

# Botswana 2015 - Agricultural censuses metadata template

## 1. Historical Outline

Botswana attained independence in 1966. Since 1967, annual agricultural sample surveys have been providing agricultural statistics. The first livestock census was carried out in 1971, while the other agricultural censuses, covering both crops and livestock, were conducted in 1982, 1993, 2004 and 2015. The 2015 Botswana Agricultural Census (2015 BAC) was the fifth census of agriculture in the country. The 2015 Agricultural Census was the responsibility of statistics Botswana. This was conducted in collaboration with the Department of Agriculture Research, statistics and Policy Development (under Ministry of Agricultural Development and Food Security). There were 53 teams which were deployed in the nine Administrative Districts. Each team was consisting of three (3) Enumerators, one (1) Field Supervisor and one (1) driver. This translates into 265 field staff, being 53 supervisors, 159 enumerators and 53 drivers.

## 2. Legal Basis and Organization

Statistics Botswana is mandated to provide the state with official statistics in the country. Statistics Act (CAP 17:01)

## 3. Reference Period or Date

October of the previous year to February of the current: Planting season; May to August: harvesting period

## 4. Enumeration Period

The Census was conducted in three phases. The first and second phases were carried out in January to June and July to November 2015 for Traditional (Subsistence) sector. The last phase (Commercial Sector) was from August to December 2015.

## 5. Definition of the Statistical Unit

### **Surveys Year**

This is the calendar year starting from January to September. At times, the fieldwork goes beyond the stipulated period but the questions asked are confined to the survey under consideration.

### **Traditional Sector**

Traditional sector entails agricultural operations on a communal land mainly for subsistence purposes. These operations are for subsistence purposes.

### **Commercial Sector**

Commercial sector involves agricultural operations either on a freehold, leasehold or Tribal Grazing Land Policy (TGLP) farms or ranches. These operations are solely for commercial purposes.

### **Agricultural Holding/Farm**

An "Economic Unit" of an agricultural production under single management such as total land area (fallow land and crop land) and livestock by type (cattle, goats, sheep, donkeys, mules, pigs, etc) owned, managed, rented or operated by the holder during the census year.

### **Agricultural Holder**

An agricultural holder is a person who makes the day-to-day decisions for the agricultural holding. The holder has the responsibility and accountability for the holding and may delegate some responsibilities related to day-to-day work to other people. The holder may be resident in the farm (in case of ranches) or on a piece of land in communal areas where ploughing or animal husbandry takes place (in case of pastoral/arable/subsistence farming). The holder may also be resident somewhere else but still making major decisions on the operations of the holding.

### **Household**

A household is any unit, family or group of people having the same cooking arrangements and/or "living under the same roof" in the same dwelling unit and eating together from the same pot and/or making common provision for food or other living arrangements.

### **Respondent**

A respondent is any person who is at least twelve (12) years, and answers the questions during the survey.

### **Fallow Land**

Land not ploughed during the survey season but was ploughed during the past year(s) is regarded as fallow land. For a piece of land to be regarded as fallow it has to stay at most five years without being ploughed. However, this differs from one region to the other.

### **Field**

A field is a piece of land under one use. It could be either under one crop, crop mixture or lying fallow.

**Planted Land**

Land area that is planted during the current agricultural season is regarded as planted land.

**Crop Mixture**

This is when more than one crop is inter-planted in one field such as sorghum, maize and pulses.

**Pure Stand**

This is when one crop is planted in one field. For example, when maize is planted alone in one field is regarded as a pure stand.

**Planting Season**

This is the period from October of any year to February of the following year.

**Harvesting Season**

This is usually from May to August of any given year.

**Cattle Holder**

An agricultural holder with at least 100 cattle is regarded as a cattle holder. This holder is not exclusive to such cattle holding but may hold other holdings such as small stock and crop land.

**6. Geographic Coverage**

The Census covered the entire country. The 2015 Botswana Agricultural Census (BAC) covered all agricultural holdings of both the Traditional and the Commercial Sector. This excluded cities, towns and other urban villages.

**7. Exclusions and Cut-Off Thresholds**

Cities, towns and other urban villages were excluded from the census because there are not agricultural activities carried out in them.

**8. Methodology**

The methodology used for the 2015 Botswana Agricultural Census is the same as the methodology that was used for the past Agricultural Censuses including 2004 except that during 2015 agricultural census, data collection was done from cattle posts, lands and villages enumeration areas. Villages which were enumerated were the once which did not have associated cattle post/lands as observed from 2011 population and housing census.

**FAO Modular Approach**

FAO Modular approach was not used.

**Frame****Sampling Frame in the Traditional Sector**

The Sampling Frame was constructed from the 1,328 Enumeration Areas (EAs) demarcated during the 2011 Population and Housing Census. This excluded all enumeration areas for urban villages and cities such as Gaborone and Francistown, and towns such as Lobatse, Selebi - Phikwe, Orapa, Jwaneng and Sowa. Also excluded from the sampling frame were enumeration areas for camps and commercial farms or ranches.

**Sampling Frame in the Commercial Sector**

A list of freehold, leased and TGLP farms or ranches obtained from the Establishment and Enterprise Register (EER) formed a basis for the commercial sector sampling frame. This was supplemented by a list of commercial farms obtained by enumerators during annual agricultural surveys. Department of Animal Production (DAP), through its extension service, also provided a list of farms\ranches.

**Complete or Sample Enumeration Methods**

The 2015 Agricultural Census was an enumeration of the list of all the cattleposts, lands and some villages/Settlements where agricultural activities take place (these activities include owning, managing and operating cattle, goats, sheep, donkeys, mules, horses, pigs, crop land and fallow land).

**SAMPLE DESIGN FOR TRADITIONAL SECTOR**

The stratified two-stage probability sample design was used for the selection of sample (subsistence agricultural holdings). The first stage was the selection of Enumeration Areas as Primary Sampling Units (PSUs). The second stage of sampling was the actual number of subsistence farmers or agricultural holders who were listed and systematically selected within each selected enumeration area. This formed the Secondary Sampling Units (SSUs).

All agricultural holders with 100 cattle or more in any selected enumeration area were automatically selected with a "sure probability", indicating a one stage sampling design and hence were excluded from this newly constructed frame. The supervisor selected a pre-determined sample of twenty (20) agricultural holders for each selected enumeration area. The principle of "Take-All" was applied whenever the constructed frame had 20 agricultural holders or less.

**Collection Method**

Information was collected by means of a questionnaires which were administered by Enumerators.

**Questionnaire(s)**

There were four sets of questionnaires used during the census, namely Forms I, II, III and IV. The first three forms were used for the traditional sector while the fourth one was for the commercial sector. Form I dealt with listing of all dwellings within each selected enumeration area in a particular agricultural district. It was in this form that agricultural holders were identified and selected.

**Controls to Minimize Non-Sampling Errors**

Training manuals were prepared and collectors trained. Capturing system equipped with warnings and consistency checks. Coding and Editing Officers were employed to check questionnaires on arrival. Quality Control Officers were deployed to different districts to check on the teams.

**9. Data Entry, Edits, Imputation and Tabulation**

All questionnaires received from the field were first checked and verified immediately they reached Headquarters. All questionnaires with inconsistencies or omissions are returned to the field for correction. Programmer developed programs for data entry and batch edit (online program). Data processing involves data entry; data cleaning and analysis. Data processing for agricultural census was done in house. The Census and Surveys Processing System (CSPro) was recommended to replace IMPS for processing statistical data and is widely used by the majority of the National Statistics Offices.

**10. Data Dissemination and Use**

Dissemination methods are websites, printed publication and dissemination workshops/seminars.

**11. Census data quality**

Quality Control Officers were deployed to different teams to check their work. Online editing using edit specifications.

**12. Data Sources**

Website: [www.statsbots.org.bw](http://www.statsbots.org.bw)

**13. Contact**

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