

# Zanzibar, Tanzania - National Sample Census of Agriculture 2007/2008

**The Office of Chief Government Statistician, Ministry of Agriculture and Natural  
Resources, National Bureau of Statistics**

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## Identification

### SURVEY ID NUMBER

TZA-2007-NSCA-v01-M

### TITLE

National Sample Census of Agriculture 2007/2008

### SUBTITLE

VOLUME VI: Livestock Sector -Zanzibar Report

### COUNTRY

Name	Country code
Zanzibar, Tanzania	TZA

### STUDY TYPE

Agricultural Census [ag/census]

### SERIES INFORMATION

National Sample Census of Agriculture 2007/2008 is the second Sample Census of Agriculture to be carried out in Zanzibar, the first one was conducted in 2002/03 Agricultural year.

### ABSTRACT

Agriculture is an important economic sector of the Zanzibar economy in terms of food production, employment generation, production of raw materials for industry, and generation of foreign exchange earnings. The agricultural sector produces about 30.8 percent of GDP (Economic Survey, 2009) and the contribution of livestock was estimated to be 4.5 percent.

In 2007, the Government of Tanzania launched the Agricultural Sample Census as an important part of the Poverty Monitoring Master plan which supports the production of statistics for advocacy of effective public policy, including poverty reduction, access to services, gender, as well as the standard production data normally collected in an agriculture census. The 2007/08 Agricultural Sample Census was designed to meet the data needs of a wide range of users down to district level including policy makers at local, district, and National levels, rural development agencies, funding institutions, researchers, NGOs, farmers' organizations, etc. This report provides detailed description of the state of the livestock sub-sector in Zanzibar for the agricultural year 2007/08.

The detailed tabulations and analysis were based mainly on smallholder farms. In some cases, contribution of large scale farms is also included to give the overall Zanzibar estimates. The main types of livestock and poultry covered in the 2007/08 Agricultural Sample Census are cattle, goats, sheep, pigs, chicken, ducks, turkeys, rabbits, and donkeys. There was an equivalent of 170,715 livestock units in total representing a total of 228, 538 major livestock of different species. The goat livestock units were about 13,794, sheep were about 114.8 and pigs about 1,005 units. Chicken were kept by 60% of the households, while cattle were kept by 30% of the agricultural households. The trend shows that the number of goats increased by 31 percent, sheep by 18 percent and pigs by 10 percent per annum, while the number of cattle had declined by -0.9 percent between 2003 and 2008. The average number of cattle and goats per household were 4 and 9 respectively. Most of the cattle were kept in the Central district followed by Micheweni, Wete and West districts.

However, Micheweni district had more cattle rearing households than the rest of the districts. Milk production from cows during the wet season was 115,021 liters (56%) and dropped to 87,490 litres (43%) during the dry season. Average milk production per cow was 2.5 liters during the wet season and 2.3 litres during the dry season. The number of milked cows also dropped from 44,718 during the wet season to 36,639 in the dry season. The price of milk was slightly higher than in the Mainland whereby the prices were Tshs. 508 in the wet season and increased to Tshs. 538 during the dry season.

Regarding small ruminants, Central district has more households raising goats than any other district. About 4 percent of the agricultural households in Tanzania Zanzibar kept improved goats although, the number of improved goats was less than 20 percent. Sheep on the other hand are less important and only 574 households raised sheep most of which were found in the West district. With regard to chicken, over 90 percent of agricultural households raised chicken and a bigger proportion (21%) of chicken were kept in the West district and were dominated by the unimproved type (local). The trend shows that, the number of chicken has remained stagnant between 2003 and 2008. However, the number of layers has increased by 36 percent with an annual growth rate of about 7 percent, though there was a decline of 30 percent in the number of broilers.

Apart from providing meat, milk and draught power, livestock supply organic fertilizers in terms of manure. In Zanzibar, a total of 6,806 households (7.7% of all households planting during Long rain) use organic fertilizers. Organic fertilizer was used on only 2,926 ha representing 7.8 percent of the total planted area during long rain season. Farm yard manure was used in all the districts but, was more common in the Central, South, North B and West. Mkoani and Chakechake were at the bottom in terms of organic fertiliser use.

Livestock diseases have remained the most challenging constraint in the livestock sector. Common diseases affecting ruminants include Tick Borne Diseases (TBD), Tse- tse fly infestations, FMD and Lumpy skin Disease. Almost 50 percent of the cattle raising households encountered Tick Borne Diseases, and the problem was more serious in the Central district followed by Chake chake, Micheweni and Mkoani. Spraying with acaricides was the most common method used to control infections. Dipping and smearing were the commonest methods of tick control. For chicken, the Newcastle Disease and the Fowl Typhoid were reported to be a challenge in most of the agricultural households and only 10 percent of the households vaccinated their chicken against the Newcastle disease. Access to extension services varied between the districts and Micheweni district had the highest access (79%) followed by Chakechake (74%), Wete and Mkoani districts, each with (65%). North 'A', West and North 'B' districts had less access to extension services. The government accounted for 50 percent of the extension services provided, other sources being NGOs/development projects, newspapers, radios, and televisions.

#### KIND OF DATA

Sample survey data [ssd]

#### UNIT OF ANALYSIS

Agriculture households for both households and individual level

## Version

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#### VERSION DESCRIPTION

- v2.1: Edited, anonymous dataset for public distribution.

#### VERSION DATE

2011-12

## Scope

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#### NOTES

Household Information  
 Land Access and Use  
 Annual and Permanent Crops Production  
 On farm Investments  
 Access to Credit for Agriculture and Livestock  
 Crops Extension Services  
 Livestock and Fishery  
 Poverty Indicators at household level

## Coverage

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#### GEOGRAPHIC COVERAGE

Zanzibar  
 Urban and Rural  
 Regions  
 It covered nine out of 10 districts (Mjini district was not included)

#### UNIVERSE

All household members aged 15 and above

## Producers and sponsors

### PRIMARY INVESTIGATORS

Name	Affiliation
The Office of Chief Government Statistician	Ministry of Finance and Economic Affairs
Ministry of Agriculture and Natural Resources	Revolutional Government of Zanzibar
National Bureau of Statistics	Ministry of Finance and Planning

### PRODUCERS

Name	Affiliation	Role
Department of Policy and Planning of the Ministry of Agriculture, Food Security and Cooperatives in Tanzania Main land	Tanzania Government	Technical Assistance
Department Policy and Planning of the Ministry of Livestock and Fisheries Development in Tanzania Mainland	Tanzania Government	Technical Assistance
Ministry of Livestock and Fisheries development	Tanzania Government	Technical Assistance

### FUNDING AGENCY/SPONSOR

Name	Abbreviation	Role
Department for International Development (DFID)	DFID	Financial Support
Japan International Cooperation Agency (JICA)	JICA	Financial Support
Government of Tanzania	GoT	Financial Support

### OTHER IDENTIFICATIONS/ACKNOWLEDGMENTS

Name	Affiliation	Role
Regional Agriculture Development Officer	Ministry of Agriculture and Natural Resources.	Implementation of census activities at the regional level
District Agricultural Officer	Ministry of Agriculture and Natural Resources.	Implementation of census activities at the district level

## Sampling

### SAMPLING PROCEDURE

The Zanzibar sample consisted of 317 rural enumeration areas spread over nine districts. These EAs were drawn from the National Master Sample (NMS) developed to serve as a national framework for the conduct of household based surveys in the country. The National Master Sample was developed from the 2002 Population and Housing Census. The total agricultural households 4,755 were covered. Nationwide, all regions and districts were sampled except for Urban district.

A two stage sample was used, the numbers of villages/Enumeration Areas (EAs) were selected for the first stage with a probability proportional to the number of villages/EAs in each district. In the second stage, 15 households were selected from a list of agriculture households in each Village/EA using systematic random sampling.

### RESPONSE RATE

Not stated in this report

### WEIGHTING

Not included in this report

## Data Collection

### DATES OF DATA COLLECTION

Start	End	Cycle
2009-06	2009-08	3 month

### DATA COLLECTION MODE

Face-to-face [f2f]

### SUPERVISION

Supervision was provided by the senior officers of the same ministry and the office of Chief Government Statistician. 158 enumerators were used and additional five percent were held as reserves in case of drop outs during the enumeration exercise.

### DATA COLLECTION NOTES

The questionnaires were designed following users demand to ensure that the questions asked were in line with the users data needs. Several features were incorporated into the design of the questionnaires to increase the accuracy of the data:

- Where feasible, all variables were extensively coded to reduce post enumeration coding errors;
- The definitions for each section were printed on the opposite page so that the enumerator could easily refer to the instructions whilst interviewing the respondent;
- The responses to all questions were placed in boxes printed on the questionnaire, with one box per character;
- This feature made it possible to use scanning and Intelligent Character Recognition (ICR) technologies for data capture;
- Skip patterns were used to reduce unnecessary and incorrect coding of sections which do not apply to the respondent;
- Each section was clearly numbered to facilitate the use of skip patterns and provided a reference for data type coding for the programming of CSpro and SPSS. Three other instruments were used;
- Village Listing Forms were used for listing the households in the village/EA and from this list, a systematic sample of 15 agricultural households were selected;
- A Training Manual was used by the trainers for the cascade/pyramid training of supervisors and enumerators; and
- Enumerators Instructions Manual was used as a reference material.

### Field Pilot-testing

The Questionnaire was pilot-tested in four different locations both in Unguja and Pemba. The villages of Matemwe and Machui for Unguja and Kangagani and Chanjamjawiri in Pemba. The villages were selected due to the geographical nature so that they can represent the other parts of Zanzibar, the areas were coral and plantain. In addition, several data collection methodologies had to be finalized, namely, livestock numbers, mixed cropping, and finalizing skip patterns and documenting consistency checks.

### Training of Trainers, Supervisors and Enumerators

During training, cascade/pyramid training techniques were employed to maintain statistical standards. The top level of training was provided to 13 national and regional supervisors. The trainers were members of the Planning Group from the Office of the Chief Government Statistician (OCGS), Ministry of Agriculture and Natural Resources and Ministry of Fisheries and Livestock, National Bureau of Statistics (NBS) and other sectoral Ministries in Manland... The training concentrated on questionnaires, listing forms, field level Census methodology, and definitions. Emphasis was placed on consistency checking in the field. Tests were given to the supervisors and enumerators and the best 50 percent of the trainees were selected for the enumeration of the smallholder questionnaire and the community level questionnaire.

### Data Collection

Data collection activities for the 2007/08 Agriculture Sample Census started on 1st June, August 2009 and lasted for three weeks. The interview method was used to collect data during the census. Data collection was monitored by a hierarchical system of supervisors which included the Mobile Response Team, Regional and District Supervisors. The Mobile Response Team, which was headed by the Project coordinator provided overall direction to the field operations and responded to queries arising outside the scope of the training exercise. Decisions made on definitions and procedures were then communicated back to all enumerators via the Regional and District Supervisors. District supervision and enumeration were

performed by staff from the Ministry of Agriculture and Natural Resources and Ministry of Livestock and Fisheries. Supervision was provided by senior officers of the same Ministries and the Office of the Chief Government Statistician. During the household listing exercise, a total of 177 enumerators participated during the listing exercise and enumeration of small holder questionnaire. Additional five percent of enumerators were kept as reserve in case of drop outs during the enumeration exercise.

#### DATA COLLECTORS

Name	Abbreviation	Affiliation
The Office of Chief Government Statistician	OCGS	Ministry of Finance and Planning

## Questionnaires

#### QUESTIONNAIRES

Small Scale farmers  
large Scale farmers  
Community level

## Data Processing

#### DATA EDITING

Enumerators were trained on how to probe the respondents until they were satisfied with the response given before they recorded them in the questionnaire. The first check of the questionnaire was carried out by enumerators in the field during enumeration, followed by district, Regional and National Supervisors. Supervisory visits at all levels of supervision focused on checking on the completeness of the questionnaires and consistency. Inconsistencies encountered were corrected, and where necessary a call back to the respondent was made by the enumerator to obtain the correct information. Further quality control checks were made by supervisors in each district.

## Data Appraisal

#### ESTIMATES OF SAMPLING ERROR

Not stated

## Access policy

#### CONTACTS

Name	Affiliation	Email	URL
Head of Data Management division	The Office of Chief Government Statistician	abdullah.makame@ocgs.ac.tz	www.ocgs.go.tz

#### CONFIDENTIALITY

Confidentiality of respondent guaranteed under Statistical Act No.9 of 2007 The Chief Government Statistician may disclose information in the form of individual statistical records solely for bona fide research or statistical purposes that ; (a) All identification such as name and address has been removed (b) The information is disclosed in a manner that is not likely to enable the identification of the particular person or undertaking or business to which it relates.

#### ACCESS CONDITIONS

OCGS considered three levels of accessibility ;

- (1) Public use files, accessible by all
- (2) Licensed datasets, accessible under certain conditions
- (3) Datasets only accessible on location, for certain datasets any person or organization to whom any statistical records are disclosed shall ;
  - (a) Not attempt to identify any particular person or undertaking or business;
  - (b) Use the information for research or statistical purposes only;

(c) Not disclose the information to any other person or organization;

#### CITATION REQUIREMENTS

"Office of Chief Government Statistician, National Sample Census of Agriculture 2007/2008 (NASC 2007/2008), Version 2.1 of the public use dataset (January, 2012), provided by the National Data Archive. [www.ocgs.go.tz](http://www.ocgs.go.tz)"

#### ACCESS AUTHORITY

Name	Affiliation	Email	URL
Chief of Government Statistician	The Office of Chief Government Statistician	zanstat@ocgs.go.tz	<a href="http://www.ocgs.go.tz">www.ocgs.go.tz</a>

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#### COPYRIGHT

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## Metadata production

#### DDI DOCUMENT ID

DDI-TZA-2008-NSCA-v01-M-OCGS

#### PRODUCERS

Name	Abbreviation	Affiliation	Role
The Office of Chief Government Statistician	OCGS	Ministry of Finance and Planning	Documentation of the study

#### DATE OF METADATA PRODUCTION

2023-10-13

#### DDI DOCUMENT VERSION

1.0

## Data Dictionary

Data file	Cases	Variables
<b>Household information, Agriculture activities, Livestock information R00</b> This dataset file contains information related to Household information, Agriculture activities, Livestock information	52594	91
<b>Household information R031</b> This dataset file contains information related to Household information	275752	21
<b>Land access R041</b> This dataset file contains information related to Land access	368156	11
<b>Land use R042</b> This dataset file contains information related to Land use	631127	11
<b>Annual Crops and Vegetable Production-Short Rain Season R051</b> This dataset file contains information related to Annual Crops and Vegetable Production-Short Rain Season	32940	41
<b>Annual Crops and Vegetable Production-Long Rain Season R052</b> This dataset file contains information related to Annual Crops and Vegetable Production-Long Rain Season	86644	41
<b>Permanenl Crops and Fruit Tree Production R053</b> This dataset file contains information related to Permanent/Perennial Crops and Fruit Tree Production	46950	43
<b>Farm Implements R061</b> This dataset file contains information related to Farm Implements	894060	12
<b>Use of Tractors and Draft Animals R062</b> This dataset file contains information related to Use of Tractors and Draft Animals	313035	13
<b>Use of Organic Fertilizer R063</b> This dataset file contains information related to Use of Organic Fertilizer	105107	14
<b>Access to Farm Inputs R064</b> This dataset file contains information related to Access to Farm Inputs	315544	13
<b>Soil Erosion R066</b> This dataset file contains information related to Soil Erosion	396150	12
<b>Cattle type R091</b> This dataset file contains information related to Cattle type	367181	14
<b>Milk Production R092</b> This dataset file contains information related to Milk Production	209462	15
<b>Goat type R093</b> This dataset file contains information related to Goat type	262228	14
<b>Sheep type R094</b> This dataset file contains information related to sheep type	260738	13
<b>Pig type R095</b> This dataset file contains information related to Pig type	260275	11
<b>Fish Farming R099</b> This dataset file contains information related to Fish Farming	110	23
<b>Access to drinking water R104</b> This dataset file contains information related to Access to drinking water	10217	13
<b>Irrigation practice R0651</b> This dataset file contains information related to Irrigation practice	2926	13
<b>Crop extension messages and source of extension R0831</b> This dataset file contains information related to Crop extension messages and source of extension	578477	12

<b>Bee type R0910</b> This dataset file contains information related to Bee type	1220	17
<b>Order of Most Importance and Constraint R0911</b> This dataset file contains information related to Order of Most Importance and Constraint	262926	11
<b>Agriculture activities and Livestock information R000</b> This dataset file contains information related to Agriculture activities and Livestock information	1006	48
<b>Land ownership R031</b> This dataset file contains information related to Land ownership	6036	5
<b>Land use R032</b> This dataset file contains information related to Land use	13078	5
<b>Annual crops and vegetable production-Short rain season R041</b> This dataset file contains information related to Annual crops and vegetable production-Short rain season	350	13
<b>Permanent crops and fruit tree production R043</b> This dataset file contains information related to Permanent crops and fruit tree production	871	16
<b>Agricultural constraints R071</b> This dataset file contains information related to Agricultural constraints	4803	4
<b>Inputs use and cost by crops R081</b> This dataset file contains information related to Inputs use and cost by crops	8525	10
<b>Livestock products R098</b> This dataset file contains information related to Livestock products	2991	8
<b>Outlets for the sale of livestock R099</b> This dataset file contains information related to outlets for the sale of livestock	1789	9
<b>Staff and labour use R101</b> This dataset file contains information related to staff and labour use	10050	8
<b>Service provided to outgrower farmers R111</b> This dataset file contains information related to service provided to outgrower farmers	915	9
<b>Service provided to outgrower farmers R111_4</b> This dataset file contains information related to service provided to outgrower farmers	3624	9
<b>Service provided to outgrower farmers R114</b> This dataset file contains information related to service provided to outgrower farmers	2709	8
<b>Annual crops and vegetable production-Long rain season R422</b> This dataset file contains information related to Annual crops and vegetable production-Long rain season	1307	13
<b>Main use of secondary products R511</b> This dataset file contains information related to Main use of secondary products	455	10
<b>Agroprocessing and by products R522</b> This dataset file contains information related to Agroprocessing and by products	166	21
<b>Agroprocessing and by products R522_1</b> This dataset file contains information related to Agroprocessing and by products	168	21
<b>Use of credit on Machine R621</b> This dataset file contains information related to Use of credit on Machine/Equipments	228	6
<b>Use of credit on Machine R622</b> This dataset file contains information related to Use of credit on Machine/Equipments	110	6
<b>Cattle type R910</b> This dataset file contains information related to cattle type	14070	6
<b>Cattle type R911</b> This dataset file contains information related to cattle type	2962	8

<b>Type of livestock R917</b> This dataset file contains information related to type of livestock/product	1052	7
<b>Goat type R921</b> This dataset file contains information related to goat type	1483	8
<b>Season R926</b> This dataset file contains information related to season	712	7
<b>Sheep population R931</b> This dataset file contains information related to sheep population	768	4
<b>Pig population R941</b> This dataset file contains information related to Pig population	442	5
<b>Livestock production and products R951</b> This dataset file contains information related to livestock production and products	1794	7
<b>Livestock production and products R954</b> This dataset file contains information related to livestock production and products	1794	8
<b>Information on other livestock R971</b> This dataset file contains information related to information on other livestock	576	9
<b>Information on other livestock R972</b> This dataset file contains information related to information on other livestock	5025	8