire Multiple Respondent

Title Uganda CGAP Smallholder Household Survey Questionnaire Multiple Respondent
Country Uganda
Language English
Filename cgap_smallholder_household_survey_questionnaire_uga_2015_multiple_respondent_17_jul_15.pdf

Uganda CGAP Smallholder Household Survey Questionnaire Household

Title Uganda CGAP Smallholder Household Survey Questionnaire Household
Country Uganda
Language English
Filename cgap_smallholder_household_survey_questionnaire_uga_2015_household_17_jul_15.pdf

Reports

Uganda CGAP Smallholder Household Survey Report

Title Uganda CGAP Smallholder Household Survey Report
Author(s) Jamie Anderson, Colleen E. Learch, and Scott T. Gardner
Country Uganda
Language English
Filename Uganda CGAP Smallholder Household Survey Report.pdf

Understanding the Demand for Financial, Agricultural, and Digital Solutions from Smallholder Households: Insights from the Household Survey in Uganda

Title Understanding the Demand for Financial, Agricultural, and Digital Solutions from Smallholder Households: Insights from the Household Survey in Uganda
subtitle Summary Deck
Author(s) CGAP
Date 2017-05-01
Country Uganda
Language english

Description	This deck is part of a series which explores the research that CGAP and partners have conducted to explore the financial needs and behaviors of smallholder households. Research was conducted as a basis for guiding financial solution providers, mobile network operators, donors and governments to design, improve, and scale solutions that address the needs of smallholder families.
Filename	Uganda CGAP Smallholder Household Survey Summary Deck.pdf

Technical documents

Uganda CGAP Smallholder Household Survey User Guide

Title	Uganda CGAP Smallholder Household Survey User Guide
Country	Uganda
Language	English
Filename	Working-Paper-Smallholder-Household-Survey-User-Guide-Uganda-Feb-2016.pdf
