Ethiopia

Central Statistical Agency, Ministry of Finance and Economic Development

# Agricultural Sample Survey 2005-2006 (1998 E.C)

**Study Documentation** 

December 28, 2010

# **Metadata Production**

Metadata Producer(s)	Central Statistical Agency (CSA) , Ministry of Finance and Economic Development , Production and documentation of the study International Household Survey Network (IHSN) , Review of the metadata			
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This document was generated using the IHSN Microdata Management Toolkit

# **Table of Contents**

<u>Overview</u>	1
Scope & Coverage	1
Producers & Sponsors	2
Sampling	
Data Collection	
Data Processing & Appraisal	
Accessibility	
Rights & Disclaimer	
Files Description	
Main 98 Holder Information	
Dataset_agricultural_survey	7
Variables List	
Main 98 Holder Information	
Dataset agricultural survey	<u>8</u>
Variables Description	11
Main 98 Holder Information	11
Dataset_agricultural_survey	<u>14</u>
	<u>24</u>

## Ethiopia (2005-2006) Agricultural Sample Survey 2005-2006 (1998 E.C) (AgSS 2005-2006)

Overview			
Туре	Agricultural Survey [ag/oth]		
Identification	ETH-CSA-AgSS-2005-v1.1		
Version	Version 1.1: Edited and non anonymized dataset, for internal use only.		

#### Abstract

The production and utilization of food crops is a necessity to humanity. Agriculture, as a primary activity directly connected to food availability, plays a crucial role in responding to this necessity. Agriculture is presumed to be the engine for economic development in developing countries and more oriented to rural development to ensure the wellbeing of the population. Consequently the efforts of government and non - government organizations have been poured on to it besides the farmers' to realize food security. Adverse conditions emanating from natural disasters and man made problems such as the over exploitation of land generate shocks to agriculture that instigate crises related to food availability. These and other effects necessitate a priority in scrutinizing the performance of agriculture in order to combat food crises. Accurate and timely statistics are a requisite to check, appraise and gauge the agricultural situation. They are used to inform data users of the nature of agriculture and changes taking place in it and trigger policy intervention. To this end, the Central Statistical Agency (CSA) has been furnishing statistical information on the country's agriculture since 1980-1981. As part of this task the 2005-2006 (1998 E.C) Agricultural Sample Survey was conducted to provide data on crop area and production of crops within the private peasant holdings for Main ("Meher") Season of the cited year.

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 specific objectives of Main ("Meher") Season Post Harvest Survey are:

- To estimate the total cultivated area, production and yield of crops and provide estimates of land use area and quantity of agricultural inputs.

- To estimate the total volume of inputs used, inputs applied area and number of holders using inputs.
- To estimate the total cultivated area and other forms of land use.

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 2005-2006 annual Agricultural Sample Survey covered the entire rural parts of the country except all zones of Gambella region, and the non-sedentary population of three zones of Afar and six zones of Somali regions.

#### <u>Universe</u>

Producers & Sponsors			
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 agricultural households obtained from the 2001/02 Ethiopian Agricultural Sample Enumeration (EASE) 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. Resettlement localities, on the other hand, are sub-samples of the list of all resettlements localities obtained from each region. The second stage sampling units, households, were selected from a fresh list of households that were prepared for each EA/ resettlement localities 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) /resettlement locality were taken to be the primary sampling units (PSUs) and the secondary sampling units (SSUs) were agricultural households. In 2005-2006, unlike the years before, in order to obtain a fairly representative number of extension program participant households the CSA categorized the listed agricultural households in each EAs/resettlement area into two strata, i.e. households that are and that are not participants of extension program. The stratification was done on the basis of the six major crops where by the extension program is mostly exercised in the country. The crops are maize, teff, wheat, barley, sorghum and finger millet. The sample size for the 2005-2006 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 guality and operational control was also in addition considered. Except Harari, Addis Ababa and Dire Dawa, where each region as a whole was taken to be the domain of estimation; each zone of a region / special wereda was adopted as a stratum for which major findings of the survey are reported. Moreover, values about the 2005-2006 cultivated areas of crops and the expected amount of production for Gambella region is also provided. However, it is important to note that the values are not obtained from the survey but they are projections from the results of the 2003/04 annual Crop Production Forecast Sample Survey.

#### Selection Scheme:

Enumeration areas/resettlement localities 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 1994 Population & Housing Census and adjusted for the sub-sampling effect. Sizes for resettlement localities on the other hand were obtained from the 2004 listings of resettlement localities. From the fresh list of households prepared at the beginning of the survey 30 agricultural households within each sample EA/resettlement locality were selected systematically. Twenty of the households were selected from non extension participant agricultural households while the rest 10 households were selected from extension participant agricultural households.

Note: Distribution of sampling units planned and covered EAs and resettlement localities) by stratum is presented in Appendix III of 2005-2006 Agricultural Sample Survey, Volume I report which is provided as external resource.

#### Response Rate

A total of 2,024 enumeration areas (EAs) and 250 resettlement localities were selected to be covered in the survey. However, due to various reasons that are beyond control, in 12 EAs and 1 resettlement locality the survey

could not be successful and hence interrupted. Thus, all in all the survey succeeded to cover 2,012 EAs and 249 resettlement localities (99.43 %) throughout the regions.

Data Collection			
Data Collection Dates	start 2005-09 end 2006-02		
Data Collection Mode	Face-to-face [f2f]		

#### **Data Collection Notes**

#### Organization of field work:

To successfully conduct the survey a well executed fieldwork arrangement was necessary. In recognition of this, the organization of fieldwork has been entrusted to the Department of Field Operations 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 in administering the financial and logistic aspects of the survey within their areas of operation. A total of 2388 enumerators, 455 field supervisors, 25 coordinators and 50 statisticians were involved in the 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 205 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 is 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 Head Quarters of CSA and lasted 10 days targeted staff from the Head Office, 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 fifteen 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, method of crop cutting, 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 and interviewing methods.

#### Method of data collection:

The agricultural data for the year 2005/06(1998 E.C) was collected from sedentary rural peasant households by interviewing the selected agricultural holders and physically measuring their fields and performing crop cutting procedures to gather 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 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 25 selected households from each sampled E.A. using measuring tapes and compasses. All fields under major temporary crops of each holder of the fifteen randomly selected households of the 25 sample households were classified by crop type and a crop field was randomly selected from each crop type for crop cutting to be performed. The crop cutting procedure consists of demarcation of a four meter by four meter plot randomly located in the selected field where the crop in the demarcated plot is to be harvested. Following the enumerator's harvest of the crop demarcated and threshing, the crop is kept in bags with identification information (i.e. holder's number, parcel and field numbers). The crop stored in the bag is weighed immediately (green weight) after

threshing and weighed again after two weeks of drying to simulate normal holder harvesting and drying practices. Both the green and dry weights are recorded on the respective forms.

#### **Questionnaires**

The 2005-2006 annual Agricultural Sample Survey used structured questionnaires to collect agricultural information from selected sample households.

List of forms in the questionnaires:

- AgSS Form 98/0: It contains forms that used to list all households in the sample areas.

- AgSS Form 98/1: It contains forms that used to list selected households in the sample areas.

- AgSS Form 98/2A: It contains forms that used to collect information about crops, results of area measurements covered by crops and other land uses.

- AgSS Form 98/2B: It contains forms that used to collect information about miscellaneous questions for the holders.

- AgSS Form 98/4: It contains forms that used to collect information about list of temporary crop fields for selecting crop cutting plots.

- AgSS Form 98/5: It contains forms that used to collect information about list of temporary crop cutting results.

Note: The questionnaires are presented in the Appendix III of the 2005-2006 Agricultural Sample Survey report, Volume I which is provided as external resource.

Data Collector(s)Central Statistical Agency of Ethiopia (CSA) , Ministry of Finance and Economic<br/>Development

#### **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 55 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 25 days.

#### Data Entry, Cleaning and Tabulation:

Before data entry, the Natural Resources and Agricultural Statistics Department 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 80 data encoders and it took 60 days to finish the job. Finally, summarization of the data was done on personal computers to produce statistical tables as per 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 2005-2006 Agricultural Sample Survey, Volume I report which is provided as external resource.

Accessibility	
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	

#### - 4 -

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 (AgSS2005-2006) "

### 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.

Copyright
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# **Files Description**

Dataset contains 2 file(s)

Main 98 Holder Information					
# Cases	36875				
# Variable(s)	15				
File Structure	Type: relational Key(s): v01 (Region), v02 (Zone), v03 (District), v04 (Farmers' association), v05 (Enumeration area), v06 (Household number), v07 (Household head sex), v08 (Holder number)				
File Content	t household holder level and contains information chaut holder's say, and continnal				

Dataset collected at household holder level and contains information about holder's sex, age, educational background and type of holding.

#### **Producer**

Central Statistical Agency of Ethiopia

#### Version

Version 1.1: In this version of the dataset appropriate variable information are provided and missing variable documentation information is also given including value labels.

Dataset_agricultural_survey					
# Cases	509617				
# Variable(s)	45				
File Structure	Type: relational Key(s): v01 (Region), v02 (Zone), v03 (District), v04 (Farmers' association), v05 (Enumeration area), v06 (Household number), v07 (Household head sex), v08 (Holder number), parcel (Parcel), fld (Field), part (Field number for each of mixed crops (if the field is covered by mixed crops))				

#### File Content

This file contains information about agricultural practices, production, area covered by crops and different land use at crop level.

#### **Producer**

Central Statistical Agency of Ethiopia

#### Version

Version 1.1: In this version of the dataset appropriate variable information are provided and missing variable documentation information is also given including value labels.

#### <u>Notes</u>

If EA greater than 150, then it is sefera otherwise it is non sefera.

# Variables List

Dataset contains 60 variable(s)

File	File Main 98 Holder Information							
#	Name	Label	Туре	Format	Valid	Invalid	Question	
1	<u>v01</u>	Region	discrete	numeric-2.0	36875	0	Region	
2	<u>v02</u>	Zone	continuous	numeric-2.0	36875	0	Zone	
3	<u>v03</u>	District	continuous	numeric-2.0	36875	0	District/ Wereda	
4	<u>v04</u>	Farmers' association	continuous	numeric-3.0	36875	0	Farmers' association	
5	<u>v05</u>	Enumeration area	continuous	numeric-2.0	36875	0	Enumeration area	
6	<u>v06</u>	Household number	continuous	numeric-3.0	36875	0	Household number	
7	<u>v07</u>	Household head sex	discrete	numeric-1.0	36875	0	Household Head sex	
8	<u>v08</u>	Holder number	continuous	numeric-1.0	36875	0	Holder number	
9	hweight	Holder weight	continuous	numeric-6.2	36875	0	Holder weight	
10	<u>v09</u>	Holder's age	continuous	numeric-2.0	36875	0	Holder's age	
11	<u>v10</u>	Holder sex	discrete	numeric-1.0	36875	0	Holder's sex	
12	<u>v11</u>	Educational status or highest grade completed	discrete	numeric-2.0	36875	0	Educational status or highest grade completed	
13	<u>v12</u>	Household size	continuous	numeric-2.0	36875	0	Household size	
14	<u>v13</u>	Type of holding	discrete	numeric-1.0	36875	0	Type of holding	
15	<u>hratio</u>	Holder ratio	continuous	numeric-8.7	36875	0	Holder ratio	

#	Name	Label	Туре	Format	Valid	Invalid	Question
1	<u>v01</u>	Region	discrete	numeric-2.0	509617	0	Region
2	<u>v02</u>	Zone	continuous	numeric-2.0	509617	0	Zone
3	<u>v03</u>	District	continuous	numeric-2.0	509617	0	District/ Wereda
4	<u>v04</u>	Farmers' association	continuous	numeric-3.0	509617	0	Farmers' association
5	<u>v05</u>	Enumeration area	continuous	numeric-2.0	509617	0	Enumeration area
6	<u>v06</u>	Household number	continuous	numeric-3.0	509617	0	Household number
7	<u>v07</u>	Household head sex	discrete	numeric-1.0	509617	0	Household Head sex
8	<u>v08</u>	Holder number	continuous	numeric-1.0	509617	0	Holder number
9	parcel	Parcel	continuous	numeric-2.0	509617	0	Parcel number
10	<u>fld</u>	Field	continuous	numeric-2.0	509617	0	Field number
11	wgt	Household weight	continuous	numeric-6.2	509617	0	Household weight
12	<u>part</u>	Field number for each of mixed crops (if the field is covered by mixed crops)	continuous	numeric-1.0	509617	0	Field number for each of mixed crops (if the field is covered by mixed crops)
13	fldt	Field type	discrete	numeric-1.0	509617	0	Field type
14	crop	Crop type	discrete	numeric-3.0	509617	0	Crop type
15	owntype	Ownership	discrete	numeric-1.0	509616	1	Ownership

#	Name	Label	Туре	Format	Valid	Invalid	Question
16	<u>ext</u>	Packed under extension program	discrete	numeric-1.0	509617	0	Is field under extension program?
17	irrg	Used irrigation	discrete	numeric-1.0	390958	118659	Is field irrigated?
18	sirrg	Source of water	discrete	numeric-1.0	12854	496763	If field irrigated, what is the source of water?
19	serro	Prevented from soil erosion	discrete	numeric-1.0	412643	96974	Is field prevented form erosion?
20	merro	Measure for errosion	discrete	numeric-1.0	235752	273865	Common way of prevention
21	trees	Number of fruit trees	continuous	numeric-5.0	56065	453552	Number of fruit trees (excluding coffee, chat, pineapple, sugarcane)
22	treesba	Number of fruit bearing trees	continuous	numeric-5.0	56065	453552	Number of fruit bearing trees (excluding coffee, chat, pineapple, sugarcane)
23	<u>seedtype</u>	Seed / seedling type	discrete	numeric-1.0	388754	120863	Seed / seedling type
24	wtimseed	Quantity of improved seeds used (for cereals, pulses & oilseeds only)	continuous	numeric-8.3	9555	500062	For cereals, pulses & oilseeds only quantity of improved seeds used
25	<u>costimps</u>	Price of improved seeds used (for cereals, pulses & oilseeds only)	continuous	numeric-9.2	9830	499787	For cereals, pulses & oilseeds only price of improved seeds used
26	wtniseed	Quantity of indigenous seeds used (for cereals, pulses & oilseeds only)	continuous	numeric-8.3	211762	297855	For cereals, pulses & oilseeds only quantity of indigenous seeds used
27	<u>damage</u>	Crop damaged	discrete	numeric-1.0	390102	119515	Was crop damaged?
28	dreason	Cause of damage	discrete	numeric-2.0	114684	394933	Cause of damage
29	dpercent	Percent of damaged crop	continuous	numeric-3.0	114595	395022	Percent of damaged crop
30	dmeasure	Measure taken to prevent the damage	discrete	numeric-1.0	389792	119825	Prevention/precaution measure taken?
31	<u>dmtype</u>	Type of measure	discrete	numeric-1.0	372061	137556	Type of measure if any?
32	dmchem	Type of chemical used	discrete	numeric-1.0	19233	490384	Chemical type used if any
33	fert	Ferilizer used	discrete	numeric-1.0	509617	0	Is fertilizer used?
34	<u>ferttype</u>	Type of fertilizer used	discrete	numeric-1.0	179208	330409	Type of fertilizer used if any?
35	<u>d22a</u>	Chemical fertilizer type	discrete	numeric-1.0	57177	452440	If chemical fertilizer used, what type was it?
36	<u>d22b</u>	Chemical fertilizer quantity	continuous	numeric-8.3	55690	453927	Quantity of chemical fertilizer used
37	<u>d23</u>	Natural fertilizer type	discrete	numeric-1.0	131452	378165	If natural fertilizer used, what type was it?
38	<u>d24</u>	Double temporary cropping in main season	discrete	numeric-1.0	322179	187438	Double temporary cropping in main season
39	<u>d25a</u>	Double crop type	discrete	numeric-3.0	4948	504669	Which crop is the 2nd harvest?
40	<u>d26</u>	Previous state of field	discrete	numeric-1.0	507076	2541	What was the previous state of the field?
41	apercent	Percent share of mixed crops	continuous	numeric-3.0	509435	182	Percent share of mixed crops
42	cerror	Closure error	continuous	numeric-6.0	496679	12938	Closure error
43	areah	Area in hectar	continuous	numeric-8.6	509365	252	Area in hectar
44	prodq	Production in quintal	continuous	numeric-8.2	331868	177749	Production in quintal

File	Dataset_a	gricultural_survey					
#	Name	Label	Туре	Format	Valid	Invalid	Question
45	landuse	Land utilization	discrete	numeric-8.0	509617	0	Land utilization

# **Variables Description**

Dataset contains60 variable(s)

## File Main 98 Holder Information

#1 v01: F	Region								
Informatio	on	[Type= discrete] [Formate	=numeric] [Range= 1-	15] [Missing=*]					
Statistics [NW/ W] [Valid=36875 / 8972			16 ] [Invalid=0 / 0 ]						
Literal question Region									
Value	Label	1	Cases	Weighted	Perc	entage (Weighted)			
1	Tigray		3346	601592.4	6.7%				
2	Afar		660	25462.6	0.3%				
3	Amhara		7403	2564063.0		28.6%			
4	Oromiya		10784	3493610.5		38.9%			
5	Somalie		1419	107191.0	1.2%				
6	Benshang	jul	1360	112587.1	1.3%				
7	SNNP		10778	2033551.4		22.7%			
12	Gambela		0	0.0	0.0%				
13	Harari		464	15197.0	0.2%				
14	Addis aba	ba	251	3810.6	0.0%				
15	Dire dawa	l e number of cases found in the d	410	15723.7	0.2%				
nformatic Statistics _iteral que	[NW/ W]	[Type= continuous] [Format=numeric] [Range= 1-21] [Missing=*] [Valid=36875 /-] [Invalid=0 /-] [Mean=6.442 /-] [StdDev=4.944 /-] Zone							
#3 <b>v03: [</b>		Zone							
Informatio	on	[Type= continuous] [Form	nat=numeric] [Range=	= 1-35] [Missing=	=*]				
Statistics	[NW/ W]	[Valid=36875 /-] [Invalid=	0 /-] [Mean=6.8 /-] [St	] [Mean=6.8 /-] [StdDev=6.064 /-]					
Literal que	estion	District/ Wereda							
#4 <b>v04: F</b>	Farmers' ass	ociation							
nformatio	on	[Type= continuous] [Form	nat=numeric] [Range=	= 1-162] [Missing	g=*]				
Statistics	[NW/ W]	[Valid=36875 /-] [Invalid=	0 /-] [Mean=38.975 /-]	[Mean=38.975 /-] [StdDev=43.971 /-]					
Literal que		Farmers' association							
#5 <b>v05: E</b>	Enumeration	area							
Informatio	on	[Type= continuous] [Form	nat=numeric] [Range=	= 1-99] [Missing=	=*]				
Statistics	tatistics [NW/W]         [Valid=36875 /-] [Invalid=0 /-] [Mean=1.978 /-] [StdDev=2.008 /-]								
Literal que		Enumeration area							
	lousehold nu	1							
Informatio		[Type= continuous] [Form							
Statistics	[NW/ W]	[Valid=36875 /-] [Invalid=	0 /-] [Mean=115.565 /	-] [Mean=115.565 /-] [StdDev=101.286 /-]					
Literal question Household number									

## File Main 98 Holder Information

	11 <b>30</b> 11							
#7 v07: Hou	usehold h	ead sex						
Information [Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]								
Statistics [NV	v/ w]	[Valid=36875 / 8972789.16 ] [Inval	id=0 / 0 ]					
Literal questi	on	Household Head sex						
Value	Label	,	Cases	Weighted	Percentage (Weighted)			
1	Male		30723	7368937.9		82.1%		
2	Female		6152	1603851.3	17.9%			
	-	e number of cases found in the data file. The	y cannot be in	terpreted as summar	y statistics of the population of interest.			
<sup>#8</sup> v08: Hol	der numb	-						
Information		[Type= continuous] [Format=nume						
Statistics [NV		[Valid=36875 /-] [Invalid=0 /-] [Mea	n=1.016 /-]	[StdDev=0.149 /-	]			
Literal questi	on	Holder number						
<sup>#9</sup> hweight	: Holder w	reight						
Information		[Type= continuous] [Format=nume	ric] [Range=	= 1-1793.58] [Mis	sing=*]			
Statistics [NV	v/ w]	[Valid=36875 /-] [Invalid=0 /-] [Mea	n=243.33 /-	][StdDev=187.25	59 /-]			
Literal questi	on	Holder weight						
<sup>#10</sup> v09: Ho	older's age	)						
Information		[Type= continuous] [Format=nume	ric] [Range=	= 1-98] [Missing=	*]			
Statistics [NV	v/ w]	[Valid=36875 / 8972789.16 ] [Inval	id=0 / 0 ]					
Literal questi	on	Holder's age						
		Frequency ta	ble not show	vn (94 Modalities	3)			
#11 <b>v10: Ho</b>	lder sex							
Information		[Type= discrete] [Format=numeric]	[Range= 1-	2] [Missing=*]				
Statistics [NV	v/ w]	[Valid=36875 / 8972789.16 ] [Inval	id=0 / 0 ]					
Literal questi	on	Holder's sex						
Value	Label	1	Cases	Weighted	Percentage (Weighted)			
1	Male		30757	7379866.3		82.2%		
2	Female		6118	1592922.8	17.8%			
Warning: these fig	gures indicate th	e number of cases found in the data file. The	y cannot be in	erpreted as summar	y statistics of the population of interest.			
<sup>#12</sup> v11: Ed	lucational	status or highest grade co	mpleted					
Information		[Type= discrete] [Format=numeric]	[Range= 1-	99] [Missing=*]				
Statistics [NV	v/ w]	[Valid=36875 / 8972789.16 ] [Inval	id=0 / 0 ]					
Literal questi	on	Educational status or highest grad	e completed	1				
Value	Label		Cases	Weighted	Percentage (Weighted)			
1	Illitrate		24728	6023799.8		67.1%		
2	Informal e	education	2946	794777.2	8.9%			
3	Grade 1 d	completed	828	187639.6	2.1%			
4	Grade 2 d	completed	1345	328813.5	3.7%			
5		completed	1542	362823.9	4.0%			
6		completed	1359	316873.5	3.5%			
7	Grade 5 d	completed	1149	261756.8	2.9%			

## File Main 98 Holder Information

#### #12 v11: Educational status or highest grade completed

Value	Label	Cases	Weighted	Percentage (Weighted)
8	Grade 6 completed	1088	244134.3	2.7%
9	Grade 7 completed	648	158361.3	1.8%
10	Grade 8 completed	478	109168.6	1.2%
11	Grade 9 complete through the old education system	268	69608.1	0.8%
12	Grade 10 completed through the old education system	202	47054.3	0.5%
13	Grade 11 completed through the old education system	28	6569.4	0.1%
14	Grade 12 completed through the old education system	193	42500.3	0.5%
15	Above grade 12	73	18908.6	0.2%
16	Grade 9 complete through the new education system	0	0.0	0.0%
17	Grade 10 complete through the new education system	0	0.0	0.0%
18	Studing at the vocational school after completion of grade 10 through the new education system	0	0.0	0.0%
19	Obtained certificate after complition of voccational school through the new education system	0	0.0	0.0%
20	Completed grade 11 preparatory studies for higher education	0	0.0	0.0%
21	Completed grade 12 preparatory studies for higher education	0	0.0	0.0%
22	Above from grade 12 preparatory studies	0	0.0	0.0%
99	Not stated	0	0.0	0.0%

#### #13 v12: Household size

<sup>#13</sup> v12: Ho	ousehold s	size							
Information Statistics [NW/ W]		[Type= continuous] [Format=numeric] [Range= 1-99] [Missing=*]							
		[Valid=36875 / 8972789.16 ] [Invalid=0 / 0 ]							
Literal questi	ion	Household size							
Value	Label	Label		Weighted	Percentage (Weighte	d)			
1	1		1472	215557.8	2.4%				
2	2		3071	697844.2	7.8%				
3	3		4830	1171756.7	13	5.1%			
4	4		5939	1459138.4		16.3%			
5	5		5999	1504973.2		16.8%			
6	6		5411	1355059.3		15.1%			
7	7		4087	1023985.4	11.4%				
8	8		2868	737045.9	8.2%				
9	9		1514	386630.3	4.3%				
10	10		937	227769.2	2.5%				
11	11		339	88158.7	1.0%				
12	12		250	64215.3	0.7%				

## File Main 98 Holder Information

#13 v12: Household size								
Label	Cases	Weighted	Percentage (Weighted)					
13	72	18365.0	0.2%					
14	40	9538.7	0.1%					
15	22	6141.6	0.1%					
16	9	2829.1	0.0%					
17	3	1059.5	0.0%					
18	2	678.1	0.0%					
19	1	275.9	0.0%					
20	2	33.3	0.0%					
22	2	72.0	0.0%					
23	1	398.5	0.0%					
31	1	456.9	0.0%					
99	3	806.1	0.0%					
	Label 13 14 15 15 16 17 17 18 19 20 20 22 23 23 31 31	Label         Cases           13         72           14         40           15         22           16         9           17         3           18         22           19         1           20         2           23         1           31         1           99         3	LabelCasesWeighted137218365.014409538.715226141.61692829.11731059.5182678.1191275.920233.322272.0231398.5311456.9					

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

#### #14 v13: Type of holding

Information [Type= discrete] [Format=numeric] [F		[Range= 1-	-9] [Missing=*]			
Statistics [NW/ W] [Valid=36875 / 8972789.16 ] [Invalid			id=0 / 0 ]			
Literal quest	tion	Type of holding				
Value	Label		Cases	Weighted	Percentage (Weighted)	
1	Crop only		4250	791965.4	8.8%	
2	Livestock	only	1342	216782.4	2.4%	
3	Both	Both		7963898.9		88.8%
9 Not stated		1	142.5	0.0%		
Warning: these f	figures indicate the	e number of cases found in the data file. The	y cannot be in	terpreted as summar	y statistics of the population of interest.	

#### #15 hratio: Holder ratio

Information	[Type= continuous] [Format=numeric] [Range= 0.0062599-1] [Missing=*]
Statistics [NW/ W]	[Valid=36875 /-] [Invalid=0 /-] [Mean=0.188 /-] [StdDev=0.287 /-]
Literal question	Holder ratio

#1	v01	:	Region
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Information		[Type= discrete] [Format=numeric] [Range= 1-15] [Missing=*]					
Statistics [NW/ W]         [Valid=509617 /-] [Invalid=0 /-]							
Literal question Region							
Value	Label		Cases	Percentage			
1	Tigray		34241	6.7%			
2	Afar		3711	0.7%			
3	Amhara		95463	18.7%			
4	Oromiya		153449	30.1%			
5	Somalie		7295	1.4%			
6	Benshang	ul	13719	2.7%			
7	SNNP		187432	36.8%			

		giicultulai_sulvey					
<sup>#1</sup> v01: Regi	on						
Value	Label		Cases	Percentage			
12	Gambela	0 0.0%					
13	Harari		6097	1.2%			
14	Addis aba	ba	4374	0.9%			
15 Warning: these figu	Dire dawa	e number of cases found in the data file. They cannot be inter	3836	0.8%			
#2 v02: Zone							
Information		[Type= continuous] [Format=numeric] [Range=	1-21] [Missing=	*]			
Statistics [NW/	/ W]	[Valid=509617 /-] [Invalid=0 /-] [Mean=6.827 /-] [	StdDev=5.22 /-	]			
Literal questio	n	Zone					
#3 <b>v03: Dist</b> r	rict	I					
Information		[Type= continuous] [Format=numeric] [Range=	1-35] [Missing=	*]			
Statistics [NW/	/ W]	[Valid=509617 /-] [Invalid=0 /-] [Mean=7.129 /-] [	StdDev=6.405	/-]			
Literal questio	n	District/ Wereda					
#4 v04: Farm	ners' ass	ociation					
Information		[Type= continuous] [Format=numeric] [Range=	1-162] [Missing	=*]			
Statistics [NW/	Statistics [NW/ W] [Valid=509617 /-] [Invalid=0 /-] [Mean=36.681 /-] [StdDev=38.944 /-]						
Literal questio	n	Farmers' association					
<sup>#5</sup> v05: Enur	meration	area					
Information		[Type= continuous] [Format=numeric] [Range=	1-99] [Missing=	*]			
Statistics [NW/	/ W]	[Valid=509617 /-] [Invalid=0 /-] [Mean=2.052 /-] [	StdDev=3.091	/-]			
Literal questio	n	Enumeration area					
#6 v06: Hous	sehold nu	umber					
Information		[Type= continuous] [Format=numeric] [Range=	1-999] [Missing:	=*]			
Statistics [NW/	/ W]	[Valid=509617 /-] [Invalid=0 /-] [Mean=117.817 /	-] [StdDev=92.1	/-]			
Literal questio	n	Household number					
<sup>#7</sup> v07: Hous	sehold he	ead sex					
Information		[Type= discrete] [Format=numeric] [Range= 1-2	] [Missing=*]				
Statistics [NW/	/ W]	[Valid=509617 /-] [Invalid=0 /-]					
Literal questio	n	Household Head sex					
Value	Label		Cases	Percentage			
1	Male		439947		86.3%		
2 Warning: these figu	Female	e number of cases found in the data file. They cannot be inter	69670	13.7%			
#8 v08: Hold			preteu as summary	, searches of the population of interest.			
Information			1-9] [Missing-*]				
	( <b>W</b> 1	[Type= continuous] [Format=numeric] [Range=					
Statistics [NW/ W]         [Valid=509617 /-] [Invalid=0 /-] [Mean=1.011 /-] [StdDev=0.121 /-]				[-]			
Literal questio	teral question Holder number						

#9 parcel: F	Parcel							
Information		[Type= continuous] [Format=numeric] [F	Range= 1-86] [Missing=*]					
Statistics [NV	V/ W]	[Valid=509617 /-] [Invalid=0 /-] [Mean=2	027 /-] [StdDev=1.88 /-]					
Literal questi	on	Parcel number						
#10 fld: Fiel	d							
Information		[Type= continuous] [Format=numeric] [F	Range= 1-97] [Missing=*]					
Statistics [NV	v/ w]	[Valid=509617 /-] [Invalid=0 /-] [Mean=4	alid=509617 /-] [Invalid=0 /-] [Mean=4.031 /-] [StdDev=4.181 /-]					
Literal questi	on	Field number	ald number					
#11 wgt: Ho	usehold	weight						
Information		[Type= continuous] [Format=numeric] [Format=numeric]	Range= 5.26-10754] [Missing=*]					
Statistics [NV	v/ w]	[Valid=509617 /-] [Invalid=0 /-] [Mean=3	97.609 /-] [StdDev=531.294 /-]					
Literal questi	on	Household weight						
#12 part: Fi	eld numb	er for each of mixed crops (if th	e field is covered by mix	(ed crops)				
Information		[Type= continuous] [Format=numeric] [F	Range= 1-3] [Missing=*]					
Statistics [NW/ W] [Valid=509617 /-] [Invalid=0 /-]								
Literal questi	on	Field number for each of mixed crops (i	f the field is covered by mixed cro	ops)				
Value	Label		Cases	Percentage				
1	1		435294		85.4%			
2	2		55897 11	.0%				
3 Warning: these fit	3 nures indicate t	he number of cases found in the data file. They canr	18426 3.6%	of the nonulation of interest				
#13 fldt: Fie	-							
Information		[Type= discrete] [Format=numeric] [Rar						
Statistics [NV	v/ w]	[Valid=509617 /-] [Invalid=0 /-]						
Literal questi	on	Field type						
Value	Label		Cases	Percentage				
1	Pure star	nd	260800		51.2%			
2	Mixed cr	ops	130421	25.6%				
3	Other lar	nd use	118396	23.2%				
		he number of cases found in the data file. They cann	ot be interpreted as summary statistics	of the population of interest.				
#14 crop: C	iop type	[Tupo= discrete] [Eermet=numeric] [Per						
		[Type= discrete] [Format=numeric] [Range= 1-999] [Missing=*]						
Statistics [NW/ W]		[Valid=509617 /-] [Invalid=0 /-] Crop type						
			ot shown (74 Modalities)					
#15 owntyp	e: Owner		(					
Information		[Type= discrete] [Format=numeric] [Rar						
Statistics [NV	v/ wi	[Valid=509616 /-] [Invalid=1 /-]						
Literal questi	_	Ownership						

## File Dataset\_agricultural\_survey

#15 owntype: Ownership						
Value	Label	Cases	Percentage			
1	Private	475603	g	93.3%		
2	Rent/leased	22499	4.4%			
3	Other	11514	2.3%			
Sysmiss		1				
-	res indicate the number of cases found in the data file. They cannot be interprete	d as summai	ny statistics of the population of interest			

the data file. They cannot be interpreted as su

#16 ext: Pack	ked unde	r extension program			
Information	nformation [Type= discrete] [Format=numeric] [Range= 1-2] [Mi				
Statistics [NW/	w]	[Valid=509617 /-] [Invalid=0 /-]			
Literal question	า	Is field under extension program?			
Value	Label		Cases	Percentage	
1	Yes		26255	5.2%	
2	No		483362		94.8%
Warning: these figu	res indicate th	e number of cases found in the data file. They cannot be interprete	ed as summar	y statistics of the population of interest.	

#17 irrg:	Used	irrigation
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Information		[Type= discrete] [Format=numeric] [Range= 1-9] [Missing=*]			
Statistics [N	IW/ W]	[Valid=390958 /-] [Invalid=118659 /-]			
Literal ques	tion	Is field irrigated?			
Value	Label		Cases	Percentage	
1	Yes		12854	3.3%	
2	No	No			96.7%
9	Not stated	Not stated		0.0%	
Sysmiss			118659		
Warning: these	figures indicate th	e number of cases found in the data file. They cannot be inter	preted as summar	y statistics of the population of interest.	

### #18 sirrg: Source of water

Literal question

0					
Information		[Type= discrete] [Format=numeric] [Range= 1-5] [Mi	issing=*]		
Statistics [NW	/ <b>W]</b>	[Valid=12854 /-] [Invalid=496763 /-]			
Literal questio	on	If field irrigated, what is the source of water?			
Value	Label		Cases	Percentage	
1	River		9980		77.6%
2	Lake		123	1.0%	
3	Pond		950	7.4%	
4	Water har	vesting	842	6.6%	
5	Other		959	7.5%	
Sysmiss			496763		
Warning: these figu	ures indicate the	e number of cases found in the data file. They cannot be interprete	ed as summar	y statistics of the population of interest.	
#19 serro: P	revented	from soil erosion			
Information		[Type= discrete] [Format=numeric] [Range= 1-9] [Mi	issing=*]		
Statistics [NW	/ <b>W]</b>	[Valid=412643 /-] [Invalid=96974 /-]			

Is field prevented form erosion?

#19 serro:	Prevente	d from soil erosion					
Value	Label		Cases	Pe	rcentage		
1	Yes		235746		57.1%		
2	No		176890		42.9%		
9	Nt state	d	7	0.0%			
Sysmiss Warning: these f	iqures indicate	the number of cases found in the data file. They	96974 cannot be interpreted as summar	v statistics of the population	n of interest.		
-	-	for errosion		, , , , , , , , , , , , , , , , , , ,			
Information [Type= discrete] [Format=numeric] [Rang		[Range= 1-5] [Missing=*]					
Statistics [N	w/ w]	[Valid=235752 /-] [Invalid=273865 /	-]				
Pre-question	1	If "Yes" in "Is field prevented form e	rosion?"				
Literal quest	ion	Common way of prevention					
Value	Label		Cases	Pe	rcentage		
1	Terracin	g	66366		28.2%		
2	Water ca	atchments	27365	11.6%			
3	Afforesta	ation	1981	0.8%			
4	Plough a	along the contour	112614		47.8%		
5	Others		27426	11.6%			
Sysmiss	iguraa indiaata	the number of cases found in the data file. They	273865	v statistics of the population	a of interact		
	-	f fruit trees					
Information		[Type= continuous] [Format=numer	ric] [Range= 0-99999] [Missi	ng=*/99999]			
Statistics [N	w/ w]	[Valid=56065 /-] [Invalid=453552 /-]					
- Literal quest	_	Number of fruit trees (excluding cot					
#22 treesba	a: Numbe	r of fruit bearing trees					
Information		[Type= continuous] [Format=numer	ric] [Range= 0-99999] [Missi	ng=*/99999]			
Statistics [N	w/ w]	[Valid=56065 /-] [Invalid=453552 /-]	[Valid=56065 /-] [Invalid=453552 /-] [Mean=38.661 /-] [StdDev=145.12 /-]				
Literal quest	ion	Number of fruit bearing trees (exclu	Number of fruit bearing trees (excluding coffee, chat, pineapple, sugarcane)				
<sup>#23</sup> seedty	pe: Seed	/ seedling type					
Information		[Type= discrete] [Format=numeric]	[Range= 1-2] [Missing=*]				
Statistics [N	w/ w]	[Valid=388754 /-] [Invalid=120863 /	-]				
Literal quest	ion	Seed / seedling type					
Value	Label		Cases	Pe	rcentage		
1	Improve	d	9775	2.5%			
2	Non imp	proved\indigenous	378979		97.5%		
Sysmiss Warning: these fi	iqures indicate	the number of cases found in the data file. They	120863	v statistics of the population	n of interest.		
-	-	tity of improved seeds used					
Information		[Type= continuous] [Format=numer					
Statistics [N		[Valid=9555 /-] [Invalid=500062 /-] [					

	mps: Price o	of improved seeds used (for	r cereals, pulses & oi	lseeds only)	
Informatio	n	[Type= continuous] [Format=numer	ric] [Range= 0.04-999999.99	9] [Missing=*/999999.99]	
Statistics [	[NW/ W]	[Valid=9830 /-] [Invalid=499787 /-] [	[Mean=235.504 /-] [StdDev=	384.232 /-]	
Literal que	stion	For cereals, pulses & oilseeds only	price of improved seeds us	ed	
#26 wtnis	eed: Quanti	ty of indigenous seeds use	d (for cereals, pulses	& oilseeds only)	
Information [Type= continuous] [Format=numeric] [R					
Statistics [		[Valid=211762 /-] [Invalid=297855 /			
Literal que	•	For cereals, pulses & oilseeds only		-	
	age: Crop da				
	• •				
Informatio		[Type= discrete] [Format=numeric]			
Statistics [		[Valid=390102 /-] [Invalid=119515 /	-]		
Literal que	estion	Was crop damaged?			
Value	Label		Cases	Percenta	ge
1	Yes		114681	29.4%	
2	No		275421		70.6%
Sysmiss			119515		
warning: thes	e figures indicate th	e number of cases found in the data file. They	/ cannot be interpreted as summar	y statistics of the population of inter-	est.
#20		f dama a			
	son: Cause o	-			
Informatio	n	of damage [Type= discrete] [Format=numeric]	[Range= 1-15] [Missing=*]		
	n	-			
Information Statistics [ Pre-question	n [NW/ W] on	[Type= discrete] [Format=numeric]			
Information Statistics [ Pre-question	n [NW/ W] on	[Type= discrete] [Format=numeric] [Valid=114684 /-] [Invalid=394933 /			
Information Statistics [	n [NW/ W] on	[Type= discrete] [Format=numeric] [Valid=114684 /-] [Invalid=394933 / If "Yes" in "Was crop damaged?"		Percenta	ge
Information Statistics [ Pre-question Literal que	n [NW/ W] on estion	[Type= discrete] [Format=numeric] [Valid=114684 /-] [Invalid=394933 / If "Yes" in "Was crop damaged?" Cause of damage	-]	Percenta	ge 15.3%
Information Statistics [ Pre-questi Literal que Value	n [NW/ W] on estion Label	[Type= discrete] [Format=numeric] [Valid=114684 /-] [Invalid=394933 / If "Yes" in "Was crop damaged?" Cause of damage	-] Cases	Percenta	-
Information Statistics [ Pre-question Literal que Value 1	n [NW/ W] on estion Label Too much	[Type= discrete] [Format=numeric] [Valid=114684 /-] [Invalid=394933 / If "Yes" in "Was crop damaged?" Cause of damage	-] Cases 17583		-
Information Statistics [ Pre-questi Literal que Value 1 2	n [NW/ W] on estion Estion Label Too much Too little r	[Type= discrete] [Format=numeric] [Valid=114684 /-] [Invalid=394933 / If "Yes" in "Was crop damaged?" Cause of damage	-] Cases 17583 2218	1.9%	-
Information Statistics [ Pre-question Literal que Value 1 2 3	n [NW/ V] on estion Label Too nuch Too little r Insects	[Type= discrete] [Format=numeric] [Valid=114684 /-] [Invalid=394933 / If "Yes" in "Was crop damaged?" Cause of damage	-] Cases 17583 2218 2716	1.9% 2.4%	-
Information Statistics [ Pre-questin Literal que Value 1 2 3 4	n [NW/ V] on estion Estion Coo much Too little r Insects Crop dise	[Type= discrete] [Format=numeric] [Valid=114684 /-] [Invalid=394933 / If "Yes" in "Was crop damaged?" Cause of damage	-] -] <b>Cases</b> 17583 2218 2716 213	1.9% 2.4%	15.3%
Information Statistics [ Pre-questic Literal que Value 1 2 3 4 5	n [NW/ V] on estion Label Too nuch Too little r Insects Crop dise Weeds	[Type= discrete] [Format=numeric] [Valid=114684 /-] [Invalid=394933 / If "Yes" in "Was crop damaged?" Cause of damage	-] -] Cases 17583 2218 2716 213 19457	1.9% 2.4%	15.3%
Information Statistics [ Pre-question Literal que Value 1 2 3 4 5 6	n NW/V Son Setion Setion Con Con Con Con Con Con Con Con Con C	[Type= discrete] [Format=numeric] [Valid=114684 /-] [Invalid=394933 / If "Yes" in "Was crop damaged?" Cause of damage	-] Cases 17583 2218 2716 213 19457 23665	1.9% 2.4% 0.2%	15.3%
Information Statistics [ Pre-questic Literal que Value 1 2 3 4 5 5 6 7	n [NW/ V] on estion Estion Con Uabel Too nuch Too little r Insects Crop dise Crop dise Weeds Hail Frost	[Type= discrete] [Format=numeric] [Valid=114684 /-] [Invalid=394933 / If "Yes" in "Was crop damaged?" Cause of damage	Cases 17583 2218 2716 213 19457 23665 8588 6227 1011	1.9% 2.4% 0.2% 7.5% 5.4% 0.9%	15.3%
Information Statistics [ Pre-questic Literal que Value 1 2 3 4 5 5 6 7 8	n N N N N N N N N N N N N N N N N N N N	[Type= discrete] [Format=numeric] [Valid=114684 /-] [Invalid=394933 / If "Yes" in "Was crop damaged?" Cause of damage	-] Cases 17583 2218 2716 213 19457 23665 8588 6227	1.9% 2.4% 0.2% 7.5% 5.4%	15.3%
Information Statistics [ Pre-questic Literal que Value 1 2 3 4 5 5 6 7 8 9	n NW/V Son Setion Setion Con Con Con Con Con Con Con Con Con C	[Type= discrete] [Format=numeric] [Valid=114684 /-] [Invalid=394933 / If "Yes" in "Was crop damaged?" Cause of damage	Cases 17583 2218 2716 213 19457 23665 8588 6227 1011	1.9% 2.4% 0.2% 7.5% 5.4% 0.9%	15.3%
Information Statistics [ Pre-questic Literal que Value 1 2 3 4 5 6 7 8 9 10	n (NW/ V (NW/ V ) on Stion  Stion  Con Uabel  Too nuch Too little n Insects Crop dise Veeds Veeds Veeds Insect Frost Fioods Vild anim Locust	[Type= discrete] [Format=numeric]         [Valid=114684 /-] [Invalid=394933 /         If "Yes" in "Was crop damaged?"         Cause of damage         rain         ase         nals	-] -] Cases 17583 2218 2716 213 19457 23665 8588 6227 1011 6516	1.9% 2.4% 0.2% 7.5% 5.4% 0.9% 5.7%	15.3%
Information Statistics [ Pre-questic Literal que Value 1 2 3 4 5 5 6 7 8 9 10 11	n NW/ V on Stion Stion Con Much Con Much Con Much Con Much Meeds Meeds Meeds Meeds Frost Floods Mild anim Locust Birds	[Type= discrete] [Format=numeric]         [Valid=114684 /-] [Invalid=394933 /         If "Yes" in "Was crop damaged?"         Cause of damage         rain         ase         hals         of seed	-] Cases 17583 2218 2716 213 19457 23665 8588 6227 1011 6516 7780 459 10147	1.9% 2.4% 0.2% 7.5% 5.4% 0.9% 5.7% 6.8%	15.3%
Information Statistics [ Pre-questic Literal que Value 1 2 3 4 5 5 6 7 8 9 10 11 12	n N N N N N N N N N N N N N N N N N N N	[Type= discrete] [Format=numeric]         [Valid=114684 /-] [Invalid=394933 /         If "Yes" in "Was crop damaged?"         Cause of damage         rain         ase         hals         of seed         of soi	-] Cases 17583 2218 2716 213 19457 23665 8588 6227 1011 6516 7780 459 10147 19	1.9% 2.4% 0.2% 0.2% 7.5% 5.4% 0.9% 5.7% 6.8% 0.4% 8.8% 0.0%	15.3%
Information Statistics [ Pre-questic Literal que Value 1 2 3 4 5 5 6 7 8 9 10 11 12 13	n (NW/ V  on Stion Stio	[Type= discrete] [Format=numeric]         [Valid=114684 /-] [Invalid=394933 /         If "Yes" in "Was crop damaged?"         Cause of damage         rain         ase         hals         of seed         of soi	-] Cases 17583 2218 2716 213 19457 23665 8588 6227 1011 6516 7780 459 10147	1.9% 2.4% 0.2% 7.5% 5.4% 0.9% 5.7% 6.8% 0.4% 8.8%	15.3%
Information Statistics [ Pre-questic Literal que Value 1 2 3 4 5 5 6 7 8 9 10 11 12 13 14 15 Sysmiss	n KW/ V  on Kather Kat	[Type= discrete] [Format=numeric]         [Valid=114684 /-] [Invalid=394933 /         If "Yes" in "Was crop damaged?"         Cause of damage         rain         ase         hals         of seed         of soi	-] Cases 17583 2218 2716 213 2716 213 19457 23665 8588 6227 1011 6516 7780 459 10147 19 8085 394933	1.9% 2.4% 0.2% 7.5% 5.4% 0.9% 5.7% 6.8% 0.4% 8.8% 0.0% 7.0%	15.3% 17.0% 20.6%

#29 dpercer	nt: Percen	t of damaged crop			
• Statistics [NW		[Valid=114595 /-] [Invalid=395022 /-]			
Literal question		Percent of damaged crop			
•			not shown (81 Modalities	5)	
#30 dmoasi	Iro: Moasi	ire taken to prevent the dama	•	,	
	iormation [Type= discrete] [Format=numeric] [Ra				
	// \		ange= 1-2j [wissing= j		
Statistics [NW/ W] [Valid=389792 /-] [Invalid=119825 /-]					
Literal question	on	Prevention/precaution measure taker	1?		
Value	Label		Cases	Percentage	
1	Yes		372061		95.5%
2	No		17731	4.5%	
Sysmiss	uros indicato th	e number of cases found in the data file. They ca	119825	u statistics of the nonulation of interest	
<sup>#31</sup> dmtype		· · · · · · · · · · · · · · · · · · ·	annot be interpreted as summar	y statistics of the population of interest.	
nformation	. Type of t		longon 1 21 [Missing=*]		
	// \	[Type= discrete] [Format=numeric] [R	ange= 1-3] [missing= ]		
Statistics [NW/ W] [Valid=372061 /-] [Invalid=137556 /-]					
Literal question	on	Type of measure if any?			
Value	Label		Cases	Percentage	
1	Chemical		18291	4.9%	
2	Non_cher	-i			
		nical	353629		95.0%
3	Both	nicai	141	0.0%	95.0%
3 Sysmiss	Both		141 137556		95.0%
3 Sysmiss Warning: these fig	Both Jures indicate the	e number of cases found in the data file. They ca	141 137556		95.0%
3 Sysmiss <sup>Warning:</sup> these fig #32 <b>dmcher</b>	Both Jures indicate the	e number of cases found in the data file. They ca	141 137556 annot be interpreted as summar		95.0%
3 Sysmiss Warning: these fig #32 <b>dmcher</b> Information	Both uures indicate the	e number of cases found in the data file. They ca <b>chemical used</b> [Type= discrete] [Format=numeric] [R	141 137556 annot be interpreted as summar		95.0%
3 Sysmiss Warning: these fig #32 <b>dmcher</b> Information Statistics [NW	Both Jures indicate the n: Type of // W]	e number of cases found in the data file. They ca <b>Chemical used</b> [Type= discrete] [Format=numeric] [R [Valid=19233 /-] [Invalid=490384 /-]	141 137556 annot be interpreted as summar		95.0%
3 Sysmiss Warning: these fig #32 <b>dmcher</b> Information	Both Jures indicate the n: Type of // W]	e number of cases found in the data file. They ca <b>chemical used</b> [Type= discrete] [Format=numeric] [R	141 137556 annot be interpreted as summar		95.0%
3 Sysmiss Warning: these fig #32 <b>dmcher</b> Information Statistics [NW Literal question Value	Both aures indicate the Type of // W] on Label	e number of cases found in the data file. They ca <b>Chemical used</b> [Type= discrete] [Format=numeric] [R [Valid=19233 /-] [Invalid=490384 /-]	141 137556 annot be interpreted as summar ange= 1-9] [Missing=*] Cases	y statistics of the population of interest. Percentage	95.0%
3 Sysmiss Warning: these fig #32 <b>dmcher</b> #32 <b>dmcher</b> Information Statistics [NW Literal question Value 1	Both ures indicate the Type of // W] on Label Pesticide	e number of cases found in the data file. They ca <b>Chemical used</b> [Type= discrete] [Format=numeric] [R [Valid=19233 /-] [Invalid=490384 /-]	annot be interpreted as summar tange= 1-9] [Missing=*] Cases 2022	y statistics of the population of interest.	
3 Sysmiss Warning: these fig #32 <b>dmcher</b> Information Statistics [NW Literal question Value 1 2	Both ures indicate the Type of // W] on Label Pesticide Herbicide	e number of cases found in the data file. They ca <b>Chemical used</b> [Type= discrete] [Format=numeric] [R [Valid=19233 /-] [Invalid=490384 /-]	141         137556         annot be interpreted as summar         cange= 1-9] [Missing=*]         Cases         2022         15681	y statistics of the population of interest. Percentage 10.5%	
3 Sysmiss Warning: these fig #32 <b>dmcher</b> Information Statistics [NW Literal question Value 1 2 3	Both aures indicate the <b>Type of</b> <b>V</b> / <b>V</b> ] on <b>Label</b> Pesticide Herbicide Fungicide	e number of cases found in the data file. They ca <b>Chemical used</b> [Type= discrete] [Format=numeric] [R [Valid=19233 /-] [Invalid=490384 /-] Chemical type used if any	141         137556         annot be interpreted as summar         cange= 1-9] [Missing=*]         Cases         2022         15681         458	y statistics of the population of interest. Percentage 10.5% 2.4%	
3 Sysmiss Warning: these fig #32 <b>dmcher</b> Information Statistics [NW Literal questic Value 1 2 3 4	Both ures indicate th Type of UV Label Pesticide Herbicide Fungicide Pesticide	e number of cases found in the data file. They ca <b>chemical used</b> [Type= discrete] [Format=numeric] [R [Valid=19233 /-] [Invalid=490384 /-] Chemical type used if any	141         137556         annot be interpreted as summar         tange= 1-9] [Missing=*]         Cases         2022         15681         458         293	y statistics of the population of interest. Percentage 10.5% 2.4% 1.5%	
3 Sysmiss Warning: these fig #32 <b>dmcher</b> nformation Statistics [NW Literal question Value 1 2 3 4 5	Both aures indicate the indicate the Type of Label Pesticide Fungicide Pesticide Pesticide	e number of cases found in the data file. They ca <b>chemical used</b> [Type= discrete] [Format=numeric] [R [Valid=19233 /-] [Invalid=490384 /-] Chemical type used if any and hebicide and fungicide	141         137556         annot be interpreted as summar         ange= 1-9] [Missing=*]         Cases         2022         15681         458         293         79	y statistics of the population of interest. Percentage 10.5% 2.4% 1.5% 0.4%	
3 Sysmiss Warning: these fig #32 <b>dmcher</b> Information Statistics [NW Literal questic Value 1 2 3 4 5 6	Both aures indicate the indicate the Type of Label Pesticide Fungicide Pesticide Pesticide	e number of cases found in the data file. They ca <b>chemical used</b> [Type= discrete] [Format=numeric] [R [Valid=19233 /-] [Invalid=490384 /-] Chemical type used if any	141         137556         annot be interpreted as summar         tange= 1-9] [Missing=*]         Cases         2022         15681         458         293	y statistics of the population of interest. Percentage 10.5% 2.4% 1.5%	
3 Sysmiss Warning: these fig #32 dmcher nformation Statistics [NW Literal question Value 1 2 3 4 5 6 7	Both Both	e number of cases found in the data file. They can <b>chemical used</b> [Type= discrete] [Format=numeric] [R [Valid=19233 /-] [Invalid=490384 /-] Chemical type used if any and hebicide and fungicide and fungicide	141         137556         annot be interpreted as summar         tange= 1-9] [Missing=*]         tange= 1-9] [Missing=*]         Cases         2022         15681         458         293         79         12	y statistics of the population of interest. Percentage 10.5% 2.4% 1.5% 0.4% 0.1%	
3 Sysmiss Warning: these fig #32 <b>dmcher</b> Information Statistics [NW Literal question Value 1 2 3 4 5 6 7 9	Both UVES INDICATE THE INITIAL STATES INITIAL STATE	e number of cases found in the data file. They can <b>chemical used</b> [Type= discrete] [Format=numeric] [R [Valid=19233 /-] [Invalid=490384 /-] Chemical type used if any and hebicide and fungicide and fungicide	141         137556         annot be interpreted as summar         tange= 1-9] [Missing=*]         Cases         2022         15681         458         293         79         12         16	y statistics of the population of interest. Percentage 10.5% 2.4% 1.5% 0.4% 0.1% 0.1%	
3 Sysmiss Warning: these fig #32 <b>dmcher</b> Information Statistics [NW Literal questic Value 1 2 3 4 5 6 7 9 Sysmiss	Both UVES INdicate the Initial State of the Initial	e number of cases found in the data file. They can <b>chemical used</b> [Type= discrete] [Format=numeric] [R [Valid=19233 /-] [Invalid=490384 /-] Chemical type used if any and hebicide and fungicide and fungicide	141         137556         annot be interpreted as summar         ange= 1-9] [Missing=*]         Cases         2022         15681         458         293         79         12         16         672         490384	y statistics of the population of interest. Percentage 10.5% 2.4% 1.5% 0.4% 0.1% 0.1% 0.1% 3.5%	
3 Sysmiss Warning: these fig #32 <b>dmcher</b> Information Statistics [NW Literal questic Value 1 2 3 4 5 6 7 9 Sysmiss Warning: these fig	Both UVES INDICATE THE INDICATE THE INDICATE THE INDICATE THE INDICATE THE INDICATE INDICATE THE INDICATE INDICATE THE INDICATE INDICATE THE INDICAT	e number of cases found in the data file. They ca <b>chemical used</b> [Type= discrete] [Format=numeric] [R [Valid=19233 /-] [Invalid=490384 /-] Chemical type used if any and hebicide and fungicide and fungicide and fungicide	141         137556         annot be interpreted as summar         ange= 1-9] [Missing=*]         Cases         2022         15681         458         293         79         12         16         672         490384	y statistics of the population of interest. Percentage 10.5% 2.4% 1.5% 0.4% 0.1% 0.1% 0.1% 3.5%	
3 Sysmiss Warning: these fig #32 <b>dmcher</b> Information Statistics [NW Literal questic Value 1 2 3 4 5 6 7 9 Sysmiss	Both UVES INDICATE THE INDICATE THE INDICATE THE INDICATE THE INDICATE THE INDICATE INDICATE THE INDICATE INDICATE THE INDICATE INDICATE THE INDICAT	e number of cases found in the data file. They ca <b>chemical used</b> [Type= discrete] [Format=numeric] [R [Valid=19233 /-] [Invalid=490384 /-] Chemical type used if any and hebicide and fungicide and fungicide and fungicide	141         137556         annot be interpreted as summar         tange= 1-9] [Missing=*]         tange         2022         15681         458         293         79         12         16         672         490384         annot be interpreted as summar	y statistics of the population of interest. Percentage 10.5% 2.4% 1.5% 0.4% 0.1% 0.1% 0.1% 3.5%	95.0%

File Dataset_agricult	tural_survey
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#33 fert: F	erilizer use	d					
Value	Label		Cases	Percentage			
1	Yes		179052	35.1%			
2	No		330565		64.9%		
Warning: these	figures indicate th	e number of cases found in the data file. They canno	be interpreted as summar	y statistics of the population of interest.			
<sup>#34</sup> ferttyp	be: Type of	fertilizer used					
Information		[Type= discrete] [Format=numeric] [Rang	e= 1-3] [Missing=*]				
Statistics [N	IW/ W]	[Valid=179208 /-] [Invalid=330409 /-]					
Literal ques	tion	Type of fertilizer used if any?					
Value	Label		Cases	Percentage			
1	Natural		122933		68.6%		
2	Chemical		49955	27.9%			
3	Both		6320	3.5%			
Sysmiss			330409				
Warning: these	figures indicate th	e number of cases found in the data file. They canno	be interpreted as summar	y statistics of the population of interest.			
<sup>#35</sup> d22a:	Chemical f	ertilizer type					
Information		[Type= discrete] [Format=numeric] [Rang	e= 1-9] [Missing=*]				
Statistics [N	IW/ W]	[Valid=57177 /-] [Invalid=452440 /-]					
Literal ques	tion	If chemical fertilizer used, what type was	it?				
Value	Label		Cases	Percentage			
1	Urea		5517	9.6%			
2	Dap		23200		40.6%		
3	Both		27000		47.2%		
9	Not state	t	1460	2.6%			
Sysmiss			452440				
-	-	e number of cases found in the data file. They cannot	t be interpreted as summary	y statistics of the population of interest.			
#36 <b>d22b:</b>	Chemical f	ertilizer quantity					
Information		[Type= continuous] [Format=numeric] [Ra	ange= 0.001-9999.999	9] [Missing=*/9999.999]			
Statistics [N	IW/ W]	[Valid=55690 /-] [Invalid=453927 /-] [Mean=24.916 /-] [StdDev=34.936 /-]					
Literal ques	tion	Quantity of chemical fertilizer used					
<sup>#37</sup> d23: N	latural ferti	lizer type					
Information		[Type= discrete] [Format=numeric] [Rang	e= 1-9] [Missing=*]				
Statistics [N	IW/ W]	[Valid=131452 /-] [Invalid=378165 /-]					
Literal ques	tion	If natural fertilizer used, what type was it?	•				
Value	Label		Cases	Percentage			
1	Mainly ma	anure	103406		78.7%		
2	Compost		6339	4.8%			
3	Organic		249	0.2%			
4	Manure 8	compost	14711	11.2%			
5	Manure 8	organic	60	0.0%			
6	Compost	& organic	40	0.0%			
0	Compost	a organio	10	0.070			

#37 023: Nat	ural ferti	lizer type					
Value	Label		Cases		Percentage		
8	Others		95	0.1%			
9	Not state	d	6537	5.0%			
Sysmiss	una indiante ti	a sumbar of another found in the data file. They are a	378165	v statistics of the	nonviotion of interact		
		ne number of cases found in the data file. They canno	t be interpreted as summar	y statistics of the	population of interest.		
Information		[Type= discrete] [Format=numeric] [Rang	ue= 1-21 [Missing=*]				
Statistics [NW/ W]		[Valid=322179 /-] [Invalid=187438 /-]	, _][				
- Literal questio	_	Double temporary cropping in main seas	on				
Value	Label		Cases		Percentage		
1	Yes		317318		Ū	98.5%	
2	No		4861	1.5%			
Sysmiss			187438				
		e number of cases found in the data file. They canno	t be interpreted as summar	y statistics of the	population of interest.		
<sup>#39</sup> d25a: Do	ouble cro						
nformation		[Type= discrete] [Format=numeric] [Range= 0-999] [Missing=*]					
Statistics [NW/ W]		[Valid=4948 /-] [Invalid=504669 /-]					
Pre-question		If twice in "How often is temporary crop field used in main season?"					
Literal questio	n	Which crop is the 2nd harvest?					
		Frequency table no	t shown (77 Modalities	5)			
<sup>#40</sup> d26: Pre	vious sta	ate of field					
Information		[Type= discrete] [Format=numeric] [Rang	ge= 1-9] [Missing=*]				
Statistics [NW/	w]	[Valid=507076 /-] [Invalid=2541 /-]	[Valid=507076 /-] [Invalid=2541 /-]				
Literal questio	n	What was the previous state of the field?					
Value	Label		Cases		Percentage		
1	Fallow		13131	2.6%			
2	Crop field		292576			57.7%	
3		prest/grazing	11032	2.2%			
4		cropfield	6258	1.2%			
5	Others		1364	0.3%	22.0%		
9 Svomios	Not state	3	182715 2541		36.0%		
Sysmiss Warning: these figu	res indicate tl	ne number of cases found in the data file. They canno		y statistics of the	population of interest.		
#41 apercent	t: Percer	t share of mixed crops					
Information		[Type= continuous] [Format=numeric] [R	ange= 0-100] [Missing	=*]			
Statistics [NW/ W]		[Valid=509435 /-] [Invalid=182 /-]					
Statistics [NW/	-	Percent share of mixed crops					
	n						
Statistics [NW/ Literal questio	n		shown (100 Modalitie	s)			

	`				
<sup>#42</sup> cerror	: Closure e	rror			
Statistics [NW/ W]		[Valid=496679 /-] [Invalid=12938 /-] [Mean=136.164 /-] [StdDev=105.426 /-]			
Literal question		Closure error			
<sup>#43</sup> areah	: Area in he	ctar			
Information		[Type= continuous] [Format=numeric] [Range= 3e-06-9.368809] [Missing=*]			
Statistics [NW/ W]		[Valid=509365 /-] [Invalid=252 /-] [Mean=0.103 /-] [StdDev=0.197 /-]			
Literal question		Area in hectar			
<sup>#44</sup> prodq	: Productio	n in quintal			
Information		[Type= continuous] [Format=numeric] [Range= 3e-05-1812.932] [Missing=*]			
Statistics [NW/ W]		[Valid=331868 /-] [Invalid=177749 /-] [Mean=3.9 /-] [StdDev=16.263 /-]			
Literal question		Production in quintal			
#45 landu	se: Land uti	lization			
Information		[Type= discrete] [Format=numeric] [Range= 1-6] [Missing=*]			
Statistics [NW/ W]		[Valid=509617 /-] [Invalid=0 /-]			
Literal question		Land utilization			
Value	Label		Cases	Percentage	
1	Temporar	y crop land	290895		57.1%
2	Permaner	nt crop land	95713	18.8%	
3	Grazing la	ind	24216	4.8%	
4	Fallow lan	Fallow land		4.3%	
5	Wood land	Wood land		2.0%	
	Other land use		66900	13.1%	

# Documentation

Reports and analytical documents	<u>24</u>
Study Documentation	<u>24</u>
Agricultural Sample Survey 2005-2006 (1998 E.C) Volume I, Area and Production of Crops	
Agricultural Sample Survey 2005-2006 (1998 E.C) Volume III, Farm Management Practices.	<u>24</u>
Agricultural Sample Survey 2005-2006 (1998 E.C) Volume IV, Land Utilisation	
Questionnaires	<u>24</u>
Agricultural Sample Survey 2005-2006 (1998 E.C) - Questionnaire	. 24
Technical documents	
Form for Requesting Access to Raw Data	24
Agricultural Sample Survey 2005-2006 (1998 E.C) - Enumerators Manual	

## **Reports and analytical documents**

**Study Documentation**, Central Statistical Agency, Ethiopia [eth], English [eng], "Doc\Reports \AgSS\_2005\_Metadata.pdf"

Agricultural Sample Survey 2005-2006 (1998 E.C) Volume I, Area and Production of Crops, *Private Peasant Holdings, "Meher" Season*, Central Statistical Agency, July 2006, Ethiopia [eth], English [eng], "Doc\Reports \productionreport98.pdf"

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### Questionnaires

Agricultural Sample Survey 2005-2006 (1998 E.C) - Questionnaire, Central Statistical Agency, Ethiopia [eth], English [eng], "Doc\Questionnaires\Questionnaire\_1998.pdf"

### **Technical documents**

Form for Requesting Access to Raw Data, Central Statistical Agency, Ethiopia [eth], English [eng], "Doc \Technical\CSA\_data\_request\_form.pdf"

Agricultural Sample Survey 2005-2006 (1998 E.C) - Enumerators Manual, Central Statistical Agency, Ethiopia [eth], Amharic [amh], "Doc\Technical\Manual 98.pdf"