

1. HISTORICAL OUTLINE

The 2007/2008 National Sample Census of Agriculture (NSCA) is the fourth agricultural census to be carried out in the United Republic of Tanzania since the country independence. The first agricultural census was conducted in 1971/1972, the second in 1994/1995, and the third in 2002/2003.

2. LEGAL BASIS AND ORGANIZATION

Legal framework

The Statistics Act 2015 empowers the National Bureau of Statistics (NBS) to collect and publish specified statistics.

Institutional framework and international collaboration

The agencies responsible for the preparation and implementation of the agricultural census were the NBS in collaboration with: the Ministry of Agriculture, Food Security and Cooperatives (MAFC); the Ministry of Livestock and Fisheries Development; the Ministry of Water; the Ministry of Industry and Trade, the Prime Minister's Office; Regional Administration and Local Government (PMO-RALG); and the Office of the Chief Government Statistician (OCGS), Zanzibar.

At the national level, the census was headed by the Director General of the NBS. The Planning Group had the responsibility to oversee the operational aspects of the census. This Group comprised staff from the Department of Agricultural Statistics of the NBS and three representatives of the Department of Policy and Planning of the MAFC.¹ The 2007/2008 NSCA was supported by funding from the Department for International Development (DFID) and the Japan International Development Agency (JICA). These parties financed most of the operational activities. The remaining funding came from the Government of the United Republic of Tanzania. In addition, FAO provided technical assistance.

Census staff

A total of 1 759 enumerators were involved in data collection. An additional 5 percent of the enumerators were kept as reserves in case of dropout during the enumeration exercise. On the mainland, each region had two regional supervisors (the total number was 42) and two district supervisors per district (total: 266). In Zanzibar, 13 supervisors were involved in data collection.

3. REFERENCE DATE AND PERIOD

Reference day: 1 October 2008, for the number of animals, permanent and part-time employment.

Reference period: the 2007/2008 agricultural year (from 1 October 2007 to 30 September 2008), for land, crops, farm inputs, etc.

4. ENUMERATION PERIOD

The data collection activities for the 2007/2008 NSCA lasted three months (from June to August 2009).

5. SCOPE OF THE CENSUS AND DEFINITION OF THE STATISTICAL UNIT

The **census scope** covered agricultural activities (crop and livestock production). Detailed information on aquaculture was collected from small-scale farms, only from the units associated with an agricultural holding. Community-level data were also collected in the NSCA.

The **statistical unit** was the agricultural holding, defined as an economic unit of agricultural production under single management consisting of all livestock kept and of all land used for agricultural production, without regard to title, legal form or size. Four types of agricultural holdings (farming) were identified during the interview: (i) crops only; (ii) livestock only; (iii) pastoralist; and (iv) crops and livestock.

6. GEOGRAPHIC COVERAGE

The census covered smallholders in rural areas only and all large-scale farms. Urban and peri-urban areas were not covered by the census.

7. CUT-OFF THRESHOLD

For the purposes of the 2007/2008 NSCA, agricultural holdings were limited to those that met one or more of the following conditions: operating at least 25 m² of arable land and owning or keeping at least one head of cattle, five goats/sheep/pigs, or 50 chicken/ducks/turkeys during the agricultural year 2007/2008.

The following criteria for large-scale farms were applied: cultivating at least 20 ha (50 acres) of crops, owning or keeping at least 50 cattle, 100 goats/sheep/pigs, or 1 000 chicken/ducks/turkeys/rabbits, and/or operating at least 0.5 ha of intensive greenhouse horticulture, and/or keeping at least 0.5 ha of fish-farming production units.

¹ At the regional level, implementation of the census activities was overseen by the Regional Statistical Officers of the NBS and the Regional Agricultural Statistics supervisors from the MAFS. At the district level, the census activities were managed by two supervisors from the PMO-RALG. The supervisors managed the enumerators, who also came from the PMO-RALG.

8. METHODOLOGY

Methodological modality for conducting the census

The NSCA was conducted using the classical approach. A community survey was conducted jointly with the census.

Frame

The National Master Sample was developed from the Population and Housing Census (PHC) 2002. Listing forms were used to screen the agricultural households in the selected villages.

Complete and/or sample enumeration methods

The large-scale farms were fully covered, while the small-scale farms were covered on a sample basis. The sample design for smallholders was designed to provide estimates at the district level.

Sample design (if sampling was used)

The sample design was a stratified two-stage sample. The overall sample for smallholders was selected from 3 192 villages on the mainland and 317 rural EAs in Zanzibar. Data were collected from a total sample of 52 635 rural agricultural small-scale farms and from 1 006 large-scale farms.

Data collection method

The PAPI method was used to collect census data. For some large-scale farms, questionnaires were sent via post for self-interviewing (using the mail-out/mail-back method).

Questionnaire(s)

Three different questionnaires were used to collect census data: (i) a small-scale farms questionnaire; (ii) a large-scale farms questionnaire; and (iii) a community-level questionnaire. The questionnaires covered all 16 core items recommended in the WCA 2010.

9. USE OF TECHNOLOGY

The census data capture exercise was performed using Intelligent Character Recognition (ICR) scanning technology. ArcGIS software was used to generate maps for the dissemination of census data.

10. DATA PROCESSING AND ARCHIVING

Prior to data capture, performed mainly by scanning, all questionnaires were manually edited. For the questionnaires that were unsuitable for scanning, CPro was used for data entry.

A batch validation program was developed in CPro to identify inconsistencies within questionnaires. This was in addition to the interactive validation performed during the ICR extraction process. SPSS was used to produce the census tabulations, and Microsoft Excel was used to organize the tables and compute additional indicators. Arc GIS was used to produce maps.

11. CENSUS DATA QUALITY

Significant emphasis was placed on data quality throughout the exercise, from the planning stage to questionnaire design, training, supervision, data entry, validation and cleaning/editing.

12. DATA DISSEMINATION

Preliminary census results were published in November 2010. The final results of the 2007/2008 NCSA were disseminated in 2012. The census results are available at the national and subnational level. The census reports, data set and other census materials are available on the NBS website.

13. DATA SOURCES

FAO. 2017. Regional Roundtable on the World Programme for the Census of Agriculture 2020 (WCA 2020). 18-22 September 2017, Nairobi, Kenya. In: *World Programme for the Census of Agriculture: [online]*. Rome, Italy. [Cited 30 August 2019]. <http://www.fao.org/world-census-agriculture/events/wca2020kenya/en/>

National Bureau of Statistics. 2019. Publication [online]. Arusha, The United Republic of Tanzania. [Cited on 8 August 2019]. <https://www.nbs.go.tz/index.php/en/census-surveys/agriculture-statistics>

14. CONTACT

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NUMBER OF HOLDINGS AND AREA		
	Holdings	Area (ha)
Total	5 839 529	15 756 174
Smallholder farms	5 838 523	14 642 284
Large scale farms	1 006	1 113 890

DISTRIBUTION OF HOLDINGS BY LAND SIZE CLASSES		
	Holdings	Area (ha)
Total	5 839 529	15 756 174
0,01–0,50 ha	753 212	n.a.
0,51–1,00 ha	1 078 347	n.a.
1,01–1,50 ha	1 017 800	n.a.
1,51–2,00 ha	650 698	n.a.
2,01–2,50 ha	786 308	n.a.
2,51–3,00 ha	259 609	n.a.
3,01–3,50 ha	234 990	n.a.
3,51–4,00 ha	118 040	n.a.
4,01–4,50 ha	276 299	n.a.
4,51–5,00 ha	93 082	n.a.
5,01 ha and over	571 142	n.a.

HOLDERS IN THE HOUSEHOLD SECTOR, BY SEX		
	Number	
Total	5 838 522	
Male	4 651 702	
Female	1 186 820	

MEMBERS OF HOLDER'S HOUSEHOLD, BY SEX		
	Number	
Engaged in agricultural activities on the holding	31 013 026	
Male	15 487 217	
Female	15 525 810	
Aged 15 years and over	16 960 804	
Male	8 635 320	
Female	8 325 484	
Aged 10–15 years	5 247 057	
Male	2 387 423	
Female	2 859 635	
Aged under 10 years	8 805 165	
Male	4 464 474	
Female	4 340 691	

LIVESTOCK		
	Holdings	Head
Holdings with livestock	2 329 942	
Cattle	1 699 107	21 400 889
Sheep	638 879	5 730 158
Goats	1 746 329	15 178 314
Pigs	522 133	1 592 727
Horses	n.a.	16 272
Asses (donkeys)	n.a.	292 107
Poultry (1 000 head)	n.a.	n.a.
Chickens	n.a.	44 240
Ducks	n.a.	1 201
Turkeys	n.a.	98
Other animals	n.a.	n.a.
Rabbits	n.a.	210 961
Guinea pigs	n.a.	616 614
Insects		
Bees (hives)	129 314	5 158 437

METHODS OF IRRIGATION		
	Holdings	Area irrigated (ha)
Holdings with irrigated land	318 625	280 528
Gravity	205 654	n.a.
Hand bucket	97 423	n.a.
Hand pump	4 750	n.a.
Motor pump	7 465	n.a.
Other	3 332	n.a.

SOURCES OF IRRIGATION WATER		
	Holdings	Area irrigated (ha)
Total holdings with irrigated land	318 625	280 528
River	167 799	n.a.
Borehole	4 233	n.a.
Lake	17 482	n.a.
Canal	33 441	n.a.
Dam	2 974	n.a.
Tap Water	87 809	n.a.
Well	4 912	n.a.

MACHINERY AND EQUIPMENT USED ON THE HOLDING		
	Holdings	Units
Total tractors of all kinds	171 183	67 123
Other (machine-powered)	n.a.	
Thresher	42 876	224 249
Power tiller	15 059	159 443
Rigder	28 696	113 690

TEMPORARY CROPS HARVESTED		
	Holdings	Area (ha)
Total	n.a.	9 032 736
Cereals	7 508 635	5 875 738
Vegetables and melons	410 321	102 269
Oilseed crops	1 789 253	970 334
Root/tuber crops	1 016 109	274 554
Leguminous crops	2 949 414	1 120 569
Sugar crops	64 404	43 240
Other temporary crops	491 009	646 032

PERMANENT CROPS		
	Holdings	Area (ha)
Total	n.a.	2 138 653
Orchards	2 423 094	1 370 571
Tropical and subtropical fruits	n.a.	n.a.
Bananas	943 056	290 945
Mangoes	286 446	64 564
Citrus fruits	n.a.	n.a.
Oranges	175 541	68 711
Nuts	n.a.	n.a.
Cashewnuts	313 948	540 989
Oilseed crops	n.a.	n.a.
Coconuts	129 906	117 929
Oil palms	61 611	16 251
Beverage crops and spice crops	n.a.	n.a.
Cloves	12 419	15 588
Coffee	482 038	202 854
Sisal	161	34 731
Tea	17 968	18 009
Other	1 846 305	768 082