

United Republic of Tanzania - National Sample Census of Agriculture 2019/2020

**National Bureau of Statistics (NBS), United Republic of Tanzania, Office of Chief
Government Statistician (OCGS), Zanzibar**

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Identification

SURVEY ID NUMBER

TZA_2019_2020_NSCA_v01_M_v01_A_ESS

TITLE

National Sample Census of Agriculture 2019/2020

COUNTRY

Name	Country code
United Republic of Tanzania	TZA

STUDY TYPE

Agricultural Census [ag/census]

SERIES INFORMATION

The National Sample Census 2019/2020 of Agriculture is the fifth agricultural census to be conducted in the United Republic of Tanzania since the country's independence. Before independence, the former Tanganyika conducted a census of large commercial farming in 1960. Tanzania conducted its first agricultural census after independence in 1971/1972, the second in 1994/1995, the third in 2002/2003, and the fourth in 2007/2008.

ABSTRACT

Agriculture is the mainstay of the Tanzania's economy as it is the main source of food, employment, raw materials for industries, and it is a source of foreign exchange earnings. The National Sample Census 2019/2020 intended to support and fill in the information gaps necessary for planning and policy formulation by high-level decision-making bodies, and to provide benchmark data on productivity, production and agricultural practices.

KIND OF DATA

Census/enumeration data [cen]

UNIT OF ANALYSIS

Agricultural holdings

Scope

NOTES

The census scope covered agricultural activities (crop and livestock production), as well as aquaculture activities.

Community-level data were collected in the census. The questionnaire was designed to collect village level data such as access and use of common resources, community tree plantations and seasonal farmgate prices.

The large-scale farms questionnaire collected information on:

1. Identification block
2. Farm characteristics
3. Land access, use and conservational farming
4. Annual and permanent crops production
5. Main use of crop residuals
6. Agroprocessing
7. Input use and cost of production by crop
8. Livestock production and diseases
9. Input use and cost by livestock
10. Fish farming
11. Employment in agriculture
12. Service provided to smallholder farmers
13. Access to credit for agricultural purposes
14. Market information and agricultural constraints

The small-scale farms questionnaire collected information on:

1. Identification block
2. Agricultural activities of the household
3. Household information
4. Land access/ownership/tenure
5. Land use
6. Conservational farming
7. Access and use of resources
8. Annual and permanent crop production
9. Main use of crop residue
10. Agroprocessing
11. Crop storage
12. On-farm investment
13. Access and use of credit for agricultural purposes
14. Crop extension services
15. Livestock production and products
16. Livestock products
17. Livestock pest & parasite control
18. Livestock extension services
19. Government policy, legal and regulatory challenges
20. Fish farming
21. Bee keeping
22. Labour use
23. Subsistence vs non-subsistence
24. Access to infrastructure & other services
25. Agricultural constraints
26. Market information
27. Poverty indicators at household level

The community questionnaire collected information on:

1. Identifications details
2. Average farm gate price for each season for farmers
3. Access to community resources
4. Community planted trees
5. Non-governmental (NGOs) / international organizations
6. Community based organizations (CBOs)
7. Other community informations
8. Availability of infrastructure/services

KEYWORDS

Keyword
Structure of Agriculture
Land use
Crops
Livestock and Poultry
Labour in the Agricultural Sector
Aquaculture
Machinery and Equipment

Coverage

GEOGRAPHIC COVERAGE

The National Sample Census of Agriculture 2019/2020 covered the entire country.

UNIVERSE

The statistical unit was the agricultural holding, defined as an economic unit of agricultural production under single management, without regard to title, legal form or size. Management may be exercised by an individual member of the

household or by the entire household. Five types of agricultural holdings were identified during the interview: crops only; livestock only; pastoralist; fish farming; crops and livestock.

Based on their size, agricultural holdings were classified into small-scale and large-scale farms. Large-scale farms were the holdings meeting the following minimum thresholds:

- Cultivating 20 ha of land or
- Keeping 50 cattle,
- Keeping 100 goats/sheep/pigs,
- Keeping 1000 chickens/ducks/turkeys/rabbits

Furthermore, large-scale farms had to fulfil all the four following conditions:

- Greater part of the produce should go to the market
- Farm operations should be continuous
- There should be an application for machinery/implements on the farm
- Should have at least one permanent employee

To be included in the census, during the agriculture year 2019/20, small-scale farms had to operate at least 25 m² of arable land and own or keep at least:

- 1 head of cattle
- 5 goats/sheep/pigs
- 50 chicken/ducks/turkeys/rabbits

Producers and sponsors

PRIMARY INVESTIGATORS

Name
National Bureau of Statistics (NBS), United Republic of Tanzania
Office of Chief Government Statistician (OCGS), Zanzibar

PRODUCERS

Name	Role
Food and Agriculture Organization of the United Nations (FAO)	Technical assistance
United States Department of Agriculture (USDA)	Technical assistance

FUNDING AGENCY/SPONSOR

Name
Government of Tanzania
European Union (EU)
United States Agency for International Development (USAID)

Sampling

SAMPLING PROCEDURE

The sampling frame used for small-scale-farms was the Tanzania Population and Housing Census (PHC) 2012 frame developed by the National Bureau of Statistics and the Office of Chief Government Statistician. It comprised the complete list of Enumeration Areas (EAs), urban and rural, covering the whole country. In rural areas, an EA was defined as a natural village, a segment of large village, or a group of small villages. In urban areas, an EA was defined as a street or a city block. The cartographic material which defined geographic locations, boundaries, main accesses, and landmarks inside or outside the EA, which helps to identify the EAs, was part of the frame.

The frame for large-scale farms was a list obtained from the Regional Statistical offices across the country and compiled by the Department of Agriculture Statistics of the National Sample Census of Agriculture.

Large-scale farms were fully enumerated, data was collected from 1093 large-scale farms, while small-scale farms were covered on a sample basis. The sample design for smallholders was designed to provide estimates disaggregated at regional and district levels for both Mainland Tanzania and Tanzania Zanzibar.

To select small-scale farms a two-stage sampling design was adopted with census EAs being the primary sampling units (PSUs) and households as second-stage units.

In the first stage, a sample of PSUs was selected for each region, using probability proportional to the number of households in the PSU, from the total number of PSUs in the region, classified into rural and urban PSUs. More weight was given to rural PSUs because of their intensity in agriculture practices. A total of 2820 PSUs was selected from the frame, of which 2670 PSUs were from Mainland Tanzania and 150 PSUs from Tanzania Zanzibar. Of the total number of PSUs selected, 2560 PSUs were in rural areas and 260 were in urban areas.

In the second stage, the number of households selected differed from one PSU to another, ranging from 5 to 30 households. A total of 33 808 households were selected (32 008 households from Mainland Tanzania and 1 800 from Tanzania Zanzibar). In each selected EAs, a listing exercise was carried out from 15 April to 30 June 2019, followed by a systematic random selection of households.

Adjustments of sampling weights in the rural domain of the study were made to yield estimates of the population close to projected population values.

Data collection

DATES OF DATA COLLECTION

Start	End
2020-08-05	2020-10-02

DATA COLLECTION MODE

Computer Assisted Personal Interview [capi]

DATA COLLECTION NOTES

The National Sample Census of Agriculture 2019/2020 involved 20 trainers, 3 cartographers, 11 IT staff (2 from National Bureau of Statistics, 2 from Office of Chief Government Statistician, and 7 specialists from Agriculture Sector Line Ministries), 20 data processing specialists, 20 subject matter specialists, and 323 enumerators involved during data collection. Agriculture Sector Line Ministries of the United Republic of Tanzania comprise: Prime Ministers' Office; Ministry of Agriculture, Food and Cooperatives; Ministry of Livestock Development and Fisheries; Ministry of Industry, Trade, and Investment; Ministry Natural Resources and Tourism.

QUALITY ASSURANCE

A pilot test was carried out from 26 August to 15 September 2019 with the aim of testing the efficiency of tools and logistics as well as measuring the workload of the entire census. To ensure the quality of procedures for frames, mapping, tabulation, questionnaires, manuals and data, collaborative work was carried out with the Agriculture Sector Line Ministries and other stakeholders during the preparation of manuals, questionnaires and tabulations. This work helped in minimizing non-sampling errors. The Agriculture Sector Line Ministries were involved from the design stage of questionnaires to the implementation of the census, the supervision of data collection and the production of the report.

Questionnaires

QUESTIONNAIRES

Three different questionnaires were used to collect census data:

- Small-scale farms questionnaire
- Large-scale farms questionnaire
- Community-level questionnaire

The questionnaires covered 20 out of 23 core items recommended in the WCA 2020.

Data Processing

DATA EDITING

The CAPI method enabled receipt of data online directly to the headquarters servers. The CSPro software was used for data editing, including running consistency checks and tabulation of data. Telephone follow-up of respondents was used to validate and complete missing information. Imputation was done using sources from the Ministry of Agriculture and the Ministry of Livestock and Fisheries.

Access policy

CONTACTS

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ACCESS CONDITIONS

For data access and use information please contact the National Bureau of Statistics of the United Republic of Tanzania.

Email: sg@nbs.go.tz

Website: <https://www.nbs.go.tz/index.php/en/>

Metadata production

DDI DOCUMENT ID

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PRODUCERS

Name	Abbreviation	Affiliation	Role
National Bureau of Statistics, United Republic of Tanzania	NBS		Metadata producer
Statistics Division	ESS	Food and Agriculture Organization of the United Nations	Metadata adapted for FAM

Data Dictionary

Data file	Cases	Variables
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