

Tanzania - CGAP Smallholder Household Survey 2016, Building the Evidence Base on the Agricultural and Financial Lives of Smallholder Households

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Sampling

Sampling Procedure

The smallholder household survey in Tanzania 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.

Sampling Frame. The sampling frame is the list of enumeration areas (EAs) containing agricultural households. These EAs were created in preparation for the 2012 population and housing census. The census questionnaire included a question on whether any household member operated any land for agricultural purposes during the 2011–2012 agricultural year. The information collected helped to identify agricultural households during the census.

Sample allocation and selection. For the sample allocation, regions were combined into the following zones:

- Border: Ruvuma, Iringa, Mbeya, Rukwa, and Kigoma
- Coastal: Tanga, Pwani, Dar es Salaam, Lindi, and Mtwara
- Inland: Dodoma, Arusha, Kilimanjaro, Morogoro, Singida, Tabora, Manyara, Njombe, and Katavi
- Lake: Shinyanga, Kagera, Mwanza, Mara, Simiyu, and Geita
- Zanzibar: all regions

To take nonresponse into account, the target sample size was increased to 3,158 households assuming a nonresponse rate of 5 percent observed in similar national household surveys. The total sample size was first allocated to the zones in proportion to the number of agricultural households in the sampling frame. Within each zone, the resulting sample was then distributed to urban and rural areas in proportion to number of agricultural households.

Given that EAs were the primary sampling units and 15 households were selected in each EA, a total of 212 EAs were selected.

The sample for the smallholder survey is a stratified multistage sample. Stratification was achieved by separating each zone into urban and rural areas. The urban/rural classification is based on the 2012 population census. Therefore, 10 strata were created, and the sample was selected independently in each stratum.

In the first stage, EAs were selected as primary sampling units with probability proportional to size, the size being the number of agricultural households in the EAs. A household listing operation was conducted in all selected EAs to identify smallholder households and to provide a frame for selecting smallholder households to be included in the sample. In the second stage, 15 smallholders were sampled in each EA with equal probability.

In each sampled household, the household questionnaire was administered to the head of the household, the spouse, or any knowledgeable adult household member to collect information about household characteristics. The multiple respondent questionnaire was administered to all adult members in each sampled household to collect information on their agricultural activities, financial behaviors, and mobile money use. In addition, in each sampled 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.

Deviations from Sample Design

The smallholder survey in Tanzania is the third survey in the series, following the surveys in Mozambique and Uganda. Fieldwork in those two countries experienced a lot of failed call backs where identified eligible households and household members could not be interviewed during the time allocated to fieldwork in each country. As a result, the final sample size fell slightly short of the target. For this reason, in Tanzania the number of households selected in each EA was increased from 15 to 17 following the household listing operation in all sampled EAs.

Response Rate

The tables in the user guide to this data set show household and individual response rates for the Tanzania smallholder household survey. A total of 3,503 households was selected for the survey, of which 3,020 were found to be occupied during data collection. Of these, 2,993 were successfully interviewed, yielding a household response rate of 99.1 percent.

In the interviewed households 5,935 eligible household members were identified for the Multiple Respondent questionnaire. Interviews were completed with 5,034 eligible household members, yielding a response rate of 84.8 percent for the Multiple Respondent questionnaire.

Among the 2,993 eligible household members selected for the Single Respondent questionnaire, 2,795 were successfully interviewed a response rate of 93.4 percent.

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 uses the response rates at both household and individual levels.

The design weights for households were adjusted for nonresponse 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 subsampling 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

To capture the complexity of smallholder households, the smallholder household survey was divided into three questionnaires: the Household questionnaire, the Multiple Respondent questionnaire, and the Single respondent questionnaire. It was designed in this way to capture the complete portrait of the smallholder household, as some members of the household may work on other agricultural activities independently and without the knowledge of others.

The household questionnaire collected information on the following:

- 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 the following:

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

The Single respondent questionnaire collected the following information:

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

The questionnaires were translated into Kiswahili and then pretested. After the pretest, debriefing sessions were held with the pretest field staff and the questionnaires were modified based on the observations from the pretest. After the questionnaires were finalized, a script was developed to support data collection on mobile phones. The script was tested and validated before it was used in the field.

Data Collection

Data Collection Dates

Start	End	Cycle
2016-02-06	2016-03-08	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 field staff, a centralized training session was conducted in Dar Es Salaam from 27 January to 2 February 2016. Five independent field quality control (QC) staff directly hired by InterMedia also attended the training. The training covered interview techniques and field procedures, a detailed review of the survey questionnaires, mock interviews between participants in the classroom, and a field practice with actual respondents in the areas outside the sampled EAs.

The interviewing teams collected data for the survey on mobile phones. 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 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.

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

Data Collectors

Name	Abbreviation	Affiliation
IPSOS Tanzania		

SUPERVISION

InterMedia's local field partner recruited interviewers and supervisors. In addition five independent field quality control staff were directly hired by InterMedia. Each team consisted of one supervisor and 4- 5 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

The data files were 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

CGAP Smallholder Household Survey in Tanzania - Household Questionnaire (English)

Title CGAP Smallholder Household Survey in Tanzania - Household Questionnaire (English)
 Date 2016-01-01
 Country Tanzania
 Language English
 Publisher(s) CGAP Smallholder Household Survey In Tanzania
 Filename cgap_smallholder_household_survey_questionnaire_tza_2016_household_eng_jan_16.pdf

CGAP Smallholder Household Survey in Tanzania - Household Questionnaire (Swahili)

Title CGAP Smallholder Household Survey in Tanzania - Household Questionnaire (Swahili)
 Date 2016-01-01
 Country Tanzania
 Language Swahili
 Filename cgap_smallholder_household_survey_questionnaire_tza_2016_household_kis_jan_16.pdf

CGAP Smallholder Household Survey in Tanzania - Questionnaire for Individual Household Members (English)

Title CGAP Smallholder Household Survey in Tanzania - Questionnaire for Individual Household Members (English)
 subtitle Multiple-respondent questionnaire
 Date 2016-01-01
 Country Tanzania
 Language English
 Filename cgap_smallholder_household_survey_questionnaire_tza_2016_multiple_respondent_eng_jan_16.pdf

CGAP Smallholder Household Survey in Tanzania - Questionnaire for Individual Household Members (Swahili)

Title CGAP Smallholder Household Survey in Tanzania - Questionnaire for Individual Household Members (Swahili)
 subtitle Multiple-respondent questionnaire
 Date 2016-01-01
 Country Tanzania
 Language Swahili
 Filename cgap_smallholder_household_survey_questionnaire_tza_2016_multiple_respondent_kis_jan_16.pdf

CGAP Smallholder Household Survey in Tanzania - Questionnaire for Individual Household Member (English)

Title CGAP Smallholder Household Survey in Tanzania - Questionnaire for Individual Household Member (English)

subtitle Single-respondent questionnaire
 Date 2016-01-01
 Country Tanzania
 Language English
 Filename cgap_smallholder_household_survey_questionnaire_tza_2016_single_respondent_eng_jan_16.pdf

CGAP Smallholder Household Survey in Tanzania - Questionnaire for Individual Household Member (Swahili)

Title CGAP Smallholder Household Survey in Tanzania - Questionnaire for Individual Household Member (Swahili)
 subtitle Single-respondent questionnaire
 Date 2016-01-01
 Country Tanzania
 Language Swahili
 Filename cgap_smallholder_household_survey_questionnaire_tza_2016_single_respondent_kis_jan_16.pdf

Reports

Tanzania CGAP Smallholder Household Survey Report

Title Tanzania CGAP Smallholder Household Survey Report
 Author(s) Jamie Anderson Collins Marita David Musiime
 Date 2016-05-01
 Country tanzania
 Language English
 Publisher(s) CGAP
 Filename Tanzania CGAP Smallholder Household Survey Report.pdf

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

Title Understanding the Demand for Financial, Agricultural, and Digital Solutions from Smallholder Households: Insights from the Financial Diaries and Household Survey in Tanzania
 subtitle Summary Deck
 Author(s) CGAP
 Date 2017-10-01
 Country Tanzania
 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 Tanzania CGAP Smallholder Household Survey Summary Deck.pdf

Technical documents

CGAP Smallholder Household Surveys - User Guide to the Data Set for Tanzania

Title CGAP Smallholder Household Surveys - User Guide to the Data Set for Tanzania
 Date 2016-05-01

Country Tanzania

Language English

Publisher(s) CGAP

Filename working_paper_cgap_smallholder_survey_user_guide_tanzania_may_2016.pdf
