

Zanzibar, Tanzania - Agriculture National Sample Census 2002/2003

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

Report generated on: December 9, 2023

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Identification

SURVEY ID NUMBER

TZA-2002-2003-ANSC-v01-M

TITLE

Agriculture National Sample Census 2002/2003

SUBTITLE

Volume VIII: Livestock Sector - Zanzibar Report

COUNTRY

Name	Country code
Zanzibar,Tanzania	TZA

STUDY TYPE

Agricultural Census [ag/census]

SERIES INFORMATION

The 2002-2003 National Sample Census of Agriculture is the first comprehensive Sample Census of Agriculture undertaken in Zanzibar.

ABSTRACT

NATIONAL SAMPLE CENSUS OF AGRICULTURE (2002/2003)-LIVESTOCK SECTOR

The analysis and data contained in this report provide description of the state of the livestock sector in Zanzibar for the agriculture year 1st October 2002 to 30th September 2003. The analysis and tabulation are based on small holders disaggregated and compared to district level. During the reference period there were 36,445 livestock keeping households which represent 38 percent of the total small holder agriculture households.

As of 1st October 2003 there were 215,802 heads of major livestock. The population of cattle was 162,643 followed by goats (52,324), sheep (300) and pigs (535). Most of the livestock keeping households have both cattle and goats. An estimated 91 percent of the livestock keepers raise cattle, 26 percent raise goats while 0.2 percent keep sheep and only 0.1 percent manage pigs. The average herd size kept by households for different types of livestock are five heads for cattle keeping households, six in the case of goats, four for sheep and 10 in the case of pigs. Micheweni, Central, West and Wete districts are important in livestock enterprise but for Micheweni in particular, its flock is comprised almost entirely of indigenous species. Most of the livestock of improved breeds are in West and Central districts. Chicken are the most important poultry and their number on the reference date was 1,063,791 kept by 66,736 households. The average number of chicken kept by the households is thus 16.

Zanzibar has the highest density of chicken in Tanzania. Mkoani has the highest population of indigenous chicken but almost no improved chicken whereas West and Central district have comparatively good number of exotic chicken which have led to these two districts to be leading in having more chicken than other districts. Compared to 1992/93 livestock census, the population of major livestock types is increasing with time except in case of sheep and donkeys. The average growth rate for indigenous cattle is 3.6 percent per annum, 7.6 percent for improved cattle, 1.6 percent for goat, -7.6 percent for sheep and an incredible average growth rate of 23.3 percent per annum has been realized for pigs. The average annual growth rate for indigenous chicken is 4 percent, 10.3 percent for layers while the population of broilers has been decreasing at the rate of -5.5 percent per annum.

Indigenous livestock species are very dominant and account 95 percent for cattle, 99.5 percent for goats, 100 percent sheep and 89 percent chicken.

Milk is obtained from cattle and goats where goat's contribution is less than one percent. Due to high proportion of improved cattle in West and Central districts, each of the districts produce more milk than Micheweni District which has a higher number of cattle but almost all are of indigenous species. About 95 percent of the households that produced milk sold some, mostly to neighbours and milk vendors at an average farm gate price of Tsh 250 per litre. The households sell about 66 percent of the milk they produce.

There is some contribution of livestock to crop production in the form of improving soil fertility and structure by using farmyard manure but livestock are almost not used for soil cultivation. Farmyard manure was applied on about 8887ha. The districts where the manure is mostly used are West, Central and Micheweni. The diseases that affect a large number of

livestock are tick-borne, mostly East Coast Fever to cattle. Helmenthiosis infect both cattle and goats but due to improved management in pigs, the condition was not reported in piggeries. Contagious Caprine Pleuro-pneumonia (CCP) has affected goats in some districts in Unguja but has not been reported in any district of Pemba. Contagious Bovine Pleuro-pneumonia and Trypanasomiasis have not been recorded anywhere in Zanzibar.

The distance from livestock keeper's households to livestock infrastructures for services is about 10 km. or more for more than 50 percent of the households. The main source of extension services is the government (82 percent) followed by development projects/NGOs (5 percent). There was no Fish Farming reported during the time of this census.

KIND OF DATA

Sample survey data [ssd]

UNIT OF ANALYSIS

Agriculture Households for both Household and Individual level

Version

VERSION DESCRIPTION

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

VERSION DATE

2006-05

Scope

NOTES

The scope of Agriculture national sample census includes:

- Annual crop and vegetable production
- Cattle
- Crop extension services
- Goat
- Livestock
- Marketing problem
- Milk production
- Other data
- Pig
- Sheep
- Subsistence and non Subsistence
- Use of credit of Agriculture purposes

Coverage

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 years and above

Producers and sponsors

PRIMARY INVESTIGATORS

Name	Affiliation
The Office of Chief Government Statistician	Ministry of Finance and Economic Affairs
National Bureau of Statistics	Ministry of Planning and Empowerment
Ministry of Agriculture, Natural Resources, Environment and Cooperatives	Revolutionary Government of Zanzibar

PRODUCERS

Name	Affiliation	Role
Food and Agriculture Organisation	United Nation	Technical assistance
Scotts Agriculture Consultancy		Technical assistance
Ultek Laurence Gold Consultants		Technical assistance

FUNDING AGENCY/SPONSOR

Name	Abbreviation	Role
United Nations Development Programme	UNDP	Financial Support
European Union	UN	Financial Support
Government of Japan	GJ	Financial Support
Revolutionary Government of Zanzibar	RGoZ	Financial Support
Department for International Development	DFID	Financial Support
Japan International Cooperation Agency	JICA	Financial Support

OTHER IDENTIFICATIONS/ACKNOWLEDGMENTS

Name	Affiliation	Role
Dr.G.M. Naiman	University of Dar es Salaam	Sampling design and methodology
Regional Agricultural Development Officers	Ministry of Agriculture Natural Resources, Environment and Cooperatives	implementation of census activities
District Agricultural Development Officers	Ministry of Agriculture Natural Resources, Environment and Cooperatives	implementation of census activities
Local Government Officials	Local Government	implementation of census activities

Sampling

SAMPLING PROCEDURE

A sample was extracted from the Zanzibar National Master Sample (NMS) developed with technical assistance of Dr. G.M. Naiman from the University of Dar es Salaam. The sample consisted of 317 EA's spread over nine districts. These EA's were drawn from the NMS developed by the OCGS to serve as a national framework for different sample censuses and surveys to be conducted in Zanzibar.

A stratified two stage sample was established. The numbers of EAs were selected at the first stage with a probability proportional to the number of households in each EA. At the second stage, 15 farming households were selected from each 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
2003-10-30	2003-11-10	10 days

DATA COLLECTION MODE

Face-to-face [f2f]

SUPERVISION

Supervision was provided by 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

Questionnaire Design and Other Census Instruments

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

- Where feasible all variables were extensively coded to reduce post enumeration coding error.
- The definition for each section were printed on the opposite page so that the enumerator could easily refer to the instructions whilst interviewing the farmer
- 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 entry.
- Skip pattern were used to reduce unnecessary and incorrect coding of section which do not apply to the respondent.

Each section was clearly numbered, which facilitated the use of skip patterns and provided a reference for data type coding for the programming of CPro, SPSS and dissemination applications.

Three other instruments were used:

- Village Listing Forms were used for listing households in the village and from this list a systematic sample of 15 agricultural households were selected
- A training manual which was used by the trainers for the cascade/pyramid training of supervisors and enumerators.
- Enumerator Instruction Manual was used as reference material

Field Pre-testing of the Census Instruments

The Small Scale Farmer Questionnaire was pre-tested in different areas in both Unguja and Pemba. The villages of Bambi and Ndijani in South Region Unguja, Kinyasini and Matemwe in North Unguja, Chakechake and Micheweni in Pemba were used as pilot areas to test the questionnaire.

Training of Trainers, Supervisors and Enumerators

Training Programme for the census was prepared and carried out prior to the actual field work. Four participants from Zanzibar attended the national training of trainers' course in Dodoma. The idea was to have a uniformity of training on the modality of filling in questionnaire between Mainland and Zanzibar. A training program was developed and four centers were used to impart knowledge and skills of filling in the questionnaires and conducting the interviews. Jambiani Centre was used as venue for training of regional agriculture development officers (RADOs), district agriculture development officers (DADOs) and statistics officers, Mahonda and Amani were used as training centers for field enumerators and supervisors in Unguja and Madungu for field enumerators and supervisors for Pemba. Emphasis was placed on training the enumerators and supervisors inconsistency checks. Tests were given to the enumerators and supervisors and those who did well were selected for the actual field work.

Data Collection

Data collection activities started on 30th, October 2003 and lasted for 10 days for both Unguja and Pemba. However, in some areas data collection was prolonged up to a month. The data collection methods used during the census consisted of interviewing heads of households and an elaborate field organization was set up to increase the accuracy of the collected data. The enumeration was done by staff from the Ministry of Agriculture, Natural Resources, Environment and Cooperatives. Supervision was provided by 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 COLLECTORS

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

Questionnaires

QUESTIONNAIRES

Listing questionnaire was used to list all Households inside the enumeration areas(EA)

Three different questionnaires were used to collect data on agriculture and related aspects. These were:-

- Small scale farm questionnaire
- Community questionnaire
- Large scale farm questionnaire

Data Processing

DATA EDITING

Enumerators were trained to probe the respondents until they were satisfied with the responses given before they recorded in the survey questionnaires. The first check of the filed questionnaires was done by enumerators in the field and then by field supervisors. The second check was done by district supervisor (DADOS) who signed the questionnaire and handed them over to regional supervisors for further checking. National supervisors then worked on all questionnaires focusing on consistency checking and when inconsistencies

were found the concerned enumerators were instructed to go back to the respondent to get the correct data.

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.go.tz	www.ocgs.go.tz

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

CITATION REQUIREMENTS

"The Office of Chief Government Statistician, Agriculture National Sample Census 2002/2003 (ANSC 2002/2003), Version 2.1 of

the public use dataset(March 2004),provided by the National Data Archive. www.ocgs.go.tz"

ACCESS AUTHORITY

Name	Affiliation	Email	URL
Chief Government Statistician	The Office of Chief Government Statistician	zanstat@ocgs.go.tz	www.ocgs.go.tz

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Metadata production

DDI DOCUMENT ID

DDI-TZA-2003-ANSC-v01-M-OCGS

PRODUCERS

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

DATE OF METADATA PRODUCTION

2023-10-13

DDI DOCUMENT VERSION

Version 1.0

Data Dictionary

Data file	Cases	Variables
annual crop and vegetable production-long rainy seasonR072 This dataset file contains information related to annual crop and vegetable production-long rainy season	90008	23
annual crop and vegetable production-short rainy seasonR071 This dataset file contains information related to annual crop and vegetable production-short rainy season	31739	29
Cattle diseases R185 This dataset file contains information related to Cattle diseases	51901	10
Cattle intake R183 This dataset file contains information related to Cattle intake	30186	9
Cattle offtake R184 This dataset file contains information related to Cattle offtake	29006	10
Cattle population, intake and offtake R182 This dataset file contains information related to Cattle population, intake and offtake	47879	8
crop extension messages R152 This dataset file contains information related to crop extension messages	253521	9
crop extension services R151 This dataset file contains information related to crop extension services	84158	10
crop storage R092 This dataset file contains information related to crop storage	382252	12
permanent/perennial crops and fruit tree production R073 This dataset file contains information related to permanent/perennial crops and fruit tree production	46111	21
Goat diseases R195 This dataset file contains information related to Goat diseases	36111	10
Goat intake during 20022003 R193 This dataset file contains information related to Goat intake during 2002/2003	29802	9
Goat offtake R194 This dataset file contains information related to Goat offtake	28280	10
Goat population, intake and offtake R192 This dataset file contains information related to Goat population, intake and offtake	42467	8
Goat population, intake and offtake R092_1 This dataset file contains information related to Goat population, intake and offtake	42467	8
Livestock extension R291 This dataset file contains information related to Livestock extension	83787	7
Livestock extension service providers R292 This dataset file contains information related to Livestock extension service providers	37185	9
Livestock Pest and Parasite control R220 This dataset file contains information related to Livestock Pest and Parasite control	48345	15
Livestock product R250 This dataset file contains information related to Livestock product	144963	8
marketing problem R102 This dataset file contains information related to marketing problem	522462	7
marketing problem R103 This dataset file contains information related to marketing problem	163310	7

Milk production R186 This dataset file contains information related to Milk production	20541	11
Milk production R196 This dataset file contains information related to Milk production	16065	9
access and use of resources R061 This dataset file contains information related to access and use of resources	143855	9
access to farm inputs and implements R121 This dataset file contains information related to access to farm inputs and implements	338414	11
access to functional Livestock Structures/accessoriesR270 This dataset file contains information related to access to functional Livestock Structures/accessories	676830	7
activities of the householdR022 This dataset file contains information related to activities of the household	338308	6
Agroprocessing and by-productsR082 This dataset file contains information related to Agroprocessing and by-products	66768	18
Animal contribution to crop production R171 This dataset file contains information related to Animal contribution to crop production	16752	9
Chicken diseases R240 This dataset file contains information related to Chicken diseases	241584	10
credit for Agriculture purposesR13_1 This dataset file contains information related to use of credit for Agriculture purposes	12176	4
erosion control/water harvesting facilities R112 This dataset file contains information related to erosion control/water harvesting facilities	11246	8
farm implements and assets used and owned by the household during 2002-2003 R122 This dataset file contains information related to farm implements and assets used and owned by the household during 2002-2003	483450	11
Fish farming R282 This dataset file contains information related to Fish farming	520	16
household information R031 This dataset file contains information related to household information	248219	17
Household information, Agriculture activities, Livestock informationR00 This dataset file contains information related to Household information, Agriculture activities, Livestock information	48345	97
labour use R311 This dataset file contains information related to labour use	1353660	6
land access/ownership/tenure R041 This dataset file contains information related to land access/ownership/tenure	302442	5
land use R051 This dataset file contains information related to land use	574941	7
livelihood constraints R162 This dataset file contains information related to livelihood constraints	241725	7
livelihood constraintsR161 This dataset file contains information related to livelihood constraints	241725	7
other Livestock R230 This dataset file contains information related to other Livestock	434796	9
outlets for the sale of Livestock R260 This dataset file contains information related to the outlets for the sale of Livestock	241725	9

related to respondent and household head R122_00 This dataset file contains information related to respondent and household head	483450	15
tree farmingagroforestry R142 This dataset file contains information related to tree farming/agroforestry	9054	13
use of secondary products R076 This dataset file contains information related to main use of secondary products	21291	12
Pig diseasespestsconditions R215 This dataset file contains information related to Pig diseases/pests/conditions	10356	10
Pig increase R213 This dataset file contains information related to Pig increase	6155	9
Pig offtake R214 This dataset file contains information related to Pig offtake	5723	10
Pig population and production R212 This dataset file contains information related to Pig population and production	7025	5
Sheep diseases R205 This dataset file contains information related to Sheep diseases	12926	10
Sheep intake R203 This dataset file contains information related to Sheep intake	11371	11
Sheep offtake R204 This dataset file contains information related to Sheep offtake	10889	12
Sheep population, intake and offtake R202 This dataset file contains information related to Sheep population, intake and offtake	16355	9
R321 This dataset file contains information related to subsistence vs non-subsistence	580140	8
R331 This dataset file contains information related to subsistence vs non-subsistence	580140	8
R332 This dataset file contains information related to Subsistence vs non Subsistence	580140	8
use of credit for agriculture purposes R130 This dataset file contains information related to use of credit for agriculture purposes	48345	5
use of credit for agriculture purposes R131 This dataset file contains information related to use of credit for Agriculture purposes	12176	9
use of credit for agriculture purposes R132 This dataset file contains information related to use of credit for agriculture purposes	4566	7