
MALAWI - National Census of Agriculture and Livestock 2006-2007 – Explanatory notes

1. Historical Outline

The National Census of Agriculture and Livestock (NACAL 2006-2007) is the fourth census of Agriculture to be conducted in Malawi, the last being that of 1991/92 National Sample Survey of Agriculture (NSSA). It is part of a concerted effort by government to provide relevant information on the structure of agriculture in the country, especially in view of its importance to the economy.

2. Legal Basis and Organization

The enabling legislation is the National Statistics Act, 2012, that makes provision for the establishment of the National Statistics Office and the National Statistical System, which defines the responsibilities for the collection, compilation, analysis, abstraction, publication and dissemination of statistical information including the Censuses of Population and Agriculture.

The National Census of Agriculture and Livestock (NACAL) was conducted by the Agriculture Statistics Division of the National Statistical Office (NSO) in collaboration with the Ministry of Agriculture and Food Security (MoAFS). Malawi is currently following its second National Statistical System Strategic Plan for the five years 2013 to 2017, and its first Malawi Agriculture Statistics Strategic Master Plan, 2013 to 2017.

Since 2002, the European Union (EU) has supported the Government through the Ministry of Agriculture and Food Security, financing the Food and Nutrition Security Joint Task Force Technical Secretariat to assist the sector to efficiently collect agriculture statistics and other data related to agriculture.

3. Reference Period or Date

The reference period is the 2006/2007 crop year.

4. Enumeration Period

The enumeration period of the National Census of Agriculture and Livestock (NACAL) took place from January to October 2007.

Data collection on food security took place during the months of January, June and September 2007, using Modules 1 to 4 with the questions asked being almost identical in the three rounds. Data collection for the information on HIV/AIDS took place during the months of June 2007, using information from Module 4: Food security and HIV/AIDS. Data collection for the information from the other modules was undertaken at one of the three enumeration periods.

5. Definition of the Statistical Unit

The definitions are essentially those recommended by the FAO.

Household: This is made up of one person or a group of persons who normally live and eat together. They regularly take all their food from the same pot, or share the same grain store or pool their incomes together for purposes of purchasing food. They may be related or unrelated, living in the same house or several dwelling units including all children at boarding schools.

Holding: Consists of all parcels belonging to a household.

Parcel: A parcel of land is a piece of land that has been allocated to any member of the household, whether used for farming or not. It includes grazing land, woodlot, orchard, and the land where the household has built its dwelling unit.

6. Geographic Coverage

The census was conducted in all rural and peri-urban areas. In addition another extra sample was drawn from the four cities. This extra sample was to accommodate two last modules: Welfare Monitoring Survey 2007 and Livestock survey. The Census appears to have covered all the variables defined as a minimum set of Core Data (by the Global Strategy to Improve Agriculture and Rural Statistics).

7. Exclusions and Cut-Off Thresholds

There are no apparent exclusions or cut-off thresholds to the definition of an agricultural household.

8. Methodology

FAO Modular Approach

The FAO modular approach was employed for data collection. Malawi used nine (9) modules: 1) Household Composition, 2) Land Parcels, 3) Plot Details (Information on production and area), 4) Food Security and HIV/AIDS, 5) Marketing, 6) Welfare Monitoring Survey, 7) Livestock Survey, 8) Village Facility Survey and 9) Estate Survey.

Frame

The frame is from the 2008 Census of Population and Housing, which included a module on the agricultural activity of households.

Complete or sample enumeration methods

The National Census of Agriculture and Livestock (NACAL 2006-2007) was designed to collect information on different aspects of smallholder agriculture including crops grown, area planted and production, land husbandry practices, food security, marketing and structure of the small holder sector. The Census was based on a random sample that covered 25000 households drawn from all districts of the country.

Sample Design

A two stage sample design was used; where the first sampling units were the Enumeration Areas (EAs) and the second sampling units were farming households. The stratification was done to improve the precision of the estimates by reducing the variance between EA and within EA. The total sample size was 25000 households nationwide. The sample size at EA level was 15 households.

Sampling of Enumeration Areas (EA): Stratification was done at district level and at EA level. Each district was stratified by agro-ecological zones and each EA was stratified by land cultivated (small scale farmers and large scale farmers).

Sampling of households: Based upon the listing of households, four strata were identified (estate households, large scale smallholders, small scale smallholders and landless households). All estates were included in the census, while landless households were not in the target population. Actual sampling was done among small scale and large scale smallholders. It was decided to select 5 large scale and 10 small scale households from each EA. Where less than 5 large scale households were found, the number of small scale households sampled was increased correspondingly to have a total of 15 from each EA.

Collection Method

Data collection was undertaken using personal interviews and paper and pencil recording of responses. Areas of land parcels and plots were measured using a Geographic Positioning System (GPS). The Census recruited about 600 enumerators, supervised by 60 district supervisors and 10 national supervisors.

Questionnaire(s)

There were a number of questionnaires with respondents providing interviewers with the information during face-to-face interviews. Food Security and HIV/AIDS, Welfare Monitoring, Livestock, Village Facilities, and Estates data were all individual questionnaires. In addition, there were separate questionnaires for each parcel of land,

Controls to Minimise Non-Sampling Errors

Information not available.

Innovative Methodologies

The FAO modular approach was used for data collection. The 2008 Census of Population and Housing included an agriculture module and provided the agricultural household frame and cartography.

9. Data Entry, Edits and Imputation and Tabulation

Data entry was accomplished by scanning the questionnaires using the “Eyes and Hands” software. It was cleaned and analyzed using the Statistical Package for Social Sciences (SPSS) software.

10. Data Dissemination and Use

A summary statistical report is available on the National Statistics Office website but no information on the specific use of the data exists, other than the Government’s stated need of the Census to plan for agricultural development. Comprehensive, reliable and up to date data on state of agriculture, ownership, use of agricultural land, volume and value of production are essential in this regard. Reliable data of food and agricultural production for marketing and internal consumption are also required for poverty reduction, food security management and estimation of agricultural GDP. Data on various aspects of agriculture are also required for monitoring of agricultural development programs.

11. Census Data Quality.

There was an effort to compare the NACAL 2006-2007 data with the estimates from the Ministry of Agriculture and Food Security’s annual Agriculture Production Estimation Survey (APES), but the APES estimates were significantly larger and the evaluation was inconclusive.

12. Data Sources

FAO ESS World Census of Agriculture 2010, Country Documents
www.fao.org/economic/ess/ess-wca/wca-2010/countryinfo/en/

National Census of Agriculture and Livestock 2006/2007, National Statistics Office, Malawi.
www.nsomalawi.mw/images/stories/data_on_line/agriculture/NACAL/Nacal%20Report.pdf

Unpublished Agriculture Production Estimation Survey Methodology Manual, Ministry of Agriculture and Food Security, Malawi, April 2008.

Unpublished Malawi Agricultural Statistics Strategic Master Plan, Ministry of Agriculture and Food Security, Malawi August 2013.

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