**Ethiopia**

**Central Statistical Agency, Ministry of Finance and Economic Development**

# Agricultural Sample Survey 2012-2013 Belg (2005 E.C)

## Study Documentation

December 24, 2013

# Metadata Production

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| **Metadata Producer(s)** | Central Statistical Agency (CSA) , Ministry of Finance and Economic Development , Production and documentation of the study<br>International Household Survey Network (IHSN) , Review of the metadata |
| **Production Date** | September 17, 2013 |
| **Version** | Version 1.0 |
| **Identification** | DDI-ETH-CSA-AgSSB-2013-v1.0 |

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# Ethiopia (2013-2201)
# Agricultural Sample Survey 2012-2013 Belg (2005 E.C) (AgSSB 2012-2013)

## Overview

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| **Type** | Agricultural Survey [ag/oth] |
| **Identification** | ETH-CSA-AgSSB-2013-v1.0 |
| **Version** | Production Date: 2013-02-07<br>Version 1.0: Edited and non anonymized dataset, for internal use only. |

**Abstract**

As it is true in most developing countries, in Ethiopia, agriculture is the dominant sector of the economy. As a result, Agriculture contributes the lion share of the Gross Domestic Product (GDP) and foreign currency earnings of the country from the sale of agricultural outputs abroad. Moreover, the sector creates employment opportunity to the majority of the country's population and at present nearly about 83 percent of the country's population depends on agriculture to sustain their livelihood. Hence, as it had been for centuries in the past, still being the leading sector at present, it is believed to remain being the determinant sector to play a dominant role to bring about an overall sustainable economic growth to the country, for the years to come. This would be materialized if and only if strenuous efforts are made by the government and the concerned stakeholders including the farmer, to increase productivity through increased use of farm inputs such as improved seed, fertilizers and modernize the farm activity through increased use of modern and improved farm implements and farming systems as well as through the introduction of modern farming technology to the sector as a whole. In order to meet the goals mentioned above and pave the way for the concerned stakeholders to identify, plan, implement and monitor agricultural projects and developmental programs among others, the availability and regular supply of reliable, comprehensive and timely statistical information on the overall performance of the sector is considered essential for use as a primary input to their planning purpose and related activities.

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| **Kind of Data** | Sample survey data [ssd] |
| **Unit of Analysis** | Agricultural household/ Holder/ Crop |

## Scope & Coverage

**Scope**

The scope of annual Agricultural Sample Survey included:
- Area identification and characteristics of agricultural holder's. This included household's geographic locations, holder's age, holder's sex and educational status.
- List of fields and agricultural practices for pure stand and mixed crops.
- List of permanent crops and number of tress.
- Records of quantity of improved seed, fertilizers and information on crop protection.
- Records of results of area measurements.
- List and selection of fields for crop cutting and details of record of crop cutting.

**Geographic Coverage**

The 2009/10 (2002 E.C) Annual Agricultural Sample Survey (Belg season) covered the entire rural parts of the country except the non-sedentary population of three zones of Afar & six zones of Somali regions. Accordingly the survey took in to account of all parts of Harari, Dire Dawa, and actually 59 Zones / Special weredas (that are treated as zones) of other regions.

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**Universe**

Agricultural households

## Producers & Sponsors

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| **Primary Investigator(s)** | Central Statistical Agency, Ministry of Finance and Economic Development |
| **Funding Agency/ies** | Government of Ethiopia (GoE) |

## Sampling

**Sampling Procedure**

SAMPLING FRAME

The list containing EAs of all regions and their respective households obtained from the 2007 Population and housing Census Frame was used as the sampling frame in order to select the Primary Sampling Units (EAs). Consequently, all sample EAs were selected from this frame based on the design proposed for the survey. The second stage sampling units, households, were selected from a fresh list of households that were prepared for each EA at the beginning of the survey.

SAMPLE DESIGN

In order to select the sample a stratified two-stage cluster sample design was implemented. Enumeration areas (EAs) were taken to be the primary sampling units (PSUs) and agricultural household have were the Secondary Sampling Units (SSUs). The sample size for the 2012/13 agricultural sample survey was determined by taking into account of both the required level of precision for the most important estimates within each domain and the amount of resources allocated to the survey. In order to reduce non-sampling errors, manageability of the survey in terms of quality and operational control was also considered. Except Harari, and Dire Dawa each region as a whole was taken to be the domain of estimation. Each zone of a region / special woreda was adopted as a stratum for which major findings of the survey are reported.

SELECTION SCHEME

Enumeration areas from each stratum were selected systematically using probability proportional to size sampling technique; size being number of agricultural households. The sizes for EAs were obtained from the 2007 Population and Housing census frame. From the fresh list of households prepared at the beginning of the survey 30 agricultural households within each sample EA were selected systematically. Estimation procedure of totals, ratios, sampling error and the measurement of precision of estimates (CV) are given in Appendix-I and II respectively.

SELECTION SCHEME:

Enumeration areas from each stratum were selected systematically using probability proportional to size sampling technique; size being number of agricultural households. The sizes for EAs were obtained from the 1999 E.C cartographic census frame. From the fresh list of households prepared at the beginning of the survey 20 agricultural households within each sample EA were selected systematically.

Estimation procedure of totals, ratios, sampling error and the measurement of precision of estimates (CV) are given in Appendix-I and II respectively. Distribution of sampling units (sampled and covered EAs and households) by stratum is also presented in Appendix-III.

**Response Rate**

A total of around 1,440 Enumeration Areas (EAs) were selected. However, due to some EAs weren't growing Belg season crops; in 212 EAs the survey could not be successful and hence interrupted. Thus, all in all the survey succeeded to cover 1,228 EAs throughout the regions. The Annual Agricultural Sample survey (Belg season) data was collected from 30 agricultural households selected from each EA.

## Data Collection

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| **Data Collection Dates** | start 2013<br>end 2201 |

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| **Data Collection Mode** | Face-to-face [f2f] |

**Data Collection Notes**

Except cropland area of Belg Season crop, the data of which collected objectively using GPS, compass rope, and measuring tape, the information on production of major Belg Season crops and agricultural practices (uses of fertilizer, pesticide, improved seed and irrigation) were subjectively collected by interviewing the holders of sampled households.

A major characteristic of Ethiopian agriculture is the existence of two well-known crop production seasons referred to as the Meher (or main) and Belg(short rain) Seasons. The general accepted definition of the Meher season is that of the long rainy season, which normally occurs from June to September. The Belg Season most often refers to small but timely rainy season, which normally occurs from February to May but in limited areas of the country. Generally, the Meher Season rainy period provides ideal growing conditions for the longer maturing crops. Planting and harvest of Meher crops can extend to December or January in some areas. Most of the time holders rely on short maturing crops for planting during the Belg rainy period and harvest of the crops is in June or July.

A point of contention arises with respect to the pure definition of the Belg crop. Belg cropping practices are heterogeneous across different parts of the country. The nature of the sowing period also overlaps with some of the Meher Season crops. Consequently, the report on Belg Season crops in the past faced a problem of a clearly defined growing period. It is important not to overlook or miss agricultural practices performed all year round due to use of irrigation or soil moister from sufficiently dried areas that from time-to-time are swampy or marshy. To help clarify the two-crop season, the following definition has been in use since 1987/88:

Belg Season Crops were defined as any crops that are harvested during the months of March to August, while those crops that are harvested during September to February are considered as Meher (main) season crops.
This report consists of estimates of area, production and yield of major Belg Season crops for the year 2012/13 (2005 E.C.). The data collection period for obtaining the area, production and agricultural practices of the Belg season crops was from 'Miyazia 15/2005 to Ginbot 30/2005 E.C. (i.e. From may 23 to June 7, 2013). Data on area under Belg season crop are collected objectively using compass/GPS and measuring tapes, while data on production of Belg season crops were using subjective method based on face-to-face interviewing of the holder by the enumerator. Data on production of Belg season crops are calculated from the condition factor data that are collected directly from the sampled holders within household and development agents (DA) The enumerators were trained to systematically present the questions to the respondents on percentage changes using the local translation and meaning. The enumerators were also trained on how to use comparative associations to represent the concept of percentage changes and fill in the questionnaire.

**Questionnaires**

The 2012-2013 annual Agricultural Bleg Sample Survey used structured questionnaires to collect agricultural information from selected sample households.
List of forms in the questionnaires: .
- AgSS Form 2002: it contains list of filds under mixed Crops(including vegetables and root crops).

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| **Data Collector(s)** | Central Statistical Agency of Ethiopia (CSA) , Ministry of Finance and Economic Development |

## Data Processing & Appraisal

**Data Editing**

Editing, Coding and Verification
To insure the quality of the collected survey data an editing, coding, and verification instruction manual was written, and 25 editors, data coders and verifiers were trained for one day to edit, code and verify the data using the aforementioned manual as a reference and teaching aid. The enumerator completed edited and coded questionnaires sent to the head office were thoroughly verified by trained verifiers on a 100% basis before the

questionnaires were sent to the data entry unit. The editing, coding, verification and manual cleaning of all questionnaires were completed in 15 days.

Data Entry, Cleaning and Tabulation
Before starting data entry computer edit specifications were prepared for use on personal computers, utilizing the CSPRO Software for data consistency checking purposes. The data on the coded questionnaires were then entered into the CSPRO software on personal computers. The data was then checked and cleaned using the computer edit specifications prepared earlier for this purpose. 78 data encoders and 6 supervisors were involved in this total process and it took 14 days to complete the job. Finally, tabulation was done on personal computers to produce results as indicated in the tabulation plan.

**Estimates of Sampling Error**
Estimation procedure of totals, ratios, sampling error and the measurement of precision of estimates (CV) are given in Appendix-I and II of the report which is provided in the metadata.

## Accessibility

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| **Access Authority** | Central Statistical Agency of Ethiopia (Ministry of Finance and Economic Development) , http://www.csa.gov.et , csa@csa.gov.et |
| **Contact(s)** | Data Administrator (Central Statistical Agency) , http://www.csa.gov.et , data@csa.gov.et |

**Access Conditions**
The Central Statistical Agency (CSA) is committed to achieving excellence in the provision of timely, reliable and affordable official statistics for informed decision making in order to maximize the welfare of all Ethiopians. This is achieved through the collection and analysis of censuses, surveys and the use of administrative data as well as the dissemination a range of statistical products and providing assistance and services to users.

A microdata dissemination policy is established by CSA to address the conditions and the manner in which anonymized microdata files may be released to users for research purposes. It also strives to identify the different levels of anonymization for different categories of data use. This policy is available at CSA website (http://www.csa.gov.et).

CSA will release microdata files for use by researchers for scientific research purposes when:
The Director General is satisfied that all reasonable steps have been taken to prevent the identification of individual respondents.

The release of the data will substantially enhance the analytic value of the data that have been collected For all but purely public files, researchers disclose the nature and objectives of their intended research, It can be demonstrated that there are no credible alternative sources for these data, and

The researchers have signed an appropriate undertaking.

Terms and conditions of use of public data files are the following:

The data and other materials provided by CSA will not be redistributed or sold to other individuals, institutions, or organizations without the written agreement of CSA.

The data will be used for statistical and scientific research purposes only. They will be used solely for reporting of aggregated information, and not for investigation of specific individuals or organizations.

No attempt will be made to re-identify respondents, and no use will be made of the identity of any person or establishment discovered inadvertently. Any such discovery would immediately be reported to the CSA.

No attempt will be made to produce links among datasets provided by CSA, or among data from the CSA and other datasets that could identify individuals or organizations.

Any books, articles, conference papers, theses, dissertations, reports, or other publications that employ data obtained from CSA will cite the source of data in accordance with the Citation Requirement provided with each dataset.

An electronic copy of all reports and publications based on the requested data will be sent to CSA.

The original collector of the data, CSA, and the relevant funding agencies bear no responsibility for use of the data or for interpretations or inferences based upon such uses.

Cost Recovery Policy:
It is the policy of CSA to encourage broad use of its products by making them affordable for users. Accordingly, CSA attempts to ensure that the costs of creating anonymized microdata files are built-in to the survey budget.

At the same time, CSA attempts to recover costs associated with the provisions of special services that benefit only a specific group. Information on the price of each dataset is available at CSA website (www.csa.gov.et )

**Citation Requirements**
The following statement must be used as citation: "Central Statistical Authority of Ethiopia (CSA). Agricultural Sample Survey (AgSS 2012-2013) "

## Rights & Disclaimer

**Disclaimer**
The user of the data acknowledges that the original collector of the data, the authorized distributor of the data, and the relevant funding agency bear no responsibility for use of the data or for interpretations or inferences based upon such uses.

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| **Copyright** | (c) 2013, Central Statistical Agency of Ethiopia |

# Files Description

**Dataset contains 3 file(s)**

| Holder characteristics | |
|---|---|
| **# Cases** | 35599 |
| **# Variable(s)** | 15 |

| Household characteristics | |
|---|---|
| **# Cases** | 34233 |
| **# Variable(s)** | 10 |

| Field characteristics | |
|---|---|
| **# Cases** | 105558 |
| **# Variable(s)** | 64 |

# Documentation



## Reports and analytical documents

**REPORT ON AREA AND PRODUCTION OF BELG SEASON CROPS FOR PRIVATE PEASANT HOLDINGS 2012-13**, Central Statistical Agency, September 2013, Ethiopia [eth], English [eng], "Doc\Belg 2005 Area and Production report.pdf"

**REPORT ON FARM MANAGEMENT PRACTICE BELG SEASON CROPS FOR PRIVATE PEASANT HOLDINGS 2012-13**, Central Statistical Agency, September 2013, Ethiopia [eth], English [eng], "Doc\Belg 2005 E.C Farm Management practice report.pdf"

**Study Documentation**, Statistical Agency, September 2013, Ethiopia [eth], English [eng], "Doc \AGSS_2013_metadata.pdf"