

***FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA***

***CENTRAL STATISTICAL AGENCY***

***LARGE AND MEDIUM SCALE COMMERCIAL***

***FARMS SAMPLE SURVEY***

***2014/15 (2007EC)***

***RESULTS AT COUNTRY AND REGIONAL LEVEL***

***VOLUME VIII***



***STATISTICAL REPORT ON***

***AREA AND PRODUCTION OF CROPS, AND FARM MANAGEMENT PRACTICES***

***ADDIS ABABA  
AUGUST, 2015***

---

***STATISTICAL BULLETIN***

---

## **TABLE OF CONTENTS**

**Page**

<b>TABLE OF CONTENTS</b> .....	<b>I</b>
<b>CHAPTER I</b> .....	<b>1</b>
1. <b>BACKGROUND</b> .....	<b>1</b>
2. <b>Objectives of the 2014/15 (2006 E.C.) Commercial farm Sample Survey</b> .....	<b>3</b>
<b>CHAPTER II SURVEY METHODOLOGY, OPERATION &amp; DATA PROCSSING</b>	<b>4</b>
2. <b>Survey Methodology</b> .....	<b>4</b>
2.1 <b>Scope and Coverage</b> .....	<b>4</b>
2.2 <b>Sampling frame</b> .....	<b>4</b>
2.3 <b>Sample design</b> .....	<b>4</b>
3. <b>Organization Of Field Work</b> .....	<b>5</b>
3.1 <b>Training</b> .....	<b>6</b>
3.2 <b>Method of Enumeration</b> .....	<b>6</b>
4. <b>Data Processing</b> .....	<b>6</b>
4.1 <b>Editing coding &amp; verification</b> .....	<b>6</b>
4.2 <b>Data entry, Cleaning and tabulation</b> .....	<b>7</b>
5. <b>Concepts and definitions</b> .....	<b>8</b>

**CH APTER III. SUMMARY OF THE 2014/15 COMMERCIAL FARMS SAMPLE SURVEY  
RESULTS**

3.1 Introduction.....	11
3.2 Both seasons total cropped Area and production of Temporary crops .....	11
3.3 Cropland area and Production of Permanent Crops.....	15
3.4 Comparison of the current year (2014/15) Grain Crops yield with last Year (2012/13), estimates	18
3.5 Farm Management Practice .....	19
3.5.1 Introduction .....	19
3.5.2 Cropland Area under Different Agricultural Input and Farm Management Practices Statistical tables	19
Appendix I .....	53
Appendix II .....	57

## ***CHAPTER ONE***

### ***BACKGROUND***

Agriculture is the primary activity in Ethiopia, where about 84 percent of the country's population engaged in various agricultural activities and generates its income for household consumption to sustain its livelihood. Moreover, the country generates the lion share of its foreign currency earnings from the sales/export of agricultural commodities abroad and currently the sector contributes about 42 percent to the country's GDP, and above all, the sector is believed to be the main source of capital to be accumulated for the process of establishing the future industrialized Ethiopia, which again shows the determinant role played by the sector to bring about sustainable economic development for the country in the years to come.

Ethiopian agriculture have suffered for years from the use of traditional farm implements and subsistence farming system as well as limited use of modern farm inputs, that resulted to the sector's poor performance (i.e. low productivity of the sector). However, the surplus production along with productivity increments that have been registered during the last six consecutive years, indicated that the agricultural system as a whole and the crop production sub sector in particular is showing improvement in terms of productivity, the extent and use of modern farm inputs, and modern farming system practices, etc.

Despite those bottlenecks that hampered the sector's productivity, Ethiopian agriculture, as it had been used for centuries in the past and till the present, the sector is believed to continue being the leading and determinant sector of the country's future economic development.

As mentioned earlier, improvements that have been registered in the overall performance of the agricultural sector, during earlier consecutive years, cannot be considered as an end by itself but could be taken as an indicator for the need of much more efforts to be made by the government and the concerned stakeholders to adopt and implement the available modern and improved agricultural technologies that help attain enhanced productivity and maintain sustainable development of the sector. Thus, all efforts required to bring about the desired change/improvements on the overall performance of the agricultural sector as a whole, could

only be successful, if and only if policies, strategies, implementation plans and programs and related efforts are geared towards addressing the problems identified in the two agricultural sub- sectors. The two major agricultural sub sectors are:-

- a) **Private agricultural holding:** this sub-sector includes rural-urban small and fragmented privately owned agricultural holdings on which all types of agricultural activities such as crop production, livestock rearing...etc, are performed by the operator/holders to obtain agricultural produce for self/family consumption and sometimes for sell. However, over 95 % of the annual gross total agricultural output of the country is said to be generated from this sub-sector,
- b) **Commercial Farms:-** this sub-sector refers to the farms that include state and private commercial farms mainly established for the purpose of profit making by selling agricultural products at local market and/or abroad. These farms are commonly owned and operated by government, private companies and non-governmental institutions, such as private individual investors, share holders, religious and non- religious institutions...etc.

The sub-sector is mainly characterized by the use of relatively capital intensive, mechanized and market oriented farming system, with increased use of modern farm management practices and inputs such as, use of high tech-farm machineries and implements, irrigation scheme, use of chemical fertilizers, pesticides and improved seeds.

In Ethiopia, however, due to various reasons, commercial farms are not widely spread, and as a result of which the contribution of these farms to the country's gross total agricultural output is limited only to about 5 percent. According to some written documents, the introduction of Commercial farms in Ethiopia goes back to the Pre-Derg era, where government owned pilot state and research farms on the basis of Yugoslav model [MOSFD 1986-370], which pave the way for the establishment of private commercial, state and institutional farms in Awassa, Arbaminch, Zeway and Shewarobit which latter on transformed into well organized and relatively mechanized large and medium scale state, private and institutional farms that are collectively called 'Commercial Farms'.

Since then, large and medium scale commercial farms in Ethiopia had been forced to be reorganized by undertaking various structural and organizational adjustments with varying legal status including ownership over a number of economic policy changes that took place over the

last three decades. Nevertheless, a decade has passed since the existing Commercial farms reorganized on the basis of market oriented economic policy adopted by the existing Federal Democratic Republic Government of Ethiopia.

This report is the eighth of its type, where the first one was published in the 2002/03 (1995 E.C.), presenting the results of the 2001/02 (1994 E.C.) and the second one was published in the 2008/2009(2001 E.C). During the years between 2002/03 (1995 E.C.) and 2008/2009(2001 E.C) Central Statistical Agency had conducted more than Six surveys on Commercial farms but failed to produce the results due to various reasons mainly due to unwillingness of respondents to give accurate information. However, after making a through revisions and improvements on the previously adopted questionnaires, the reports on data collection methodology, related survey documents and results in the years 2009/10 (2002 E.C.) and 2010/11 (2003EC) were also released, CSA conducted Large and Medium Scale Commercial farms sample survey covering the whole country.

This report, therefore, presents quantitative information on total area, volume of production and yield of major crops (temporary and permanent), and total crop area under different farm management practices as obtained and summarized from the results of the 2014/15 (2007 E.C.) commercial farms sample survey of the Meher Season.

### **1.Objectives of the 2014/15 (2007 E.C.) Large and Medium Scale Commercial Farms Survey**

The major objectives of the **2014/15 (2007 E.C.)** commercial farms sample survey is to provide:-

- Statistical data on crop area and volume of production by farm and crop type to fill-in the existing data gap,
- Detail data on various inputs applied for large and medium scale agricultural production mainly quantity of Chemical fertilizers, pesticides, insecticide improved seeds & indigenous seed.

The provision of the above mentioned information are important for planning and policy formulation as well as for promoting the establishment of Commercial farms, and to design and formulate means and ways as how to facilitate the transformation of the existing small and fragmented private peasant agricultural holding to Commercial farms in the long run.

## **CHAPTER II**

## **SURVEY METHODOLOGY, OPERATION AND DATA PROCESSING**

### **1. Survey Methodology**

#### **2.1 Scope & Coverage**

The 2014/15 large and medium scale commercial farms cover all urban & rural parts of the country. Considering the cost and manageability of field work a sample of **3255** farms were planned and decided to be covered at national level. But the survey succeeded to cover 3041 farms. This sample is allocated to each region based on number of farms each region has. The regional level distribution of the Farms is given in Table 1.

#### **2.2 Sampling frame**

The sampling frame which is list of commercial farms with their cropland area size and livestock number is collected from all part of the country through CSA Branch Statistical Offices. The collected farm list is compiled at the head office and the functional and non functional farms at the time of updating are identified. Farms which are selected directly and those selected by sample are identified based on this frame. Then the lists of commercial farms to be covered by the survey are distributed back to the Branch Offices for the actual survey.

#### **2.3 Sample design**

Two separate sample design is prepared for Commercial farms involved in crop production and livestock. Before the sample selection was done, the cut off point for the farms was decided. The same cut off point for farms involved in crop production and those involved in livestock was set. Farms having total area/number of livestock above the cutoff point are selected with certainty where as farms having area/ number of livestock below the cutoff point is sampled using probability proportional to size, size being the total area / number of livestock of the farms. For farms involved in livestock simple random sampling technique is used for selection.

The estimation procedure and measure of their precision are given in Appendix I

**Table 1: Number of planed and covered farms**

<b>Region</b>	<b>Number of</b>	
	<b>Planned</b>	<b>Covered</b>
<b>Tigray</b>	<b>845</b>	<b>844</b>
<b>Afar</b>	<b>101</b>	<b>101</b>
<b>Amhara</b>	<b>885</b>	<b>835</b>
<b>Oromya</b>	<b>628</b>	<b>538</b>
<b>Somali</b>	<b>36</b>	<b>38</b>
<b>Benishangul-Gumuz</b>	<b>214</b>	<b>198</b>
<b>SNNPR</b>	<b>348</b>	<b>307</b>
<b>Gambella</b>	<b>111</b>	<b>97</b>
<b>Harari</b>	<b>11</b>	<b>10</b>
<b>Addis Ababa</b>	<b>50</b>	<b>50</b>
<b>Dire Dawa</b>	<b>26</b>	<b>23</b>
<b>Total</b>	<b>3255</b>	<b>3041</b>

### **3. Organization of Field Work**

Field organization is usually used as a means to link the data source with the central office to properly carry on the field data collection operations and for the strict control and supervision of the fieldwork.

Since the Commercial farms sample survey is part and parcel of the 2014/15 (2007 E.C) annual Agricultural Sample Survey, the field organization setup that has been used for the agricultural sample survey of private agricultural holdings was also used for the enumeration of Commercial farms. Moreover, as it has been planned earlier, the actual field data compilation operation for commercial farms was scheduled to be started at the time the field data collection operation that have been carried out for private agricultural holdings were almost due completion. The field worker who was assigned for Commercial farm enumeration was responsible to cover a minimum of 1 and a maximum of 5 farms depending on the number of sampled farms within the territory of the Branch Statistical Office the enumerator belongs to. Moreover, senior supervisors and statisticians who accomplish their assignment in the private peasant agricultural holdings enumeration were assigned as supervisors for quality control that includes spot check, re-interview, and check the consistence of information in the filled-in questionnaires...etc.



### **3.1 Training**

Country experience indicates that it is essential to provide instruction manual and training for survey enumerators and supervisors in order to standardize procedures, secure common understanding of tasks to be performed and provide a reference guide during enumeration. Good data quality is assured when the training meets its objectives and the enumerators and supervisors show a sense of responsibilities and enthusiasm in the exercise of the survey operations.

However, due to their scattered location, and a number of technical and administrative reasons, the field data collection activities for commercial farms was planned to be carried out by senior supervisors. Accordingly, CSA organized a two stage training program that is a training of trainers and followed by training of supervisors. The first stage training was given at the CSA headquarter in Addis Ababa to the trainers consisting of professional staff from different departments at head office. The second stage training was wider in its scope, focusing on reviewing the details of the prepared survey documents and followed by discussions on the past survey experience that took place in 25 training centers located at CSA Branch Offices .

### **3.2 Method of enumeration**

Commercial farms are expected to properly register and document each and every activity carried out in each and every plot of land mainly for administrative purpose. In line with this, the data collection of the year 2014/15(2007 E.C) Commercial farms sample survey was performed by interviewing the farm Owners/managers. The areas of these farms are directly measured by GPS except that of state owned farms whose areas are collected by interview.

## **4. Data processing**

### **4.1 Editing, Coding and Verification**

In the 2014/2015(2007 E.C) Commercial farms sample survey; the filled-in forms retrieved from the Branch Statistical Offices were primarily received and systematically registered at the documentation unit of the CSA head quarters in Addis Ababa. Before launching the actual editing and coding activities, the Agriculture, Natural Resources, and Environment Statistics Directorate staff gave adequate training to 15 editors and coders who latter on carried out the manual editing, coding and verification of the filled-in Commercial farms questionnaires. The

manual editing and coding activities of the filled-in forms were done region by region. To ensure the quality of the manual editing and coding work, verification of the completed questionnaires was carried out on 100% basis. For the total country, the editing, coding and verification of the filled-in forms for the commercial farms took 15 editors and about 14 working days.

#### **4.2 Data Entry, Cleaning and Tabulation**

About 15 data encoders were assigned to undertake the data entry activity of the 2014/15 filled-in and edited questionnaires of the large and medium scale farms. Before starting the actual data entry operation, data encoders were trained for about a half day using computer programs developed by the Data Processing Department staff. The Programmers prepared the data entry programs using CSPro.

The data entry exercise was carried out using 38 personal computers (PC's), and it was done region by region as in the case of the manual editing, coding and verification. In order to check the quality of the entered data, verification exercises were carried out. To this end verification activity, on 100% basis was carried out through the process of re-entering the data. For the total country, the whole data entry process of the filled-in forms on commercial farms took 38 entry clerks around 14 working days.

Data entered into the computer needs to be checked for completeness, consistency and validity. For this purpose, computer edit programs were prepared. Using printouts from these programs and referring to the original filled-in forms, corrections were made by trained manual data cleaning technicians. Moreover, other data-cleaning computer operators were involved in making the actual corrections of the data on the computer. Additionally, an intermediate set of instructions or programs were made available and applied on the data to prepare information suitable for tabulation. These programs were prepared using CSPro and IMPS software's. Like IMPS Software, CSPro is used as a tool for entering, editing and tabulating data. Data made ready for tabulation through the process of cleaning and intermediate programs was finally used to generate the required tables. This was done using tabulation programs developed by the senior programmers of the Data Processing Department.

## 5. Concepts and Definitions

Information on all items of agriculture is not useful until the items are distinctly defined and understood. The procedure of stating data items and related terms is a prerequisite for making standards and definitions for collection and compilation of agricultural data. The intent of using standard concepts and definitions is not only to provide quality data but also to ensure that the right items are enumerated and compiled accurately to reflect the agricultural situation. Standard concepts and definitions used in a survey setup provide clear linkages between various tables of the current and previous surveys and maintain consistent enumeration and measurement of variables of interest. To this end, the CSA has put a lot of efforts into communicating concepts and definitions to the survey field staff through training and instruction manuals.

The concepts and definitions used in the census were made to conform to the FAO standard with a slight adaptation of a few of them to suit the agricultural situation in Ethiopia. The concepts and definitions used in commercial farms sample survey includes:-

- **Commercial Farms:-** refers to certified (legally established) farms owned/operated by government, private investors, and/or share holders, which are profit oriented large and medium scale farms. These farms relatively use capital intensive, mechanized and market oriented farming system, as well as modern farm management practices and inputs such as irrigation scheme, fertilizers, pesticides . . . etc, to attain high productivity per unit of area.
- **Agriculture:-** The growing of crops and/or raising of livestock for own consumption and/or sale.
- **Crop:-** Includes Cereals, Pulses, Oilseeds, Vegetables, Root Crops, Fruits, Coffee, Inset, Chat, Hops, Sugar cane, Cotton, Tobacco ... etc produced for food, making drinks, stimulation and making fabrics or clothing.
- **Crop Production:-** The processes of growing and harvesting of the above crops for own consumption and/or sale.
- **Temporary Crops/Annual:-** Annual temporary crops are crops which are grown in less than a year's time, sometimes only a few months with an objective to sow or replant again for additional production following the current harvest. Continuously grown crops planted in rotation are also considered as temporary crops since each is harvested and destroyed by plugging in preparation for each successive crop.

- **Permanent Crops:-** crops which are grown and occupy land for a long period of time, not requiring replanting for several years after each harvest, are considered as permanent crops. All fruit trees (i.e. Oranges, Mandarin, Banana ...etc) and trees for beverages (i.e. Coffee, Tea, Hops...etc.) are considered permanent crops but meadows and pastures are excluded.
- **Meher (main) Season Crop:-** any crop harvested between Meskerem (September) and Yekatit (February) is considered as Meher season crop.
- **Belg Season Crop:-** any crop harvested during the months of March (Megabit) and August (Nehase) is considered to be Belg season crops.
- **Improved Seed:-** is defined as crop variety which gives significantly higher yield, better quality and/or better benefit compared to traditional varieties of seeds and usually produced by the Ethiopian Seed Enterprise (ESE) in Ethiopia.
- **Fertilizer:-** Refers to organic and/or inorganic nutrients to the soil intended to increase the amount of plant nutrients available for crop growth. Usually, fertilizers are divided into two parts, natural and industrial. Examples of natural fertilizers are farmyard manure, wood ashes, etc, while industrial fertilizers are DAP (Di- Ammonium phosphate), UREA (Ammonium Nitrate), etc.
- **Pesticides:-** **Pesticides** are chemicals useful for mitigation, control or elimination of pests which are troublesome or harmful to crops. Insecticides, herbicides and fungicides are all considered as pesticides.

## **CHAPTER III**

### **SUMMARY OF THE 2014/15 (2007 E.C) LARGE AND MEDIUM SCALE COMMERCIAL FARMS SAMPLE SURVEY RESULTS**

#### **3.1 Introduction**

The type of crops on which data were collected during the 2014/15 (2007 E.C.) commercial farms sample survey are those food crops that are used for domestic consumption and for export as well as those crops used as raw material for domestic agro-industries. Based on their biological classifications these crops are categorized into three major groups i.e. grains (which include cereals, pulses and oil crops), vegetables and root crops from the category of temporary crops and three major groups i.e. Fruit crops, Cash crops and industrial crops from the category of permanent crops. In this chapter of the report, discussions on major findings of the survey results on cropped area and production of temporary and permanent crops of Meher Season crops presented in Section 3.2. Likewise, major findings on Farm Management Practices for Temporary and Permanent crops for Meher Season is presented in section 3.5, as obtained and summarized from the results of the 2014/15 (2007 E.C.) Large and Medium Scale Commercial Farms Sample Survey.

#### **3.2 Meher Season' Total Cropland Area and Production of Temporary Crops**

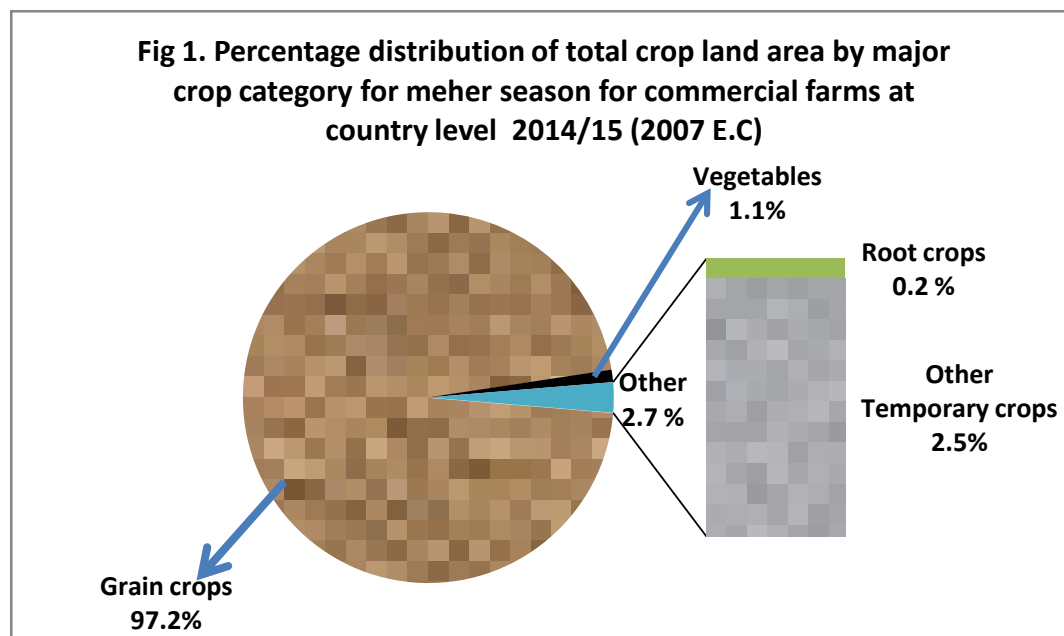
##### **a) Grain Crops**

Grain crops refer to the major crop categories that included cereals, pulses and oilseeds, which constituted the major food crops for the majority of the country's population. Besides being staple food crops, the production of grain crops in Ethiopia serves as a source of foreign currency earning that will be used as an input for all efforts being made to bring about sustainable economic growth in the country. In Ethiopia, therefore, the production of grain crops is the most widely spread crop production activity both in terms of the extent of cropped land area and volume of production when compared with crops such as vegetable and root crops.

**Summary Table 1. Estimates of Total Cropland Area by Major Crop Category of Meher Season for Commercial Farms: Country Level, 2014/15 (2007 E.C.)**

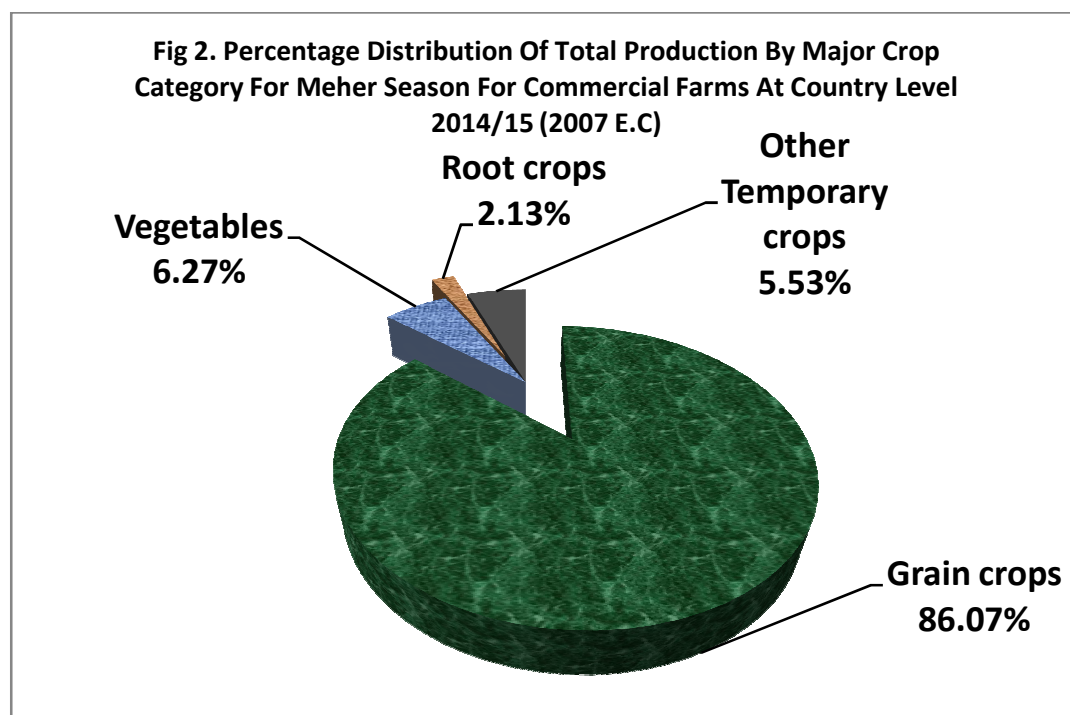
<b>Crop Type</b>	<b>Area in hectare</b>	<b>Percentage</b>
Grain crops	612,081.21	97.2
Vegetables	6,791.23	1.1
Root crops	1,211.27	0.2
Other Temporary crops	15,685	2.5
<b>All temporary crops</b>	<b>628,977.48</b>	<b>100</b>

According to the results of the 2014/15(2007 E.C) Large and Medium Scale Commercial Farms sample survey, the total area covered by grain crops was found to be *612,081.21* hectares (97.2% of the total country level temporary crops covered land area), from which a total of **12,151,038.91** quintals of production, (86.07 % of the total country level production of temporary crops) was obtained during 2014/15(2007 EC) Meher season harvest. The results of this survey indicates that, both the cultivated land area and volume of production of grain crops obtained from crop production activity carried out during the 2014/15 Meher Season, contributed the lion share.



**Summary Table 2. Estimates of Total Production Harvested by Major Crop Category and Meher Season for Commercial Farms: Country Level, 2014/15 (2007 E.C.)**

Types of crops	Production in quintals	percent
Grain crops	12,151,038.91	86.07
Vegetables	884,849.36	6.27
Root crops	301,180.72	2.13
Other Temporary crops	780,296.33	5.53
<b>All temporary crops</b>	<b>14,117,365.32</b>	<b>100</b>



Moreover, as it has been mentioned earlier, cereals which are classified within the grain crops category, are also produced in greater volume compared to the other crops by commercial farms because they are the principal staple crops and export commodities. As a matter of fact, cereals are grown in almost all the survey covered commercial farms with notable variation in the extent of area planted and the volume of production obtained across farms. This variation is seemingly caused by a shift in choice of crops, difference in weather conditions and speculated market demand. As indicated in the Appendix Table 2, cereals covered a total of **278,786.89** hectares of land area, from which a production of **8,992,766.04** quintals was obtained during 2014/15 Meher Season harvest. Similarly, pulses and oilseeds within the grain crops category are rich in their nutrient content and being used as essential part of the dietary requirement for Most Ethiopians. Above all pulses and oil crops form a

significant commodity group of export that brings a considerable amount of foreign currency earnings for the country. For the reasons mentioned above and a number of others, pulses and oil crops are grown widely by commercial farms in Ethiopia. Nevertheless, the extent of crop land area and volume of pulses and oil crops production in commercial farms show variation from one farm to another for the same reasons mentioned for cereals above. According to the results of the 2014/15 commercial farms sample survey, pulses and oil crops covered a total land area of **46,072.86** and **287,221.46** Hectares, from which a total production of **826,522.62** and **2,331,750.25** Quintals was obtained during the 2014/15 Meher seasons harvest, respectively (For details see Table 2 in Appendix ).

#### **b, Vegetables**

Vegetables are crops that are rich in vitamins necessary for the healthy growth of humans. Moreover, due to their high nutritional value vegetables do have ever rising demand both in local and foreign markets, and are classified among those export commodities' that generate considerable amount of foreign currency earnings to the country. As a matter of these facts commercial farms in Ethiopia used to grow vegetables over a considerable land area for years.

As indicated in Appendix Table 2, vegetables covered a total of **6,791.23** hectares of land from which a total volume of **884,849.36** Quintals were obtained in 2014/15 by Meher Season's harvest.

#### **c, Root Crops**

Production of **301,180.72** quintals was obtained from Meher season's harvest (Tables 1 in Appendix). Like that of grain crops the contribution of root crops such as potatoes and sweet potatoes for human consumption as food crops cannot be over emphasized. The majority of the population in Southern and South Western Ethiopia mainly depends on root crops for their daily food consumption. In addition to serving as food crop and staple food at the time of surplus and/or deficit production years, root crops yield industrial and pharmaceutical products. Moreover, it should be noted that root crops are also a good source of cash and foreign exchange. As the survey result indicates, the total area under root crops was found to be **1,211.27** hectares, from which a total Production of **301,180.72** quintals was obtained.

### **3.3 Cropland Area and Production of Permanent Crops**

Permanent crops are long-term crops, which do not have to be replanted for several years after each harvest. These include tree crops such as coffee, enset, chat, oranges, mangoes, bananas, papayas, avocados...etc. It doesn't include cotton. The trees that yield oranges; mangoes,



papayas, apples and other are known as fruit trees. Permanent crops are a good source of cash both for the farms and the country for generating income and foreign exchange.

According to the survey result permanent crops covered a total land of **347,767.63** Hectares with a total production **67,817,439.92** of Quintals obtained from commercial farms during the year 2014/15 Meher season harvest. These area and production for permanent crops does not include the values of cotton. For simplicity of description of the statistical tables and comparison purposes permanent crops have been grouped into three categories. The categories are fruit crops, cash/stimulant crops, industrial and other permanent crops.

**Summary Table 3. Estimates of total area harvested of Meher Season's permanent crops by major crop category for commercial farms:**

**National Level 2014/15 (2007 E.C)**

<b>Crop Type</b>	<b>Area in hectare</b>	<b>Percent</b>
Fruit crops	7700.69	2.21689
Cash crops	112393.71	32.35613
Industrial crops	223270.60	64.27559
Other Permanent crops	3999.54	1.151396
<b>All permanent crops</b>	<b>347364.54</b>	<b>100</b>

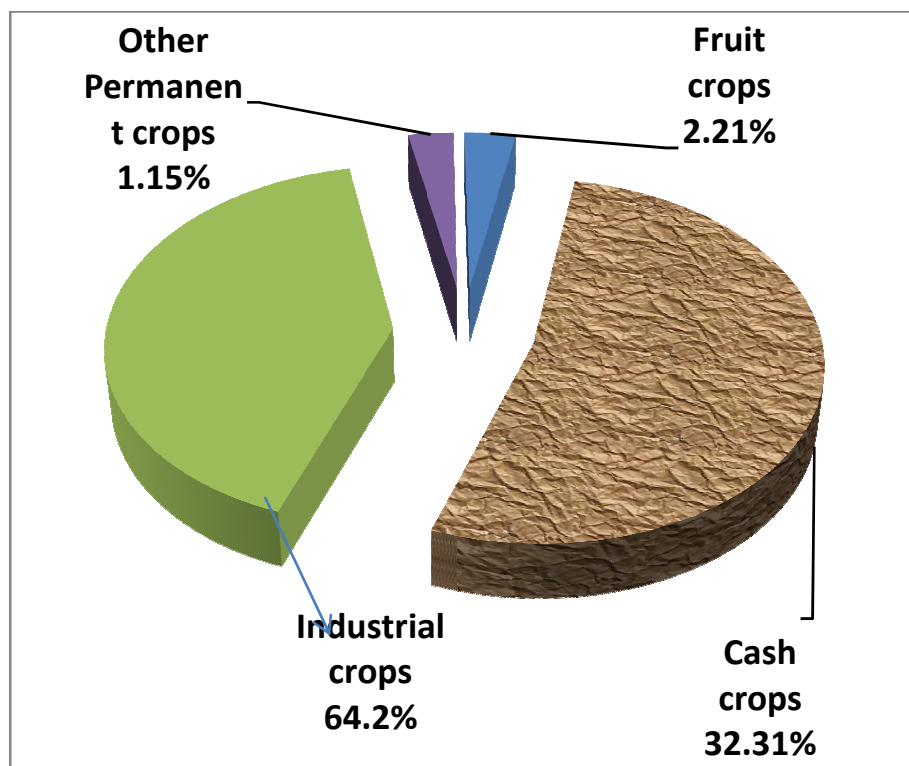
### **A Fruit Crops**

Fruit production is relatively new to Ethiopian agricultural system, with commercial fruit production dating back to only about six decades. Therefore, most of the important fruits that are produced in commercial farms are recent introductions into the country. However, various kinds of fruit crops grow in different regions of the country yielding varying quantities of fruits within commercial farms. Summary of total area harvested of Meher Season's permanent crops by major crop category for commercial farms is illustrated in Summary Table 3 and in Fig 3.

As indicated in Summary Table 3, fruit crops covered a total area of **7700.69** Hectares (**2.21%** of the total crop land area under permanent crops), with about **1035819.28** quintals of production (**1.6%** of the total permanent crops production), during the 2014/15 Meher Season harvest.

Oranges, Mangoes and Bananas took the highest area and production share of fruit crops (See Table 1 in Appendix).

**Fig 3. Percentage Distribution Area Under Permanent And Industrial Crops For Meher Season For Commercial Farms At Country Level 2014/15)**



### **B Cash/Stimulant crops**

Cash/stimulant crops include crops such as tea, coffee and chat considered as easily marketable at local and foreign markets. Commercial farms engaged in growing stimulant crops such as coffee and tea uses larger area with the objective of obtaining larger volume of production so as to earn considerable amount of cash in local and/or foreign currency. As indicated in Table 3 cash/stimulant crops were grown on an estimated total land area of **112393.71** hectares, with a total production estimated at **1308956.23** quintals of production, contributing about **32.3%** and **1.9 %** to the total cropland area and production of permanent crops, respectively (For details see Summary Table 3).

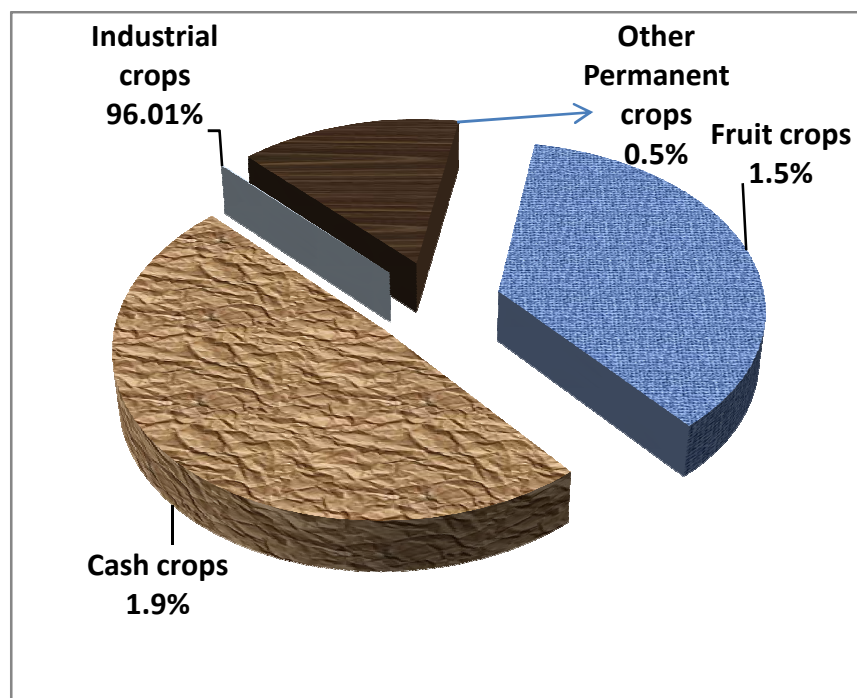
### **C Industrial Crops**

Industrial crops refer to crops commonly used as raw material for domestic agro-industries, which include crops such as **cotton** and **sugarcane**. Industrial crops grown in commercial farms covered a total land area of **223270.60** hectares ( **64.2%** of the total area under permanent crops), with a total production of **65147700.84** Quintals (**96.10 %** of the total permanent crops production), during the 2014/15 Meher Season harvest.

**Summary Table 4. Estimates of total production harvested of Meher Season's permanent crops by major crop category for commercial farms:National Level 2014/15 (2007 E.C)**

<b>Crop s Type</b>	<b>Production in Quintals</b>	<b>Percent</b>
Fruit crops	1035819.28	1.527667
Cash crops	1308956.23	1.9305
Industrial crops	65147700.84	96.08241
Other Permanent crops	311508.17	0.459425
<b>All permanent Crops</b>	<b>67803984.52</b>	<b>100</b>

**Fig 4. Percentage Distribution Production Under Permanent And Industrial Crops For Meher Season For Commercial Farms At Country Level 2014/15 (2007 E.C )**



### **3.4 Comparison of the current year (2014/15) Grain Crops yield with last Year (2012/13), estimates.**

Table A of the report attempts to compare area covered and total production estimates of selected important food crops obtained from the 2014/15 (2007 E.C.) commercial farms Survey with last year i.e. 2013/14(2006 E.C.) Area and crop production estimates of the same crops.

Both the estimated cropped land area and the volume of grain crops production obtained have increased by about **1.62%** and **1.94 %** over last year 2013/14 estimate.

## **3.5 Farm Management Practice**

### **3.5.1 Introduction**

The overall performance of a country's agriculture, usually affected by quite a number of factors, among which the level and extent of using modern agricultural practices (such as increased use of fertilizer, pesticides, and improved seeds...etc) is the first and the most important factor to be considered. This is merely because increased productivity can only be achieved through the use of the above mentioned farm inputs along with appropriate newly introduced modern farm management practices.

Towards this end, a number of modern techniques and technologies are available to help achieve enhanced crop productivity. The major actors behind achieving high level of productivity include among others, greater and efficient use of fertilizers, pesticides and improved seeds. Thus, during the year 2014/15 (2007 E.C) commercial farms sample survey, basic data on the agricultural inputs and practices were collected, summarized and the result are presented in this report.

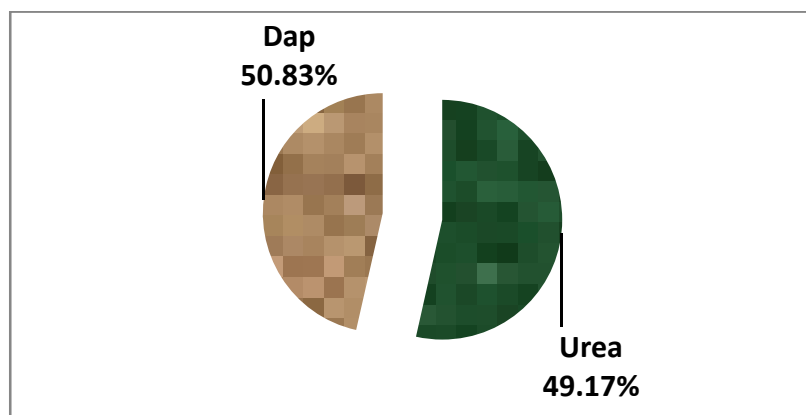
### **3.5.2 Cropland Area under Different Agricultural Input and Farm Management Practices**

This section of the chapter deals with the agricultural input applied cropland area and quantity of inputs used by commercial farms.

#### **a. Fertilized Cropland Areas and Quantity Applied**

Fertilizing materials and mixture are not restricted to in organic chemical but include organic substances such as crop residues, animal dung ...etc. Therefore, fertilizers refer to organic and/or inorganic materials added to the soil with the intention of increasing the amount of plant nutrients available for crop growth. However, in 2014/15 (2007E.C) commercial farms sample survey; data was collected only on the application of chemical fertilizers. The chemical fertilizers that were covered by the survey consisted of DAP (DI-Ammonium phosphate, and UREA (Ammonium nitrate). The results of the survey indicates that at country level the total Urea and DAP applied cropland area was found to be **402,074.27** and **415,565.92** hectares, which accounted for **49.17%** and **50.83%** of the total cropland area reported for Commercial farms at country level, during the 2014/15 Meher Season harvest. (For details see Table 3 on Appendix)

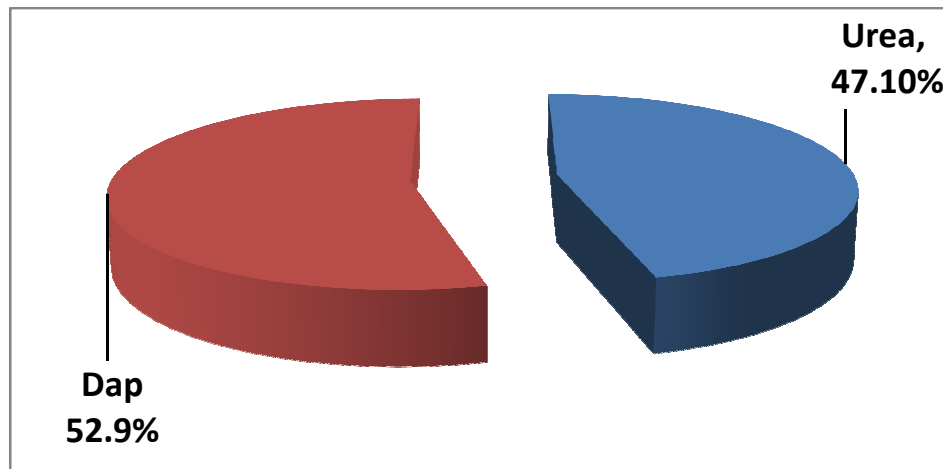
**Fig 5. Percentage Distribution Of Chemical Fertilizers Applied Cropland Area By Type Of Fertilizer For Meher Season For Commercial Farms At Country Level 2014/15 (2007 E.C)**



### **b.Quantity of Chemical Fertilizer Applied**

According to the results of the survey, the total quantity of chemical fertilizers applied during 2014/15 Meher Season for commercial farms was found to be **881,498.08** quintals. Out of which the share of DAP was **52.9 %** while the remaining **47.1 %** share was found to be the contribution of UREA. (For details see Table 3 on appendix and Figure 6).

**Fig 6. Percentage Distribution Of Total Amount Of Chemical Fertilizers Applied By Type Of Fertilizer For Meher Season For Commercial Farms At Country Level 2014/15**

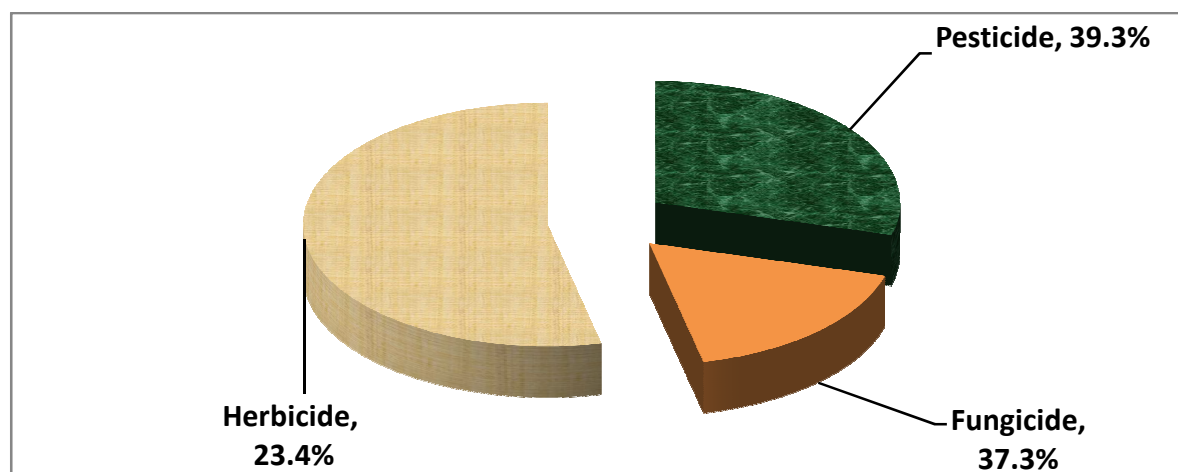


### **C . Cropland Areas Treated with Chemicals.**

Pesticides, fungicide and herbicides are chemicals that are commonly used for the control of mitigation of elimination of pests that are detrimental to crops growth and productivity

As indicated in statistical For details see Table 3 on appendix, the total cropland area treated with pesticides, fungicides and herbicides in commercial farms was found to be 189,170.30 Hectares, **179,549.13** Hectares and **398,888.92** hectares of cropland area, respectively. (For details see Table 3 on appendix and Figure 7).

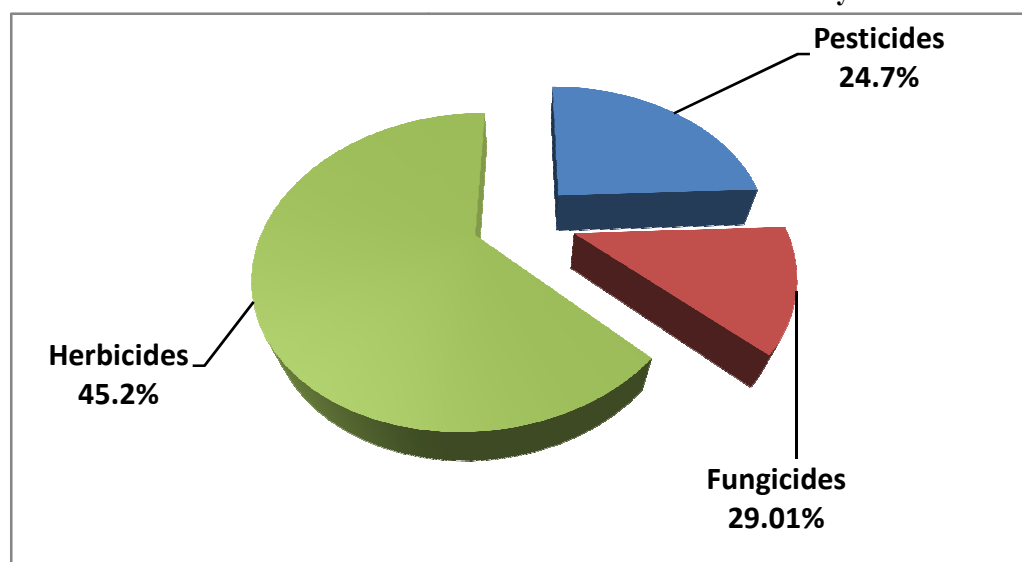
**Fig 7. Percentage Distribution Of Chemicals Treated Cropland Area By Type Of Chemicals Used For Meher Season For Commercial Farms At Country Level 2014/15 (2007 E.C)**



**d. Quantity of Chemicals used**

The total quantity of chemicals used during 2014/15 for commercial farms was found to be **372,264.52** Quintals during Meher Season, out of which the share of pesticides and herbicides was **24.7%** and **45.2%** respectively. While the remaining **29.01%**, share was found to be the contribution of fungicides (For details see Table 3 on appendix and Figure 8).

**8. Percentage Distribution Of Total Amount Of Chemicals Applied By Type Of Chemicals Applied For Meher Seasons For Commercial Farms At Country Level 2014/2015(2007 E.C)**



# ***Appendix I***

***Estimation Procedures of Tables, Ratios and  
sampling Error***

***Large and medium Scale Commercial Farms***

***2014/15 (2007EC)***



Table 1 Estimate of Cropland Area and Production of Commercial Farms, 2007E.C. (2014/15)  
National

Crop	Area		Production		Yield QT/HA
	Hectares	%	Quintals	%	
Total	983,537.06	100.00	81,934,805.24	100.00	
Grains	612,081.21	62.12	12,151,038.91	14.83	
Cereals	278,786.89	28.30	8,992,766.04	10.98	2007
Teff	6,556.33	0.67	96,082.56	0.12	14.65
Barley	2,260.57	0.23	65,349.37	0.08	28.91
Wheat	80,575.60	8.18	2,591,671.37	3.16	32.16
Maize	86,909.77	8.82	3,554,695.25	4.34	40.90
Sorghum	98,601.62	10.01	2,592,026.29	3.16	26.29
Finger millet	444.89	0.05	7,398.42	0.01	16.63
Oats/'Aja'/	-	-	-	-	-
Rice	3,438.11	0.35	85,542.78	0.10	24.88
Pulse	46,072.86	4.68	826,522.62	1.01	
Horse/Faba beans	791.18	0.08	15,559.88	0.02	19.67
Field peas	205.52	0.02	2,938.75	-	14.30
Haricot beans	10,001.86	1.02	185,760.42	0.23	18.57
Chick peas	8,215.79	0.83	130,763.19	0.16	15.92
Lentiles	46.96	-	778.88	-	16.59
Vetch/Grass peas	38.70	-	695.16	-	17.96
Soya beans	24,673.71	2.50	465,221.30	0.57	18.85
Fenugreek	514.99	0.05	6,930.10	0.01	13.46
Mung bean/'Masho"	1,578.26	0.16	17,808.76	0.02	11.28
Gibto	5.90	-	66.18	-	11.22
Oil seeds	287,221.46	29.15	2,331,750.25	2.85	
Nueg	999.27	0.10	9,095.22	0.01	9.10
Linseed	563.03	0.06	9,108.17	0.01	16.18
Ground nuts	1,773.78	0.18	31,762.71	0.04	17.91
Safflower	13.47	-	178.10	-	13.22
Sesame	280,422.04	28.46	2,222,536.55	2.71	7.93
Rapeseed	3,449.87	0.35	59,069.50	0.07	17.12
Vegetables	6,791.23	0.69	884,849.36	1.08	
Lettuce	201.55	0.02	58,536.83	0.07	290.43
Head Cabbage	204.76	0.02	47,493.56	0.06	231.95
Ethiopian Cabbage	17.94	-	1,756.02	-	97.88
Tomatoes	1,645.03	0.17	549,615.15	0.67	334.11
Green peppers	150.37	0.02	29,646.07	0.04	197.15
Red papers	4,529.64	0.46	196,469.08	0.24	43.37
Swiss chard	41.93	-	1,332.65	-	31.78
Root crops	1,211.27	0.12	301,180.72	0.37	
Beet root	3.16	-	321.37	-	101.70
Carrot	13.24	-	839.29	-	63.39
Onion	866.31	0.09	193,067.05	0.24	222.86
Potatoes	180.52	0.02	37,468.43	0.05	207.56
Garlic	35.23	-	5,321.64	0.01	151.05
Taro/'Godere'/	2.62	-	720.86	-	275.14
Sweet potatoes	110.18	0.01	63,442.08	0.08	575.80
Other Temporary	15,685.72	1.77	780,296.33	0.95	
Permanent crops	347,767.63	35.30	67,817,439.92	82.77	
Fruit crops	7,700.69	0.78	1,035,819.28	1.27	
Avocado	145.64	0.01	11,844.75	0.01	81.33
Bananas	1,910.97	0.19	179,245.89	0.22	93.80
Guava/'Zeytun'/	43.23	-	1,621.48	-	37.51
Lemons	48.25	-	3,650.17	0.01	75.65
Mangos	2,365.96	0.24	189,379.15	0.23	80.04
Oranges	2,454.24	0.25	327,622.94	0.40	133.49
Papayas	716.25	0.07	322,235.95	0.39	449.89
Pineapples	16.14	-	218.95	-	13.57
Cash crpops	336,067.40	34.11	66,470,112.47	81.12	
Chat	36.99	-	1,021.59	-	27.62
Coffee	108,007.40	10.96	799,714.81	0.98	7.40
Tea	4,349.32	0.44	508,219.83	0.62	116.85
Hopes/'Gesho'/	1.89	-	45.64	-	24.15
Enset	401.20	0.04	13,409.76	0.02	33.42
Sugar cane	51,088.70	5.19	61,778,945.52	75.40	1,209.25
Cotton	172,181.90	17.48	3,368,755.32	4.11	19.57
Other permanent crops	3,999.54	0.41	311,508.17	0.38	77.89

Table 1 Estimate of Cropland Area and Production of Commercial Farms, 2007E.C. (2014/15)  
Tigray

	Area		Production		Yield
	Hectares	%	Quintals	%	QT/HA
Total	205,217.82	100.00	2,537,477.84	100.00	
Grains	191,859.33	92.71	2,329,307.17	91.75	
Cereals	45,584.82	22.03	1,129,533.20	44.49	
Teff	244.03	0.12	3,771.56	0.15	15.46
Barley	975.45	0.47	27,804.41	1.10	28.50
Wheat	55.52	0.03	2,077.00	0.08	37.41
Maize	99.68	0.05	3,498.48	0.14	35.10
Sorghum	44,208.14	21.36	1,092,367.65	43.03	24.71
Finger millet	2.01	-	14.10	-	7.01
Oats/'Aja'/	-	-	-	-	-
Rice	-	-	-	-	-
Pulse	171.96	0.08	2,765.34	0.11	
Horse/Faba beans	-	-	-	-	-
Field peas	-	-	-	-	-
Haricot beans	-	-	-	-	-
Chick peas	44.13	0.02	788.76	0.03	17.87
Lentiles	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-
Soya beans	121.93	0.06	1,910.40	0.08	15.67
Fenugreek	-	-	-	-	-
Mung bean/'Masho"	-	-	-	-	-
Gibto	5.90	-	66.18	-	11.22
Oile seeds	146,102.55	70.60	1,197,008.63	47.15	
Nueg	-	-	-	-	-
Linseed	-	-	-	-	-
Ground nuts	237.02	0.11	6,252.35	0.25	26.38
Safflower	-	-	-	-	-
Sesame	145,865.54	70.48	1,190,756.28	46.91	8.16
Rapeseed	-	-	-	-	-
Vegetables	442.49	0.21	80,930.73	3.19	
Lettuce	1.46	-	1,057.98	0.04	724.64
Head Cabbage	5.81	-	2,226.89	0.09	383.29
Ethiopian Cabbage	7.87	-	776.24	0.03	98.63
Tomatoes	290.30	0.14	60,736.68	2.39	209.22
Green peppers	47.56	0.02	12,477.19	0.49	262.35
Red papers	80.42	0.04	3,397.52	0.13	42.25
Swiss chard	9.09	-	258.23	0.01	28.41
Root crops	268.87	0.13	38,407.22	1.51	
Beet root	-	-	-	-	-
Carrot	11.11	0.01	455.29	0.02	40.98
Onion	214.22	0.10	29,587.13	1.17	138.12
Potatoes	39.65	0.02	7,680.40	0.30	193.70
Garlic	-	-	-	-	-
Taro/'Godere'/	-	-	-	-	-
Sweet potatoes	3.89	-	684.40	0.03	175.94
Other Temporary	3.52	0.84	270.00	0.01	
Permanent crops	12,643.61	6.11	88,562.72	3.53	
Fruit crops	272.06	0.13	11,563.49	0.50	
Avocado	7.95	-	281.72	0.01	35.44
Bananas	1.27	-	100.28	-	78.96
Guava/'Zeytun'/	10.62	0.01	310.76	0.01	29.26
Lemons	16.13	0.01	1,668.41	0.11	103.44
Mangos	173.06	0.08	6,163.60	0.24	35.62
Oranges	59.39	0.03	2,361.60	0.09	39.76
Papayas	3.64	-	677.12	0.03	186.02
Pineapples	-	-	-	-	-
Cash crpops	12,346.26	5.97	69,546.78	2.74	
Chat	-	-	-	-	-
Coffee	2.36	-	17.68	-	7.49
Tea	-	-	-	-	-
Hopes/'Gesho'/	1.89	-	45.64	-	24.15
Enset	-	-	-	-	-
Sugar cane	-	-	-	-	-
Cotton	12,342.01	5.96	69,483.46	2.74	5.63
Other permanent crops	25.29	0.01	7,452.45	0.29	294.68

Table 1 Estimate of Cropland Area and Production of Commercial Farms, 2007E.C. (2014/15)  
Afar

	Area		Production		Yield
	Hectares	%	Quintals	%	QT/HA
Total	70,114.48	100.00	1,745,811.79	100.00	
Grains	1,362.54	1.94	40,477.76	2.32	
Cereals	980.58	1.40	37,273.84	2.14	
Teff	-	-	-	-	-
Barley	-	-	-	-	-
Wheat	-	-	-	-	-
Maize	975.38	1.39	37,234.84	2.13	38.17
Sorghum	-	-	-	-	-
Finger millet	-	-	-	-	-
Oats/'Aja'/	-	-	-	-	-
Rice	5.20	0.01	39.00	-	7.50
Pulse	-	-	-	-	-
Horse/Faba beans	-	-	-	-	-
Field peas	-	-	-	-	-
Haricot beans	-	-	-	-	-
Chick peas	-	-	-	-	-
Lentiles	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-
Soya beans	-	-	-	-	-
Fenugreek	-	-	-	-	-
Mung bean/'Masho"	-	-	-	-	-
Gibto	-	-	-	-	-
Oile seeds	381.96	0.54	3,203.92	0.18	
Nueg	-	-	-	-	-
Linseed	0.81	-	-	-	-
Ground nuts	-	-	-	-	-
Safflower	-	-	-	-	-
Sesame	381.15	0.54	3,203.92	0.18	8.41
Rapeseed	-	-	-	-	-
Vegetables	-	-	-	-	-
Lettuce	-	-	-	-	-
Head Cabbage	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-
Tomatoes	-	-	-	-	-
Green peppers	-	-	-	-	-
Red papers	-	-	-	-	-
Swiss chard	-	-	-	-	-
Root crops	-	-	-	-	-
Beet root	-	-	-	-	-
Carrot	-	-	-	-	-
Onion	-	-	-	-	-
Potatoes	-	-	-	-	-
Garlic	-	-	-	-	-
Taro/'Godere'/	-	-	-	-	-
Sweet potatoes	-	-	-	-	-
Other Temporary	-	-	-	-	-
Permanent crops	68,751.94	98.06	1,705,334.03	97.68	
Fruit crops	86.56	0.12	7,071.68	0.41	
Avocado	-	-	-	-	-
Bananas	-	-	-	-	-
Guava/'Zeytun'/	-	-	-	-	-
Lemons	-	-	-	-	-
Mangos	41.62	0.06	2,768.32	0.16	66.51
Oranges	44.95	0.06	4,303.36	0.25	95.74
Papayas	-	-	-	-	-
Pineapples	-	-	-	-	-
Cash crpops	68,588.68	97.82	1,696,826.43	97.19	
Chat	-	-	-	-	-
Coffee	-	-	-	-	-
Tea	-	-	-	-	-
Hopes/'Gesho'/	-	-	-	-	-
Enset	-	-	-	-	-
Sugar cane	9,268.43	13.22	141,844.92	8.12	15.30
Cotton	59,320.25	84.60	1,554,981.51	89.07	26.21
Other permanent crops	76.70	0.11	1,435.92	0.08	18.72

Table 1 Estimate of Cropland Area and Production of Commercial Farms, 2007E.C. (2014/15)  
Amhara

	Area		Production		Yield
	Hectares	%	Quintals	%	QT/HA
Total	186,813.92	100.00	2,943,723.37	100.00	
Grains	171,374.42	91.74	2,544,981.69	86.45	
Cereals	52,112.37	27.90	1,535,671.06	52.17	
Teff	1,997.34	1.07	30,051.98	1.02	15.05
Barley	595.52	0.32	17,144.23	0.58	28.79
Wheat	2,790.50	1.49	53,644.72	1.82	19.22
Maize	14,133.69	7.57	694,824.28	23.60	49.16
Sorghum	32,111.95	17.19	726,198.96	24.67	22.61
Finger millet	70.17	0.04	1,209.40	0.04	17.24
Oats/'Aja' /	-	-	-	-	-
Rice	413.21	0.22	12,597.49	0.43	30.49
Pulse	14,584.71	7.81	257,121.95	8.73	
Horse/Faba beans	8.51	-	64.72	-	7.61
Field peas	-	-	-	-	-
Haricot beans	2,412.66	1.29	62,312.11	2.12	25.83
Chick peas	4,847.85	2.60	84,563.53	2.87	17.44
Lentiles	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-
Soya beans	7,306.18	3.91	110,054.85	3.74	15.06
Fenugreek	-	-	-	-	-
Mung bean/'Masho'	9.51	0.01	126.74	-	13.33
Gibto	-	-	-	-	-
Oile seeds	104,677.34	56.03	752,188.68	25.55	
Nueg	139.75	0.07	1,260.17	0.04	9.02
Linseed	-	-	-	-	-
Ground nuts	85.76	0.05	1,827.93	0.06	21.31
Safflower	-	-	-	-	-
Sesame	104,097.28	55.72	744,496.52	25.29	7.15
Rapeseed	354.54	0.19	4,604.06	0.16	12.99
Vegetables	1,127.00	0.60	113,475.52	3.85	
Lettuce	-	-	-	-	-
Head Cabbage	100.71	0.05	10,700.80	0.36	106.25
Ethiopian Cabbage	10.07	0.01	979.78	0.03	97.30
Tomatoes	51.50	0.03	12,410.24	0.42	240.98
Green peppers	11.80	0.01	1,187.61	0.04	100.64
Red papers	952.92	0.51	88,197.09	3.00	92.55
Swiss chard	-	-	-	-	-
Root crops	110.52	0.06	24,598.04	0.84	
Beet root	1.74	-	35.70	-	20.52
Carrot	-	-	-	-	-
Onion	105.76	0.06	23,909.48	0.81	226.07
Potatoes	3.02	-	652.86	0.02	216.18
Garlic	-	-	-	-	-
Taro/'Godere' /	-	-	-	-	-
Sweet potatoes	-	-	-	-	-
Other Temporary	2.57	-	200.09	0.01	
Permanent crops	14,199.41	7.60	260,468.03	8.85	
Fruit crops	800.02	0.43	93,656.83	3.18	
Avocado	6.95	-	347.35	0.01	49.98
Bananas	94.67	0.05	10,396.17	0.35	109.81
Guava/'Zeytun' /	-	-	-	-	-
Lemons	0.08	-	16.04	-	200.50
Mangos	537.65	0.29	41,845.03	1.42	77.83
Oranges	88.64	0.05	13,695.48	0.47	154.51
Papayas	72.04	0.04	27,356.76	0.93	379.74
Pineapples	-	-	-	-	-
Cash crpops	13,348.53	7.15	157,655.31	5.36	
Chat	-	-	-	-	-
Coffee	455.21	0.24	4,524.51	0.15	9.94
Tea	-	-	-	-	-
Hopes/'Gesho' /	-	-	-	-	-
Enset	-	-	-	-	-
Sugar cane	12.34	0.01	15,133.79	0.51	1,226.40
Cotton	12,880.98	6.90	137,997.01	4.69	10.71
Other permanent crops	50.86	0.03	9,155.89	0.31	180.02

Table 1 Estimate of Cropland Area and Production of Commercial Farms, 2007E.C. (2014/15)  
Oromia

	Area		Production		Yield
	Hectares	%	Quintals	%	QT/HA
Total	262,189.33	100.00	68,174,134.93	100.00	
Grains	147,145.37	56.12	4,342,773.99	6.37	
Cereals	122,909.23	46.88	4,000,812.39	5.87	
Teff	1,490.76	0.57	26,384.94	0.04	17.70
Barley	663.36	0.25	19,634.09	0.03	29.60
Wheat	75,301.21	28.72	2,407,262.82	3.53	31.97
Maize	36,512.77	13.93	1,199,784.03	1.76	32.86
Sorghum	8,470.36	3.23	336,558.16	0.49	39.73
Finger millet	323.57	0.12	5,767.79	0.01	17.83
Oats/'Aja'	-	-	-	-	-
Rice	147.19	0.06	5,420.56	0.01	36.83
Pulse	10,750.77	4.10	195,256.01	0.29	
Horse/Faba beans	427.19	0.16	8,653.90	0.01	20.26
Field peas	205.52	0.08	2,938.75	-	14.30
Haricot beans	2,049.12	0.78	37,246.59	0.05	18.18
Chick peas	477.63	0.18	9,042.50	0.01	18.93
Lentiles	43.02	0.02	713.57	-	16.59
Vetch/Grass peas	38.26	0.01	676.66	-	17.69
Soya beans	6,956.16	2.65	128,861.89	0.19	18.52
Fenugreek	514.99	0.20	6,930.10	0.01	13.46
Mung bean/'Masho"	38.89	0.01	192.05	-	4.94
Gibto	-	-	-	-	-
Oil seeds	13,485.37	5.14	146,705.59	0.22	
Nueg	428.62	0.16	4,740.87	0.01	11.06
Linseed	261.73	0.10	5,766.12	0.01	22.03
Ground nuts	688.47	0.26	9,847.57	0.01	14.30
Safflower	2.50	-	4.90	-	1.96
Sesame	9,008.71	3.44	71,880.69	0.11	7.98
Rapeseed	3,095.33	1.18	54,465.44	0.08	17.60
Vegetables	3,850.46	1.47	621,674.84	0.91	
Lettuce	194.85	0.07	57,426.21	0.08	294.72
Head Cabbage	90.78	0.03	32,707.93	0.05	360.30
Ethiopian Cabbage	-	-	-	-	-
Tomatoes	1,219.87	0.47	462,346.02	0.68	379.01
Green peppers	83.31	0.03	14,030.93	0.02	168.42
Red papers	2,255.68	0.86	54,876.16	0.08	24.33
Swiss chard	5.97	-	287.59	-	48.17
Root crops	496.17	0.19	125,019.07	0.18	
Beet root	1.42	-	285.67	-	201.18
Carrot	2.13	-	384.00	-	180.28
Onion	394.73	0.15	105,250.92	0.15	266.64
Potatoes	62.65	0.02	13,776.84	0.02	219.90
Garlic	35.23	0.01	5,321.64	0.01	151.05
Taro/'Godere'	-	-	-	-	-
Sweet potatoes	-	-	-	-	-
Other Temporary	13,244.03	5.05	7,987.34	0.01	
Permanent crops	97,453.30	37.17	63,076,679.69	92.52	
Fruit crops	3,826.57	1.46	668,977.35	0.98	
Avocado	13.48	0.01	963.16	-	71.45
Bananas	27.71	0.01	2,346.27	-	84.67
Guava/'Zeytun'	28.83	0.01	1,180.27	-	40.94
Lemons	23.99	0.01	1,512.00	-	63.03
Mangos	1,493.89	0.57	128,012.76	0.19	85.69
Oranges	1,633.01	0.62	246,904.92	0.36	151.20
Papayas	600.02	0.23	287,985.64	0.42	479.96
Pineapples	5.65	-	72.33	-	12.80
Cash crops	91,103.81	34.75	62,204,715.64	91.24	
Chat	0.25	-	9.46	-	37.84
Coffee	46,562.79	17.76	393,697.45	0.58	8.46
Tea	1,470.60	0.56	194,639.44	0.29	132.35
Hopes/'Gesho'	-	-	-	-	-
Enset	-	-	-	-	-
Sugar cane	41,776.08	15.93	61,594,121.67	90.35	1,474.39
Cotton	1,294.10	0.49	22,247.62	0.03	17.19
Other permanent crops	2,522.92	0.96	202,986.70	0.30	80.46

Table 1 Estimate of Cropland Area and Production of Commercial Farms, 2007E.C. (2014/15)  
Somale

	Area		Production		Yield
	Hectares	%	Quintals	%	QT/HA
Total	1,191.01	100.00	89,456.45	100.00	
Grains	469.83	39.45	15,455.18	17.28	
Cereals	461.98	38.79	14,968.18	16.73	
Teff	-	-	-	-	-
Barley	-	-	-	-	-
Wheat	342.14	28.73	10,099.22	11.29	29.52
Maize	76.60	6.43	3,411.24	3.81	44.53
Sorghum	43.24	3.63	1,457.72	1.63	33.71
Finger millet	-	-	-	-	-
Oats/'Aja' /	-	-	-	-	-
Rice	-	-	-	-	-
Pulse	-	-	-	-	-
Horse/Faba beans	-	-	-	-	-
Field peas	-	-	-	-	-
Haricot beans	-	-	-	-	-
Chick peas	-	-	-	-	-
Lentiles	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-
Soya beans	-	-	-	-	-
Fenugreek	-	-	-	-	-
Mung bean/'Masho"	-	-	-	-	-
Gibto	-	-	-	-	-
Oile seeds	7.85	0.66	487.00	0.54	
Nueg	-	-	-	-	-
Linseed	-	-	-	-	-
Ground nuts	5.71	0.48	444.00	0.50	77.76
Safflower	-	-	-	-	-
Sesame	2.14	0.18	43.00	0.05	20.09
Rapeseed	-	-	-	-	-
Vegetables	23.30	1.96	2,861.38	3.20	
Lettuce	-	-	-	-	-
Head Cabbage	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-
Tomatoes	22.03	1.85	2,761.38	3.09	125.35
Green peppers	1.26	0.11	100.00	0.11	79.37
Red papers	-	-	-	-	-
Swiss chard	-	-	-	-	-
Root crops	24.69	2.07	5,579.00	6.24	
Beet root	-	-	-	-	-
Carrot	-	-	-	-	-
Onion	24.69	2.07	5,579.00	6.24	225.96
Potatoes	-	-	-	-	-
Garlic	-	-	-	-	-
Taro/'Godere' /	-	-	-	-	-
Sweet potatoes	-	-	-	-	-
Other Temporary	0.58	0.05	575.00	0.64	
Permanent crops	672.61	56.47	64,985.89	72.65	
Fruit crops	661.99	55.58	63,485.55	70.97	
Avocado	-	-	-	-	-
Bananas	2.63	0.22	194.95	0.22	74.13
Guava/'Zeytun' /	2.74	0.23	127.13	0.14	46.40
Lemons	8.07	0.68	453.72	0.51	56.22
Mangos	9.17	0.77	1,034.49	1.16	112.81
Oranges	609.04	51.14	56,998.29	63.72	93.59
Papayas	30.35	2.55	4,676.97	5.23	154.10
Pineapples	-	-	-	-	-
Cash crpops	-	-	-	-	-
Chat	-	-	-	-	-
Coffee	-	-	-	-	-
Tea	-	-	-	-	-
Hopes/'Gesho' /	-	-	-	-	-
Enset	-	-	-	-	-
Sugar cane	-	-	-	-	-
Cotton	-	-	-	-	-
Other permanent crops	10.62	0.89	1,500.34	1.68	141.27

Table 1 Estimate of Cropland Area and Production of Commercial Farms, 2007E.C. (2014/15)  
Benshangul-Gumuz

	Area		Production		Yield
	Hectares	%	Quintals	%	QT/HA
Total	72,057.99	100.00	1,646,583.18	100.00	
Grains	52,126.42	72.34	1,213,841.62	73.72	
Cereals	19,761.09	27.42	747,119.18	45.37	
Teff	16.52	0.02	100.00	0.01	6.05
Barley	-	-	-	-	-
Wheat	95.47	0.13	1,663.47	0.10	17.42
Maize	6,717.23	9.32	327,725.75	19.90	48.79
Sorghum	12,289.69	17.06	402,603.10	24.45	32.76
Finger millet	9.78	0.01	142.33	0.01	14.55
Oats/'Aja'/	-	-	-	-	-
Rice	632.40	0.88	14,884.53	0.90	23.54
Pulse	12,277.26	17.04	253,080.13	15.37	
Horse/Faba beans	-	-	-	-	-
Field peas	-	-	-	-	-
Haricot beans	1,755.27	2.44	27,047.89	1.64	15.41
Chick peas	-	-	-	-	-
Lentiles	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-
Soya beans	10,005.88	13.89	218,402.63	13.26	21.83
Fenugreek	-	-	-	-	-
Mung bean/'Masho'	516.12	0.72	7,629.61	0.46	14.78
Gibto	-	-	-	-	-
Oile seeds	20,088.07	27.88	213,642.31	12.97	
Nueg	236.64	0.33	1,860.15	0.11	7.86
Linseed	-	-	-	-	-
Ground nuts	370.26	0.51	7,226.98	0.44	19.52
Safflower	-	-	-	-	-
Sesame	19,481.17	27.04	204,555.18	12.42	10.50
Rapeseed	-	-	-	-	-
Vegetables	527.79	0.73	15,531.92	0.94	
Lettuce	-	-	-	-	-
Head Cabbage	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-
Tomatoes	13.60	0.02	2,461.00	0.15	180.96
Green peppers	-	-	-	-	-
Red papers	514.19	0.71	13,070.92	0.79	25.42
Swiss chard	-	-	-	-	-
Root crops	46.24	0.06	10,447.56	0.63	
Beet root	-	-	-	-	-
Carrot	-	-	-	-	-
Onion	46.24	0.06	10,447.56	0.63	225.94
Potatoes	-	-	-	-	-
Garlic	-	-	-	-	-
Taro/'Godere'/	-	-	-	-	-
Sweet potatoes	-	-	-	-	-
Other Temporary	-	-	-	-	-
Permanent crops	19,357.54	26.86	406,762.08	24.70	
Fruit crops	9.74	0.01	530.26	0.03	
Avocado	-	-	-	-	-
Bananas	0.30	-	0.63	-	2.10
Guava/'Zeytun'/	1.04	-	3.32	-	3.19
Lemons	-	-	-	-	-
Mangos	4.25	0.01	400.73	0.02	94.29
Oranges	-	-	-	-	-
Papayas	4.15	0.01	125.58	0.01	30.26
Pineapples	-	-	-	-	-
Cash crpops	19,342.70	26.84	405,887.98	24.65	
Chat	-	-	-	-	-
Coffee	25.70	0.04	140.12	0.01	5.45
Tea	-	-	-	-	-
Hopes/'Gesho'/	-	-	-	-	-
Enset	401.20	0.56	13,409.76	0.81	33.42
Sugar cane	5.61	0.01	1,681.04	0.10	299.65
Cotton	18,910.19	26.24	390,657.06	23.73	20.66
Other permanent crops	5.10	0.01	343.84	0.02	67.42

Table 1 Estimate of Cropland Area and Production of Commercial Farms, 2007E.C. (2014/15)  
(S.N.N.P.R)

	Area		Production		Yield
	Hectares	%	Quintals	%	QT/HA
Total	137,497.85	100.00	3,988,333.85	100.00	
Grains	44,408.86	32.30	1,601,641.52	40.16	
Cereals	35,566.07	25.87	1,483,600.06	37.20	
Teff	2,793.23	2.03	35,730.58	0.90	12.79
Barley	26.24	0.02	766.64	0.02	29.22
Wheat	1,979.41	1.44	116,852.14	2.93	59.03
Maize	27,995.70	20.36	1,270,493.22	31.86	45.38
Sorghum	1,378.58	1.00	30,076.48	0.75	21.82
Finger millet	39.37	0.03	264.80	0.01	6.73
Oats/'Aja'/	-	-	-	-	-
Rice	1,353.55	0.98	29,416.20	0.74	21.73
Pulse	7,040.31	5.12	104,614.44	2.62	
Horse/Faba beans	355.48	0.26	6,841.26	0.17	19.25
Field peas	-	-	-	-	-
Haricot beans	3,784.81	2.75	59,153.83	1.48	15.63
Chick peas	2,845.73	2.07	36,365.40	0.91	12.78
Lentiles	3.94	-	65.31	-	16.58
Vetch/Grass peas	-	-	-	-	-
Soya beans	45.63	0.03	2,110.28	0.05	46.25
Fenugreek	-	-	-	-	-
Mung bean/'Masho'	4.72	-	78.36	-	16.60
Gibto	-	-	-	-	-
Oile seeds	1,802.48	1.31	13,427.02	0.34	
Nueg	194.25	0.14	1,234.03	0.03	6.35
Linseed	300.50	0.22	3,342.05	0.08	11.12
Ground nuts	65.61	0.05	1,164.78	0.03	17.75
Safflower	6.04	-	85.20	-	14.11
Sesame	1,236.08	0.90	7,600.96	0.19	6.15
Rapeseed	-	-	-	-	-
Vegetables	789.13	0.57	47,175.97	1.18	
Lettuce	5.25	-	52.64	-	10.03
Head Cabbage	7.46	0.01	1,857.94	0.05	249.05
Ethiopian Cabbage	-	-	-	-	-
Tomatoes	16.67	0.01	5,700.83	0.14	341.98
Green peppers	6.44	-	1,850.34	0.05	287.32
Red papers	726.44	0.53	36,927.39	0.93	50.83
Swiss chard	26.87	0.02	786.83	0.02	29.28
Root crops	257.98	0.19	96,529.83	2.42	
Beet root	-	-	-	-	-
Carrot	-	-	-	-	-
Onion	80.67	0.06	18,292.96	0.46	226.76
Potatoes	68.40	0.05	14,758.33	0.37	215.77
Garlic	-	-	-	-	-
Taro/'Godere'/	2.62	-	720.86	0.02	275.14
Sweet potatoes	106.29	0.08	62,757.68	1.57	590.44
Other Temporary	2,435.01	1.77	771,263.90	19.34	
Permanent crops	89,606.87	65.17	1,471,722.63	36.90	
Fruit crops	1,975.68	1.44	187,240.96	4.69	
Avocado	117.26	0.09	10,252.52	0.26	87.43
Bananas	1,784.39	1.30	166,207.59	4.17	93.15
Guava/'Zeytun'/	-	-	-	-	-
Lemons	-	-	-	-	-
Mangos	54.33	0.04	8,768.91	0.22	161.40
Oranges	3.15	-	451.44	0.01	143.31
Papayas	6.05	-	1,413.88	0.04	233.70
Pineapples	10.50	0.01	146.62	-	13.96
Cash crpops	86,324.05	62.78	1,196,073.56	29.99	
Chat	36.74	0.03	1,012.13	0.03	27.55
Coffee	60,961.34	44.34	401,335.05	10.06	6.58
Tea	2,878.72	2.09	313,580.39	7.86	108.93
Hopes/'Gesho'/	-	-	-	-	-
Enset	-	-	-	-	-
Sugar cane	26.24	0.02	26,164.10	0.66	997.11
Cotton	22,421.00	16.31	453,981.89	11.38	20.25
Other permanent crops	1,307.14	0.95	88,408.11	2.22	67.63



Table 1 Estimate of Cropland Area and Production of Commercial Farms, 2007E.C. (2014/15)  
Gambela

	Area		Production		Yield
	Hectares	%	Quintals	%	QT/HA
Total	48,382.05	100.00	805,328.28	100.00	
Grains	3,307.74	6.84	62,422.98	7.75	
Cereals	1,384.95	2.86	43,672.63	5.42	
Teff	-	-	-	-	-
Barley	-	-	-	-	-
Wheat	-	-	-	-	-
Maize	398.73	0.82	17,723.41	2.20	44.45
Sorghum	99.66	0.21	2,764.22	0.34	27.74
Finger millet	-	-	-	-	-
Oats/'Aja'/	-	-	-	-	-
Rice	886.56	1.83	23,185.00	2.88	26.15
Pulse	1,246.95	2.58	13,663.25	1.70	
Horse/Faba beans	-	-	-	-	-
Field peas	-	-	-	-	-
Haricot beans	-	-	-	-	-
Chick peas	-	-	-	-	-
Lentiles	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-
Soya beans	237.92	0.49	3,881.25	0.48	16.31
Fenugreek	-	-	-	-	-
Mung bean/'Masho'	1,009.03	2.09	9,782.00	1.21	9.69
Gibto	-	-	-	-	-
Oile seeds	675.84	1.40	5,087.10	0.63	
Nueg	-	-	-	-	-
Linseed	-	-	-	-	-
Ground nuts	320.94	0.66	4,999.10	0.62	15.58
Safflower	4.93	0.01	88.00	0.01	17.85
Sesame	349.97	0.72	-	-	-
Rapeseed	-	-	-	-	-
Vegetables	31.06	0.06	3,199.00	0.40	
Lettuce	-	-	-	-	-
Head Cabbage	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-
Tomatoes	31.06	0.06	3,199.00	0.40	102.99
Green peppers	-	-	-	-	-
Red papers	-	-	-	-	-
Swiss chard	-	-	-	-	-
Root crops	-	-	-	-	-
Beet root	-	-	-	-	-
Carrot	-	-	-	-	-
Onion	-	-	-	-	-
Potatoes	-	-	-	-	-
Garlic	-	-	-	-	-
Taro/'Godere'/	-	-	-	-	-
Sweet potatoes	-	-	-	-	-
Other Temporary	-	-	-	-	-
Permanent crops	45,043.25	93.10	739,706.30	91.85	
Fruit crops	29.88	0.06	299.53	0.04	
Avocado	-	-	-	-	-
Bananas	-	-	-	-	-
Guava/'Zeytun'/	-	-	-	-	-
Lemons	-	-	-	-	-
Mangos	29.88	0.06	299.53	0.04	10.02
Oranges	-	-	-	-	-
Papayas	-	-	-	-	-
Pineapples	-	-	-	-	-
Cash crpops	45,013.37	93.04	739,406.77	91.81	
Chat	-	-	-	-	-
Coffee	-	-	-	-	-
Tea	-	-	-	-	-
Hopes/'Gesho'/	-	-	-	-	-
Enset	-	-	-	-	-
Sugar cane	-	-	-	-	-
Cotton	45,013.37	93.04	739,406.77	91.81	16.43
Other permanent crops	-	-	-	-	-

Table 1 Estimate of Cropland Area and Production of Commercial Farms, 2007E.C. (2014/15)  
Dire Dawa

	Area		Production		Yield
	Hectares	%	Quintals	%	QT/HA
Total	39.08	100.00	3,218.55	100.00	
Grains	-	-	-	-	-
Cereals	-	-	-	-	-
Teff	-	-	-	-	-
Barley	-	-	-	-	-
Wheat	-	-	-	-	-
Maize	-	-	-	-	-
Sorghum	-	-	-	-	-
Finger millet	-	-	-	-	-
Oats/'Aja'/	-	-	-	-	-
Rice	-	-	-	-	-
Pulse	-	-	-	-	-
Horse/Faba beans	-	-	-	-	-
Field peas	-	-	-	-	-
Haricot beans	-	-	-	-	-
Chick peas	-	-	-	-	-
Lentiles	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-
Soya beans	-	-	-	-	-
Fenugreek	-	-	-	-	-
Mung bean/'Masho'	-	-	-	-	-
Gibto	-	-	-	-	-
Oil seeds	-	-	-	-	-
Nueg	-	-	-	-	-
Linseed	-	-	-	-	-
Ground nuts	-	-	-	-	-
Safflower	-	-	-	-	-
Sesame	-	-	-	-	-
Rapeseed	-	-	-	-	-
Vegetables	-	-	-	-	-
Lettuce	-	-	-	-	-
Head Cabbage	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-
Tomatoes	-	-	-	-	-
Green peppers	-	-	-	-	-
Red papers	-	-	-	-	-
Swiss chard	-	-	-	-	-
Root crops	-	-	-	-	-
Beet root	-	-	-	-	-
Carrot	-	-	-	-	-
Onion	-	-	-	-	-
Potatoes	-	-	-	-	-
Garlic	-	-	-	-	-
Taro/'Godere'/	-	-	-	-	-
Sweet potatoes	-	-	-	-	-
Other Temporary	-	-	-	-	-
Permanent crops	39.08	100.00	3,218.55	100.00	
Fruit crops	38.18	97.70	2,993.63	93.01	
Avocado	-	-	-	-	-
Bananas	-	-	-	-	-
Guava/'Zeytun'/	-	-	-	-	-
Lemons	-	-	-	-	-
Mangos	22.11	56.58	85.78	2.67	3.88
Oranges	16.07	41.12	2,907.85	90.35	180.95
Papayas	-	-	-	-	-
Pineapples	-	-	-	-	-
Cash crops	-	-	-	-	-
Chat	-	-	-	-	-
Coffee	-	-	-	-	-
Tea	-	-	-	-	-
Hops/'Gesho'/	-	-	-	-	-
Enset	-	-	-	-	-
Sugar cane	-	-	-	-	-
Cotton	-	-	-	-	-
Other permanent crops	0.90	2.30	224.92	6.99	249.91

Table 4 Estimate of farm input applied cropland area and quantity of input used by crop and inpute used in commercial farm 2007 E.C, (2014/2015)								
National	Chemical Fertilizer Applied							
	UREA		DAP		Improved Seed		Indigenous Seed	
Type of crop	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts
Total	402,074.27	414,697.85	415,565.92	466,800.23	145,804.62	163,535.28	313,490.06	320,216.20
Grains	381,579.73	407,476.82	393,427.81	444,490.13	135,637.97	163,425.33	296,125.56	313,921.10
Cereals	180,391.02	204,603.90	183,240.73	229,647.37	98,376.31	162,221.66	105,759.87	158,445.00
Teff	2,976.66	1,547.66	4,039.82	2,764.70	3,629.96	145.89	680.68	804.40
Barley	672.69	3,068.91	1,415.44	8,721.46	1,245.23	626.93	170.21	2,293.00
Wheat	63,326.36	70,614.99	62,973.88	92,211.54	46,351.30	108,054.32	24,103.33	133,469.10
Maize	71,589.34	105,481.43	73,238.90	93,924.29	43,643.25	53,171.21	38,889.13	6,856.30
Sorghum	40,361.98	22,233.04	40,753.89	30,715.38	2,585.47	31.54	40,971.00	13,983.70
Finger millet	59.61	2.10	109.48	18.00	7.06	0.84	102.42	15.30
Oats/'Aja'/	-	-	-	-	-	-	-	-
Rice	1,404.37	1,655.77	709.32	1,292.00	914.04	190.93	843.11	1,023.20
Pulse	4,452.97	25,203.47	8,830.40	13,293.58	11,788.08	964.43	9,322.91	30,658.40
Horse/Faba beans	0.05	0.11	226.27	702.58	0.05	0.06	226.22	11,292.50
Field peas	190.70	81.90	119.48	38.00	130.23	2.09	75.29	38.80
Haricot beans	2,324.49	2,716.35	4,055.82	3,445.00	3,123.01	90.53	1,554.34	395.80
Chick peas	43.58	0.63	1,113.98	334.00	837.53	32.01	2,996.05	4,695.20
Lentiles	3.94	1.05	3.94	1.00	3.94	0.08	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	1,369.17	22,385.58	2,788.11	8,701.50	7,687.46	839.36	3,954.07	14,001.60
Fenugreek	514.99	-	514.99	-	-	-	514.99	9.70
Mung beans/'Masho'/	6.06	17.85	7.82	71.50	5.87	0.30	1.95	224.80
Gibto	196,735.74	177,669.45	201,356.68	201,549.18	25,473.58	239.24	181,042.78	124,817.70
Oile seeds	-	-	-	-	-	-	-	-
Nueg	10.76	-	178.24	4.00	-	-	178.24	21.20
Linseed	89.63	21.00	351.36	166.00	89.63	3.50	261.73	2.80
Ground nuts	95.84	4.20	370.03	23.00	24.74	1.08	441.12	136.80
Safflower	1.84	-	4.46	-	2.62	0.01	1.84	0.90
Sesame	196,240.32	177,570.75	197,695.47	196,536.88	25,111.26	227.39	177,648.05	123,784.50
Rapeseed	297.36	73.50	2,757.12	4,819.30	245.33	7.26	2,511.80	871.50
Vegetables	3,639.51	5,143.80	3,830.26	4,000.48	3,058.82	13.55	1,577.15	3,642.10
Lettuce	195.26	-	172.56	-	195.26	0.04	-	-
Head Cabbage	125.15	53.59	118.59	46.08	138.42	0.08	2.24	0.20
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes	1,230.79	1,782.17	1,308.17	1,032.16	1,335.27	0.64	22.91	1.80
Green peppers	143.06	234.68	141.22	209.00	145.74	0.17	8.11	24.50
Red papers	1,912.72	3,073.36	2,057.20	2,713.24	1,211.61	11.22	1,543.89	3,615.60
Swiss chard	32.52	-	32.52	-	32.52	1.40	-	-
Root crops	904.98	2,277.14	767.04	1,601.50	749.46	66.63	253.09	1,090.10
Beet root	-	-	2.85	7.00	1.34	-	-	-
Carrot	2.72	-	1.57	-	2.72	-	-	-
Onion	674.45	2,059.05	581.07	1,440.50	575.81	9.85	192.29	177.70
Potatoes	150.89	142.49	129.56	110.00	91.61	41.10	60.80	912.40
Garlic	-	-	-	-	-	-	-	-
Taro/'Godere'/	-	-	-	-	-	-	-	-
Sweet potatoes	76.92	75.60	51.99	44.00	77.98	15.68	-	-
Other Temporary	20,087.74	7,071.93	19,296.48	17,446.80	9,810.82	85.61	14,852.70	5,423.60
Permanent crops	-	-	-	-	-	-	-	-
Fruit crops	4,253.25	5,716.79	4,241.85	5,100.76	0.41	-	-	-
Avocado	0.71	-	0.71	-	-	-	-	-
Bananas	194.97	352.80	193.96	151.00	0.41	-	-	-
Guava/'Zeytun'/	28.83	8.74	28.83	8.12	-	-	-	-
Lemons	7.94	2.25	7.87	2.00	-	-	-	-
Mangos	1,750.00	1,617.01	1,741.19	1,545.44	-	-	-	-
Oranges	1,650.45	2,662.17	1,650.45	2,792.20	-	-	-	-
Papayas	609.86	1,052.82	608.36	595.00	-	-	-	-
Pineapples	10.50	21.00	10.50	7.00	-	-	-	-
Cash crpops	478,268.15	68,460.09	487,734.69	127,956.86	411,534.01	85.61	16,332.64	5,423.60
Chat	-	-	-	-	-	-	-	-
Coffee	13,759.02	25,262.19	27,301.59	18,108.82	27.24	-	8.49	-
Tea	3,408.44	5,238.98	3,408.44	1,651.24	-	-	1,470.60	-
Hopes/'Gesho'/	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-
Sugar cane	441,023.45	30,907.99	437,738.68	90,757.00	401,695.95	-	0.85	-
Cotton	20,077.24	7,050.93	19,285.98	17,439.80	9,810.82	85.61	14,852.70	5,423.60
Other permanent crops	1,294.01	2,512.53	1,368.04	3,588.26	1,343.22	339.46	565.37	1,749.00

Table 4 Estimate of farm input applied cropland area and quantity of input used by crop and input types for commercial farms, 2007 E.C. (2014/15)								
Tigray	IN HECTARES	Chemical Fertilizer Applied						
Type of crop	UREA		DAP		Improved Seed		Indigenous Seed	
	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts
Total	137,384.19	172,711.72	139,317.05	194,360.89	16,774.45	132.45	123,113.07	104,708.50
Grains	133,161.28	168,606.05	135,094.14	186,664.59	15,312.02	128.04	120,351.52	103,913.10
Cereals	25,240.79	20,953.16	25,855.08	29,632.68	1,853.31	38.86	24,121.06	7,682.10
Teff	14.32	36.75	17.51	49.00	17.00	2.66	0.51	0.40
Barley	-	2,524.90	-	4,268.30	-	-	-	-
Wheat	41.18	42.53	41.18	52.50	17.58	10.71	23.60	147.60
Maize	113.37	431.55	113.37	412.00	112.84	10.25	1.06	4.90
Sorghum	25,071.92	17,915.33	25,683.02	24,848.88	1,705.90	15.24	24,095.89	7,529.20
Finger millet	-	2.10	-	2.00	-	-	-	-
Oats/Aja'/	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-
Pulse	-	-	5.19	6.00	-	-	5.19	4.90
Horse/Faba beans	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-
Haricot beans	-	-	-	-	-	-	-	-
Chick peas	-	-	5.19	6.00	-	-	5.19	4.90
Lentiles	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-
Mung beans/"Masho"/	-	-	-	-	-	-	-	-
Gibto	107,920.49	147,652.89	109,233.87	157,025.91	13,458.71	89.18	96,225.27	96,226.10
Oile seeds	-	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	107,920.49	147,652.89	109,233.87	157,025.91	13,458.71	89.18	96,225.27	96,226.10
Rapeseed	-	-	-	-	-	-	-	-
Vegetables	666.74	214.41	696.55	218.20	768.40	0.22	1.26	-
Lettuce	0.47	-	0.47	-	0.47	-	-	-
Head Cabbage	4.19	5.25	4.19	8.00	2.93	0.02	1.26	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes	179.52	68.46	280.79	89.20	280.79	-	-	-
Green peppers	52.86	14.70	52.86	25.00	54.52	0.07	-	-
Red papers	429.69	126.00	358.23	96.00	429.69	0.13	-	-
Swiss chard	-	-	-	-	-	-	-	-
Root crops	175.05	95.55	163.59	118.50	137.51	6.22	60.49	26.70
Beet root	-	-	-	-	-	-	-	-
Carrot	1.57	-	1.57	-	1.57	-	-	-
Onion	131.71	93.45	120.24	112.50	132.75	6.22	20.85	7.30
Potatoes	39.65	-	39.65	-	-	-	39.65	19.40
Garlic	-	-	-	-	-	-	-	-
Taro/'Godere'/	-	-	-	-	-	-	-	-
Sweet potatoes	2.12	2.10	2.12	6.00	3.19	-	-	-
Other Temporary	4,220.79	4,103.57	4,220.79	7,690.30	1,459.24	4.41	2,761.55	795.40
Permanent crops	-	-	-	-	-	-	-	-
Fruit crops	187.81	35.70	187.81	37.00	-	-	-	-
Avocado	0.08	-	0.08	-	-	-	-	-
Bananas	0.28	-	0.28	-	-	-	-	-
Guava/'Zeytun'/	-	-	-	-	-	-	-	-
Lemons	7.87	2.10	7.87	2.00	-	-	-	-
Mangos	141.60	12.60	141.60	14.00	-	-	-	-
Oranges	35.40	9.45	35.40	9.00	-	-	-	-
Papayas	2.59	11.55	2.59	12.00	-	-	-	-
Pineapples	-	-	-	-	-	-	-	-
Cash crpops	4,220.79	4,103.57	4,220.79	7,690.30	1,459.24	4.41	2,761.55	795.40
Chat	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-
Tea	-	-	-	-	-	-	-	-
Hopes/'Gesho'/	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-
Sugar cane	-	-	-	-	-	-	-	-
Cotton	4,220.79	4,103.57	4,220.79	7,690.30	1,459.24	4.41	2,761.55	795.40
Other permanent crops	5.90	129.15	5.90	138.00	5.90	0.01	-	-

Table 4 Estimate of farm input applied cropland area and quantity of input used by crop and input types for commercial farms, 2007 E.C. (2014/15)  
Afar

Type of crop	UREA		DAP		Improved Seed		Indigenous Seed	
	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts
Total	2,526.92	340.20	789.66	22.00	804.02	5.38	2,045.95	524.20
Grains	-	-	-	-	-	-	-	-
Cereals	-	-	-	-	-	-	-	-
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	-	-	-	-	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-
Finger millet	-	-	-	-	-	-	-	-
Oats/Aja'/	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-
Pulse	-	-	-	-	-	-	-	-
Horse/Faba beans	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-
Haricot beans	-	-	-	-	-	-	-	-
Chick peas	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-
Mung beans/"Masho"/	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-
Oile seeds	-	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-
Vegetables	-	-	-	-	-	-	-	-
Lettuce	-	-	-	-	-	-	-	-
Head Cabbage	-	-	-	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes	-	-	-	-	-	-	-	-
Green peppers	-	-	-	-	-	-	-	-
Red papers	-	-	-	-	-	-	-	-
Swiss chard	-	-	-	-	-	-	-	-
Root crops	41.62	-	-	-	-	-	41.62	1.00
Beet root	-	-	-	-	-	-	-	-
Carrot	-	-	-	-	-	-	-	-
Onion	41.62	-	-	-	-	-	41.62	1.00
Potatoes	-	-	-	-	-	-	-	-
Garlic	-	-	-	-	-	-	-	-
Taro/'Godere'/	-	-	-	-	-	-	-	-
Sweet potatoes	-	-	-	-	-	-	-	-
Other Temporary	2,526.92	340.20	789.66	22.00	804.02	5.38	2,045.95	524.20
Permanent crops	-	-	-	-	-	-	-	-
Fruit crops	-	-	-	-	-	-	-	-
Avocado	-	-	-	-	-	-	-	-
Bananas	-	-	-	-	-	-	-	-
Guava/'Zeytun'/	-	-	-	-	-	-	-	-
Lemons	-	-	-	-	-	-	-	-
Mangos	-	-	-	-	-	-	-	-
Oranges	-	-	-	-	-	-	-	-
Papayas	-	-	-	-	-	-	-	-
Pineapples	-	-	-	-	-	-	-	-
Cash crpops	4,730.71	13,281.45	789.66	22.00	804.02	5.38	2,045.95	524.20
Chat	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-
Tea	-	-	-	-	-	-	-	-
Hopes/'Gesho'/	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-
Sugar cane	2,203.78	12,941.25	-	-	-	-	-	-
Cotton	2,526.92	340.20	789.66	22.00	804.02	5.38	2,045.95	524.20
Other permanent crops	-	-	-	-	-	-	-	-

Table 4 Estimate of farm input applied cropland area and quantity of input used by crop and input types for commercial farms, 2007 E.C. (2014/15)

Amhara

	UREA		DAP		Improved Seed		Indigenous Seed	
Type of crop	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts
Total	115,367.19	56,084.63	118,566.76	79,192.58	36,184.14	1,591.63	105,856.28	46,718.00
Grains	106,780.10	54,520.12	108,318.63	76,393.48	32,537.15	1,561.52	98,985.63	44,695.80
Cereals	20,852.06	30,921.80	21,634.87	30,789.01	14,907.76	609.43	15,918.99	6,093.20
Teff	300.81	325.50	494.69	616.50	356.93	5.88	374.46	266.30
Barley	577.89	240.45	577.89	458.00	576.63	23.30	1.26	7.30
Wheat	2,602.63	637.69	2,578.84	923.00	2,769.20	22.11	-	-
Maize	3,859.01	25,727.11	3,748.61	23,483.41	10,132.53	510.35	9.69	7.80
Sorghum	13,492.13	3,848.46	14,165.37	5,014.10	715.14	14.64	15,489.06	5,799.70
Finger millet	1.71	-	51.58	16.00	7.06	0.84	44.52	12.10
Oats/'Aja'/	-	-	-	-	-	-	-	-
Rice	17.88	142.59	17.88	278.00	350.26	32.31	-	-
Pulse	191.15	74.13	562.05	8,120.40	6,544.96	835.70	4,563.18	12,293.90
Horse/Faba beans	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-
Haricot beans	181.30	68.25	15.11	266.00	324.83	26.74	186.34	19.40
Chick peas	9.67	0.63	-	324.00	-	-	2,668.40	4,381.40
Lentiles	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	-	3.15	544.99	7,468.90	6,220.13	808.96	1,706.50	7,668.30
Fenugreek	-	-	-	-	-	-	-	-
Mung beans/'Masho'/	0.18	2.10	1.95	61.50	-	-	1.95	224.80
Gibto	85,736.89	23,524.19	86,121.71	37,484.07	11,084.43	116.39	78,503.46	26,308.70
Oil seeds	-	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-
Ground nuts	-	-	31.34	21.00	24.74	1.08	6.60	19.40
Safflower	-	-	-	-	-	-	-	-
Sesame	85,736.89	23,524.19	86,088.36	37,461.47	11,057.68	115.30	78,496.87	26,289.30
Rapeseed	-	-	2.01	1.60	2.01	0.01	-	-
Vegetables	557.10	2,493.69	558.83	2,281.86	381.12	0.96	660.58	3,486.80
Lettuce	-	-	-	-	-	-	-	-
Head Cabbage	50.85	2.14	50.85	4.08	50.85	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes	30.97	23.52	30.97	16.80	30.97	0.01	-	-
Green peppers	5.30	4.20	5.30	1.00	6.49	-	5.30	-
Red papers	469.97	2,463.83	471.70	2,259.98	292.80	0.95	655.28	3,486.80
Swiss chard	-	-	-	-	-	-	-	-
Root crops	40.29	33.60	1.74	1.00	63.18	0.28	40.29	155.20
Beet root	-	-	1.74	1.00	0.23	-	-	-
Carrot	-	-	-	-	-	-	-	-
Onion	40.29	33.60	-	-	62.95	0.28	40.29	155.20
Potatoes	-	-	-	-	-	-	-	-
Garlic	-	-	-	-	-	-	-	-
Taro/'Godere'/	-	-	-	-	-	-	-	-
Sweet potatoes	-	-	-	-	-	-	-	-
Other Temporary	8,587.09	1,564.51	10,246.12	2,797.50	3,644.98	30.10	6,870.65	2,022.20
Permanent crops	-	-	-	-	-	-	-	-
Fruit crops	427.19	358.00	417.30	228.60	-	-	-	-
Avocado	0.02	-	0.02	-	-	-	-	-
Bananas	1.01	-	-	-	-	-	-	-
Guava/'Zeytun'/	-	-	-	-	-	-	-	-
Lemons	0.08	0.15	-	-	-	-	-	-
Mangos	423.89	347.35	415.07	218.60	-	-	-	-
Oranges	-	-	-	-	-	-	-	-
Papayas	2.20	10.50	2.20	10.00	-	-	-	-
Pineapples	-	-	-	-	-	-	-	-
Cash crops	8,587.09	1,573.96	10,246.12	2,811.50	3,644.98	30.10	6,873.17	2,022.20
Chat	-	-	-	-	-	-	-	-
Coffee	-	5.25	-	10.00	-	-	2.52	-
Tea	-	-	-	-	-	-	-	-
Hopes/'Gesho'/	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-
Sugar cane	-	4.20	-	4.00	-	-	-	-
Cotton	8,587.09	1,564.51	10,246.12	2,797.50	3,644.98	30.10	6,870.65	2,022.20
Other permanent crops	1.56	631.05	1.11	1,509.06	8.13	70.84	8.25	1,744.40

Table 4 Estimate of farm input applied cropland area and quantity of input used by crop and input types for commercial farms, 2007 E.C. (2014/15)

Oromia								
	UREA		DAP		Improved Seed		Indigenous Seed	
Type of crop	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts
Total	116,861.96	134,403.44	120,451.57	144,292.92	54,772.06	108,996.63	74,133.60	160,882.20
Grains	115,264.85	134,320.49	116,396.71	137,075.22	54,523.10	108,987.98	71,621.80	160,010.70
Cereals	109,731.63	109,865.46	108,269.72	126,401.94	52,866.82	108,973.23	63,178.84	142,131.10
Teff	799.00	878.28	1,032.09	1,402.70	814.97	114.36	238.01	400.20
Barley	73.80	293.06	816.55	3,995.16	647.60	600.83	168.95	2,285.70
Wheat	59,709.22	69,164.07	58,194.87	88,814.86	41,380.13	107,787.71	24,067.03	133,263.30
Maize	47,564.65	39,167.38	47,564.81	31,911.82	9,921.75	469.61	37,599.02	5,361.90
Sorghum	1,489.41	257.67	565.86	227.40	102.37	0.72	1,010.29	331.80
Finger millet	57.90	-	57.90	-	-	-	57.90	3.20
Oats/'Aja'/	-	-	-	-	-	-	-	-
Rice	37.65	105.00	37.65	50.00	-	-	37.65	485.00
Pulse	2,811.44	23,780.93	3,041.69	4,101.58	1,053.00	2.43	2,856.20	16,273.50
Horse/Faba beans	0.05	0.11	226.27	702.58	0.05	0.06	226.22	11,292.50
Field peas	190.70	81.90	119.48	38.00	130.23	2.09	75.29	38.80
Haricot beans	1,205.41	2,478.00	1,079.93	2,659.00	916.90	-	288.51	259.00
Chick peas	-	-	-	-	-	-	51.20	2.30
Lentiles	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	894.46	21,205.17	1,095.21	692.00	-	-	1,699.98	4,671.20
Fenugreek	514.99	-	514.99	-	-	-	514.99	9.70
Mung beans/'Masho'/	5.82	15.75	5.82	10.00	5.82	0.28	-	-
Gibto	2,721.78	674.10	5,085.30	6,571.70	603.28	12.32	5,586.76	1,606.10
Oilseeds	-	-	-	-	-	-	-	-
Nueg	10.76	-	10.76	-	-	-	10.76	19.40
Linseed	89.63	21.00	351.36	166.00	89.63	3.50	261.73	2.80
Ground nuts	95.84	4.20	17.75	2.00	-	-	113.58	78.60
Safflower	-	-	-	-	-	-	-	-
Sesame	2,228.19	575.40	1,950.33	1,586.00	270.33	1.57	2,688.90	633.80
Rapeseed	297.36	73.50	2,755.11	4,817.70	243.31	7.25	2,511.80	871.50
Vegetables	1,912.62	1,512.75	1,944.92	656.42	1,620.88	2.46	407.61	51.40
Lettuce	194.79	-	172.08	-	194.79	0.04	-	-
Head Cabbage	64.62	35.70	58.69	25.00	80.13	0.03	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes	986.59	1,209.29	976.43	467.16	1,005.54	0.43	6.15	0.20
Green peppers	79.61	56.18	75.45	33.00	79.61	0.03	-	-
Red papers	581.36	211.58	656.62	131.26	255.16	0.53	401.46	51.20
Swiss chard	5.65	-	5.65	-	5.65	1.40	-	-
Root crops	425.79	1,343.69	406.59	797.00	335.85	11.99	96.53	438.80
Beet root	-	-	1.11	6.00	1.11	-	-	-
Carrot	1.15	-	-	-	1.15	-	-	-
Onion	380.89	1,267.35	383.06	753.00	302.66	2.75	82.18	11.40
Potatoes	43.75	76.34	22.42	38.00	30.92	9.24	14.35	427.40
Garlic	-	-	-	-	-	-	-	-
Taro/'Godere'/	-	-	-	-	-	-	-	-
Sweet potatoes	-	-	-	-	-	-	-	-
Other Temporary	1,294.10	9.45	1,294.10	2,400.00	-	-	-	-
Permanent crops	-	-	-	-	-	-	-	-
Fruit crops	3,208.66	4,504.09	3,207.15	4,243.12	-	-	-	-
Avocado	0.61	-	0.61	-	-	-	-	-
Bananas	3.92	2.10	3.92	2.00	-	-	-	-
Guava/'Zeytun'/	28.83	8.74	28.83	8.12	-	-	-	-
Lemons	-	-	-	-	-	-	-	-
Mangos	960.32	1,031.10	960.32	988.20	-	-	-	-
Oranges	1,615.05	2,652.72	1,615.05	2,783.20	-	-	-	-
Papayas	599.93	809.43	598.43	461.60	-	-	-	-
Pineapples	-	-	-	-	-	-	-	-
Cash crops	452,016.87	26,846.83	463,942.06	109,858.12	401,695.95	-	1,476.58	-
Chat	-	-	-	-	-	-	-	-
Coffee	10,435.51	4,445.94	23,438.69	15,314.32	-	-	5.98	-
Tea	1,470.60	4,428.90	1,470.60	1,390.80	-	-	1,470.60	-
Hops/'Gesho'/	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-
Sugar cane	438,816.67	17,962.54	437,738.68	90,753.00	401,695.95	-	-	-
Cotton	1,294.10	9.45	1,294.10	2,400.00	-	-	-	-
Other permanent crops	1,282.13	1,452.03	1,350.75	1,536.20	1,317.76	39.85	557.09	4.10

Table 4 Estimate of farm input applied cropland area and quantity of input used by crop and input types for commercial farms, 2007 E.C. (2014/15)

Somale

Type of crop	UREA		DAP		Improved Seed		Indigenous Seed	
	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts
Total	-	-	-	-	0.62	0.03	-	-
Grains	-	-	-	-	0.62	0.03	-	-
Cereals	-	-	-	-	0.62	0.03	-	-
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	-	-	-	-	0.62	0.03	-	-
Sorghum	-	-	-	-	-	-	-	-
Finger millet	-	-	-	-	-	-	-	-
Oats/'Aja'/	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-
Pulse	-	-	-	-	-	-	-	-
Horse/Faba beans	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-
Haricot beans	-	-	-	-	-	-	-	-
Chick peas	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-
Mung beans/'Masho'/'	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-
Oile seeds	-	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-
Vegetables	14.85	-	4.10	2.00	1.72	-	16.38	0.20
Lettuce	-	-	-	-	-	-	-	-
Head Cabbage	-	-	-	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes	14.85	-	1.72	2.00	1.72	-	14.00	-
Green peppers	-	-	2.38	-	-	-	2.38	0.20
Red papers	-	-	-	-	-	-	-	-
Swiss chard	-	-	-	-	-	-	-	-
Root crops	1.30	-	1.30	-	1.30	-	-	-
Beet root	-	-	-	-	-	-	-	-
Carrot	-	-	-	-	-	-	-	-
Onion	1.30	-	1.30	-	1.30	-	-	-
Potatoes	-	-	-	-	-	-	-	-
Garlic	-	-	-	-	-	-	-	-
Taro/'Godere'/'	-	-	-	-	-	-	-	-
Sweet potatoes	-	-	-	-	-	-	-	-
Other Temporary	-	-	-	-	-	-	-	-
Permanent crops	-	-	-	-	-	-	-	-
Fruit crops	-	-	-	-	-	-	-	-
Avocado	-	-	-	-	-	-	-	-
Bananas	-	-	-	-	-	-	-	-
Guava/'Zeytun'/'	-	-	-	-	-	-	-	-
Lemons	-	-	-	-	-	-	-	-
Mangos	-	-	-	-	-	-	-	-
Oranges	-	-	-	-	-	-	-	-
Papayas	-	-	-	-	-	-	-	-
Pineapples	-	-	-	-	-	-	-	-
Cash crpops	-	-	-	-	-	-	-	-
Chat	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-
Tea	-	-	-	-	-	-	-	-
Hopes/'Gesho'/'	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-
Sugar cane	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-
Other permanent crops	-	-	-	-	-	-	-	-



Table 4 Estimate of farm input applied cropland area and quantity of input used by crop and input types for commercial farms, 2007 E.C. (2014/15)								
Benshangul-Gumuz								
	UREA		DAP		Improved Seed		Indigenous Seed	
Type of crop	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts
Total	5,503.02	31,319.42	4,796.77	23,430.90	6,368.10	713.30	5,672.39	5,312.90
Grains	3,858.78	30,619.07	4,656.01	23,326.90	5,136.55	690.97	2,734.79	3,239.20
Cereals	2,488.75	23,999.65	2,237.42	22,801.40	3,539.57	643.46	918.68	841.50
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	42.43	33.60	-	-	42.43	0.28	-	-
Maize	2,110.67	23,821.67	1,886.27	22,265.40	3,422.47	627.98	523.60	543.20
Sorghum	250.65	144.38	266.15	536.00	54.26	0.86	310.08	220.70
Finger millet	-	-	-	-	-	-	-	-
Oats/'Aja'/	-	-	-	-	-	-	-	-
Rice	85.00	-	85.00	-	20.40	14.34	85.00	77.60
Pulse	1,137.98	966.00	2,199.80	320.00	1,465.40	30.17	1,601.40	1,776.00
Horse/Faba beans	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-
Haricot beans	690.88	16.80	1,079.50	16.00	-	-	1,079.50	117.40
Chick peas	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	447.10	949.20	1,120.30	304.00	1,465.40	30.17	521.90	1,658.60
Fenugreek	-	-	-	-	-	-	-	-
Mung beans/'Masho'/'	-	-	-	-	-	-	-	-
Gibto	232.05	5,653.42	218.79	205.50	131.58	17.34	214.71	621.70
Oile seeds	-	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	232.05	5,653.42	218.79	205.50	131.58	17.34	214.71	621.70
Rapeseed	-	-	-	-	-	-	-	-
Vegetables	85.54	53.55	82.77	44.00	-	-	191.90	17.90
Lettuce	-	-	-	-	-	-	-	-
Head Cabbage	-	-	-	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes	-	-	-	-	-	-	-	-
Green peppers	-	-	-	-	-	-	-	-
Red papers	85.54	53.55	82.77	44.00	-	-	191.90	17.90
Swiss chard	-	-	-	-	-	-	-	-
Root crops	-	-	-	-	-	-	-	-
Beet root	-	-	-	-	-	-	-	-
Carrot	-	-	-	-	-	-	-	-
Onion	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-
Garlic	-	-	-	-	-	-	-	-
Taro/'Godere'/'	-	-	-	-	-	-	-	-
Sweet potatoes	-	-	-	-	-	-	-	-
Other Temporary	1,644.24	700.35	140.76	104.00	1,231.55	22.33	2,937.60	2,073.70
Permanent crops	-	-	-	-	-	-	-	-
Fruit crops	-	-	-	-	-	-	-	-
Avocado	-	-	-	-	-	-	-	-
Bananas	-	-	-	-	-	-	-	-
Guava/'Zeytun'/'	-	-	-	-	-	-	-	-
Lemons	-	-	-	-	-	-	-	-
Mangos	-	-	-	-	-	-	-	-
Oranges	-	-	-	-	-	-	-	-
Papayas	-	-	-	-	-	-	-	-
Pineapples	-	-	-	-	-	-	-	-
Cash crpops	1,645.09	700.35	140.76	104.00	1,231.55	22.33	2,938.45	2,073.70
Chat	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-
Tea	-	-	-	-	-	-	-	-
Hopes/'Gesho'/'	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-
Sugar cane	0.85	-	-	-	-	-	0.85	-
Cotton	1,644.24	700.35	140.76	104.00	1,231.55	22.33	2,937.60	2,073.70
Other permanent crops	-	-	-	-	-	-	-	-

Table 4 Estimate of farm input applied cropland area and quantity of input used by crop and input types for commercial farms, 2007 E.C. (2014/15) (S.N.N.P.R)								
	UREA		DAP		Improved Seed		Indigenous Seed	
Type of crop	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts
Total	23,668.07	18,992.53	30,237.67	20,922.94	29,798.05	51,950.84	1,675.64	1,685.40
Grains	21,751.79	18,565.18	28,554.21	20,451.94	28,023.68	51,914.84	1,438.68	1,677.30
Cereals	21,314.86	18,017.92	25,156.48	19,444.34	25,103.37	51,814.70	950.10	1,350.90
Teff	1,845.54	307.13	2,478.53	696.50	2,441.05	22.99	50.70	55.10
Barley	21.00	10.50	21.00	-	21.00	2.80	-	-
Wheat	910.50	737.10	2,138.59	2,421.18	2,121.56	231.27	12.70	58.20
Maize	17,871.80	16,242.89	19,910.60	15,773.66	20,003.09	51,503.55	721.73	816.30
Sorghum	57.87	67.20	73.48	89.00	7.81	0.08	65.68	102.30
Finger millet	-	-	-	-	-	-	-	-
Oats/'Aja'/	-	-	-	-	-	-	-	-
Rice	608.15	653.10	534.29	464.00	508.87	54.01	99.28	319.00
Pulse	312.40	382.41	3,021.67	745.60	2,724.72	96.13	296.95	310.10
Horse/Faba beans	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-
Haricot beans	246.90	153.30	1,881.28	504.00	1,881.28	63.79	-	-
Chick peas	33.91	-	1,108.79	4.00	837.53	32.01	271.26	306.60
Lentiles	3.94	1.05	3.94	1.00	3.94	0.08	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	27.61	228.06	27.61	236.60	1.93	0.23	25.68	3.50
Fenugreek	-	-	-	-	-	-	-	-
Mung beans/'Masho'/	0.05	-	0.05	-	0.05	0.02	-	-
Gibto	124.53	164.85	376.06	262.00	195.59	4.01	191.63	16.30
Oile seeds	-	-	-	-	-	-	-	-
Nueg	-	-	167.48	4.00	-	-	167.48	1.80
Linseed	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-
Safflower	1.84	-	4.46	-	2.62	0.01	1.84	0.90
Sesame	122.69	164.85	204.12	258.00	192.96	4.00	22.31	13.60
Rapeseed	-	-	-	-	-	-	-	-
Vegetables	402.66	869.40	543.09	798.00	286.70	9.91	299.43	27.60
Lettuce	-	-	-	-	-	-	-	-
Head Cabbage	5.49	10.50	4.86	9.00	4.50	0.03	0.98	0.20
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes	18.86	480.90	18.26	457.00	16.24	0.20	2.77	1.60
Green peppers	5.28	159.60	5.22	150.00	5.12	0.07	0.43	24.30
Red papers	346.15	218.40	487.87	182.00	233.96	9.61	295.25	1.50
Swiss chard	26.87	-	26.87	-	26.87	-	-	-
Root crops	214.14	804.30	187.02	685.00	211.63	48.14	7.36	2.80
Beet root	-	-	-	-	-	-	-	-
Carrot	-	-	-	-	-	-	-	-
Onion	78.65	664.65	76.47	575.00	76.15	0.60	7.36	2.80
Potatoes	60.69	66.15	60.69	72.00	60.69	31.86	-	-
Garlic	-	-	-	-	-	-	-	-
Taro/'Godere'/	-	-	-	-	-	-	-	-
Sweet potatoes	74.80	73.50	49.86	38.00	74.80	15.68	-	-
Other Temporary	1,814.61	353.85	1,606.73	433.00	1,672.70	20.32	236.96	8.10
Permanent crops	-	-	-	-	-	-	-	-
Fruit crops	429.59	819.00	429.59	592.04	0.41	-	-	-
Avocado	-	-	-	-	-	-	-	-
Bananas	189.76	350.70	189.76	149.00	0.41	-	-	-
Guava/'Zeytun'/	-	-	-	-	-	-	-	-
Lemons	-	-	-	-	-	-	-	-
Mangos	224.19	225.96	224.19	324.64	-	-	-	-
Oranges	-	-	-	-	-	-	-	-
Papayas	5.14	221.34	5.14	111.40	-	-	-	-
Pineapples	10.50	21.00	10.50	7.00	-	-	-	-
Cash crrops	7,067.61	21,953.93	7,396.97	3,470.94	1,699.94	20.32	236.96	8.10
Chat	-	-	-	-	-	-	-	-
Coffee	3,323.51	20,811.00	3,862.90	2,784.50	27.24	-	-	-
Tea	1,937.84	810.08	1,937.84	260.44	-	-	-	-
Hopes/'Gesho'/	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-
Sugar cane	2.15	-	-	-	-	-	-	-
Cotton	1,804.11	332.85	1,596.23	426.00	1,672.70	20.32	236.96	8.10
Other permanent crops	4.42	300.30	10.27	405.00	11.43	228.76	0.03	0.50

Table 4 Estimate of farm input applied cropland area and quantity of input used by crop and input types for commercial farms, 2007 E.C. (2014/15)  
Gambela

	UREA		DAP		Improved Seed		Indigenous Seed	
Type of crop	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts
Total	725.54	845.91	1,369.02	4,578.00	1,082.78	142.66	976.14	302.60
Grains	725.54	845.91	370.69	578.00	84.45	139.59	976.14	302.60
Cereals	725.54	845.91	49.75	578.00	84.45	139.59	655.20	263.80
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	69.85	90.83	15.24	78.00	49.94	49.32	34.02	122.20
Sorghum	-	-	-	-	-	-	-	-
Finger millet	-	-	-	-	-	-	-	-
Oats/Aja'/	-	-	-	-	-	-	-	-
Rice	655.69	755.08	34.51	500.00	34.51	90.27	621.18	141.60
Pulse	-	-	-	-	-	-	-	-
Horse/Faba beans	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-
Haricot beans	-	-	-	-	-	-	-	-
Chick peas	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-
Mung beans/"Masho"/	-	-	-	-	-	-	-	-
Gibto	-	-	320.94	-	-	-	320.94	38.80
Oile seeds	-	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-
Ground nuts	-	-	320.94	-	-	-	320.94	38.80
Safflower	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-
Vegetables	-	-	-	-	-	-	-	-
Lettuce	-	-	-	-	-	-	-	-
Head Cabbage	-	-	-	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes	-	-	-	-	-	-	-	-
Green peppers	-	-	-	-	-	-	-	-
Red papers	-	-	-	-	-	-	-	-
Swiss chard	-	-	-	-	-	-	-	-
Root crops	-	-	-	-	-	-	-	-
Beet root	-	-	-	-	-	-	-	-
Carrot	-	-	-	-	-	-	-	-
Onion	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-
Garlic	-	-	-	-	-	-	-	-
Taro/'Godere'/	-	-	-	-	-	-	-	-
Sweet potatoes	-	-	-	-	-	-	-	-
Other Temporary	-	-	998.33	4,000.00	998.33	3.07	-	-
Permanent crops	-	-	-	-	-	-	-	-
Fruit crops	-	-	-	-	-	-	-	-
Avocado	-	-	-	-	-	-	-	-
Bananas	-	-	-	-	-	-	-	-
Guava/'Zeytun'/	-	-	-	-	-	-	-	-
Lemons	-	-	-	-	-	-	-	-
Mangos	-	-	-	-	-	-	-	-
Oranges	-	-	-	-	-	-	-	-
Papayas	-	-	-	-	-	-	-	-
Pineapples	-	-	-	-	-	-	-	-
Cash crpops	-	-	998.33	4,000.00	998.33	3.07	-	-
Chat	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-
Tea	-	-	-	-	-	-	-	-
Hopes/'Gesho'/	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-
Sugar cane	-	-	-	-	-	-	-	-
Cotton	-	-	998.33	4,000.00	998.33	3.07	-	-
Other permanent crops	-	-	-	-	-	-	-	-

Table 4 Estimate of farm input applied cropland area and quantity of input used by crop and input types for commercial farms, 2007 E.C. (2014/15)

Dire Dawa

Type of crop	UREA		DAP		Improved Seed		Indigenous Seed	
	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts
Total	-	-	-	-	-	0.12	-	-
Grains	-	-	-	-	-	0.12	-	-
Cereals	-	-	-	-	-	0.12	-	-
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	-	-	-	-	-	0.12	-	-
Sorghum	-	-	-	-	-	-	-	-
Finger millet	-	-	-	-	-	-	-	-
Oats/Aja'	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-
Pulse	-	-	-	-	-	-	-	-
Horse/Faba beans	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-
Haricot beans	-	-	-	-	-	-	-	-
Chick peas	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-
Mung beans/"Masho"/	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-
Oile seeds	-	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-
Vegetables	-	-	-	-	-	-	-	58.20
Lettuce	-	-	-	-	-	-	-	-
Head Cabbage	-	-	-	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes	-	-	-	-	-	-	-	-
Green peppers	-	-	-	-	-	-	-	-
Red papers	-	-	-	-	-	-	-	58.20
Swiss chard	-	-	-	-	-	-	-	-
Root crops	-	-	-	-	-	-	-	-
Beet root	-	-	-	-	-	-	-	-
Carrot	-	-	-	-	-	-	-	-
Onion	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-
Garlic	-	-	-	-	-	-	-	-
Taro/'Godere'/	-	-	-	-	-	-	-	-
Sweet potatoes	-	-	-	-	-	-	-	-
Other Temporary	-	-	-	-	-	-	-	-
Permanent crops	-	-	-	-	-	-	-	-
Fruit crops	-	-	-	-	-	-	-	-
Avocado	-	-	-	-	-	-	-	-
Bananas	-	-	-	-	-	-	-	-
Guava/'Zeytun'/	-	-	-	-	-	-	-	-
Lemons	-	-	-	-	-	-	-	-
Mangos	-	-	-	-	-	-	-	-
Oranges	-	-	-	-	-	-	-	-
Papayas	-	-	-	-	-	-	-	-
Pineapples	-	-	-	-	-	-	-	-
Cash crops	-	-	-	-	-	-	-	-
Chat	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-
Tea	-	-	-	-	-	-	-	-
Hops/'Gesho'/	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-
Sugar cane	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-
Other permanent crops	-	-	-	-	-	-	-	-

TABLE 4 contd								
National								
Type of crop	Pesticides		Fungicides		Herbicides		Other	
	Area in Ha	Amnt in Qts		Area in Ha	Amnt in Qts		Area in Ha	Amnt in Qts
Total	189,170.30	91,994.18	179,549.13	111,678.69	398,888.92	168,591.65	35,235.49	24,278.10
Grains	121,917.20	14,051.88	174,821.26	111,254.49	382,951.03	166,335.65	24,971.52	24,113.10
Cereals	115,733.31	12,894.18	172,918.69	108,826.45	371,679.52	164,422.70	22,814.00	24,110.50
Teff	4,655.73	49.70	96.58	34.34	8,602.78	1,816.93	-	-
Barley	731.94	122.05	2,714.80	1,270.08	2,973.58	1,463.07	-	-
Wheat	14,147.36	982.83	142,991.28	106,662.42	169,780.05	80,720.65	22,810.94	24,110.00
Maize	90,959.58	10,027.75	24,554.82	822.90	79,168.79	39,181.68	3.05	0.50
Sorghum	3,056.65	626.85	2,466.30	36.71	108,378.21	40,444.81	-	-
Finger millet	-	-	-	-	178.66	1.82	-	-
Oats/'Aja'/	-	-	-	-	-	-	-	-
Rice	2,182.06	1,085.00	94.90	-	2,597.46	793.75	-	-
Pulse	6,183.89	1,157.70	1,902.57	2,428.04	11,271.51	1,912.95	2,157.52	2.60
Horse/Faba beans	401.62	615.00	220.49	669.63	428.37	296.05	-	-
Field peas	358.14	21.00	287.80	101.00	-	-	85.22	1.50
Haricot beans	614.92	160.00	171.06	1,634.18	4,647.80	238.00	-	-
Chick peas	3,143.35	81.70	14.28	2.02	-	-	-	-
Lentiles	10.83	1.00	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	1,638.42	205.00	1,208.52	21.21	6,176.48	1,291.90	2,072.30	1.10
Fenugreek	-	-	-	-	-	-	-	-
Mung beans/'Masho'/'Gibto	16.62	74.00	0.42	-	18.86	87.00	-	-
Oile seeds	156,150.78	17,138.39	5,941.45	242.91	35,886.52	4,172.42	80.36	-
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	966.24	79.22	-	-
Ground nuts	950.63	22.40	-	-	126.60	12.80	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	148,435.82	15,824.04	5,941.45	242.91	27,886.24	2,726.40	80.36	-
Rapeseed	6,764.34	1,291.95	-	-	6,907.44	1,354.00	-	-
Vegetables	6,610.56	1,250.64	4,285.17	82.52	1,181.99	701.00	221.24	16.00
Lettuce	495.65	4.27	62.45	3.03	-	-	-	-
Head Cabbage	238.44	66.18	147.28	4.04	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes	3,243.95	742.16	2,029.39	21.41	376.49	30.00	211.74	15.00
Green peppers	328.83	66.80	287.54	35.35	-	-	9.50	1.00
Red papers	2,303.69	371.24	1,758.51	18.69	805.51	671.00	-	-
Swiss chard	-	-	-	-	-	-	-	-
Root crops	1,981.70	1,678.03	1,404.35	578.23	667.64	252.63	242.53	3.00
Beet root	3.06	0.05	-	-	-	-	-	-
Carrot	6.40	0.33	6.40	-	3.25	-	-	-
Onion	1,621.06	1,597.65	1,295.97	553.48	560.89	207.00	119.87	3.00
Potatoes	141.59	8.50	99.05	22.73	103.51	45.63	122.66	-
Garlic	-	-	-	-	-	-	-	-
Taro/'Godere'/'	-	-	-	-	-	-	-	-
Sweet potatoes	209.59	71.50	2.92	2.02	-	-	-	-
Other Temporary	60,279.17	76,578.85	4,724.95	422.18	9,030.45	902.00	10,263.97	165.00
Permanent crops	-	-	-	-	-	-	-	-
Fruit crops	7,560.38	164,887.43	6,635.41	309.47	5,508.42	148,481.00	614.34	372.50
Avocado	1.89	7.00	-	-	-	-	-	-
Bananas	32.96	1.93	-	-	498.52	263.00	-	-
Guava/'Zeytun'/'	-	-	-	-	-	-	-	-
Lemons	-	-	21.63	-	-	-	-	-
Mangos	1,433.61	230.25	1,566.01	306.44	568.51	267.00	614.34	372.50
Oranges	4,441.39	164,449.00	3,397.00	-	4,441.39	147,951.00	-	-
Papayas	1,650.53	199.25	1,650.76	3.03	-	-	-	-
Pineapples	-	-	-	-	-	-	-	-
Cash crpops	1,179,137.92	86,438.74	9,264.14	253,786.74	1,299,324.85	95,766.32	152,022.71	68,722.85
Chat	-	-	-	-	-	-	-	-
Coffee	7,127.77	386.00	-	-	73,125.97	35,509.87	122,160.20	43,993.15
Tea	-	-	-	-	9,373.21	6,537.00	19,598.54	24,564.70
Hopes/'Gesho'/'	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-
Sugar cane	1,111,730.98	9,473.89	4,539.19	253,364.56	1,207,795.22	52,817.45	-	-
Cotton	60,279.17	76,578.85	4,724.95	422.18	9,030.45	902.00	10,263.97	165.00
Other permanent crops	1,473.69	659.50	1,330.57	420.16	3,045.94	693.55	1,804.45	866.30

TABLE 4 contd  
Tigray

Type of crop	Pesticides		Fungicides		Herbicides		Other	
	Area in Ha	Amnt in Qts		Area in Ha	Amnt in Qts		Area in Ha	Amnt in Qts
Total	10,957.46	31,175.85	57.96	15.15	66,072.17	22,625.46	3.05	0.50
Grains	482.14	120.80	55.04	13.13	64,936.44	22,475.46	3.05	0.50
Cereals	482.14	120.80	40.76	11.11	64,936.44	22,475.46	3.05	0.50
Teff	4.57	3.00	-	-	32.34	38.00	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	1.30	-	25.96	8.08	11.36	1.50	-	-
Maize	60.60	27.80	2.92	1.01	72.04	24.00	3.05	0.50
Sorghum	415.68	90.00	11.88	2.02	64,820.71	22,411.96	-	-
Finger millet	-	-	-	-	-	-	-	-
Oats/Aja'/	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-
Pulse	-	-	14.28	2.02	-	-	-	-
Horse/Faba beans	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-
Haricot beans	-	-	-	-	-	-	-	-
Chick peas	-	-	14.28	2.02	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-
Mung beans/"Masho"/	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-
Oile seeds	32,866.21	2,738.00	-	-	3,736.48	1,119.40	-	-
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	32,866.21	2,738.00	-	-	3,736.48	1,119.40	-	-
Rapeseed	-	-	-	-	-	-	-	-
Vegetables	814.12	138.70	431.53	8.08	-	-	221.24	16.00
Lettuce	-	-	-	-	-	-	-	-
Head Cabbage	7.79	6.70	0.87	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes	493.68	74.00	105.49	2.02	-	-	211.74	15.00
Green peppers	113.57	10.00	127.20	6.06	-	-	9.50	1.00
Red papers	199.08	48.00	197.97	-	-	-	-	-
Swiss chard	-	-	-	-	-	-	-	-
Root crops	220.86	91.00	252.79	8.08	37.64	5.00	119.87	3.00
Beet root	-	-	-	-	-	-	-	-
Carrot	3.25	-	3.25	-	3.25	-	-	-
Onion	213.72	87.50	246.62	6.06	34.40	5.00	119.87	3.00
Potatoes	-	-	-	-	-	-	-	-
Garlic	-	-	-	-	-	-	-	-
Taro/'Godere'/	-	-	-	-	-	-	-	-
Sweet potatoes	3.89	3.50	2.92	2.02	-	-	-	-
Other Temporary	10,471.43	31,051.55	-	-	1,135.73	150.00	-	-
Permanent crops	-	-	-	-	-	-	-	-
Fruit crops	0.22	-	232.01	-	-	-	-	-
Avocado	0.22	-	-	-	-	-	-	-
Bananas	-	-	-	-	-	-	-	-
Guava/'Zeytun'/	-	-	-	-	-	-	-	-
Lemons	-	-	21.63	-	-	-	-	-
Mangos	-	-	108.16	-	-	-	-	-
Oranges	-	-	97.35	-	-	-	-	-
Papayas	-	-	4.87	-	-	-	-	-
Pineapples	-	-	-	-	-	-	-	-
Cash crpops	10,471.43	31,051.55	-	-	1,135.73	150.00	-	-
Chat	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-
Tea	-	-	-	-	-	-	-	-
Hopes/'Gesho'/	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-
Sugar cane	-	-	-	-	-	-	-	-
Cotton	10,471.43	31,051.55	-	-	1,135.73	150.00	-	-
Other permanent crops	1.95	11.00	7.57	12.12	-	-	-	-

TABLE 4 contd  
Afar

Type of crop	Pesticides		Fungicides		Herbicides		Other	
	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts
Total	7,837.41	26,396.00	-	-	-	-	-	-
Grains	-	-	-	-	-	-	-	-
Cereals	-	-	-	-	-	-	-	-
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	-	-	-	-	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-
Finger millet	-	-	-	-	-	-	-	-
Oats/Aja'/	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-
Pulse	-	-	-	-	-	-	-	-
Horse/Faba beans	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-
Haricot beans	-	-	-	-	-	-	-	-
Chick peas	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-
Mung beans/"Masho"/	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-
Oile seeds	-	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-
Vegetables	-	-	-	-	-	-	-	-
Lettuce	-	-	-	-	-	-	-	-
Head Cabbage	-	-	-	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes	-	-	-	-	-	-	-	-
Green peppers	-	-	-	-	-	-	-	-
Red papers	-	-	-	-	-	-	-	-
Swiss chard	-	-	-	-	-	-	-	-
Root crops	114.44	1.00	-	-	-	-	-	-
Beet root	-	-	-	-	-	-	-	-
Carrot	-	-	-	-	-	-	-	-
Onion	114.44	1.00	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-
Garlic	-	-	-	-	-	-	-	-
Taro/'Godere'/	-	-	-	-	-	-	-	-
Sweet potatoes	-	-	-	-	-	-	-	-
Other Temporary	7,837.41	26,396.00	-	-	-	-	-	-
Permanent crops	-	-	-	-	-	-	-	-
Fruit crops	-	-	-	-	-	-	-	-
Avocado	-	-	-	-	-	-	-	-
Bananas	-	-	-	-	-	-	-	-
Guava/'Zeytun'/	-	-	-	-	-	-	-	-
Lemons	-	-	-	-	-	-	-	-
Mangos	-	-	-	-	-	-	-	-
Oranges	-	-	-	-	-	-	-	-
Papayas	-	-	-	-	-	-	-	-
Pineapples	-	-	-	-	-	-	-	-
Cash crpops	12,376.60	35,857.00	4,539.19	253,364.56	1,521.21	38,949.00	-	-
Chat	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-
Tea	-	-	-	-	-	-	-	-
Hopes/'Gesho'/	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-
Sugar cane	4,539.19	9,461.00	4,539.19	253,364.56	1,521.21	38,949.00	-	-
Cotton	7,837.41	26,396.00	-	-	-	-	-	-
Other permanent crops	-	-	-	-	-	-	-	-

TABLE 4 contd  
Amhara

	Pesticides		Fungicides		Herbicides		Other	
	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts
Total	33,558.06	7,445.57	6,947.66	733.02	59,137.12	81,039.92	10,263.97	165.00
Grains	6,322.81	894.92	6,225.77	329.02	58,084.12	80,592.92	-	-
Cereals	4,941.67	679.92	5,016.83	307.81	56,231.45	79,984.92	-	-
Teff	183.50	9.20	-	-	936.55	152.25	-	-
Barley	-	-	1,045.62	252.00	1,585.74	746.02	-	-
Wheat	65.44	2.33	98.16	5.21	6,625.55	56,437.82	-	-
Maize	2,101.45	187.54	1,418.63	15.91	6,616.28	4,919.10	-	-
Sorghum	2,591.28	480.85	2,454.43	34.69	40,398.74	17,728.16	-	-
Finger millet	-	-	-	-	19.42	0.82	-	-
Oats/Aja'/	-	-	-	-	-	-	-	-
Rice	-	-	-	-	49.16	0.75	-	-
Pulse	1,381.14	215.00	1,208.94	21.21	1,852.67	608.00	-	-
Horse/Faba beans	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-
Haricot beans	-	-	-	-	526.27	102.00	-	-
Chick peas	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	1,380.67	147.00	1,208.52	21.21	1,323.54	424.00	-	-
Fenugreek	-	-	-	-	-	-	-	-
Mung beans/"Masho"/	0.47	68.00	0.42	-	2.85	82.00	-	-
Gibto	-	-	-	-	-	-	-	-
Oile seeds	115,551.16	13,077.49	5,910.78	242.91	21,959.82	903.80	80.36	-
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-
Ground nuts	68.03	1.60	-	-	68.03	8.80	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	115,477.58	13,075.54	5,910.78	242.91	21,891.78	895.00	80.36	-
Rapeseed	5.54	0.35	-	-	-	-	-	-
Vegetables	1,041.10	399.41	913.20	-	805.51	671.00	-	-
Lettuce	-	-	-	-	-	-	-	-
Head Cabbage	-	-	-	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes	85.16	114.40	49.43	-	-	-	-	-
Green peppers	-	-	-	-	-	-	-	-
Red papers	955.94	285.01	863.78	-	805.51	671.00	-	-
Swiss chard	-	-	-	-	-	-	-	-
Root crops	110.79	32.00	173.12	-	173.12	63.00	-	-
Beet root	-	-	-	-	-	-	-	-
Carrot	-	-	-	-	-	-	-	-
Onion	110.79	32.00	173.12	-	173.12	63.00	-	-
Potatoes	-	-	-	-	-	-	-	-
Garlic	-	-	-	-	-	-	-	-
Taro/'Godere'/	-	-	-	-	-	-	-	-
Sweet potatoes	-	-	-	-	-	-	-	-
Other Temporary	27,229.71	6,550.30	721.89	404.00	1,053.00	447.00	10,263.97	165.00
Permanent crops	-	-	-	-	-	-	-	-
Fruit crops	1,139.79	193.25	1,165.24	309.47	568.51	267.00	-	-
Avocado	-	-	-	-	-	-	-	-
Bananas	-	-	-	-	-	-	-	-
Guava/'Zeytun'/	-	-	-	-	-	-	-	-
Lemons	-	-	-	-	-	-	-	-
Mangos	1,139.79	193.25	1,164.03	306.44	568.51	267.00	-	-
Oranges	-	-	-	-	-	-	-	-
Papayas	-	-	1.21	3.03	-	-	-	-
Pineapples	-	-	-	-	-	-	-	-
Cash crpops	27,229.71	6,550.30	721.89	404.00	1,053.00	447.00	10,263.97	165.00
Chat	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-
Tea	-	-	-	-	-	-	-	-
Hopes/'Gesho'/	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-
Sugar cane	-	-	-	-	-	-	-	-
Cotton	27,229.71	6,550.30	721.89	404.00	1,053.00	447.00	10,263.97	165.00
Other permanent crops	1.04	5.00	-	-	1.73	80.00	-	-



TABLE 4 contd  
Oromia

	Pesticides		Fungicides		Herbicides		Other	
Type of crop	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts
Total	86,764.77	13,167.40	170,511.79	110,419.46	221,455.70	45,440.08	22,896.16	24,111.50
Grains	76,447.21	8,345.80	166,953.03	110,419.46	210,989.50	43,841.08	22,896.16	24,111.50
Cereals	75,106.98	7,545.80	166,273.67	108,014.65	207,154.03	42,928.13	22,810.94	24,110.00
Teff	107.93	8.50	96.58	34.34	2,457.35	1,301.03	-	-
Barley	731.94	122.05	1,669.18	1,018.08	1,330.10	710.05	-	-
Wheat	13,836.91	962.00	141,374.64	106,156.25	159,612.62	23,661.33	22,810.94	24,110.00
Maize	60,380.51	6,397.25	23,133.26	805.98	40,421.96	16,916.48	-	-
Sorghum	49.69	56.00	-	-	3,069.24	288.24	-	-
Finger millet	-	-	-	-	159.23	1.00	-	-
Oats/Aja'/	-	-	-	-	-	-	-	-
Rice	-	-	-	-	103.53	50.00	-	-
Pulse	1,340.23	800.00	679.36	2,404.81	3,835.47	912.95	85.22	1.50
Horse/Faba beans	401.62	615.00	220.49	669.63	428.37	296.05	-	-
Field peas	358.14	21.00	287.80	101.00	-	-	85.22	1.50
Haricot beans	423.67	157.00	171.06	1,634.18	277.25	64.00	-	-
Chick peas	140.79	4.00	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	3,113.84	547.90	-	-
Fenugreek	-	-	-	-	-	-	-	-
Mung beans/"Masho"/	16.01	3.00	-	-	16.01	5.00	-	-
Gibto	-	-	-	-	-	-	-	-
Oile seeds	6,758.80	1,291.60	-	-	10,181.81	2,145.22	-	-
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	966.24	79.22	-	-
Ground nuts	-	-	-	-	58.57	4.00	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	2,249.56	708.00	-	-
Rapeseed	6,758.80	1,291.60	-	-	6,907.44	1,354.00	-	-
Vegetables	3,989.46	330.29	2,558.80	53.23	376.49	30.00	-	-
Lettuce	495.65	4.27	62.45	3.03	-	-	-	-
Head Cabbage	220.37	30.48	138.84	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes	2,629.96	255.91	1,858.91	5.25	376.49	30.00	-	-
Green peppers	197.74	32.40	155.34	29.29	-	-	-	-
Red papers	445.75	7.23	343.27	15.66	-	-	-	-
Swiss chard	-	-	-	-	-	-	-	-
Root crops	1,055.21	777.99	863.33	525.71	357.65	165.63	122.66	-
Beet root	3.06	0.05	-	-	-	-	-	-
Carrot	3.16	0.33	3.16	-	-	-	-	-
Onion	1,015.66	774.21	788.19	517.12	353.37	139.00	-	-
Potatoes	33.33	3.40	71.99	8.59	4.27	26.63	122.66	-
Garlic	-	-	-	-	-	-	-	-
Taro/'Godere'/	-	-	-	-	-	-	-	-
Sweet potatoes	-	-	-	-	-	-	-	-
Other Temporary	3,558.76	3,530.00	3,558.76	-	3,558.76	245.00	-	-
Permanent crops	-	-	-	-	-	-	-	-
Fruit crops	6,393.32	164,677.79	5,234.50	-	4,441.39	147,951.00	614.34	372.50
Avocado	1.68	7.00	-	-	-	-	-	-
Bananas	10.77	1.54	-	-	-	-	-	-
Guava/'Zeytun'/	-	-	-	-	-	-	-	-
Lemons	-	-	-	-	-	-	-	-
Mangos	293.82	37.00	293.82	-	-	-	614.34	372.50
Oranges	4,441.39	164,449.00	3,299.65	-	4,441.39	147,951.00	-	-
Papayas	1,645.67	183.25	1,641.03	-	-	-	-	-
Pineapples	-	-	-	-	-	-	-	-
Cash crpops	1,117,878.32	3,928.89	3,558.76	-	1,278,402.63	47,573.77	126,104.89	43,991.15
Chat	-	-	-	-	-	-	-	-
Coffee	7,127.77	386.00	-	-	64,525.71	30,277.32	117,648.94	43,906.15
Tea	-	-	-	-	4,044.15	3,183.00	8,455.95	85.00
Hopes/'Gesho'/	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-
Sugar cane	1,107,191.79	12.89	-	-	1,206,274.01	13,868.45	-	-
Cotton	3,558.76	3,530.00	3,558.76	-	3,558.76	245.00	-	-
Other permanent crops	1,466.10	639.00	1,323.00	408.04	3,036.63	513.55	1,804.45	866.30

TABLE 4 contd								
Somale								
	Pesticides		Fungicides		Herbicides		Other	
Type of crop								
	Area in Ha	Amnt in Qts		Area in Ha	Amnt in Qts		Area in Ha	Amnt in Qts
Total	-	-	-	-	-	-	-	-
Grains	-	-	-	-	-	-	-	-
Cereals	-	-	-	-	-	-	-	-
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	-	-	-	-	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-
Finger millet	-	-	-	-	-	-	-	-
Oats/'Aja'/	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-
Pulse	-	-	-	-	-	-	-	-
Horse/Faba beans	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-
Haricot beans	-	-	-	-	-	-	-	-
Chick peas	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-
Mung beans/'Masho'/	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-
Oile seeds	-	-	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-
Vegetables	4.55	0.86	4.55	-	-	-	-	-
Lettuce	-	-	-	-	-	-	-	-
Head Cabbage	-	-	-	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes	1.28	0.50	1.28	-	-	-	-	-
Green peppers	3.27	0.36	3.27	-	-	-	-	-
Red papers	-	-	-	-	-	-	-	-
Swiss chard	-	-	-	-	-	-	-	-
Root crops	3.57	320.00	3.57	-	-	-	-	-
Beet root	-	-	-	-	-	-	-	-
Carrot	-	-	-	-	-	-	-	-
Onion	3.57	320.00	3.57	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-
Garlic	-	-	-	-	-	-	-	-
Taro/'Godere'/	-	-	-	-	-	-	-	-
Sweet potatoes	-	-	-	-	-	-	-	-
Other Temporary	-	-	-	-	-	-	-	-
Permanent crops	-	-	-	-	-	-	-	-
Fruit crops	-	-	-	-	-	-	-	-
Avocado	-	-	-	-	-	-	-	-
Bananas	-	-	-	-	-	-	-	-
Guava/'Zeytun'/	-	-	-	-	-	-	-	-
Lemons	-	-	-	-	-	-	-	-
Mangos	-	-	-	-	-	-	-	-
Oranges	-	-	-	-	-	-	-	-
Papayas	-	-	-	-	-	-	-	-
Pineapples	-	-	-	-	-	-	-	-
Cash crpops	-	-	-	-	-	-	-	-
Chat	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-
Tea	-	-	-	-	-	-	-	-
Hopes/'Gesho'/	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-
Sugar cane	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-
Other permanent crops	-	-	-	-	-	-	-	-

TABLE 4 contd  
Benshangul-Gumuz

Type of crop	Pesticides		Fungicides		Herbicides		Other	
	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts
Total	5,866.94	8,071.00	-	-	7,364.20	4,756.95	2,072.30	1.10
Grains	958.19	310.00	-	-	4,525.54	4,706.95	2,072.30	1.10
Cereals	733.79	260.00	-	-	2,786.44	4,386.95	-	-
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	116.69	10.00	-	-	-	-	-	-
Maize	617.10	250.00	-	-	2,765.12	4,386.50	-	-
Sorghum	-	-	-	-	21.32	0.45	-	-
Finger millet	-	-	-	-	-	-	-	-
Oats/Aja'/	-	-	-	-	-	-	-	-
Rice	-	-	-	-	-	-	-	-
Pulse	224.40	50.00	-	-	1,739.10	320.00	2,072.30	1.10
Horse/Faba beans	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-
Haricot beans	-	-	-	-	-	-	-	-
Chick peas	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	224.40	50.00	-	-	1,739.10	320.00	2,072.30	1.10
Fenugreek	-	-	-	-	-	-	-	-
Mung beans/"Masho"/	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-
Oile seeds	-	-	-	-	8.42	4.00	-	-
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	8.42	4.00	-	-
Rapeseed	-	-	-	-	-	-	-	-
Vegetables	-	-	89.01	-	-	-	-	-
Lettuce	-	-	-	-	-	-	-	-
Head Cabbage	-	-	-	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes	-	-	-	-	-	-	-	-
Green peppers	-	-	-	-	-	-	-	-
Red papers	-	-	89.01	-	-	-	-	-
Swiss chard	-	-	-	-	-	-	-	-
Root crops	-	-	-	-	-	-	-	-
Beet root	-	-	-	-	-	-	-	-
Carrot	-	-	-	-	-	-	-	-
Onion	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-
Garlic	-	-	-	-	-	-	-	-
Taro/'Godere'/	-	-	-	-	-	-	-	-
Sweet potatoes	-	-	-	-	-	-	-	-
Other Temporary	4,908.75	7,761.00	-	-	2,838.66	50.00	-	-
Permanent crops	-	-	-	-	-	-	-	-
Fruit crops	-	-	-	-	-	-	-	-
Avocado	-	-	-	-	-	-	-	-
Bananas	-	-	-	-	-	-	-	-
Guava/'Zeytun'/	-	-	-	-	-	-	-	-
Lemons	-	-	-	-	-	-	-	-
Mangos	-	-	-	-	-	-	-	-
Oranges	-	-	-	-	-	-	-	-
Papayas	-	-	-	-	-	-	-	-
Pineapples	-	-	-	-	-	-	-	-
Cash crpops	4,908.75	7,761.00	-	-	2,838.66	50.00	-	-
Chat	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-
Tea	-	-	-	-	-	-	-	-
Hopes/'Gesho'/	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-
Sugar cane	-	-	-	-	-	-	-	-
Cotton	4,908.75	7,761.00	-	-	2,838.66	50.00	-	-
Other permanent crops	-	-	-	-	-	-	-	-

TABLE 4 contd  
(S.N.N.P.R)

	Pesticides		Fungicides		Herbicides		Other	
Type of crop	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts	Area in Ha	Amnt in Qts
Total	39,696.93	3,048.36	1,936.83	511.06	43,048.63	14,118.25	-	-
Grains	35,963.54	2,390.36	1,492.53	492.88	42,604.33	14,108.25	-	-
Cereals	32,725.42	2,297.66	1,492.53	492.88	38,760.05	14,036.25	-	-
Teff	4,359.73	29.00	-	-	5,129.79	220.65	-	-
Barley	-	-	-	-	57.74	7.00	-	-
Wheat	127.02	8.50	1,492.53	492.88	3,474.42	614.00	-	-
Maize	27,764.85	2,175.16	-	-	29,293.38	12,935.60	-	-
Sorghum	-	-	-	-	68.20	16.00	-	-
Finger millet	-	-	-	-	-	-	-	-
Oats/Aja'/	-	-	-	-	-	-	-	-
Rice	473.81	85.00	-	-	736.52	243.00	-	-
Pulse	3,238.12	92.70	-	-	3,844.28	72.00	-	-
Horse/Faba beans	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-
Haricot beans	191.26	3.00	-	-	3,844.28	72.00	-	-
Chick peas	3,002.56	77.70	-	-	-	-	-	-
Lentiles	10.83	1.00	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	33.34	8.00	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-
Mung beans/"Masho"/	0.14	3.00	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-
Oile seeds	92.02	10.50	30.67	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-
Ground nuts	-	-	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	92.02	10.50	30.67	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-
Vegetables	761.33	381.39	288.07	21.21	-	-	-	-
Lettuce	-	-	-	-	-	-	-	-
Head Cabbage	10.28	29.00	7.58	4.04	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes	33.87	297.35	14.30	14.14	-	-	-	-
Green peppers	14.25	24.04	1.72	-	-	-	-	-
Red papers	702.93	31.00	264.48	3.03	-	-	-	-
Swiss chard	-	-	-	-	-	-	-	-
Root crops	476.83	456.04	111.54	44.44	99.24	19.00	-	-
Beet root	-	-	-	-	-	-	-	-
Carrot	-	-	-	-	-	-	-	-
Onion	162.88	382.94	84.47	30.30	-	-	-	-
Potatoes	108.26	5.10	27.06	14.14	99.24	19.00	-	-
Garlic	-	-	-	-	-	-	-	-
Taro/'Godere'/	-	-	-	-	-	-	-	-
Sweet potatoes	205.69	68.00	-	-	-	-	-	-
Other Temporary	3,527.70	590.00	444.30	18.18	444.30	10.00	-	-
Permanent crops	-	-	-	-	-	-	-	-
Fruit crops	27.05	16.39	3.65	-	498.52	263.00	-	-
Avocado	-	-	-	-	-	-	-	-
Bananas	22.19	0.39	-	-	498.52	263.00	-	-
Guava/'Zeytun'/	-	-	-	-	-	-	-	-
Lemons	-	-	-	-	-	-	-	-
Mangos	-	-	-	-	-	-	-	-
Oranges	-	-	-	-	-	-	-	-
Papayas	4.87	16.00	3.65	-	-	-	-	-
Pineapples	-	-	-	-	-	-	-	-
Cash crpops	3,527.70	590.00	444.30	18.18	14,373.62	8,596.55	15,653.84	24,566.70
Chat	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	8,600.27	5,232.55	4,511.26	87.00
Tea	-	-	-	-	5,329.06	3,354.00	11,142.59	24,479.70
Hopes/'Gesho'/	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-
Sugar cane	-	-	-	-	-	-	-	-
Cotton	3,527.70	590.00	444.30	18.18	444.30	10.00	-	-
Other permanent crops	4.60	4.50	-	-	7.58	100.00	-	-

TABLE 4 contd								
Gambela								
	Pesticides		Fungicides		Herbicides		Other	
Type of crop	Area in Ha	Amnt in Qts		Area in Ha	Amnt in Qts		Area in Ha	Amnt in Qts
Total	4,488.70	2,690.00	94.90	-	1,708.25	500.00	-	-
Grains	1,743.31	1,990.00	94.90	-	1,708.25	500.00	-	-
Cereals	1,743.31	1,990.00	94.90	-	1,708.25	500.00	-	-
Teff	-	-	-	-	-	-	-	-
Barley	-	-	-	-	-	-	-	-
Wheat	-	-	-	-	-	-	-	-
Maize	35.06	990.00	-	-	-	-	-	-
Sorghum	-	-	-	-	-	-	-	-
Finger millet	-	-	-	-	-	-	-	-
Oats/'Aja'/	-	-	-	-	-	-	-	-
Rice	1,708.25	1,000.00	94.90	-	1,708.25	500.00	-	-
Pulse	-	-	-	-	-	-	-	-
Horse/Faba beans	-	-	-	-	-	-	-	-
Field peas	-	-	-	-	-	-	-	-
Haricot beans	-	-	-	-	-	-	-	-
Chick peas	-	-	-	-	-	-	-	-
Lentiles	-	-	-	-	-	-	-	-
Vetch/Grass peas	-	-	-	-	-	-	-	-
Soya beans	-	-	-	-	-	-	-	-
Fenugreek	-	-	-	-	-	-	-	-
Mung beans/'Masho'/	-	-	-	-	-	-	-	-
Gibto	-	-	-	-	-	-	-	-
Oile seeds	882.59	20.80	-	-	-	-	-	-
Nueg	-	-	-	-	-	-	-	-
Linseed	-	-	-	-	-	-	-	-
Ground nuts	882.59	20.80	-	-	-	-	-	-
Safflower	-	-	-	-	-	-	-	-
Sesame	-	-	-	-	-	-	-	-
Rapeseed	-	-	-	-	-	-	-	-
Vegetables	-	-	-	-	-	-	-	-
Lettuce	-	-	-	-	-	-	-	-
Head Cabbage	-	-	-	-	-	-	-	-
Ethiopian Cabbage	-	-	-	-	-	-	-	-
Tomatoes	-	-	-	-	-	-	-	-
Green peppers	-	-	-	-	-	-	-	-
Red papers	-	-	-	-	-	-	-	-
Swiss chard	-	-	-	-	-	-	-	-
Root crops	-	-	-	-	-	-	-	-
Beet root	-	-	-	-	-	-	-	-
Carrot	-	-	-	-	-	-	-	-
Onion	-	-	-	-	-	-	-	-
Potatoes	-	-	-	-	-	-	-	-
Garlic	-	-	-	-	-	-	-	-
Taro/'Godere'/	-	-	-	-	-	-	-	-
Sweet potatoes	-	-	-	-	-	-	-	-
Other Temporary	2,745.39	700.00	-	-	-	-	-	-
Permanent crops	-	-	-	-	-	-	-	-
Fruit crops	-	-	-	-	-	-	-	-
Avocado	-	-	-	-	-	-	-	-
Bananas	-	-	-	-	-	-	-	-
Guava/'Zeytun'/	-	-	-	-	-	-	-	-
Lemons	-	-	-	-	-	-	-	-
Mangos	-	-	-	-	-	-	-	-
Oranges	-	-	-	-	-	-	-	-
Papayas	-	-	-	-	-	-	-	-
Pineapples	-	-	-	-	-	-	-	-
Cash crpops	2,745.39	700.00	-	-	-	-	-	-
Chat	-	-	-	-	-	-	-	-
Coffee	-	-	-	-	-	-	-	-
Tea	-	-	-	-	-	-	-	-
Hopes/'Gesho'/	-	-	-	-	-	-	-	-
Enset	-	-	-	-	-	-	-	-
Sugar cane	-	-	-	-	-	-	-	-
Cotton	2,745.39	700.00	-	-	-	-	-	-
Other permanent crops	-	-	-	-	-	-	-	-

## ***Appendix I Estimation procedure***

*The following formulas are used for estimation.*

### *1. Estimating the total (For crop)*

$$\hat{Y}_h = \sum_{i=1}^{nh} w_{hi} y_{hi}$$

*In which*

$$w_{hi} = \frac{M_h}{m_{hi} n_h} \text{ Is the weight}$$

*Where*

$h =$  Represents region

$n_h =$  Total number of farms covered in the region

$M_h =$  Measure of size of  $h^{th}$  region which is the total area in that region for those selected with less than 1 probability.

$M_{hi} =$  Total area for farm  $i$  in  $h^{th}$  region

$y_{hi} =$  Total for the variable in  $i^{th}$  farm  $h^{th}$  region

### *2. Estimation for livestock*

$$\hat{Y}_h = \sum w_{hi} y_{hi}$$

*In which*  $w_{hi} = \frac{N_h}{n_h}$  Is the weight

*Where*

$h =$  Represents region

$N_h$  = Measure of size for  $h^{th}$  region which is total number of farms having livestock in that region from the frame.

$n_h$  = Total number of farms with livestock covered in that region

$y_{hi}$  = total for the variable in  $i^{th}$  farm  $h^{th}$  region

### 3. Estimating sampling variance

Sampling variance & estimate of stratum total are estimated by the

Following formula

$$\text{var}(\hat{Y}_h) = \frac{n_h}{n_h - 1} \left[ \sum_{i=1}^{n_h} \hat{Y}_{hi}^2 - \frac{\hat{Y}_h^2}{n_h} \right]$$

### 4. Estimating coefficient of variation

Coefficient of variation (CV) of estimate of region total is given

$$CV(\hat{Y}_h) = \sqrt{\frac{\text{var}(\hat{Y}_h)}{\hat{Y}_h^2}} \times 100\%$$

# *Appendix II*

## *Questionnaire*

### *Large and medium Scale Commercial Farms*

*2014/15*



## Appendix II

### Central Statistical Agency

### Large and Medium Scale Commercial Farm Sample Survey

2014/15 (2006 E.C)

#### CF-Form 2006/1 Part 1. Identification Particulars

1	2	3	4	5	6	7	8
<b>Region</b>	<b>Zone</b>	<b>Wereda</b>	<b>Farm name</b>	<b>Kebele</b>	<b>Farm Tenure</b> State = 1 Private= 2 Coops= 3 Other= 4	<b>Type of Holding</b> Crop only , 1 Livestock only, 2 Both 1&2 , 3	<b>Statistical Branch Office</b>

Season      Meher = 1   Belg , 2	
----------------------------------	--

#### Part 2 :- Crop land area and Quantity production of Major crops 2014/15 (2006 E.C)

1	2	3	4	5	6	7	8	9	10	
Sr. No	Crop Type	Code	Cropped Area		Production	Yield (Qts/Ha)	Crop Damage	Is there Crop Damage?		
			From Interview method (In Hectare)	From GPS Reading (In Hectare)	In Quintals		Yes=1  No=2	if Yes Reason	Code	Extent of Damage in Percent
1	Sesame	27								
2	Maize	02								
3	Sorghum	06								
4	Soyabens	12								
5	Nueg	25								
6	Suffflower	28								
7	Linsed	23								
8	Ground NBut	24								
9	Coffee	72								

**Part 2 :- Crop land area and Quantity production of Major crops 2014/15 (2006 E.C)**

1	2	3	4	5	6	7	8	9	10	
Sr. No	Crop Type	Code	Cropped Area		Production	Yield (Qts/Ha)	Crop Damage	Is there Crop Damage?		
			From Interview method  (In Hectare)	From GPS Reading  ( In Hectare)	In Quintals		Yes=1  No=2	If Yes Reason	Code	Extent of Damage in Percent
10	Sugar cane	76								
11	Teff	07								
12	Barely	01								
13	Wheat	08								
14	oats	04								
15	Rise	05								
16	Faba Beans	13								
17	Haricot Beans	15								
18	Soyabenns	18								
19	Chick pease	11								
20	Lintils	14								
21	Redpeper	38								
22	Foselia/Fajoli	70								
23	orange	47								
24	Banana	42								
25	Apple	113								
26	Grapes	43								
27	Others									

**Part 3- Information on Different Agricultural Practices 2014/15 (2006 E.C)**

1	2	3	4	5	6	7	8	9
SR.  No.	Type of Farm Input	Code	Farm in put listed in Col. 2 Applied			Type of input Used		Production per Hectare
			Crop Name	Code	Field area in Hectare	Unit		
						Kilogram- 1 Litter= 2 Quintal =3 Other = 4	Amount	

Name

Signature

Date

Enumerator -----