

**Ethiopia**

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

**Agricultural Sample Survey 2011-2012 (2004 E.C)**

**Study Documentation**

June 5, 2012

# Metadata Production

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## Ethiopia (2011-2012) Agricultural Sample Survey 2011-2012 (2004 E.C) (AgSS 2010-2011)

Overview	
Type	Agricultural Survey [ag/oth]
Identification	ETH-CSA-AgSS-2011-v1.0
Version	Version 1.0: Edited and non anonymized dataset, for internal use only.
<b>Abstract</b>	
<p>The general objective of CSA's Agricultural Sample Survey (AgSS) is to collect basic quantitative information on the country's agriculture that is essential for planning, policy formulation, monitoring and evaluation of mainly food security and other agricultural activities. The AgSS is composed of four components: Crop Production Forecast Survey, Meher Season Post Harvest Survey (Area and production, land use, farm management and crop utilization), Livestock Survey and Belg Season Survey.</p> <p>The specific objectives of Meher Season Post Harvest Survey are to estimate the total crop area, volume of crop production and yield of crops for Meher Season agriculture in Ethiopia. The report is based on private peasant holdings in rural sedentary areas of the country and part of companion reports on the performance of agriculture in the country. The report is compiled at regional and zonal level.</p>	
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.

The range of data items that the 2010/11 (2003 E.C.) Annual Agricultural Sample Survey (Meher Season) dealt with includes all cereals, pulses and oilseeds and the most commonly grown vegetables, root crops and permanent (perennial) crops. Holders growing at least one or more of these and / or other crops are enumerated and data on crop area and yield condition recorded, hence data on production of these crops acquired.

The 2010/11 (2003 E.C.) Annual Agricultural Sample Survey (Meher season) covered the entire rural parts of the country except the non-sedentary population of three zones of Afar & six zones of Somali regions.

#### Geographic Coverage

The 2011/12 (2004 E.C.) Annual Agricultural Sample Survey (Meher season) covered the entire rural parts of the country except the non-sedentary population of three zones of Afar & six zones of Somali regions.

To be covered by the survey, a total of 2,290 Enumeration Areas (EAs) were selected. However, due to various reasons that are beyond control, in 17 EAs the survey could not be successful and hence interrupted. Thus, all in all the survey succeeded to cover 2,273 EAs (99.25 %) throughout the regions. The Annual Agricultural Sample survey (Meher season) was conducted on the basis of 20 agricultural households selected from each

EA. Regarding the ultimate sampling units, it was intended to cover a total of 47,080 agricultural households, however, 45,575 (98.9 %) were actually covered by the survey.

### **Universe**

Agricultural households

## **Producers & Sponsors**

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

## **Sampling**

### **Sampling Procedure**

#### **SAMPLING FRAME**

The list containing EAs of all regions and their respective households obtained from the 1999 E.C cartographic 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 the secondary sampling units (SSUs) were agricultural households. The sample size for the 2010/11 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.

All regions were taken to be the domain of estimation for which major findings of the survey are reported.

### **Response Rate**

A total of 2,290 Enumeration Areas (EAs) were selected. However, due to various reasons that are beyond control, in 17 EAs the survey could not be successful and hence interrupted. Thus, all in all the survey succeeded to cover 2,273 EAs (99.25 %) throughout the regions. The Annual Agricultural Sample survey (Meher season) was conducted on the basis of 20 agricultural households selected from each EA. Regarding the ultimate sampling units, it was intended to cover a total of 47,080 agricultural households, however, 45,575 (98.9 %) were actually covered by the survey.

## **Data Collection**

<b>Data Collection Dates</b>	start 2011 end 2012
<b>Data Collection Mode</b>	Face-to-face [f2f]

### **Data Collection Notes**

#### **ORGANIZATION OF FIELD WORK**

The conduct of a survey cannot be executed without the arrangement of fieldwork. In recognition of this, the organization of fieldwork has been entrusted to the Desks that liaises between the Head Office and the 25 Branch Statistical Offices spread across the regions. All Branch Offices took part in the survey execution especially in recruiting the

enumerators, organizing the 2nd stage training, assigning the field staff to their sites of enumeration, supervising the data collection and retrieving completed questionnaires and submitting them to the Head Office for data processing.

The Branch Offices were also responsible for administering the financial and logistic aspects of the survey within their areas of operation. A total of 2,394 enumerators, 529 field supervisors and 66 statisticians were involved in the data collection where on the average one supervisor was assigned to five enumeration areas for supervision of data collection. All the enumerators were supplied with the necessary survey equipment after the completion of the training to ensure the smooth operation of the survey. To facilitate the data collection activities, a total of 194 four-wheel drive vehicles were used.

#### TRAINING OF FIELD STAFF

The execution of a survey and quality of data acquired from the survey highly depend on the type of training given to the enumerators and supervisors and the consequent understanding of the tasks to be performed and the standard procedures to be followed by the enumerators and supervisors in the survey undertaking. The quality and completeness of data are ensured when the training meets its objective of producing responsible and fervent enumerators and supervisors.

In light of this point, the training was given to the field staff in two stages. The first stage training, which took place at the SNNPR capital Awassa and lasted 7 days targeted staff from the Head Office, statisticians and senior field supervisors from Branch Statistical Offices. The staff that took part in the first stage training was then assigned to conduct similar training for the enumerators and other supervisors for 15 days in all the twenty- five Branch Statistical Offices distributed across the country. In the training the field staff was given detailed classroom instruction on how to collect data, method of area measurement, interviewing procedures, etc. The training also included field practice to reinforce the understanding of concepts, definitions and theories discussed in the classroom with regard to field measurement, crop cutting, GPS reading and interviewing methods.

#### METHOD OF DATA COLLECTION

The agricultural data for the year 2011/12 (2004 E.C.) was collected from sedentary rural peasant households by interviewing the selected agricultural holders and physically measuring their fields to obtain data on crop yields and other items of interest.

The data obtained were recorded in various forms designed for this purpose. Instruments like measuring tape; compass, kitchen balance, scientific calculators, GPS ( Oromiya region only) and others were used during data collection for a timely and smooth acquisition of accurate data. The procedures for measuring area under crop and area of non - crop fields operated by the holders were performed for the 30 selected households from each sampled E.A. using measuring tapes and compasses as well as GPS.

#### **Questionnaires**

The 2011-2012 annual Agricultural Sample Survey used structured questionnaires to collect agricultural information from selected sample households.

List of forms in the questionnaires:

- AgSS Form 2004/0: It contains forms that used to list all households in the sample areas.
- AgSS Form 2004/1: It contains forms that used to list selected agricultural households and holders in the sample areas.
- AgSS Form 2004/2A: It contains forms that used to collect information about crops, results of area measurements covered by crops and other land uses.
- AgSS Form 2004/2B: It contains forms that used to collect information about miscellaneous questions for the holders.
- AgSS Form 2004/4: It contains forms that used to collect information about list of temporary crop fields for selecting crop cutting plots.

- AgSS Form 2004/5: It contains forms that used to collect information about list of temporary crop cutting results.

<b>Data Collector(s)</b>	Central Statistical Agency of Ethiopia (CSA) , Ministry of Finance and Economic Development
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## Data Processing & Appraisal

### **Data Editing**

Editing, Coding and Verification

Statistical data editing plays an important role in ensuring the quality of the collected survey data. It minimizes the effects of errors introduced while collecting data in the field, hence the need for data editing, coding and verification. Although coding and editing are done by the enumerators and supervisors in the field, respectively, verification of this task is done at the Head Office.

An editing, coding and verification instruction manual was prepared and reproduced for this purpose. Then 66 editors-coders and verifiers were trained for two days in editing, coding and verification using the aforementioned manual as a reference and teaching aid. The completed questionnaires were edited, coded and later verified on a 100 % basis before the questionnaires were passed over to the data entry unit. The editing, coding and verification exercise of all questionnaires took 18 days.

Data Entry, Cleaning and Tabulation

Before data entry, the Agriculture, Natural Resources and Environment Statistics Directorate of the CSA prepared edit specification for the survey for use on personal computers for data consistency checking purposes. The data on the edited and coded questionnaires were then entered into personal computers. The data were then checked and cleaned using the edit specifications prepared earlier for this purpose. The data entry operation involved about 70 data encoders, 10 data encoder supervisors, 12 data cleaning operators and 55 personal computers. The data entered into the computers using the entry module of the CSPRO (Census and Survey Processing System) software, which is a software package developed by the United States Bureau of the Census. Following the data entry operations, the data was further reviewed for data inconsistencies, missing data ... etc. by the regular professional staff from Agriculture, Natural Resources and Environment Statistics Directorate. The final stage of the data processing was to summarizing the cleaned data and produce statistical tables that present the results of the survey using the tabulation component of the PC based CSPRO software produced by professional staff from Agriculture, Natural Resources and Environment Statistics Directorate.

### **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 respectively. Distribution of sampling units (sampled and covered EAs and households) by stratum is also presented in Appendix-III.

## Accessibility

<b>Access Authority</b>	Central Statistical Agency of Ethiopia (Ministry of Finance and Economic Development) , <a href="http://www.csa.gov.et">http://www.csa.gov.et</a> , <a href="mailto:csa@csa.gov.et">csa@csa.gov.et</a>
<b>Contact(s)</b>	Data Administrator (Central Statistical Agency) , <a href="http://www.csa.gov.et">http://www.csa.gov.et</a> , <a href="mailto:data@csa.gov.et">data@csa.gov.et</a>

### **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](http://www.csa.gov.et) )

### **Citation Requirements**

The following statement must be used as citation: "Central Statistical Authority of Ethiopia (CSA). Agricultural Sample Survey (AgSS 2010-2011) "

## **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.

<b>Copyright</b>	(c) 2011, Central Statistical Agency of Ethiopia
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# Files Description

Dataset contains 4 file(s)

Household Information	
# Cases	46847
# Variable(s)	10

Holder Information	
# Cases	48743
# Variable(s)	15

Field Information	
# Cases	588414
# Variable(s)	48

Miscellaneous	
# Cases	48702
# Variable(s)	29

# Documentation

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## Reports and analytical documents

**Area and Production of Major Crops 2011-2012**, Central Statistical Agency, June 2012, Ethiopia [eth], English [eng], "Doc\Report\Area and production report 2004.pdf"

**Study Documentation**, Central Statistical Agency, June 2012, Ethiopia [eth], English [eng], "Doc\Report \AgSS-2012 study Documentation.pdf"

## Questionnaires

**Agricultural Sample Survey 2010-2011 (2003 E.C) - Questionnaire**, Central Statistical Agency, Ethiopia [eth], Amharic [amh], "Doc\Questiannaries\QuestiannariesRevisedfina.pdf"

## Technical documents

**Form for Requesting Access to Raw Data**, Central Statistical Agency, Ethiopia [eth], English [eng], "doc \Technical\CSA\_Data\_Request\_Form.pdf"

**Instruction Manual**, Central Statistical Agency, October 2010, Ethiopia [eth], Amharic [amh], "Doc\Technical \Instruction manual sample 2005.pdf"

**Supervisor Manual**, Central Statistical Agency, Ethiopia [eth], English [eng], "Doc\Technical\Supervisors manual.pdf"

## Other documents

**AgSS 2011-12 questionnaire**, Central Statistical Agency, Ethiopia [eth], English [eng], "Doc\Questiannaries \Questiannaries Engilish.pdf"