

Rwanda - Agricultural Household Survey 2017

**National Institute of Statistics of Rwanda - Ministry of Finance and Economic
Planning**

Report generated on: January 11, 2021

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Overview

Identification

ID NUMBER
RWA-NISR-RAHS-2017-V0.1

Version

VERSION DESCRIPTION
Version 0.1 Edited anonymized dataset for public use

PRODUCTION DATE
2017-07-28

NOTES

Data collection consists of two distinct phases: The first Phase, known as Listing of households, consists of visiting all sampled segments and after identifying a dwelling (household) enumerators through reading the definition of household to the household head, identify the number of households in that dwelling record the information on household's main activity whereby each household was asked if there is at least one household member who was engaged in cropping or/ and livestock during the agricultural year 2016/2017.the second phase consists of visiting agricultural household from listing, all of them were interviewed and records were taken using survey instruments.In this phase each sampled agricultural household is requested to provide information related to socio-economic characteristics of agricultural households, crop production, use of agricultural production, awareness of agriculture technology, government policies and programs, access to inputs, access to finance, agricultural assets and livestock numbers.

For AHS 2017 NISR employed 200 field workers 168 enumerators, 23 Team leaders at district level, 7 regional supervisors and 3 data editors. Training was provided to all fieldwork personnel on the data collection methodologies associated with the use of GPS household location and computer tablet questionnaires used for data collection. The computer assisted personal interviewing data collection method allowed for very fast and efficient uploading and transfer of the enumerated data from the field to NISR headquarters for processing. The tablet software instruments (electronic version of the paper questionnaires) allowed for instantaneous checking of the respondent data and automatically directed the enumerator questioning to reduce non-sampling errors within the data collection.

Overview

ABSTRACT

Agriculture statistics are useful for monitoring progress on agriculture programs and policies in Rwanda. The government of Rwanda needs updated information on agricultural household in order to assist in addressing key agricultural issues and information needs that will inform policy makers and other stakeholders and allow more effective identification of priority intervention needs and to facilitate evidence-based decision making for the development of Agriculture sector.

KIND OF DATA
Sample survey data [ssd]

UNITS OF ANALYSIS

This seasonal agriculture survey focused on the following units of analysis: Agricultural Households for both household and individual level.

Scope

NOTES

The scope of 2017 Agricultural Household Survey was related to socio-economic characteristics of agricultural households, crop production, use of agricultural production, awareness of agriculture technology, government policies and programs, access to inputs, access to finance, agricultural assets and livestock numbers

Coverage

GEOGRAPHIC COVERAGE

National coverage

UNIVERSE

All household members

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
National Institute of Statistics of Rwanda	Ministry of Finance and Economic Planning

OTHER PRODUCER(S)

Name	Affiliation	Role
Ministry of Agriculture and Animal Resources	Government of Rwanda	

FUNDING

Name	Abbreviation	Role
Government of Rwanda	GoR	Funding

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
National Institute of Statistics of Rwanda	NISR	Ministry of Finance and Economic Planning	Documentation of the study

DATE OF METADATA PRODUCTION

2019-02-18

DDI DOCUMENT VERSION

Version 0.1 Edited anonymized dataset for public use

DDI DOCUMENT ID

RWA-NISR-RAHS-2017-V0.1

Sampling

Sampling Procedure

In order to provide the basis for conducting sample surveys based on complete coverage of the household level in all 30 districts of Rwanda, and as a better way of collecting agricultural household data and finding better precise survey estimates, agricultural household survey (AHS) used a Multiple-Frame Sampling (MFS) methodology by which, area frame was constructed and survey sample was drawn from it.

In the sampling strategy of the SAS 2017, it was proposed that 960 PSUs be selected in the first instance by systematic sampling method with probability proportional to size. At the second stage the sampled PSUs were divided into SSUs among which only one SSU was sampled at random for each PSU and used for the survey. 960 segments were drawn from three agricultural strata including intensive agriculture land on hillsides (stratum 1.1), intensive agriculture land in marshlands (stratum 2.0), rangelands (stratum 3.0). Using the open segment obliges to include urban strata in the sampling frame. Apart from stated strata, village stratum which combines two substrata; urban area (stratum 4.1) rural settlements (stratum 4.2) was added to the sample frame. This stratum was divided into segments and a sample of 600 segments was drawn by systematic sampling method. It should be mentioned that the Stratum 4.1 and 4.2 were specially added to the purpose of having a complete sampling frame for estimation of livestock since a major portion of livestock are associated with households located in villages and rural urban area adjacent to grazing land that had previously been missing for all of the previous SAS area sampling frames.

This survey was conducted among private agricultural households, in 4 strata used in Seasonal agricultural survey. Households were listed from the 1,560 sampled segments in the country. Among the listed households 16,057 households were found the ones applying agricultural activities. A single visit was done in every identified agricultural household and the information collected covered two agricultural seasons A and B of 2017 agricultural year.

Weighting

Taking into consideration of full completeness of the segment, sampling weights were calculated for each stratum in each district considering the total number of segments in the stratum and the sample size in the specific stratum. The weight was calculated as the inverse of the overall probability of selection, taking into account the probabilities from all sampling stages. For strata 1.1, 2.0 and 3.0, the sampling of segments was done through two stages and probabilities were calculated for each sampling stage. For strata 4.1 and 4.2 the sampling of segments was done through one stage and probabilities were calculated in order to determine the weight.

Questionnaires

Overview

Listing questionnaire was used to list all households inside the segment

Agricultural household questionnaire was used to collect data in agricultural households and contained twelve sections:

Section 0. general information

Section I: Household member's characteristics

Section II: land tenure and crops planted during agricultural year 2016-2017 agricultural year

Section III: extension services and agricultural programs in 2016-2017 agricultural year

Section IV: funding during 2016-2017 agricultural year

Section V: agricultural inputs during 2016-2017 agricultural year

Section VI: agricultural practices during 2016-2017 agricultural year

Section VII: agricultural tools during 2016-2017 agricultural year

Section VIII: Use of production, storage facilities and expenses on harvesting and storage during 2016-2017 agricultural year

Section IX: number of animals

Section X: animal's products and use

Section XI: animal inputs and services

Questionnaire design took into account the requests raised by major data users and stakeholders, it was developed in English then translated into Kinyarwanda for data collection, All the sections of the questionnaire were published in English.

Data Collection

Data Collection Dates

Start	End	Cycle
2017-07-18	2017-07-28	Listing of households
2017-07-30	2017-09-04	Interview for agricultural households

Data Collection Mode

Face-to-face [f2f]

Data Collection Notes

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Data Collectors

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National Institute of Statistics of Rwanda	NISR	Ministry of Finance and Economic Planning

Supervision

At the bottom of the hierarchy, there are enumerators who would be assisted by a team leader. His/ her main function is to introduce the enumerators to the various key people from the sector to the villages leaders up to operators in the Secondary Sampling Unit (known as Segment), and assist enumerators during the whole course of the survey.

Responsibilities of a Team Leader is to manage the interviewers to ensure successful completion and quality of data collected in a given time period for the fieldwork. He/she was expected to record information about the fieldwork, which track the status of completion of the work in the field, document problems in the field and solutions taken to resolve these problems.

At the middle of the hierarchy, there are team leaders at regional level who assist district teams. Specifically, his/her tasks included: 1. Introduce the survey and interviewers at local level where the survey is administered. 2. Monitor and attend some interviews and make comments on the worker's performance. 3. Meet frequently with each member of the group to discuss, improve and organize work. 4. Check the availability of all the necessary items before going on field. 5. Help workers to solve the problems they encounter 6. Manage the team's work schedule 7. Communicate with NISR, regarding field issues, as necessary.

A higher-level supervision staff from NISR visited the field teams during each phase of data collection to ensure quality of data.

Data Processing

Data Editing

The questionnaire was designed in CPro software to facilitate electronic data collection. Tablets were used to collect data

Data editing took place at a number of stages throughout the processing, including:

- a) During data entry
- b) Office editing and coding
- c) Structure checking and completeness

Other Processing

In this survey Computer-Assisted Personal Interviewing (CAPI) technique was used in order to improve the speed of delivery and quality of data.

Data Appraisal

No content available

Documentation

Questionnaires

Agricultural household survey 2017 questionnaire

Title Agricultural household survey 2017 questionnaire
Author(s) National Institute of Statistics of Rwanda
Date 2017-07-18
Country Rwanda
Language English
Filename AHS_ Questionnaire_2017.pdf

Reports

Agricultural Household Survey (AHS) 2017 report

Title Agricultural Household Survey (AHS) 2017 report
Author(s) National Institute of Statistics of Rwanda
Date 2018-12-02
Country Rwanda
Language English
Filename Agricultural Household Survey _2017_final.pdf
