

Federal Democratic Republic Of Ethiopia
CENTRAL AGRICULTURAL CENSUS COMMISSION

**ETHIOPIAN AGRICULTURAL
SAMPLE ENUMERATION, 2001/02(1994 E.C.)**

Results at **COUNTRY LEVEL**



*STATISTICAL REPORT ON
FARM MANAGEMENT PRACTICES,
LIVESTOCK AND FARM IMPLEMENTS*
PART II

Addis Ababa
July, 2003

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C. S. A. Ethiopia

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CENTRAL AGRICULTURAL COUNCIL

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SAMPLE ENUMERATION

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COUNTRY LEVEL



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PART II

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FOREWORD

An agricultural census, which would serve as a source of a benchmark data for the sector has not been conducted in Ethiopia. However, in order to provide basic agricultural information to data users, annual agricultural sample surveys have been carried-out since 1980/81 by the Central Statistical Authority (CSA). Although, these annual sample surveys have some limitations in terms of scope, coverage and level of disaggregation, these surveys have served as a means of narrowing the data gap in the sector.

Considering the importance of the agricultural sector and the need for a comprehensive data, the CSA has requested the concerned government authority to initiate the undertaking of a National Agricultural Census several times. That is, it has submitted a project proposal immediately after the launching of the 1984 National Population and Housing Census. Moreover, it has also attempted to materialize this census in late 1980's and in early 1990's i.e. immediately after the undertaking of the 1994 National Population and Housing Census. The attempt continued till CSA got a positive response from the government in 1998. Hence, the CSA has been carrying out the Agricultural Census preparatory activities from September 1999, to August 2001.

Thus, in order to overcome the above-mentioned limitations on the data generated from the Annual Agricultural Sample Surveys and provide a benchmark data on the agriculture sector, the CSA launched the fieldwork of the first ever Ethiopian Agricultural Sample Enumeration in September 2001. Prior to launching the sample enumeration a number of preparatory activities such as the preparation of the census documents, undertaking the pretests and the pilot censuses,...etc. were also carried-out.

The 2001/02 Ethiopian Agricultural Sample Enumeration was launched under the auspices of the Ethiopian Agricultural Census Commission that was set up under Proclamation No. 238/2001. The Commission is chaired by the Prime Minister and the members of the Commission are drawn from various relevant Federal Ministries and other government organizations. The Central Statistical Authority serves as the Secretariat Office of the

Commission. Hence the collection, processing, evaluation and analysis of the census data as well as its dissemination are the responsibilities of this office.

The 2001/02 Ethiopian Agricultural Sample Enumeration is a huge nation wide operation, which could not be undertaken by a single organization. Hence, in order to enhance and facilitate the census enumeration activities Regional, Zonal, and Wereda Census Commissions have been established and Census Committees were set-up at Kebele levels. In the conduct of this census, full cooperation and assistance of governmental and non-governmental organizations, external donor agencies and the public in general have been obtained.

It is worth mentioning that the 2001/02 Crop Production Forecast Report, which is the first phase of the Agricultural Census was prepared, printed and disseminated to agricultural data users in December, 2001.

On the other hand, the census data on area under crop, production and yield of temporary crops consisted of cereals, pulses, oil seeds, vegetables and root crops for Meher Season was processed, compiled, evaluated and a report has been prepared and printed. This report entitled as a "Report on the Preliminary Results of Area, Production and Yield of Temporary Crops" (Meher Season, Private Peasant Holdings) was the Second Census Report so far published printed and disseminated to agricultural data users in October, 2002. It should be noted that during the census, huge sets of data on agriculture and related topics were collected. Given the limited resources (skilled manpower, computers...) available at the head quarters, data processing and summarization of results require quite longer period, than originally expected.

Since the release of the above mentioned Census Preliminary Report, the CSA, has put all the necessary efforts and made all the available resources (skilled manpower computers,...) at the disposal of the census data processing activities. Consequently, the Authority has reached a stage where the agricultural census data processing activities have advanced to a

stage where the data can be evaluated, reports can be prepared, printed and released to users at regional levels and eventually at country level.

Thus, this country level Agricultural Census Report is the fourteenth series of the census reports. This country level report is a comprehensive one and it consists all of the agricultural data collected during the 2001/02 Ethiopian Agricultural Sample Enumeration. These data include: the socio-economic characteristics of the population in agricultural households; land use; area, production and yield of temporary and permanent crops; farm management practices; livestock, poultry and beehives; and farm implements, draught animals and storage facilities. Similar comprehensive reports for the regions have been released consecutively.

The Office of the Ethiopian Agricultural Census Commission would like to thank all government and non-government agencies who participated in the organization of the census, the supervision of the field work, the data collection, and the respondents who participated in providing the necessary census data. The Ethiopian government has given huge financial and unreserved administrative support in undertaking the 2001/02 Ethiopian Agricultural Sample Enumeration. This indicates the continuous commitment and high priority offered by the Ethiopian Government for the development of the agricultural sector statistics as well as the other socio-economic and demographic statistics.

Finally, the Office would also like to take this opportunity to express its many thanks to the United States Agency for International Development (USAID) for its generous financial and technical assistance for the census. Moreover, thanks are due to the European Union (EU) for its financial assistance and the British Department for International Development (DFID) for its material assistance for the census.

Abdulahi Hassen (Ph.D.)

Member and Secretary,
Central Agricultural Census Commission

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CHAPTER I

BACKGROUND

1. INTRODUCTION

A nation has to feed its people adequately to have healthy and wealthy citizens for the promotion of its development and growth. A government concerned with the well being of its people and aiming at the rectification of the national economy makes agriculture its top priority for the achievement of the above goals. Policy making and decision taking are essential in this regard. But there are recognized constraints such as the availability of adequate and comprehensive statistical data on agriculture that guides policies and decisions for attaining development targets in the agricultural sector.

In recognition of these constraints, and in an effort to provide accurate, reliable and timely data on the nation's agriculture that policies and decisions entail, the Central Statistical Authority (CSA) has been conducting annual agricultural sample surveys since 1980/81 (1973 E.C.). As a result, data on area, production and yield of major crops, farm management practices, land use, livestock, poultry and beehives have been produced at country, regional and zonal levels for both Meher and Belg seasons on a yearly basis.

Despite this effort, the economic policy has recently focused on agricultural sector and data users became more sophisticated demanding for various data in greater detail on timely basis, with improved accuracy and reliability and highly disaggregated to levels where project planning and implementation take place. Hence, the existing data that has resulted from the regular annual agricultural sample survey could not meet these demands. Accordingly, these needs led the CSA to reappraise the agricultural data it has produced so far and realized the gap between the demand for agricultural data and the data supplied is widening. Thus, as an organization situated between the data and its users, the CSA was prompted by the gravity of the demand for more detailed data to embark upon a census of agriculture in the year 2001/02 and narrow the existing data gap.

Development and monitoring of the agricultural sector require data on a wide range of indicators. A census of agriculture is the leading source of such data. It provides an image of a nation's farming and agricultural activity at a particular point in time (an agricultural production year) for the data disaggregated at the lowest level of reporting.

In Ethiopia, prospects and policies regarding agriculture have evolved significantly over recent years. Economic problems have been the major factor in development and implementation of these policies and programs. The agricultural policies and programs are targeted at ensuring that food crops will be made available to those who need it and don't obtain enough of it or guaranteeing everyone access to safe and nutritious food. To put it in a nutshell: it is to create and maintain food security. The realization of this goal requires the implementation of the policies and programs at woreda level and make available agricultural statistics at corresponding administrative level. It is against this background that the census was conducted to monitor the trends and the changing patterns in agricultural production with the acquisition of agricultural statistics at wereda, zonal, regional and country levels.

2. OBJECTIVES OF THE CENSUS

There are fundamental problems prevailing in the agricultural sector that are especially affecting the rural population and often perceived as the maladies of the Ethiopian economy. In order to solve these problems gradually but steadily, the Ethiopian government has been developing various agricultural programs and schemes. To effect these programs and meet other objectives, the census is the appropriate method of data collection for providing much needed and more detailed statistical information on agriculture.

2.1 The general objectives are to: -

- Provide benchmark data on the structure of agriculture for planning, policy making and other uses during intercensal years,
- Provide detailed data at lower administrative level,

- Use the census as a vehicle for developing the national agricultural statistics system,
- Secure data for items whose production is limited (rare crops),
- Secure benchmark data for improving the annual agricultural sample survey in the future,
- Make use of the census experience and trained personnel for capacity building and strengthening the Ethiopian Statistical Authority in the field of agricultural statistics, and
- Develop data bank with facility for updating consistency checks and retrieval of data in various forms tailored to the needs of the users.

2.2 The specific objectives are to provide: -

- Basic information on the country's agriculture to the government for formulating and implementing timely food security measures and to alert policy makers about the food situation in the country,
- Information to the government to develop and monitor farm programs, study historical trends, appraise current conditions and plan for the future,
- Information for the government to design and allocate funding for extension service projects, and
- Data for the private sector in order to execute the effective production and distribution system in the agricultural sector.

This report presents the Agricultural Sample Enumeration results at country level. It comprises of eight chapters: Chapter I presents the Background and the Objectives of the Census, Chapter II discusses the Census Methodology and Operations which is composed of Scope and Coverage of the Census, Sampling Frame, Sample Design, Sample Selection, Organization of Field Work, Training of Field Staff, Method of Enumeration, Concepts and Definitions and Data Processing. Chapter III deals with Socio-Economic Characteristics of the Population in Agricultural Households. Chapter IV covers Land Utilization and Chapter V deals with Area and Production of Crops and Crop Utilization.

Moreover, Chapter VI treats Farm Management Practices. Further, in Chapter VII of this report, Size, Characteristics and Purpose of Livestock and Livestock Products are discussed. Finally, in Chapter VIII the census results are presented on Farm Implements, Draught Animals and Storage Facilities.

As given above, the Agricultural Census report at Country Level constitutes eight Chapters presented on over seven hundred pages. Hence, it is neither possible nor comfortable to the reader to present it as a single report. Accordingly, the report is presented in Two Parts with the Introductory Chapter (i.e. Chapter I) and The Census Methodology and Operations (i.e. Chapter II) as common inputs to each Part. Thus, Part I constitutes the first two common Chapters and Chapters III, IV and V. Part II consists of the first two common Chapters and Chapters VI, VII and VIII.

Also, each Part of the report encompasses Appendix I that shows the Estimation Procedures of Totals, Ratios and Sampling Errors; Appendix II gives the Number of EA's and Agricultural Households Sampled and Covered at country level by wereda; and Appendix III shows the Agricultural Sample Enumeration Questionnaires. Moreover, tables that show the Standard Errors (S.E.) and Coefficients of Variation (C.V.) are given as an annex at the end of the relevant chapters.

CHAPTER II

CENSUS METHODOLOGY AND OPERATIONS

1. INTRODUCTION

As explained in the introductory chapter of this publication, the census of Agriculture is a large-scale, periodic statistical operation for the collection of quantitative information on the structure of agriculture. Such a huge operation demands sequence of standard activities. In order to collect, process and produce reliable and internationally comparable data, the different technical procedures and operations that have to be applied during the census should follow what has been globally recommended.

Hence, this chapter highlights what has been exercised before and during the census operations in areas of subject and area coverage, census methodology, (such as sampling frame, sample design, listing and selection of primary sampling units and households), and census operations that included organization of field work, training, method of enumeration, quality control and data processing.

The scope of the agricultural census concerns the type and dimension of data to be collected. When the CSA has launched the planning of the census, it solicited the demand of data from various government and non-government organizations which are the major users of the resulting census data. The response was just overwhelming and put the CSA in an awkward position to decide on the scope. The decision on the range and extent of data items to be dealt with by the census is really hard to make given the size of the country's population engaged in agriculture, the limited human and financial resources, and the magnitude of the census work. The CSA had to strike a balance between the scope on the one hand and the available resources and time on the other hand so that there was a trade-off between the two. Since the census of agriculture is not a frequent data collection activity, it is best suited for collecting more data on various characteristics relating to area and production of crops. It lends the opportunity of capturing as much data as possible, especially when it is conducted for the first time. But agricultural census is not a practical means of providing all data. Not

all agricultural statistics can be collected through a census of agriculture. Hence, there was caution against overloading the agricultural census forms with extensive scope. Thus, with regard to the scope, the census had to be restricted to a coherent and manageable range of data items.

In this census the data collected include: demographic and economic characteristics of population in agricultural households and holders during the reference period; area, production and yield of both temporary and permanent crops harvested in the farming of Meher as well as Belg Seasons; farm management practices envisaged during both seasons; land use under major categories; and livestock, poultry and beehives. It also includes data on farm tools, implements, draught animals and storage facilities. The data collection on the production of vegetables and root crops, which was not covered by the annual agricultural sample survey, was also included in this census.

The cost of data collection is one of the most important factors in the planning and execution of a census. In a country like Ethiopia, where in addition to the problems mentioned above, transportation and communications are poor and the resources available are limited to meet the cost of a census tend to be major problems. The problem is more pronounced when deciding on the extent of census coverage.

A decision whether to carry out a complete enumeration or to plan a sample enumeration of holdings depends on the availability of resources and the level at which the census results are required. This holds true whether the results will be provided at wereda level or higher administrative hierarchies. With these constraints and extremely large number of holdings in the country's agricultural system and considering the huge cost required and timely production of the data, with the aim of providing the results at wereda level where almost all the agriculture is undertaken by small holders, a census of agriculture on the basis of sample enumeration was adopted by the CSA. In a census that aims in securing data on more agricultural items with reasonable accuracy at wereda level, a well-defined sample enumeration is more manageable, efficient and is expected to produce equal or better quality data than a complete enumeration and is able to provide results in a more timely fashion.

Ethiopia is a country with an estimated population of 69.127 millions in July 2003. For administrative purposes, the country is divided into nine Regional States, one City Administration and one Administrative Council. Agriculture is the dominant sector in the country and biggest employer of the economically active population. The sector in the country is further characterized by extremely small holdings, mostly private peasant holdings, dispersion of cropland holdings, traditional farming and low level of literacy among the holders.

The 2001/02 Agricultural Sample Enumeration, at country level, has covered adequately representative and sufficiently large number of units (holdings) engaged in agriculture both in rural and urban areas to produce relatively reliable data at wereda level. For the purpose of this census, three farming categories have been identified: rural private holdings, urban private holdings and commercial farms. All the categories have been treated in the census on sample bases except the last one that was enumerated completely. These farming categories were enumerated at different times of the census year in order to capture the data as the events happened. The census data collection operation took about six months for Meher seasons and 2 months for Belg season to cover the rural private holdings, about 10 days to cover the urban private holdings and about one month to cover the commercial farms.

In order to improve the coverage, there has been extensive census publicity in the census operation exercise. This helped to sensitize and gain the cooperation of the respondents during data collection. In these efforts, adhoc census committees have been established and replicated to the lowest level of administration that is Farmers Associations and this helped the smooth conduct of the census and raising public awareness to achieve the intended coverage.

2 .CENSUS METHODOLOGY

2.1 Scope and Coverage

The 2001/02 (1994 E.C.) Ethiopian Agricultural Sample Enumeration (EASE) was designed to cover the rural and urban parts of all weredas in the country on a large-scale sample basis. This coverage encompasses 470 (460 rural and 10 urban) weredas in 60 administrative zones of the country excluding the pastoralist areas of the Afar and Somali Regional States. In these weredas the originally selected primary sampling units amounted to 11,292 rural and 4,378

urban Enumeration Areas (EAs). These EAs were selected at wereda level to be covered in the EASE, in order to provide data on agriculture at these administrative levels in the country.

In all regional states of the country, the sampled EAs which were completed and found to be acceptable for tabulation, amounted to 11,189 in rural areas and 4,354 EAs in urban areas. The remaining 103 rural and 24 urban EAs were not covered due to various reasons. With respect to ultimate sampling units (agricultural households), it was planned to cover 338,850 agricultural households in rural areas and 124,207 in urban areas but about 334,972 rural and 123,585 urban agricultural households were actually covered. Based on the results of the census, in the rural parts of the country, the coverage rate of sample EAs was 99.1 percent and the response rate of sampled agricultural households was 98.9 percent. The coverage and response rate in the urban domain was 99.5 percent. The coverage of sampled EAs and agricultural households by region are given in Appendix II.

TABLE II:1 AREA COVERAGE OF THE 2001/02 (1994 E.C.) ETHIOPIAN AGRICULTURAL SAMPLE ENUMERATION

Region	Total		Covered		Covered EAs	
	Wereda	Town	Wereda	Town	Rural	Urban
Tigray	34	70	34	70	849	418
Afar*	6	12	6	12	90	75
Amhara	109	208	109	208	2504	1113
Oromia	189	366	188	366	4671	1793
Somali*	8	14	8	14	165	115
Benshangul-Gumuz	20	13	20	13	426	45
SNNP	95	146	94	146	2278	645
Gambella	9	8	8	8	121	21
Harari	1	1	1	1	25	25
Addis Ababa	1**	1	1**	1	35	79
Dire Dawa	1	2	1	2	25	25
Total	473	841	470	841	11189	4354

* Number of weredas, towns and EAs shown are only from the sedentary areas of the region.

** Number of reporting domain.

2.2 Sampling Frame

The list of enumeration areas for each wereda was compiled from the 1994 Ethiopian Population and Housing Census cartographic work and was used as the frame for the selection of the Primary Sampling Units (PSU). The 1994 Population and Housing Census enumeration maps of the region for the sample EAs were updated, and the EA boundaries and descriptions were further clarified to reflect the current physical situation. The sampling frame used for the selection of ultimate sampling units (agricultural households) was a fresh list of households, which was prepared by the enumerator assigned in the sample EAs using a prescribed listing instruction at the beginning of the launching of the census enumeration.

2.3 Sample Design

In order to meet the objectives and requirements of the EASE, a stratified two-stage cluster sample design was used for the selection of ultimate sampling units. Thus, each wereda was treated as stratum for which major findings of the sample census are reported. The primary sampling units are enumeration areas and agricultural households are the secondary (ultimate) sampling units. Finally, after the selection of sample households, the various census forms were administered to all agricultural holders within the sampled agricultural households.

For the private peasant holdings in the rural areas a fixed number (25) of sample EAs in each wereda and 30 agricultural households in each EA were randomly selected (determined). In urban areas, weredas with urban EAs less than or equal to 25, total EAs were covered. For other weredas (with urban EAs > 25), a sample size of 25 EAs was selected. In each sampled urban EA, 30 agricultural households were selected for the census. The sample size determination in each wereda and thereby in each EA was based upon the required precision level of the major estimates and the cost consideration. The pilot survey and the previous year annual agricultural sample survey results were used to determine the required sample sizes per wereda.

2.4 Sample Selection of Primary Sampling Units

Within each wereda (stratum), the selection of EAs was carried out using probability proportional to size systematic sampling. In this case, size being total number of agricultural households obtained from the listing exercise in each EA undertaken in the 1994 Ethiopian Population and Housing Census of the region.

2.5 Listing of Households and Selection of Agricultural Households

In each sampled enumeration area, a complete and fresh listing of households was carried out by canvassing the households in the EA. After a complete listing of the households and screening of the agricultural households during the listing operation in the selected EA, the agricultural households were serially numbered. From this list, a total of 30 agricultural households were selected systematically using a random start from the pre-assigned column table of random numbers. The sampling interval for each EA was determined by dividing the total number of agricultural households by 30. For crop cutting exercise purposes (rural domain) a total of 20 agricultural households were randomly selected from the 30 sampled agricultural households. The systematic random sampling technique was employed in this case, because its application is simple and flexible, and it can easily yield a proportionate sample.

In urban parts of the country, a total of 4,354 EAs in the 841 towns were covered. Then, the listing of households in each sampled EA was carried-out. In the listing exercise households that are considered agricultural households were identified. Then, the agricultural households listed in the sample EA amounted up to 30, all such households were covered in the enumeration. However, if such households exceeded 30, then 30 of them were systematically selected among the listed and were covered in the enumeration.

Estimation procedure of parameters of interest like total, yield and ratio and their sampling error is presented in Appendix I. Standard errors and coefficients of variation of estimates for selected variables are given as an annex at the end of the relevant chapter.

3. CENSUS OPERATIONS

3.1 Organization of Field Work

The magnitude of the census operation was a challenge to the Central Statistical Authority (CSA) to organize and mobilize human, material and financial resources. But the CSA's capacity was enhanced to cope with these limitations, especially the logistics involved in the operation by the issuance of the Agricultural Census Act and establishment of adhoc structures.

Since the census operation was too large to direct and control effectively from the Head Quarters, field organization was used as a link between the sources of data and the central office. Field organization comprised the branch statistical offices constituting the 22 originally existing and additionally established 25 temporary Branch Census Offices. These 47 offices were augmented with supervisors, enumerators, other support staff, logistics and the temporary structures. The temporary structures included the establishment of census committees at the regional, zonal, wereda and establishment of this committee went down to the lowest administrative hierarchies, i.e. to the peasant association levels in order to enlist support and cooperation from the local people. In addition to the committees, commendable cooperation and assistance were also extended by other governmental and non-governmental organizations in the country at different stages of the census.

The field organization was required for the data collection operations and for the strict control and supervision of the fieldwork. The enumerators were the responsible field staff for data collection. They were full time enumerators hired on a contract basis. Most of them were recruited from localities in which they were assigned to undertake the data collection activities. At country level, for census undertaking in the rural parts the regions, a total of 12,398 enumerators were recruited, trained and hired for the census data collection and 1,199 of whom were held as reserve. Moreover, for undertaking the census in the urban parts of the country, a total of 4,378 enumerators were selected from those who were hired for the rural parts of the country. The enumerators had an educational background of grade 12 and above. During the data collection operation, the enumerators lived in their places of assignment i.e. the sample EA. During the census, each enumerator was accompanied by a guide and an assistant who is familiar with the people and well informed about the agricultural practices in the area.

The CSA permanent supervisors in the region were responsible for recruitment, selection, and training of enumerators, and census supervisors. Moreover, they were responsible for supervision of data collection, remuneration, retrieving and dispatching the completed forms to their respective Branch Statistical Offices. They were also responsible for handling

administrative and other technical problems. At country level, a total of 2,240 supervisors were involved in the census. The supervisor-enumerator ratio was 1:5 and supervision was carried out on regular basis. The supervision was coordinated and monitored by professional staff of the CSA. The logistics equipment of the census included programmable calculators, field compasses, measuring tapes and kitchen balances each numbering about 14,000. Moreover, it included 273 four wheel drive vehicles and numerous other instruments. Each enumerator was provided with all the necessary logistics equipment for the data collection. The equipment used include, 11,445 programmable calculators, 11,445 field compasses, 11,445 measuring tapes, 11,445 kitchen balances, ... etc.

3.2 Training

The success of a census operation and data quality depend on the type of training given to the enumerators and supervisors. The training helps the enumerators and supervisors secure a common understanding of the tasks to be performed and the standard procedures to be followed in census undertaking. Good data quality is assured when the training meets its objectives and the enumerators and supervisors show a sense of responsibility and enthusiasm in the exercise of the census operation.

In view of the above point, the CSA organized a two stage training programme, that is, training of trainers followed by training of the field staff. The first stage training was given at the CSA Head Quarters in Addis Ababa, to the trainers consisting of professional staff from the CSA Head Quarters and the CSA Branch Statistical Offices and other relevant federal, regional and zonal government organizations and senior CSA supervisors. The training that lasted for 30 days, included classroom sessions, field practices and demonstrations. A total of 550 trainers took part in the training.

The first stage training was then followed by the second stage training, and it took place in 47 training centers located in different zones all over the country. In all the training centers, extensive training was given to the field staff. The instructions in the training focused more on the procedures and techniques of data collection and the responsibility shouldered both by the enumerators and the supervisors. The instructions, details of techniques and

procedures of enumeration were covered in the manual. The manual served as an instruction text and a reference guide. The rigorous theoretical training was emphasized by a series of field practice and demonstrations. After about 50 days of training and field practice, a rigorous examination prepared at the census headquarters in Addis Ababa, was given to the enumerators and supervisors at each training center. Based on the examination results only those enumerators who passed the exam were hired and assigned to their enumeration areas.

3.3 Method of Enumeration

In Ethiopia, where a significant number of the agricultural population live in remote and inaccessible areas, data collection is time consuming and cumbersome. The problem is further aggravated by the large number of peasant holding operators, their geographical spread, high level of illiteracy among the operators and scattered land holdings. In such a situation where the agricultural statistics system has not been fully developed, besides the above problems, the appropriate enumeration method is house to house interviewing of holders and objective measurement of their holdings and crop yields.

Accordingly, most of the information on crop area and yield was elicited from the holders through interview and the remaining information was obtained by physically measuring the data items of interest. This was done by enumerators who identified the selected holders, interviewed them, measured all their crop fields using measuring tapes, field compasses, and scientific calculators. Moreover, they harvested and weighed the yields obtained using kitchen balances from plots of randomly selected crop fields.

As in many countries, a phased approach to the census was also used in Ethiopia in order to make the workload of manageable size and capture the data as the events unfolded. The first phase of the census was the collection of data on demographic and economic characteristics of the rural peasant households, the second one was the data collection on farm management practices of these rural peasant households using an interview method for both seasons. Data on crop area and yield of temporary and permanent crops was collected in the third phase of the census by visiting the farm operators and physically measuring the crop fields since the farmers are not familiar with standard units.

All crop fields of the randomly selected holders in each enumeration area were measured using the FAO recommended method. That is, first by identifying the boundaries of the fields, determining their shape which was mostly irregular and taking compass bearings of each side with respect to the north. This is followed by measuring the length of each side of the field and using a programmable calculator to arrive at both the area of the field and the closure error. The objective of arriving at the closure error is to find out how well the field was measured.

The responses to the interview and results of the measurement were recorded on a structured questionnaire. The interview method helped on the spot clarification of objectives, concepts and form of information sought from the respondents during the interview.

Since crop production is a function of area and yield, yield measurement was done using the crop-cutting method. The method involved crop-cutting from small subplots of rectangular shape of different sizes randomly placed in the selected crop field for each crop type and subsequent threshing, drying and weighing and recording the weight of the harvest. The crop cutting was performed for a sub-sample of 20 out of the 30 households selected in each enumeration area. A 4x4 meter plot was randomly demarcated for cereals, pulses, and oil seeds and one square meter or 1 meter x 2 rows plot was designated for vegetables and root crops for the crop-cutting exercise.

The yields harvested from the plots were immediately weighed (green weight) and /or weighed again after two weeks of drying to conform to the normal holder harvesting and drying practices. The green and dry weights were recorded on the appropriate form.

Data collection activity on livestock, poultry and beehives in the rural areas; all agricultural data in urban areas; commercial farms, and farm implements including miscellaneous items were the fourth, the fifth, the sixth and the seventh phases of the census, respectively, where subjective approach was applied for all these phases. However, the Belg season area,

production and farm management practices data, which was the eighth phase of the census, involved both objective and subjective methods, i.e., fields under temporary crops were objectively measured while the production and farm management practices data were collected by interviewing the sample agricultural holders.

3.4 Census Forms And Field Equipment

3.4.1 Census Forms

Forms and equipment are instrumental in gathering information from various sources. The census forms are the vehicle and basic document for collecting the desired data. These include general-purpose forms covering farm management practices, demographic and economic characteristics, area, production of both temporary and permanent crops; livestock, poultry and beehives, ...etc. These forms are formulated for recording data generated through interview as well as objective measurements.

Although the planning, organization and execution of the census were the responsibilities that rested within the CSA, development of the census forms was a tedious task that involved the formation of a working group composed of members of government and non-government organizations who are major users of agricultural data. Members of the working group were given the opportunity to identify their data requirements, define the needs of others and determine the specific questions that the forms should contain. The working group included the staff of the organizations that are involved in agricultural planning, collection of agricultural statistics and the use of data within the agricultural sector.

The working group designed different forms for the various data items on crop area, production, and other variables of interest to meet the needs of current data users and also considered the future expectations. Attempt was made to make the content of the forms of acceptable length by distributing the variables to be collected in the different census forms. As can be observed in the census questionnaires presented in Appendix III, the rural census questionnaires/forms include:-

- ◆ The listing forms 94/0 and 94/1 that are used to record all households in the enumeration area, identify the agricultural households and select the units to be covered by the census.
- ◆ Form 94/2 is developed to list all the members of the sampled agricultural households and record the demographic and economic characteristics of each of the members.
- ◆ Forms 94/3A, 94/3B, 94/3C and 94/3D *¹ are prepared to enumerate crop data through interview and objective measurement.
- ◆ Form 94/5 is designed to record crop area data via the physical or objective measurement of crop fields.
- ◆ Form 94/6 is used to list all the fields under crop and select a crop field for each type of crop randomly for crop cutting exercise.
- ◆ Forms 94/7A, 94/7B, and 94/7C are developed for recording yield data on cereals, oil seeds, pulses, vegetables root crops and permanent crops by weighing their yields obtained from sub-plots and/or trees selected for crop-cuttings.
- ◆ Form 94/8 is prepared to enumerate livestock, poultry and beehives data by type, age, sex and purpose including products through interview (subjective approach).
- ◆ Forms 94/9, 94/10 and 94/11 are used to collect data on crop and livestock product usage; miscellaneous items and farm tools, implements, draught animals and storage facilities, in that order, by interviewing the sample holders.
- ◆ The last but not least forms are the Belg season questionnaires identified as :- 94/12A and 94/12B that are used to record data on farm management practices of the season

* Form 94/4 was the questionnaire used for collecting data on crop production forecast for 2001/02 and the data collected using this form was published in December 2001

subjectively, while 94/12C is for recording Belg season crop area through objective measurement and volume of production through interview approach.

On the other hand, the census questionnaires/forms used in the urban areas include:-

- ◆ Form U-94/1 which used to record all households in the EA, identify the agricultural households and select the units to be covered by the census.
- ◆ Form U-94/2 is developed to list all the members of the sampled agricultural household and record the demographic and economic characteristics of each of the members.
- ◆ Form U-94/3 is prepared to enumerate crop data through interview method.
- ◆ Form U-94/4 is prepared to enumerate livestock, poultry and beehives data by type, sex, age and purpose including products through interview (subjective approach).
- ◆ Form U-94/5 is used to collect data on crop and livestock usage.

The clarity of the forms was reinforced by the enumerators' as well as the supervisors' instruction manuals that dealt with an extensive elaboration on data collection with regard to the variables in the various forms.

3.4.2 Field Equipment

A census of agriculture involves the coverage of a large number of variables. Moreover, most of the data (variables) needed are of quantitative nature. But, as in most developing countries where illiteracy is high, in Ethiopia and thereby in the region, holders neither keep the records of the size of their holdings' and amount of their crop production, nor do they know standard units to measure the size of land they operate and volume of crop they produce. Under such circumstances, collecting data only through an interview has many limitations and it is not easy for an enumerator to obtain relatively accurate information on the volume of production and area under crops.

In order to overcome these shortcomings in the census, quantitative data on area under crop and yield of crops have been collected through objective measurements from designated plots of crop field. Fields under crops were measured by compass traversing. That is, by measuring the lengths of the sides of each crop field and taking compass bearings. Measuring tapes each 20-50 meters, compasses with a half degree precision, metal pegs and programmable calculators for computing the area were used. Besides the above equipment, balance scales and bags made of cloth were used for yield measurements and drying. Area and yield measurements were the most cumbersome and time consuming aspects of the census as the enumerators had to visit all the fragmented and scattered crop fields of the holders.

3.5 Quality Control in Data Collection

The quality of official agricultural statistics should be relatively high in order to provide maximum benefit to users. The CSA, as a producer of statistics, has been concerned about the quality of the data right from the conception of the agricultural census. It has made every endeavor to maintain the data quality by lending more attention to those aspects of the census that affect the quality of the data.

Nearly all census activities starting from the designing of the questionnaires to data processing have significant impact on the quality of data. Efforts have been put into each activity of the census to assure data quality. Forms were designed sufficiently in advance of the commencement of the census enumeration in the field in order to have ample time for pre-testing, under-taking the pilot census and providing training to the enumerators. The forms were pre-tested in different parts of the country for about three times in addition to their application in the pilot census. Concepts and definitions used in the forms were expounded in the instruction manual. Attempts were made to formulate the questions with clarity and logical order. Questions about different subjects were written on different forms to avoid the mix of issues and restrict the length of the forms.

An enumerators' instruction manual was prepared and used as a training and reference guide to help the enumerators in understanding clearly all the details and procedures followed in the census and answer questions raised during the interviews. It contained questions on the forms with explanations, concepts, definitions, techniques of interviewing, duties and obligations of enumerators. A separate instruction manual was also prepared for supervisors in a similar fashion to all intents and purposes of supervision.

Training and supervision are also factors that affect data quality. The standard of training given to enumerators and supervisors is well reflected in the census results. With this in mind, the CSA offered a rigorous and thorough training to the enumerators and supervisors. Ample time has been allotted to it to help the trainees grasp the theoretical and practical aspects of data collection. The training sessions were repeatedly supplemented by field practice and demonstrations to reinforce the trainees understanding of the course. A written examination was given to all the trainees to screen and assign the best ones for the census. The supervisors have had a separate training in supervision in which the responsibilities of supervisors, field supervision, checking and editing completed forms and preparations of progress reports were reiterated. The supervisors reviewed the enumerators' work, re-interviewed samples of holders and re-measured samples of fields as part of supervision to verify the enumerators' work.

Data quality is also contingent on the cooperation and willingness of the holders to provide the desired information. In order to seek the cooperation of the holders (respondents) promotional efforts have been made using the electronic and print media. Thus, regarding the census publicity, poems, dramas and other programs were presented on the country's TV, Radio and the Press. The CSA prepared, customized and distributed census materials such as brochures, fact sheets, posters, caps with census emblem, calendars and other items to relevant institutions and government officials. Moreover, with respect to the progress of the census operations, CSA gave a number of press releases to foster public support and cooperation. Branch offices and supervisors worked with local officials and adhoc committees to obtain written and verbal support of the census operations in their speeches and public appearances.

3.5.1 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 measured accurately to reflect the agricultural situation.

Standard concepts and definitions used in a census setup provide clear linkages between various tables of the census 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 census 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 the census included the following: -

Enumeration Area (EA): an enumeration area in the rural parts of the country is a locality that is in most of the cases less than and only in some cases equal to a farmers' association in geographical area and usually consists of 150-200 households.

Household: a household may be either:

- a) a one person household, that is a person who makes provisions for his own living without combining with any other person to form part of a multi-person household or
- b) a multi-person household, that is, a group of two or more persons who live together and make common provisions for food and other essentials of living. The persons in the group may pool their incomes and have a common budget to a greater or lesser extent. They may be related or unrelated persons, or a combination of both. These persons are taken as members of the household.

Agriculture: the growing of crops and/or raising of animals for own consumption and/or sale.

Agricultural Household: a household is considered an agricultural household when at least one member of the household is engaged in growing crops and/or raising livestock in private or in combination with others.

Holding: a holding is all the land and/or livestock kept, which is used wholly or partly for agricultural production and is operated as one legal entity by one person alone, or with others without regard to management, organization, size or location.

Holder: a holder is a person who exercises management control over the operation of the agricultural holding and makes the major decision regarding the utilization of the available resources. He/she has primary technical and economic responsibility for the holding. He/she may operate the holding directly as an owner or a manager. Under conditions of traditional agricultural holding the holder may be regarded as the person, who with or without the help of others, operates land and/or raises livestock in his/her own right, i.e. the person who decides on which, where, when, and how to grow crops or raise livestock or both and has the right to determine the utilization of the products.

Parcel: a parcel of holding is any piece of land entirely surrounded by land and/or water and/or road and/or forest, . . .etc which is not part of the holding. It may consist of one or more cadastral units, plots or fields adjacent to each other.

Field: a field is defined as any plot of land which is a parcel or part of a parcel under the same or mixed crops or any other form of private holding.

Crop: includes cereals, pulses, oilseeds, vegetables, root crops, fruits, coffee, enset, chat, hops, sugar cane, cotton, tobacco, . . . etc produced for food, making drinks, stimulation and making fabrics or clothings.

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 ploughing 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, Gesho, ... 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 crop.

Fallow Land: land which has been or intended to be kept at rest for at least one agricultural year and a maximum idleness of less than five years is considered fallow land.

Grazing Land: Land used for growing herbaceous forage crops, either through cultivation or naturally is considered to be grazing land.

Wood Land: All tracts of timber, natural or planted as part of the holding, which has a value as wood, timber, other wood products and/or used for protection. Forest land used for recreational purposes would not be included as Wood land.

Other Land Uses: Land occupied by the holders' houses and/or buildings, parking areas, gardens, barn, wells and ponds would be included as other land uses.

Irrigated Area: refers to the area of land purposely and actually provided with water, other than by rain, for improving the production of crops. The uncontrolled flooding of land by the over flow of rivers or streams is not categorized as irrigation practice although sometimes farmers use this incidence for production.

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 anything added to the soil intended to increase the amount of plant nutrients available for crop growth. Usually, fertilizers are divided into two parts, natural and commercial. Examples of natural fertilizers are farmyard manure, wood ashes,...etc., while commercial 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.

Draught Animal: Refers to animals that are engaged in activities such as ploughing, threshing, ...etc

Dairy Cow: Refers to any type of cow used to give milk previously and/or provide milk currently or have never given milk before and pregnant now. Heifers are not included in this category.

Milking Cow: Refers to cows actually milked during the reference period, i.e. February 10, 2001 to February 9, 2002.

Laying Hens: Refers to all hens and pullets of all types which have laid eggs during the reference period, i.e., Feb 10, 2001 to Feb 9,2002.

Extension Package Programs: Are outreach programs operating in rural areas for private holdings aiming to transfer modern agricultural technologies to increase crop and livestock productivity.

4. DATA PROCESSING

4.1 Editing, Coding and Verification

In the 2001/2002 Ethiopian Agricultural Sample Enumeration (EASE), the filled-in forms that were retrieved from 47 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 Natural Resources and Agricultural Statistics Department staff gave adequate training to the 157 editors and coders. These editors and coders carried out the manual editing, coding and verification of the filled-in EASE questionnaires in two shifts.

At the outset, the editing and coding activities for the filled-in forms on area and agricultural practices took place, this was followed up by the editing and coding of the forms on the production of temporary crops (cereals, pulses, oil seeds, vegetables and root crops), livestock, farm implements, permanent crops, Belg and miscellaneous questionnaires region by region. For the filled-in forms on area and agricultural practices, verification was carried out on 100% basis for the first five weeks from the launching of the activity and then considering the quality performance of editor-coders the activity was dropped to 66% of the forms gradually. On the other hand, the verification activity has been carried out on 100% basis for the filled-in forms on production of the temporary and permanent crops, livestock, farm implements and all other completed forms.

For the total country, the editing, coding and verification of the filled-in forms in general took about 330.6 working days. That is, the editing, coding and verification of the filled-in forms for area, agricultural practice, the production of the temporary and permanent crops,

and livestock took about 198.5 working days, while that of the filled-in forms on farm implements, demographic characteristics, Belg season and the urban forms took around 132.1 working days.

4.2 Data Entry, Cleaning and Tabulation

About 144 data encoders were assigned to undertake the data entry activity of 2001/02 EASE and it has been carried out on two-shift basis. Before the starting of the data entry operation data encoders were trained for about 5 days using computer programs developed by the Data Processing Department staff. The Programmers prepared the data entry programs using CENTRY, which is a data entry module of IMPS (Integrated Microcomputer Processing System).

The data entry exercise has been carried out using 76 personal computers (PC's). Like that of the manual editing and coding activity, the filled-in forms on area and agricultural practices were entered first and this was followed by entry of the filled-in forms on the production of temporary crops, livestock, farm implements, permanent crops, Belg and miscellaneous questionnaires region by region till all the census data entry operations are completed.

In order to ensure the quality of the data entry work, verification exercise was carried out. The entry of the filled-in forms on area and agricultural practices were verified on 100 % basis. Then the verification exercise was dropped to 66 % from the 6th week of the launching of the operation and was further reduced to 50% from the 10th week onwards by observing and assessing the magnitude of the percentage of errors. Later on verification process was carried out on 100% basis for the filled-in forms on the production of temporary and permanent crops, livestock, farm implements and all other completed forms. The verification activity 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 area, agricultural practice, the production of the temporary and permanent crops, and livestock took around 253.1 working days, while that of the filled-in forms on farm implements, demographic characteristics, Belg season and the urban forms took about 257.9 working days.

Data entered into the computer needs to be checked for completeness, consistency and validity. For this purpose computer edit programs were prepared by programmers using CONCOR, which is the editing module of IMPS. Using print-outs from these programs and referring to the filled-in census forms, corrections were made by nine trained manual data cleaning technicians. Moreover, nine 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 CPro and IMPS softwares. Like IMPS Software, CPro is used as a tool for entering, editing and tabulating data. CSA used the CPro software for data editing and calculation of CVs.

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. The CENTS software, a tabulation component of IMPS, was used in producing the 2001/02 EASE results.

5. MEASURES OF PRECISION

These are measures that indicate the variable error that may be expected in the estimates derived from the sample. The common measures are variances, standard errors and coefficients of variation (CV). Out of these measures, the results of standard errors and coefficients of variation of estimates for selected variables are presented as an annex at the end of each chapter.

For comparing the variability of different crop estimates or of the same crop estimates in different reporting domains, the coefficient of variation (the standard deviation expressed as a percentage of the estimate), should be used since it is a unit-less measure.

In general, estimates with CV less than 30% are considered as reliable estimates (assuming no bias). Estimates between the ranges of 30% to 50% CV's are considered less reliable and users are advised to use them cautiously. This is due to the fact that the higher the CV the more unreliable the estimate will be. Estimates with CV greater than 50% are not shown or were suppressed, and instead they are marked with asterisk (*), because these estimates (with CV > 50%) are not reliable to be used for any demand.

CHAPTER VI

FARM MANAGEMENT PRACTICES

1. INTRODUCTION

Agriculture and allied activities have been described as the main sources of much of the raw materials, investment capital, foreign exchange and labor needed for the economic growth. In this regard, improving the performance of the agriculture sector is of critical importance for fast development of the country's economy.

However, agriculture in Ethiopia is characterized by its low productivity. The reason for this is the use of limited modern agricultural techniques and traditional practices as well as the declining soil fertility due to continuous cropping. Among traditional practices used to increase the crop productivity, the most widely used practice has been and still is maintaining soil fertility through long fallow periods and the use of dung and crop residue. These gradually become impossible due to the prevailing rapid and uncontrolled population growth, which led to the reduction of the fallow lands and fuel wood deficit in the country. The other practice to increase crop production was based on expanding cultivable cropland. However, this scheme has been in practice for a long time and as a result of high population growth in the country most of the highlands suitable for cropping has already been exhausted.

To this end, increasing productivity on various field crops is the only realistic option to raise the living standards of the rural population, and to ensure food security and poverty alleviation. There are many modern techniques and technologies of achieving enhanced crop productivity. Accordingly, the major factors behind achieving high level of crop productivity increases are through greater and more efficient use of fertilizers, wide spread uses of improved variety seeds, pesticides, expanded use of irrigation and effective extension services. Thus, during the 2001/02 Agricultural Sample Enumeration, basic data on agricultural inputs and practices were collected, processed and the results are presented in this chapter.

In general, this chapter deals with the agricultural census data that indicates the type of inputs applied, quantity of inputs applied, the irrigated cropland area, estimates of cropland

area damage, number of holders who applied different agricultural inputs and farm management practices, and number of holders covered by extension package programs in Ethiopia. Data are presented for private holdings in rural areas for both Meher and Belg seasons, and urban areas of holdings for Meher season. For urban areas, data are collected and presented only on the inputs applied and the irrigated cropland area and number of holders who applied farm inputs. Also, data are presented at national and regional levels in Statistical Tables 6.1 – 6.64. Moreover, Estimates, Standard Errors (S.E.) and Coefficients of Variation (C.V.) are given in Annex Tables 6.1 and 6.2 for some relevant variables.

2. CROPLAND AREA UNDER AGRICULTURAL INPUTS AND FARM MANAGEMENT PRACTICES

This section of the chapter deals with the agricultural inputs applied and the irrigated cropland area for both rural and urban areas at national and regional levels. Agricultural holders in the sampled households were asked whether they have applied or have not agricultural inputs on their fields and the area of all plots operated by the holders were actually measured objectively for private holdings in rural areas. While in urban areas all types of data on farm practices were obtained by interview methods only. This helped to estimate area under crop, irrigated land, fertilizers, pesticides and improved seeds used during the agricultural year. Following data on area under agricultural farm inputs are briefly discussed.

The census data show that the country as a whole predominantly produces grain crops that accounted for about 90% of the area cultivated under all crops (Summary Table VI.2). On the other hand, vegetables, root crops and permanent crops are not widely grown as grains in the country in terms of both area coverage and production obtained. As a result, the agricultural inputs were applied to a great extent on the area under grain crops in order to increase the volume of production. In Ethiopia, fertilizers are relatively widely promoted and adequately supplied relative to other agricultural inputs. Therefore, it is found that application of fertilizers had high coverage of area under crops among different types of agricultural inputs that were applied. Moreover, the census data indicate that vast majority of agricultural holders in the country as a whole have used improved seeds, practiced irrigation and applied pesticides but in a much smaller extent.

2.1 Fertilized Cropland Areas

Fertilizers refer to anything added to the soil with the intention of increasing the amount of plant nutrients available for crop growth. In the census, data on application, type and quantity of natural and chemical fertilizers were collected. The Natural fertilizers consisted of animal dung and compost while chemical fertilizers consisted of DAP (Di-Ammonium phosphate) and UREA (Ammonium Nitrate).

In Ethiopia, fertilizers were applied on 3,817.9 thousand hectares (38.6%) of the total cultivated cropland area. Of this total fertilized cropland area, the share of rural and urban areas was found to be 98.4% and 1.6%, respectively. Moreover, the proportion of total fertilized cropland in rural areas for Meher season was 89.8% as compared to only 8.6% for Belg season. Regarding private holdings in urban areas, data are collected and presented only for Meher season. For details, refer to Summary Table VI.1 and Fig VI.1.

Furthermore, out of the total fertilized cropland areas, 80.6% were under cereals, 5.5% under pulses, 1.3% under oil seeds, 4.3% under root crops, 2.4% under stimulant crops and the remaining 5.9% were under other crops. Most of the fertilized cropland areas in the country were allotted to cereals in both rural and urban areas (See Summary Table VI.1)

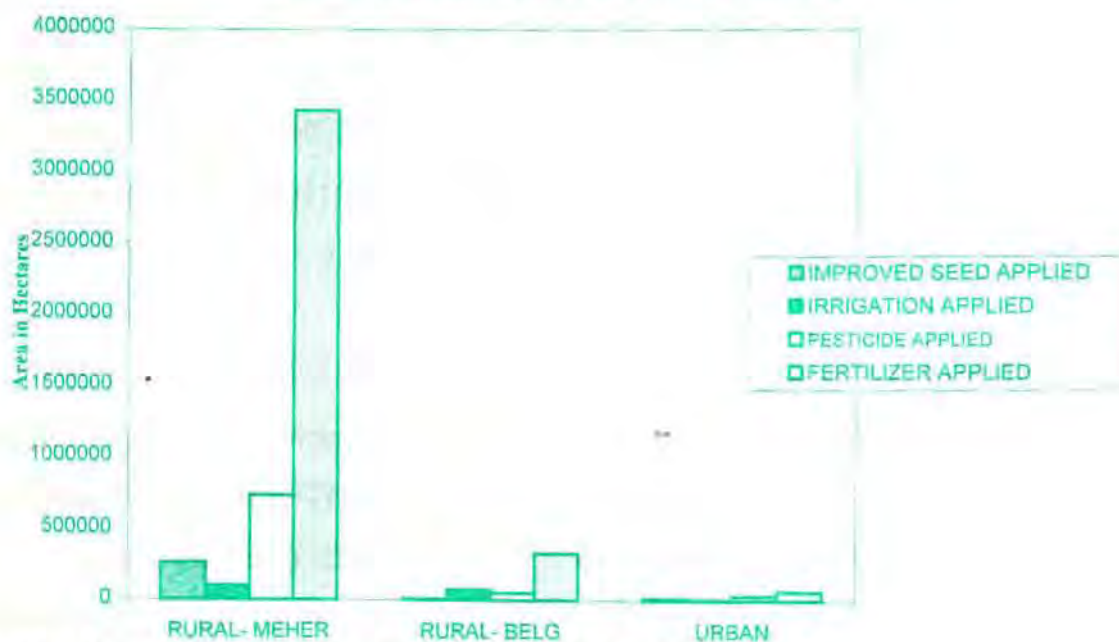
With regard to a specific crop, Teff is the most important fertilized crop that comprised an area of 946 thousand hectares. This is followed by maize and wheat covering 778 thousand hectares and 618 thousand hectares, respectively. The other most important fertilized crop is barley taking up 382 thousand hectares. For details, refer to Summary Table VI.2.

The result of the census data at country level indicate that Oromia Region has relatively the highest share from the total cropland areas with application of fertilizers (49.2%). The next highest share was observed in Amhara Region accounted for about 28.0 percent. Moreover, it is also seen that the total cropland areas under fertilizers was 14.7% in S.N.N.P. Region and 6.5% in Tigray Region, while each remaining region constituted less than one percent of the total fertilized cropland area in the country. Furthermore, the application of fertilizers in Meher season constituted relatively higher proportion for all the regions as compared to Belg season. (For details, refer to Summary Table VI.3).

SUMMARY TABLE VI.1: Total Area Under Improved Farm Management Practices by Crop Categories in Rural and Urban Areas, Both Seasons, for Private Holdings.

Data Item	Area in Hectares									
	Total	Grains				Vegetables	Root Crops	Permanent Crops		
		Cereals	Pulses	Oilseeds	Others			Fruits	Stimulant	Other
Total Area										
Rural and Urban..	9892611	7187427	1178209	438171	47835	100272	272931	42463	373281	252025
Rural.....	9731322	7074876	1166907	430245	46803	98262	269478	40076	358381	246294
Meher.....	8699882	6370106	1016787	426130	41202	84029	116877	40076	358381	246294
Belg.....	1031441	704770	150120	4116	5601	14233	152602	*	*	*
Urban (Meher)....	161289	112551	11302	7926	1032	2010	3453	2386	14900	5731
Improved Seeds										
Rural and Urban..	280554	254938	5924	1768	940	705	1628	620	13686	345
Percent..	100.00	90.87	2.11	0.63	0.34	0.25	0.58	0.22	4.88	0.12
Rural.....	267672	244750	5669	1643	926	532	1312	454	12086	302
Percent..	95.41	91.44	2.12	0.61	0.35	0.20	0.49	0.17	4.52	0.11
Meher.....	260614	239029	5188	1639	856	278	783	454	12086	302
Percent..	92.89	91.72	1.99	0.63	0.33	0.11	0.30	0.17	4.64	0.12
Belg.....	7059	5721	481	*	*	254	529	*	*	*
Percent..	2.52	81.05	6.81	*	*	3.60	7.49	*	*	*
Urban (Meher)....	12882	10188	256	124	*	174	*	167	1600	43
Percent..	4.59	79.09	1.99	0.96	*	1.35	*	1.30	12.42	0.33
Irrigation										
Rural and Urban..	175736	93615	9896	726	2285	6918	28937	6415	22147	4798
Percent..	100.00	53.27	5.63	0.41	1.30	3.94	16.47	3.65	12.60	2.73
Rural.....	170240	91386	9758	711	2270	6398	28161	5865	21385	4306
Percent..	96.87	53.68	5.73	0.42	1.33	3.76	16.54	3.45	12.56	2.53
Meher.....	98702	49824	4231	675	1793	3200	7423	5865	21385	4306
Percent..	56.16	50.48	4.29	0.68	1.82	3.24	7.52	5.94	21.67	4.36
Belg.....	71538	41561	5527	37	477	3198	20738	*	*	*
Percent..	40.71	58.10	7.73	0.05	0.67	4.47	28.99	*	*	*
Urban (Meher)....	5496	2229	138	15	15	520	776	550	762	492
Percent..	3.13	40.56	2.51	0.27	0.27	9.46	14.12	10.01	13.86	8.95
Fertilizer										
Rural and Urban..	3817932	3075651	210559	50789	7261	51186	163280	11335	92743	155129
Percent..	100.00	80.56	5.52	1.33	0.19	1.34	4.28	0.30	2.43	4.06
Rural.....	3755178	3023838	208325	50396	7113	50158	161575	10615	90475	152684
Percent..	98.36	80.52	5.55	1.34	0.19	1.34	4.30	0.28	2.41	4.07
Meher.....	3428876	2842279	172754	50134	6659	42375	60901	10615	90475	152684
Percent..	89.81	82.89	5.04	1.46	0.19	1.24	1.78	0.31	2.64	4.45
Belg.....	326302	181559	35571	261	455	7783	100673	*	*	*
Percent..	8.55	55.64	10.90	0.08	0.06	2.39	30.85	*	*	*
Urban (Meher)....	62755	51813	2235	394	147	1028	1705	720	2268	2445
Percent..	1.64	82.56	3.56	0.63	0.23	1.64	2.72	1.15	3.61	3.90
Pesticides										
Rural and Urban..	814314	776512	14121	3068	1102	3210	9124	255	6300	623
Percent..	100.00	95.36	1.73	0.38	0.14	0.39	1.12	0.03	0.77	0.08
Rural.....	782364	746949	13594	2779	1057	858	8459	165	5904	598
Percent..	96.08	95.47	1.74	0.36	0.14	0.37	1.08	0.02	0.75	0.08
Meher.....	730999	704006	11880	2752	910	1909	2876	165	5904	598
Percent..	89.77	96.31	1.63	0.38	0.12	0.26	0.39	0.02	0.81	0.08
Belg.....	51365	42944	1714	*	147	950	5583	*	*	*
Percent..	6.31	83.61	3.34	*	0.29	1.85	10.87	*	*	*
Urban (Meher)....	31950	29562	527	288	45	352	665	90	397	24
Percent..	3.92	92.53	1.65	0.90	0.14	1.10	2.08	0.28	1.24	0.08

Fig VI.1 Area under Improved Farm Management Practices in Rural and Urban Areas, for Private Holdings



2.2 Cropland Areas that are treated with Pesticides

Pesticides are chemicals that are used for the control or mitigation or elimination of pests that are detrimental to crops. Examples of pesticides are insecticides, herbicides and fungicides. Summary Table VI.1 reveals that the total cropland areas that are treated with pesticides at country level were estimated to be 814.3 thousand hectares. This indicates that only 8.2% of the total cultivated cropland areas were treated with pesticides. Of the total cropland areas treated with pesticides, the share of rural and urban areas was found to be 96.1% and 3.9%, respectively. Thus, private holdings in rural areas had the highest share, while the contribution of the urban areas to the total pesticide applied cropland area was limited in scale. Moreover, the total pesticides applied cropland areas in rural areas of the country for Meher season was 89.8 percent as compared to only 6.3 percent for the Belg season.

Furthermore, most of the pesticide applied land areas in the country were under cereal crops (about 95.4%), whereas only 1.7% of the fields under pulses were treated with pesticides. On the other hand, land areas of the remaining crops treated with pesticides were 2.9%. Out of all cropland areas on which pesticides are applied, Teff constituted the highest share at 314.7 thousand hectares followed by wheat at 306.4 thousand hectares. For details, refer to Summary Tables VI.1 and VI.2.

Inputs applied areas by region for private holdings in rural and urban areas of the country are presented in Summary Table VI.3. As can be seen from this table, the total cropland area under pesticides was the highest in Oromia Region at 633.6 thousand hectares (77.8%). It is also observed that the percent of cropland areas under pesticides in S.N.N.P., Amhara and Tigray Region was 14.6, 5.9, and 1.1 percent, respectively. Moreover, of the total cropland area on which pesticides are applied, each of the remaining region in the country constituted less than one percent.

2.3 Cropland Areas on which Improved Seeds are used

Improved seeds are defined as crop varieties that give significantly higher yield and better quality compared to locally produced varieties of seeds. As illustrated in Summary Table VI.1, the total cultivated cropland area at country level was estimated at 9,892.6 thousand hectares. Of this total, only 280.6 thousand hectares (2.8%) was sown with improved variety of seeds. The share of rural and urban areas was found to be 95.4 percent and 4.6 percent of the total cropland areas on which improved seeds are used, respectively. Like other inputs, the private holdings in the rural areas of the country during Meher season had the highest share; while the contribution of the private holdings in urban areas to the total improved seeds applied cropland area in the country was limited in scale. Moreover, the share of Belg season to the total improved seed applied cropland area was 2.5% (For details, refer to Fig VI.1).

Summary Table VI.1 also presents the total cropland area with application of improved agricultural practices and inputs by crop category for private holdings in rural and urban areas. The data in this table indicate that 90.9%, 2.1% and 4.9% of the total area under improved seeds was reported to be under cereals, pulses and stimulant crops, respectively. While, land area under other crops on which improved seeds are applied constitute the remaining 2.1 percent. In both the rural and urban areas of private holdings, land areas under cereals constituted the highest proportion of improved seeds as compared to other crops. Out of the total cropland area on which improved seeds are applied, maize constituted the highest share at 211.9 thousand hectares followed by wheat at 21.7 thousand hectares and coffee at 13.7 thousand hectares.

As can be seen in Summary Table VI.3 at country level the total cropland area under improved seeds shows variation among the regions. Thus, Oromia Region (56.3%) and Amhara Region (31.0%) constituted the highest share from the total cropland area under improved seeds. It is also observed that the percent of cropland area under improved seeds in S.N.N.P., Tigray, and Benishangul-Gumuz Region was about 7.5, 2.6, 1.3 percent, respectively. On the other hand, the percent of improved seed applied cropland areas under each of the remaining region was less than one percent.

2.4 Cropland Areas Under Irrigation

Irrigated cropland areas refer to the practice where an area of land is purposely and actually provided with water, other than the precipitation obtained from rain to improve the production of crops. The uncontrolled flooding of land by the overflow of rivers or streams is not considered to be as a practice of irrigation. The census data show that the cropland areas that are actually irrigated was only 175.7 thousand hectares and this accounted for about 1.8% of the total cropland areas in the country. Of the total irrigated cropland areas, the share of the rural and urban areas was found to be 96.9% and 3.1%, respectively. Thus, there is large difference in the size of the total irrigated cropland area between rural and urban areas. Moreover, of the total irrigated cropland in rural areas, the Meher season constituted 56.2 percent compared to 40.7 percent for Belg season.

As indicated in Summary Table VI.1, out of the total irrigated cropland areas in the country 53.3% were under cereals, 5.6% under pulses, 3.9% under vegetables, 16.5% under root crops, 3.7% under fruits, 12.6% under stimulant crops and 2.7% under other permanent crops. In both rural and urban areas of Ethiopia, the proportion of cereals, root crops and stimulant crops under irrigation were the highest as compared to other crops. With regard to specific crops, 54 thousand hectares for maize and 13 thousand hectares each for sorghum and Teff reported the largest areas of land under irrigation (For details, refer to Summary Tables VI.1 and VI.2). Moreover, the census data in Summary Table VI.3 indicate that in the country irrigated cropland area was relatively highest in Oromia Region (36.1%) and Amhara Region (32.2%) followed by S.N.N.P.R. (12.1%) and Tigray Region (10.8%). It is also observed that areas of land under irrigation practice were 5.0 and 1.8 percent for Afar

and Somali Region, respectively. On the other hand, the percent of irrigated cropland area under each of the remaining region was less than one percent.

SUMMARY TABLE VI.2: Area Under Agricultural Inputs and Irrigation Practices by Season and Regions in Rural and Urban Areas, for Private Holdings

Items	Area under Agricultural Inputs and Irrigation in Hectares							
	Rural and Urban	%	Rural				Urban	%
			Meher	Belg	Both	%		
National								
Irrigation	175736	100	98702	71537	170240	100	5496	100
Improved seeds	280554	100	260614	7059	267672	100	12882	100
Pesticides	814314	100	730999	51365	782364	100	31950	100
Fertilizers	3817932	100	3428876	326302	3755178	100	62755	100
Tigray								
Irrigation	19050	10.84	10633	7790	18423	10.82	627	11.41
Improved seeds	7265	2.59	6295	499	6794	2.54	470	3.65
Pesticides	9065	1.11	8224	160	8383	1.07	682	2.13
Fertilizers	249588	6.54	241649	4247	245896	6.55	3692	5.88
Afar								
Irrigation	8739	4.97	7399	733	8132	4.78	607	11.04
Improved seeds	1159	0.41	946	*	1090	0.41	69	0.54
Pesticides	1076	0.13	935	*	954	0.12	121	0.38
Fertilizers	1329	0.03	1057	152	1210	0.03	119	0.19
Amhara								
Irrigation	56596	32.21	23582	32129	55710	32.72	886	16.12
Improved seeds	87033	31.02	84839	563	85403	31.91	1630	12.65
Pesticides	47930	5.89	44843	1876	46720	5.97	1211	3.79
Fertilizers	1067390	27.96	995839	65280	1061119	28.26	6271	9.99
Oromia								
Irrigation	63423	36.09	37871	23557	61428	36.08	1995	36.30
Improved seeds	158037	56.33	145645	3924	149568	55.88	8469	65.74
Pesticides	633646	77.81	579480	29384	608864	77.82	24782	77.56
Fertilizers	1876828	49.16	1705012	132700	1837712	48.94	39116	62.33
Somali								
Irrigation	3101	1.76	2615	296	2911	1.71	189	3.44
Improved seeds	1000	0.36	892	29	921	0.34	79	0.61
Pesticides	273	0.03	152	*	156	0.02	117	0.37
Fertilizers	8321	0.22	7311	701	8012	0.21	309	0.49
Benishangul-Gumuz								
Irrigation	1225	0.70	726	456	1182	0.69	43	0.78
Improved seeds	3554	1.27	3265	*	3302	1.23	252	1.96
Pesticides	1269	0.16	1044	30	1074	0.14	195	0.61
Fertilizers	23687	0.62	22730	331	23061	0.61	626	1.00
S.N.N.P.R								
Irrigation	21230	12.08	14420	6302	20723	12.17	508	9.24
Improved seeds	21053	7.50	17842	1809	19651	7.34	1402	10.88
Pesticides	118915	14.60	95461	19835	115296	14.74	3620	11.33
Fertilizers	562469	14.73	430364	122237	552601	14.72	9868	15.72
Gambella								
Irrigation	17	0.01	*	*	*	*	*	*
Improved seeds	492	0.18	421	21	442	0.17	50	0.39
Pesticides	117	0.01	84	24	108	0.01	10	0.03
Fertilizers	648	0.02	593	43	636	0.02	*	*
Harari								
Irrigation	315	0.18	246	*	290	0.17	24	0.44
Improved seeds	89	0.03	76	*	76	0.03	13	0.10
Pesticides	169	0.02	117	*	120	0.02	*	*
Fertilizers	5298	0.14	4768	356	5124	0.14	174	0.28
Addis Ababa								
Irrigation	*	*	15	24	39	0.02	*	*
Improved seeds	719	0.26	285	7	292	0.11	427	3.31
Pesticides	1779	0.22	623	*	633	0.08	1145	3.58
Fertilizers	19400	0.51	16834	27	16861	0.45	2539	4.05
Dire Dawa								
Irrigation	1487	0.85	1188	205	1393	0.82	95	1.73
Improved seeds	153	0.05	106	*	131	0.05	22	0.17
Pesticides	75	0.01	*	20	57	0.01	18	0.06
Fertilizers	2974	0.08	2719	227	2947	0.08	28	0.04

SUMMARY TABLE VI.3: Total Area Under Improved Seed, Irrigation, Fertilizer, and Pesticide by Type of Crops in Rural and Urban Areas, for Private Holdings

TYPE OF CROP	Total Crop		Improved Seed		Irrigation		Fertilizer		Pesticide	
	Hectares	Hectares	%	Hectares	%	Hectares	%	Hectares	%	
TOTAL	9892611	280554	2.84	175736	1.78	3817932	38.59	814314	8.23	
Grain Crops	8851641	263569	2.98	106522	1.2	3344260	37.78	794802	8.98	
Cereals	7187427	254938	3.55	93615	1.3	3075651	42.79	776512	10.8	
Teff	1895950	11970	0.63	12447	0.66	946105	49.9	314708	16.6	
Barley	965677	3707	0.38	8016	0.83	382039	39.56	87594	9.07	
Wheat	1089810	21707	1.99	4750	0.44	618039	56.71	306398	28.11	
Maize	1702036	211863	12.45	53838	3.16	778339	45.73	32933	1.93	
Sorghum	1195200	4465	0.37	12778	1.07	201981	16.9	20189	1.69	
Finger millet	286094	935	0.33	535	0.19	138180	48.3	10514	3.68	
Oats ('Aja')	44186	104	0.24	791	1.79	10147	22.96	3990	9.03	
Rice	8473	187	2.21	*	*	820	9.68	186	2.2	
Pulses	1178209	5924	0.5	9896	0.84	210559	17.87	14121	1.2	
Horse/Faba	374997	1433	0.38	938	0.25	97585	26.02	3765	1	
Field peas	205683	778	0.38	501	0.24	35591	17.3	5479	2.66	
Haricot beans	209535	1600	0.76	1816	0.87	53385	25.48	2083	0.99	
Chick peas	196440	1355	0.69	3115	1.59	11291	5.75	1213	0.62	
Lentils	76107	292	0.38	1172	1.54	4733	6.22	451	0.59	
Vetch/Grass	86016	270	0.31	1354	1.57	3306	3.84	853	0.99	
Soya	1896	153	8.07	*	*	944	49.79	43	2.27	
Fenugreek	20239	44	0.22	957	4.73	2792	13.8	230	1.14	
Gibto	7295	-	-	*	*	933	12.79	*	*	
Oil Seeds	438171	1768	0.4	726	0.17	50789	11.59	3067	0.7	
Neug	234201	443	0.19	297	0.13	24827	10.6	394	0.17	
Linseed	103622	296	0.29	77	0.07	7750	7.48	2102	2.03	
Ground nuts	16928	85	0.5	86	0.51	3448	20.37	78	0.46	
Sunflower	5562	257	4.62	43	0.77	797	14.33	25	0.45	
Sesame	62748	359	0.57	168	0.27	4004	6.38	339	0.54	
Rapeseed	15110	327	2.16	55	0.36	9963	65.94	129	0.85	
Other Grains	47834	940	1.97	2285	4.78	7261	15.18	1102	2.3	
Vegetables	100272	705	0.7	6918	6.9	51186	51.05	3210	3.2	
Lettuce	248	30	12.1	179	72.18	180	72.58	30	12.1	
Head cabbage	991	66	6.66	548	55.3	586	59.13	130	13.12	
Kale	24928	76	0.3	557	2.23	14136	56.71	412	1.65	
Tomatoes	3301	282	8.54	2211	66.98	2061	62.44	1042	31.57	
Green peppers	4673	40	0.86	1035	22.15	2404	51.44	118	2.53	
Red peppers	56203	132	0.23	2163	3.85	27321	48.61	1435	2.55	
Swiss chard	241	64	26.56	127	52.7	146	60.58	5	2.07	
Others	9687	16	0.17	98	1.01	4352	44.93	37	0.38	
Root Crops	272931	1628	0.6	28937	10.6	163280	59.82	9124	3.34	
Beet root	687	74	10.77	261	37.99	420	61.14	11	1.6	
Carrot	1038	*	*	483	46.53	759	73.12	17	1.64	
Onions	20444	714	3.49	7490	36.64	11392	55.72	2296	11.23	
Potatoes	164146	320	0.19	17441	10.63	110993	67.62	5328	3.25	
Garlic	6042	17	0.28	752	12.45	3310	54.78	41	0.68	
Taro	26506	30	0.11	99	0.37	10472	39.51	230	0.87	
Sweet potatoes	46891	210	0.45	1966	4.19	23355	49.81	1092	2.33	
Others	7176	4	0.06	445	6.2	2579	35.94	108	1.51	
Permanent Crops	667768	14651	2.19	33359	5	259207	38.82	7178	1.07	
Fruit Crops	42463	620	1.46	6415	15.11	11335	26.69	255	0.6	
Avocado	2919	101	3.46	138	4.73	880	30.15	2	0.07	
Bananas	21938	133	0.61	3849	17.54	5588	25.47	36	0.16	
Guava	1427	103	7.22	363	25.44	444	31.11	6	0.42	
Lemons	796	12	1.51	235	29.52	214	26.88	12	1.51	
Mangoes	4001	77	1.92	354	8.85	1195	29.87	11	0.27	
Oranges	2559	54	2.11	477	18.64	864	33.76	31	1.21	
Papayas	2983	100	3.35	571	19.14	872	29.23	60	2.01	
Pineapples	172	*	*	*	*	9	5.23	-	-	
Others	5667	40	0.71	426	7.52	1269	22.39	*	*	
Stimulant Crops	373281	13686	3.67	22147	5.93	92743	24.85	6300	1.69	
Chat	97604	-	-	11176	11.45	41115	42.12	4392	4.5	
Coffee	256545	13678	5.33	8810	3.43	42320	16.5	1717	0.67	
Hops	19098	8	0.04	2161	11.32	9292	48.65	191	1	
Others	*	-	-	*	*	16	*	-	-	
Other Permanent	252025	345	0.14	4798	1.9	155129	61.55	623	0.25	
Enset	237959	283	0.12	1217	0.51	150978	63.45	523	0.22	
Sugar Cane	13008	37	0.28	3517	27.04	3750	28.83	89	0.68	
Others	1058	24	2.27	64	6.05	400	37.81	11	1.04	

3. HOLDERS APPLYING FERTILIZERS, AREA, AND QUANTITY OF FERTILIZERS APPLIED

In 2001/02 Agricultural Sample Enumeration, the total number of holders applying fertilizers in Ethiopia is estimated to be about 7,589.5 thousands. Of these total private holders, 98.7% were in rural and 1.3% in urban areas. The application of fertilizers in Meher and Belg seasons for private holdings in rural areas shows a great variation, that is, 7,178.6 thousand holders applied fertilizers in Meher season while 2,499.0 thousand holders applied in Belg season (See Summary Tables VI.4 and VI.5).

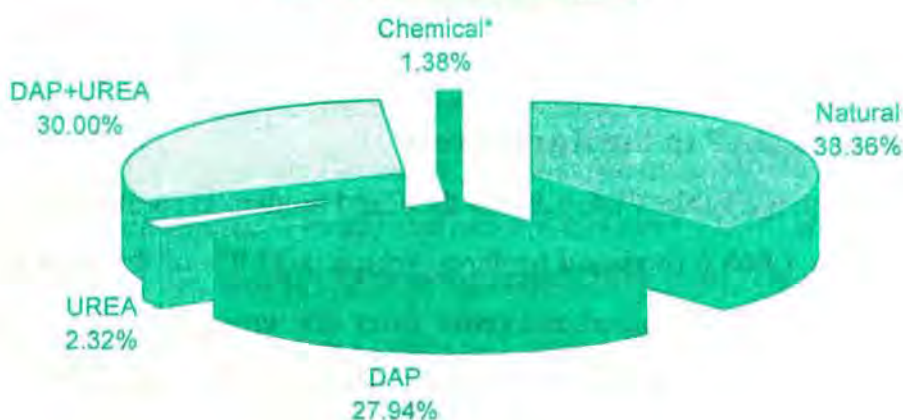
With regard to the type of fertilizers applied, the great majority of holders applied natural fertilizers (6,430.6 thousands). When we consider to the utilization of commercial fertilizers, the data shows that 2,046.4 thousand of the holders applied a mixture of DAP and UREA followed by DAP only (1818.9 thousands) and UREA only (340.6 thousands). The application of DAP, UREA and a mixture of DAP and UREA in Belg season was reported by 406.7, 34.6, and 102.6 thousand holders, respectively. In urban areas for private holdings, a total of 47.7 thousand holders applied natural fertilizers and 68.2 thousand holders applied chemical fertilizers.

Among the types of fertilizers used in the country, natural fertilizers was applied in larger cultivated cropland area, which is estimated to be 1,464.7 thousand hectares (that is, 38.4% of the fertilized cropland area). Next to natural fertilizers, a mixture of DAP and UREA, and DAP only also covered considerable amount of cropland area, which comprised 30% and 27.9% of the total fertilized cropland area, respectively. For details, refer to Fig VI.2 and Summary Table VI.4.

Furthermore, the data in Summary Table VI.4 indicates that the total quantity of chemical fertilizers applied by holders in the rural areas of the country to be 2,278.5 thousand quintals, of which, the share of the DAP and UREA mixture was the highest accounting for 63.3 percent of the total quantity of chemical fertilizers applied. This is followed by the application of only DAP, accounting for about 34.2 percent (For details, refer to Fig VI.3 and Summary Table VI.4).

Total amount of fertilizers used in the country by region is presented in Summary Table VI.7. The data in the table shows that the highest quantity of chemical fertilizers application was reported in Oromia Region (53.9%) followed by Amhara Region (29.9%). Moreover, the application in Tigray and S.N.N.P. Region was 5.8 and 8.5 percent, respectively. On the other hand, quantity of chemical fertilizers applied under each of the remaining region was less than one percent.

Fig Vi.2 Fertilizers Applied on Cropland Area by Type in Rural and Urban Areas, for Private Holdings



* Cropland area under chemical fertilizers by percent of the total fertilized cropland is only for urban areas

3.1 Application of Natural Fertilizers in the Rural and Urban Areas

According to the census findings, 6,430.6 thousand holders in rural and urban areas of Ethiopia applied natural fertilizers on 1464.7 thousand hectares of cropland (comprising 38.4% of the total fertilized cropland area). Of the total cropland area on which natural fertilizers are applied, the share of Meher and Belg seasons in rural areas of the country was 31.8 and 6.3 percent, respectively. Moreover, of the total land area on which natural fertilizers are applied, 62.0% was under cereals, 8.8% under pulses, and 2.2% under oilseeds, 7.6% under root crops, 5.5% under stimulant crops and 10.5% was under other permanent crops. For details, refer to Summary Table VI.4.

Fig.VI.3 Quantity of Fertilizers Applied by Type in Rural Areas, for Private Holdings.



3.2 Application of DAP in the Rural Areas

As illustrated in Summary Table VI.4, 1,818.9 thousand holders in rural areas of the country have applied DAP on 1,066.6 thousand hectares, which is 27.9% of the total fertilized land area. The application of DAP varied markedly from one group of crops to another, i.e., 89.2% of the total DAP was applied for cereals, 5.6% for pulses and 3.2% for root crops. Variations with respect to specific crops are also considerable, i.e., relatively higher for Teff at 319.9 thousand hectares and wheat at 272.1 thousand hectares (For details, refer to Summary Tables VI.4 and VI.5).

Furthermore, the total quantity of DAP applied in rural areas is estimated to be 778.4 thousand quintals, which is 34.2% of the total quantity of chemical fertilizers applied. In general, the quantity of DAP applied was the highest for cereals which was 687.7 thousand quintals followed by pulses and root crops that amounted to 39.2 and 36.0 thousand quintals, respectively.

3.3 Application of UREA in the Rural Areas

There were 340.6 thousand holders in rural areas of the country that applied UREA, and the cropland areas applied occupy 88.6 thousand hectares. This consists of only 2.3% of the total fertilizers applied. Out of the total area on which UREA was applied, it is reported that 83.5 % was under cereals, 2.8% under pulses, 1.4% under oil seeds, 4.8% under vegetables,

3.3% under root crops and 3.5% was under stimulant crops. These values indicate that UREA was applied in a high proportion of area under cereals relative to other group of crops. Among all crops, the largest UREA applied area was under Teff at 36.8 thousand hectares followed by maize and wheat at 11.4 and 10.9 thousand hectares, respectively. Moreover, the data in the table shows that the total quantity of UREA applied was about 58.7 thousand quintals in which the highest amount was applied for cereals at 47.1 thousand quintals (For details, refer to Summary Tables VI.4 and VI.5).

3.4 Application of a Mixture of DAP and UREA in the Rural Areas

The census findings depicts the fact that quite significant number of holders in the country have applied a mixture of DAP and UREA on their crop fields. As presented in Summary Table VI.4, there were 2,046.4 thousand holders in rural areas who applied a mixture of DAP and UREA on 1,145.6 thousand hectares, and this accounts for 30.0% of the total area on which fertilizers were applied. The application of a mixture of DAP and UREA to cereals was on 1,093.9 thousand hectares (95.5%). It was observed that the application of a mixture of UREA and DAP is low in other crops relative to cereals. For instance, the application of a mixture of DAP and UREA for pulses and oilseeds were only 18.0 and 5.6 thousand hectares, respectively. In addition, out of the total quantity of chemical fertilizers applied, the amount of a mixture of DAP and UREA was 1441.4 thousand quintals, which is 63.3% of the total quantity of chemical fertilizers. The application of a mixture of DAP and UREA to cereals, pulses, vegetables and root crops amounted to about 1,384.7, 15.4, 16.1 and 20.8 thousand quintals, in that order. Of the total quantity of mixed chemical fertilizers applied, Teff, wheat and maize took the highest amount, i.e., 514.0, 374.4 and 393.3 quintals, respectively. For details, refer to Summary Tables VI.4 and VI.5.

SUMMARY TABLE VI.4: CONTD.

Type of Fertilizer	Area in Hectares									
	Total	Grains				Vegetables	Root Crops	Permanent Crops		
		Cereals	Pulses	Oilseeds	Others			Fruits	Stimulant	Other
Rural Meher.....	3428876	2842279	172753	50134	6659	42375	60901	10615	9047	152684
Percent..	89.81	82.89	5.04	1.46	0.19	1.24	1.78	0.31	2.6	4.45
Natural.....	1215718	768303	99425	32088	4840	25565	44606	10056	7919	151642
Percent..	31.84	63.2	8.18	2.64	0.4	2.1	3.67	0.83	6.5	12.47
Chemical.....	2213158	2073976	73328	18046	1819	16810	16295	559	1128	1043
Percent..	57.97	93.71	3.31	0.82	0.08	0.76	0.74	0.03	0.5	0.05
DAP.....	996035	912117	54115	11226	1059	5878	8534	172	258	344
Percent..	26.09	91.57	5.43	1.13	0.11	0.59	0.86	0.02	0.2	0.03
UREA.....	84850	72364	2310	1237	177	3853	1259	120	311	413
Percent..	2.22	85.28	2.72	1.46	0.21	4.54	1.48	0.14	3.6	0.49
DAP & UREA ..	1132273	1089494	16903	5583	582	7080	6501	267	557	286
Percent..	29.66	96.22	1.49	0.49	0.05	0.63	0.57	0.02	0.4	0.03
Rural Belg.....	326302	181559	35571	261	454	7783	100673	-	-	-
Percent..	8.55	55.64	10.9	0.08	0.14	2.39	30.85	-	-	-
Natural.....	238732	135817	28911	218	431	6629	66726	-	-	-
Percent..	6.25	56.89	12.11	0.09	0.18	2.78	27.95	-	-	-
Chemical.....	87570	45743	6661	*	*	1154	33947	-	-	-
Percent..	2.29	52.24	7.61	*	*	1.32	38.77	-	-	-
DAP.....	70572	39724	5457	*	*	129	25214	-	-	-
Percent..	1.85	56.29	7.73	*	*	0.18	35.73	-	-	-
UREA.....	3723	1592	139	-	-	352	1641	-	-	-
Percent..	0.10	42.76	3.73	-	-	9.45	44.08	-	-	-
DAP & UREA ..	13275	4427	1065	-	*	673	7093	-	-	-
Percent..	0.35	33.35	8.02	-	*	5.07	53.43	-	-	-
Quantity in Quintals										
Total (Rural).....	2278541	2119491	56138	7546	1647	29136	60605	549	304	388
Percent..	100.00	93.02	2.46	0.33	0.07	1.28	2.66	0.02	0.1	0.02
DAP.....	778420	687675	39219	4767	903	8711	35990	181	82	148
Percent..	34.16	88.34	5.04	0.61	0.12	1.12	4.62	0.02	0.1	0.02
UREA.....	58703	47086	1565	742	172	4333	3811	122	79	81
Percent..	2.58	80.21	2.67	1.26	0.29	7.38	6.49	0.21	1.3	0.14
DAP & UREA.....	1441418	1384730	15354	2036	573	16092	20804	246	142	159
Percent..	63.26	96.07	1.07	0.14	0.04	1.12	1.44	0.02	0.1	0.01
Rural Meher.....	2206065	2091760	53150	7534	1609	26491	21543	549	304	388
Percent..	96.82	94.82	2.41	0.34	0.07	1.2	0.98	0.02	0.1	0.02
DAP.....	727473	665805	36814	4755	902	8553	9488	181	82	148
Percent..	31.93	91.52	5.06	0.65	0.12	1.18	1.3	0.02	0.1	0.02
UREA.....	55105	46030	1506	742	172	3818	1844	122	79	81
Percent..	2.42	83.53	2.73	1.35	0.31	6.93	3.35	0.22	1.4	0.15
DAP & UREA.....	1423486	1379925	14830	2036	536	14119	10211	246	142	159
Percent..	62.47	96.94	1.04	0.14	0.04	0.99	0.72	0.02	0	0.01
Rural Belg.....	72476	27731	2988	*	*	2645	39062	-	-	-
Percent..	3.18	38.26	4.12	*	*	3.65	53.90	-	-	-
DAP.....	50947	21870	2405	*	*	158	26502	-	-	-
Percent..	2.24	42.93	4.72	*	*	0.31	52.02	-	-	-
UREA.....	3598	1056	59	*	*	515	1967	-	-	-
Percent..	0.16	29.35	1.64	-	-	14.31	54.67	-	-	-
DAP & UREA.....	17932	4805	524	-	*	1973	10593	-	-	-
Percent..	0.79	26.8	2.92	-	*	11	59.07	-	-	-

SUMMARY TABLE VI.5: Number of Holders Applying Fertilizers, Fertilized Area, and Quantity of Fertilizers by Crop Type in Rural and Urban Areas, for Private Holdings

CROP	Application of total Fertilizers		Application of Fertilizers by Type and Quantity				
	Holders	Hectares	Natural		Chemical – DAP		Quintals
			Holders	Hectares	Holders	Hectares	
TOTAL	7589474	3817932	6430585	1464652	1818886	1066606	778421
Grain Crops	6477890	3344260	4742914	1074776	1696558	1023747	732563
Cereals	6251834	3075651	4375382	908249	1620637	951841	687675
Teff	2144862	946105	467687	98468	765561	319905	220441
Barley	1604562	382039	941743	134146	456275	175085	125018
Wheat	1739351	618039	475412	61395	587514	272092	221477
Maize	4084617	778339	3311487	414948	392549	94595	70862
Sorghum	870224	201981	761007	172265	38938	6860	2684
Finger millet	427199	138180	127278	23039	178127	77640	43841
Oats ('Aja')	91485	10147	56256	3648	27900	5534	3247
Rice	5651	820	3505	341	682	130	105
Pulses	1914302	210559	1547616	128779	312943	59572	39219
Horse/Faba	893898	97585	665478	59912	174832	29433	19915
Field peas	272562	35591	172522	16119	79148	15323	10690
Haricot beans	842021	53385	759618	38100	79115	11111	6514
Chick peas	78433	11291	64205	7963	4441	961	553
Lentils	55615	4733	34197	2564	11547	928	468
Vetch/Grass	28187	3306	22431	2315	1756	349	145
Soya	4405	944	2797	129	1126	637	596
Fenugreek	56592	2792	42437	1208	4458	551	236
Gibto	8562	933	4323	468	2474	280	102
Oil Seeds	422768	50789	323402	32380	62453	11269	4767
Neug	87440	24827	66417	17703	13805	4734	1265
Linseed	67014	7750	43527	3467	15981	3351	1419
Ground nuts	25452	3448	21254	2711	1454	194	24
Safflower	18394	797	12146	296	1741	96	29
Sesame	26611	4004	23821	3232	879	293	77
Rapeseed	224267	9963	170978	4970	31560	2600	1953
Other Grains	232723	7261	216927	5368	7890	1065	903
Vegetables	2141368	51186	1977652	32499	77937	6007	8711
Lettuce	9385	180	6676	66	189	*	*
Head cabbage	29455	586	21963	296	2035	*	*
Kale	1166941	14136	1150394	13688	13182	207	284
Tomatoes	37165	2061	27367	656	1511	147	232
Green peppers	242974	2404	224509	1957	6706	124	201
Red peppers	646292	27321	506052	12060	53968	5391	7831
Swiss chard	14447	146	12057	66	368	*	*
Others	297102	4352	289983	3710	3134	91	97
Root Crops	2437684	163280	2119109	111951	343729	33748	35990
Beet root	39522	420	32019	231	3622	57	58
Carrot	26943	759	19834	249	3119	123	200
Onions	384698	11392	328514	5680	21258	1752	1868
Potatoes	1339813	110993	1045046	67820	306075	31004	32892
Garlic	500945	3310	468216	2909	10344	137	230
Taro ('Godere')	384532	10472	381878	10254	2375	138	216
Sweet potatoes	432612	23355	414339	22436	9247	461	493
Others	71913	2579	70589	2371	706	*	32
Permanent Crops	3580671	259207	3491492	245426	44681	3104	1156
Fruit Crops	925893	11335	907128	10707	7216	172	181
Avocado	132055	880	130750	861	569	5	11
Bananas	549835	5588	542585	5385	2855	49	80
Guava (Zeytuna)	56652	444	53530	358	525	25	7
Lemons	41145	214	40235	198	199	*	*
Mangoes	104807	1195	100394	1076	1560	31	37
Oranges	131831	864	129864	829	499	13	9
Papayas	153721	872	150285	798	891	*	15
Pineapples	2262	9	2259	8	-	-	-
Others	94649	1269	90932	1194	863	24	18
Stimulant Crops	1950802	92743	1863112	81033	34362	2589	827
Chat	721748	41115	665801	33339	14998	1347	304
Coffee	845956	42320	817159	39071	16418	1095	408
Hops	786258	9292	765907	8607	6764	147	115
Others	211	16	211	16	-	-	-
Other Permanent	2145329	155129	2128562	153686	9576	344	148
Enset	2004129	150978	1998057	150546	4592	167	87
Sugar Cane	207222	3750	199303	2838	2360	129	42
Others	83101	400	75646	303	2872	48	20

SUMMARY TABLE VI.5 Contd.

Crop	Application of Fertilizers by Type and Quantity							
	UREA			DAP and UREA			Chemical (Urban)	
	Holder	Hectare	Quintal	Holder	Hectare	Quintal	Holder	Hectare
TOTAL	340582	88573	58702	2046415	1145549	1441418	68174	52552
Grain Crops	254269	77819	49565	1983020	1118072	1402693	64507	49846
Cereals	240012	73956	47087	1964513	1093921	1384730	63649	47683
Teff	107357	36809	21275	913860	475143	513969	28750	15780
Barley	28666	6178	4826	276417	62068	63140	10402	4563
Wheat	44256	10868	9124	697574	257049	374415	27362	16634
Maize	67586	11431	8498	830052	248951	393271	21754	8415
Sorghum	24714	5644	1891	67682	16240	10912	2928	972
Finger millet	11999	2868	1391	121699	33474	27686	2831	1159
Oats ('Aja')	911	109	72	6834	708	911	405	149
Rice	225	50	9	1248	289	426	28	11
Pulses	21976	2449	1565	125147	17968	15355	5120	1792
Horse/Faba beans	7581	681	604	59089	6918	6735	2323	641
Field peas	3894	637	396	19173	3232	2781	968	280
Haricot beans	8586	574	348	28723	3042	1498	1414	558
Chick peas	1499	320	86	8327	1949	1552	303	99
Lentils	880	89	47	9017	1096	1335	207	56
Vetch/Grass peas	263	*	14	3690	564	625	138	43
Soya	60	*	*	274	82	77	*	*
Fenugreek	777	58	26	9239	936	716	127	39
Gibto	*	*	*	1745	149	36	*	*
Oil Seeds	9305	1237	742	51802	5583	2036	643	320
Neug	1588	401	*	7142	1845	823	167	144
Linseed	1143	96	53	6464	713	530	275	123
Ground nuts	1832	251	64	1406	275	105	75	15
Sunflower	1259	67	31	3375	334	50	*	*
Sesame	925	250	39	1042	205	149	45	24
Rapeseed	2795	171	75	33309	2211	379	89	10
Other Grains	3310	177	172	5754	600	572	210	51
Vegetables	61094	4204	4333	81719	7752	16092	2400	723
Lettuce	1436	54	*	1638	31	70	235	*
Head cabbage	2943	95	354	3395	139	387	118	14
Kale	3527	40	62	5747	117	200	719	85
Tomatoes	1542	*	193	7307	888	2539	398	173
Green peppers	4515	101	255	8989	209	437	102	12
Red peppers	47743	3688	3253	55315	5850	12350	1137	332
Swiss chard	544	4	12	1294	11	28	343	*
Others	1232	26	25	4065	*	82	56	*
Root Crops	53492	2900	3811	138024	13594	20804	3205	1087
Beet root	1878	43	132	2950	77	173	117	*
Carrot	1423	29	49	3324	166	253	352	*
Onions	15734	1108	1471	26369	2410	6686	1010	442
Potatoes	23266	1469	1675	91177	10295	12180	1769	405
Garlic	9896	78	328	14593	176	604	119	11
Taro ('Godere')	311	*	*	1005	58	117	71	*
Sweet potatoes	4912	140	128	8294	308	647	125	10
Others	*	*	*	638	106	*	16	*
Permanent Crops	40666	3649	993	76032	6131	1828	3496	897
Fruit Crops	6268	120	122	12347	267	246	753	70
Avocado	351	*	5	387	6	*	168	5
Bananas	1766	25	22	5198	108	101	173	*
Guava (Zeytuna)	1320	32	19	1416	21	15	46	*
Lemons	191	*	5	521	14	*	18	*
Mangoes	971	25	12	2268	58	35	129	6
Oranges	433	*	6	1063	12	13	139	7
Papayas	1194	18	17	1444	16	26	219	16
Pineapples	-	-	-	-	-	-	*	*
Others	1081	12	35	2104	33	46	90	6
Stimulant Crops	31347	3117	790	65039	5578	1423	1969	427
Chat	23350	2603	624	37015	3728	856	717	98
Coffee	6577	466	122	17243	1368	343	1074	321
Hops	3009	47	44	16103	483	224	228	9
Others	-	-	-	-	-	-	-	-
Other Permanent Crops	7919	413	81	7775	286	159	1265	400
Enset	1358	75	25	3218	105	71	885	86
Sugar Cane	3381	320	25	2436	151	57	395	*
Others	3180	17	32	2216	30	31	18	*

4. HOLDERS UTILIZING IMPROVED SEEDS AND QUANTITY OF IMPROVED SEEDS USED

In the 2001/02 Agricultural Sample Enumeration, data on number of holders that have used improved seeds and quantity of seeds used has been collected. Hence, data on the number of holders that have used improved variety seeds and quantity of improved cereals, pulses and oil seeds in Ethiopia are presented in Summary Table VI.6.

4.1 Number of Holders using Improved Seeds.

As portrayed in Summary Table VI.6 the use of improved seeds is limited to only 986.0 thousand holders in rural and urban areas of the country. Of the total holders using improved seeds, 67.1% used improved maize seed, 13.2% used improved coffee seeds, 7.8% used improved wheat seeds, 2.6% each used improved barley and sorghum seeds, 2.2% used improved haricot bean seeds and 3.9% used improved variety of Teff seeds. The utilization of improved seeds for all other types of crops is very low (most of them are less than 1%).

4.2 Quantity of Improved Seeds Used

Information on quantity of improved varieties of seeds is limited to grain crops only. As can be seen from Summary Table VI.6, the total quantity of improved seeds was estimated to be 103.7 thousand quintals in rural areas. Of this total amount the share of Meher and Belg season was found to be 89 and 11 percent, respectively. Considering the total quantity of improved seeds utilized, about 59.0% accounted for maize, 28.8% for wheat, 3.5% for Teff, 2.9% for barley and 3.1% for haricot beans. In the case of oil seeds, the quantity of improved seeds used was insignificant. Details are given in Summary Table VI.6.

The data on quantity of improved seeds used by region at country level is presented in Summary Table VI.7. Thus, the data in the table shows that the highest amount of improved seeds used was observed in Oromia Region (52.6%) followed by Amhara Region (25.4%). Moreover, the quantity of improved seeds used in S.N.N.P, and Tigray Region was 13.9 and 6.3 percent, respectively. On the other hand, the quantity of improved seeds used for the remaining regions were only 1.8%.

SUMMARY TABLE VI.6: Number of Holders Utilizing Improved Seeds and Quantity of Improved Seeds Applied by Crop Type in Rural and Urban Areas, for Private Holdings

Type of Crop	Holders Applying Improved Seeds					Quantity in Quintals			
	Total	%	Rural		Urban Meher	Rural	%	Meher	Belg
			Meher	Belg					
Total	986003	100.00	915515	53599	25893	103673	100.00	92234	11438
Grain Crops	823152	83.48	769311	37521	19612	103673	100.00	92234	11438
Cereals	787515	79.87	738071	32894	19295	98405	94.92	89818	8587
Teff	38048	3.86	32624	3273	2151	3631	3.50	3402	229
Barley	25181	2.55	22617	1923	652	2986	2.88	2627	359
Wheat	76608	7.77	71717	839	4112	29829	28.77	29705	124
Maize	661297	67.07	622213	27740	13477	61122	58.96	53309	7813
Sorghum	25822	2.62	24555	790	477	401	0.39	388	12
Finger millet	4700	0.48	4538	*	148	212	0.20	204	*
Oats ('Aja')	1169	0.12	856	299	14	*	*	31	*
Rice	808	0.08	765	*	20	153	0.15	153	-
Pulses	48090	4.88	39851	7839	547	4875	4.70	2201	*
Horse/Faba beans	13953	1.42	13742	63	149	670	0.65	669	*
Field peas	6744	0.68	6582	*	36	284	0.27	279	*
Haricot beans	21944	2.23	14789	7072	230	3192	3.08	596	*
Chick peas	4803	0.49	4288	446	69	315	0.30	252	63
Lentils	1834	0.19	1794	*	23	171	0.16	170	*
Vetch/Grass peas	2118	0.21	2019	*	27	83	0.08	79	*
Soya	402	0.04	388	-	14	145	0.14	145	*
Fenugreek	1170	0.12	1047	104	19	*	*	*	*
Oil Seeds	19185	1.95	18895	194	96	197	0.19	197	*
Neug	2420	0.25	2395	-	25	28	0.03	28	-
Linseed	2368	0.24	2281	*	37	83	0.08	83	*
Ground nuts	1079	0.11	1041	*	23	*	*	*	*
Sufflower	3804	0.39	3737	*	-	*	*	*	*
Sesame	1923	0.20	1900	*	18	*	*	*	*
Rapeseed	8413	0.85	8354	*	*	*	*	*	*
Other Grains	3617	0.37	3068	547	48	*	*	*	*
Vegetables	23418	2.38	15178	8206	665	-	-	-	-
Lettuce	2061	0.21	1103	937	81	-	-	-	-
Head cabbage	6739	0.68	4565	2169	75	-	-	-	-
Kale	4919	0.50	2663	2029	227	-	-	-	-
Tomatoes	4984	0.51	1884	3122	165	-	-	-	-
Green peppers	1933	0.20	1341	727	38	-	-	-	-
Red peppers	3002	0.30	2436	463	103	-	-	-	-
Swiss chard	4866	0.49	3233	1452	199	-	-	-	-
Others	1058	0.11	887	*	*	-	-	-	-
Root Crops	35287	3.58	22570	12472	768	-	-	-	-
Beet root	7956	0.81	6525	1384	111	-	-	-	-
Carrot	8105	0.82	6005	1893	208	-	-	-	-
Onions	10289	1.04	4603	5645	291	-	-	-	-
Potatoes	6484	0.66	2851	3528	115	-	-	-	-
Garlic	1411	0.14	1201	185	25	-	-	-	-
Taro ('Godere')	1162	0.12	1134	*	15	-	-	-	-
Sweet potatoes	5452	0.55	4252	1119	180	-	-	-	-
Others	389	0.04	381	-	*	-	-	-	-
Permanent crops	162113	16.44	155709	-	6404	-	-	-	-
Fruit Crops	36823	3.73	34798	-	2025	-	-	-	-
Avocado	9442	0.96	8701	-	741	-	-	-	-
Bananas	6578	0.67	6355	-	223	-	-	-	-
Guava (Zeytuna)	4913	0.50	4608	-	305	-	-	-	-
Lemons	1079	0.11	1016	-	63	-	-	-	-
Mangoes	5339	0.54	4897	-	442	-	-	-	-
Oranges	3790	0.38	3523	-	267	-	-	-	-
Papayas	11842	1.20	11024	-	817	-	-	-	-
Pineapples	*	*	*	-	*	-	-	-	-
Others	2874	0.29	2630	-	244	-	-	-	-
Stimulant Crops	130043	13.19	125492	-	4551	-	-	-	-
Chat	-	-	-	-	-	-	-	-	-
Coffee	130043	13.19	125492	-	4551	-	-	-	-
Other Permanent Crops	8461	0.86	7779	-	682	-	-	-	-

Summary Table VI.7 Quantity of Chemical Fertilizers Applied and Improved Seeds Used by Region and Season in Rural Areas, for Private Holdings

Quantity in Quintals

Data Items	Total	Percent	Meher	Belg
Quantity of Fertilizers				
National	2278541	100.00	2206065	72476
Tigray	132919	5.83	128933	3987
Afar	334	0.01	284	50
Amhara	680352	29.86	671947	8405
Oromia	1227793	53.89	1187513	40279
Somali	435	0.02	435	*
Benishangul-Gumuz	6449	0.28	6449	-
S.N.N.P.R	194697	8.54	175065	19632
Gambella	216	0.01	216	-
Harari	1169	0.05	1144	*
Addis Ababa	34074	1.50	33988	86
Dire Dawa	103	0.00	92	*
Quantity of Improved Seeds				
National	103673	100.00	92234	11438
Tigray	6504	6.27	6329	175
Afar	*	*	*	*
Amhara	26337	25.40	25537	*
Oromia	54550	52.62	52754	1796
Somali	485	0.47	384	*
Benishangul-Gumuz	859	0.83	858	*
S.N.N.P.R	14438	13.93	5899	8539
Gambella	62	0.06	58	*
Harari	45	0.04	45	-
Addis Ababa	269	0.01	269	-
Dire Dawa	17	0.00	12	*

5. FARM MANAGEMENT PRACTICES AND EDUCATIONAL ATTAINMENT OF HOLDERS

This section of the chapter presents data on educational attainment of holders in relation to their farm management practices. At the time of the enumeration, all holders in the sampled households in the country were asked to state their educational attainment. As presented in Summary Table VI.8 data on literacy status and highest grade completed for literate holders were collected. The census findings indicate that the level of educational attainment of the holders in Ethiopia is very low and this may have a direct impact on the level of awareness of the holders with respect to improved farming activities and is a typical characteristic of peasant community in developing countries. According to the census data, a large number of holders (65.1% in rural and 41.2 % in urban areas) were found to be illiterate, while 13.7% in rural and 11.4% in urban areas reported to have participated in informal education. Moreover, the data shows that 16.7% of the holders in rural and 23.8% of holders in urban areas have completed grades 1 to 6 and only 4.5% of the holders in rural and 21.5 % in

urban areas have completed grades 7-12. Furthermore, around 0.1% of the holders in rural and 2.1% in urban areas reported as having completed an educational level of above grade 12 (i.e. college/university). These estimates show that holders in urban areas are relatively more literate than those in the rural areas of the country. This could probably be attributed to better access to school and/or better awareness of the importance of education among the holders in the urban than those in the rural areas.

The total number of holders participating in the agricultural extension package programs is estimated to be 582.0 thousands, which is only 5.6% of the total holders in the country. Of the total holders participating in the extension programs, 553.2 thousand holders were in Meher season and 37.5 thousand holders were in Belg season. The distribution of extension package program participants by educational status shows that 57.0% were illiterate, 17.0% have participated in informal education, 19.6% have completed grades 1 to 6, 6.1% have completed grades 7-12 and 0.3% have completed above grade 12.

As a result of insignificant number of holders who have been exposed to extension packages as well as to education, the impact of education on the use of improved farm practices was not clearly exhibited by the census data. The data indicates that out of all holders who have used improved seeds, practiced irrigation, and applied fertilizers and pesticides, 54.4, 61.4, 62.7 and 56.4 percent were illiterate, respectively (For details, refer to Summary Table VI.8).

The data on the total number of holders applying agricultural inputs and irrigation practice in Ethiopia by region for private holdings in rural and urban areas are presented in Summary Table VI.9. In each region, the proportions of the total holders who have applied fertilizers were the highest as compared to other inputs and irrigation. Thus, fertilizers are the most important input and it is used by 2,960.5 thousand holders in Oromia Region and 1,943 to 2,052 thousands in Amhara and S.N.N.P. Regions. The second most important agricultural input used by holders in the country is pesticides, which is mostly applied in Oromia Region (973 thousand holders) followed by S.N.N.P. Region (484.8 thousand holders). Improved seeds rank third in utilization and the majority of the holders (493.6 thousands) used in Oromia Region followed by Amhara Region (291.2 thousands).

SUMMARY TABLE VI.8: Holders Applying Agricultural Inputs and Participating in Extension Programs by Level of Education in Rural and Urban Areas, for Private Holdings

Place of Residence/Season	Total		Educational Level of Holders									
			Illiterate		Literate, but no Formal Education		Grade 1 – 6		Grade 7 – 12		Above Grade 12	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
All Crop Holders												
Rural and Urban	10534348	100.00	6805511	64.60	1433367	13.61	1775084	16.85	503161	4.78	16279	0.15
Rural	10329264	100.00	6720984	65.07	1409945	13.65	1726243	16.71	459155	4.45	11997	0.12
Meher	10248724	100.00	6662237	65.01	1402391	13.68	1715301	16.74	455931	4.45	11923	0.12
Belg	4640396	100.00	2892957	62.34	594655	12.81	890879	19.20	256446	5.53	5162	0.11
Urban	205084	100.00	84528	41.22	23422	11.42	48841	23.82	44006	21.46	4282	2.09
Improved Seeds												
Rural and Urban	986004	9.36	536577	54.42	164597	16.69	203844	20.67	77351	7.84	3635	0.37
Rural	960110	9.30	528966	55.09	161851	16.86	196812	20.50	69914	7.28	2568	0.27
Meher	915515	8.93	502751	54.91	156115	17.05	187145	37.22	66946	7.31	2558	0.28
Belg	53600	1.16	30785	57.43	7161	13.36	11453	37.20	4192	7.82	*	*
Urban	25893	12.63	7611	29.39	2746	10.61	7031	27.15	7437	28.72	1068	4.12
Irrigation												
Rural and Urban	1063381	10.09	652332	61.35	214588	20.18	151403	14.24	43808	4.12	1250	0.12
Rural	1046212	10.13	645547	61.70	212299	20.29	147395	14.09	40207	3.84	765	0.07
Meher	685026	6.68	427191	62.36	136420	19.91	95176	13.89	25665	3.75	574	0.08
Belg	547993	11.81	333179	60.80	115473	21.07	77642	14.17	21508	3.92	191	0.03
Urban	17168	8.37	6785	39.52	2290	13.34	4008	23.35	3601	20.98	485	2.83
Fertilizer												
Rural and Urban	7589474	72.05	4755460	62.66	1073992	14.15	1347641	17.76	399840	5.27	11850	0.16
Rural	7489164	72.50	4718140	63.00	1062978	14.19	1322399	17.66	375483	5.01	9473	0.13
Meher	7178609	70.04	4513827	62.88	1031605	14.37	1262802	17.59	360429	5.02	9256	0.13
Belg	2498968	53.85	1531943	61.30	301655	12.07	499372	19.98	162361	6.50	3434	0.14
Urban	100311	48.91	37320	37.20	11014	10.98	25242	25.16	24358	24.28	2377	2.37
Pesticides												
Rural and Urban	1648216	15.65	930302	56.44	218663	13.27	367352	22.29	127986	7.77	3832	0.23
Rural	1609972	15.59	918123	57.03	214349	13.31	356635	22.15	117633	7.31	3151	0.20
Meher	1331744	12.99	740637	55.61	193089	14.50	295552	22.19	99598	7.48	2836	0.21
Belg	362003	7.80	219157	60.54	32733	9.04	82303	22.74	27230	7.52	533	0.15
Urban	38244	18.65	12179	31.85	4314	11.28	10717	28.02	10353	27.07	682	1.78
Extension Program												
Rural	581994	5.63	331951	57.04	98955	17.00	114032	19.59	35420	6.09	1636	0.28
Meher	553199	5.40	313684	56.70	94963	17.17	108931	19.69	34029	6.15	1592	0.29
Belg	37486	0.81	23357	62.31	5645	15.06	6640	17.71	1769	4.72	*	*

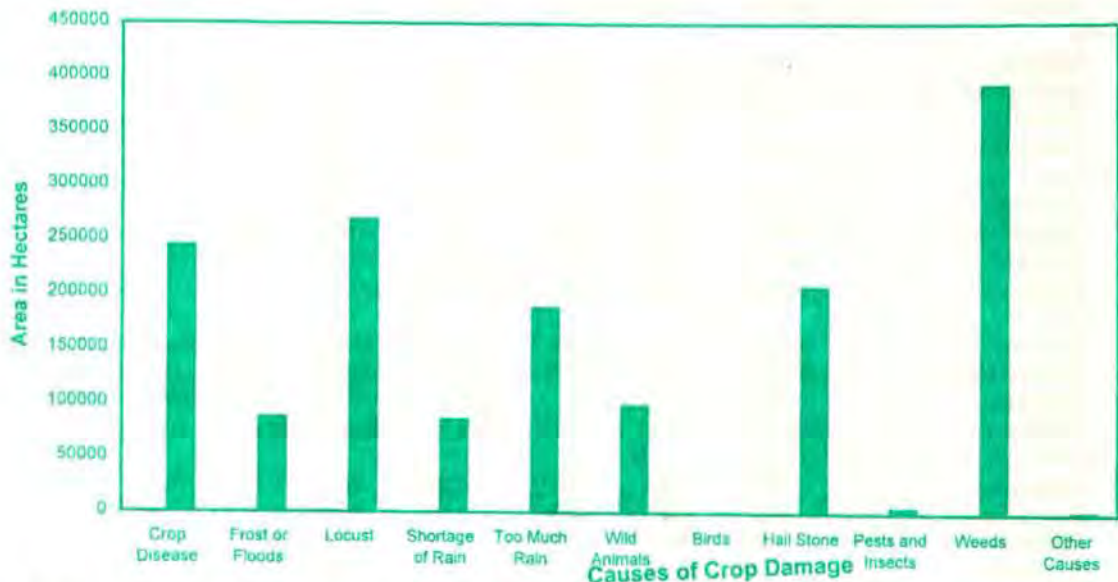
Note: Some of the holders operate both in Meher and Belg seasons. Consequently, there are duplication of holders who used agricultural inputs and those who participate in extension programmes. Due to this fact rural private holders who used agricultural inputs and those who participated in the extension programmes do not add up to the totals.

SUMMARY TABLE VI.9: Holders Applying Agricultural Inputs and Practices in Rural and Urban Areas and Regions, for Private Holdings

Data Items	Number of Holders							
	Rural and Urban	%	Rural				Urban	%
			Meher	Belg	Both	%		
National								
Irrigation	1063381	100	685026	547993	1046212	100	17168	100
Improved seeds	986003	100	915515	53599	960110	100	25893	100
Pesticides	1648216	100	1331744	362003	1609972	100	38244	100
Fertilizers	7589474	100	7178609	2498968	7489163	100	100310	100
Tigray								
Irrigation	106602	10.02	63431	64609	105055	10.04	1548	9.02
Improved seeds	41595	4.22	35659	6318	40206	4.19	1388	5.36
Pesticides	37313	2.26	33515	2794	36156	2.25	1157	3.03
Fertilizers	517709	6.82	506110	36530	511758	6.83	5951	5.93
Afar								
Irrigation	8782	0.83	7902	1224	8209	0.78	573	3.34
Improved seeds	1135	0.12	987	*	1106	0.12	28	0.11
Pesticides	970	0.06	859	40	895	0.06	75	0.20
Fertilizers	2802	0.04	2606	340	2733	0.04	70	0.07
Amhara								
Irrigation	475706	44.74	276032	282190	471502	45.07	4203	24.48
Improved seeds	291150	29.53	280116	8760	286985	29.89	4164	16.08
Pesticides	142995	8.68	126836	16536	140839	8.75	2156	5.64
Fertilizers	2051666	27.03	1968782	483555	2040230	27.24	11436	11.40
Oromia								
Irrigation	381642	35.89	263271	169991	375148	35.86	6494	37.83
Improved seeds	493620	50.06	463998	18144	479795	49.97	13824	53.39
Pesticides	972993	59.03	872321	122211	947910	58.88	25084	65.59
Fertilizers	2960487	39.01	2816250	822648	2910980	38.87	49507	49.35
Somali								
Irrigation	8971	0.84	8290	1808	8551	0.82	420	2.45
Improved seeds	2671	0.27	2506	133	2607	0.27	64	0.25
Pesticides	678	0.04	549	*	588	0.04	90	0.24
Fertilizers	17329	0.23	15582	1697	16821	0.22	508	0.51
Benishangul-Gumuz								
Irrigation	11115	1.05	6778	6411	10854	1.04	261	1.52
Improved seeds	15838	1.61	15101	459	15460	1.61	378	1.46
Pesticides	4302	0.26	2801	1457	4159	0.26	144	0.38
Fertilizers	59029	0.78	57398	5255	58032	0.77	997	0.99
S.N.N.P.R								
Irrigation	61151	5.75	51940	18399	58676	5.61	2475	14.42
Improved seeds	134905	13.68	113198	18952	129563	13.49	5342	20.63
Pesticides	484834	29.42	293006	217803	476480	29.60	8354	21.84
Fertilizers	1943140	25.60	1778995	1143461	1914180	25.56	28961	28.87
Gambella								
Irrigation	128	0.01	99	*	113	0.01	*	*
Improved seeds	1849	0.19	1661	106	1763	0.18	87	0.34
Pesticides	959	0.06	350	519	869	0.05	90	0.24
Fertilizers	3892	0.05	3431	599	3862	0.05	30	0.03
Harari								
Irrigation	1721	0.16	1377	*	1602	0.15	119	0.69
Improved seeds	923	0.09	812	*	840	0.09	83	0.32
Pesticides	828	0.05	692	*	767	0.05	61	0.16
Fertilizers	11243	0.15	10711	1465	10820	0.14	424	0.42
Addis Ababa								
Irrigation	1193	0.11	275	248	450	0.04	743	4.33
Improved seeds	1196	0.12	674	72	729	0.08	466	1.80
Pesticides	1687	0.10	610	141	717	0.04	970	2.54
Fertilizers	13858	0.18	11534	251	11563	0.15	2295	2.29
Dire Dawa								
Irrigation	6368	0.60	5630	2763	6051	0.58	318	1.85
Improved seeds	1122	0.11	803	*	1054	0.11	68	0.26
Pesticides	655	0.04	203	389	592	0.04	63	0.16
Fertilizers	8317	0.11	7209	3168	8186	0.11	131	0.13

When we come to irrigation practice, relatively a great number of holders have followed irrigation practice in Amhara Region (475.7 thousands) and Oromia Region (381.6 thousands) (For details, refer to Summary Table VI.9).

Fig VI.4 Damaged Cropland Area by Causes of Damage in Rural Areas, for Private Holdings



6. DAMAGED CROPLAND AREAS AND SIZE OF HOLDINGS IN RURAL AREAS

This section of the chapter deals with the estimates of damaged cropland areas by size of holdings in Ethiopia. Damaged cropland area includes any cropland planted or sown with the intention of harvesting crops, but failed to produce crop partly or fully due to various reasons. The census data shows that, out of the total cultivated cropland area, 17.1% in Meher and 8.8% in Belg seasons were affected by crop damage. The cropland area damage that accounted for 66.2% fall under holders in rural areas who had holding size that ranges from 1.0 and 5.0 hectares. On the other hand, holders in rural areas who had holding size of between 0.51 and 1.0 hectare accounted for 19.7% of the cropland area damage. It was also indicated that holders in rural areas who had relatively large holdings (5.01 and more hectares) comprised about 5.3% of the total cropland area damage. With regard to the causes of crop damage, it is reported that 17.0% was damaged due to locusts, 15.5% was caused by crop disease, 13.1% was due to hailstone, 11.9% was due to too much rain, 5.4% was due to

shortage of rain, 5.5% was due to frost or floods, 6.2% was due to wild animals and 24.9% was due to weeds (For details, refer to Summary Table VI.10 and Fig VI.4).

SUMMARY TABLE VI.10: Causes of Damage of Cropland Area by Size of Holdings and Seasons in Rural Areas, for Private Holdings

Causes of Damage	Size of Holdings(Hectares)							
	Total	Under 0.1	0.1-0.5	0.51-1.0	1.01-2.0	2.01-5.00	5.01-10.0	Over 10
Both Seasons								
Total	1578579	5103	135779	310373	554876	489628	69930	12891
Percent.,	100.00	0.32	8.60	19.66	35.15	31.02	4.43	0.82
Crop Disease.....	244311	834	23510	53263	87834	67873	9853	1145
Percent.,	15.48	0.34	9.62	21.80	35.95	27.78	4.03	0.47
Frost or Floods.....	87132	303	8367	18797	31292	24318	3313	743
Percent.,	5.52	0.35	9.60	21.57	35.91	27.91	3.80	0.85
Locust	268250	810	18797	46066	94075	93599	12515	2389
Percent.,	16.99	0.30	7.01	17.17	35.07	34.89	4.67	0.89
Shortage of Rain ...	85255	222	7110	16650	31302	25721	3389	861
Percent.,	5.40	0.26	8.34	19.53	36.72	30.17	3.98	1.01
Too Much Rain	187759	864	21946	43431	66502	47502	6565	948
Percent.,	11.89	0.46	11.69	23.13	35.42	25.30	3.50	0.50
Wild Animals.....	98534	362	9344	19218	35223	30573	3290	524
Percent.,	6.24	0.37	9.48	19.50	35.75	31.03	3.34	0.53
Birds	166	3	20	27	64	*	*	-
Percent.,	0.01	1.81	12.05	16.27	38.55	*	*	-
Hailstone.....	207054	380	14857	36269	67363	71955	13239	2990
Percent.,	13.12	0.18	7.18	17.52	32.53	34.75	6.39	1.44
Pests and Insects ...	5009	*	305	1001	2011	1509	166	*
Percent.,	0.32	*	6.09	19.98	40.15	30.13	3.31	*
Weeds	393320	1277	31136	75239	138712	126124	17546	3287
Percent.,	24.92	0.32	7.92	19.13	35.27	32.07	4.46	0.84
Others.....	1789	33	388	412	499	401	54	*
Percent.,	0.11	*	21.69	23.03	27.89	22.41	*	*
Meher Season								
Total	1487909	3897	123948	290513	526454	464937	65679	12482
Crop Disease.....	232752	693	22025	50643	84376	64815	9171	1029
Frost or Floods.....	81493	219	7450	17250	29418	23204	3236	717
Locust	254482	574	16752	42495	89340	90867	12101	2353
Shortage of Rain ...	82509	169	6543	15843	30449	25309	3335	861
Too Much Rain	184111	814	21341	42431	65388	46715	6501	920
Wild Animals.....	96326	315	8804	18567	34618	30232	3271	520
Birds	104	-	*	*	43	*	-	-
Hailstone.....	204751	365	14556	35770	66648	71245	13179	2989
Pests and Insects ...	3634	3	207	761	1502	1070	88	*
Weeds	347482	743	26257	66694	124601	111330	14766	3091
Others.....	265	*	13	45	70	104	*	-
Belg Season								
Total	90670	6642	37721	23350	17324	5283	349	-
Crop Disease.....	11559	825	4482	3022	2389	806	*	-
Frost or Floods.....	5640	509	2661	1386	831	252	-	-
Locust	13767	915	5373	3814	2685	904	*	-
Shortage of Rain ...	2746	283	1283	582	439	137	*	-
Too Much Rain	3648	420	1878	847	422	80	*	-
Wild Animals.....	2207	215	1355	462	170	*	-	-
Birds	62	4	28	17	12	*	-	-
Hailstone.....	2303	137	1009	680	350	128	-	-
Pests and Insects ...	1375	24	175	275	570	327	*	-
Weeds	45838	3146	18827	11976	9239	2452	*	-
Others.....	1524	166	651	289	215	191	*	-

7. FARM MANAGEMENT PRACTICES OF HOLDERS IN RURAL AREAS

In order to obtain more detailed information concerning the various types of farm management practices of holders in rural areas of the country, data were collected subjectively by interviewing sampled agricultural holders on the sources of water for irrigation schemes, method to improve soil fertility, method of ploughing and soil conservation, participation in extension package programs, and use of credit or advisory services. Hence, the data on the total number of holders reporting different farm management practices and their percentage distribution by type of farm management practices is presented in Summary Table VI.11. Following are discussions of the major findings with respect to these data.

7.1 Sources of Water for Irrigation Schemes

In a country like Ethiopia, where the amount, timing and distribution of rainfall is irregular, use of irrigation would significantly improve and raise the level of production. However, irrigation practices are not extensive in Ethiopia. As presented earlier, potatoes, maize, Teff and sorghum are relatively sizable crops that are grown by irrigation in the country. The census data reveals that of the total holder in the rural areas of the country, only 10.2% reported to have used irrigation practices. Among these holders who practice this scheme the sources of water for 69.6, 11.7, 10.9 and 7.8 percent of the holders were rivers, lakes, ponds and other sources of water, respectively. It should be noted that the total number of holders, and the number of holders who practice irrigation schemes and the number of holders reporting the sources of water for irrigation were collected in different period of time during the 2001/02 agricultural activities. In an enumeration area a total of 30 households were systematically sampled that mainly resulted about 30 holders. Thus, the data on number of holders practicing irrigation was collected in September (for ten households) and December (for twenty households). However, the data on the holders reporting the sources of water for irrigation was collected only in March. Hence, some discrepancy is observed in the total numbers of holders and the number of holders who have reported the use of irrigation practices presented in Summary Table VI.8 and VI.11.

During the 2001/02 EASE, an attempt has also been made to assess the extent of irrigation practice in urban areas. Thus, sources of water for irrigation under permanent crops in urban

areas for Meher season have been assessed and the data are presented in Summary Table VI.13. The data in the table shows that only 8.4 percent of the total holders reported as practicing irrigation during the Meher season and of these holders the sources of water for irrigation were 59.1, 14.9, 4.3 11.8 and 6.5 percent from rivers, lakes, wells, tap water and other sources, respectively. However, holders that use wells and other sources are very few in the urban areas of the country. In the same summary table, it was observed that out of the total holders only 59.4 thousand holders (29.0%) in urban areas practiced crop production in Belg season for three years from 1999/2000(1992 E.C.) to 2001/02 (1994 E.C.). Out of which, 49.4 thousand holders (83.1%) were males and 10.0 thousand holders (16.9%) were females.

7.2 Methods Used to Improve Soil Fertility

The fertility of the soil in Ethiopia is being depleted slowly as time passes because of continuous cropping. In the census, holders were asked to state their method of improving soil fertility, that is whether they use crop rotation or burning of soil. Hence, the data showed that of the total holders in the country, 77.3% have reported practicing crop rotation, while 5.6% reported practicing burning of soil as their main method for improving soil fertility.

7.3 Application of Chemical Fertilizers and Reasons for not Applying Fertilizers

In section 3 of this chapter, it was indicated that 73% of the holders in Ethiopia have applied both natural and chemical fertilizers. Moreover, the percent of holders that applied chemical fertilizers was 34% in rural areas of the country. In order to gauge the attitude of holders who did not use chemical fertilizers, sampled households were asked the reasons for not using chemical fertilizers. The data in Summary Table VI.11 indicates the reasons given by the holders who did not use chemical fertilizers. A total of 4,912.0 thousand holders did not use chemical fertilizers due to shortage of money, 1649.3 thousand holders due to lack of knowledge about the advantage, 421.8 thousand holders due to insufficient supply of fertilizers in their area, 881.7 thousand holders due to the high cost of fertilizer, 334.5 thousand holders reported suspecting the efficiency of the fertilizers, 38.2 thousand holders due to absence of credit service to purchase fertilizers, and 2358.8 thousand holders mentioned “other reasons” for not using chemical fertilizers.

7.4 Method of Ploughing

One aspect to increase agricultural production is through mechanization. The replacement of hand digging and ox/horse driven ploughing method by tractor is of paramount importance for increasing the volume of agricultural production. In light of this, an attempt has been made to collect some basic information on method of ploughing by the holders at the time of the census enumeration. Thus, the majority of the holders (44.0%) in the country, reported to have used ox/horse driven ploughing method and 37.0% of the holders reported to have used both hand dug and ox/horse driven methods. On the other hand, 18.1%, 0.2% and 0.1% of the holders have used hand dug, both tractor and ox/horse driven, and tractor-only methods for ploughing, respectively. This ascertained the fact that the use of a tractor for ploughing among the holders in the rural areas of the country is not common.

7.5 Methods Used for Soil Conservation

According to the data in Summary Table VI.11, the majority of the holders in Ethiopia reported using different methods of soil conservation. Of which, 17.9, 9.2 and 44.0 percent of holders have practiced terracing, water catchments and ploughing along the contour, respectively. On the other hand, about 0.8% of the total holders reported using afforestation method and about 6.6% of the holders reported to other methods of soil conservation.

7.6 Extension Packages and Use of Agricultural Credit and Advisory Services

Extension packages are outreach programs operating in rural areas of the country for private holdings aiming to transfer modern agricultural technologies to increase crop and livestock productivity. The programs are usually undertaken by follow-up and advisory services by the agricultural development agents. *A holder is said to be a participant of this program if and only if he/she obtains agricultural advices and apply the recommended inputs and related services such as close follow up by the development agents, supervision from Wereda and Zonal Agricultural Bureaus...etc.* The prevalence of different types of extension in Ethiopia packages was assessed during the enumeration. These include, rain shortage area packages, rain abundant area packages, post harvest technology packages, ...etc. Thus, the data showed that about 8.2% of the agricultural holders were covered by

rain abundant area extension packages. The total agricultural holders covered by all other types of extension packages listed in the table are insignificant.

SUMMARY TABLE VI.11: Number of Holders by Type of Farm Management Practices in Rural Areas, for Private Holdings

Farm Practices	Number of Holders Reporting	Percentage
Total Crop Holders	10312127	100
Source of Water for Irrigation		
Holdings who Practice Irrigation	1051250	10.19
River.....	731876	69.62
Lake.....	122535	11.66
Pond.....	114907	10.93
Other.....	81931	7.79
Method to Improve Soil Fertility		
Crop Rotation.....	7967844	77.27
Burning of Soil.....	577234	5.6
Reason for Not Using Chemical Fertilizer		
Do Not Know Advantages.....	1649296	
Too Expensive.....	881714	
Shortage of Money.....	4912043	
Insufficient Supply.....	421792	
No Credit Service.....	38150	
Suspicious of Efficacy.....	334487	
Other.....	2358801	
Method of Ploughing		
Hand Dug.....	1864987	18.09
Ox/Horse Driven.....	4540917	44.03
Tractor.....	9775	0.09
Hand Dug and Ox/Horse Driven.....	3818850	37.03
Tractor and Ox/Horse Driven.....	18769	0.18
Method of Soil Conservation		
Terracing.....	1846994	17.91
Water Catchments.....	949493	9.21
Afforestation.....	77648	0.75
Ploughing Along the Contour.....	4532326	43.95
Others.....	676436	6.56
All Holders	11062472	100
Participation in Extension Package by Type		
Rain Shortage Areas Package.....	189070	1.71
Rain Abundant Areas Package.....	902688	8.16
Post Harvest Technology Package.....	47278	0.43
Livestock Development Package.....	5541	0.05
Economically Important Crops Package.....	132291	1.2
Any Two or More Packages.....	60252	0.54
Reason For Not Participating in Extension Packages		
Do Not Know the Advantages.....	1514694	13.69
Shortage of Money.....	4029740	36.43
Suspicious of Efficacy.....	591350	5.35
Programs Not Available.....	1847715	16.7
Insufficient Arable Land.....	968814	8.76
Others.....	597336	5.4
Use of Credit or Advisory Services		
Credit Services.....	2097649	18.96
Advisory Services.....	2118895	19.15

In response to why they have not been covered by these extension packages since the program started, holders reported the reasons as follows: 36.4% of the holders reported shortage of money, 13.7% reported no knowledge about the advantage, 16.7% reported program not available, 5.4% reported suspicious of its efficiency, 8.8% reported insufficient arable land, and 5.4% reported other reasons.

In the country, there are institutions that provide credit and assist peasants by furnishing short and intermediate term loans for the purchase of chemical fertilizers, improved variety seeds and pesticides. These institutions not only give great emphasis to making loans to peasants but also aiding them with advice on farming practices. Then, data are collected by interviewing sampled holders on use of credit and advisory services and are presented in Summary Table VI.11. Thus, the data in this table shows that about 19.0 percent of holders used agricultural credit services and about 19.2 percent of the holders have obtained advice on agricultural practices.

Summary Table VI.12: Holders by Sources of Chemical Fertilizers and Cost of Chemical Fertilizers in Rural Areas for Private Holdings.

Sources and Type of Fertilizers	Number of Holders	Percent
Crop Holders	10297464	100.00
Sources		
Government.....	2469767	23.98
Private Organization.....	556497	5.40
Traders.....	781091	7.59
Others.....	166228	1.61
Do not Buy.....	6246041	60.66
Not Reported.....	92344	0.90
Type of Fertilizers	Cost in Birr/Quintal	
DAP.....	285	
UREA.....	216	

7.7 Sources and Cost of Chemical Fertilizers.

As illustrated in Summary Table VI.12, it is estimated that a total of 2,469.8 thousand holders (24.0%) in the country reported "Government" as their major sources of chemical fertilizers, while 556.5 thousand holders (5.4%) and 781.1 thousand holders (7.6%) mentioned private organization and traders as their major sources of chemical fertilizers,

respectively. Regardless of the source, the average cost was 285 Birr/Quintal for DAP and 216 Birr/Quintal for UREA.

Summary Table VI.13 Holders who Practice Irrigation by Sources of Water in Meher Season and Holders who Practice Belg from 1999/2000 to 2001/02 in Urban Areas

Sources of Water	Number of Holders	Percent
Those who Practice Irrigation in Meher Season (2001/02)		
Crop Holders	205084	100.00
Holders who Practice Irrigation	17168	8.37
Sources		
River.....	10145	59.09
Lake.....	2555	14.88
Well.....	745	4.34
Tap Water.....	2019	11.76
Others.....	1107	6.45
Not Stated.....	1439	8.38
Those who Practice Belg from 1999/2000 to 2001/02		
Crop Holders	205084	100.00
Holders who Practice Belg	59428	28.98
Male	49396	83.12
Female.....	10033	16.88

8. USES OF CROP SPECIFIC EXTENSION PACKAGE PROGRAMS

Extension package is one of the means by which productivity improves and thereby food production increases. Moreover, Agricultural Development Agents (ADA) assist the peasants by operating demonstration plots to provide information to agricultural holders on improved seed varieties, on use of fertilizers and pesticides, and improvements in production practices to increase yields. Further, advisory services are provided to holders who are willing to participate in the extension package programs.

8.1 Holders Participating in Crop Specific Extension Package Programs

In the rural areas of the country the distributions of holders participating in crop specific extension package programs are presented in Summary Table VI.14. Thus, 378.6, 88.0, 82.2, 44.8, 34.2, 31.0 and 17.8 thousand holders considered maize, Teff, wheat, barley, sorghum, Enset and haricot beans in crop specific extension package program, respectively. Moreover, 7 to 13 thousand holders each considered field peas, rapeseed, red pepper, onion and potatoes in crop specific extension packages. As can be observed from the data in the

table, most of this extension package programs were mainly practiced in Meher season by 553.2 thousand holders and the participation of holders in these programs were 37.5 thousand holders in Belg season (For details, see Summary Table VI.14).

8.2 Area Under Crop Specific Extension Package Programs

In the 2001/02 EASE, data on cropland area under extension package programs was collected in the country. Thus, Summary Table VI.14 shows that a total of 181.2 thousand hectares (1.9% of the total cropland area) was under extension package programs. Out of the total cropland area under extension package programs, 59.3% was under maize, 16.0% under Teff, 11.7% under wheat and 4.1% under sorghum and 3.7% was under barley. Nevertheless, the proportion of most of the specific crop areas under extension package programs were less than one percent in the country.

Summary Table VI.14: Number of Holders Participating Crop Specific Extension Package Program and Area under Crop Specific Extension Package Program By Season in Rural Areas, for Private Holdings.

Ext. Package by Crop	Rural				Meher		Belg	
	Holder	%	Area	%	Holder	Area	Holder	Area
Total	581994	100.00	181173	100.00	553199	176045	37485	5128
Teff	88033	15.13	28984	16.00	87515	28869	581	115
Barley	44840	7.70	6767	3.74	43055	6558	1953	209
Wheat	82186	14.12	21262	11.74	81658	21160	742	102
Maize.....	378564	65.05	107468	59.32	357666	104516	22997	2953
Sorghum	34178	5.87	7491	4.13	33422	7354	757	137
Rice	799	0.14	174	0.10	766	172	*	*
Field peas.....	7262	1.25	789	0.44	7059	764	238	25
Haricot beans.....	17758	3.05	1317	0.73	10874	920	6883	397
Chick peas.....	4838	0.83	887	0.49	3809	705	*	*
Lentils.....	2182	0.37	337	0.19	2150	336	*	*
Nueg	2842	0.49	429	0.24	2842	429	-	-
Linseed	2242	0.39	236	0.13	2174	235	*	*
Ground nuts.....	721	0.12	89	0.05	721	89	-	-
Sesame.....	1972	0.34	479	0.26	1972	479	-	-
Rapeseed.....	9184	1.58	481	0.27	9128	481	*	-
Other Grains.....	1994	0.34	*	*	1350	*	*	*
Tomatoes	3928	0.67	183	0.10	1473	73	2640	110
Red Pepper.....	8552	1.47	456	0.25	6731	357	1821	*
Onion	12434	2.14	572	0.32	5429	173	7222	399
Potatoes	12754	2.19	585	0.32	5395	220	7582	365
Sweet potatoes...	5698	0.98	202	0.11	5304	182	394	20
Enset	30976	5.32	1442	0.80	30976	1442	-	-
Other Permanent	*	*	*	*	*	*	-	-

**STATISTICAL TABLES PRESENTING
RESULTS AT
COUNTRY AND REGIONAL LEVELS**

Tables 6.1-6.59

TABLE 6.1: AREA OF CROPLAND UNDER IMPROVED FARM MANAGEMENT PRACTICES BY TYPE OF CROPS IN RURAL AREAS, FOR PRIVATE HOLDINGS

TYPE OF CROP	Total Crop		Improved Seed		Irrigation		Fertilizer		Pesticide	
	Hectare	Hectare	%	Hectare	%	Hectare	%	Hectare	%	
TOTAL	9731322	267672	2.75	170240	1.75	3755178	38.59	782364	8.04	
Grain Crops	8718831	252987	2.9	104125	1.19	3289672	37.73	764380	8.77	
Cereals	7074876	244750	3.46	91386	1.29	3023838	42.74	746949	10.56	
Teff	1868243	10841	0.58	11965	0.64	929835	49.77	303979	16.27	
Barley	955236	3457	0.36	7913	0.83	376987	39.47	84729	8.87	
Wheat	1065711	19507	1.83	4636	0.44	600909	56.39	292858	27.48	
Maize	1674228	205620	12.28	52692	3.15	767940	45.87	31618	1.89	
Sorghum	1176954	4173	0.35	12415	1.05	200398	17.03	19484	1.66	
Finger millet	282726	871	0.31	519	0.18	136964	48.44	10248	3.62	
Oats ('Aja')	43411	100	0.23	788	1.82	9994	23.02	3858	8.89	
Rice	8367	181	2.16	*	*	809	9.67	177	2.12	
Pulses	1166907	5668	0.49	9758	0.84	208325	17.85	13594	1.16	
Horse/Faba beans	371670	1394	0.38	929	0.25	96742	26.03	3623	0.97	
Field peas	204025	766	0.38	497	0.24	35247	17.28	5351	2.62	
Haricot beans	206771	1440	0.7	1767	0.85	52705	25.49	1983	0.96	
Chick peas	194981	1335	0.68	3088	1.58	11179	5.73	1136	0.58	
Lentils	75444	284	0.38	1154	1.53	4674	6.2	427	0.57	
Vetch/Grass peas	84986	265	0.31	1325	1.56	3255	3.83	815	0.96	
Soya	1802	144	7.99	*	*	870	48.28	43	2.39	
Fenugreek	19965	41	0.21	956	4.79	2743	13.74	212	1.06	
Gibto	7263	-	-	*	*	909	12.52	*	*	
Oil Seeds	430245	1643	0.38	711	0.17	50395	11.71	2779	0.65	
Neug	232260	379	0.16	293	0.13	24671	10.62	380	0.16	
Linseed	102076	276	0.27	75	0.07	7620	7.47	2043	2	
Ground nuts	16480	82	0.5	84	0.51	3424	20.78	77	0.47	
Sufflower	5550	257	4.63	43	0.77	792	14.27	25	0.45	
Sesame	58835	322	0.55	161	0.27	3977	6.76	127	0.22	
Rapeseed	15044	327	2.17	55	0.37	9911	65.88	127	0.84	
Other Grains	46803	926	1.98	2270	4.85	7113	15.2	1057	2.26	
Vegetables	98262	532	0.54	6398	6.51	50158	51.05	2858	2.91	
Lettuce	213	20	9.39	145	68.08	149	69.95	28	13.15	
Head cabbage	965	62	6.42	526	54.51	570	59.07	120	12.44	
Kale	24398	56	0.23	457	1.87	13833	56.7	360	1.48	
Tomatoes	3035	212	6.99	1990	65.57	1869	61.58	836	27.55	
Green peppers	4633	40	0.86	1013	21.86	2388	51.54	105	2.27	
Red peppers	55198	110	0.2	2134	3.87	26942	48.81	1368	2.48	
Swiss chard	158	20	12.66	45	28.48	74	46.84	*	*	
Others	9662	12	0.12	88	0.91	4334	44.86	37	0.38	
Root Crops	269478	1312	0.49	28161	10.45	161575	59.96	8459	3.14	
Beet root	669	64	9.57	247	36.92	406	60.69	*	*	
Carrot	827	107	12.94	279	33.74	555	67.11	8	0.97	
Onions	19787	606	3.06	7101	35.89	10899	55.08	2017	10.19	
Potatoes	162854	295	0.18	17306	10.63	110475	67.84	5138	3.15	
Garlic	5985	11	0.18	738	12.33	3279	54.79	37	0.62	
Taro ('Godere')	26092	29	0.11	93	0.36	10317	39.54	230	0.88	
Sweet potatoes	46343	197	0.43	1953	4.21	23108	49.86	917	1.98	
Others	6921	3	0.04	445	6.43	2536	36.64	104	1.5	
Permanent Crops	644752	12841	1.99	31555	4.89	253774	39.36	6667	1.03	
Fruit Crops	40076	454	1.13	5865	14.63	10615	26.49	165	0.41	
Avocado	2414	68	2.82	80	3.31	628	26.01	1	0.04	
Bananas	21268	95	0.45	3687	17.34	5398	25.38	19	0.09	
Guava (Zeytuna)	1224	94	7.68	298	24.35	416	33.99	5	0.41	
Lemons	749	6	0.8	197	26.3	192	25.63	2	0.27	
Mangoes	3642	57	1.57	297	8.15	1110	30.48	*	*	
Oranges	2402	28	1.17	435	18.11	828	34.47	24	1	
Papayas	2713	76	2.8	468	17.25	792	29.19	*	*	
Pineapples	171	*	*	*	*	8	4.68	-	-	
Others	5494	28	0.51	404	7.35	1241	22.59	*	*	
Stimulant Crops	358381	12086	3.37	21385	5.97	90475	25.25	5904	1.65	
Chat	96066	-	-	10830	11.27	40591	42.25	4174	4.34	
Coffee	243834	12086	4.96	8494	3.48	40831	16.75	1617	0.66	
Hops	18448	-	-	2060	11.17	9038	48.99	113	0.61	
Others	*	-	-	*	*	*	*	-	-	
Other Permanent Crops	246294	302	0.12	4306	1.75	152684	61.99	598	0.24	
Enset	233492	248	0.11	1066	0.46	148906	63.77	515	0.22	
Sugar Cane	11775	30	0.25	3191	27.1	3385	28.75	74	0.63	
Others	1027	23	2.24	49	4.77	394	38.36	10	0.97	

TABLE 6.1.1: RURAL MEHER

TYPE OF CROP	Total Crop			Improved Seed			Irrigation			Fertilizer			Pesticide	
	Hectare	Hectare	%	Hectare	%	Hectare	%	Hectare	%	Hectare	%	Hectare	%	
TOTAL	8699882	260614	3	98702	1.13	3428876	39.41	730999	8.4					
Grain Crops	7854225	246712	3.14	56524	0.72	3071825	39.11	719547	9.16					
Cereals	6370106	239029	3.75	49824	0.78	2842279	44.62	704006	11.05					
Teff	1818375	9750	0.54	8486	0.47	922689	50.74	299282	16.46					
Barley	771515	3159	0.41	3809	0.49	326432	42.31	74127	9.61					
Wheat	1005000	19359	1.93	3177	0.32	587104	58.42	284241	28.28					
Maize	1323038	201605	15.24	21955	1.66	670393	50.67	20632	1.56					
Sorghum	1132496	4034	0.36	11327	1	190691	16.84	12410	1.1					
Finger millet	281455	867	0.31	495	0.18	136640	48.55	10117	3.59					
Oats ('Aja')	29863	74	0.25	120	0.4	7522	25.19	3020	10.11					
Rice	8365	181	2.16	*	*	808	9.66	177	2.12					
Pulses	1016787	5188	0.51	4231	0.42	172753	16.99	11880	1.17					
Horse/Faba beans	369151	1388	0.38	864	0.23	96117	26.04	3590	0.97					
Field peas	175222	751	0.43	247	0.14	32618	18.62	5178	2.96					
Haricot beans	119879	1056	0.88	582	0.49	22840	19.05	756	0.63					
Chick peas	184801	1276	0.69	1226	0.66	9891	5.35	997	0.54					
Lentils	60138	279	0.46	361	0.6	3976	6.61	419	0.7					
Vetch/Grass peas	83523	260	0.31	811	0.97	3176	3.8	793	0.95					
Soya	1769	144	8.14	*	*	861	48.67	43	2.43					
Fenugreek	15051	34	0.23	99	0.66	2370	15.75	102	0.68					
Gibbo	7254	-	-	*	*	903	12.45	*	*					
Oil Seeds	426130	1639	0.38	675	0.16	50134	11.76	2752	0.65					
Neug	232201	379	0.16	293	0.13	24670	10.62	380	0.16					
Linseed	98596	275	0.28	57	0.06	7513	7.62	2020	2.05					
Ground nuts	16035	82	0.51	75	0.47	3284	20.48	74	0.46					
Sufflower	5474	*	*	36	0.66	782	14.29	23	0.42					
Sesame	58780	322	0.55	158	0.27	3975	6.76	127	0.22					
Rapeseed	15044	327	2.17	55	0.37	9910	65.87	127	0.84					
Other Grains	41202	856	2.08	1793	4.35	6659	16.16	910	2.21					
Vegetables	84029	278	0.33	3200	3.81	42375	50.43	1909	2.27					
Lettuce	128	11	8.59	71	55.47	86	67.19	24	18.75					
Head cabbage	564	30	5.32	236	41.84	336	59.57	57	10.11					
Kale	14528	23	0.16	170	1.17	8409	57.88	62	0.43					
Tomatoes	1545	77	4.98	752	48.67	895	57.93	357	23.11					
Green peppers	3728	14	0.38	453	12.15	1931	51.8	45	1.21					
Red peppers	54376	104	0.19	1452	2.67	26623	48.96	1341	2.47					
Swiss chard	116	7	6.03	10	8.62	49	42.24	*	*					
Others	9042	11	0.12	57	0.63	4046	44.75	22	0.24					
Root Crops	116876	783	0.67	7423	6.35	60901	52.11	2876	2.46					
Beet root	405	44	10.86	87	21.48	245	60.49	*	*					
Carrot	578	86	14.88	139	24.05	380	65.74	*	*					
Onions	10489	349	3.33	2410	22.98	6132	58.46	837	7.98					
Potatoes	36736	116	0.32	2259	6.15	24607	66.98	1522	4.14					
Garlic	4802	7	0.15	385	8.02	2644	55.06	24	0.5					
Taro ('Godere')	23591	29	0.12	60	0.25	9154	38.8	46	0.19					
Sweet potatoes	34027	149	0.44	1660	4.88	15640	45.96	347	1.02					
Others	6249	3	0.05	422	6.75	2098	33.57	90	1.44					
Permanent Crops	644752	12841	1.99	31555	4.89	253774	39.36	6667	1.03					
Fruit Crops	40076	454	1.13	5865	14.63	10615	26.49	165	0.41					
Avocado	2414	68	2.82	80	3.31	628	26.01	1	0.04					
Bananas	21268	95	0.45	3687	17.34	5398	25.38	19	0.09					
Guava (Zeytuna)	1224	94	7.68	298	24.35	416	33.99	5	0.41					
Lemons	749	6	0.8	197	26.3	192	25.63	2	0.27					
Mangoes	3642	57	1.57	297	8.15	1110	30.48	*	*					
Oranges	2402	28	1.17	435	18.11	828	34.47	24	1					
Papayas	2713	76	2.8	468	17.25	792	29.19	*	*					
Pineapples	171	*	*	*	*	8	4.68	-	-					
Others	5494	28	0.51	404	7.35	1241	22.59	*	*					
Stimulant Crops	358381	12086	3.37	21385	5.97	90475	25.25	5904	1.65					
Chat	96066	-	-	10830	11.27	40591	42.25	4174	4.34					
Coffee	243834	12086	4.96	8494	3.48	40831	16.75	1617	0.66					
Hops	18448	-	-	2060	11.17	9038	48.99	113	0.61					
Others	*	-	-	*	*	*	*	-	-					
Other Permanent Crops	246294	302	0.12	4306	1.75	152684	61.99	598	0.24					
Enset	233492	248	0.11	1066	0.46	148906	63.77	515	0.22					
Sugar Cane	11775	30	0.25	3191	27.1	3385	28.75	74	0.63					
Others	1027	23	2.24	49	4.77	394	38.36	10	0.97					

TABLE 6.1.2: RURAL BELG

TYPE OF CROP	Total Crop			Improved Seed		Irrigation		Fertilizer		Pesticide	
	Hectare	Hectare	%	Hectare	%	Hectare	%	Hectare	%	Hectare	%
TOTAL	1031441	7059	0.68	71537	6.94	326302	31.64	51365	4.98		
Grain Crops.....	864606	6275	0.73	47601	5.51	217846	25.2	44832	5.19		
Cereals	704770	5721	0.81	41561	5.9	181559	25.76	42944	6.09		
Teff.....	49868	1091	2.19	3479	6.98	7146	14.33	4696	9.42		
Barley.....	183721	298	0.16	4104	2.23	50556	27.52	10602	5.77		
Wheat.....	60711	147	0.24	1458	2.4	13805	22.74	8617	14.19		
Maize.....	351191	4015	1.14	30737	8.75	97547	27.78	10986	3.13		
Sorghum.....	44458	139	0.31	1088	2.45	9707	21.83	7074	15.91		
Finger millet....	1271	*	*	24	1.89	324	25.49	131	10.31		
Oats ('Aja').....	13548	*	*	669	4.94	2473	18.25	839	6.19		
Rice.....	*	*	*	*	*	*	*	*	*		
Pulses	150120	481	0.32	5527	3.68	35571	23.7	1714	1.14		
Horse/Faba.....	2519	*	*	65	2.58	625	24.81	33	1.31		
Field peas.....	28803	*	*	249	0.86	2629	9.13	173	0.6		
Haricot beans....	86892	384	0.44	1186	1.36	29865	34.37	1227	1.41		
Chick peas.....	10180	*	*	1863	18.3	1287	12.64	139	1.37		
Lentils.....	15306	*	*	793	5.18	698	4.56	9	0.06		
Vetch/Grass.....	1463	*	*	514	35.13	79	5.4	*	*		
Soya.....	32	*	*	*	*	9	28.13	*	*		
Fenugreek.....	4915	7	0.14	857	17.44	373	7.59	110	2.24		
Gibto.....	9	*	*	*	*	*	*	*	*		
Oil Seeds	4116	*	*	37	0.9	261	6.34	*	*		
Neug.....	59	*	*	*	*	*	*	*	*		
Linseed.....	3480	*	*	*	*	107	3.07	*	*		
Ground nuts.....	445	*	*	*	*	*	*	*	*		
Sufflower.....	76	*	*	*	*	10	13.16	*	*		
Sesame.....	55	*	*	*	*	3	5.45	*	*		
Rapeseed.....	*	*	*	*	*	*	*	*	*		
Other Grains.....	5601	*	*	477	8.52	454	8.11	147	2.62		
Vegetables	14233	254	1.78	3198	22.47	7783	54.68	950	6.67		
Lettuce.....	85	9	10.59	75	88.24	62	72.94	*	*		
Head cabbage.....	401	32	7.98	291	72.57	234	58.35	63	15.71		
Kale.....	9870	33	0.33	287	2.91	5424	54.95	298	3.02		
Tomatoes.....	1490	134	8.99	1238	83.09	973	65.3	479	32.15		
Green peppers.....	905	26	2.87	560	61.88	458	50.61	*	*		
Red peppers.....	822	6	0.73	682	82.97	319	38.81	27	3.28		
Swiss chard.....	42	12	28.57	36	85.71	25	59.52	*	*		
Others.....	620	*	*	30	4.84	288	46.45	15	2.42		
Root Crops.....	152602	529	0.35	20738	13.59	100673	65.97	5583	3.66		
Beet root.....	264	20	7.58	160	60.61	161	60.98	*	*		
Carrot.....	249	21	8.43	139	55.82	176	70.68	6	2.41		
Onions.....	9299	257	2.76	4691	50.45	4767	51.26	1179	12.68		
Potatoes.....	126118	179	0.14	15047	11.93	85868	68.09	3616	2.87		
Garlic.....	1183	*	*	353	29.84	634	53.59	13	1.1		
Taro.....	2501	*	*	32	1.28	1163	46.5	184	7.36		
Sweet potatoes.....	12316	47	0.38	293	2.38	7468	60.64	571	4.64		
Others.....	672	*	*	23	3.42	438	65.18	14	2.08		

TABLE 6.2: AREA OF CROPLAND UNDER IMPROVED FARM MANAGEMENT PRACTICES BY TYPE OF CROPS IN URBAN AREAS, MEHER SEASON

TYPE OF CROP	Total Crop		Improved Seed		Irrigation		Fertilizer		Pesticide	
	Hectare	Hectare	%	Hectare	%	Hectare	%	Hectare	%	
TOTAL	161289	12882	7.99	5496	3.41	62755	38.91	31950	19.81	
Grain Crops	132810	10582	7.97	2396	1.8	54588	41.1	30422	22.91	
Cereals	112551	10188	9.05	2229	1.98	51813	46.04	29562	26.27	
Teff	27707	1129	4.07	482	1.74	16270	58.72	10730	38.73	
Barley	10441	250	2.39	103	0.99	5052	48.39	2865	27.44	
Wheat	24100	2201	9.13	114	0.47	17129	71.07	13540	56.18	
Maize	27808	6243	22.45	1146	4.12	10399	37.4	1315	4.73	
Sorghum	18246	292	1.6	363	1.99	1583	8.68	705	3.86	
Finger millet	3368	63	1.87	17	0.5	1215	36.07	266	7.9	
Oats ('Aja')	776	*	*	2	0.26	153	19.72	132	17.01	
Rice	106	6	5.66	3	2.83	11	10.38	9	8.49	
Pulses	11302	255	2.26	138	1.22	2235	19.78	526	4.65	
Horse/Faba beans	3327	39	1.17	10	0.3	843	25.34	142	4.27	
Field peas	1658	13	0.78	4	0.24	344	20.75	128	7.72	
Haricot beans	2764	160	5.79	49	1.77	679	24.57	100	3.62	
Chick peas	1459	20	1.37	27	1.85	112	7.68	77	5.28	
Lentils	663	7	1.06	18	2.71	59	8.9	24	3.62	
Vetch/Grass peas	1030	5	0.49	29	2.82	51	4.95	38	3.69	
Soya	94	9	9.57	*	*	*	*	*	*	
Fenugreek	274	3	1.09	*	*	48	17.52	18	6.57	
Gibto	*	*	*	*	*	*	*	*	*	
Oil Seeds	7926	124	1.56	15	0.19	394	4.97	288	3.63	
Neug	1941	*	*	*	*	156	8.04	14	0.72	
Linseed	1546	21	1.36	*	*	130	8.41	59	3.82	
Ground nuts	448	3	0.67	2	0.45	24	5.36	1	0.22	
Safflower	12	*	*	*	*	*	*	*	*	
Sesame	3912	*	*	*	*	27	0.69	211	5.39	
Rapeseed	*	*	*	*	*	*	*	*	*	
Other Grains	1032	*	*	15	1.45	147	14.24	45	4.36	
Vegetables	2010	174	8.66	520	25.87	1028	51.14	352	17.51	
Lettuce	35	9	25.71	34	97.14	31	88.57	2	5.71	
Head cabbage	27	*	*	22	81.48	16	59.26	10	37.04	
Kale	530	20	3.77	101	19.06	303	57.17	*	*	
Tomatoes	265	70	26.42	221	83.4	192	72.45	205	77.36	
Green peppers	40	*	*	22	55	16	40	13	32.5	
Red peppers	1004	21	2.09	29	2.89	379	37.75	67	6.67	
Swiss chard	*	*	*	*	*	*	*	2	*	
Others	25	*	*	*	*	*	*	*	*	
Root Crops	3453	*	*	776	22.47	1705	49.38	665	19.26	
Beet root	18	*	*	14	77.78	14	77.78	*	*	
Carrot	*	*	*	*	*	*	*	9	*	
Onions	657	109	16.59	389	59.21	494	75.19	279	42.47	
Potatoes	1292	25	1.93	135	10.45	518	40.09	190	14.71	
Garlic	58	6	10.34	14	24.14	31	53.45	4	6.9	
Taro ('Godere')	414	1	0.24	*	*	155	37.44	*	*	
Sweet potatoes	548	13	2.37	13	2.37	247	45.07	*	*	
Others	256	*	*	*	*	43	16.8	*	*	
Permanent Crops	23016	1809	7.86	1804	7.84	5433	23.61	511	2.22	
Fruit Crops	2386	167	7	550	23.05	720	30.18	90	3.77	
Avocado	505	32	6.34	*	*	252	49.9	*	*	
Bananas	670	*	*	163	24.33	190	28.36	17	2.54	
Guava (Zeytuna)	204	8	3.92	66	32.35	27	13.24	*	*	
Lemons	48	*	*	38	79.17	*	*	*	*	
Mangoes	359	19	5.29	57	15.88	85	23.68	6	1.67	
Oranges	157	*	*	42	26.75	36	22.93	7	4.46	
Papayas	270	24	8.89	104	38.52	80	29.63	39	14.44	
Pineapples	1	*	*	*	*	*	*	*	*	
Others	173	*	*	22	12.72	28	16.18	10	5.78	
Stimulant Crops	14899	1600	10.74	762	5.11	2268	15.22	397	2.66	
Chat	1538	*	*	346	22.5	524	34.07	218	14.17	
Coffee	12711	1592	12.52	316	2.49	1489	11.71	101	0.79	
Hops	650	8	1.23	100	15.38	254	39.08	*	*	
Others	*	*	*	*	*	*	*	*	*	
Other Permanent Crops	5731	43	0.75	492	8.58	2445	42.66	24	0.42	
Enset	4467	35	0.78	151	3.38	2073	46.41	8	0.18	
Sugar Cane	1233	7	0.57	326	26.44	*	*	15	1.22	
Others	31	*	*	*	*	7	22.58	*	*	

TABLE 6.3: AREA OF CROPLAND UNDER IMPROVED FARM MANAGEMENT PRACTICES BY CROP CATEGORY IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	All Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	9892611	280554	2.84	175736	1.78	3817932	38.59	814314	8.23
Tigray	568761	7265	1.28	19050	3.35	249588	43.88	9065	1.59
Afar	11650	1159	9.95	8739	75.01	1329	11.41	1076	9.24
Amhara	3200280	87033	2.72	56596	1.77	1067390	33.35	47930	1.5
Oromia	4433706	158037	3.56	63423	1.43	1876828	42.33	633646	14.29
Somali	78105	1000	1.28	3101	3.97	8321	10.65	273	0.35
Benishangul-Gumuz	147367	3554	2.41	1225	0.83	23687	16.07	1269	0.86
S.N.N.P.R	1394194	21053	1.51	21230	1.52	562469	40.34	118915	8.53
Gambella	16580	492	2.97	17	0.1	648	3.91	117	0.71
Harari	9369	89	0.95	315	3.36	5298	56.55	169	1.8
Addis Ababa	24286	719	2.96	*	*	19400	79.88	1779	7.33
Dire Dawa	8313	153	1.84	1487	17.89	2974	35.78	75	0.9

TABLE 6.3.1: RURAL HOLDINGS

Geographic Area	All Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	9731322	267672	2.75	170240	1.75	3755178	38.59	782364	8.04
Tigray	557418	6794	1.22	18423	3.31	245896	44.11	8383	1.5
Afar	11015	1090	9.9	8132	73.83	1210	10.99	954	8.66
Amhara	3176634	85403	2.69	55710	1.75	1061119	33.4	46720	1.47
Oromia	4340480	149568	3.45	61428	1.42	1837712	42.34	608864	14.03
Somali	76271	921	1.21	2911	3.82	8012	10.5	156	0.2
Benishangul-Gumuz	141716	3302	2.33	1182	0.83	23061	16.27	1074	0.76
S.N.N.P.R	1373689	19651	1.43	20723	1.51	552601	40.23	115296	8.39
Gambella	15671	442	2.82	*	*	636	4.06	108	0.69
Harari	9062	76	0.84	290	3.2	5124	56.54	120	1.32
Addis Ababa	21244	292	1.37	39	0.18	16861	79.37	633	2.98
Dire Dawa	8122	131	1.61	1393	17.15	2947	36.28	57	0.7

TABLE 6.3.2: RURAL MEHER

Geographic Area	All Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	8699882	260614	3	98702	1.13	3428876	39.41	730999	8.4
Tigray	544351	6295	1.16	10633	1.95	241649	44.39	8224	1.51
Afar	10085	946	9.38	7399	73.37	1057	10.48	935	9.27
Amhara	2953354	84839	2.87	23582	0.8	995839	33.72	44843	1.52
Oromia	3868591	145645	3.76	37871	0.98	1705012	44.07	579480	14.98
Somali	68257	892	1.31	2615	3.83	7311	10.71	152	0.22
Benishangul-Gumuz	140811	3265	2.32	726	0.52	22730	16.14	1044	0.74
S.N.N.P.R	1064743	17842	1.68	14420	1.35	430364	40.42	95461	8.97
Gambella	12684	421	3.32	*	*	593	4.68	84	0.66
Harari	8073	76	0.94	246	3.05	4768	59.06	117	1.45
Addis Ababa	21196	285	1.34	15	0.07	16834	79.42	623	2.94
Dire Dawa	7737	106	1.37	1188	15.35	2719	35.14	*	*

TABLE 6.3.3: RURAL BELG

Geographic Area	All Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	1031441	7059	0.68	71537	6.94	326302	31.64	51365	4.98
Tigray	13067	499	3.82	7790	59.62	4247	32.5	160	1.22
Afar	929	*	*	733	78.9	152	16.36	*	*
Amhara	223280	563	0.25	32129	14.39	65280	29.24	1876	0.84
Oromia	471888	3924	0.83	23557	4.99	132700	28.12	29384	6.23
Somali	8015	29	0.36	296	3.69	701	8.75	*	*
Benishangul-Gumuz	905	*	*	456	50.39	331	36.57	30	3.31
S.N.N.P.R	308946	1809	0.59	6302	2.04	122237	39.57	19835	6.42
Gambella	2987	21	0.7	*	*	43	1.44	24	0.8
Harari	989	*	*	*	*	356	36	*	*
Addis Ababa	49	7	14.29	24	48.98	27	55.1	*	*
Dire Dawa	385	*	*	205	53.25	227	58.96	20	5.19

TABLE 6.3.4: URBAN HOLDINGS

Geographic Area	All Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	161289	12882	7.99	5496	3.41	62755	38.91	31950	19.81
Tigray	11343	470	4.14	627	5.53	3692	32.55	682	6.01
Afar	635	69	10.87	607	95.59	119	18.74	121	19.06
Amhara	23646	1630	6.89	886	3.75	6271	26.52	1211	5.12
Oromia	93226	8469	9.08	1995	2.14	39116	41.96	24782	26.58
Somali	1834	79	4.31	189	10.31	309	16.85	117	6.38
Benishangul-Gumuz	5651	252	4.46	43	0.76	626	11.08	195	3.45
S.N.N.P.R	20506	1402	6.84	508	2.48	9868	48.12	3620	17.65
Gambella	909	50	5.5	*	*	*	*	10	1.1
Harari	307	13	4.23	24	7.82	174	56.68	*	*
Addis Ababa	3042	427	14.04	*	*	2539	83.46	1145	37.64
Dire Dawa	190	22	11.58	95	50	28	14.74	18	9.47

TABLE 6.4: AREA OF CROPLAND UNDER IMPROVED FARM MANAGEMENT PRACTICES BY CROP CATEGORY IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Grain Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	8851641	263569	2.98	106522	1.2	3344260	37.78	794802	8.98
Tigray	558419	6831	1.22	15771	2.82	245412	43.95	8898	1.59
Afar	10674	928	8.69	7794	73.02	863	8.09	739	6.92
Amhara	3079336	86016	2.79	32411	1.05	999942	32.47	46355	1.51
Oromia	3972917	145859	3.67	32924	0.83	1690485	42.55	621369	15.64
Somali	69027	910	1.32	2113	3.06	6852	9.93	228	0.33
Benishangul-Gumuz	142109	3397	2.39	470	0.33	22059	15.52	1256	0.88
S.N.N.P.R	969679	18749	1.93	13898	1.43	353223	36.43	114009	11.76
Gambella	11816	223	1.89	*	*	542	4.59	112	0.95
Harari	7061	88	1.25	148	2.1	3816	54.04	77	1.09
Addis Ababa	23531	436	1.85	30	0.13	18761	79.73	1710	7.27
Dire Dawa	7071	134	1.9	953	13.48	2305	32.6	49	0.69

TABLE 6.4.1: RURAL HOLDINGS

Geographic Area	Grain Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	8718831	252987	2.9	104125	1.19	3289672	37.73	764380	8.77
Tigray	547444	6403	1.17	15384	2.81	241829	44.17	8250	1.51
Afar	10158	918	9.04	7295	71.82	846	8.33	729	7.18
Amhara	3056907	84542	2.77	32142	1.05	994201	32.52	45308	1.48
Oromia	3897164	138882	3.56	32142	0.82	1654572	42.46	597417	15.33
Somali	67278	836	1.24	1953	2.9	6575	9.77	116	0.17
Benishangul-Gumuz	136741	3162	2.31	459	0.34	21484	15.71	1062	0.78
S.N.N.P.R	956970	17576	1.84	13718	1.43	346946	36.25	110671	11.56
Gambella	11392	211	1.85	*	*	529	4.64	103	0.9
Harari	6850	75	1.09	136	1.99	3703	54.06	62	0.91
Addis Ababa	21005	267	1.27	*	*	16696	79.49	622	2.96
Dire Dawa	6922	116	1.68	891	12.87	2289	33.07	41	0.59

TABLE 6.4.2: RURAL MEHER

Geographic Area	Grain Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	7854225	246712	3.14	56524	0.72	3071825	39.11	719547	9.16
Tigray	536165	6111	1.14	9318	1.74	238752	44.53	8175	1.52
Afar	9391	*	*	6725	71.61	763	8.12	726	7.73
Amhara	2898100	84198	2.91	14539	0.5	965374	33.31	44328	1.53
Oromia	3475511	135167	3.89	15567	0.45	1556467	44.78	572091	16.46
Somali	59404	810	1.36	1695	2.85	5885	9.91	112	0.19
Benishangul-Gumuz	136250	3159	2.32	103	0.08	21342	15.66	1035	0.76
S.N.N.P.R	697388	15843	2.27	7692	1.1	260548	37.36	92291	13.23
Gambella	8470	190	2.24	1	0.01	487	5.75	79	0.93
Harari	5900	75	1.27	101	1.71	3366	57.05	61	1.03
Addis Ababa	20981	266	1.27	*	*	16689	79.54	622	2.96
Dire Dawa	6665	101	1.52	783	11.75	2153	32.3	*	*

TABLE 6.4.3: RURAL BELG

Geographic Area	Grain Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	864606	6275	0.73	47601	5.51	217846	25.2	44832	5.19
Tigray	11279	291	2.58	6066	53.78	3077	27.28	74	0.66
Afar	767	*	*	571	74.45	84	10.95	3	0.39
Amhara	158807	344	0.22	17604	11.09	28827	18.15	980	0.62
Oromia	421653	3715	0.88	16574	3.93	98105	23.27	25326	6.01
Somali	7874	26	0.33	258	3.28	690	8.76	*	*
Benishangul-Gumuz	491	*	*	356	72.51	142	28.92	27	5.5
S.N.N.P.R	259582	1733	0.67	6026	2.32	86398	33.28	18380	7.08
Gambella	2922	21	0.72	*	*	42	1.44	24	0.82
Harari	950	-	-	*	*	338	35.58	*	*
Addis Ababa	*	*	*	*	*	*	*	-	-
Dire Dawa	257	*	*	109	42.41	136	52.92	13	5.06

TABLE 6.4.4: URBAN HOLDINGS

Geographic Area	Grain Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	132810	10582	7.97	2396	1.8	54588	41.1	30422	22.91
Tigray	10974	428	3.9	387	3.53	3583	32.65	648	5.9
Afar	516	*	*	498	96.51	16	3.1	10	1.94
Amhara	22429	1474	6.57	269	1.2	5741	25.6	1047	4.67
Oromia	75753	6977	9.21	782	1.03	35913	47.41	23952	31.62
Somali	1750	74	4.23	160	9.14	277	15.83	112	6.4
Benishangul-Gumuz	5368	235	4.38	11	0.2	575	10.71	194	3.61
S.N.N.P.R	12709	1174	9.24	180	1.42	6277	49.39	3338	26.26
Gambella	425	*	*	*	*	*	*	9	2.12
Harari	211	12	5.69	12	5.69	113	53.55	15	7.11
Addis Ababa	2526	169	6.69	29	1.15	2065	81.75	1088	43.07
Dire Dawa	149	*	*	62	41.61	15	10.07	8	5.37

TABLE 6.5: AREA OF CROPLAND UNDER IMPROVED FARM MANAGEMENT PRACTICES BY CROP CATEGORY IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Cereals								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	7187427	254938	3.55	93615	1.3	3075651	42.79	776512	10.8
Tigray	481417	6568	1.36	13761	2.86	234415	48.69	8265	1.72
Afar	9514	*	*	6872	72.23	838	8.81	215	2.26
Amhara	2350342	82237	3.5	26325	1.12	919631	39.13	43083	1.83
Oromia	3334057	142934	4.29	30938	0.93	1576029	47.27	609866	18.29
Somali	66091	859	1.3	2002	3.03	6663	10.08	199	0.3
Benishangul-Gumuz	107884	3082	2.86	391	0.36	18456	17.11	1184	1.1
S.N.N.P.R	796706	18094	2.27	12202	1.53	295845	37.13	111812	14.03
Gambella	11036	220	1.99	*	*	533	4.83	92	0.83
Harari	5301	73	1.38	143	2.7	3205	60.46	59	1.11
Addis Ababa	18246	427	2.34	24	0.13	17847	97.81	1690	9.26
Dire Dawa	6832	126	1.84	946	13.85	2188	32.03	47	0.69

TABLE 6.5.1: RURAL HOLDINGS

Geographic Area	Cereals								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	7074876	244750	3.46	91386	1.29	3023838	42.74	746949	10.56
Tigray	472275	6169	1.31	13387	2.83	230986	48.91	7648	1.62
Afar	9006	*	*	6382	70.86	824	9.15	*	*
Amhara	2333370	80816	3.46	26115	1.12	914092	39.17	42312	1.81
Oromia	3267760	136240	4.17	30194	0.92	1541803	47.18	586340	17.94
Somali	64407	786	1.22	1883	2.92	6424	9.97	111	0.17
Benishangul-Gumuz	104321	2860	2.74	381	0.37	17971	17.23	1001	0.96
S.N.N.P.R	785182	16934	2.16	12025	1.53	290087	36.95	108545	13.82
Gambella	10659	208	1.95	*	*	522	4.9	83	0.78
Harari	5115	61	1.19	133	2.6	3100	60.61	46	0.9
Addis Ababa	16098	259	1.61	*	*	15857	98.5	619	3.85
Dire Dawa	6683	108	1.62	884	13.23	2173	32.52	39	0.58

TABLE 6.5.2: RURAL MEHER

Geographic Area	Cereals								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	6370106	239029	3.75	49824	0.78	2842279	44.62	704006	11.05
Tigray	462526	5895	1.27	8449	1.83	228134	49.32	7580	1.64
Afar	8291	*	*	5813	70.11	745	8.99	*	*
Amhara	2216029	80596	3.64	11815	0.53	888625	40.1	41609	1.88
Oromia	2911616	132791	4.56	14488	0.5	1453490	49.92	561590	19.29
Somali	57041	765	1.34	1631	2.86	5778	10.13	108	0.19
Benishangul-Gumuz	103942	2856	2.75	96	0.09	17851	17.17	974	0.94
S.N.N.P.R	575655	15340	2.66	6658	1.16	226369	39.32	91192	15.84
Gambella	7877	188	2.39	1	0.01	480	6.09	59	0.75
Harari	4625	61	1.32	97	2.1	2920	63.14	45	0.97
Addis Ababa	16078	259	1.61	*	*	15851	98.59	619	3.85
Dire Dawa	6426	93	1.45	775	12.06	2037	31.7	*	*

TABLE 6.5.2a: Teff

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	1818375	9750	0.54	8486	0.47	922689	50.74	299282	16.46
Tigray	124699	1000	0.8	2410	1.93	64494	51.72	3013	2.42
Afar	695	*	*	-	-	116	16.69	21	3.02
Amhara	778202	4589	0.59	3329	0.43	351170	45.13	18022	2.32
Oromia	762120	2323	0.3	1395	0.18	436740	57.31	240690	31.58
Somali	*	-	-	-	-	-	-	-	-
Benishangul-Gumuz	10737	*	*	*	*	3281	30.56	207	1.93
S.N.N.P.R	133882	1727	1.29	1351	1.01	58972	44.05	36853	27.53
Gambella	5	-	-	-	-	-	-	-	-
Harari	*	-	-	-	-	*	*	-	-
Addis Ababa	7983	99	1.24	-	-	7916	99.16	475	5.95
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.5.2b: Barley

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	771515	3159	0.41	3809	0.49	326432	42.31	74127	9.61
Tigray	53238	698	1.31	683	1.28	27128	50.96	1523	2.86
Afar	21	-	-	-	-	6	28.57	*	*
Amhara	274628	1010	0.37	2309	0.84	73359	26.71	2326	0.85
Oromia	367426	1187	0.32	782	0.21	192097	52.28	65297	17.77
Somali	6512	*	*	*	*	*	*	*	*
Benishangul-Gumuz	1047	*	*	-	-	360	34.38	-	-
S.N.N.P.R	68463	231	0.34	29	0.04	33089	48.33	4968	7.26
Gambella	9	-	-	-	-	-	-	-	-
Harari	18	-	-	-	-	*	*	-	-
Addis Ababa	148	*	*	-	-	88	59.46	*	*
Dire Dawa	*	-	-	*	*	*	*	-	-

TABLE 6.5.2c: Wheat

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	1005000	19359	1.93	3177	0.32	587104	58.42	284241	28.28
Tigray	63216	3019	4.78	1224	1.94	31041	49.1	1874	2.96
Afar	50	-	-	-	-	5	10	*	*
Amhara	286247	3855	1.35	956	0.33	123142	43.02	9961	3.48
Oromia	545923	11142	2.04	899	0.16	363230	66.54	228652	41.88
Somali	8354	114	1.36	*	*	815	9.76	*	*
Benishangul-Gumuz	891	*	*	-	-	416	46.69	*	*
S.N.N.P.R	92352	1050	1.14	*	*	60555	65.57	43598	47.21
Gambella	*	-	-	-	-	-	-	-	-
Harari	100	*	*	*	*	83	83	-	-
Addis Ababa	7864	160	2.03	-	-	7816	99.39	134	1.7
Dire Dawa	*	-	-	*	*	*	*	-	-

TABLE 6.5.2d: Maize

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	1323038	201605	15.24	21955	1.66	670393	50.67	20632	1.56
Tigray	52218	456	0.87	1072	2.05	39750	76.12	534	1.02
Afar	6100	*	*	5688	93.25	561	9.2	*	*
Amhara	296356	69109	23.32	2273	0.77	211905	71.5	2536	0.86
Oromia	729462	116765	16.01	7201	0.99	342780	46.99	14958	2.05
Somali	20847	381	1.83	854	4.1	2500	11.99	*	*
Benishangul-Gumuz	20482	2530	12.35	62	0.3	8223	40.15	136	0.66
S.N.N.P.R	191490	11990	6.26	4660	2.43	63696	33.26	2191	1.14
Gambella	5110	143	2.8	1	0.02	418	8.18	52	1.02
Harari	668	37	5.54	*	*	458	68.56	*	*
Addis Ababa	47	-	-	*	*	21	44.68	-	-
Dire Dawa	257	*	*	108	42.02	82	31.91	-	-

TABLE 6.5.2e: Sorghum

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	1132496	4034	0.36	11327	1	190691	16.84	12410	1.1
Tigray	114059	482	0.42	2940	2.58	37102	32.53	227	0.2
Afar	1405	5	0.36	105	7.47	56	3.99	*	*
Amhara	409473	1496	0.37	2110	0.52	37150	9.07	2230	0.54
Oromia	437398	1211	0.28	4127	0.94	97210	22.22	7479	1.71
Somali	20824	233	1.12	697	3.35	2145	10.3	*	*
Benishangul-Gumuz	52375	139	0.27	*	*	3790	7.24	124	0.24
S.N.N.P.R	84276	338	0.4	596	0.71	8861	10.51	2230	2.65
Gambella	2664	39	1.46	-	-	54	2.03	*	*
Harari	3835	14	0.37	*	*	2366	61.69	35	0.91
Addis Ababa	27	-	-	-	-	*	*	-	-
Dire Dawa	6160	79	1.28	666	10.81	-1952	31.69	*	*

TABLE 6.5.2f: Finger Millet

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	281455	867	0.31	495	0.18	136640	48.55	10117	3.59
Tigray	54693	240	0.44	118	0.22	28567	52.23	392	0.72
Afar	*	-	-	*	*	-	-	-	-
Amhara	155527	367	0.24	*	*	90321	58.07	6467	4.16
Oromia	49336	117	0.24	47	0.1	15045	30.49	1496	3.03
Somali	*	-	-	-	-	*	*	-	-
Benishangul-Gumuz	17279	142	0.82	*	*	1699	9.83	495	2.86
S.N.N.P.R	4527	*	*	-	-	1005	22.2	1267	27.99
Gambella	48	*	*	-	-	*	*	-	-
Harari	*	*	*	-	-	*	*	-	-
Addis Ababa	*	-	-	-	-	*	*	-	-
Dire Dawa	*	-	-	-	-	-	-	-	-

TABLE 6.5.2g: Oats ('Aja')

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	29863	74	0.25	120	0.4	7522	25.19	3020	10.11
Tigray	404	-	-	*	*	52	12.87	*	*
Afar	-	-	-	-	-	-	-	-	-
Amhara	8996	20	0.22	79	0.88	1102	12.25	17	0.19
Oromia	19367	45	0.23	37	0.19	6168	31.85	2925	15.1
Somali	433	*	*	-	-	*	*	-	-
Benishangul-Gumuz	28	-	-	-	-	9	32.14	-	-
S.N.N.P.R	627	*	*	*	*	161	25.68	60	9.57
Gambella	*	-	-	-	-	-	-	-	-
Harari	*	-	-	-	-	*	*	-	-
Addis Ababa	*	-	-	-	-	*	*	-	-
Dire Dawa	*	-	-	-	-	-	-	-	-

TABLE 6.5.2h: Rice

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	8365	181	2.16	*	*	808	9.66	177	2.12
Tigray	-	-	-	-	-	-	-	-	-
Afar	-	-	-	-	-	-	-	-	-
Amhara	6600	150	2.27	*	*	477	7.23	51	0.77
Oromia	585	*	*	-	-	220	37.61	*	*
Somali	-	-	-	-	-	-	-	-	-
Benishangul-Gumuz	1103	23	2.09	-	-	72	6.53	*	*
S.N.N.P.R	*	-	-	-	-	*	*	*	*
Gambella	39	*	*	-	-	*	*	*	*
Harari	-	-	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.5.3: RURAL BELG

Geographic Area	Cereals								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	704770	5721	0.81	41561	5.9	181559	25.76	42944	6.09
Tigray	9749	273	2.8	4938	50.65	2852	29.25	68	0.7
Afar	715	*	*	569	79.58	79	11.05	3	0.42
Amhara	117341	220	0.19	14300	12.19	25467	21.7	703	0.6
Oromia	356144	3449	0.97	15706	4.41	88313	24.8	24750	6.95
Somali	7366	20	0.27	252	3.42	646	8.77	*	*
Benishangul-Gumuz	379	*	*	285	75.2	120	31.66	27	7.12
S.N.N.P.R	209526	1595	0.76	5366	2.56	63718	30.41	17353	8.28
Gambella	2783	21	0.75	*	*	42	1.51	23	0.83
Harari	*	-	-	*	*	*	*	*	*
Addis Ababa	*	-	-	-	-	*	*	-	-
Dire Dawa	257	*	*	108	42.02	136	52.92	13	5.06

TABLE 6.5.4: URBAN HOLDINGS

Geographic Area	Cereals								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	112551	10188	9.05	2229	1.98	51813	46.04	29562	26.27
Tigray	9142	399	4.36	375	4.1	3429	37.51	617	6.75
Afar	508	*	*	490	96.46	14	2.76	9	1.77
Amhara	16972	1421	8.37	210	1.24	5539	32.64	770	4.54
Oromia	66297	6694	10.1	744	1.12	34227	51.63	23526	35.49
Somali	1684	73	4.33	119	7.07	239	14.19	88	5.23
Benishangul-Gumuz	3563	223	6.26	11	0.31	485	13.61	183	5.14
S.N.N.P.R	11525	1160	10.07	177	1.54	5758	49.96	3267	28.35
Gambella	377	*	*	*	*	*	*	9	2.39
Harari	186	12	6.45	11	5.91	105	56.45	13	6.99
Addis Ababa	2147	168	7.82	24	1.12	1990	92.69	1072	49.93
Dire Dawa	149	*	*	62	41.61	15	10.07	8	5.37

TABLE 6.6: AREA OF CROPLAND UNDER IMPROVED FARM MANAGEMENT PRACTICES BY CROP CATEGORY IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Pulses								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	1178209	5924	0.5	9896	0.84	210559	17.87	14121	1.2
Tigray	44930	186	0.41	1970	4.38	8662	19.28	599	1.33
Afar	155	*	*	8	5.16	14	9.03	*	*
Amhara	531666	2557	0.48	5422	1.02	54286	10.21	2506	0.47
Oromia	428361	2330	0.54	1653	0.39	90684	21.17	8943	2.09
Somali	1905	49	2.57	87	4.57	174	9.13	*	*
Benishangul-Gumuz	6969	197	2.83	70	1	1656	23.76	*	*
S.N.N.P.R	158072	586	0.37	674	0.43	53908	34.1	2014	1.27
Gambella	225	*	*	-	-	5	2.22	*	*
Harari	474	-	-	*	*	169	35.65	*	*
Addis Ababa	5248	9	0.17	*	*	903	17.21	19	0.36
Dire Dawa	204	*	*	*	*	99	48.53	*	*

TABLE 6.6.1: RURAL HOLDINGS

Geographic Area	Pulses								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	1166907	5668	0.49	9758	0.84	208325	17.85	13594	1.16
Tigray	44201	179	0.4	1959	4.43	8529	19.3	583	1.32
Afar	155	*	*	8	5.16	14	9.03	*	*
Amhara	529087	2536	0.48	5368	1.01	54146	10.23	2432	0.46
Oromia	421840	2129	0.5	1621	0.38	89354	21.18	8593	2.04
Somali	1848	49	2.65	52	2.81	144	7.79	*	*
Benishangul-Gumuz	6790	185	2.72	70	1.03	1571	23.14	*	*
S.N.N.P.R	157196	573	0.36	672	0.43	53464	34.01	1964	1.25.0
Gambella	224	*	*	-	-	5	2.23	*	*
Harari	470	-	-	*	*	165	35.11	*	*
Addis Ababa	4893	8	0.16	*	*	835	17.07	*	*
Dire Dawa	204	*	*	*	*	99	48.53	*	*

TABLE 6.6.2: RURAL MEHER

Geographic Area	Pulses								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	1016787	5188	0.51	4231	0.42	172753	16.99	11880	1.17
Tigray	42715	162	0.38	860	2.01	8333	19.51	576	1.35
Afar	103	*	*	*	*	9	8.74	*	*
Amhara	488184	2482	0.51	2271	0.47	50816	10.41	2235	0.46
Oromia	363961	1862	0.51	778	0.21	79735	21.91	8075	2.22
Somali	1347	44	3.27	49	3.64	99	7.35	*	*
Benishangul-Gumuz	6684	185	2.77	*	*	1549	23.17	*	*
S.N.N.P.R	108560	438	0.4	257	0.24	31262	28.8	974	0.9
Gambella	116	*	*	-	-	5	4.31	*	*
Harari	26	-	-	*	*	12	46.15	-	-
Addis Ababa	4889	*	*	-	-	834	17.06	*	*
Dire Dawa	204	*	*	*	*	99	48.53	*	*

TABLE 6.6.2a: Horse/Faba beans

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	369151	1388	0.38	864	0.23	96117	26.04	3590	0.97
Tigray	14988	89	0.59	223	1.49	4599	30.68	168	1.12
Afar	*	-	-	-	-	-	-	-	-
Amhara	168945	761	0.45	531	0.31	33219	19.66	620	0.37
Oromia	137378	440	0.32	90	0.07	42001	30.57	2504	1.82
Somali	*	-	-	-	-	-	-	-	-
Benishangul-Gumuz	583	*	*	-	-	241	41.34	*	*
S.N.N.P.R	47008	96	0.2	20	0.04	15989	34.01	293	0.62
Gambella	*	-	-	-	-	*	*	-	-
Harari	*	-	-	*	*	*	*	-	-
Addis Ababa	231	*	*	-	-	*	*	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.6.2b: Field Peas

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	175222	751	0.43	247	0.14	32618	18.62	5178	2.96
Tigray	3398	7	0.21	80	2.35	736	21.66	31	0.91
Afar	*	-	-	-	-	-	-	-	-
Amhara	78145	364	0.47	120	0.15	8179	10.47	483	0.62
Oromia	64707	283	0.44	*	*	15866	24.52	4066	6.28
Somali	86	*	*	-	-	*	*	-	-
Benishangul-Gumuz	719	*	*	-	-	256	35.61	-	-
S.N.N.P.R	28104	96	0.34	27	0.1	7574	26.95	597	2.12
Gambella	*	-	-	-	-	*	*	-	-
Harari	*	-	-	-	-	*	*	-	-
Addis Ababa	54	*	*	-	-	*	*	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.6.2c: Haricot beans

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	119879	1056	0.88	582	0.49	22840	19.05	756	0.63
Tigray	2293	23	1	*	*	268	11.69	292	12.73
Afar	35	*	*	*	*	*	*	*	*
Amhara	22518	113	0.5	32	0.14	1228	5.45	148	0.66
Oromia	63451	637	1	299	0.47	14748	23.24	288	0.45
Somali	678	38	5.6	48	7.08	90	13.27	*	*
Benishangul-Gumuz	3779	43	1.14	*	*	347	9.18	*	*
S.N.N.P.R	26799	194	0.72	187	0.7	6044	22.55	19	0.07
Gambella	112	*	*	-	-	4	3.57	*	*
Harari	11	-	-	-	-	7	63.64	-	-
Addis Ababa	1	-	-	-	-	*	*	-	-
Dire Dawa	201	*	*	*	*	97	48.26	*	*

TABLE 6.6.2d: Chick Peas

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	184801	1276	0.69	1226	0.66	9891	5.35	997	0.54
Tigray	11159	20	0.18	387	3.47	1578	14.14	51	0.46
Afar	60	-	-	-	-	*	*	-	-
Amhara	109432	*	*	599	0.55	3457	3.16	296	0.27
Oromia	55645	199	0.36	228	0.41	3146	5.65	634	1.14
Somali	407	*	*	*	*	*	*	-	-
Benishangul-Gumuz	368	*	*	*	*	46	12.5	-	-
S.N.N.P.R	5177	*	*	*	*	1198	23.14	*	*
Gambella	*	-	-	-	-	-	-	-	-
Harari	*	-	-	-	-	*	*	-	-
Addis Ababa	2544	*	*	-	-	454	17.85	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.6.2e: Lentils

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	60138	279	0.46	361	0.6	3976	6.61	419	0.7
Tigray	4587	12	0.26	125	2.73	419	9.13	*	*
Afar	3	-	-	-	-	*	*	-	-
Amhara	40121	86	0.21	*	*	1501	3.74	98	0.24
Oromia	14003	158	1.13	*	*	1709	12.2	301	2.15
Somali	84	*	*	-	-	-	-	-	-
Benishangul-Gumuz	42	-	-	*	*	17	40.48	-	-
S.N.N.P.R	739	*	*	*	*	209	28.28	*	*
Gambella	*	-	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-	-	-
Addis Ababa	*	-	-	-	-	*	*	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.6.2f: Vetch/Grass peas

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	83523	260	0.31	811	0.97	3176	3.8	793	0.95
Tigray	5795	*	*	*	*	632	10.91	26	0.45
Afar	-	-	-	-	-	-	-	-	-
Amhara	53966	120	0.22	677	1.25	1479	2.74	560	1.04
Oromia	21973	135	0.61	99	0.45	788	3.59	169	0.77
Somali	*	-	-	-	-	-	-	-	-
Benishangul-Gumuz	20	-	-	-	-	2	10	-	-
S.N.N.P.R	453	*	*	*	*	*	*	*	*
Gambella	*	-	-	-	-	*	*	-	-
Harari	-	-	-	-	-	-	-	-	-
Addis Ababa	1295	-	-	-	-	*	*	*	*
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.6.2g: Soya Beans

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	1769	144	8.14	*	*	861	48.67	43	2.43
Tigray	51	*	*	-	-	*	*	-	-
Afar	-	-	-	-	-	-	-	-	-
Amhara	251	-	-	*	*	*	*	-	-
Oromia	254	*	*	*	*	119	46.85	36	14.17
Somali	*	-	-	-	-	-	-	-	-
Benishangul-Gumuz	1132	140	12.37	*	*	630	55.65	*	*
S.N.N.P.R	81	*	*	*	*	36	44.44	*	*
Gambella	*	-	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.6.2h: Fenugreek

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	15051	34	0.23	99	0.66	2370	15.75	102	0.68
Tigray	444	*	*	9	2.03	86	19.37	*	*
Afar	*	-	-	-	-	-	-	-	-
Amhara	7589	*	*	70	0.92	802	10.57	*	*
Oromia	6549	11	0.17	20	0.31	1358	20.74	76	1.16
Somali	57	-	-	-	-	-	-	-	-
Benishangul-Gumuz	*	-	-	*	*	*	*	-	-
S.N.N.P.R	198	*	*	-	-	47	23.74	-	-
Gambella	*	-	-	-	-	*	*	-	-
Harari	*	-	-	-	-	*	*	-	-
Addis Ababa	205	-	-	-	-	75	36.59	-	-
Dire Dawa	*	-	-	-	-	*	*	-	-

TABLE 6.6.2i: Gibto

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	7254	-	-	*	*	903	12.45	*	*
Tigray	-	-	-	-	-	-	-	-	-
Afar	-	-	-	-	-	-	-	-	-
Amhara	7217	-	-	*	*	891	12.35	*	*
Oromia	-	-	-	-	-	-	-	-	-
Somali	-	-	-	-	-	-	-	-	-
Benishangul-Gumuz	36	-	-	-	-	*	*	-	-
S.N.N.P.R	-	-	-	*	-	*	-	-	-
Gambella	*	-	-	-	-	*	*	-	-
Harari	-	-	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.6.3: RURAL BELG

Geographic Area	Total Crop Area	Pulses							
		Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	150120	481	0.32	5527	3.68	35571	23.7	1714	1.14
Tigray	1487	*	*	1099	73.91	196	13.18	*	*
Afar	52	*	*	*	*	4	7.69	-	-
Amhara	40903	*	*	3098	7.57	3331	8.14	197	0.48
Oromia	57879	266	0.46	843	1.46	9618	16.62	518	0.89
Somali	501	*	*	*	*	45	8.98	*	*
Benishangul-Gumuz	105	*	*	67	63.81	21	20	*	*
S.N.N.P.R	48636	135	0.28	415	0.85	22202	45.65	990	2.04
Gambella	108	-	-	-	-	*	*	*	*
Harari	445	-	-	-	-	153	34.38	*	*
Addis Ababa	*	*	*	*	*	*	*	-	-
Dire Dawa	*	-	-	*	*	-	-	-	-

TABLE 6.6.4: URBAN HOLDINGS

Geographic Area	Pulses								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	11302	255	2.26	138	1.22	2235	19.78	526	4.65
Tigray	729	7	0.96	11	1.51	133	18.24	16	2.19
Afar	-	-	-	-	-	-	-	-	-
Amhara	2579	21	0.81	54	2.09	139	5.39	74	2.87
Oromia	6521	201	3.08	32	0.49	1331	20.41	350	5.37
Somali	57	-	-	34	59.65	30	52.63	*	*
Benishangul-Gumuz	179	12	6.7	*	*	*	*	*	*
S.N.N.P.R	876	13	1.48	2	0.23	444	50.68	50	5.71
Gambella	1	-	-	-	-	-	-	-	-
Harari	*	-	-	*	*	*	*	*	*
Addis Ababa	355	*	*	*	*	69	19.44	17	4.79
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.7: AREA OF CROPLAND UNDER IMPROVED FARM MANAGEMENT PRACTICES BY CROP CATEGORY IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Oil Seeds								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	438171	1768	0.4	726	0.17	50789	11.59	3067	0.7
Tigray	31740	74	0.23	7	0.02	2256	7.11	32	0.1
Afar	142	*	*	*	*	3	2.11	*	*
Amhara	178999	890	0.5	370	0.21	23734	13.26	631	0.35
Oromia	194335	572	0.29	203	0.1	21674	11.15	2269	1.17
Somali	505	*	*	*	*	*	*	*	*
Benishangul-Gumuz	26861	116	0.43	4	0.01	1910	7.11	61	0.23
S.N.N.P.R	3843	32	0.83	15	0.39	727	18.92	31	0.81
Gambella	389	*	*	*	*	*	*	*	*
Harari	1285	*	*	*	*	442	34.4	*	*
Addis Ababa	37	-	-	-	-	10	27.03	*	*
Dire Dawa	34	-	-	*	*	17	50	-	-

TABLE 6.7.1: RURAL HOLDINGS

Geographic Area	Oil Seeds								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	430245	1643	0.38	711	0.17	50395	11.71	2779	0.65
Tigray	30647	52	0.17	6	0.02	2242	7.32	19	0.06
Afar	142	*	*	*	*	3	2.11	*	*
Amhara	176562	872	0.49	368	0.21	23694	13.42	439	0.25.0
Oromia	191636	489	0.26	198	0.1	21359	11.15	2204	1.15
Somali	497	*	*	*	*	*	*	-	-
Benishangul-Gumuz	25244	116	0.46	4	0.02	1906	7.55	50	0.2
S.N.N.P.R	3838	32	0.83	15	0.39	725	18.89	31	0.81
Gambella	366	*	*	-	-	*	*	*	*
Harari	1264	*	*	*	*	437	34.57	*	*
Addis Ababa	14	-	-	-	-	*	*	*	*
Dire Dawa	34	-	-	*	*	17	50	-	-

TABLE 6.7.2: RURAL MEHER

Geographic Area	Oil Seeds								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	426130	1639	0.38	675	0.16	50134	11.76	2752	0.65
Tigray	30634	52	0.17	6	0.02	2240	7.31	19	0.06
Afar	142	*	*	*	*	3	2.11	*	*
Amhara	176212	872	0.49	358	0.2	23668	13.43	439	0.25
Oromia	188392	489	0.26	179	0.1	21270	11.29	2181	1.16
Somali	493	*	*	*	*	*	*	-	-
Benishangul-Gumuz	25244	116	0.46	3	0.01	1905	7.55	50	0.2
S.N.N.P.R	3370	28	0.83	11	0.33	585	17.36	27	0.8
Gambella	345	*	*	-	-	*	*	*	*
Harari	1249	*	*	*	*	433	34.67	*	*
Addis Ababa	14	-	-	-	-	*	*	*	*
Dire Dawa	34	-	-	*	*	17	50	-	-

TABLE 6.7.2a: Neug

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	232201	379	0.16	293	0.13	24670	10.62	380	0.16
Tigray	5135	10	0.19	*	*	567	11.04	*	*
Afar	1	-	-	-	-	*	*	-	-
Amhara	119548	230	0.19	*	*	13909	11.63	135	0.11
Oromia	93154	123	0.13	62	0.07	9166	9.84	205	0.22
Somali	*	-	-	-	-	-	-	-	-
Benishangul-Gumuz	13433	*	*	*	*	849	6.32	*	*
S.N.N.P.R	925	*	*	*	*	178	19.24	-	-
Gambella	*	-	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-	-	-
Addis Ababa	*	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.7.2b: Linseed

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	98596	275	0.28	57	0.06	7513	7.62	2020	2.05
Tigray	4318	8	0.19	*	*	376	8.71	5	0.12
Afar	*	-	-	*	*	-	-	-	-
Amhara	23824	65	0.27	23	0.1	1655	6.95	*	*
Oromia	68819	196	0.28	*	*	5237	7.61	1814	2.64
Somali	445	-	-	-	-	-	-	-	-
Benishangul-Gumuz	200	-	-	*	*	23	11.5	*	*
S.N.N.P.R	969	6	0.62	*	*	217	22.39	27	2.79
Gambella	*	-	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-	-	-
Addis Ababa	12	-	-	-	-	*	*	*	*
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.7.2c: Ground nuts

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	16035	82	0.51	75	0.47	3284	20.48	74	0.46
Tigray	*	-	-	-	-	*	*	-	-
Afar	*	*	*	*	*	*	*	-	-
Amhara	*	*	*	*	*	26	*	-	-
Oromia	10096	13	0.13	62	0.61	2707	26.81	*	*
Somali	*	*	*	-	-	*	*	-	-
Benishangul-Gumuz	2388	*	*	*	*	44	1.84	*	*
S.N.N.P.R	521	*	*	*	*	51	9.79	*	*
Gambella	26	*	*	-	-	*	*	-	-
Harari	1240	*	*	*	*	431	34.76	*	*
Addis Ababa	-	-	-	-	-	-	-	-	-
Dire Dawa	25	-	-	-	-	14	56	-	-

TABLE 6.7.2d: Sunflower

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	5474	*	*	36	0.66	782	14.29	23	0.42
Tigray	45	*	*	-	-	19	42.22	-	-
Afar	11	*	*	-	-	1	9.09	*	*
Amhara	4233	*	*	29	0.69	518	12.24	23	0.54
Oromia	916	25	2.73	*	*	228	24.89	*	*
Somali	-	-	-	-	-	-	-	-	-
Benishangul-Gumuz	94	*	*	-	-	*	*	-	-
S.N.N.P.R	175	*	*	*	*	*	*	-	-
Gambella	1	-	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-	-	-
Addis Ababa	*	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.7.2e: Sesame

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	58780	322	0.55	158	0.27	3975	6.76	127	0.22
Tigray	21094	*	*	-	-	1260	5.97	*	*
Afar	*	*	*	*	*	*	*	-	-
Amhara	18111	121	0.67	29	0.16	869	4.8	*	*
Oromia	9909	37	0.37	23	0.23	914	9.22	18	0.18
Somali	*	-	-	*	*	-	-	-	-
Benishangul-Gumuz	9028	77	0.85	*	*	924	10.23	*	*
S.N.N.P.R	173	*	*	*	*	*	*	*	*
Gambella	315	-	-	-	-	*	*	*	*
Harari	*	-	-	-	-	*	*	-	-
Addis Ababa	-	-	-	-	-	-	-	-	-
Dire Dawa	*	-	-	*	*	*	*	-	-

TABLE 6.7.2f: Rapeseed

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	15044	327	2.17	55	0.37	9910	65.87	127	0.84
Tigray	31	*	*	-	-	15	48.39	-	-
Afar	-	-	-	-	-	-	-	-	-
Amhara	8806	221	2.51	50	0.57	6690	75.97	33	0.37
Oromia	5497	94	1.71	*	*	3017	54.88	94	1.71
Somali	-	-	-	-	-	-	-	-	-
Benishangul-Gumuz	100	*	*	*	*	62	62	*	*
S.N.N.P.R	608	6	0.99	*	*	127	20.89	-	-
Gambella	*	*	*	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-	-	-
Addis Ababa	1	-	-	-	-	*	*	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.7.3: RURAL BELG

Geographic Area	Oil Seeds								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	4116	*	*	37	0.9	261	6.34	*	*
Tigray	14	-	-	-	-	*	*	-	-
Afar	*	-	-	-	-	-	-	-	-
Amhara	350	*	*	*	*	26	7.43	-	-
Oromia	3244	-	-	*	*	90	2.77	*	*
Somali	*	-	-	*	*	-	-	-	-
Benishangul-Gumuz	*	-	-	*	*	*	*	-	-
S.N.N.P.R	468	*	*	*	*	*	*	*	*
Gambella	21	*	*	-	-	-	-	-	-
Harari	*	-	-	-	-	*	*	-	-
Addis Ababa	-	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.7.4: URBAN HOLDINGS

Geographic Area	Oil Seeds								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	7926	124	1.56	15	0.19	394	4.97	288	3.63
Tigray	1093	*	*	*	*	14	1.28	14	1.28
Afar	-	-	-	-	-	-	-	-	-
Amhara	2437	*	*	2	0.08	40	1.64	*	*
Oromia	2699	*	*	*	*	315	11.67	65	2.41
Somali	*	1	*	*	*	*	*	*	*
Benishangul-Gumuz	1617	-	-	-	-	*	*	11	0.68
S.N.N.P.R	5	-	-	-	-	*	*	-	-
Gambella	23	*	*	*	*	*	*	*	*
Harari	21	*	*	*	*	5	23.81	*	*
Addis Ababa	23	-	-	-	-	*	*	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.8: AREA OF CROPLAND UNDER IMPROVED FARM MANAGEMENT PRACTICES BY CROP CATEGORY IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Other Grains								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	47834	940	1.97	2285	4.78	7261	15.18	1102	2.3
Tigray	332	*	*	*	*	79	23.8	*	*
Afar	*	*	*	*	*	*	*	*	*
Amhara	18329	*	*	294	1.6	2292	12.5	136	0.74
Oromia	16164	24	0.15	130	0.8	2097	12.97	291	1.8
Somali	526	-	-	*	*	*	*	-	-
Benishangul-Gumuz	395	*	*	*	*	37	9.37	-	-
S.N.N.P.R	11058	*	*	1007	9.11	2744	24.81	152	1.37
Gambella	166	*	*	-	-	*	*	*	*
Harari	*	-	-	*	*	*	*	-	-
Addis Ababa	*	-	-	-	-	*	*	-	-
Dire Dawa	*	-	-	*	*	*	*	-	-

TABLE 6.8.1: RURAL HOLDINGS

Geographic Area	Other Grains								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	46803	926	1.98	2270	4.85	7113	15.2	1057	2.26
Tigray	321	*	*	*	*	72	22.43	-	-
Afar	*	*	*	*	*	*	*	*	*
Amhara	17888	*	*	291	1.63	2268	12.68	124	0.69
Oromia	15928	23	0.14	128	0.8	2056	12.91	280	1.76
Somali	526	-	-	*	*	*	*	-	-
Benishangul-Gumuz	386	*	*	*	*	37	9.59	-	-
S.N.N.P.R	10755	*	*	1006	9.35	2671	24.83	131	1.22
Gambella	142	*	*	-	-	*	*	*	*
Harari	*	-	-	*	*	*	*	-	-
Addis Ababa	*	-	-	-	-	*	*	-	-
Dire Dawa	*	-	-	*	*	*	*	-	-

TABLE 6.8.2: RURAL MEHER

Geographic Area	Other Grains								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	41202	856	2.08	1793	4.35	6659	16.16	910	2.21
Tigray	291	*	*	3	1.03	45	15.46	-	-
Afar	*	*	*	*	*	*	*	*	*
Amhara	17675	*	*	94	0.53	2265	12.81	*	*
Oromia	11542	23	0.2	122	1.06	1971	17.08	245	2.12
Somali	523	-	-	*	*	*	*	-	-
Benishangul-Gumuz	379	*	*	*	*	37	9.76	-	-
S.N.N.P.R	9803	*	*	765	7.8	2332	23.79	98	1
Gambella	132	*	*	-	-	*	*	-	-
Harari	*	-	-	*	*	*	*	-	-
Addis Ababa	*	-	-	-	-	*	*	-	-
Dire Dawa	*	-	-	*	*	*	*	-	-

TABLE 6.8.3: RURAL BELG

Geographic Area	Other Grains								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	5601	*	*	477	8.52	454	8.11	147	2.62
Tigray	*	*	*	*	*	*	*	-	-
Afar	*	-	-	*	*	-	-	-	-
Amhara	213	*	*	196	92.02	*	*	79	37.09
Oromia	4386	-	-	6	0.14	84	1.92	*	*
Somali	*	-	-	-	-	-	-	-	-
Benishangul-Gumuz	*	-	-	*	*	*	*	-	-
S.N.N.P.R	952	*	*	*	*	339	35.61	33	3.47
Gambella	10	-	-	-	-	*	*	*	*
Harari	-	-	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.8.4: URBAN HOLDINGS

Geographic Area	Other Grains								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	1032	*	*	15	1.45	147	14.24	45	4.36
Tigray	11	-	-	1	9.09	*	*	*	*
Afar	*	*	*	*	*	*	*	1	*
Amhara	441	*	*	4	0.91	23	5.22	*	*
Oromia	236	*	*	2	0.85	41	17.37	11	4.66
Somali	-	-	-	-	-	-	-	-	-
Benishangul-Gumuz	*	-	-	-	-	-	-	-	-
S.N.N.P.R	303	*	*	*	*	74	24.42	*	*
Gambella	24	-	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.9: AREA OF CROPLAND UNDER IMPROVED FARM MANAGEMENT PRACTICES BY CROP CATEGORY IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Vegetables								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	100272	705	0.7	6918	6.9	51186	51.05	3210	3.2
Tigray	2094	123	5.87	819	39.11	1468	70.11	46	2.2
Afar	239	81	33.89	230	96.23	81	33.89	56	23.43
Amhara	19607	96	0.49	2194	11.19	11176	57	87	0.44
Oromia	38126	222	0.58	3086	8.09	18418	48.31	1881	4.93
Somali	115	*	*	54	46.96	41	35.65	1	0.87
Benishangul-Gumuz	1587	8	0.5	37	2.33	539	33.96	7	0.44
S.N.N.P.R	37531	87	0.23	209	0.56	19158	51.05	1068	2.85
Gambella	615	*	*	*	*	18	2.93	*	*
Harari	29	*	*	*	*	12	41.38	*	*
Addis Ababa	245	*	*	203	82.86	206	84.08	*	*
Dire Dawa	84	*	*	73	86.9	69	82.14	6	7.14

TABLE 6.9.1: RURAL HOLDINGS

Geographic Area	Vegetables								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	98262	532	0.54	6398	6.51	50158	51.05	2858	2.91
Tigray	2055	115	5.6	794	38.64	1438	69.98	44	2.14
Afar	180	*	*	176	97.78	*	*	*	*
Amhara	19445	88	0.45	2149	11.05	11091	57.04	68	0.35
Oromia	37280	188	0.5	2895	7.77	17960	48.18	1662	4.46
Somali	105	*	*	47	44.76	39	37.14	-	-
Benishangul-Gumuz	1485	4	0.27	36	2.42	532	35.82	7	0.47
S.N.N.P.R	36947	74	0.2	202	0.55	18942	51.27	1054	2.85
Gambella	611	*	*	*	*	18	2.95	*	*
Harari	25	*	*	*	*	12	48	*	*
Addis Ababa	46	4	8.7	18	39.13	27	58.7	*	*
Dire Dawa	83	*	*	72	86.75	69	83.13	6	7.23

TABLE 6.9.2: RURAL MEHER

Geographic Area	Vegetables								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	84029	278	0.33	3200	3.81	42375	50.43	1909	2.27
Tigray	1393	34	2.44	156	11.2	1041	74.73	*	*
Afar	67	*	*	*	*	2	2.99	*	*
Amhara	17964	55	0.31	1276	7.1	10320	57.45	27	0.15
Oromia	32773	102	0.31	1472	4.49	15474	47.22	956	2.92
Somali	97	*	*	43	44.33	38	39.18	-	-
Benishangul-Gumuz	1448	1	0.07	9	0.62	515	35.57	5	0.35
S.N.N.P.R	29657	49	0.17	149	0.5	14930	50.34	904	3.05
Gambella	562	*	*	*	*	17	3.02	*	*
Harari	7	*	*	*	*	5	71.43	-	-
Addis Ababa	33	*	*	4	12.12	14	42.42	*	*
Dire Dawa	30	*	*	27	90	19	63.33	*	*

TABLE 6.9.2a: Lettuce

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	128	11	8.59	71	55.47	86	67.19	24	18.75
Tigray	9	*	*	7	77.78	5	55.56	-	-
Afar	-	-	-	-	-	-	-	-	-
Amhara	*	*	*	*	*	*	*	*	*
Oromia	102	*	*	60	58.82	73	71.57	24	23.53
Somali	*	-	-	-	-	*	*	-	-
Benishangul-Gumuz	*	-	-	*	*	*	*	-	-
S.N.N.P.R	3	*	*	*	*	*	*	-	-
Gambella	-	-	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-	-	-
Addis Ababa	*	*	*	*	*	*	*	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.9.2b: Head cabbage

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	564	30	5.32	236	41.84	336	59.57	57	10.11
Tigray	15	*	*	13	86.67	7	46.67	-	-
Afar	-	-	-	-	-	-	-	-	-
Amhara	69	*	*	20	28.99	32	46.38	*	*
Oromia	377	16	4.24	197	52.25	259	68.7	*	*
Somali	*	*	*	*	*	*	*	-	-
Benishangul-Gumuz	2	*	*	-	-	1	50	-	-
S.N.N.P.R	90	4	4.44	*	*	34	37.78	*	*
Gambella	*	-	-	-	-	-	-	-	-
Harari	*	*	*	*	*	*	*	-	-
Addis Ababa	3	*	*	*	*	3	100.00	*	*
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.9.2c: Kale

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	14528	23	0.16	170	1.17	8409	57.88	62	0.43
Tigray	13	*	*	*	*	*	*	-	-
Afar	*	-	-	*	*	-	-	*	*
Amhara	295	*	*	18	6.1	163	55.25	*	*
Oromia	5183	11	0.21	76	1.47	3188	61.51	30	0.58
Somali	*	-	-	*	*	*	*	-	-
Benishangul-Gumuz	*	*	*	-	-	5	*	-	-
S.N.N.P.R	8964	*	*	73	0.81	5033	56.15	29	0.32
Gambella	22	-	-	-	-	*	*	-	-
Harari	-	-	-	-	-	-	-	-	-
Addis Ababa	14	*	*	*	*	8	57.14	*	*
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.9.2d: Tomatoes

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	1545	77	4.98	752	48.67	895	57.93	357	23.11
Tigray	76	10	13.16	34	44.74	49	64.47	*	*
Afar	*	*	*	*	*	*	*	*	*
Amhara	273	*	*	36	13.19	74	27.11	*	*
Oromia	961	21	2.19	545	56.71	700	72.84	352	36.63
Somali	60	*	*	29	48.33	*	*	-	-
Benishangul-Gumuz	5	-	-	*	*	2	40	-	-
S.N.N.P.R	76	*	*	23	30.26	18	23.68	*	*
Gambella	8	*	*	*	*	*	*	*	*
Harari	-	-	-	-	-	-	-	-	-
Addis Ababa	*	-	-	-	-	*	*	-	-
Dire Dawa	29	*	*	27	93.1	19	65.52	*	*

TABLE 6.9.2e: Green peppers

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	3728	14	0.38	453	12.15	1931	51.8	45	1.21
Tigray	186	*	*	33	17.74	118	63.44	*	*
Afar	2	-	-	*	*	*	*	-	-
Amhara	659	*	*	144	21.85	364	55.24	-	-
Oromia	2202	2	0.09	234	10.63	1178	53.5	*	*
Somali	13	-	-	*	*	*	*	-	-
Benishangul-Gumuz	25	*	*	*	*	13	52	-	-
S.N.N.P.R	635	3	0.47	29	4.57	254	40	*	*
Gambella	5	-	-	-	-	*	*	-	-
Harari	*	-	-	-	-	*	*	-	-
Addis Ababa	1	-	-	-	-	*	*	-	-
Dire Dawa	*	-	-	*	*	*	*	-	-

TABLE 6.9.2f: Red peppers

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	54376	104	0.19	1452	2.67	26623	48.96	1341	2.47
Tigray	654	1	0.15	60	9.17	437	66.82	*	*
Afar	5	-	-	*	*	1	20	*	*
Amhara	15950	38	0.24	1045	6.55	9243	57.95	22	0.14
Oromia	20867	41	0.2	335	1.61	8338	39.96	453	2.17
Somali	*	-	-	-	-	-	-	-	-
Benishangul-Gumuz	816	*	*	6	0.74	327	40.07	4	0.49
S.N.N.P.R	16057	*	*	*	*	8276	51.54	858	5.34
Gambella	20	-	-	-	-	*	*	-	-
Harari	*	-	-	-	-	*	*	-	-
Addis Ababa	-	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.9.2g: Swiss chard

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	116	7	6.03	10	8.62	49	42.24	*	*
Tigray	10	*	*	6	60	5	50	*	*
Afar	-	-	-	-	-	-	-	-	-
Amhara	22	1	4.55	1	4.55	13	59.09	*	*
Oromia	40	1	2.5	2	5	11	27.5	-	-
Somali	-	-	-	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	-	-	*	*	-	-
S.N.N.P.R	45	*	*	*	*	*	*	-	-
Gambella	*	-	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-	-	-
Addis Ababa	*	*	*	*	*	*	*	*	*
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.9.2h: Other Vegetables

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	9042	11	0.12	57	0.63	4046	44.75	22	0.24
Tigray	*	*	*	*	*	*	*	*	*
Afar	*	-	-	*	*	*	*	-	-
Amhara	683	*	*	9	1.32	426	62.37	*	*
Oromia	3041	*	*	23	0.76	1728	56.82	7	0.23
Somali	*	-	-	-	-	*	*	-	-
Benishangul-Gumuz	565	*	*	*	*	166	29.38	*	*
S.N.N.P.R	3788	*	*	19	0.5	1294	34.16	*	*
Gambella	506	-	-	-	-	11	2.17	*	*
Harari	6	-	-	-	-	5	83.33	-	-
Addis Ababa	*	*	*	*	*	3	*	*	*
Dire Dawa	*	-	-	-	-	-	-	-	-

TABLE 6.5.3: RURAL BELG

Geographic Area	Vegetables								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	14233	254	1.78	3198	22.47	7783	54.68	950	6.67
Tigray	663	81	12.22	638	96.23	397	59.88	36	5.43
Afar	*	*	*	*	*	*	*	-	-
Amhara	1481	33	2.23	873	58.95	770	51.99	40	2.7
Oromia	4507	86	1.91	1422	31.55	2486	55.16	705	15.64
Somali	8	-	-	4	50	1	12.5	-	-
Benishangul-Gumuz	37	3	8.11	27	72.97	17	45.95	2	5.41
S.N.N.P.R	7289	26	0.36	53	0.73	4012	55.04	149	2.04
Gambella	49	-	-	-	-	*	*	-	-
Harari	*	-	-	*	*	*	*	*	*
Addis Ababa	*	3	*	*	*	*	*	*	*
Dire Dawa	54	*	*	45	83.33	50	92.59	*	*

TABLE 6.5.4: URBAN HOLDINGS

Geographic Area	Vegetables								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	2010	174	8.66	520	25.87	1028	51.14	352	17.51
Tigray	39	*	*	25	64.1	30	76.92	2	5.13
Afar	59	*	*	54	91.53	*	*	53	89.83
Amhara	162	8	4.94	44	27.16	85	52.47	20	12.35
Oromia	847	34	4.01	191	22.55	458	54.07	220	25.97
Somali	10	-	-	7	70	2	20	1	10
Benishangul-Gumuz	102	*	*	*	*	7	6.86	-	-
S.N.N.P.R	585	12	2.05	7	1.2	217	37.09	14	2.39
Gambella	4	-	-	-	-	-	-	*	*
Harari	*	*	*	*	*	*	*	-	-
Addis Ababa	199	*	*	186	93.47	179	89.95	*	*
Dire Dawa	*	*	*	*	*	1	*	-	-

TABLE 6.10: AREA OF CROPLAND UNDER IMPROVED FARM MANAGEMENT PRACTICES BY CROP CATEGORY IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Root Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	272931	1628	0.6	28937	10.6	163280	59.82	9124	3.34
Tigray	1981	183	9.24	1406	70.97	1203	60.73	59	2.98
Afar	344	*	*	338	98.26	280	81.4	281	81.69
Amhara	79242	356	0.45	16120	20.34	44669	56.37	1056	1.33
Oromia	86631	458	0.53	9133	10.54	56380	65.08	5628	6.5
Somali	847	*	*	134	15.82	65	7.67	*	*
Benishangul-Gumuz	1171	*	*	83	7.09	430	36.72	*	*
S.N.N.P.R	101599	215	0.21	1326	1.31	59683	58.74	2079	2.05
Gambella	384	*	*	*	*	12	3.13	*	*
Harari	112	*	*	*	*	65	58.04	*	*
Addis Ababa	461	*	*	*	*	*	*	16	3.47
Dire Dawa	161	*	*	80	49.69	80	49.69	*	*

TABLE 6.10.1: RURAL HOLDINGS

Geographic Area	Root Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	269478	1312	0.49	28161	10.45	161575	59.96	8459	3.14
Tigray	1945	180	9.25	1384	71.16	1181	60.72	56	2.88
Afar	285	*	*	285	100.00	228	80	223	78.25.0
Amhara	78999	341	0.43	16035	20.3	44565	56.41	1040	1.32
Oromia	84995	389	0.46	8824	10.38	55655	65.48	5248	6.17
Somali	830	*	*	122	14.7	58	6.99	*	*
Benishangul-Gumuz	1152	*	*	83	7.2	413	35.85	*	*
S.N.N.P.R	100456	196	0.2	1322	1.32	59190	58.92	1885	1.88
Gambella	380	*	*	*	*	12	3.16	*	*
Harari	110	*	*	*	*	64	58.18	*	*
Addis Ababa	167	21	12.57	19	11.38	129	77.25	*	*
Dire Dawa	160	*	*	79	49.38	79	49.38	*	*

TABLE 6.10.2: RURAL MEHER

Geographic Area	Root Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	116876	783	0.67	7423	6.35	60901	52.11	2876	2.46
Tigray	820	53	6.46	298	36.34	409	49.88	7	0.85
Afar	236	*	*	236	100.00	*	*	206	87.29
Amhara	16007	155	0.97	2383	14.89	8882	55.49	185	1.16
Oromia	39267	267	0.68	3265	8.31	23545	59.96	1896	4.83
Somali	697	*	*	88	12.63	48	6.89	*	*
Benishangul-Gumuz	775	*	*	9	1.16	241	31.1	*	*
S.N.N.P.R	58382	146	0.25	1098	1.88	27363	46.87	580	0.99
Gambella	363	*	*	*	*	12	3.31	*	*
Harari	88	-	-	*	*	52	59.09	-	-
Addis Ababa	157	18	11.46	*	*	122	77.71	*	*
Dire Dawa	85	-	-	28	32.94	38	44.71	-	-

TABLE 6.10.2a: Beetroot

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	405	44	10.86	87	21.48	245	60.49	*	*
Tigray	*	*	*	*	*	*	*	-	-
Afar	-	-	-	-	-	-	-	-	-
Amhara	55	12	21.82	7	12.73	24	43.64	*	*
Oromia	276	22	7.97	69	25	179	64.86	*	*
Somali	*	*	*	*	*	*	*	-	-
Benishangul-Gumuz	*	*	*	-	-	*	*	-	-
S.N.N.P.R	59	6	10.17	*	*	35	59.32	*	*
Gambella	*	-	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-	-	-
Addis Ababa	4	*	*	*	*	4	100.00	*	*
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.10.2b: Carrot

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	578	86	14.88	139	24.05	380	65.74	*	*
Tigray	38	*	*	34	89.47	19	50	*	*
Afar	-	-	-	-	-	-	-	-	-
Amhara	111	14	12.61	26	23.42	61	54.95	*	*
Oromia	258	38	14.73	71	27.52	171	66.28	*	*
Somali	-	-	-	-	-	-	-	-	-
Benishangul-Gumuz	1	*	*	-	-	1	100.00	-	-
S.N.N.P.R	35	2	5.71	*	*	17	48.57	*	*
Gambella	*	-	-	-	-	*	*	-	-
Harari	-	-	-	-	-	-	-	-	-
Addis Ababa	136	18	13.24	*	*	112	82.35	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.10.2c: Onions

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	10489	349	3.33	2410	22.98	6132	58.46	837	7.98
Tigray	266	*	*	151	56.77	124	46.62	*	*
Afar	234	*	*	234	100.00	*	*	206	88.03
Amhara	2228	58	2.6	757	33.98	1340	60.14	169	7.59
Oromia	6280	*	*	1165	18.55	3726	59.33	454	7.23
Somali	226	*	*	*	*	*	*	*	*
Benishangul-Gumuz	19	*	*	1	5.26	9	47.37	-	-
S.N.N.P.R	1220	*	*	*	*	712	58.36	*	*
Gambella	*	-	-	-	-	*	*	-	-
Harari	-	-	-	-	-	-	-	-	-
Addis Ababa	2	*	*	-	-	1	50	*	*
Dire Dawa	*	-	-	2	*	*	*	-	-

TABLE 6.10.2d: Potatoes

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	36736	116	0.32	2259	6.15	24607	66.98	1522	4.14
Tigray	264	12	4.55	51	19.32	164	62.12	*	*
Afar	*	-	-	-	-	*	*	-	-
Amhara	11099	67	0.6	1321	11.9	6249	56.3	*	*
Oromia	14956	29	0.19	810	5.42	11006	73.59	1190	7.96
Somali	44	-	-	*	*	9	20.45	-	-
Benishangul-Gumuz	102	*	*	*	*	46	45.1	-	-
S.N.N.P.R	10234	8	0.08	*	*	7105	69.43	321	3.14
Gambella	*	-	-	-	-	-	-	-	-
Harari	*	-	-	-	-	*	*	-	-
Addis Ababa	2	-	-	2	100.00	*	*	-	-
Dire Dawa	*	-	-	*	*	*	*	-	-

TABLE 6.10.2e: Garlic

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	4802	7	0.15	385	8.02	2644	55.06	24	0.5
Tigray	161	*	*	47	29.19	70	43.48	*	*
Afar	-	-	-	-	-	-	-	-	-
Amhara	2187	4	0.18	226	10.33	1144	52.31	3	0.14
Oromia	1799	1	0.06	105	5.84	1123	62.42	21	1.17
Somali	269	-	-	*	*	*	*	*	*
Benishangul-Gumuz	21	*	*	*	*	12	57.14	-	-
S.N.N.P.R	351	*	*	*	*	*	*	*	*
Gambella	1	-	-	-	-	*	*	-	-
Harari	-	-	-	-	-	-	-	-	-
Addis Ababa	12	-	-	*	*	4	33.33	*	*
Dire Dawa	*	-	-	*	*	*	*	-	-

TABLE 6.10.2f: Taro

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	23591	29	0.12	60	0.25	9154	38.8	46	0.19
Tigray	-	-	-	-	-	-	-	-	-
Afar	-	-	-	-	-	-	-	-	-
Amhara	*	-	-	*	*	*	*	-	-
Oromia	5847	20	0.34	6	0.1	3601	61.59	27	0.46
Somali	-	-	-	-	-	-	-	-	-
Benishangul-Gumuz	9	-	-	*	*	5	55.56	-	-
S.N.N.P.R	17498	9	0.05	53	0.3	5540	31.66	19	0.11
Gambella	221	-	-	*	*	8	3.62	-	-
Harari	-	-	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.10.2g: Sweet potatoes

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	34027	149	0.44	1660	4.88	15640	45.96	347	1.02
Tigray	2	*	*	*	*	*	*	-	-
Afar	*	-	-	*	*	*	*	-	-
Amhara	188	*	*	*	*	62	32.98	*	*
Oromia	9558	43	0.45	1038	10.86	3554	37.18	*	*
Somali	154	*	*	51	33.12	*	*	-	-
Benishangul-Gumuz	248	-	-	*	*	90	36.29	-	-
S.N.N.P.R	23644	105	0.44	490	2.07	11869	50.2	226	0.96
Gambella	108	-	-	-	-	4	3.7	*	*
Harari	61	-	-	*	*	28	45.9	-	-
Addis Ababa	*	-	-	*	*	*	*	-	-
Dire Dawa	64	-	-	24	37.5	25	39.06	-	-

TABLE 6.10.2h: Other Root Crops

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	6249	3	0.05	422	6.75	2098	33.57	90	1.44
Tigray	83	-	-	*	*	30	36.14	*	*
Afar	*	*	*	*	*	-	-	-	-
Amhara	124	-	-	*	*	1	0.81	-	-
Oromia	293	*	*	*	*	185	63.14	77	26.28
Somali	-	-	-	-	-	-	-	-	-
Benishangul-Gumuz	373	*	*	*	*	79	21.18	*	*
S.N.N.P.R	5342	*	*	407	7.62	1803	33.75	10	0.19
Gambella	32	*	*	-	-	*	*	*	*
Harari	*	-	-	-	-	*	*	-	-
Addis Ababa	-	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.10.3: RURAL BELG

Geographic Area	Root Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	152602	529	0.35	20738	13.59	100673	65.97	5583	3.66
Tigray	1125	127	11.29	1086	96.53	773	68.71	49	4.36
Afar	49	*	*	49	100.00	39	79.59	*	*
Amhara	62992	186	0.3	13652	21.67	35683	56.65	856	1.36
Oromia	45728	123	0.27	5560	12.16	32109	70.22	3353	7.33
Somali	*	*	*	34	*	*	*	-	-
Benishangul-Gumuz	377	*	*	74	19.63	172	45.62	*	*
S.N.N.P.R	42075	50	0.12	224	0.53	31828	75.65	1305	3.1
Gambella	16	-	-	-	-	*	*	-	-
Harari	*	*	*	*	*	*	*	*	*
Addis Ababa	10	*	*	10	100.00	7	70	*	*
Dire Dawa	75	*	*	51	68	41	54.67	*	*

TABLE 6.10.4: URBAN HOLDINGS

Geographic Area	Root Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	3453	*	*	776	22.47	1705	49.38	665	19.26
Tigray	37	4	10.81	22	59.46	*	*	3	8.11
Afar	59	*	*	54	91.53	52	88.14	58	98.31
Amhara	243	15	6.17	85	34.98	103	42.39	15	6.17
Oromia	1635	69	4.22	309	18.9	726	44.4	379	23.18
Somali	17	*	*	12	70.59	*	*	*	*
Benishangul-Gumuz	19	*	*	*	*	16	84.21	-	-
S.N.N.P.R	1142	19	1.66	4	0.35	493	43.17	194	16.99
Gambella	4	-	-	-	-	-	-	*	*
Harari	*	-	-	*	*	*	*	-	-
Addis Ababa	*	*	*	*	*	*	*	*	*
Dire Dawa	*	-	-	*	*	*	*	-	-

TABLE 6.11: AREA OF CROPLAND UNDER IMPROVED FARM MANAGEMENT PRACTICES BY CROP CATEGORY IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Permanent Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	667768	14651	2.19	33359	5	259207	38.82	7178	1.07
Tigray	6268	128	2.04	1054	16.82	1505	24.01	63	1.01
Afar	393	*	*	377	95.93	*	*	*	*
Amhara	22095	566	2.56	5871	26.57	11604	52.52	432	1.96
Oromia	336032	11498	3.42	18280	5.44	111546	33.2	4768	1.42
Somali	8116	*	*	800	9.86	1362	16.78	*	*
Benishangul-Gumuz	2501	117	4.68	636	25.43	660	26.39	5	0.2
S.N.N.P.R	285385	2001	0.7	5798	2.03	130404	45.69	1759	0.62
Gambella	3765	269	7.14	*	*	76	2.02	*	*
Harari	2167	*	*	145	6.69	1404	64.79	89	4.11
Addis Ababa	49	*	*	*	*	20	40.82	*	*
Dire Dawa	997	*	*	381	38.21	521	52.26	19	1.91

TABLE 6.11.1: RURAL MEHER

Geographic Area	Permanent Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	644752	12841	1.99	31555	4.89	253774	39.36	6667	1.03
Tigray	5974	97	1.62	861	14.41	1448	24.24	34	0.57
Afar	392	*	*	376	95.92	*	*	*	*
Amhara	21284	432	2.03	5384	25.3	11262	52.91	304	1.43
Oromia	321041	10110	3.15	17567	5.47	109526	34.12	4537	1.41
Somali	8059	*	*	789	9.79	1339	16.61	*	*
Benishangul-Gumuz	2339	105	4.49	605	25.87	632	27.02	4	0.17
S.N.N.P.R	279315	1805	0.65	5482	1.96	127524	45.66	1686	0.6
Gambella	3289	231	7.02	*	*	76	2.31	*	*
Harari	2078	*	*	137	6.59	1345	64.73	56	2.69
Addis Ababa	26	*	*	*	*	10	38.46	*	*
Dire Dawa	957	3	0.31	350	36.57	509	53.19	*	*

TABLE 6.11.2: URBAN HOLDINGS

Geographic Area	Permanent Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	23016	1809	7.86	1804	7.84	5433	23.61	511	2.22
Tigray	294	31	10.54	194	65.99	57	19.39	29	9.86
Afar	1	*	*	1	100.00	*	*	*	*
Amhara	812	134	16.5	488	60.1	342	42.12	128	15.76
Oromia	14991	1388	9.26	713	4.76	2020	13.47	231	1.54
Somali	57	*	*	11	19.3	23	40.35	5	8.77
Benishangul-Gumuz	162	12	7.41	31	19.14	28	17.28	*	*
S.N.N.P.R	6070	196	3.23	317	5.22	2881	47.46	73	1.2
Gambella	476	38	7.98	*	*	*	*	*	*
Harari	90	*	*	8	8.89	59	65.56	*	*
Addis Ababa	24	*	*	*	*	10	41.67	-	-
Dire Dawa	40	*	*	31	77.5	11	27.5	*	*

TABLE 6.12: AREA OF CROPLAND UNDER IMPROVED FARM MANAGEMENT PRACTICES BY CROP CATEGORY IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Fruit Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	42463	620	1.46	6415	15.11	11335	26.69	255	0.6
Tigray	4400	104	2.36	356	8.09	861	19.57	*	*
Afar	382	*	*	370	96.86	*	*	*	*
Amhara	2061	116	5.63	975	47.31	971	47.11	46	2.23
Oromia	15830	206	1.3	1908	12.05	5694	35.97	*	*
Somali	438	*	*	394	89.95	116	26.48	4	0.91
Benishangul-Gumuz	1171	8	0.68	119	10.16	304	25.96	2	0.17
S.N.N.P.R	17290	116	0.67	2132	12.33	3009	17.4	18	0.1
Gambella	370	*	*	*	*	8	2.16	*	*
Harari	338	*	*	*	*	164	48.52	*	*
Addis Ababa	*	*	*	*	*	*	*	-	-
Dire Dawa	182	*	*	123	67.58	105	57.69	11	6.04

TABLE 6.12.1: RURAL MEHER

Geographic Area	Fruit Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	40076	454	1.13	5865	14.63	10615	26.49	165	0.41
Tigray	4293	87	2.03	261	6.08	834	19.43	*	*
Afar	382	*	*	370	96.86	*	*	*	*
Amhara	1822	71	3.9	789	43.3	840	46.1	18	0.99
Oromia	14819	131	0.88	1792	12.09	5579	37.65	*	*
Somali	423	*	*	389	91.96	112	26.48	*	*
Benishangul-Gumuz	1058	7	0.66	111	10.49	295	27.88	1	0.09
S.N.N.P.R	16438	93	0.57	2025	12.32	2586	15.73	12	0.07
Gambella	361	*	*	*	*	8	2.22	*	*
Harari	335	*	*	*	*	163	48.66	*	*
Addis Ababa	*	*	*	*	*	*	*	-	-
Dire Dawa	144	*	*	92	63.89	94	65.28	*	*

TABLE 6.12.1a: Avocado

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	2414	68	2.82	80	3.31	628	26.01	1	0.04
Tigray	*	*	*	*	*	*	*	-	-
Afar	-	-	-	-	-	-	-	-	-
Amhara	17	*	*	*	*	4	23.53	*	*
Oromia	374	29	7.75	*	*	161	43.05	*	*
Somali	-	-	-	-	-	-	-	-	-
Benishangul-Gumuz	6	*	*	*	*	*	*	-	-
S.N.N.P.R	2008	26	1.29	42	2.09	458	22.81	*	*
Gambella	4	*	*	-	-	*	*	*	*
Harari	*	-	-	*	*	*	*	-	-
Addis Ababa	*	*	*	*	*	*	*	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.12.1b: Bananas

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	21268	95	0.45	3687	17.34	5398	25.38	19	0.09
Tigray	*	*	*	76	*	*	*	*	*
Afar	*	*	*	*	*	*	*	-	-
Amhara	550	15	2.73	298	54.18	202	36.73	*	*
Oromia	8900	44	0.49	1183	13.29	3214	36.11	12	0.13
Somali	189	*	*	183	96.83	27	14.29	-	-
Benishangul-Gumuz	389	2	0.51	79	20.31	92	23.65	-	-
S.N.N.P.R	10792	24	0.22	1711	15.85	1715	15.89	7	0.06
Gambella	181	*	*	*	*	3	1.66	*	*
Harari	11	-	-	*	*	*	*	*	*
Addis Ababa	*	-	-	-	-	-	-	-	-
Dire Dawa	6	-	-	5	83.33	3	50	-	-

TABLE 6.12.1c: Guava

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	1224	94	7.68	298	24.35	416	33.99	5	0.41
Tigray	85	*	*	79	92.94	15	17.65	*	*
Afar	*	-	-	*	*	*	*	-	-
Amhara	181	8	4.42	60	33.15	96	53.04	*	*
Oromia	597	*	*	118	19.77	210	35.18	2	0.34
Somali	*	*	*	*	*	*	*	*	*
Benishangul-Gumuz	14	*	*	*	*	5	35.71	-	-
S.N.N.P.R	232	5	2.16	4	1.72	22	9.48	*	*
Gambella	4	*	*	-	-	*	*	-	-
Harari	69	-	-	*	*	39	56.52	-	-
Addis Ababa	-	-	-	-	-	-	-	-	-
Dire Dawa	*	-	-	*	*	*	*	-	-

TABLE 6.12.1d: Lemons

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	749	6	0.8	197	26.3	192	25.63	2	0.27
Tigray	47	*	*	18	38.3	23	48.94	*	*
Afar	5	*	*	*	*	*	*	*	*
Amhara	203	2	0.99	78	38.42	68	33.5	*	*
Oromia	185	*	*	32	17.3	60	32.43	*	*
Somali	34	*	*	32	94.12	11	32.35	*	*
Benishangul-Gumuz	28	*	*	*	*	8	28.57	*	*
S.N.N.P.R	239	*	*	29	12.13	17	7.11	*	*
Gambella	4	-	-	-	-	*	*	-	-
Harari	2	-	-	*	*	1	50	-	-
Addis Ababa	-	-	-	-	-	-	-	-	-
Dire Dawa	*	*	*	*	*	*	*	-	-

TABLE 6.12.1e: Mangoes

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	3642	57	1.57	297	8.15	1110	30.48	*	*
Tigray	3	*	*	*	*	1	33.33	-	-
Afar	-	-	-	-	-	-	-	-	-
Amhara	26	7	26.92	14	53.85	12	46.15	-	-
Oromia	2112	12	0.57	79	3.74	798	37.78	*	*
Somali	40	*	*	34	85	6	15	-	-
Benishangul-Gumuz	489	3	0.61	18	3.68	124	25.36	*	*
S.N.N.P.R	660	*	*	136	20.61	73	11.06	-	-
Gambella	105	*	*	*	*	2	1.9	*	*
Harari	198	-	-	*	*	89	44.95	*	*
Addis Ababa	-	-	-	-	-	-	-	-	-
Dire Dawa	9	-	-	5	55.56	*	*	-	-

TABLE 6.12.1f: Oranges

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	2402	28	1.17	435	18.11	828	34.47	24	1
Tigray	32	6	18.75	25	78.13	10	31.25	*	*
Afar	*	-	-	*	*	-	-	*	*
Amhara	479	8	1.67	214	44.68	269	56.16	*	*
Oromia	921	6	0.65	108	11.73	371	40.28	7	0.76
Somali	55	*	*	54	98.18	19	34.55	*	*
Benishangul-Gumuz	22	*	*	3	13.64	9	40.91	*	*
S.N.N.P.R	879	2	0.23	29	3.3	149	16.95	3	0.34
Gambella	10	*	*	-	-	*	*	-	-
Harari	*	-	-	*	*	*	*	-	-
Addis Ababa	*	*	*	*	*	*	*	-	-
Dire Dawa	*	-	-	*	*	*	*	-	-

TABLE 6.12.1g: Papayas

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	2713	76	2.8	468	17.25	792	29.19	*	*
Tigray	39	8	20.51	19	48.72	*	*	*	*
Afar	1	-	-	*	*	*	*	*	*
Amhara	214	16	7.48	68	31.78	109	50.93	*	*
Oromia	1013	23	2.27	193	19.05	432	42.65	*	*
Somali	60	*	*	58	96.67	*	*	*	*
Benishangul-Gumuz	101	*	*	3	2.97	52	51.49	-	-
S.N.N.P.R	1152	4	0.35	72	6.25	99	8.59	*	*
Gambella	51	*	*	*	*	2	3.92	*	*
Harari	*	*	*	*	*	15	*	-	-
Addis Ababa	-	-	-	-	-	-	-	-	-
Dire Dawa	43	*	*	32	74.42	37	86.05	*	*

TABLE 6.12.1h: Pineapples

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	171	*	*	*	*	8	4.68	-	-
Tigray	*	-	-	-	-	-	-	-	-
Afar	-	-	-	-	-	-	-	-	-
Amhara	*	*	*	*	*	*	*	-	-
Oromia	22	-	-	*	*	4	18.18	-	-
Somali	-	-	-	-	-	-	-	-	-
Benishangul-Gumuz	*	-	-	*	*	*	*	-	-
S.N.N.P.R	*	-	-	-	-	*	*	-	-
Gambella	2	-	-	-	-	*	*	-	-
Harari	-	-	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.12.1i: Other Fruit Crops

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	5494	28	0.51	404	7.35	1241	22.59	*	*
Tigray	3990	11	0.28	39	0.98	719	18.02	*	*
Afar	219	-	-	216	98.63	*	*	-	-
Amhara	152	*	*	45	29.61	79	51.97	*	*
Oromia	695	*	*	57	8.2	330	47.48	*	*
Somali	*	-	-	5	*	*	*	-	-
Benishangul-Gumuz	8	*	*	*	*	2	25	-	-
S.N.N.P.R	330	*	*	*	*	47	14.24	*	*
Gambella	1	-	-	-	-	*	*	-	-
Harari	13	*	*	*	*	10	76.92	-	-
Addis Ababa	*	-	-	-	-	*	*	-	-
Dire Dawa	72	*	*	*	*	*	*	*	*

TABLE 6.12.2: URBAN HOLDINGS

Geographic Area	Fruit Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	2386	167	7	550	23.05	720	30.18	90	3.77
Tigray	106	17	16.04	96	90.57	27	25.47	*	*
Afar	*	*	*	*	*	*	*	*	*
Amhara	239	*	*	186	77.82	*	*	28	11.72
Oromia	1011	75	7.42	116	11.47	115	11.37	33	3.26
Somali	15	*	*	5	33.33	4	26.67	*	*
Benishangul-Gumuz	113	1	0.88	8	7.08	9	7.96	*	*
S.N.N.P.R	852	23	2.7	107	12.56	423	49.65	6	0.7
Gambella	9	-	-	-	-	-	-	*	*
Harari	3	*	*	*	*	*	*	-	-
Addis Ababa	*	*	*	*	*	*	*	-	-
Dire Dawa	38	*	*	31	81.58	11	28.95	*	*

TABLE 6.13: AREA OF CROPLAND UNDER IMPROVED FARM MANAGEMENT PRACTICES BY CROP CATEGORY IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Stimulant Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	373281	13686	3.67	22147	5.93	92743	24.85	6300	1.69
Tigray	1815	22	1.21	694	38.24	613	33.77	31	1.71
Afar	7	*	*	*	*	*	*	-	-
Amhara	18698	434	2.32	4201	22.47	10060	53.8	373	1.99
Oromia	247465	11114	4.49	14236	5.75	60003	24.25	4419	1.79
Somali	7665	-	-	403	5.26	1246	16.26	*	*
Benishangul-Gumuz	1256	108	8.6	489	38.93	326	25.96	*	*
S.N.N.P.R	90806	1741	1.92	1762	1.94	18820	20.73	1342	1.48
Gambella	2926	265	9.06	*	*	10	0.34	-	-
Harari	1790	*	*	87	4.86	1237	69.11	88	4.92
Addis Ababa	37	*	*	*	*	11	29.73	*	*
Dire Dawa	815	*	*	258	31.66	415	50.92	*	*

TABLE 6.13.1: RURAL MEHER

Geographic Area	Stimulant Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	358381	12086	3.37	21385	5.97	90475	25.25	5904	1.65
Tigray	1628	*	*	596	36.61	584	35.87	12	0.74
Afar	7	*	*	*	*	*	*	-	-
Amhara	18190	345	1.9	3936	21.64	9855	54.18	278	1.53
Oromia	236016	9817	4.16	13954	5.91	58839	24.93	4233	1.79
Somali	7624	-	-	398	5.22	1227	16.09	*	*
Benishangul-Gumuz	1212	98	8.09	468	38.61	307	25.33	*	*
S.N.N.P.R	88702	1589	1.79	1687	1.9	18051	20.35	1281	1.44
Gambella	2463	227	9.22	*	*	10	0.41	-	-
Harari	1704	*	*	81	4.75	1179	69.19	*	*
Addis Ababa	23	*	*	*	*	7	30.43	*	*
Dire Dawa	813	*	*	258	31.73	415	51.05	*	*

TABLE 6.13.1a: Chat

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	96066	-	-	10830	11.27	40591	42.25	4174	4.34
Tigray	197	-	-	*	*	*	*	*	*
Afar	*	-	-	*	*	*	*	-	-
Amhara	1874	-	-	505	26.95	1276	68.09	177	9.45
Oromia	66126	-	-	8963	13.55	30793	46.57	3189	4.82
Somali	7596	-	-	376	4.95	1225	16.13	*	*
Benishangul-Gumuz	123	-	-	32	26.02	37	30.08	*	*
S.N.N.P.R	17691	-	-	556	3.14	5685	32.13	704	3.98
Gambella	37	-	-	-	-	*	*	-	-
Harari	1666	-	-	78	4.68	1154	69.27	*	*
Addis Ababa	1	-	-	*	*	1	100.00	-	-
Dire Dawa	752	-	-	210	27.93	382	50.8	*	*

TABLE 6.13.1b: Coffee

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	243834	12086	4.96	8494	3.48	40831	16.75	1617	0.66
Tigray	133	*	*	113	84.96	23	17.29	*	*
Afar	1	*	*	*	*	*	*	-	-
Amhara	6035	345	5.72	2161	35.81	3021	50.06	59	0.98
Oromia	165121	9817	5.95	4595	2.78	25375	15.37	980	0.59
Somali	*	-	-	*	*	*	*	-	-
Benishangul-Gumuz	1032	98	9.5	424	41.09	239	23.16	*	*
S.N.N.P.R	68979	1589	2.3	1123	1.63	12107	17.55	575	0.83
Gambella	2411	227	9.42	*	*	10	0.41	-	-
Harari	34	*	*	*	*	22	64.71	*	*
Addis Ababa	*	*	*	*	*	*	*	-	-
Dire Dawa	61	*	*	48	78.69	33	54.1	*	*

TABLE 6.13.1c: Hops

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	18448	-	-	2060	11.17	9038	48.99	113	0.61
Tigray	1298	-	-	376	28.97	523	40.29	4	0.31
Afar	4	-	-	-	-	*	*	-	-
Amhara	10281	-	-	1269	12.34	5558	54.06	42	0.41
Oromia	4751	-	-	396	8.34	2669	56.18	64	1.35
Somali	*	-	-	-	-	-	-	-	-
Benishangul-Gumuz	58	-	-	12	20.69	31	53.45	*	*
S.N.N.P.R	2017	-	-	7	0.35	246	12.2	*	*
Gambella	14	-	-	-	-	*	*	-	-
Harari	*	-	-	-	-	*	*	-	-
Addis Ababa	22	-	-	*	*	7	31.82	*	*
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.13.2: URBAN HOLDINGS

Geographic Area	Stimulant Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	14899	1600	10.74	762	5.11	2268	15.22	397	2.66
Tigray	187	13	6.95	98	52.41	30	16.04	*	*
Afar	-	-	-	-	-	-	-	-	-
Amhara	508	89	17.52	265	52.17	205	40.35	*	*
Oromia	11449	1297	11.33	283	2.47	1163	10.16	186	1.62
Somali	42	-	-	5	11.9	20	47.62	2	4.76
Benishangul-Gumuz	44	11	25	21	47.73	19	43.18	*	*
S.N.N.P.R	2104	152	7.22	76	3.61	769	36.55	61	2.9
Gambella	463	38	8.21	-	-	*	*	-	-
Harari	87	*	*	6	6.9	58	66.67	*	*
Addis Ababa	*	-	-	*	*	*	*	-	-
Dire Dawa	*	-	-	*	*	-	-	*	*

TABLE 6.14: AREA OF CROPLAND UNDER IMPROVED FARM MANAGEMENT PRACTICES BY CROP CATEGORY IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Other Permanent Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	252025	345	0.14	4798	1.9	155129	61.55	623	0.25
Tigray	53	*	*	4	7.55	30	56.6	*	*
Afar	3	*	*	3	100.00	2	66.67	-	-
Amhara	1337	16	1.2	696	52.06	574	42.93	13	0.97
Oromia	72736	178	0.24	2136	2.94	45849	63.03	209	0.29
Somali	*	-	-	2	*	*	*	-	-
Benishangul-Gumuz	73	*	*	27	36.99	30	41.1	-	-
S.N.N.P.R	177289	143	0.08	1904	1.07	108576	61.24	400	0.23
Gambella	470	*	*	*	*	58	12.34	*	*
Harari	39	-	-	*	*	*	*	*	*
Addis Ababa	11	*	*	*	*	8	72.73	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.14.1: RURAL MEHER

Geographic Area	Other Permanent Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	246294	302	0.12	4306	1.75	152684	61.99	598	0.24
Tigray	53	*	*	*	*	30	56.6	*	*
Afar	3	*	*	3	100.00	2	66.67	-	-
Amhara	1271	16	1.26	659	51.85	567	44.61	*	*
Oromia	70205	161	0.23	1822	2.6	45107	64.25	196	0.28
Somali	*	-	-	2	*	*	*	-	-
Benishangul-Gumuz	69	*	*	26	37.68	30	43.48	-	-
S.N.N.P.R	174175	122	0.07	1770	1.02	106887	61.37	393	0.23
Gambella	465	*	*	*	*	58	12.47	*	*
Harari	39	-	-	*	*	*	*	*	*
Addis Ababa	2	*	*	*	*	1	50	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.14.1a: Enset

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	233492	248	0.11	1066	0.46	148906	63.77	515	0.22
Tigray	*	-	-	*	*	*	*	-	-
Afar	-	-	-	-	-	-	-	-	-
Amhara	10	*	*	*	*	8	80	-	-
Oromia	65864	131	0.2	190	0.29	43786	66.48	170	0.26
Somali	*	-	-	*	*	-	-	-	-
Benishangul-Gumuz	4	*	*	*	*	2	50	-	-
S.N.N.P.R	167217	117	0.07	874	0.52	105052	62.82	345	0.21
Gambella	393	-	-	-	-	56	14.25	-	-
Harari	*	-	-	-	-	*	*	-	-
Addis Ababa	1	-	-	*	*	*	*	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

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TABLE 6.14.1b: Sugar Cane

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	11775	30	0.25	3191	27.1	3385	28.75	74	0.63
Tigray	*	-	-	*	*	*	*	-	-
Afar	3	*	*	3	100.00	2	66.67	-	-
Amhara	955	9	0.94	640	67.02	390	40.84	*	*
Oromia	4033	15	0.37	1615	40.04	1171	29.04	20	0.5
Somali	1	-	-	1	100.00	*	*	-	-
Benishangul-Gumuz	53	*	*	26	49.06	24	45.28	-	-
S.N.N.P.R	6623	*	*	*	*	1794	27.09	*	*
Gambella	68	*	*	*	*	2	2.94	*	*
Harari	*	-	-	*	*	*	*	-	-
Addis Ababa	*	*	*	*	*	*	*	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.14.1c: Other of Other Permanent Crops

Geographic Area	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	%	Area	%	Area	%	Area	%
National	1027	23	2.24	49	4.77	394	38.36	10	0.97
Tigray	50	*	*	*	*	29	58	*	*
Afar	*	-	-	-	-	-	-	-	-
Amhara	307	*	*	18	5.86	169	55.05	*	*
Oromia	308	*	*	17	5.52	150	48.7	*	*
Somali	*	-	-	*	*	-	-	-	-
Benishangul-Gumuz	12	-	-	*	*	3	25	-	-
S.N.N.P.R	335	*	*	*	*	40	11.94	*	*
Gambella	4	-	-	-	-	*	*	-	-
Harari	*	-	-	-	-	*	*	*	*
Addis Ababa	*	-	-	*	*	*	*	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.14.2: URBAN HOLDINGS

Geographic Area	Other Permanent Crops								
	Total Crop Area	Improved Seed		Irrigated		Fertilizer		Pesticide	
		Area	Area	%	Area	%	Area	%	Area
National	5731	43	0.75	492	8.58	2445	42.66	24	0.42
Tigray	*	-	-	*	*	-	-	-	-
Afar	*	-	-	*	*	*	*	-	-
Amhara	65	*	*	37	56.92	7	10.77	5	7.69
Oromia	2531	17	0.67	314	12.41	742	29.32	13	0.51
Somali	1	-	-	-	-	-	-	-	-
Benishangul-Gumuz	5	-	-	1	20	*	*	-	-
S.N.N.P.R	3114	21	0.67	134	4.3	1689	54.24	7	0.22
Gambella	5	-	-	*	*	-	-	-	-
Harari	*	-	-	*	*	*	*	-	-
Addis Ababa	9	*	*	*	*	6	66.67	-	-
Dire Dawa	-	-	-	-	-	-	-	-	-

TABLE 6.15: NUMBER OF HOLDER APPLYING FERTILIZERS, AREA, AND QUANTITY APPLIED BY CROP TYPE IN RURAL AREAS, BOTH SEASONS, FOR PRIVATE HOLDINGS

CROP	Application of total Fertilizers		Application of Fertilizers by Type and Quantity				
	Holder	Hectare	Natural		Chemical – DAP		
			Holder	Hectare	Holder	Hectare	Quintal
TOTAL	7489163	3755178	6382866	1454450	1818886	1066606	778421
Grain Crops	6398794	3289672	4723456	1070033	1696558	1023747	732563
Cereals	6174342	3023838	4357621	904120	1620637	951841	687675
Teff	2114664	929835	466177	97978	765561	319905	220441
Barley	1592259	376987	939759	133657	456275	175085	125018
Wheat	1710089	600909	473433	60900	587514	272092	221477
Maize	4050434	767940	3298427	412964	392549	94595	70862
Sorghum	864869	200398	758533	171654	38938	6860	2684
Finger millet	424161	136964	127066	22982	178127	77640	43841
Oats ('Aja')	91044	9994	56220	3644	27900	5534	3247
Rice	5623	809	3505	341	682	130	105
Pulses	1906869	208325	1545253	128336	312943	59572	39219
Horse/Faba beans	890396	96742	664294	59711	174832	29433	19915
Field peas	271205	35247	172133	16055	79148	15323	10690
Haricot beans	839820	52705	758824	37979	79115	11111	6514
Chick peas	77996	11179	64070	7949	4441	961	553
Lentils	55394	4674	34183	2561	11547	928	468
Vetch/Grass peas	27998	3255	22380	2306	1756	349	145
Soya	4247	870	2797	129	1126	637	596
Fenugreek	56403	2743	42375	1199	4458	551	236
Gibto	8539	909	4308	446	2474	280	102
Oil Seeds	421865	50395	323141	32306	62453	11269	4767
Neug	87236	24671	66379	17691	13805	4734	1265
Linseed	66705	7620	43493	3460	15981	3351	1419
Ground nuts	25308	3424	21185	2703	1454	194	24
Sunflower	18380	792	12143	295	1741	96	29
Sesame	26550	3977	23806	3229	879	293	77
Rapeseed	224072	9911	170870	4928	31560	2600	1953
Other Grains	231465	7113	215859	5272	7890	1065	903
Vegetables	2132520	50158	1971123	32194	77937	6007	8711
Lettuce	9039	149	6565	60	189	*	*
Head cabbage	29241	570	21867	294	2035	*	*
Kale	1160618	13833	1144780	13470	13182	207	284
Tomatoes	36443	1869	27044	638	1511	147	232
Green peppers	242564	2388	224201	1954	6706	124	201
Red peppers	644722	26942	505614	12013	53968	5391	7831
Swiss chard	13936	74	11887	58	368	*	*
Others	297010	4334	289946	3709	3134	91	97
Root Crops	2428911	161575	2113382	111332	343729	33748	35990
Beet root	39294	406	31908	229	3622	57	58
Carrot	26397	555	19641	237	3119	123	200
Onions	383093	10899	327915	5629	21258	1752	1868
Potatoes	1336751	110475	1043734	67707	306075	31004	32892
Garlic	500445	3279	467836	2888	10344	137	230
Taro ('Godere')	382265	10317	379682	10115	2375	138	216
Sweet potatoes	430334	23108	412183	22199	9247	461	493
Others	71657	2536	70349	2329	706	*	32
Permanent Crops	3543348	253774	3456519	240890	44681	3104	1156
Fruit Crops	914952	10615	896699	10056	7216	172	181
Avocado	128716	628	127557	615	569	5	11
Bananas	545321	5398	538229	5215	2855	49	80
Guava (Zeytuna)	55695	416	52619	339	525	25	7
Lemons	40810	192	39917	176	199	*	*
Mangoes	102404	1110	98110	996	1560	31	37
Oranges	130271	828	128437	800	499	13	9
Papayas	151046	792	147829	734	891	*	15
Pineapples	2233	8	2233	8	-	-	-
Others	92895	1241	89256	1173	863	24	18
Stimulant Crops	1932130	90475	1846161	79192	34362	2589	827
Chat	716348	40591	661093	32913	14998	1347	304
Coffee	834485	40831	806678	37903	16418	1095	408
Hops	781521	9038	761393	8361	6764	147	115
Others	209	*	209	*	-	-	-
Other Permanent Crops	2119186	152684	2103507	151642	9576	344	148
Enset	1978865	148906	1973567	148559	4592	167	87
Sugar Cane	205213	3385	197683	2785	2360	129	42
Others	82880	394	75439	298	2872	48	20

TABLE 6.15 CONTD.

CROP	Application of Fertilizers by Type and Quantity					
	Chemical - UREA			Chemical - DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
TOTAL	340582	88573	58702	2046415	1145549	1441418
Grain Crops	254269	77819	49565	1983020	1118072	1402693
Cereals	240012	73956	47087	1964513	1093921	1384730
Teff	107357	36809	21275	913860	475143	513969
Barley	28666	6178	4826	276417	62068	63140
Wheat	44256	10868	9124	697574	257049	374415
Maize	67586	11431	8498	830052	248951	393271
Sorghum	24714	5644	1891	67682	16240	10912
Finger millet	11999	2868	1391	121699	33474	27686
Oats ('Aja')	911	109	72	6834	708	911
Rice	225	50	9	1248	289	426
Pulses	21976	2449	1565	125147	17968	15355
Horse/Faba beans	7581	681	604	59089	6918	6735
Field peas	3894	637	396	19173	3232	2781
Haricot beans	8586	574	348	28723	3042	1498
Chick peas	1499	320	86	8327	1949	1552
Lentils	880	89	47	9017	1096	1335
Vetch/Grass peas	263	*	14	3690	564	625
Soya	60	*	*	274	82	77
Fenugreek	777	58	26	9239	936	716
Gibto	*	*	*	1745	149	36
Oil Seeds	9305	1237	742	51802	5583	2036
Neug	1588	401	*	7142	1845	823
Linseed	1143	96	53	6464	713	530
Ground nuts	1832	251	64	1406	275	105
Sufflower	1259	67	31	3375	334	50
Sesame	925	250	39	1042	205	149
Rapeseed	2795	171	75	33309	2211	379
Other Grains	3310	177	172	5754	600	572
Vegetables	61094	4204	4333	81719	7752	16092
Lettuce	1436	54	*	1638	31	70
Head cabbage	2943	95	354	3395	139	387
Kale	3527	40	62	5747	117	200
Tomatoes	1542	*	193	7307	888	2539
Green peppers	4515	101	255	8989	209	437
Red peppers	47743	3688	3253	55315	5850	12350
Swiss chard	544	4	12	1294	11	28
Others	1232	26	25	4065	*	82
Root Crops	53492	2900	3811	138024	13594	20804
Beet root	1878	43	132	2950	77	173
Carrot	1423	29	49	3324	166	253
Onions	15734	1108	1471	26369	2410	6686
Potatoes	23266	1469	1675	91177	10295	12180
Garlic	9896	78	328	14593	176	604
Taro ('Godere')	311	*	*	1005	58	117
Sweet potatoes	4912	140	128	8294	308	647
Others	*	*	*	638	106	*
Permanent Crops	40666	3649	993	76032	6131	1828
Fruit Crops	6268	120	122	12347	267	246
Avocado	351	*	5	387	6	*
Bananas	1766	25	22	5198	108	101
Guava (Zeytuna)	1320	32	19	1416	21	15
Lemons	191	*	5	521	14	*
Mangoes	971	25	12	2268	58	35
Oranges	433	*	6	1063	12	13
Papayas	1194	18	17	1444	16	26
Pineapples	-	-	-	-	-	-
Others	1081	12	35	2104	33	46
Stimulant Crops	31347	3117	790	65039	5578	1423
Chat	23350	2603	624	37015	3728	856
Coffee	6577	466	122	17243	1368	343
Hops	3009	47	44	16103	483	224
Others	-	-	-	-	-	-
Other Permanent Crops	7919	413	81	7775	286	159
Enset	1358	75	25	3218	105	71
Sugar Cane	3381	320	25	2436	151	57
Others	3180	17	32	2216	30	31

TABLE 6.15.1: RURAL MEHER

CROP	Application of total Fertilizers		Application of Fertilizers by Type and Quantity				
	Holder	Hectare	Natural		Chemical – DAP		
			Holder	Hectare	Holder	Hectare	Quintal
TOTAL	7178609	3428876	5982465	1215718	1706016	996035	727473
Grain Crops	5844515	3071825	3963930	904657	1647853	978518	708276
Cereals	5585950	2842279	3543916	768303	1583418	912117	665805
Teff	2081009	922689	436238	93048	760319	318411	219780
Barley	1441598	326432	817500	109645	415691	150208	112277
Wheat	1665065	587104	431857	55051	578700	264348	216600
Maize	3242496	670393	2399917	323389	358703	89989	67689
Sorghum	826654	190691	718382	161997	38788	6845	2670
Finger millet	419376	136640	122413	22661	178061	77637	43838
Oats ('Aja')	69146	7522	37292	2171	24620	4549	2856
Rice	4594	808	2760	341	431	130	95
Pulses	1410759	172753	1055484	99425	272322	54115	36814
Horse/Faba beans	875648	96117	649375	59134	174161	29393	19890
Field peas	251954	32618	155016	14140	76513	14689	10480
Haricot beans	327069	22840	266195	13825	38483	6397	4375
Chick peas	67942	9891	54505	6747	4350	959	552
Lentils	47332	3976	26444	1894	11348	902	466
Vetch/Grass peas	26451	3176	20898	2229	1756	349	145
Soya	3876	861	2426	120	1126	637	596
Fenugreek	49976	2370	36466	892	4132	514	218
Gibto	8329	903	4249	444	2324	276	93
Oil Seeds	404237	50134	305597	32088	62180	11226	4755
Neug	87206	24670	66349	17690	13805	4734	1265
Linseed	65423	7513	42318	3396	15821	3308	1408
Ground nuts	24182	3284	20059	2563	1454	194	24
Safflower	17960	782	11723	285	1741	96	29
Sesame	26319	3975	23575	3227	879	293	77
Rapeseed	209378	9910	156181	4927	31447	2600	1951
Other Grains	216170	6659	200520	4840	7819	1059	902
Vegetables	1814567	42375	1658809	25565	74182	5878	8553
Lettuce	5282	86	3280	25	189	*	*
Head cabbage	22331	336	16976	192	1699	*	*
Kale	862819	8409	846993	8121	11663	170	257
Tomatoes	22366	895	16511	298	1152	102	157
Green peppers	219097	1931	204354	1659	5264	93	166
Red peppers	633548	26623	496371	11799	53827	5386	7821
Swiss chard	11405	49	10037	44	368	*	*
Others	272412	4046	265347	3428	3134	91	97
Root Crops	1666138	60901	1485481	44606	126238	8534	9488
Beet root	33373	245	27805	146	2691	31	36
Carrot	20249	380	14799	124	2188	91	183
Onions	286946	6132	246374	3005	15806	1201	1433
Potatoes	528292	24607	405576	13351	90968	6480	6923
Garlic	426565	2644	396238	2319	8749	102	197
Taro ('Godere')	349414	9154	346675	8953	2332	137	214
Sweet potatoes	371002	15640	352507	14816	8596	415	470
Others	57736	2098	56492	1892	670	*	32
Permanent Crops	3543348	253774	3456519	240890	44681	3104	1156
Fruit Crops	914952	10615	896699	10056	7216	172	181
Avocado	128716	628	127557	615	569	5	11
Bananas	545321	5398	538229	5215	2855	49	80
Guava (Zeytuna)	55695	416	52619	339	525	25	7
Lemons	40810	192	39917	176	199	*	*
Mangoes	102404	1110	98110	996	1560	31	37
Oranges	130271	828	128437	800	499	13	9
Papayas	151046	792	147829	734	891	*	15
Pineapples	2233	8	2233	8	-	-	-
Others	92895	1241	89256	1173	863	24	18
Stimulant Crops	1932130	90475	1846161	79192	34362	2589	827
Chat	716348	40591	661093	32913	14998	1347	304
Coffee	834485	40831	806678	37903	16418	1095	408
Hops	781521	9038	761393	8361	6764	147	115
Others	209	*	209	*	-	-	-
Other Permanent Crops	2119186	152684	2103507	151642	9576	344	148
Enset	1978865	148906	1973567	148559	4592	167	87
Sugar Cane	205213	3385	197683	2785	2360	129	42
Others	82880	394	75439	298	2872	48	20

TABLE 6.15.1 CONTD.

CROP	Application of Fertilizers by Type and Quantity					
	Chemical - UREA			Chemical - DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
TOTAL	312730	84850	55105	2004481	1132273	1423486
Grain Crops	245688	76089	48450	1963527	1112562	1397327
Cereals	232841	72364	46030	1948457	1089494	1379925
Teff	106659	36653	21214	911714	474577	513685
Barley	26347	5414	4326	270847	61165	62349
Wheat	43938	10780	9046	696919	256926	374308
Maize	63265	10872	8098	810958	246144	389673
Sorghum	24686	5628	1887	67592	16222	10901
Finger millet	11932	2867	1390	121699	33474	27686
Oats ('Aja')	837	101	60	6726	700	901
Rice	225	50	9	1214	287	421
Pulses	20216	2310	1506	116975	16903	14830
Horse/Faba beans	7539	679	603	58933	6911	6725
Field peas	3768	595	384	18984	3194	2765
Haricot beans	7128	498	305	21035	2120	1128
Chick peas	1392	302	83	8007	1884	1464
Lentils	818	87	45	8956	1094	1334
Vetch/Grass peas	263	*	14	3625	562	620
Soya	60	*	*	274	82	77
Fenugreek	777	58	26	8925	906	681
Gibto	*	*	*	1745	149	36
Oil Seeds	9305	1237	742	51802	5583	2036
Neug	1588	401	*	7142	1845	823
Linseed	1143	96	53	6464	713	530
Ground nuts	1832	251	64	1406	275	105
Sunflower	1259	67	31	3375	334	50
Sesame	925	250	39	1042	205	149
Rapeseed	2795	171	75	33309	2211	379
Other Grains	3310	177	172	5558	582	536
Vegetables	56310	3853	3818	74659	7080	14119
Lettuce	959	32	*	1046	24	53
Head cabbage	1881	38	*	2000	76	222
Kale	2923	26	51	5231	92	138
Tomatoes	668	43	50	4168	452	1161
Green peppers	3250	57	128	7095	122	237
Red peppers	46690	3633	3216	54131	5805	12222
Swiss chard	246	2	*	768	3	13
Others	1151	22	22	3943	*	74
Root Crops	32837	1259	1844	75380	6501	10211
Beet root	1217	22	83	2016	46	79
Carrot	1270	22	41	2376	143	207
Onions	9401	558	657	17641	1367	3152
Potatoes	8519	438	597	35970	4338	5342
Garlic	9483	66	311	13805	157	565
Taro ('Godere')	311	*	*	1005	58	117
Sweet potatoes	4747	122	126	7942	287	610
Others	*	*	*	609	104	*
Permanent Crops	40666	3649	993	76032	6131	1828
Fruit Crops	6268	120	122	12347	267	246
Avocado	351	*	5	387	6	*
Bananas	1766	25	22	5198	108	101
Guava (Zeytuna)	1320	32	19	1416	21	15
Lemons	191	*	5	521	14	*
Mangoes	971	25	12	2268	58	35
Oranges	433	*	6	1063	12	13
Papayas	1194	18	17	1444	16	26
Pineapples	-	-	-	-	-	-
Others	1081	12	35	2104	33	46
Stimulant Crops	31347	3117	790	65039	5578	1423
Chat	23350	2603	624	37015	3728	856
Coffee	6577	466	122	17243	1368	343
Hops	3009	47	44	16103	483	224
Others	-	-	-	-	-	-
Other Permanent Crops	7919	413	81	7775	286	159
Enset	1358	75	25	3218	105	71
Sugar Cane	3381	320	25	2436	151	57
Others	3180	17	32	2216	30	31

TABLE 6.15.2 RURAL BELG

CROP	Application of Total Fertilizer		Application of Fertilizer by Type and Quantity				
			Natural		Chemical – DAP		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
TOTAL	2498968	326302	2169151	238732	406676	70572	50947
Grain Crops	1601358	217846	1475778	165377	164026	45229	24287
Cereals	1477419	181559	1363989	135817	127050	39724	21870
Teff	54732	7146	43554	4930	7786	1495	660
Barley	272081	50556	193220	24012	73928	24876	12741
Wheat	81564	13805	55706	5849	25141	7744	4877
Maize	1193558	97547	1156665	89575	41526	4606	3173
Sorghum	63294	9707	63036	9657	*	*	*
Finger millet	4794	324	4662	321	*	*	*
Oats ('Aja')	28746	2473	23016	1472	5576	985	390
Rice	1029	*	745	-	250	-	*
Pulses	644638	35571	602871	28911	48361	5457	2405
Horse/Faba beans	19265	625	18301	576	859	40	25
Field peas	25674	2629	21601	1915	3701	634	211
Haricot beans	589966	29865	554205	24154	43439	4713	2139
Chick peas	10511	1287	9994	1203	*	*	*
Lentils	8349	698	8026	667	199	*	*
Vetch/Grass peas	1683	79	1618	77	-	-	-
Soya	*	9	*	9	-	-	-
Fenugreek	7159	373	6482	306	326	37	*
Gibto	210	*	*	*	*	*	*
Oil Seeds	19634	261	19433	218	273	*	*
Neug	*	*	*	*	*	*	*
Linseed	1599	107	1466	64	*	*	*
Ground nuts	1318	*	1318	*	-	-	-
Sufflower	462	10	462	10	-	-	-
Sesame	231	3	231	3	-	-	-
Rapeseed	16004	*	15937	*	*	*	*
Other Grains	22724	454	22528	431	*	*	*
Vegetables	503073	7783	487219	6629	4119	129	158
Lettuce	4536	62	3405	35	-	-	-
Head cabbage	8319	234	5390	102	386	*	*
Kale	433894	5424	431470	5349	1657	37	28
Tomatoes	15864	973	11297	339	414	45	74
Green peppers	27089	458	22408	295	1564	31	35
Red peppers	13213	319	10921	214	*	*	*
Swiss chard	2658	25	1919	14	-	-	-
Others	29127	288	29006	281	-	-	-
Root Crops	1348058	100673	1069720	66726	267864	25214	26502
Beet root	7189	161	4474	83	976	26	22
Carrot	7451	176	5306	114	1017	32	18
Onions	130477	4767	107849	2623	6356	550	435
Potatoes	1080411	85868	804020	54356	260936	24524	25969
Garlic	79850	634	77223	569	1624	35	33
Taro ('Godere')	58374	1163	58374	1161	*	*	*
Sweet potatoes	159041	7468	158202	7383	651	46	23
Others	19426	438	19361	437	*	*	*

TABLE 6.15.2 CONTD.

CROP	Application of Fertilizers by Type and Quantity					
	Chemical - UREA			Chemical - DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
TOTAL	34634	3723	3598	102582	13275	17932
Grain Crops	9683	1731	1116	39275	5510	5366
Cereals	8123	1592	1056	32129	4427	4805
Teff	927	156	61	2845	566	284
Barley	2473	*	499	7686	903	791
Wheat	318	88	78	797	*	*
Maize	4485	559	400	22021	2807	3598
Sorghum	*	*	*	*	*	*
Finger millet	*	*	*	*	*	*
Oats ('Aja')	*	*	*	*	*	*
Rice	*	*	*	*	*	*
Pulses	1880	139	59	9123	1065	524
Horse/Faba beans	*	*	*	*	*	*
Field peas	*	*	*	189	*	*
Haricot beans	1458	76	42	8063	922	370
Chick peas	*	*	*	319	*	88
Lentils	*	*	*	*	*	*
Vetch/Grass peas	*	*	*	*	*	*
Soya	*	*	*	*	*	*
Fenugreek	*	*	*	351	29	*
Gibto	*	*	*	*	*	*
Oil Seeds	*	*	*	*	*	*
Neug	*	*	*	*	*	*
Linseed	*	*	*	*	*	*
Ground nuts	*	*	*	*	*	*
Safflower	*	*	*	*	*	*
Sesame	*	*	*	*	*	*
Rapeseed	*	*	*	*	*	*
Other Grains	*	*	*	197	*	*
Vegetables	5353	352	515	8309	673	1973
Lettuce	740	22	*	651	6	*
Head cabbage	1302	57	116	1461	62	164
Kale	604	14	*	516	24	62
Tomatoes	874	*	*	3574	435	1379
Green peppers	*	44	*	2185	87	200
Red peppers	1092	55	36	1183	46	*
Swiss chard	299	2	8	543	8	15
Others	*	*	*	122	3	8
Root Crops	22870	1641	1967	72248	7093	10593
Beet root	*	*	*	1002	30	95
Carrot	*	*	*	1032	24	47
Onions	7338	551	814	10005	1042	*
Potatoes	15414	1032	1079	61728	5957	6838
Garlic	414	*	*	827	18	39
Taro ('Godere')	*	*	*	*	*	*
Sweet potatoes	*	*	*	*	*	*
Others	*	*	*	*	*	*

TABLE 6.16: NUMBER OF HOLDER APPLYING FERTILIZER, AREA, AND QUANTITY APPLIED BY CROP TYPE FOR URBAN AREAS IN MEHER SEASON, FOR RIVATE HOLDINGS

CROP	Application of Total Fertilizers		Application of Fertilizers by Type and Quantity					
	Holder	Hectare	Natural		Chemical		Natural and Chemical	
			Holder	Hectare	Holder	Hectare	Holder	Hectare
TOTAL	100310	62755	47719	10202	64904	50343	4545	2209
Grain Crops	79095	54588	19458	4742	61650	48148	3806	1698
Cereals	77492	51813	17761	4130	60834	46114	3731	1569
Teff	30198	16270	1511	490	27891	15409	901	371
Barley	12304	5052	1984	489	9966	4400	474	163
Wheat	29263	17129	1978	495	26509	16271	911	363
Maize	34183	10399	13060	1984	19790	7985	2068	429
Sorghum	5355	1583	2474	611	2381	780	562	192
Finger millet	3038	1215	212	56	2750	1109	81	50
Oats ('Aja')	440	153	36	4	402	148	*	*
Rice	28	11	-	-	28	11	-	-
Pulses	7432	2235	2363	443	4813	1670	307	122
Horse/Faba beans	3502	843	1184	202	2220	614	103	27
Field peas	1357	344	389	64	931	268	37	13
Haricot beans	2201	679	795	121	1244	492	170	67
Chick peas	437	112	134	14	290	97	12	1
Lentils	221	59	14	*	201	47	6	*
Vetch/Grass peas	189	51	51	8	126	39	13	4
Soya	*	*	-	-	*	*	-	-
Fenugreek	189	48	63	9	124	38	*	*
Gibto	24	*	15	*	*	*	-	-
Oil Seeds	903	394	261	73	599	317	46	3
Neug	204	156	38	12	167	144	-	-
Linseed	309	130	34	7	270	121	5	*
Ground nuts	145	24	70	8	56	14	22	1
Sufflower	14	*	*	*	*	*	-	-
Sesame	60	27	15	*	38	24	*	*
Rapeseed	195	*	108	*	76	9	13	*
Other Grains	1258	147	1068	97	157	47	53	4
Vegetables	8848	1028	6528	305	2071	593	342	*
Lettuce	347	31	112	6	133	11	102	*
Head cabbage	214	16	96	2	85	14	33	1
Kale	6323	303	5614	218	548	45	175	*
Tomatoes	721	192	323	19	358	161	41	12
Green peppers	410	16	308	4	91	12	*	*
Red peppers	1570	379	437	48	1061	320	76	11
Swiss chard	512	*	169	8	217	17	126	*
Others	93	*	37	*	32	*	24	*
Root Crops	8773	1705	5727	619	2662	775	569	*
Beet root	228	14	111	2	76	6	41	*
Carrot	546	*	194	12	181	20	172	*
Onions	1605	494	599	52	871	370	138	*
Potatoes	3061	518	1312	113	1480	347	303	59
Garlic	500	31	380	21	75	10	44	1
Taro ('Godere')	2268	155	2196	140	54	*	17	1
Sweet potatoes	2278	247	2156	237	115	8	*	*
Others	256	43	240	42	*	*	5	*
Permanent Crops	37323	5433	34973	4536	2926	827	596	69
Fruit Crops	10941	720	10429	651	622	60	131	10
Avocado	3338	252	3192	247	141	5	27	*
Bananas	4515	190	4356	169	140	*	33	1
Guava (Zeytuna)	957	27	911	20	32	*	14	*
Lemons	335	*	317	*	*	*	*	*
Mangoes	2402	85	2284	79	99	4	30	*
Oranges	1560	36	1426	29	118	4	21	3
Papayas	2675	80	2456	64	157	13	62	3
Pineapples	29	*	26	*	-	-	*	*
Others	1753	28	1677	21	81	*	8	*
Stimulant Crops	18672	2268	16951	1841	1519	378	457	49
Chat	5400	524	4708	426	442	67	280	30
Coffee	11471	1489	10481	1168	936	305	141	16
Hops	4737	254	4514	246	168	6	60	3
Others	*	-	*	-	-	-	-	-
Other Permanent Crops	26143	2445	25054	2045	1154	390	113	10
Enset	25265	2073	24490	1987	784	77	103	9
Sugar Cane	2009	*	1620	53	375	*	*	*
Others	221	7	207	5	18	*	-	-

TABLE 6.17: NUMBER OF HOLDER APPLYING FERTILIZERS, AREA, AND QUANTITY APPLIED BY CROP IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	All Crops						
	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal	
National	7589474	3817932	6430585	1464652	1818886	1066606	778421
Tigray	517709	249588	372655	113386	24498	7052	4805
Afar	2802	1329	2128	657	117	91	42
Amhara	2051666	1067390	1723710	374650	380901	244262	159318
Oromia	2960487	1876828	2359794	596424	894671	668571	483599
Somali	17329	8321	16244	7663	422	134	33
Benishangul-	59029	23687	53995	15375	5018	3668	1914
S.N.N.P.R	1943140	562469	1879763	350456	509742	141488	127561
Gambella	3892	648	3602	428	239	120	99
Harari	11243	5298	8207	2742	1429	508	202
Addis Ababa	13858	19400	2439	212	1670	635	832
Dire Dawa	8317	2974	8048	2659	179	*	*

TABLE 6.17 CONTD.

Geographic Area	All Crops								
	Type of Fertilizer Applied							Chemical (Urban)	
	UREA			DAP & UREA			Holder	Hectare	
Holder	Hectare	Quintal	Holder	Hectare	Quintal	Holder	Hectare		
National	340582	88573	58702	2046415	1145549	1441418	68174	52552	
Tigray	20564	4761	3375	296262	121242	124740	5297	3147	
Afar	519	369	247	238	*	45	53	103	
Amhara	145374	36984	22528	691486	406067	498505	8138	5428	
Oromia	116189	37152	25841	842079	539652	718353	36819	35029	
Somali	426	167	*	717	289	350	106	69	
Benishangul-Gumuz	2952	704	277	6765	3413	4258	666	526	
S.N.N.P.R	50541	7081	5845	196059	57731	61291	14761	5712	
Gambella	81	21	*	87	68	105	26	*	
Harari	2774	1099	406	2015	846	562	226	102	
Addis Ababa	488	51	43	10568	16079	33198	2061	2422	
Dire Dawa	674	184	76	*	*	*	21	3	

TABLE 6.17.1: RURAL HOLDINGS

Geographic Area	All Crops						
	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal	
National	7489163	3755178	6382866	1454450	1818886	1066606	778421
Tigray	511758	245896	371546	112841	24498	7052	4805
Afar	2733	1210	2105	642	117	91	42
Amhara	2040230	1061119	1719295	373806	380901	244262	159318
Oromia	2910980	1837712	2342027	592336	894671	668571	483599
Somali	16821	8012	15826	7422	422	134	33
Benishangul-Gumuz	58032	23061	53568	15275	5018	3668	1914
S.N.N.P.R	1914180	552601	1856924	346301	509742	141488	127561
Gambella	3862	636	3598	427	239	120	99
Harari	10820	5124	7983	2670	1429	508	202
Addis Ababa	11563	16861	2061	96	1670	635	832
Dire Dawa	8186	2947	7933	2634	179	*	*

TABLE 6.17.1 CONTD.

All Crops						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	340582	88573	58702	2046415	1145549	1441418
Tigray	20564	4761	3375	296262	121242	124740
Afar	519	369	247	238	*	45
Amhara	145374	36984	22528	691486	406067	498505
Oromia	116189	37152	25841	842079	539652	718353
Somali	426	167	*	717	289	350
Benishangul-Gumuz	2952	704	277	6765	3413	4258
S.N.N.P.R	50541	7081	5845	196059	57731	61291
Gambella	81	21	*	87	68	105
Harari	2774	1099	406	2015	846	562
Addis Ababa	488	51	43	10568	16079	33198
Dire Dawa	674	184	76	*	*	*

TABLE 6.17.2: RURAL MEHER

All Crops							
Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	7178609	3428876	5982465	1215718	1706016	996035	727473
Tigray	506110	241649	365033	111256	23803	6998	4755
Afar	2606	1057	1949	576	117	91	42
Amhara	1968782	995839	1627861	316905	365148	238457	153789
Oromia	2816250	1705012	2195154	514670	863419	619735	454098
Somali	15582	7311	14615	6725	422	134	33
Benishangul-Gumuz	57398	22730	52648	14944	5018	3668	1914
S.N.N.P.R	1778995	430364	1705676	245412	444683	125635	111718
Gambella	3431	593	3151	384	239	120	99
Harari	10711	4768	7425	2340	1373	487	182
Addis Ababa	11534	16834	2043	90	1665	634	832
Dire Dawa	7209	2719	6909	2416	130	*	*

TABLE 6.17.2 CONTD.

All Crops						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	312730	84850	55105	2004481	1132273	1423486
Tigray	18457	4611	3202	289215	118784	120976
Afar	460	285	199	230	*	43
Amhara	136514	35870	21396	685206	404607	496761
Oromia	108776	35322	24179	833019	535285	709236
Somali	410	164	*	706	288	350
Benishangul-Gumuz	2952	704	277	6765	3413	4258
S.N.N.P.R	41287	6552	5280	176575	52765	58067
Gambella	81	21	*	87	68	105
Harari	2774	1095	401	2015	846	562
Addis Ababa	477	51	39	10525	16060	33117
Dire Dawa	543	176	66	*	*	*

TABLE 6.17.3: RURAL BELG

Geographic Area	All Crops						
	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal	
National	2498968	326302	2169151	238732	406676	70572	50947
Tigray	36530	4247	18151	1585	854	54	51
Afar	340	152	215	66	-	-	-
Amhara	483555	65280	413302	56900	58154	5805	5529
Oromia	822648	132700	656882	77666	171850	48836	29502
Somali	1697	701	1669	698	-	-	-
Benishangul-Gumuz	5255	331	5255	331	-	-	-
S.N.N.P.R	1143461	122237	1068708	100889	175612	15853	15843
Gambella	599	43	599	43	-	-	-
Harari	1465	356	1324	331	*	*	*
Addis Ababa	251	27	54	*	*	*	*
Dire Dawa	3168	227	2992	218	*	*	*

TABLE 6.17.3 CONTD.

Geographic Area	All Crops						
	Type of Fertilizer Applied						
	UREA			DAP & UREA			
Holder	Hectare	Quintal	Holder	Hectare	Quintal		
National	34634	3723	3598	102582	13275	17932	
Tigray	2428	150	172	18365	2458	3764	
Afar	*	*	48	*	*	*	
Amhara	11009	1114	1132	16060	1461	1744	
Oromia	9866	1830	1662	27196	4367	9116	
Somali	*	*	*	*	*	*	
Benishangul-Gumuz	-	-	-	-	-	-	
S.N.N.P.R	10948	530	564	40755	4966	3224	
Gambella	-	-	-	-	-	-	
Harari	*	*	*	-	-	-	
Addis Ababa	*	*	*	186	19	81	
Dire Dawa	*	*	*	-	-	-	

TABLE 6.17.4: URBAN HOLDINGS

Geographic Area	All Crops							
	Application of		Type of Fertilizer Applied					
							Natural and Chemical	
Holder	Hectare	Holder	Hectare	Holder	Hectare	Holder	Hectare	
National	100310	62755	47719	10202	64904	50343	4545	2209
Tigray	5951	3692	1109	545	4957	2763	585	384
Afar	70	119	24	16	47	93	*	*
Amhara	11436	6271	4415	844	7847	5255	466	173
Oromia	49507	39116	17767	4088	35406	34147	1865	882
Somali	508	309	418	241	96	60	10	9
Benishangul-Gumuz	997	626	427	100	642	506	28	19
S.N.N.P.R	28961	9868	22839	4156	13884	5434	1210	278
Gambella	30	*	*	*	26	*	-	-
Harari	424	174	224	71	124	60	108	43
Addis Ababa	2295	2539	377	116	1863	2013	256	*
Dire Dawa	131	28	115	25	*	*	11	*

TABLE 6.18: NUMBER OF HOLDER APPLYING FERTILIZERS, AREA, AND QUANTITY APPLIED BY CROP IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Grain Crops						
	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal	
National	6477890	3344260	4742914	1074776	1696558	1023747	732563
Tigray	508754	245412	347600	110964	23419	7018	4758
Afar	1939	863	1479	533	95	53	28
Amhara	1865287	999942	1420374	322257	357127	236513	151794
Oromia	2613027	1690485	1711203	452307	857409	647670	465185
Somali	15074	6852	14200	6341	317	78	29
Benishangul-Gumuz	52904	22059	46703	13940	4682	3638	1899
S.N.N.P.R	1386879	353223	1183249	163779	450497	127671	107965
Gambella	2494	542	2230	328	199	117	98
Harari	10956	3816	7473	2126	1255	323	113
Addis Ababa	12835	18761	1014	164	1403	595	682
Dire Dawa	7741	2305	7387	2036	154	*	*

TABLE 6.18 CONTD.

Geographic Area	Grain Crops								
	Type of Fertilizer Applied							Chemical (Urban)	
	UREA			DAP & UREA			Holder	Hectare	
Holder	Hectare	Quintal	Holder	Hectare	Quintal	Holder	Hectare		
National	254269	77819	49565	1983020	1118072	1402693	64507	49846	
Tigray	18065	4671	3204	292864	119648	122394	5234	3111	
Afar	*	*	62	230	*	43	*	*	
Amhara	105926	33929	19748	679135	401985	493805	7853	5258	
Oromia	94360	32309	22010	819530	524705	694076	35014	33493	
Somali	310	121	*	628	253	344	99	60	
Benishangul-Gumuz	1428	638	237	6485	3339	4239	609	504	
S.N.N.P.R	30325	5034	3892	171592	51379	54198	13743	5360	
Gambella	50	*	*	87	68	105	21	*	
Harari	2741	738	266	1871	562	488	214	67	
Addis Ababa	238	45	30	10459	15982	32993	1689	1975	
Dire Dawa	592	150	58	*	*	*	21	3	

TABLE 6.18.1: RURAL HOLDINGS

Geographic Area	Grain Crops						
	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal	
National	6398794	3289672	4723456	1070033	1696558	1023747	732563
Tigray	502975	241829	346674	110492	23419	7018	4758
Afar	1916	846	1466	521	95	53	28
Amhara	1855435	994201	1417854	321774	357127	236513	151794
Oromia	2571839	1654572	1703000	449887	857409	647670	465185
Somali	14665	6575	13875	6124	317	78	29
Benishangul-Gumuz	52049	21484	46394	13869	4682	3638	1899
S.N.N.P.R	1368193	346946	1176535	162862	450497	127671	107965
Gambella	2469	529	2226	326	199	117	98
Harari	10552	3703	7276	2080	1255	323	113
Addis Ababa	11059	16696	847	74	1403	595	682
Dire Dawa	7641	2289	7307	2023	154	*	*

TABLE 6.18.1 CONTD.

Grain Crops						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	254269	77819	49565	1983020	1118072	1402693
Tigray	18065	4671	3204	292864	119648	122394
Afar	*	*	62	230	*	43
Amhara	105926	33929	19748	679135	401985	493805
Oromia	94360	32309	22010	819530	524705	694076
Somali	310	121	*	628	253	344
Benishangul-Gumuz	1428	638	237	6485	3339	4239
S.N.N.P.R	30325	5034	3892	171592	51379	54198
Gambella	50	*	*	87	68	105
Harari	2741	738	266	1871	562	488
Addis Ababa	238	45	30	10459	15982	32993
Dire Dawa	592	150	58	*	*	*

TABLE 6.18.2: RURAL MEHER

Grain Crops							
Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	5844515	3071825	3963930	904657	1647853	978518	708276
Tigray	498436	238752	342221	109311	23147	6981	4723
Afar	1803	763	1336	470	95	53	28
Amhara	1817992	965374	1371227	294165	355524	235970	151308
Oromia	2452148	1556467	1528888	390311	843173	611342	445915
Somali	13420	5885	12634	5436	317	78	29
Benishangul-Gumuz	51566	21342	45754	13727	4682	3638	1899
S.N.N.P.R	978796	260548	646161	87235	417965	119364	103479
Gambella	2016	487	1751	284	199	117	98
Harari	10443	3366	6653	1758	1224	311	105
Addis Ababa	11041	16689	830	69	1398	593	682
Dire Dawa	6853	2153	6476	1890	130	*	*

TABLE 6.18.2 CONTD.

Grain Crops						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	245688	76089	48450	1963527	1112562	1397327
Tigray	17034	4573	3126	288193	117887	119991
Afar	*	134	47	230	*	43
Amhara	104867	33671	19558	677780	401567	493365
Oromia	91277	31201	21331	816144	523612	692966
Somali	306	118	*	628	253	344
Benishangul-Gumuz	1428	638	237	6485	3339	4239
S.N.N.P.R	27011	4808	3748	161509	49142	52785
Gambella	50	*	*	87	68	105
Harari	2741	735	262	1871	562	488
Addis Ababa	238	45	30	10459	15981	32993
Dire Dawa	543	148	54	*	*	*

TABLE 6.18.3: RURAL BELG

Geographic Area	Grain Crops						
	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal	
National	1601358	217846	1475778	165377	164026	45229	24287
Tigray	24074	3077	11521	1181	332	37	35
Afar	247	84	169	51	-	-	-
Amhara	199332	28827	195516	27609	2809	542	486
Oromia	504849	98105	424040	59576	86873	36328	19271
Somali	1660	690	1655	688	-	-	-
Benishangul-Gumuz	2445	142	2445	142	-	-	-
S.N.N.P.R	864504	86398	836299	75627	73951	8307	4486
Gambella	589	42	589	42	-	-	-
Harari	1357	338	1310	322	*	*	*
Addis Ababa	45	*	*	*	*	*	*
Dire Dawa	2257	136	2208	133	*	*	*

TABLE 6.18.3 CONTD.

Geographic Area	Grain Crops					
	Type of Fertilizer Applied					
	UREA			DAP & UREA		
Holder	Hectare	Quintal	Holder	Hectare	Quintal	
National	9683	1731	1116	39275	5510	5366
Tigray	1153	99	78	11929	1761	2403
Afar	*	*	*	-	-	-
Amhara	1368	258	191	2145	417	440
Oromia	3436	1108	680	6182	1093	1110
Somali	*	*	*	-	-	-
Benishangul-Gumuz	-	-	-	-	-	-
S.N.N.P.R	3580	226	144	19005	2238	1413
Gambella	-	-	-	-	-	-
Harari	*	*	*	-	-	-
Addis Ababa	-	-	-	*	*	*
Dire Dawa	*	*	*	-	-	-

TABLE 6.18.4: URBAN HOLDINGS

Geographic Area	Grain Crops							
	Application of		Type of Fertilizer Applied					
			Natural and Chemical				Natural and Chemical	
Holder	Hect	Holder	Hectare	Holder	Hectare	Holder	Hectare	
National	79095	5458	19458	4742	61650	48148	3806	1698
Tigray	5779	3583	927	472	4910	2740	554	371
Afar	22	16	13	12	*	*	*	*
Amhara	9852	5741	2519	483	7592	5106	403	152
Oromia	41188	3591	8203	2420	33768	32698	1574	796
Somali	408	277	325	217	90	51	10	9
Benishangul-Gumuz	855	575	309	70	594	490	19	*
S.N.N.P.R	18687	6277	6715	917	12891	5105	1047	255
Gambella	25	*	*	*	21	*	-	-
Harari	403	113	197	46	113	28	106	39
Addis Ababa	1776	2065	167	89	1657	1919	75	56
Dire Dawa	101	15	80	13	*	*	11	*

TABLE 6.19: NUMBER OF HOLDER APPLYING FERTILIZERS, AREA, AND QUANTITY APPLIED BY CROP IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Cereals						
	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal	
National	6251834	3075651	4375382	908249	1620637	951841	687675
Tigray	503893	234415	332613	102422	22024	6642	4500
Afar	1894	838	1435	517	95	53	28
Amhara	1813410	919631	1338266	267702	346557	220866	144592
Oromia	2536101	1576029	1569784	389181	834777	609195	439958
Somali	14910	6663	14032	6166	317	77	29
Benishangul-Gumuz	50198	18456	44186	11399	3844	2913	1278
S.N.N.P.R	1297836	295845	1057777	126797	410912	111362	96600
Gambella	2345	533	2080	319	199	117	98
Harari	10803	3205	7029	1679	1224	273	98
Addis Ababa	12702	17847	793	137	534	273	482
Dire Dawa	7741	2188	7387	1930	154	*	*

TABLE 6.19 CONTD.

Geographic Area	Cereals								
	Type of Fertilizer Applied							Chemical (Urban)	
	UREA			DAP & UREA			Holder	Hectare	
Holder	Hectare	Quintal	Holder	Hectare	Quintal	Holder	Hectare		
National	240012	73956	47087	1964513	1093921	1384730	63649	47683	
Tigray	17414	4501	3112	291558	117862	119861	5192	2988	
Afar	*	*	58	230	*	42	*	*	
Amhara	101056	32556	19058	675786	393395	488667	7784	5112	
Oromia	90213	30569	20687	814942	515033	686613	34666	32052	
Somali	310	121	*	628	245	344	99	53	
Benishangul-Gumuz	1222	496	211	6409	3223	4141	454	425	
S.N.N.P.R	26044	4697	3584	162437	47916	51860	13502	5073	
Gambella	50	*	*	83	68	105	21	*	
Harari	2741	666	239	1871	525	484	214	62	
Addis Ababa	143	28	24	10430	15509	32607	1689	1901	
Dire Dawa	592	144	56	*	*	*	21	3	

TABLE 6.19.1: RURAL HOLDINGS

Geographic Area	Cereals						
	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal	
National	6174342	3023838	4357621	904120	1620637	951841	687675
Tigray	498151	230986	331710	101981	22024	6642	4500
Afar	1876	824	1424	507	95	53	28
Amhara	1803720	914092	1335885	267274	346557	220866	144592
Oromia	2495403	1541803	1561865	387006	834777	609195	439958
Somali	14510	6424	13720	5981	317	77	29
Benishangul-Gumuz	49505	17971	43895	11339	3844	2913	1278
S.N.N.P.R	1279881	290087	1052273	126113	410912	111362	96600
Gambella	2320	522	2076	319	199	117	98
Harari	10409	3100	6840	1636	1224	273	98
Addis Ababa	10926	15857	627	47	534	273	482
Dire Dawa	7641	2173	7307	1917	154	*	*

TABLE 6.19.1 CONTD.

Cereals						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	240012	73956	47087	1964513	1093921	1384730
Tigray	17414	4501	3112	291558	117862	119861
Afar	*	*	58	230	*	42
Amhara	101056	32556	19058	675786	393395	488667
Oromia	90213	30569	20687	814942	515033	686613
Somali	310	121	*	628	245	344
Benishangul-Gumuz	1222	496	211	6409	3223	4141
S.N.N.P.R	26044	4697	3584	162437	47916	51860
Gambella	50	*	*	83	68	105
Harari	2741	666	239	1871	525	484
Addis Ababa	143	28	24	10430	15509	32607
Dire Dawa	592	144	56	*	*	*

TABLE 6.19.2: RURAL MEHER

Cereals							
Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	5585950	2842279	3543916	768303	1583418	912117	665805
Tigray	493377	228134	327186	100925	21752	6605	4465
Afar	1763	745	1304	460	95	53	28
Amhara	1764347	888625	1286613	242929	345017	220384	144117
Oromia	2373371	1453490	1386988	335793	820235	574088	421152
Somali	13248	5778	12463	5337	317	77	29
Benishangul-Gumuz	48932	17851	43132	11219	3844	2913	1278
S.N.N.P.R	860924	226369	471055	68082	390077	107266	94048
Gambella	1867	480	1601	277	199	117	98
Harari	10359	2920	6494	1456	1224	273	98
Addis Ababa	10908	15851	605	42	529	271	481
Dire Dawa	6853	2037	6476	1784	130	*	*

TABLE 6.19.2 CONTD.

Cereals						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	232841	72364	46030	1948457	1089494	1379925
Tigray	16435	4404	3035	286982	116200	117585
Afar	*	128	43	230	*	42
Amhara	100085	32316	18870	674431	392996	488256
Oromia	87323	29521	20034	812127	514089	685578
Somali	306	118	*	628	245	344
Benishangul-Gumuz	1222	496	211	6409	3223	4141
S.N.N.P.R	23808	4528	3464	155125	46493	50776
Gambella	50	*	*	83	68	105
Harari	2741	666	239	1871	525	484
Addis Ababa	143	28	24	10430	15509	32607
Dire Dawa	543	142	52	*	*	*

TABLE 6.19.2a: Teff

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	2081009	922689	436238	93048	760319	318411	219780
Tigray	221330	64494	53273	11569	8700	2738	1526
Afar	329	116	132	25	85	44	23
Amhara	764760	351170	181407	37891	223105	106051	67705
Oromia	823349	436740	147632	34234	369159	171059	124799
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	5068	3281	2247	1030	2223	1691	633
S.N.N.P.R	256146	58972	51494	8285	156739	36699	24855
Gambella	-	-	-	-	-	-	-
Harari	*	*	-	-	*	*	*
Addis Ababa	10012	7916	53	*	296	129	239
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.19.2a CONTD.

Teff						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	106659	36653	21214	911714	474577	513685
Tigray	7005	1603	1040	163137	48584	48655
Afar	*	*	*	111	38	31
Amhara	62617	22147	11195	357619	185080	199517
Oromia	28980	11207	8183	328038	220241	238413
Somali	-	-	-	-	-	-
Benishangul-Gumuz	271	123	40	627	437	313
S.N.N.P.R	7763	1559	741	52394	12428	9306
Gambella	-	-	-	-	-	-
Harari	-	-	-	-	-	-
Addis Ababa	*	*	*	9787	7767	17448
Dire Dawa	-	-	-	-	-	-

TABLE 6.19.2b: Barley

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	1441598	326432	817500	109645	415691	150208	112277
Tigray	189935	27128	97721	11278	6815	1074	994
Afar	100	6	100	6	-	-	-
Amhara	413779	73359	316918	47356	49760	12475	10957
Oromia	557516	192097	227784	33009	257590	124054	86577
Somali	1638	*	1568	*	*	*	*
Benishangul-Gumuz	1512	360	1298	251	127	59	38
S.N.N.P.R	276461	33089	171959	17451	101158	12515	13664
Gambella	-	-	-	-	-	-	-
Harari	309	*	*	*	*	*	*
Addis Ababa	263	88	*	*	91	25	42
Dire Dawa	*	*	*	*	-	-	-

TABLE 6.19.2b CONTD.

Barley						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	26347	5414	4326	270847	61165	62349
Tigray	3984	696	567	100418	14079	12583
Afar	-	-	-	-	-	-
Amhara	6768	1192	1166	55379	12335	12923
Oromia	9549	2782	1860	93357	32252	33972
Somali	*	*	*	*	*	*
Benishangul-Gumuz	*	*	*	*	*	*
S.N.N.P.R	5902	724	720	21337	2400	2740
Gambella	-	-	-	-	-	-
Harari	*	*	*	104	2	*
Addis Ababa	21	*	*	131	*	*
Dire Dawa	-	-	-	-	-	-

TABLE 6.19.2c: Wheat

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	1665065	587104	431857	55051	578700	264348	216600
Tigray	180774	31041	69574	8734	5533	770	693
Afar	44	5	34	*	*	*	*
Amhara	398050	123142	136264	16358	50257	13937	13096
Oromia	772824	363230	142379	20944	370115	215679	167855
Somali	3047	815	2345	519	140	*	*
Benishangul-Gumuz	1027	416	667	168	238	145	114
S.N.N.P.R	298979	60555	80437	8309	151877	33639	34606
Gambella	-	-	-	-	-	-	-
Harari	1292	83	161	4	211	*	*
Addis Ababa	8988	7816	*	*	318	117	199
Dire Dawa	*	*	*	*	-	-	-

TABLE 6.19.2c CONTD.

Wheat						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	43938	10780	9046	696919	256926	374308
Tigray	4170	781	746	121517	20756	22768
Afar	-	-	-	-	-	-
Amhara	15657	3730	3333	218251	89116	136384
Oromia	17625	5257	4179	273072	121350	178908
Somali	149	*	*	414	182	303
Benishangul-Gumuz	*	*	*	96	58	32
S.N.N.P.R	5793	859	703	74233	17748	20848
Gambella	-	-	-	-	-	-
Harari	430	18	11	632	46	*
Addis Ababa	56	20	*	8705	7670	15009
Dire Dawa	-	-	-	-	-	-

TABLE 6.19.2d: Maize

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	3242496	670393	2399917	323389	358703	89989	67689
Tigray	277134	39750	209680	28238	2410	317	335
Afar	1447	561	1139	378	*	*	*
Amhara	1108257	211905	888342	98032	87317	21227	15154
Oromia	1456383	342780	1050059	162111	162058	45138	31902
Somali	9481	2500	9125	2444	*	*	*
Benishangul-Gumuz	42683	8223	37813	5507	755	166	134
S.N.N.P.R	335374	63696	195556	26137	105214	22982	20056
Gambella	1722	418	1466	240	183	92	84
Harari	6876	458	3928	221	653	41	19
Addis Ababa	680	21	519	11	*	*	*
Dire Dawa	2459	82	2289	71	-	-	-

TABLE 6.19.2d CONTD.

Maize						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	63265	10872	8098	810958	246144	389673
Tigray	2772	317	219	69538	10878	13867
Afar	*	*	39	*	*	*
Amhara	20162	3334	2329	292611	89312	126367
Oromia	31005	5554	4087	390172	129976	228053
Somali	*	*	*	*	*	*
Benishangul-Gumuz	549	91	70	5641	2459	3609
S.N.N.P.R	6518	1308	1259	51241	13268	17543
Gambella	50	*	*	83	68	105
Harari	1720	109	78	1200	87	34
Addis Ababa	*	*	*	99	*	*
Dire Dawa	*	*	*	*	*	*

TABLE 6.19.2e: Sorghum

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	826654	190691	718382	161997	38788	6845	2670
Tigray	113383	37102	95436	30970	1373	377	189
Afar	206	56	190	47	-	-	-
Amhara	151317	37150	143894	34917	1631	412	105
Oromia	433104	97210	371177	79835	22546	4798	1788
Somali	6142	2145	5781	2063	*	*	*
Benishangul-Gumuz	10647	3790	10314	3670	111	32	9
S.N.N.P.R	96225	8861	80222	7515	11883	911	494
Gambella	210	54	195	37	*	*	*
Harari	9307	2366	5502	1228	993	213	61
Addis Ababa	*	*	*	*	-	-	-
Dire Dawa	6093	1952	5656	1710	130	*	*

TABLE 6.19.2e CONTD.

Sorghum						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	24686	5628	1887	67592	16222	10901
Tigray	1257	344	139	19843	5410	4827
Afar	-	-	-	*	*	*
Amhara	1420	400	158	5036	1420	755
Oromia	18381	4072	1347	36250	8505	4726
Somali	*	*	*	*	*	*
Benishangul-Gumuz	125	52	*	140	37	*
S.N.N.P.R	638	55	35	4298	380	161
Gambella	-	-	-	-	-	-
Harari	2234	536	147	1711	390	*
Addis Ababa	-	-	-	*	*	*
Dire Dawa	494	135	*	*	*	*

TABLE 6.19.2f: Finger millet

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	419376	136640	122413	22661	178061	77637	43838
Tigray	117639	28567	51527	10096	4232	1329	728
Afar	-	-	-	-	-	-	-
Amhara	223101	90321	37334	7140	138495	66262	37091
Oromia	64385	15045	27154	4536	29794	8783	5422
Somali	*	*	*	*	-	-	-
Benishangul-Gumuz	2451	1699	1246	579	852	809	337
S.N.N.P.R	11712	1005	5084	308	4688	455	259
Gambella	*	*	*	*	-	-	-
Harari	*	*	*	*	-	-	-
Addis Ababa	*	*	*	*	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.19.2f CONTD.

Finger millet						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	11932	2867	1390	121699	33474	27686
Tigray	3085	662	325	66040	16480	14879
Afar	-	-	-	-	-	-
Amhara	6161	1485	680	47659	15434	11684
Oromia	2166	555	326	6093	1172	894
Somali	-	-	-	-	-	-
Benishangul-Gumuz	228	143	54	142	*	*
S.N.N.P.R	273	22	6	1765	220	135
Gambella	-	-	-	-	-	-
Harari	*	*	-	-	-	-
Addis Ababa	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.19.2g: Oats ('Aja')

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	69146	7522	37292	2171	24620	4549	2856
Tigray	406	52	267	39	-	-	-
Afar	-	-	-	-	-	-	-
Amhara	18958	1102	17078	971	244	19	10
Oromia	43702	6168	15948	1054	22642	4469	2734
Somali	300	*	300	*	-	-	-
Benishangul-Gumuz	218	9	203	7	*	*	*
S.N.N.P.R	5426	161	3481	76	1719	60	111
Gambella	-	-	-	-	-	-	-
Harari	*	*	*	*	-	-	-
Addis Ababa	*	*	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.19.2g CONTD.

Oats ('Aja')						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	837	101	60	6726	700	901
Tigray	-	-	-	139	13	*
Afar	-	-	-	-	-	-
Amhara	*	*	*	1539	99	332
Oromia	677	87	50	4686	558	555
Somali	-	-	-	-	-	-
Benishangul-Gumuz	-	-	-	-	-	-
S.N.N.P.R	*	*	*	241	*	*
Gambella	-	-	-	-	-	-
Harari	-	-	-	*	*	*
Addis Ababa	-	-	-	*	*	*
Dire Dawa	-	-	-	-	-	-

TABLE 6.19.2h: Rice

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	4594	808	2760	341	431	130	95
Tigray	-	-	-	-	-	-	-
Afar	-	-	-	-	-	-	-
Amhara	3109	477	2051	264	-	-	-
Oromia	1111	220	609	70	339	108	75
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	177	72	*	*	*	*	*
S.N.N.P.R	163	*	*	*	*	*	*
Gambella	34	*	-	-	34	*	*
Harari	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.19.2h CONTD.

Rice						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	225	50	9	1214	287	421
Tigray	-	-	-	-	-	-
Afar	-	-	-	-	-	-
Amhara	*	*	*	940	200	295
Oromia	*	*	*	147	*	*
Somali	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	65	*	*
S.N.N.P.R	-	-	-	*	*	*
Gambella	-	-	-	-	-	-
Harari	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.19.3: RURAL BELG

Cereals							
Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	1477419	181559	1363989	135817	127050	39724	21870
Tigray	22395	2852	10116	1056	332	37	35
Afar	237	79	159	47	-	-	-
Amhara	185210	25467	181469	24345	2654	482	475
Oromia	465034	88313	387249	51214	82078	35107	18806
Somali	1637	646	1633	643	-	-	-
Benishangul-Gumuz	2356	120	2356	120	-	-	-
S.N.N.P.R	796966	63718	777478	58031	41956	4096	2552
Gambella	589	42	589	42	-	-	-
Harari	705	*	705	*	-	-	-
Addis Ababa	*	*	*	*	*	*	*
Dire Dawa	2257	136	2208	133	*	*	*

TABLE 6.19.3 CONTD.

Cereals						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	8123	1592	1056	32129	4427	4805
Tigray	1102	97	77	11563	1662	2276
Afar	*	*	*	-	-	-
Amhara	1280	240	187	2075	399	411
Oromia	3199	1048	653	4981	944	1034
Somali	*	*	*	-	-	-
Benishangul-Gumuz	-	-	-	-	-	-
S.N.N.P.R	2411	169	119	13510	1422	1084
Gambella	-	-	-	-	-	-
Harari	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-
Dire Dawa	*	*	*	-	-	-

TABLE 6.19.4: URBAN HOLDINGS

Geographic Area	Cereals							
	Application of		Type of Fertilizer Applied					
			Natural and Chemical		Holder		Hectare	
Holder	Hectare	Holder	Hectare	Holder	Hectare	Holder	Hectare	
National	77492	51813	17761	4130	60834	46114	3731	1569
Tigray	5742	3429	903	441	4872	2628	551	360
Afar	17	14	11	11	-	-	*	*
Amhara	9690	5539	2381	427	7523	4960	403	151
Oromia	40698	34227	7919	2175	33435	31324	1548	728
Somali	400	239	313	186	90	44	10	9
Benishangul-Gumuz	693	485	291	60	434	413	19	12
S.N.N.P.R	17955	5758	5504	684	12679	4864	1002	210
Gambella	25	*	*	*	21	*	-	-
Harari	395	105	188	43	113	25	106	37
Addis Ababa	1776	1990	167	89	1657	1844	75	56
Dire Dawa	101	15	80	13	*	*	11	*

TABLE 6.20: NUMBER OF HOLDER APPLYING FERTILIZERS, AREA, AND QUANTITY APPLIED BY CROP IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Pulses						
	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal	
National	1914302	210559	1547616	128779	312943	59572	39219
Tigray	98763	8662	80163	6738	2018	215	246
Afar	181	14	145	13	-	-	-
Amhara	399303	54286	327850	39628	46293	9339	5217
Oromia	693835	90684	522841	47196	136844	32992	21747
Somali	1377	174	1325	166	*	*	-
Benishangul-Gumuz	11774	1656	10337	885	1003	625	584
S.N.N.P.R	702714	53908	601513	33884	125737	16064	11213
Gambella	297	5	293	5	-	-	-
Harari	1653	169	1459	145	*	*	*
Addis Ababa	2908	903	319	26	922	322	200
Dire Dawa	1498	99	1371	92	*	*	*

TABLE 6.20 CONTD.

Geographic Area	Pulses							
	Type of Fertilizer Applied							
	UREA			DAP & UREA			Chemical (Urban)	
Holder	Hectare	Quintal	Holder	Hectare	Quintal	Holder	Hectare	
National	21976	2449	1565	125147	17968	15355	5120	1792
Tigray	1182	89	80	17902	1513	2272	368	107
Afar	*	*	*	*	*	*	-	-
Amhara	5230	713	419	29823	4513	3744	351	93
Oromia	9920	1298	777	48560	8031	6681	2534	1167
Somali	-	-	-	*	*	-	-	-
Benishangul-Gumuz	*	*	*	334	44	*	*	*
S.N.N.P.R	5207	298	263	26756	3387	2256	1534	274
Gambella	-	-	-	-	*	*	-	-
Harari	163	*	*	108	2	*	*	*
Addis Ababa	117	17	6	1600	469	373	146	69
Dire Dawa	*	*	*	*	*	-	-	-

TABLE 6.20.1: RURAL HOLDINGS

Geographic Area	Pulses						
	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal	
National	1906869	208325	1545253	128336	312943	59572	39219
Tigray	98330	8529	80098	6712	2018	215	246
Afar	181	14	145	13	-	-	-
Amhara	398714	54146	327608	39582	46293	9339	5217
Oromia	690629	89354	522160	47032	136844	32992	21747
Somali	1347	144	1296	136	*	*	-
Benishangul-Gumuz	11582	1571	10313	879	1003	625	584
S.N.N.P.R	699898	53464	600199	33714	125737	16064	11213
Gambella	297	5	293	5	-	-	-
Harari	1631	165	1452	145	*	*	*
Addis Ababa	2761	835	319	26	922	322	200
Dire Dawa	1498	99	1371	92	*	*	*

TABLE 6.20.1 CONTD.

Geographic Area	Pulses					
	Type of Fertilizer Applied					
	UREA			DAP & UREA		
Holder	Hectare	Quintal	Holder	Hectare	Quintal	
National	21976	2449	1565	125147	17968	15355
Tigray	1182	89	80	17902	1513	2272
Afar	*	*	*	*	*	*
Amhara	5230	713	419	29823	4513	3744
Oromia	9920	1298	777	48560	8031	6681
Somali	-	-	-	*	*	-
Benishangul-Gumuz	*	*	*	334	44	*
S.N.N.P.R	5207	298	263	26756	3387	2256
Gambella	-	-	-	-	*	*
Harari	163	*	*	108	2	*
Addis Ababa	117	17	6	1600	469	373
Dire Dawa	*	*	*	*	*	-

TABLE 6.20.2: RURAL MEHER

Geographic Area	Pulses						
	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal	
National	1410759	172753	1055484	99425	272322	54115	36814
Tigray	97085	8333	79256	6603	2018	215	246
Afar	136	9	100	8	-	-	-
Amhara	375853	50816	305067	36347	46041	9279	5207
Oromia	563144	79735	395882	38802	130909	31814	21293
Somali	1125	99	1073	91	*	*	-
Benishangul-Gumuz	10525	1549	9236	858	1003	625	584
S.N.N.P.R	357805	31262	262612	16587	91335	11858	9281
Gambella	266	5	262	5	-	-	-
Harari	565	12	310	7	*	*	*
Addis Ababa	2758	834	315	26	922	322	200
Dire Dawa	1498	99	1371	92	*	*	*

TABLE 6.20.2 CONTD.

Geographic Area	Pulses					
	Type of Fertilizer Applied					
	UREA			DAP & UREA		
Holder	Hectare	Quintal	Holder	Hectare	Quintal	
National	20216	2310	1506	116975	16903	14830
Tigray	1131	88	79	17350	1428	2171
Afar	*	*	*	*	*	*
Amhara	5142	695	416	29641	4494	3715
Oromia	9483	1239	751	46980	7881	6604
Somali	-	-	-	*	*	-
Benishangul-Gumuz	*	*	*	334	44	*
S.N.N.P.R	4039	241	237	20898	2575	1938
Gambella	-	-	-	*	*	-
Harari	*	*	*	108	2	*
Addis Ababa	117	17	6	1600	469	373
Dire Dawa	*	*	*	*	*	-

TABLE 6.20.2a: Horse/Faba beans

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	875648	96117	649375	59134	174161	29393	19890
Tigray	69959	4599	56332	3577	1209	142	161
Afar	-	-	-	-	-	-	-
Amhara	278860	33219	230762	25323	32914	5807	3457
Oromia	314818	42001	212567	22110	87547	17112	11241
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	2133	241	2102	233	*	*	*
S.N.N.P.R	209196	15989	147298	7874	52407	6320	5013
Gambella	*	*	*	*	-	-	-
Harari	*	*	-	-	*	*	*
Addis Ababa	622	*	296	17	*	*	*
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.20.2a CONTD.

Geographic Area	Horse/Faba beans					
	Type of Fertilizer Applied					
	UREA			DAP & UREA		
Holder	Hectare	Quintal	Holder	Hectare	Quintal	
National	7539	679	603	58933	6911	6725
Tigray	609	39	47	12794	842	1302
Afar	-	-	-	-	-	-
Amhara	2840	244	236	15267	1844	1471
Oromia	2166	298	234	17089	2481	2493
Somali	-	-	-	-	-	-
Benishangul-Gumuz	-	-	-	-	-	-
S.N.N.P.R	1886	97	85	13486	1698	1393
Gambella	-	-	-	-	-	-
Harari	*	*	*	-	-	-
Addis Ababa	*	*	*	*	*	*
Dire Dawa	-	-	-	-	-	-

TABLE 6.20.2b: Field peas

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	251954	32618	155016	14140	76513	14689	10480
Tigray	11214	736	8992	546	499	48	60
Afar	-	-	-	-	-	-	-
Amhara	66435	8179	48146	4601	14007	2722	1455
Oromia	94440	15866	49162	5511	34971	8253	5943
Somali	*	*	*	*	*	*	-
Benishangul-Gumuz	1177	256	1088	227	67	*	17
S.N.N.P.R	78494	7574	47520	3250	26949	3637	3005
Gambella	*	*	*	*	-	-	-
Harari	111	*	*	*	-	-	-
Addis Ababa	*	*	*	*	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.20.2b CONTD.

Field peas						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	3768	595	384	18984	3194	2765
Tigray	233	18	*	1542	123	157
Afar	-	-	-	-	-	-
Amhara	1037	159	76	3924	697	668
Oromia	1660	366	254	9427	1737	1517
Somali	-	-	-	-	-	-
Benishangul-Gumuz	-	-	-	*	*	*
S.N.N.P.R	794	51	33	4045	636	422
Gambella	-	-	-	-	-	-
Harari	*	*	*	*	*	-
Addis Ababa	*	*	*	-	-	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.20.2c: Haricot beans

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	327069	22840	266195	13825	38483	6397	4375
Tigray	3643	268	3244	255	-	-	-
Afar	116	*	80	*	-	-	-
Amhara	25876	1228	23908	1060	510	*	*
Oromia	178569	14748	145130	7957	16401	4659	3220
Somali	1041	90	1008	83	-	-	-
Benishangul-Gumuz	6116	347	5754	310	93	*	*
S.N.N.P.R	109784	6044	85387	4054	21404	1686	1134
Gambella	193	4	189	4	-	-	-
Harari	223	7	146	*	*	*	*
Addis Ababa	*	*	-	-	-	-	-
Dire Dawa	1477	97	1349	90	*	*	*

TABLE 6.20.2c CONTD.

Haricot beans						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	7128	498	305	21035	2120	1128
Tigray	*	*	*	321	*	*
Afar	*	*	*	-	-	-
Amhara	452	11	10	1138	120	119
Oromia	5125	403	188	14671	1729	882
Somali	-	-	-	*	*	*
Benishangul-Gumuz	-	-	-	284	22	*
S.N.N.P.R	1319	75	*	4490	228	116
Gambella	-	-	-	*	*	*
Harari	*	*	*	*	*	*
Addis Ababa	*	*	*	*	*	*
Dire Dawa	*	*	*	*	*	-

TABLE 6.20.2d: Chickpeas

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	67942	9891	54505	6747	4350	959	552
Tigray	11624	1578	10362	1383	*	*	*
Afar	19	*	15	*	-	-	-
Amhara	22109	3457	18265	2446	528	117	52
Oromia	19717	3146	13916	1782	2179	527	303
Somali	*	*	*	*	-	-	-
Benishangul-Gumuz	527	46	517	45	*	*	*
S.N.N.P.R	12343	1198	11209	1074	949	107	81
Gambella	-	-	-	-	-	-	-
Harari	*	*	*	*	-	-	-
Addis Ababa	1348	454	*	*	561	195	108
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.20.2d CONTD.

Chickpeas						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	1392	302	83	8007	1884	1464
Tigray	135	*	*	1041	162	185
Afar	-	-	-	*	*	*
Amhara	654	185	*	2720	709	568
Oromia	449	75	26	3269	762	535
Somali	-	-	-	-	-	-
Benishangul-Gumuz	-	-	-	-	-	-
S.N.N.P.R	*	*	*	*	*	*
Gambella	-	-	-	-	-	-
Harari	*	*	*	*	*	*
Addis Ababa	*	*	*	857	246	171
Dire Dawa	-	-	-	-	-	-

TABLE 6.20.2e: Lentils

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	47332	3976	26444	1894	11348	902	466
Tigray	6162	419	4609	316	297	11	17
Afar	*	*	*	*	-	-	-
Amhara	14597	1501	11861	1107	745	119	54
Oromia	19113	1709	6387	345	7165	664	350
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	423	17	405	16	*	*	*
S.N.N.P.R	6444	209	3178	110	2960	91	38
Gambella	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa	590	*	-	-	*	16	*
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.20.2e CONTD.

Lentils							
Geographic Area	Type of Fertilizer Applied						
	UREA			DAP & UREA			
	Holder	Hectare	Quintal	Holder	Hectare	Quintal	
National	818	87	45	8956	1094	1334	
Tigray	-	-	-	1280	92	*	
Afar	-	-	-	-	-	-	
Amhara	287	*	*	1728	234	226	
Oromia	454	38	25	5106	662	684	
Somali	-	-	-	-	-	-	
Benishangul-Gumuz	-	-	-	*	*	*	
S.N.N.P.R	*	*	*	405	3	1	
Gambella	-	-	-	-	-	-	
Harari	-	-	-	-	-	-	
Addis Ababa	*	*	*	*	*	*	
Dire Dawa	-	-	-	-	-	-	

TABLE 6.20.2f: Vetch/Grass peas

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	26451	3176	20898	2229	1756	349	145
Tigray	4478	632	3600	484	-	-	-
Afar	-	-	-	-	-	-	-
Amhara	11803	1479	9792	1132	477	111	*
Oromia	8173	788	6050	449	945	147	55
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	77	2	77	2	-	-	-
S.N.N.P.R	1452	*	1361	*	*	*	*
Gambella	*	*	*	*	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa	450	*	-	-	301	*	*
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.20.2f CONTD.

Vetch/Grass peas						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	263	*	14	3625	562	620
Tigray	*	*	*	906	144	142
Afar	-	-	-	-	-	-
Amhara	*	*	*	1473	232	229
Oromia	*	*	*	1056	168	222
Somali	-	-	-	-	-	-
Benishangul-Gumuz	-	-	-	-	-	-
S.N.N.P.R	-	-	-	*	*	-
Gambella	-	-	-	-	-	-
Harari	-	-	-	-	-	-
Addis Ababa	*	*	*	*	*	*
Dire Dawa	-	-	-	-	-	-

TABLE 6.20.2g: Soya beans

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	3876	861	2426	120	1126	637	596
Tigray	173	*	*	*	-	-	-
Afar	-	-	-	-	-	-	-
Amhara	576	*	399	10	*	*	-
Oromia	1037	119	757	46	185	46	*
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	1145	630	316	17	786	575	550
S.N.N.P.R	945	36	824	*	*	*	*
Gambella	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.20.2g CONTD.

Soya beans						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	60	*	*	274	82	77
Tigray	-	-	-	*	*	*
Afar	-	-	-	-	-	-
Amhara	-	-	-	*	*	*
Oromia	*	*	*	78	*	*
Somali	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	*	*	*
S.N.N.P.R	-	-	-	-	-	-
Gambella	-	-	-	-	-	-
Harari	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.20.2h: Fenugreek

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	49976	2370	36466	892	4132	514	218
Tigray	1329	86	657	26	*	*	*
Afar	-	-	-	-	-	-	-
Amhara	14473	802	9534	231	567	79	57
Oromia	29036	1358	22380	601	2936	407	135
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	103	*	103	*	-	-	-
S.N.N.P.R	4275	47	3749	32	382	*	4
Gambella	*	*	*	*	-	-	-
Harari	*	*	-	-	-	-	-
Addis Ababa	664	75	*	*	229	17	*
Dire Dawa	*	*	*	*	-	-	-

TABLE 6.20.2h CONTD.

Fenugreek						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	777	58	26	8925	906	681
Tigray	*	*	*	643	55	50
Afar	-	-	-	-	-	-
Amhara	170	16	9	4238	476	380
Oromia	448	*	14	3522	316	235
Somali	-	-	-	-	-	-
Benishangul-Gumuz	-	-	-	-	-	-
S.N.N.P.R	*	*	*	*	*	*
Gambella	-	-	-	-	-	-
Harari	*	*	*	-	-	-
Addis Ababa	*	*	*	*	*	14
Dire Dawa	-	-	-	-	-	-

TABLE 6.20.2i: Gibto

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	8329	903	4249	444	2324	276	93
Tigray	-	-	-	-	-	-	-
Afar	-	-	-	-	-	-	-
Amhara	7859	891	3874	436	2237	276	90
Oromia	208	-	121	-	*	-	*
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	*	-	-	-
S.N.N.P.R	*	*	*	*	-	-	-
Gambella	*	*	*	*	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.20.2i CONTD.

Gibto						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	*	*	*	1745	149	36
Tigray	-	-	-	-	-	-
Afar	-	-	-	-	-	-
Amhara	*	*	*	1737	145	33
Oromia	-	-	-	-	-	-
Somali	-	-	-	-	-	-
Benishangul-Gumuz	-	-	-	*	*	*
S.N.N.P.R	-	-	-	-	-	-
Gambella	-	-	-	-	-	-
Harari	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.20.3: RURAL BELG

Pulses							
Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	644638	35571	602871	28911	48361	5457	2405
Tigray	1769	196	1095	110	-	-	-
Afar	45	4	45	4	-	-	-
Amhara	35776	3331	35254	3235	252	*	11
Oromia	167022	9618	156365	8231	8785	1178	454
Somali	328	45	328	45	-	-	-
Benishangul-Gumuz	1156	21	1156	21	-	-	-
S.N.N.P.R	437236	22202	407383	17127	39293	4206	1932
Gambella	*	*	*	*	-	-	-
Harari	1257	153	1211	138	*	*	*
Addis Ababa	*	*	*	*	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.20.3 CONTD.

Pulses						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	1880	139	59	9123	1065	524
Tigray	*	*	*	623	85	100
Afar	-	-	-	-	-	-
Amhara	*	*	*	*	*	*
Oromia	521	*	*	1870	150	76
Somali	-	-	-	-	-	-
Benishangul-Gumuz	-	-	-	-	-	-
S.N.N.P.R	1204	57	25	6435	811	318
Gambella	-	-	-	-	-	-
Harari	*	*	*	-	-	-
Addis Ababa	-	-	-	*	*	*
Dire Dawa	-	-	-	-	-	-

TABLE 6.20.4: URBAN HOLDINGS

Geographic Area	Pulses							
	Application of		Type of Fertilizer Applied				Natural and Chemical	
			Holder	Hectare	Holder	Hectare	Holder	Hectare
National	7432	2235	2363	443	4813	1670	307	122
Tigray	433	133	65	*	320	96	48	11
Afar	-	-	-	-	-	-	-	-
Amhara	589	139	243	46	348	93	*	*
Oromia	3206	1331	681	164	2424	1100	110	67
Somali	29	30	29	30	-	-	-	-
Benishangul-Gumuz	191	*	24	6	*	*	*	*
S.N.N.P.R	2815	444	1314	170	1400	235	134	*
Gambella	-	-	-	-	-	-	-	-
Harari	*	*	*	*	*	*	*	*
Addis Ababa	146	69	-	-	146	69	-	-
Dire Dawa	-	-	-	-	-	-	-	-

TABLE 6.21: NUMBER OF HOLDER APPLYING FERTILIZERS, AREA, AND QUANTITY APPLIED BY CROP IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Oil Seeds						
	Total Fertilized Cropland		Type of Fertilizer Applied				
	Holder	Hectare	Natural		Dap		
		Holder	Hectare	Holder	Hectare	Quintal	
National	422768	50789	323402	32380	62453	11269	4767
Tigray	15627	2256	12413	1765	212	*	12
Afar	72	3	50	1	-	-	-
Amhara	207932	23734	152976	13525	34074	5913	1814
Oromia	156436	21674	122825	14578	23095	4935	2837
Somali	*	*	*	*	-	-	-
Benishangul-Gumuz	9409	1910	8740	1621	327	99	37
S.N.N.P.R	29292	727	23636	562	4446	123	63
Gambella	24	*	18	*	-	-	-
Harari	3458	442	2312	302	294	37	*
Addis Ababa	76	10	*	*	*	*	-
Dire Dawa	285	17	247	14	-	-	-

TABLE 6.21 CONTD.

Geographic Area	Oil Seeds								
	Type of Fertilizer Applied							Chemical (Urban)	
	UREA			DAP & UREA			Holder	Hectare	
Holder	Hectare	Quintal	Holder	Hectare	Quintal				
National	9305	1237	742	51802	5583	2036	643	320	
Tigray	205	*	12	3033	239	206	38	9	
Afar	*	*	-	*	*	*	-	-	
Amhara	5375	540	161	35539	3721	1081	156	34	
Oromia	2603	427	*	11501	1473	649	364	260	
Somali	-	-	-	-	-	-	*	*	
Benishangul-Gumuz	204	*	14	188	72	71	*	*	
S.N.N.P.R	*	*	*	1224	37	20	20	*	
Gambella	-	-	-	-	-	-	*	*	
Harari	661	67	21	270	34	*	29	2	
Addis Ababa	*	*	-	*	*	*	24	*	
Dire Dawa	*	*	-	*	*	-	-	-	

TABLE 6.21.1: RURAL HOLDINGS

Oil Seeds							
Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	421865	50395	323141	32306	62453	11269	4767
Tigray	15570	2242	12395	1760	212	*	12
Afar	72	3	50	1	-	-	-
Amhara	207734	23694	152932	13520	34074	5913	1814
Oromia	155926	21359	122679	14524	23095	4935	2837
Somali	*	*	*	*	-	-	-
Benishangul-Gumuz	9400	1906	8734	1617	327	99	37
S.N.N.P.R	29272	725	23636	562	4446	123	63
Gambella	*	*	*	*	-	-	-
Harari	3395	437	2278	299	294	37	*
Addis Ababa	51	*	*	*	*	*	-
Dire Dawa	285	17	247	14	-	-	-

TABLE 6.21.1 CONTD.

Oil Seeds						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	9305	1237	742	51802	5583	2036
Tigray	205	*	12	3033	239	206
Afar	*	*	-	*	*	*
Amhara	5375	540	161	35539	3721	1081
Oromia	2603	427	*	11501	1473	649
Somali	-	-	-	-	-	-
Benishangul-Gumuz	204	*	14	188	72	71
S.N.N.P.R	*	*	*	1224	37	20
Gambella	-	-	-	-	-	-
Harari	661	67	21	270	34	*
Addis Ababa	*	*	-	*	*	*
Dire Dawa	*	*	-	*	*	-

TABLE 6.21.2: RURAL MEHER

Oil Seeds							
Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	404237	50134	305597	32088	62180	11226	4755
Tigray	15464	2240	12288	1758	212	*	12
Afar	72	3	50	1	-	-	-
Amhara	203861	23668	149059	13494	34074	5913	1814
Oromia	152435	21270	119313	14477	22890	4892	2826
Somali	*	*	*	*	-	-	-
Benishangul-Gumuz	9316	1905	8650	1616	327	99	37
S.N.N.P.R	19214	585	13538	423	4377	123	62
Gambella	*	*	*	*	-	-	-
Harari	3378	433	2261	295	294	37	*
Addis Ababa	51	*	*	*	*	*	-
Dire Dawa	285	17	247	14	-	-	-

TABLE 6.21.2 CONTD.

Oil Seeds						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	9305	1237	742	51802	5583	2036
Tigray	205	*	12	3033	239	206
Afar	*	*	-	*	*	*
Amhara	5375	540	161	35539	3721	1081
Oromia	2603	427	*	11501	1473	649
Somali	-	-	-	-	-	-
Benishangul-Gumuz	204	*	14	188	72	71
S.N.N.P.R	*	*	*	1224	37	20
Gambella	-	-	-	-	-	-
Harari	661	67	21	270	34	*
Addis Ababa	*	*	-	*	*	*
Dire Dawa	*	*	-	*	*	-

TABLE 6.21.2a: Neug

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	87206	24670	66349	17690	13805	4734	1265
Tigray	4359	567	3101	513	*	*	*
Afar	*	*	*	*	-	-	-
Amhara	45514	13909	29335	7984	11685	4137	983
Oromia	33803	9166	30765	8241	1943	573	267
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	2450	849	2336	787	56	*	*
S.N.N.P.R	1073	178	804	164	*	*	*
Gambella	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.21.2a CONTD.

Neug						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	1588	401	*	7142	1845	823
Tigray	*	*	*	1310	53	60
Afar	-	-	-	-	-	-
Amhara	1207	318	69	4760	1470	584
Oromia	287	81	*	911	271	142
Somali	-	-	-	-	-	-
Benishangul-Gumuz	-	-	-	*	*	*
S.N.N.P.R	*	*	*	*	*	*
Gambella	-	-	-	-	-	-
Harari	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.21.2b: Linseed

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	65423	7513	42318	3396	15821	3308	1408
Tigray	6506	376	5239	304	91	*	*
Afar	-	-	-	-	-	-	-
Amhara	18395	1655	14250	1096	1946	309	164
Oromia	31767	5237	18737	1878	10294	2898	1199
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	506	23	486	21	*	*	*
S.N.N.P.R	8233	217	3600	95	3487	98	42
Gambella	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa	*	*	*	*	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.21.2b CONTD.

Linseed							
Geographic Area	Type of Fertilizer Applied						
	UREA			DAP & UREA			
	Holder	Hectare	Quintal	Holder	Hectare	Quintal	
National	1143	96	53	6464	713	530	
Tigray	*	*	*	1085	65	61	
Afar	-	-	-	-	-	-	
Amhara	492	*	*	1743	205	171	
Oromia	396	47	*	2627	415	281	
Somali	-	-	-	-	-	-	
Benishangul-Gumuz	-	-	-	*	*	*	
S.N.N.P.R	*	*	*	982	23	10	
Gambella	-	-	-	-	-	-	
Harari	-	-	-	-	-	-	
Addis Ababa	-	-	-	*	*	*	
Dire Dawa	-	-	-	-	-	-	

TABLE 6.21.2c: Ground nuts

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	24182	3284	20059	2563	1454	194	24
Tigray	*	*	-	-	-	-	-
Afar	*	*	*	*	-	-	-
Amhara	470	26	353	*	*	*	*
Oromia	18307	2707	15623	2142	1002	155	20
Somali	*	*	*	*	-	-	-
Benishangul-Gumuz	1013	44	951	38	*	*	*
S.N.N.P.R	599	51	496	48	*	*	*
Gambella	*	*	*	*	-	-	-
Harari	3378	431	2261	295	294	37	*
Addis Ababa	-	-	-	-	-	-	-
Dire Dawa	229	14	209	12	-	-	-

TABLE 6.21.2c CONTD.

Ground nuts						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	1832	251	64	1406	275	105
Tigray	-	-	-	*	*	*
Afar	-	-	-	-	-	-
Amhara	*	*	-	-	-	-
Oromia	1122	179	43	1013	230	91
Somali	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	44	3	*
S.N.N.P.R	-	-	-	*	*	-
Gambella	-	-	-	-	-	-
Harari	661	66	21	270	34	*
Addis Ababa	-	-	-	-	-	-
Dire Dawa	-	-	-	*	*	-

TABLE 6.21.2d: Sufflower

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	17960	782	11723	285	1741	96	29
Tigray	627	19	376	11	*	*	-
Afar	41	1	26	1	-	-	-
Amhara	12277	518	8053	192	1096	60	*
Oromia	4461	228	2875	76	489	27	13
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	156	*	109	*	*	*	-
S.N.N.P.R	399	*	284	*	*	*	*
Gambella	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.21.2d CONTD.

Sufflower						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	1259	67	31	3375	334	50
Tigray	*	*	*	232	7	*
Afar	*	*	-	*	*	*
Amhara	1086	54	*	2075	213	*
Oromia	116	*	*	1060	114	10
Somali	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	-	-	-
S.N.N.P.R	-	-	-	-	-	-
Gambella	-	-	-	-	-	-
Harari	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.21.2e: Sesame

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	26319	3975	23575	3227	879	293	77
Tigray	3988	1260	3555	919	83	*	*
Afar	*	*	*	*	-	-	-
Amhara	10051	869	8886	778	154	*	*
Oromia	7933	914	7229	816	478	61	*
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	4109	924	3712	710	164	71	26
S.N.N.P.R	*	*	*	*	-	-	-
Gambella	*	*	*	*	-	-	-
Harari	*	*	*	*	-	-	-
Addis Ababa	-	-	-	-	-	-	-
Dire Dawa	*	*	*	*	-	-	-

TABLE 6.21.2e CONTD.

Sesame						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	925	250	39	1042	205	149
Tigray	*	*	*	292	108	81
Afar	-	-	-	*	*	-
Amhara	552	*	6	513	52	*
Oromia	*	*	*	164	*	*
Somali	-	-	-	-	-	-
Benishangul-Gumuz	174	*	11	62	27	*
S.N.N.P.R	-	-	-	-	-	-
Gambella	-	-	-	-	-	-
Harari	*	*	-	-	-	-
Addis Ababa	-	-	-	-	-	-
Dire Dawa	*	*	-	-	-	-

TABLE 6.21.2f: Rapeseed

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	209378	9910	156181	4927	31447	2600	1951
Tigray	527	15	407	11	-	-	-
Afar	-	-	-	-	-	-	-
Amhara	134222	6690	95668	3424	21426	1402	658
Oromia	63478	3017	49772	1325	9247	1179	1286
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	2080	62	1977	58	83	*	*
S.N.N.P.R	9036	127	8333	110	685	*	*
Gambella	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa	36	*	*	*	*	*	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.21.2f CONTD.

Rapeseed						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	2795	171	75	33309	2211	379
Tigray	-	-	-	*	*	*
Afar	-	-	-	-	-	-
Amhara	2172	83	34	27195	1780	272
Oromia	604	88	*	5879	426	105
Somali	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	*	*	*
S.N.N.P.R	-	-	-	*	*	*
Gambella	-	-	-	-	-	-
Harari	-	-	-	-	-	-
Addis Ababa	*	*	-	-	-	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.21.2g: Other Grains

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	216170	6659	200520	4840	7819	1059	902
Tigray	1482	45	1130	25	-	-	-
Afar	*	*	*	*	-	-	-
Amhara	41774	2265	35709	1394	1033	394	170
Oromia	86457	1971	80878	1240	4104	548	*
Somali	*	*	*	*	-	-	-
Benishangul-Gumuz	2660	37	2511	35	*	*	*
S.N.N.P.R	83590	2332	80143	2143	2636	117	88
Gambella	50	*	50	*	-	-	-
Harari	*	*	-	-	-	-	-
Addis Ababa	*	*	-	-	-	-	-
Dire Dawa	*	*	*	*	-	-	-

TABLE 6.21.2g CONTD.

Other Grains						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	3310	177	172	5558	582	536
Tigray	-	-	-	376	20	29
Afar	*	*	*	-	-	-
Amhara	2331	120	110	2973	356	313
Oromia	396	15	*	1496	168	134
Somali	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	*	*	*
S.N.N.P.R	507	36	45	626	36	52
Gambella	-	-	-	-	-	-
Harari	-	-	-	*	*	-
Addis Ababa	-	-	-	*	*	*
Dire Dawa	-	-	-	*	*	*

TABLE 6.21.3: RURAL BELG

Geographic Area	Oil Seeds						
	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		Quintal
Holder	Hectare	Holder	Hectare	Holder	Hectare		
National	19634	261	19433	218	273	*	*
Tigray	*	*	*	*	-	-	-
Afar	-	-	-	-	-	-	-
Amhara	5276	26	5276	26	-	-	-
Oromia	3785	90	3608	47	204	*	*
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	*	-	-	-
S.N.N.P.R	10365	*	10342	*	*	-	*
Gambella	-	-	-	-	-	-	-
Harari	*	*	*	*	-	-	-
Addis Ababa	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.21.4: URBAN HOLDINGS

Geographic Area	Oil Seeds							
	Application of		Type of Fertilizer Applied					
			Natural		Chemical		Natural and Chemical	
Holder	Hectare	Holder	Hectare	Holder	Hectare	Holder	Hectare	
National	903	394	261	73	599	317	46	3
Tigray	57	14	19	*	38	9	-	-
Afar	-	-	-	-	-	-	-	-
Amhara	198	40	44	6	142	34	*	*
Oromia	510	315	146	*	356	260	8	*
Somali	12	*	8	1	*	*	-	-
Benishangul-Gumuz	*	*	*	*	*	*	-	-
S.N.N.P.R	20	*	-	-	*	*	5	*
Gambella	*	*	*	*	*	*	-	-
Harari	63	5	34	*	*	*	19	*
Addis Ababa	24	*	-	-	24	*	-	-
Dire Dawa	-	-	-	-	-	-	-	-

TABLE 6.22: NUMBER OF HOLDER APPLYING FERTILIZERS, AREA, AND QUANTITY APPLIED BY CROP IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Vegetables						
	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		Quintal
Holder	Hectare	Holder	Hectare	Holder	Hectare		
National	2141368	51186	1977652	32499	77937	6007	8711
Tigray	63181	1468	51148	650	620	5	10
Afar	213	81	141	*	-	-	-
Amhara	472952	11176	409609	6844	12923	460	616
Oromia	741407	18418	688876	11895	33484	2165	3620
Somali	688	41	555	37	*	*	*
Benishangul-Gumuz	18594	539	16635	435	385	18	7
S.N.N.P.R	838923	19158	806773	12514	30217	3351	4446
Gambella	1007	18	973	15	*	*	*
Harari	773	12	503	9	*	*	*
Addis Ababa	1914	206	810	16	*	*	*
Dire Dawa	1715	69	1630	66	*	*	*

TABLE 6.22 CONTD.

Vegetables								
Geographic Area	Type of Fertilizer Applied							
	UREA			DAP & UREA			Chemical (Urban)	
	Holder	Hectare	Quintal	Holder	Hectare	Quintal	Holder	Hectare
National	61094	4204	4333	81719	7752	16092	2400	723
Tigray	1613	27	72	11070	*	726	73	5
Afar	*	*	*	-	-	-	21	*
Amhara	37000	1877	1331	25039	1923	2130	359	72
Oromia	12678	1120	1646	29578	2912	9503	782	325
Somali	*	*	*	-	-	-	19	1
Benishangul-Gumuz	1589	54	25	606	29	13	*	*
S.N.N.P.R	7774	1104	1247	14773	2090	3642	717	99
Gambella	-	-	-	*	*	-	-	-
Harari	177	*	6	*	*	*	*	*
Addis Ababa	82	1	*	*	18	75	419	170
Dire Dawa	*	*	*	-	-	-	-	-

TABLE 6.22.1: RURAL HOLDINGS

Vegetables							
Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	2132520	50158	1971123	32194	77937	6007	8711
Tigray	63048	1438	51087	625	620	5	10
Afar	188	*	137	*	-	-	-
Amhara	472309	11091	409315	6831	12923	460	616
Oromia	739304	17960	687534	11763	33484	2165	3620
Somali	650	39	537	36	*	*	*
Benishangul-Gumuz	18555	532	16603	431	385	18	7
S.N.N.P.R	833585	18942	802103	12396	30217	3351	4446
Gambella	1007	18	973	15	*	*	*
Harari	760	12	492	9	*	*	*
Addis Ababa	1407	27	722	7	*	*	*
Dire Dawa	1707	69	1621	65	*	*	*

TABLE 6.22.1 CONTD.

Vegetables						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	61094	4204	4333	81719	7752	16092
Tigray	1613	27	72	11070	*	726
Afar	*	*	*	-	-	-
Amhara	37000	1877	1331	25039	1923	2130
Oromia	12678	1120	1646	29578	2912	9503
Somali	*	*	*	-	-	-
Benishangul-Gumuz	1589	54	25	606	29	13
S.N.N.P.R	7774	1104	1247	14773	2090	3642
Gambella	-	-	-	*	*	-
Harari	177	*	6	*	*	*
Addis Ababa	82	1	*	*	18	75
Dire Dawa	*	*	*	-	-	-

TABLE 6.22.2: RURAL MEHER

Vegetables							
Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	1814567	42375	1658809	25565	74182	5878	8553
Tigray	53488	1041	44911	444	546	4	8
Afar	98	2	90	2	-	-	-
Amhara	439773	10320	379049	6193	11456	424	574
Oromia	673773	15474	623337	10023	31980	2088	3521
Somali	603	38	502	35	*	*	*
Benishangul-Gumuz	17740	515	15608	414	385	18	7
S.N.N.P.R	625340	14930	592488	8412	29532	3338	4431
Gambella	960	17	926	15	*	*	*
Harari	695	5	455	3	*	*	*
Addis Ababa	1320	14	712	7	*	*	*
Dire Dawa	777	19	730	18	-	-	-

TABLE 6.22.2 CONTD.

Vegetables						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	56310	3853	3818	74659	7080	14119
Tigray	872	9	40	7486	*	307
Afar	*	*	-	-	-	-
Amhara	35113	1802	1233	24591	1901	2101
Oromia	11097	886	1270	26874	2477	8049
Somali	*	*	*	-	-	-
Benishangul-Gumuz	1589	54	25	606	29	13
S.N.N.P.R	7334	1098	1243	14597	2083	3632
Gambella	-	-	-	-	*	*
Harari	149	*	4	*	*	*
Addis Ababa	71	*	1	*	5	15
Dire Dawa	*	*	*	-	-	-

TABLE 6.22.2a: Lettuce

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	5282	86	3280	25	189	*	*
Tigray	982	5	547	1	-	-	-
Afar	-	-	-	-	-	-	-
Amhara	759	*	608	3	-	-	-
Oromia	2681	73	1297	19	155	*	*
Somali	*	*	*	*	-	-	-
Benishangul-Gumuz	*	*	*	*	-	-	-
S.N.N.P.R	627	*	600	*	*	*	*
Gambella	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa	*	*	*	*	*	*	*
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.22.2a CONTD.

Lettuce						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	959	32	*	1046	24	53
Tigray	*	*	*	351	2	6
Afar	-	-	-	-	-	-
Amhara	-	-	-	*	*	-
Oromia	875	*	*	545	*	*
Somali	-	-	-	-	-	-
Benishangul-Gumuz	-	-	-	-	-	-
S.N.N.P.R	-	-	-	-	-	-
Gambella	-	-	-	-	-	-
Harari	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.22.2b: Head Cabbage

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	22331	336	16976	192	1699	*	*
Tigray	819	7	526	4	-	-	-
Afar	-	-	-	-	-	-	-
Amhara	3878	32	3581	25	*	*	*
Oromia	12466	259	8734	*	878	*	*
Somali	*	*	*	*	-	-	-
Benishangul-Gumuz	372	1	334	1	*	*	*
S.N.N.P.R	4638	34	3746	24	745	*	12
Gambella	-	-	-	-	-	-	-
Harari	*	*	-	-	-	-	-
Addis Ababa	75	3	26	*	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.22.2b CONTD.

Head Cabbage						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	1881	38	*	2000	76	222
Tigray	*	*	*	*	*	*
Afar	-	-	-	-	-	-
Amhara	*	*	*	*	*	*
Oromia	1390	35	*	1490	64	198
Somali	*	*	*	-	-	-
Benishangul-Gumuz	*	*	*	*	*	*
S.N.N.P.R	*	*	*	*	*	*
Gambella	-	-	-	-	-	-
Harari	*	*	*	-	-	-
Addis Ababa	*	*	-	45	2	8
Dire Dawa	-	-	-	-	-	-

TABLE 6.22.2c: Kale

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	862819	8409	846993	8121	11663	170	257
Tigray	381	*	301	2	-	-	-
Afar	-	-	-	-	-	-	-
Amhara	41936	163	41065	141	204	*	*
Oromia	326306	3188	319134	3041	4475	89	159
Somali	*	*	*	*	-	-	-
Benishangul-Gumuz	387	5	343	2	*	*	-
S.N.N.P.R	492313	5033	485233	4926	6827	70	83
Gambella	529	*	529	*	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa	954	8	375	*	*	1	*
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.22.2c CONTD.

Kale						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	2923	26	51	5231	92	138
Tigray	-	-	-	*	*	*
Afar	-	-	-	-	-	-
Amhara	303	*	4	383	11	*
Oromia	999	9	34	2683	49	80
Somali	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	*	*	-
S.N.N.P.R	1532	15	13	1682	22	25
Gambella	-	-	-	-	-	-
Harari	-	-	-	-	-	-
Addis Ababa	66	*	1	*	*	*
Dire Dawa	-	-	-	-	-	-

TABLE 6.22.2d: Tomatoes

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	22366	895	16511	298	1152	102	157
Tigray	2883	49	1674	24	*	*	*
Afar	*	*	*	*	-	-	-
Amhara	4446	74	4027	51	-	-	-
Oromia	11015	700	7160	156	912	99	152
Somali	350	*	279	*	*	*	*
Benishangul-Gumuz	289	2	268	2	-	-	-
S.N.N.P.R	2491	18	2276	18	*	*	*
Gambella	92	*	87	*	*	*	*
Harari	-	-	-	-	-	-	-
Addis Ababa	*	*	-	-	-	-	-
Dire Dawa	771	19	725	18	-	-	-

TABLE 6.22.2d CONTD.

Tomatoes						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	668	43	50	4168	452	1161
Tigray	136	*	*	1090	22	57
Afar	*	*	-	-	-	-
Amhara	*	*	*	*	*	*
Oromia	260	27	40	2782	419	1101
Somali	-	-	-	-	-	-
Benishangul-Gumuz	-	-	-	*	*	*
S.N.N.P.R	-	-	-	*	*	*
Gambella	-	-	-	-	-	-
Harari	-	-	-	-	-	-
Addis Ababa	-	-	-	*	*	*
Dire Dawa	*	*	*	-	-	-

TABLE 6.22.2e: Green Peppers

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied					
			Natural		Dap			
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal	
National	219097	1931	204354	1659	5264	93	166	
Tigray	14177	118	10861	85	*	*	*	
Afar	*	*	*	*	-	-	-	
Amhara	44437	364	41395	305	945	*	*	
Oromia	135830	1178	128570	1018	3799	66	125	
Somali	120	*	120	*	-	-	-	
Benishangul-Gumuz	1100	13	1003	11	*	*	*	
S.N.N.P.R	23066	254	22170	236	447	*	*	
Gambella	74	*	64	*	*	*	*	
Harari	*	*	*	*	-	-	-	
Addis Ababa	207	*	108	*	-	-	-	
Dire Dawa	*	*	*	*	-	-	-	

TABLE 6.22.2e CONTD.

Green Peppers						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	3250	57	128	7095	122	237
Tigray	207	1	*	3087	31	79
Afar	-	-	-	-	-	-
Amhara	1259	30	62	994	14	33
Oromia	1505	23	43	2647	71	116
Somali	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	*	*	*
S.N.N.P.R	*	*	*	*	*	*
Gambella	-	-	-	-	-	-
Harari	-	-	-	*	*	*
Addis Ababa	-	-	-	*	*	*
Dire Dawa	-	-	-	-	-	-

TABLE 6.22.2f: Red Peppers

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	633548	26623	496371	11799	53827	5386	7821
Tigray	34657	437	30918	312	461	3	5
Afar	49	1	41	1	-	-	-
Amhara	337510	9243	280259	5296	9443	370	497
Oromia	182625	8338	144709	4032	22345	1763	3003
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	11081	327	9133	241	310	17	5
S.N.N.P.R	67536	8276	31240	1917	21270	3234	4311
Gambella	57	*	57	*	-	-	-
Harari	*	*	*	*	-	-	-
Addis Ababa	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.22.2f CONTD.

Geographic Area	Red Peppers					
	Type of Fertilizer Applied					
	UREA			DAP & UREA		
Holder	Hectare	Quintal	Holder	Hectare	Quintal	
National	46690	3633	3216	54131	5805	12222
Tigray	338	2	2	2993	*	110
Afar	*	*	-	-	-	-
Amhara	33193	1748	1158	22064	1830	2043
Oromia	6258	753	806	16316	1791	6465
Somali	-	-	-	-	-	-
Benishangul-Gumuz	1532	52	24	317	17	13
S.N.N.P.R	5344	1078	1225	12442	2047	3591
Gambella	-	-	-	-	-	-
Harari	*	*	*	-	-	-
Addis Ababa	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.22.2g: Swiss chard

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	11405	49	10037	44	368	*	*
Tigray	1412	5	736	3	*	*	*
Afar	-	-	-	-	-	-	-
Amhara	3596	13	3578	13	-	-	-
Oromia	3636	11	3132	8	*	*	*
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	*	-	-	-
S.N.N.P.R	2706	*	2541	*	*	*	*
Gambella	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa	46	*	41	*	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.22.2g CONTD.

Swiss chard						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	246	2	*	768	3	13
Tigray	*	*	*	518	2	8
Afar	-	-	-	-	-	-
Amhara	-	-	-	*	*	*
Oromia	*	*	*	*	*	*
Somali	-	-	-	-	-	-
Benishangul-Gumuz	-	-	-	-	-	-
S.N.N.P.R	-	-	-	-	-	-
Gambella	-	-	-	-	-	-
Harari	-	-	-	-	-	-
Addis Ababa	-	-	-	*	*	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.22.2h: Other Vegetables

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	272412	4046	265347	3428	3134	91	97
Tigray	1156	*	910	13	-	-	-
Afar	*	*	*	*	-	-	-
Amhara	27788	426	26220	359	857	30	41
Oromia	115187	1728	111112	1613	1441	43	41
Somali	*	*	*	*	-	-	-
Benishangul-Gumuz	6154	166	5922	157	*	*	*
S.N.N.P.R	120591	1294	119875	1270	*	*	*
Gambella	332	11	303	8	*	*	-
Harari	615	5	439	3	*	*	*
Addis Ababa	365	3	342	2	*	*	*
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.22.2h CONTD.

Other Vegetables						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	1161	22	22	3943	*	74
Tigray	-	-	-	246	*	*
Afar	-	-	-	-	-	-
Amhara	*	*	*	852	*	*
Oromia	734	8	13	2233	64	37
Somali	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	188	8	-
S.N.N.P.R	*	*	*	367	*	*
Gambella	-	-	-	-	*	*
Harari	109	*	*	*	*	*
Addis Ababa	-	-	-	*	*	*
Dire Dawa	-	-	-	-	-	-

TABLE 6.22.3: RURAL BELG

Geographic Area	Vegetables						
	Total Fertilized Cropland		Type of Fertilizer Applied				
	Holder	Hectare	Natural		Dap		
Holder			Hectare	Holder	Hectare	Quintal	
National	503073	7783	487219	6629	4119	129	158
Tigray	11463	397	6985	181	*	*	*
Afar	*	*	*	*	-	-	-
Amhara	40369	770	36636	638	1467	36	42
Oromia	125135	2486	118778	1739	1868	77	100
Somali	47	1	34	1	-	-	-
Benishangul-Gumuz	1636	17	1636	17	-	-	-
S.N.N.P.R	322642	4012	321683	3984	686	14	14
Gambella	*	*	*	*	-	-	-
Harari	*	*	*	*	-	-	-
Addis Ababa	208	*	*	*	-	-	-
Dire Dawa	1338	50	1275	47	*	*	*

TABLE 6.22.3 CONTD.

Geographic Area	Vegetables					
	Type of Fertilizer Applied					
	UREA			DAP & UREA		
Holder	Hectare	Quintal	Holder	Hectare	Quintal	
National	5353	352	515	8309	673	1973
Tigray	778	18	32	4312	196	420
Afar	*	*	*	-	-	-
Amhara	1937	75	*	448	22	29
Oromia	2063	234	376	3204	435	1454
Somali	*	*	*	-	-	-
Benishangul-Gumuz	-	-	-	-	-	-
S.N.N.P.R	441	*	*	*	*	*
Gambella	-	-	-	-	-	-
Harari	*	*	*	-	-	-
Addis Ababa	*	*	*	*	*	*
Dire Dawa	*	*	*	-	-	-

TABLE 6.22.4: URBAN HOLDINGS

Geographic Area	Vegetables							
	Application of		Type of Fertilizer Applied					
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Holder	Hectare
National	8848	1028	6528	305	2071	593	342	*
Tigray	133	30	61	*	55	5	17	*
Afar	26	*	*	*	21	*	-	-
Amhara	643	85	294	13	326	63	33	*
Oromia	2103	458	1342	133	711	309	76	16
Somali	37	2	18	1	19	1	-	-
Benishangul-Gumuz	39	7	32	4	*	*	-	-
S.N.N.P.R	5338	217	4670	118	667	98	53	1
Gambella	-	-	-	-	-	-	-	-
Harari	13	*	11	*	*	*	-	-
Addis Ababa	507	179	88	*	262	67	162	*
Dire Dawa	8	1	8	1	-	-	-	-

TABLE 6.23: NUMBER OF HOLDER APPLYING FERTILIZERS, AREA, AND QUANTITY APPLIED BY CROP IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Root Crops						
	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal	
National	2437684	163280	2119109	111951	343729	33748	35990
Tigray	35518	1203	21504	450	756	25	34
Afar	370	280	32	*	*	*	*
Amhara	630204	44669	544099	34523	74951	7166	6822
Oromia	863065	56380	724694	30678	124774	16589	14184
Somali	1438	65	1214	51	*	*	*
Benishangul-Gumuz	14184	430	13789	382	175	9	4
S.N.N.P.R	885585	59683	809278	45737	142363	9853	14759
Gambella	725	12	712	12	*	*	-
Harari	1457	65	672	26	*	*	*
Addis Ababa	2837	*	966	18	*	*	*
Dire Dawa	2300	80	2149	73	-	-	-

TABLE 6.23 CONTD.

Geographic Area	Root Crops								
	Type of Fertilizer Applied							Chemical (Urban)	
	UREA			DAP & UREA			Holder	Hectare	
Holder	Hectare	Quintal	Holder	Hectare	Quintal	Holder	Hectare		
National	53492	2900	3811	138024	13594	20804	3205	1087	
Tigray	1681	50	95	13823	670	1489	63	8	
Afar	284	187	185	*	*	*	45	51	
Amhara	21627	1115	1352	30559	1804	2465	256	61	
Oromia	17729	1088	1532	53076	7415	13486	1588	611	
Somali	*	*	*	*	*	*	*	*	
Benishangul-Gumuz	168	*	*	304	18	*	52	13	
S.N.N.P.R	11323	434	613	38624	3595	3220	909	64	
Gambella	*	*	-	-	-	-	-	-	
Harari	215	4	6	307	8	*	*	*	
Addis Ababa	227	5	11	*	79	129	273	*	
Dire Dawa	*	*	*	-	-	-	-	-	

TABLE 6.23.1: RURAL HOLDINGS

Geographic Area	Root Crops						
	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal	
National	2428911	161575	2113382	111332	343729	33748	35990
Tigray	35439	1181	21487	437	756	25	34
Afar	321	228	*	*	*	*	*
Amhara	629529	44565	543668	34481	74951	7166	6822
Oromia	860220	55655	723410	30563	124774	16589	14184
Somali	1412	58	1202	50	*	*	*
Benishangul-Gumuz	14110	413	13760	378	175	9	4
S.N.N.P.R	880906	59190	805393	45309	142363	9853	14759
Gambella	725	12	712	12	*	*	-
Harari	1448	64	669	25	*	*	*
Addis Ababa	2505	129	906	6	*	*	*
Dire Dawa	2297	79	2146	72	-	-	-

TABLE 6.23.1 CONTD.

Root Crops						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	53492	2900	3811	138024	13594	20804
Tigray	1681	50	95	13823	670	1489
Afar	284	187	185	*	*	*
Amhara	21627	1115	1352	30559	1804	2465
Oromia	17729	1088	1532	53076	7415	13486
Somali	*	*	*	*	*	*
Benishangul-Gumuz	168	*	*	304	18	*
S.N.N.P.R.	11323	434	613	38624	3595	3220
Gambella	*	*	-	-	-	-
Harari	215	4	6	307	8	*
Addis Ababa	227	5	11	*	79	129
Dire Dawa	*	*	*	-	-	-

TABLE 6.23.2: RURAL MEHER

Root Crops							
Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	1666138	60901	1485481	44606	126238	8534	9488
Tigray	21927	409	15352	214	249	*	19
Afar	285	*	*	*	*	*	*
Amhara	396849	8882	348012	5828	29881	1939	1821
Oromia	606457	23545	530563	14212	44608	4159	4053
Somali	1224	48	1025	42	*	*	*
Benishangul-Gumuz	12078	241	11643	206	175	9	4
S.N.N.P.R.	621459	27363	575438	24031	50682	2320	3416
Gambella	704	12	691	12	*	*	-
Harari	1368	52	643	21	*	*	*
Addis Ababa	2458	122	870	5	*	*	*
Dire Dawa	1329	38	1221	35	-	-	-

TABLE 6.23.2 CONTD.

Root Crops						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	32837	1259	1844	75380	6501	10211
Tigray	814	17	32	6125	168	547
Afar	261	151	152	-	-	-
Amhara	13741	333	509	17597	783	1189
Oromia	12859	599	926	36580	4576	6934
Somali	*	*	*	*	*	*
Benishangul-Gumuz	168	*	*	304	18	*
S.N.N.P.R.	4385	137	197	13225	874	1418
Gambella	*	*	-	-	-	-
Harari	215	4	6	307	8	*
Addis Ababa	221	5	*	*	72	109
Dire Dawa	*	*	*	-	-	-

TABLE 6.23.2a: Beetroot

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	33373	245	27805	146	2691	31	36
Tigray	186	*	*	*	-	-	-
Afar	-	-	-	-	-	-	-
Amhara	3567	24	3284	19	*	*	*
Oromia	20873	179	17076	103	1539	26	26
Somali	*	*	*	*	-	-	-
Benishangul-Gumuz	224	*	224	*	-	-	-
S.N.N.P.R	8380	35	7124	23	1045	*	10
Gambella	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa	84	4	31	*	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.23.2a CONTD.

Beetroot						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	1217	22	83	2016	46	79
Tigray	-	-	-	*	*	*
Afar	-	-	-	-	-	-
Amhara	*	*	*	*	*	*
Oromia	917	19	80	1498	32	61
Somali	*	*	*	-	-	-
Benishangul-Gumuz	-	-	-	-	-	-
S.N.N.P.R	*	*	*	*	*	*
Gambella	-	-	-	-	-	-
Harari	-	-	-	-	-	-
Addis Ababa	*	*	-	48	3	*
Dire Dawa	-	-	-	-	-	-

TABLE 6.23.2b: Carrot

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	20249	380	14799	124	2188	91	183
Tigray	1335	19	723	12	-	-	-
Afar	-	-	-	-	-	-	-
Amhara	4690	61	4161	53	*	*	*
Oromia	8241	171	5543	46	1246	48	51
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	261	1	261	1	-	-	-
S.N.N.P.R	4933	17	4059	10	717	*	3
Gambella	*	*	*	*	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa	781	112	43	*	*	*	*
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.23.2b CONTD.

Carrot						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	1270	22	41	2376	143	207
Tigray	*	*	*	423	4	7
Afar	-	-	-	-	-	-
Amhara	*	*	*	*	*	*
Oromia	555	13	26	984	64	102
Somali	-	-	-	-	-	-
Benishangul-Gumuz	-	-	-	-	-	-
S.N.N.P.R	200	*	2	*	*	*
Gambella	-	-	-	-	-	-
Harari	-	-	-	-	-	-
Addis Ababa	71	4	*	*	67	89
Dire Dawa	-	-	-	-	-	-

TABLE 6.23.2c: Onions

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	286946	6132	246374	3005	15806	1201	1433
Tigray	6864	124	3783	42	*	*	*
Afar	271	*	*	*	*	*	*
Amhara	69405	1340	56904	614	3329	216	343
Oromia	131944	3726	110861	1673	9896	899	1013
Somali	356	*	323	*	-	-	-
Benishangul-Gumuz	1122	9	991	5	39	*	*
S.N.N.P.R	76389	712	73031	642	2444	47	54
Gambella	*	*	*	*	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa	219	1	183	1	*	*	*
Dire Dawa	336	*	247	*	-	-	-

TABLE 6.23.2c CONTD.

Onions						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	9401	558	657	17641	1367	3152
Tigray	236	*	*	2861	78	249
Afar	261	151	152	-	-	-
Amhara	5157	238	312	4742	273	476
Oromia	2935	147	172	9415	1007	2415
Somali	*	*	*	-	-	-
Benishangul-Gumuz	*	*	*	*	*	*
S.N.N.P.R	621	*	*	562	8	10
Gambella	-	-	-	-	-	-
Harari	-	-	-	-	-	-
Addis Ababa	*	*	*	*	*	*
Dire Dawa	*	*	*	-	-	-

TABLE 6.23.2d: Potatoes

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	528292	24607	405576	13351	90968	6480	6923
Tigray	7068	164	5479	102	*	*	*
Afar	*	*	*	*	-	-	-
Amhara	126997	6249	96006	4125	25128	1679	1412
Oromia	169719	11006	125304	4772	25267	2832	2565
Somali	*	9	*	*	*	*	*
Benishangul-Gumuz	1573	46	1454	34	*	*	*
S.N.N.P.R	221900	7105	176708	4305	40207	1938	2918
Gambella	-	-	-	-	-	-	-
Harari	361	*	91	*	*	*	*
Addis Ababa	25	*	*	*	-	-	-
Dire Dawa	*	*	*	*	-	-	-

TABLE 6.23.2d CONTD.

Potatoes						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	8519	438	597	35970	4338	5342
Tigray	244	*	*	1287	45	104
Afar	-	-	-	-	-	-
Amhara	908	36	49	6673	409	476
Oromia	5124	298	390	17370	3103	3686
Somali	-	-	-	*	*	*
Benishangul-Gumuz	*	*	*	*	*	*
S.N.N.P.R	2161	*	*	10407	769	1063
Gambella	-	-	-	-	-	-
Harari	*	*	*	*	*	*
Addis Ababa	-	-	-	*	*	*
Dire Dawa	*	*	*	-	-	-

TABLE 6.23.2e: Garlic

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	426565	2644	396238	2319	8749	102	197
Tigray	8943	70	6561	46	*	*	*
Afar	-	-	-	-	-	-	-
Amhara	236413	1144	220819	979	2295	22	54
Oromia	150515	1123	140382	995	5144	75	115
Somali	*	*	*	*	-	-	-
Benishangul-Gumuz	2333	12	2212	12	58	*	*
S.N.N.P.R	26506	*	25285	*	1061	4	15
Gambella	*	*	*	*	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa	*	4	653	2	*	*	*
Dire Dawa	*	*	*	*	-	-	-

TABLE 6.23.2e CONTD.

Garlic						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	9483	66	311	13805	157	565
Tigray	204	*	*	2151	22	*
Afar	-	-	-	-	-	-
Amhara	7516	56	146	6860	88	225
Oromia	1506	9	*	3971	44	155
Somali	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	*	*	*
S.N.N.P.R	*	*	*	*	*	*
Gambella	-	-	-	-	-	-
Harari	-	-	-	-	-	-
Addis Ababa	*	*	*	*	*	*
Dire Dawa	-	-	-	-	-	-

TABLE 6.23.2f: Taro

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	349414	9154	346675	8953	2332	137	214
Tigray	-	-	-	-	-	-	-
Afar	-	-	-	-	-	-	-
Amhara	*	*	*	*	-	-	-
Oromia	130360	3601	128687	3439	1500	108	187
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	395	5	364	4	-	-	-
S.N.N.P.R	218203	5540	217169	5501	832	29	27
Gambella	424	8	424	8	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.23.2f CONTD.

Taro						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	311	*	*	1005	58	117
Tigray	-	-	-	-	-	-
Afar	-	-	-	-	-	-
Amhara	-	-	-	-	-	-
Oromia	*	*	*	620	50	109
Somali	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	*	*	*
S.N.N.P.R	189	3	*	363	*	*
Gambella	-	-	-	-	-	-
Harari	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.23.2g: Sweet potatoes

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	371002	15640	352507	14816	8596	415	470
Tigray	190	*	*	*	*	*	*
Afar	*	*	*	*	*	*	*
Amhara	2722	62	2583	36	*	*	*
Oromia	109671	3554	99293	3152	2472	109	79
Somali	*	*	74	4	*	*	*
Benishangul-Gumuz	5682	90	5577	84	*	2	*
S.N.N.P.R	250449	11869	243227	11491	5892	278	377
Gambella	184	4	174	4	*	*	*
Harari	1006	28	523	18	*	*	*
Addis Ababa	*	*	*	*	-	-	-
Dire Dawa	971	25	951	25	-	-	-

TABLE 6.23.2g CONTD.

Sweet potatoes						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	4747	122	126	7942	287	610
Tigray	-	-	-	*	*	*
Afar	-	-	-	-	-	-
Amhara	*	*	*	*	*	*
Oromia	3362	91	76	5831	201	280
Somali	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	*	*	*
S.N.N.P.R	1139	26	44	1677	74	*
Gambella	-	-	-	-	-	-
Harari	177	*	5	229	5	*
Addis Ababa	-	-	-	-	-	-
Dire Dawa	*	*	-	-	-	-

TABLE 6.23.2h: Other Root Crops

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	57736	2098	56492	1892	670	*	32
Tigray	411	30	244	*	-	-	-
Afar	-	-	-	-	-	-	-
Amhara	296	1	296	1	-	-	-
Oromia	2096	185	1682	30	*	*	*
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	2805	79	2700	66	-	-	-
S.N.N.P.R	52002	1803	51467	1783	573	*	*
Gambella	*	*	*	*	-	-	-
Harari	*	*	*	*	-	-	-
Addis Ababa	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.23.2h CONTD.

Geographic Area	Other Root Crops					
	Type of Fertilizer Applied					
	UREA			DAP & UREA		
Holder	Hectare	Quintal	Holder	Hectare	Quintal	
National	*	*	*	609	104	*
Tigray	*	*	*	149	18	*
Afar	-	-	-	-	-	-
Amhara	-	-	-	-	-	-
Oromia	*	*	*	290	*	*
Somali	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	*	*	-
S.N.N.P.R	*	*	-	*	*	-
Gambella	*	*	-	-	-	-
Harari	-	-	-	*	*	*
Addis Ababa	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.22.3: RURAL BELG

Geographic Area	Root Crops						
	Total Fertilized Cropland		Type of Fertilizer Applied				
	Holder	Hectare	Natural		Dap		
Holder			Hectare	Holder	Hectare	Quintal	
National	1348058	100673	1069720	66726	267864	25214	26502
Tigray	16367	773	7205	223	506	16	14
Afar	58	39	*	*	-	-	-
Amhara	340807	35683	273138	28653	55341	5227	5001
Oromia	389439	32109	279596	16351	94329	12430	10131
Somali	*	*	*	*	-	-	-
Benishangul-Gumuz	3294	172	3294	172	-	-	-
S.N.N.P.R	596337	31828	505046	21278	117566	7532	11343
Gambella	*	*	*	*	-	-	-
Harari	*	*	*	*	*	*	*
Addis Ababa	126	7	46	*	-	-	-
Dire Dawa	1222	41	1116	38	-	-	-

TABLE 6.23.3 CONTD.

Geographic Area	Root Crops					
	Type of Fertilizer Applied					
	UREA			DAP & UREA		
Holder	Hectare	Quintal	Holder	Hectare	Quintal	
National	22870	1641	1967	72248	7093	10593
Tigray	867	33	62	8604	502	942
Afar	*	*	32	*	*	*
Amhara	8774	782	843	13722	1021	1275
Oromia	5803	489	606	21500	2839	6552
Somali	-	-	-	*	*	*
Benishangul-Gumuz	-	-	-	-	-	-
S.N.N.P.R	7269	297	416	28322	2721	1802
Gambella	-	-	-	-	-	-
Harari	-	-	-	-	-	-
Addis Ababa	*	*	*	80	6	21
Dire Dawa	*	*	*	-	-	-

TABLE 6.23.4: URBAN HOLDINGS

Geographic Area	Root Crops							
	Application of		Type of Fertilizer Applied					
			Holder		Hectare		Natural and	
Holder	Hectare	Holder	Hectare	Holder	Hectare	Holder	Hectare	
National	8773	1705	5727	619	2662	775	569	*
Tigray	80	*	17	*	51	7	*	*
Afar	49	52	*	*	41	44	*	*
Amhara	675	103	431	43	214	52	48	8
Oromia	2845	726	1284	115	1355	573	246	38
Somali	25	*	12	1	*	*	-	-
Benishangul-Gumuz	75	16	28	*	28	7	24	6
S.N.N.P.R	4680	493	3886	428	825	57	88	7
Gambella	-	-	-	-	-	-	-	-
Harari	9	*	*	*	*	*	-	-
Addis Ababa	332	*	60	*	128	26	149	*
Dire Dawa	*	*	*	*	-	-	-	-

TABLE 6.24: NUMBER OF HOLDER APPLYING FERTILIZERS, AREA, AND QUANTITY APPLIED BY CROP IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Permanent Crops							
	Total Fertilized Cropland		Type of Fertilizer Applied					
			Natural		Dap			
Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal		
National	3580671	259207	3491492	245426	44681	3104	1156	
Tigray	50666	1505	45845	1321	307	4	*	
Afar	*	*	*	*	-	-	-	
Amhara	550610	11604	535513	11026	5537	123	87	
Oromia	1429020	111546	1370197	101543	23993	2146	609	
Somali	7877	1362	7410	1234	180	*	*	
Benishangul-Gumuz	23286	660	22623	618	191	3	*	
S.N.N.P.R	1501270	130404	1495664	128427	13263	613	391	
Gambella	1643	76	1561	73	*	*	*	
Harari	9143	1404	5835	581	1080	157	58	
Addis Ababa	796	20	743	14	*	*	-	
Dire Dawa	5524	521	5266	485	*	*	*	

TABLE 6.24 CONTD.

Geographic Area	Permanent Crops								
	Type of Fertilizer Applied								
	UREA			DAP & UREA			Chemical (Urban)		
Holder	Hectare	Quintal	Holder	Hectare	Quintal	Holder	Hectare		
National	40666	3649	993	76032	6131	1828	3496	897	
Tigray	491	*	*	4597	145	131	89	23	
Afar	-	-	-	-	-	-	-	-	
Amhara	5219	63	97	11554	355	106	148	37	
Oromia	25220	2636	653	48476	4620	1288	1746	600	
Somali	143	*	*	228	33	*	*	*	
Benishangul-Gumuz	360	5	7	539	28	*	20	*	
S.N.N.P.R	6552	509	93	8768	667	231	1350	189	
Gambella	42	*	*	-	-	-	*	*	
Harari	2386	354	128	1787	276	64	101	*	
Addis Ababa	-	-	-	*	*	*	*	*	
Dire Dawa	254	24	*	*	*	*	*	*	

TABLE 6.24.1: RURAL MEHER

Geographic Area	Permanent Crops						
	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	3543348	253774	3456519	240890	44681	3104	1156
Tigray	50395	1448	45652	1287	307	4	*
Afar	*	*	*	*	-	-	-
Amhara	548469	11262	533485	10720	5537	123	87
Oromia	1415784	109526	1358279	100124	23993	2146	609
Somali	7740	1339	7281	1212	180	*	*
Benishangul-Gumuz	23126	632	22471	597	191	3	*
S.N.N.P.R	1480333	127524	1475419	125734	13263	613	391
Gambella	1637	76	1561	73	*	*	*
Harari	8966	1345	5757	557	1080	157	58
Addis Ababa	621	10	590	9	*	*	-
Dire Dawa	5443	509	5191	473	*	*	*

TABLE 6.24.1 CONTD.

Geographic Area	Permanent Crops					
	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	40666	3649	993	76032	6131	1828
Tigray	491	*	*	4597	145	131
Afar	-	-	-	-	-	-
Amhara	5219	63	97	11554	355	106
Oromia	25220	2636	653	48476	4620	1288
Somali	143	*	*	228	33	*
Benishangul-Gumuz	360	5	7	539	28	*
S.N.N.P.R	6552	509	93	8768	667	231
Gambella	42	*	*	-	-	-
Harari	2386	354	128	1787	276	64
Addis Ababa	-	-	-	*	*	*
Dire Dawa	254	24	*	*	*	*

TABLE 6.24.2: URBAN HOLDINGS

Geographic Area	Permanent Crops							
	Application of		Type of Fertilizer Applied					
							Natural and Chemical	
	Holder	Hectare	Holder	Hectar	Holder	Hectare	Holder	Hectare
National	37323	5433	34973	4536	2926	827	596	69
Tigray	270	57	193	34	68	*	21	*
Afar	3	*	3	*	-	-	-	-
Amhara	2141	342	2028	305	129	*	19	3
Oromia	13236	2020	11918	1420	1436	*	323	33
Somali	137	23	129	22	*	*	-	-
Benishangul-Gumuz	161	28	152	22	20	*	-	-
S.N.N.P.R	20937	2881	20245	2692	1200	174	162	14
Gambella	*	*	-	-	*	*	-	-
Harari	177	59	78	*	46	*	55	*
Addis Ababa	175	10	152	*	*	*	*	*
Dire Dawa	81	11	*	*	*	*	-	-

TABLE 6.25: NUMBER OF HOLDER APPLYING FERTILIZERS, AREA, AND QUANTITY APPLIED BY CROP IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Fruit Crops							
Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	925893	11335	907128	10707	7216	172	181
Tigray	22621	861	21580	829	*	*	*
Afar	*	*	*	*	-	-	-
Amhara	99599	971	98601	924	*	*	*
Oromia	404809	5694	391834	5344	4516	102	121
Somali	1076	116	1000	71	*	*	-
Benishangul-Gumuz	18437	304	17866	271	69	1	*
S.N.N.P.R	370404	3009	369144	2960	1736	18	32
Gambella	798	8	735	7	*	*	*
Harari	4805	164	3232	102	483	15	15
Addis Ababa	46	*	42	*	-	-	-
Dire Dawa	2567	105	2364	97	*	*	*

TABLE 6.25 CONTD.

Fruit Crops								
Geographic Area	Type of Fertilizer Applied							
	UREA			DAP & UREA			Chemical (Urban)	
	Holder	Hectare	Quintal	Holder	Hectare	Quintal	Holder	Hectare
National	6268	120	122	12347	267	246	753	70
Tigray	172	*	*	845	15	19	62	*
Afar	-	-	-	-	-	-	-	-
Amhara	528	3	12	540	13	*	57	*
Oromia	3748	53	66	8776	183	187	332	12
Somali	*	*	-	-	-	-	*	*
Benishangul-Gumuz	267	3	6	483	26	*	8	*
S.N.N.P.R	460	*	*	1031	*	21	279	11
Gambella	*	*	*	-	-	-	-	-
Harari	928	32	27	628	15	14	*	-
Addis Ababa	-	-	-	*	*	-	-	-
Dire Dawa	*	*	*	*	*	*	*	*

TABLE 6.25.1: RURAL MEHER

Fruit Crops							
Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	914952	10615	896699	10056	7216	172	181
Tigray	22421	834	21431	814	*	*	*
Afar	*	*	*	*	-	-	-
Amhara	98736	840	97788	822	*	*	*
Oromia	400689	5579	387941	5241	4516	102	121
Somali	1049	112	977	69	*	*	-
Benishangul-Gumuz	18335	295	17764	266	69	1	*
S.N.N.P.R	364893	2586	363803	2547	1736	18	32
Gambella	798	8	735	7	*	*	*
Harari	4783	163	3214	101	483	15	15
Addis Ababa	*	*	*	*	-	-	-
Dire Dawa	2486	94	2290	86	*	*	*

TABLE 6.25.1 CONTD.

Fruit Crops						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	6268	120	122	12347	267	246
Tigray	172	*	*	845	15	19
Afar	-	-	-	-	-	-
Amhara	528	3	12	540	13	*
Oromia	3748	53	66	8776	183	187
Somali	*	*	-	-	-	-
Benishangul-Gumuz	267	3	6	483	26	*
S.N.N.P.R	460	*	*	1031	*	21
Gambella	*	*	*	-	-	-
Harari	928	32	27	628	15	14
Addis Ababa	-	-	-	*	*	-
Dire Dawa	*	*	*	*	*	*

TABLE 6.25.1a: Avocado

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	128716	628	127557	615	569	5	11
Tigray	*	*	*	*	-	-	-
Afar	-	-	-	-	-	-	-
Amhara	1902	4	1902	4	-	-	-
Oromia	18823	161	18300	154	*	*	*
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	328	*	328	*	-	-	-
S.N.N.P.R	107365	458	106843	453	382	*	*
Gambella	*	*	*	*	-	-	-
Harari	*	*	*	*	*	*	*
Addis Ababa	*	*	*	*	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.25.2a CONTD.

Avocado						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	351	*	5	387	6	*
Tigray	-	-	-	*	*	*
Afar	-	-	-	-	-	-
Amhara	-	-	-	-	-	-
Oromia	121	*	*	275	5	*
Somali	-	-	-	-	-	-
Benishangul-Gumuz	-	-	-	-	-	-
S.N.N.P.R	*	*	*	*	*	*
Gambella	-	-	-	-	-	-
Harari	*	*	*	*	*	*
Addis Ababa	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.25.2b: Bananas

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	545321	5398	538229	5215	2855	49	80
Tigray	2086	*	1987	*	-	-	-
Afar	*	*	*	*	-	-	-
Amhara	30205	202	30054	201	-	-	-
Oromia	268173	3214	262666	3078	1704	36	52
Somali	257	27	257	27	*	*	-
Benishangul-Gumuz	6916	92	6737	85	*	*	-
S.N.N.P.R	235791	1715	234864	1684	1129	13	28
Gambella	313	3	297	3	*	*	*
Harari	687	*	474	2	-	-	-
Addis Ababa	-	-	-	-	-	-	-
Dire Dawa	318	3	318	3	-	-	-

TABLE 6.25.2b CONTD.

Bananas						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	1766	25	22	5198	108	101
Tigray	*	*	-	*	*	*
Afar	-	-	-	-	-	-
Amhara	*	*	*	*	*	*
Oromia	1249	15	17	3885	85	75
Somali	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	176	7	*
S.N.N.P.R	*	*	*	859	*	21
Gambella	-	-	-	-	-	-
Harari	*	*	*	*	*	*
Addis Ababa	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.25.2c: Guava

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	55695	416	52619	339	525	25	7
Tigray	1463	15	1177	11	*	*	-
Afar	*	*	*	*	-	-	-
Amhara	15589	96	15589	96	-	-	-
Oromia	25604	210	23559	171	361	12	4
Somali	164	*	139	*	*	*	-
Benishangul-Gumuz	1080	5	1080	5	-	-	-
S.N.N.P.R	10053	22	10053	22	-	-	-
Gambella	*	*	*	*	-	-	-
Harari	1364	39	645	22	125	1	*
Addis Ababa	-	-	-	-	-	-	-
Dire Dawa	358	*	358	*	-	-	-

TABLE 6.25.2c CONTD.

Guava						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	1320	32	19	1416	21	15
Tigray	*	*	*	*	*	*
Afar	-	-	-	-	-	-
Amhara	-	-	-	-	-	-
Oromia	755	11	10	1056	17	*
Somali	*	*	-	-	-	-
Benishangul-Gumuz	-	-	-	-	-	-
S.N.N.P.R	-	-	-	-	-	-
Gambella	-	-	-	-	-	-
Harari	441	13	9	154	*	*
Addis Ababa	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.25.2d: Lemons

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	40810	192	39917	176	199	*	*
Tigray	3040	23	2732	15	*	*	*
Afar	*	*	*	*	-	-	-
Amhara	16512	68	16311	66	*	*	*
Oromia	11735	60	11468	56	*	*	*
Somali	223	11	223	11	-	-	-
Benishangul-Gumuz	1006	8	970	8	-	-	-
S.N.N.P.R	7942	17	7942	17	-	-	-
Gambella	*	*	*	*	-	-	-
Harari	189	1	108	*	*	*	*
Addis Ababa	-	-	-	-	-	-	-
Dire Dawa	*	*	*	*	-	-	-

TABLE 6.25.2d CONTD.

Lemons						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	191	*	5	521	14	*
Tigray	*	*	*	245	*	*
Afar	-	-	-	-	-	-
Amhara	*	*	*	*	*	-
Oromia	*	*	*	*	*	-
Somali	-	-	-	-	-	-
Benishangul-Gumuz	-	-	-	*	*	-
S.N.N.P.R	-	-	-	-	-	-
Gambella	-	-	-	-	-	-
Harari	*	*	*	-	-	-
Addis Ababa	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.25.2e: Mangoes

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	102404	1110	98110	996	1560	31	37
Tigray	201	1	167	*	-	-	-
Afar	-	-	-	-	-	-	-
Amhara	2758	12	2672	11	*	*	*
Oromia	65253	798	62161	733	1240	18	27
Somali	291	6	291	6	-	-	-
Benishangul-Gumuz	9227	124	8765	105	41	1	*
S.N.N.P.R	22249	73	22249	73	-	-	-
Gambella	300	2	282	2	*	*	*
Harari	1928	89	1327	60	184	*	*
Addis Ababa	-	-	-	-	-	-	-
Dire Dawa	196	*	196	*	-	-	-

TABLE 6.25.2e CONTD.

Mangoes						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	971	25	12	2268	58	35
Tigray	-	-	-	*	*	*
Afar	-	-	-	-	-	-
Amhara	-	-	-	-	-	-
Oromia	570	14	5	1635	33	31
Somali	-	-	-	-	-	-
Benishangul-Gumuz	164	1	3	352	17	-
S.N.N.P.R	-	-	-	-	-	-
Gambella	*	*	*	-	-	-
Harari	228	*	*	247	8	*
Addis Ababa	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.25.2f: Oranges

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	130271	828	128437	800	499	13	9
Tigray	1538	10	1391	9	-	-	-
Afar	-	-	-	-	-	-	-
Amhara	31019	269	30919	268	-	-	-
Oromia	50549	371	49174	349	474	10	9
Somali	260	19	234	14	*	*	-
Benishangul-Gumuz	1417	9	1384	8	-	-	-
S.N.N.P.R	45261	149	45148	149	-	-	-
Gambella	*	*	*	*	-	-	-
Harari	*	*	*	*	-	-	-
Addis Ababa	*	*	*	*	-	-	-
Dire Dawa	*	*	*	*	-	-	-

TABLE 6.25.2f CONTD.

Oranges						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	433	*	6	1063	12	13
Tigray	*	*	-	122	*	*
Afar	-	-	-	-	-	-
Amhara	*	*	*	*	*	*
Oromia	170	*	*	733	11	*
Somali	*	*	-	-	-	-
Benishangul-Gumuz	*	*	*	*	*	*
S.N.N.P.R	*	*	*	*	*	*
Gambella	-	-	-	-	-	-
Harari	*	*	*	-	-	-
Addis Ababa	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.25.2g: Papayas

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	151046	792	147829	734	891	*	15
Tigray	2022	*	1930	*	-	-	-
Afar	66	*	66	*	-	-	-
Amhara	23958	109	23698	106	-	-	-
Oromia	65076	432	63055	405	591	9	10
Somali	348	*	322	3	*	*	-
Benishangul-Gumuz	7641	52	7537	51	*	*	*
S.N.N.P.R	48569	99	48414	99	*	*	*
Gambella	449	2	412	2	*	*	*
Harari	1335	15	948	12	*	*	*
Addis Ababa	-	-	-	-	-	-	-
Dire Dawa	1582	37	1446	34	*	*	*

TABLE 6.23.2g CONTD.

Papayas						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	1194	18	17	1444	16	26
Tigray	-	-	-	*	*	*
Afar	-	-	-	-	-	-
Amhara	*	*	*	*	*	*
Oromia	647	6	6	1016	11	22
Somali	*	*	-	-	-	-
Benishangul-Gumuz	*	*	*	84	*	-
S.N.N.P.R	-	-	-	*	*	-
Gambella	*	*	-	-	-	-
Harari	244	1	5	*	*	*
Addis Ababa	-	-	-	-	-	-
Dire Dawa	*	*	*	-	-	-

TABLE 6.25.2h: Pineapples

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	2233	8	2233	8	-	-	-
Tigray	-	-	-	-	-	-	-
Afar	-	-	-	-	-	-	-
Amhara	*	*	*	*	-	-	-
Oromia	1386	4	1386	4	-	-	-
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	*	-	-	-
S.N.N.P.R	779	*	779	*	-	-	-
Gambella	*	*	*	*	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.25.2i: Other Fruit Crops

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	92895	1241	89256	1173	863	24	18
Tigray	15657	719	15438	713	*	*	-
Afar	*	*	*	*	-	-	-
Amhara	15453	79	15172	70	*	*	*
Oromia	41673	330	39222	292	405	*	12
Somali	144	*	98	2	*	*	-
Benishangul-Gumuz	264	2	233	2	*	*	-
S.N.N.P.R	17856	47	17653	46	*	*	*
Gambella	*	*	*	*	-	-	-
Harari	851	10	568	4	*	*	*
Addis Ababa	*	*	-	-	-	-	-
Dire Dawa	935	*	814	*	*	*	*

TABLE 6.25.2i CONTD.

Other Fruit Crops						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	1081	12	35	2104	33	46
Tigray	*	*	*	179	*	*
Afar	-	-	-	-	-	-
Amhara	*	*	*	*	*	-
Oromia	661	4	23	1624	17	39
Somali	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	*	*	-
S.N.N.P.R	*	*	-	-	-	-
Gambella	-	-	-	-	-	-
Harari	*	*	*	136	*	*
Addis Ababa	-	-	-	*	*	-
Dire Dawa	*	*	*	*	*	*

TABLE 6.25.2: URBAN HOLDINGS

Geographic Area	Fruit Crops							
	Application of		Type of Fertilizer Applied				Natural and Chemical	
			Holder	Hectare	Holder	Hectare		
National	10941	720	10429	651	622	60	131	10
Tigray	200	27	149	14	43	*	19	*
Afar	1	*	1	*	-	-	-	-
Amhara	863	*	813	*	42	*	15	2
Oromia	4120	115	3893	103	284	9	48	2
Somali	26	4	23	2	*	*	-	-
Benishangul-	102	9	102	5	8	*	-	-
S.N.N.P.R	5511	423	5341	412	231	8	48	3
Gambella	-	-	-	-	-	-	-	-
Harari	22	*	18	*	*	-	*	-
Addis Ababa	15	*	15	*	-	-	-	-
Dire Dawa	81	11	*	*	*	*	-	-

TABLE 6.26: NUMBER OF HOLDER APPLYING FERTILIZERS, AREA, AND QUANTITY APPLIED BY CROP IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Stimulant Crops							
	Total Fertilized Cropland		Type of Fertilizer Applied					
			Natural		Dap		Quintal	
Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal		
National	1950802	92743	1863112	81033	34362	2589	827	
Tigray	33388	613	29180	474	*	*	*	
Afar	29	*	29	*	-	-	-	
Amhara	508343	10060	496730	9591	3485	87	67	
Oromia	887616	60003	829449	50929	19445	1897	406	
Somali	7156	1246	6718	1163	155	23	*	
Benishangul-Gumuz	13179	326	13061	318	*	*	*	
S.N.N.P.R	487501	18820	478332	17674	9989	432	304	
Gambella	324	10	304	*	-	-	-	
Harari	8197	1237	4474	478	1011	142	42	
Addis Ababa	570	11	542	11	-	-	-	
Dire Dawa	4500	415	4293	388	*	*	*	

TABLE 6.26 CONTD.

Geographic Area	Stimulant Crops								
	Type of Fertilizer Applied							Chemical (Urban)	
	UREA			DAP & UREA					
Holder	Hectare	Quintal	Holder	Hectare	Quintal	Holder	Hectare		
National	31347	3117	790	65039	5578	1423	1969	427	
Tigray	382	*	*	4064	120	108	57	*	
Afar	-	-	-	-	-	-	-	-	
Amhara	2758	48	58	9712	329	81	104	6	
Oromia	22813	2540	572	42767	4373	1035	1006	263	
Somali	*	*	*	228	33	*	*	*	
Benishangul-Gumuz	*	*	*	127	*	*	*	*	
S.N.N.P.R	2760	150	52	6374	455	142	670	110	
Gambella	*	*	-	-	-	-	*	*	
Harari	2251	321	100	1689	261	50	98	*	
Addis Ababa	-	-	-	*	*	*	*	*	
Dire Dawa	165	*	*	*	*	*	-	-	

TABLE 6.26.1: RURAL MEHER

Stimulant Crops							
Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	1932130	90475	1846161	79192	34362	2589	827
Tigray	33229	584	29077	454	*	*	*
Afar	29	*	29	*	-	-	-
Amhara	506553	9855	495022	9392	3485	87	67
Oromia	879720	58839	822447	50029	19445	1897	406
Somali	7051	1227	6617	1143	155	23	*
Benishangul-Gumuz	13102	307	12995	302	*	*	*
S.N.N.P.R	479114	18051	470505	17015	9989	432	304
Gambella	318	10	304	*	-	-	-
Harari	8035	1179	4408	455	1011	142	42
Addis Ababa	481	7	464	7	-	-	-
Dire Dawa	4500	415	4293	388	*	*	*

TABLE 6.26.1 CONTD.

Stimulant Crops						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	31347	3117	790	65039	5578	1423
Tigray	382	*	*	4064	120	108
Afar	-	-	-	-	-	-
Amhara	2758	48	58	9712	329	81
Oromia	22813	2540	572	42767	4373	1035
Somali	*	*	*	228	33	*
Benishangul-Gumuz	*	*	*	127	*	*
S.N.N.P.R	2760	150	52	6374	455	142
Gambella	*	*	-	-	-	-
Harari	2251	321	100	1689	261	50
Addis Ababa	-	-	-	*	*	*
Dire Dawa	165	*	*	*	*	*

TABLE 6.26.1a: Chat

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	716348	40591	661093	32913	14998	1347	304
Tigray	1181	*	1089	*	-	-	-
Afar	*	*	*	*	-	-	-
Amhara	60323	1276	59934	1267	*	*	-
Oromia	467535	30793	420296	24131	11321	1082	215
Somali	7014	1225	6580	1142	155	23	*
Benishangul-Gumuz	4030	37	3977	36	*	*	*
S.N.N.P.R	164556	5685	161285	5504	2432	96	47
Gambella	*	*	*	*	-	-	-
Harari	7787	1154	4194	441	950	141	40
Addis Ababa	59	1	59	1	-	-	-
Dire Dawa	3769	382	3584	359	*	*	*

TABLE 6.26.1a CONTD.

Chat						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	23350	2603	624	37015	3728	856
Tigray	*	*	-	*	*	*
Afar	-	-	-	-	-	-
Amhara	234	*	*	*	*	*
Oromia	19665	2187	504	33423	3393	770
Somali	*	*	*	228	33	*
Benishangul-Gumuz	*	*	*	*	*	-
S.N.N.P.R	989	51	18	1390	34	32
Gambella	-	-	-	-	-	-
Harari	2158	312	93	1658	260	49
Addis Ababa	-	-	-	-	-	-
Dire Dawa	140	*	*	*	*	*

TABLE 6.26.1b: Coffee

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	834485	40831	806678	37903	16418	1095	408
Tigray	1439	23	1251	21	-	-	-
Afar	*	*	*	*	-	-	-
Amhara	132197	3021	130422	2982	403	*	9
Oromia	347627	25375	330470	23346	7755	754	153
Somali	*	*	*	*	-	-	-
Benishangul-Gumuz	9855	239	9735	235	*	*	*
S.N.N.P.R	340722	12107	332623	11270	8083	323	242
Gambella	214	10	201	*	-	-	-
Harari	877	22	531	13	*	*	*
Addis Ababa	47	*	47	*	-	-	-
Dire Dawa	1460	33	1351	28	*	*	*

TABLE 6.26.1b CONTD.

Coffee						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	6577	466	122	17243	1368	343
Tigray	*	*	-	162	*	*
Afar	-	-	-	-	-	-
Amhara	684	9	20	1060	16	17
Oromia	3756	347	64	10689	929	224
Somali	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	107	*	*
S.N.N.P.R	1781	97	32	5119	416	95
Gambella	*	*	-	-	-	-
Harari	*	*	*	84	*	*
Addis Ababa	-	-	-	-	-	-
Dire Dawa	*	*	*	*	*	*

TABLE 6.26.1c: Hops

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	781521	9038	761393	8361	6764	147	115
Tigray	31929	523	27838	402	*	*	*
Afar	24	*	24	*	-	-	-
Amhara	427511	5558	416775	5144	3253	71	59
Oromia	259431	2669	255170	2550	2425	61	38
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	4904	31	4881	31	*	*	*
S.N.N.P.R	57198	246	56217	227	913	13	15
Gambella	*	*	*	*	-	-	-
Harari	*	*	-	-	-	-	-
Addis Ababa	466	7	449	7	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.26.1c CONTD.

Hops						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	3009	47	44	16103	483	224
Tigray	333	2	*	4002	117	103
Afar	-	-	-	-	-	-
Amhara	2108	34	35	8882	308	65
Oromia	389	6	4	2598	52	42
Somali	-	-	-	-	-	-
Benishangul-Gumuz	-	-	-	-	-	-
S.N.N.P.R	*	*	*	605	5	*
Gambella	-	-	-	-	-	-
Harari	*	*	*	-	-	-
Addis Ababa	-	-	-	*	*	*
Dire Dawa	-	-	-	-	-	-

TABLE 6.26.1d: Other Stimulant Crops

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	209	*	209	*	-	-	-
Tigray	-	-	-	-	-	-	-
Afar	-	-	-	-	-	-	-
Amhara	-	-	-	-	-	-	-
Oromia	*	*	*	*	-	-	-
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	*	-	-	-
S.N.N.P.R	*	*	*	*	-	-	-
Gambella	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.26.2: URBAN HOLDINGS

Geographic Area	Stimulant Crops							
	Application of		Type of Fertilizer Applied					
			Natural and Chemical		Natural		Chemical	
Holder	Hectare	Holder	Hectare	Holder	Hectare	Holder	Hectare	
National	18672	2268	16951	1841	1519	378	457	49
Tigray	159	30	102	20	46	1	10	*
Afar	-	-	-	-	-	-	-	-
Amhara	1790	205	1708	199	92	5	*	*
Oromia	7896	1163	7002	900	733	233	278	30
Somali	105	20	101	19	*	*	-	-
Benishangul-	77	19	66	16	*	*	-	-
S.N.N.P.R	8388	769	7828	659	582	104	90	5
Gambella	*	*	-	-	*	*	-	-
Harari	162	58	66	*	43	*	55	*
Addis Ababa	89	*	78	*	-	-	*	*
Dire Dawa	-	-	-	-	-	-	-	-

TABLE 6.27: NUMBER OF HOLDER APPLYING FERTILIZERS, AREA, AND QUANTITY APPLIED BY CROP IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Other Permanent Crops							
	Total Fertilized Cropland		Type of Fertilizer Applied					
			Natural		Dap		Quintal	
Holder	Hectare	Holder	Hectare	Holder	Hectare	Holder	Quintal	
National	2145329	155129	2128562	153686	9576	344	148	
Tigray	2132	30	1836	19	*	*	-	
Afar	126	2	126	2	-	-	-	
Amhara	62989	574	57610	511	2007	*	*	
Oromia	759542	45849	753114	45271	3653	146	83	
Somali	41	*	41	*	-	-	-	
Benishangul-Gumuz	2265	30	2162	29	61	*	*	
S.N.N.P.R	1316887	108576	1312409	107793	3778	163	55	
Gambella	939	58	939	58	-	-	-	
Harari	*	*	*	*	-	-	-	
Addis Ababa	309	8	288	3	*	*	-	
Dire Dawa	-	-	-	-	-	-	-	

TABLE 6.27 CONTD.

Geographic Area	Other Permanent Crops							
	Type of Fertilizer Applied						Chemical (Urban)	
	UREA			DAP & UREA			Holder	Hectare
Holder	Hectare	Quintal	Holder	Hectare	Quintal	Holder	Hectare	
National	7919	413	81	7775	286	159	1265	400
Tigray	-	-	-	228	*	*	-	-
Afar	-	-	-	-	-	-	-	-
Amhara	2447	13	27	1747	14	21	11	*
Oromia	1598	42	14	3395	64	66	576	*
Somali	-	-	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	-	-	-	-	-
S.N.N.P.R	3715	355	37	2390	197	69	667	69
Gambella	-	-	-	-	-	-	-	-
Harari	*	*	*	*	*	-	-	-
Addis Ababa	-	-	-	-	-	-	*	*
Dire Dawa	-	-	-	-	-	-	-	-

TABLE 6.27.1: RURAL MEHER

Other Permanent Crops							
Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	2119186	152684	2103507	151642	9576	344	148
Tigray	2132	30	1836	19	*	*	-
Afar	123	2	123	2	-	-	-
Amhara	62879	567	57512	505	2007	*	*
Oromia	752326	45107	746432	44854	3653	146	83
Somali	*	*	*	*	-	-	-
Benishangul-Gumuz	2263	30	2160	29	61	*	*
S.N.N.P.R	1298173	106887	1294227	106172	3778	163	55
Gambella	939	58	939	58	-	-	-
Harari	*	*	*	*	-	-	-
Addis Ababa	216	1	208	1	*	*	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.27.1 CONTD.

Other Permanent Crops							
Geographic Area	Type of Fertilizer Applied						
	UREA			DAP & UREA			
	Holder	Hectare	Quintal	Holder	Hectare	Quintal	
National	7919	413	81	7775	286	159	
Tigray	-	-	-	228	*	*	
Afar	-	-	-	-	-	-	
Amhara	2447	13	27	1747	14	21	
Oromia	1598	42	14	3395	64	66	
Somali	-	-	-	-	-	-	
Benishangul-Gumuz	*	*	*	-	-	-	
S.N.N.P.R	3715	355	37	2390	197	69	
Gambella	-	-	-	-	-	-	
Harari	*	*	*	*	*	-	
Addis Ababa	-	-	-	-	-	-	
Dire Dawa	-	-	-	-	-	-	

TABLE 6.27.1a: Enset

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	1978865	148906	1973567	148559	4592	167	87
Tigray	*	*	*	*	-	-	-
Afar	-	-	-	-	-	-	-
Amhara	935	8	935	8	-	-	-
Oromia	705739	43786	702302	43631	2629	88	63
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	163	2	137	2	18	*	-
S.N.N.P.R	1271064	105052	1269245	104861	1946	79	24
Gambella	805	56	805	56	-	-	-
Harari	*	*	-	-	-	-	-
Addis Ababa	124	*	124	*	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.27.1a CONTD.

Enset						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	1358	75	25	3218	105	71
Tigray	-	-	-	-	-	-
Afar	-	-	-	-	-	-
Amhara	-	-	-	-	-	-
Oromia	-	-	-	-	-	-
Somali	646	26	6	2053	41	44
Benishangul-Gumuz	-	-	-	-	-	-
S.N.N.P.R	*	*	*	-	-	-
Gambella	687	*	19	1165	64	*
Harari	-	-	-	-	-	-
Addis Ababa	*	*	*	-	-	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.27.1b: Suger Cane

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	205213	3385	197683	2785	2360	129	42
Tigray	*	*	*	*	-	-	-
Afar	123	2	123	2	-	-	-
Amhara	22348	390	21901	382	*	*	*
Oromia	72428	1171	70541	1097	907	51	18
Somali	*	*	*	*	-	-	-
Benishangul-Gumuz	1630	24	1630	24	-	-	-
S.N.N.P.R	108173	1794	103012	1277	1434	78	23
Gambella	355	2	355	2	-	-	-
Harari	*	*	*	*	-	-	-
Addis Ababa	*	*	*	*	-	-	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.27.1b CONTD.

Suger Cane						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	3381	320	25	2436	151	57
Tigray	-	-	-	*	*	*
Afar	-	-	-	-	-	-
Amhara	254	*	*	*	*	*
Oromia	262	8	*	920	15	12
Somali	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	-	-	-
S.N.N.P.R	2822	*	19	1306	*	41
Gambella	-	-	-	-	-	-
Harari	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.27.1c: Other of Other Permanent Crops

Geographic Area	Total Fertilized Cropland		Type of Fertilizer Applied				
			Natural		Dap		
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Quintal
National	82880	394	75439	298	2872	48	20
Tigray	2035	29	1772	18	*	*	-
Afar	-	-	-	-	-	-	-
Amhara	40777	169	35619	116	1988	*	*
Oromia	26559	150	25247	126	303	*	*
Somali	-	-	-	-	-	-	-
Benishangul-Gumuz	489	3	412	3	*	*	*
S.N.N.P.R	12765	40	12190	35	459	*	*
Gambella	118	*	118	*	-	-	-
Harari	*	*	*	*	-	-	-
Addis Ababa	74	*	66	*	*	*	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.27.1c CONTD.

Other of Other Permanent Crops						
Geographic Area	Type of Fertilizer Applied					
	UREA			DAP & UREA		
	Holder	Hectare	Quintal	Holder	Hectare	Quintal
National	3180	17	32	2216	30	31
Tigray	-	-	-	194	*	*
Afar	-	-	-	-	-	-
Amhara	2193	8	25	1572	11	18
Oromia	690	8	*	435	*	10
Somali	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	-	-	-
S.N.N.P.R	206	*	-	-	-	-
Gambella	-	-	-	-	-	-
Harari	*	*	*	*	*	-
Addis Ababa	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-

TABLE 6.27.2: URBAN HOLDINGS

Other Permanent Crops								
Geographic Area	Application of		Type of Fertilizer Applied					
							Natural and Chemical	
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Holder	Hectare
National	26143	2445	25054	2045	1154	390	113	10
Tigray	-	-	-	-	-	-	-	-
Afar	3	*	3	*	-	-	-	-
Amhara	109	7	98	5	11	*	-	-
Oromia	7216	742	6682	416	550	*	26	*
Somali	5	-	5	-	-	-	-	-
Benishangul-Gumuz	*	*	*	*	-	-	-	-
S.N.N.P.R	18714	1689	18182	1621	586	62	83	6
Gambella	-	-	-	-	-	-	-	-
Harari	*	*	*	*	-	-	-	-
Addis Ababa	92	6	81	2	*	*	*	*
Dire Dawa	-	-	-	-	-	-	-	-

TABLE 6.28: HOLDERS APPLYING IMPROVED SEEDS AND QUANTITY BY TYPE OF CROP FOR RURAL AREAS IN MEHER SEASON, FOR PRIVATE HOLDINGS

Geographic Area	All crop		Grain		Cereals		Teff	
	Holder	Quintal	Holder	Quintal	Holder	Quintal	Holder	Quintal
National	915515	92234	769311	92234	738071	89818	32624	3402
Tigray	35659	6329	30156	6329	28783	6233	3966	430
Afar	987	*	*	*	*	*	*	*
Amhara	280116	25537	257199	25537	246407	24737	14264	1396
Oromia	463998	52754	397274	52754	386786	51584	7537	898
Somali	2506	384	2141	384	2055	372	-	-
Benishangul-Gumuz	15101	858	7852	858	7133	705	*	*
S.N.N.P.R	113198	5899	71380	5899	64155	5736	6532	603
Gambella	1661	58	662	58	602	57	-	-
Harari	812	45	733	45	658	44	-	-
Addis Ababa	674	269	546	269	526	262	278	61
Dire Dawa	803	12	586	12	470	12	-	-

TABLE 6.28 CONTD.1

Geographic Area	Barley		Wheat		Maize		Sorghum	
	Holder	Quintal	Holder	Quintal	Holder	Quintal	Holder	Quintal
National	22617	2627	71717	29705	622213	53309	24555	388
Tigray	6031	485	18829	4981	4033	179	2860	64
Afar	-	-	-	-	*	*	19	*
Amhara	7928	383	16963	5155	213122	17546	7030	56
Oromia	5312	1559	29568	17702	346746	31197	8387	189
Somali	*	*	423	*	1264	95	867	16
Benishangul-Gumuz	*	*	*	*	6345	631	678	8
S.N.N.P.R	3139	199	5555	1383	49158	3518	3971	33
Gambella	-	-	-	-	481	41	180	9
Harari	-	-	*	*	461	21	190	*
Addis Ababa	*	*	288	201	-	-	-	-
Dire Dawa	-	-	-	-	*	*	373	9

TABLE 6.28 CONTD.2

Geographic Area	Millet		Oats		Rice		Pulses	
	Holder	Quintal	Holder	Quintal	Holder	Quintal	Holder	Quintal
National	4538	204	856	31	765	153	39851	2201
Tigray	1448	93	-	-	-	-	1907	92
Afar	-	-	-	-	-	-	*	*
Amhara	1776	81	305	*	628	108	14649	739
Oromia	845	21	417	*	*	*	13367	1051
Somali	-	-	*	-	-	-	213	*
Benishangul-Gumuz	401	*	-	-	92	37	859	151
S.N.N.P.R	*	-	*	*	-	-	8564	147
Gambella	*	-	-	-	*	*	50	*
Harari	*	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	35	*
Dire Dawa	-	-	-	-	-	-	196	*

TABLE 6.28 CONTD.3

Geographic Area	Horse/Faba beans		Field peas		Haricot beans		Chick peas	
	Holder	Quintal	Holder	Quintal	Holder	Quintal	Holder	Quintal
National	13742	669	6582	279	14789	596	4288	252
Tigray	1065	66	202	*	298	*	172	*
Afar	-	-	-	-	*	*	-	-
Amhara	7223	335	3315	137	1311	38	3186	149
Oromia	3591	220	2084	106	6483	481	721	73
Somali	-	-	*	*	209	*	*	*
Benishangul-Gumuz	*	*	*	-	577	*	*	*
S.N.N.P.R	1823	47	936	34	5653	58	173	*
Gambella	-	-	-	-	50	*	-	-
Harari	-	-	-	-	-	-	-	-
Addis Ababa	*	*	*	*	-	-	*	*
Dire Dawa	-	-	-	-	196	*	-	-

TABLE 6.28 CONTD.4

Geographic Area	Lentils		Vetch/Grass peas		Soya beans		Fenugreek	
	Holder	Quintal	Holder	Quintal	Holder	Quintal	Holder	Quintal
National	1794	170	2019	79	388	145	1047	*
Tigray	166	*	*	-	*	-	*	-
Afar	-	-	-	-	-	-	-	-
Amhara	855	23	1316	48	-	-	258	*
Oromia	663	141	590	30	*	-	608	*
Somali	*	*	-	-	-	-	-	-
Benishangul-Gumuz	-	-	-	-	215	145	-	-
S.N.N.P.R	*	*	*	*	*	*	*	*
Gambella	-	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-

TABLE 6.28 CONTD.5

Geographic Area	Oil Seeds		Neug		Linseed		Groundnuts	
	Holder	Quintal	Holder	Quintal	Holder	Quintal	Holder	Quintal
National	18895	197	2395	28	2281	83	1041	*
Tigray	714	*	217	*	205	*	-	-
Afar	*	*	-	-	-	-	*	*
Amhara	11641	*	1457	*	866	*	*	*
Oromia	4432	117	579	17	1030	76	329	*
Somali	*	-	-	-	-	-	*	-
Benishangul-Gumuz	689	*	68	*	-	-	112	*
S.N.N.P.R	1055	*	*	*	180	*	*	*
Gambella	*	*	-	-	-	-	*	*
Harari	148	*	-	-	-	-	148	*
Addis Ababa	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-

TABLE 6.28 CONTD.6

Geographic Area	Sufflower		Sesame		Rapeseed		Other Grains	
	Holder	Quintal	Holder	Quintal	Holder	Quintal	Holder	Quintal
National	3737	*	1900	*	8354	*	3068	*
Tigray	*	-	*	*	*	*	252	-
Afar	*	-	*	*	-	-	246	*
Amhara	2773	*	977	3	5687	*	775	*
Oromia	495	-	253	-	1920	*	640	*
Somali	-	-	-	-	-	-	-	-
Benishangul-Gumuz	*	-	448	1	*	-	*	-
S.N.N.P.R	*	*	*	-	615	*	*	*
Gambella	-	-	-	-	*	*	*	-
Harari	-	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-

TABLE 6.28 CONTD.7

Geographic Area	Number of Holders who used Improved Seeds						
	Vegetables	Lettuce	Head Cabbage	Kale	Tomatoes	Green Peppers	Red Peppers
National	15178	1103	4565	2663	1884	1341	2436
Tigray	2145	*	*	*	515	*	155
Afar	*	-	-	-	*	-	-
Amhara	2682	*	538	213	*	*	1045
Oromia	5459	207	1694	1101	698	472	911
Somali	*	-	*	-	*	-	-
Benishangul-Gumuz	118	-	*	*	-	*	*
S.N.N.P.R	4370	*	1657	1258	*	501	315
Gambella	*	-	-	-	*	-	-
Harari	*	-	*	-	-	-	-
Addis Ababa	46	*	34	*	-	-	-
Dire Dawa	*	-	-	-	*	-	-

TABLE 6.28 CONTD.7

Geographic Area	Number of Holders who used Improved Seeds						
	Swiss chard	Other Vegetables	Root Crops	Beet root	Carrot	Onions	Potatoes
National	3233	887	22570	6525	6005	4603	2851
Tigray	*	*	1941	*	*	370	598
Afar	-	-	161	-	-	*	-
Amhara	555	*	4564	1101	1304	1148	1140
Oromia	923	317	7018	2783	1749	1587	485
Somali	-	-	*	*	-	*	-
Benishangul-Gumuz	*	*	109	*	*	*	*
S.N.N.P.R	650	441	8547	2190	1783	1236	622
Gambella	-	-	-	*	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa	*	*	125	*	113	*	-
Dire Dawa	-	-	-	-	-	-	-

TABLE 6.28 CONTD.9

Geographic Area	Number of Holders who used Improved Seeds							
	Garlic	Taro	Sweet Potatoes	Other root crops	Permanent crops	Fruit crops	Avocado	Bananas
National	1201	1134	4252	381	155709	34798	8701	6355
Tigray	165	-	*	-	3626	3303	209	145
Afar	-	-	-	*	*	*	-	*
Amhara	474	-	*	-	25654	9346	1227	1383
Oromia	298	634	545	*	80332	10738	3214	2996
Somali	-	-	*	-	315	315	-	*
Benishangul-Gumuz	18	-	-	*	7711	842	259	217
S.N.N.P.R	247	500	3533	*	36811	9842	3730	1525
Gambella	-	-	-	*	955	181	45	*
Harari	-	-	-	-	*	*	-	-
Addis Ababa	-	-	-	-	*	*	*	-
Dire Dawa	-	-	-	-	140	*	-	-

TABLE 6.28 CONTD.10

Geographic Area	Number of Holders who used Improved Seeds						
	Guavas (Zeytuna)	Lemons	Mangos	Oranges	Papayas	Pineapples	Other Fruits
National	4608	1016	4897	3523	11024	*	2630
Tigray	1289	358	*	390	1214	-	595
Afar	-	*	-	-	-	-	-
Amhara	1849	476	1041	1433	3553	*	606
Oromia	577	*	1000	924	3665	-	615
Somali	*	*	*	70	*	-	-
Benishangul-Gumuz	*	*	205	*	74	-	*
S.N.N.P.R	759	*	2336	670	2343	-	638
Gambella	*	-	*	*	30	-	-
Harari	-	-	-	-	*	-	*
Addis Ababa	-	-	-	*	-	-	-
Dire Dawa	-	*	-	-	*	-	*

TABLE 6.28 CONTD.11

Geographic Area	Number of Holders who used Improved Seeds		
	Stimulant crops	Coffee	Other Permanent Crops
National	125492	125492	7779
Tigray	319	319	179
Afar	*	*	*
Amhara	19293	19293	1192
Oromia	71347	71347	3002
Somali	-	-	-
Benishangul-Gumuz	7233	7233	*
S.N.N.P.R	26377	26377	3347
Gambella	828	828	*
Harari	*	*	-
Addis Ababa	*	*	*
Dire Dawa	*	*	-

TABLE 6.29: HOLDERS APPLYING AGRICULTURAL INPUTS AND PARTICIPATING IN EXTENSION PROGRAMS BY LEVEL OF EDUCATION IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

EDUCATIONAL ATTAINMENT	Holders Applying Agricultural Inputs										Number and Percentage of Holders Participating in Agriculture Extension Programs	
	All Crop Holders		Improved Seed		Irrigation		Fertilizer		Pesticide			
	Holdes	%	Holdes	%	Holdes	%	Holdes	%	Holdes	%	Holdes	%
ALL	10534348	100.00	986003	9.36	1063381	10.09	7589474	72.05	1648216	15.65	581994	5.52
Illiterate	6805514	64.60	536577	7.88	652332	9.59	4755460	69.88	930302	13.67	331951	4.88
Literate, but no formal Education	1433366	13.61	164597	11.48	214588	14.97	1073992	74.93	218662	15.26	98955	6.9
Completed Grade 1..	199837	1.90	19188	9.6	14418	7.21	144668	72.39	39600	19.82	11878	5.94
Completed Grade 2..	355601	3.38	35714	10.04	30406	8.55	263778	74.18	68233	19.19	21762	6.12
Completed Grade 3..	375073	3.56	43538	11.61	32840	8.76	284541	75.86	75488	20.13	25332	6.75
Completed Grade 4..	309796	2.94	35581	11.49	26899	8.68	238082	76.85	67320	21.73	20392	6.58
Completed Grade 5..	265044	2.52	32299	12.19	23140	8.73	204344	77.1	56013	21.13	16610	6.27
Completed Grade 6..	269734	2.56	37524	13.91	23700	8.79	212229	78.68	60698	22.5	18057	6.69
Completed Grade 7..	161079	1.53	21982	13.65	13442	8.34	126758	78.69	38441	23.86	10934	6.79
Completed Grade 8..	150867	1.43	22899	15.18	12653	8.39	121624	80.62	40547	26.88	11471	7.6
Completed Grade 9..	66343	0.63	10652	16.06	5843	8.81	53791	81.08	16917	25.5	5142	7.75
Completed Grade 10	37456	0.36	6051	16.15	3596	9.6	29868	79.74	9508	25.38	2683	7.16
Completed Grade 11	17387	0.17	2602	14.97	1604	9.23	13396	77.05	4131	23.76	842	4.84
Completed Grade 12	70030	0.66	13166	18.8	6670	9.52	54403	77.69	18442	26.33	4349	6.21
Above Grade 12	16278	0.15	3635	22.33	1250	7.68	11850	72.8	3832	23.54	1636	10.05
Not Reported	941	0.01	-	-	-	-	690	73.33	*	*	-	-

TABLE 6.29.1: RURAL HOLDINGS

EDUCATIONAL ATTAINMENT	All Crop Holders		Number of Holders Applying Agricultural Inputs								Number and Percentage of Holders Participating in Agriculture Extension Programs	
			Improved Seed		Irrigation		Fertilizer		Pesticide			
	Holdes	%	Holdes	%	Holdes	%	Holdes	%	Holdes	%	Holdes	%
ALL.....	10329264	100.00	960110	9.3	1046212	10.13	7489163	72.5	1609972	15.59	581994	5.63
Illiterate.....	6720984	65.07	528966	7.87	645547	9.6	4718140	70.2	918123	13.66	331951	4.94
Literate, but no formal Education	1409944	13.65	161851	11.48	212299	15.06	1062978	75.39	214349	15.2	98955	7.02
Completed Grade 1 ..	197648	1.91	18947	9.59	14245	7.21	143611	72.66	39137	19.8	11878	6.01
Completed Grade 2 ..	349558	3.38	34916	9.99	29943	8.57	260869	74.63	66919	19.14	21762	6.23
Completed Grade 3 ..	365696	3.54	42345	11.58	32109	8.78	279753	76.5	73549	20.11	25332	6.93
Completed Grade 4 ..	300201	2.91	34257	11.41	26136	8.71	233145	77.66	65202	21.72	20392	6.79
Completed Grade 5 ..	253932	2.46	30581	12.04	22186	8.74	198480	78.16	53484	21.06	16610	6.54
Completed Grade 6 ..	259208	2.51	35766	13.8	22776	8.79	206541	79.68	58343	22.51	18057	6.97
Completed Grade 7 ..	151992	1.47	20726	13.64	12753	8.39	122022	80.28	36393	23.94	10934	7.19
Completed Grade 8 ..	141559	1.37	21322	15.06	11938	8.43	116448	82.26	38186	26.98	11471	8.1
Completed Grade 9 ..	60908	0.59	9841	16.16	5414	8.89	50761	83.34	15601	25.61	5142	8.44
Completed Grade 10	34069	0.33	5402	15.86	3296	9.67	27941	82.01	8700	25.54	2683	7.88
Completed Grade 11	15079	0.15	2242	14.87	1467	9.73	12140	80.51	3492	23.16	842	5.58
Completed Grade 12	55549	0.54	10381	18.69	5338	9.61	46171	83.12	15261	27.47	4349	7.83
Above Grade 12.....	11996	0.12	2568	21.41	765	6.38	9473	78.97	3151	26.27	1636	13.64
Not Reported.....	941	0.01	-	-	-	-	690	73.33	*	*	-	-

TABLE 6.29.2: RURAL MEHER

EDUCATIONAL ATTAINMENT	All Crop Holders		Number of Holders Applying Agricultural Inputs								Number and Percentage of Holders Participating in Agriculture Extension Programs	
			Improved Seed		Irrigation		Fertilizer		Pesticide			
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
ALL	10248724	100.0	915515	8.93	685026	6.68	7178609	70.04	1331744	12.99	553199	5.4
Illiterate	6662237	65.01	502751	7.55	427191	6.41	4513827	67.75	740637	11.12	313684	4.71
Literate, but no formal Education.....	1402391	13.68	156115	11.13	136420	9.73	1031605	73.56	193089	13.77	94963	6.77
Completed Grade 1..	196173	1.91	17885	9.12	9564	4.88	136733	69.7	32684	16.66	11282	5.75
Completed Grade 2..	347405	3.39	33481	9.64	19048	5.48	248271	71.46	55137	15.87	20722	5.96
Completed Grade 3..	363443	3.55	40601	11.17	20823	5.73	269647	74.19	62160	17.1	24271	6.68
Completed Grade 4..	298721	2.91	32300	10.81	17017	5.7	222465	74.47	53698	17.98	19344	6.48
Completed Grade 5..	252473	2.46	29106	11.53	14430	5.72	190329	75.39	43750	17.33	16012	6.34
Completed Grade 6..	257087	2.51	33773	13.14	14293	5.56	195358	75.99	48122	18.72	17301	6.73
Completed Grade 7..	151227	1.48	19552	12.93	8311	5.5	117434	77.65	30882	20.42	10195	6.74
Completed Grade 8..	140031	1.37	20453	14.61	7226	5.16	111234	79.44	32229	23.02	11157	7.97
Completed Grade 9..	60692	0.59	9597	15.81	3430	5.65	48846	80.48	13196	21.74	4980	8.21
Completed Grade 10	33873	0.33	5316	15.69	2106	6.22	26847	79.26	7486	22.1	2606	7.69
Completed Grade 11	14858	0.14	2114	14.23	1056	7.11	11453	77.08	2962	19.94	810	5.45
Completed Grade 12	55250	0.54	9914	17.94	3536	6.4	44615	80.75	12844	23.25	4280	7.75
Above Grade 12	11923	0.12	2558	21.45	574	4.81	9256	77.63	2836	23.79	1592	13.35
Not Reported	941	0.01	-	-	-	-	690	73.33	*	*	-	-

6.29.3: RURAL BELG

EDUCATIONAL ATTAINMENT	Number of Holders Applying Agricultural Inputs										Number and Percentage of Holders Participating in Agriculture Extension Programs	
	All Crop Holders		Improved Seed		Irrigation		Fertilizer		Pesticide			
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
ALL	1783405	100.00	18144	1.02	169991	9.53	822648	46.13	122211	6.85	8158	0.46
Illiterate	1096025	61.46	11120	1.01	97354	8.88	501369	45.74	70394	6.42	4720	0.43
Literate, but no formal Education	225083	12.62	2367	1.05	24996	11.11	104785	46.55	16777	7.45	894	0.4
Completed Grade 1..	43681	2.45	351	0.8	3680	8.42	20020	45.83	2859	6.55	363	0.83
Completed Grade 2..	75844	4.25	525	0.69	7229	9.53	33662	44.38	5782	7.62	493	0.65
Completed Grade 3..	77636	4.35	883	1.14	7839	10.1	34938	45	5254	6.77	252	0.32
Completed Grade 4..	59319	3.33	556	0.94	5414	9.13	29660	50	5107	8.61	382	0.64
Completed Grade 5..	52024	2.92	547	1.05	4939	9.49	23602	45.37	3812	7.33	218	0.42
Completed Grade 6..	55653	3.12	822	1.48	6070	10.91	27014	48.54	4504	8.09	302	0.54
Completed Grade 7..	30694	1.72	278	0.91	3442	11.21	14732	48	2636	8.59	227	0.74
Completed Grade 8..	31503	1.77	318	1.01	3925	12.46	15288	48.53	2412	7.66	*	*
Completed Grade 9..	13246	0.74	151	1.14	1899	14.34	5948	44.9	1011	7.63	*	*
Completed Grade 10	8236	0.46	-	-	1067	12.96	4009	48.68	609	7.39	-	-
Completed Grade 11	2459	0.14	*	*	242	9.84	1069	43.47	126	5.12	-	-
Completed Grade 12	10811	0.61	205	1.9	1808	16.72	6013	55.62	836	7.73	*	*
Above Grade 12.....	1191	0.07	-	-	*	*	537	45.09	*	*	*	*
Not Reported	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 6.29.4: URBAN HOLDINGS

EDUCATIONAL ATTAINMENT	All Crop Holders		Number of Holders Applying Agricultural Inputs							
			Improved Seed		Irrigation		Fertilizer		Pesticide	
	Holdes	%	Holdes	%	Holder	%	Holdes	%	Holder	%
ALL	205084	100.0	25893	12.63	17168	8.37	100310	48.91	38244	18.65
Illiterate	84530	41.22	7611	9	6785	8.03	37320	44.15	12178	14.41
Literate, but no formal Education	23422	11.42	2746	11.72	2289	9.77	11013	47.02	4314	18.42
Completed Grade 1	2189	1.07	240	10.96	173	7.9	1057	48.29	463	21.15
Completed Grade 2	6043	2.95	799	13.22	462	7.65	2909	48.14	1314	21.74
Completed Grade 3	9377	4.57	1193	12.72	731	7.8	4787	51.05	1939	20.68
Completed Grade 4	9594	4.68	1324	13.8	763	7.95	4938	51.47	2118	22.08
Completed Grade 5	11112	5.42	1718	15.46	954	8.59	5864	52.77	2529	22.76
Completed Grade 6	10526	5.13	1758	16.7	923	8.77	5688	54.04	2355	22.37
Completed Grade 7	9088	4.43	1256	13.82	689	7.58	4736	52.11	2048	22.54
Completed Grade 8	9308	4.54	1577	16.94	715	7.68	5175	55.6	2361	25.37
Completed Grade 9	5435	2.65	811	14.92	429	7.89	3031	55.77	1316	24.21
Completed Grade 10	3387	1.65	648	19.13	300	8.86	1927	56.89	807	23.83
Completed Grade 11	2308	1.13	361	15.64	137	5.94	1256	54.42	639	27.69
Completed Grade 12	14482	7.06	2785	19.23	1332	9.2	8233	56.85	3181	21.97
Above Grade 12	4282	2.09	1067	24.92	485	11.33	2376	55.49	682	15.93
Not Reported	-	-	-	-	-	-	-	-	-	-

TABLE 6.30: TOTAL NUMBER OF HOLDERS BY EDUCATIONAL ATTAINMENT IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	All Holding															
	Grades Completed by Holder															
	All	Illiterate	Literate but not Formal Education	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Above Grade 12
National	10534348	6805514	1433366	199837	355601	375073	309796	265044	269734	161079	150867	66343	37456	17387	70030	16278
Tigray	685551	484810	114539	11188	20705	19888	13246	7786	6295	3070	1759	869	532	263	396	204
Afar	11326	8832	1398	76	162	119	166	121	117	60	*	*	*	*	*	*
Amhara	3017665	2077026	638061	20326	46067	58779	47433	35790	34725	18571	16891	7886	4472	2016	7844	1708
Oromia	4080570	2516383	493736	98934	170493	172056	140710	119673	123095	74286	70691	32557	19541	8719	32820	6742
Somali	91300	66327	19784	257	691	622	869	769	384	381	430	198	136	12	367	74
Benishangul-Gumuz	127583	85851	11704	2854	5678	5098	4436	3600	3229	1928	1141	606	341	221	567	331
S.N.N.P.R	2444287	1515566	147950	64936	109844	115818	100229	94844	99376	61099	58349	23589	12025	5902	27168	6855
Gambella	31109	19173	1241	581	1069	1456	1518	1621	1403	1015	734	337	191	90	434	247
Harari	14220	9982	1866	269	225	354	515	297	301	200	113	*	*	*	25	*
Addis Ababa	15960	9697	1612	227	380	693	441	397	514	430	624	232	137	128	353	94
Dire Dawa	14778	11868	1476	188	287	191	233	145	294	*	*	-	*	*	-	-

TABLE 6.30.1: RURAL HOLDINGS

Geographic Area	All Holding															
	Grades Completed by Holder															
	All	Illiterate	Literate but not Formal Education	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Above Grade 12
National	10329264	6720984	1409944	197648	349558	365696	300201	253932	259208	151992	141559	60908	34069	15079	55549	11996
Tigray	672096	477445	112579	10989	20169	19090	12511	7256	5883	2779	1506	753	461	226	292	155
Afar	10731	8501	1276	72	155	92	146	107	96	49	*	*	*	*	*	*
Amhara	2985026	2061434	631407	20093	45382	57582	46204	34522	33592	17632	15953	7339	4081	1793	6627	1315
Oromia	3984617	2480746	483657	97920	167485	167369	135835	114050	117625	69626	65537	29543	17590	7427	25395	4681
Somali	88015	64464	19074	240	670	579	824	688	308	313	347	152	*	-	210	*
Benishangul-Gumuz	123740	84307	11218	2806	5562	4856	4295	3274	3068	1718	1066	474	307	196	336	255
S.N.N.P.R	2394920	1496382	145124	64326	108273	113594	97917	91864	96391	58487	55814	22088	11204	5279	22138	5302
Gambella	29497	18307	1184	565	1029	1435	1450	1574	1359	961	654	317	165	56	244	199
Harari	13408	9597	1782	267	213	321	487	234	248	140	*	*	*	-	-	-
Addis Ababa	13063	8393	1254	190	341	591	302	248	355	251	*	191	110	79	257	*
Dire Dawa	14150	11407	1390	182	278	187	233	115	283	*	*	-	*	-	-	-

TABLE 6.30.2: RURAL MEHER

Geographic Area	All Holding															
	All	Illiterate	Literate but not Formal Education	Grades Completed by Holder												Above Grade 12
				Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	
National	10248724	6662237	1402391	196173	347405	363443	298721	252473	257087	151227	140031	60692	33873	14858	55250	11923
Tigray	671585	477067	112522	10959	20151	19090	12511	7256	5883	2751	1506	753	461	226	292	155
Afar	10497	8267	1276	72	155	92	146	107	96	49	*	*	*	*	*	*
Amhara	2973692	2054479	628960	19965	45142	57207	46051	34401	33129	17526	15684	7324	4081	1727	6627	1315
Oromia	3938167	2444569	480489	97028	166362	166112	135002	113347	116643	69297	65137	29439	17443	7272	25226	4669
Somali	83503	62041	17706	240	557	504	754	581	226	253	264	*	*	-	191	*
Benishangul-Gumuz	123726	84304	11218	2806	5562	4856	4295	3264	3068	1718	1066	474	307	196	336	255
S.N.N.P.R	2377971	1484069	144749	63908	107633	113070	97509	91383	95812	58252	55044	22026	11204	5279	22028	5270
Gambella	29188	18111	1180	556	1022	1413	1432	1551	1344	955	648	317	165	56	244	195
Harari	13273	9574	1669	267	213	321	487	234	248	140	*	*	*	-	-	-
Addis Ababa	13049	8393	1254	190	341	591	302	233	355	251	*	191	110	79	257	*
Dire Dawa	14073	11363	1368	182	265	187	233	115	283	*	*	-	*	-	-	-

TABLE 6.30.3: RURAL BELG

Geographic Area	All Holding															
	All	Illiterate	Literate but not Formal Education	Grades Completed by Holder												Above Grade 12
				Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	
National	4640396	2892957	594655	95655	171242	185545	155238	137502	145697	83872	82388	34530	19031	6885	29739	5162
Tigray	82447	56448	15493	1058	2112	2177	1775	1171	1063	495	305	123	*	*	*	*
Afar	2002	1812	105	*	*	-	*	*	-	-	-	-	-	-	-	-
Amhara	1020984	652531	249092	5959	17249	22683	20960	14475	15498	8017	6779	3003	1570	591	2330	*
Oromia	1783405	1096025	225083	43681	75844	77636	59319	52024	55653	30694	31503	13246	8236	2459	10811	1191
Somali	16769	10642	4176	135	340	147	306	290	141	112	185	*	*	-	79	*
Benishangul-Gumuz	11268	6593	1605	288	627	574	428	393	349	160	170	*	*	-	-	-
S.N.N.P.R	1700712	1055372	97057	43990	74315	81273	71149	67899	72100	43786	43101	17809	8898	3787	16320	3607
Gambella	14474	7759	848	373	553	874	977	1041	705	524	309	167	88	16	171	*
Harari	3275	1928	665	*	*	108	155	133	*	*	*	*	*	-	-	-
Addis Ababa	323	128	46	-	*	*	*	*	*	*	*	*	*	-	*	-
Dire Dawa	4737	3720	487	*	151	*	*	*	*	-	*	-	-	-	-	-

TABLE 6.30.4: URBAN HOLDINGS

Geographic Area	All Holding															
	All	Illiterate	Literate but not Formal Education	Grades Completed by Holder												Above Grade 12
				Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	
National	205084	84530	23422	2189	6043	9377	9594	11112	10526	9088	9308	5435	3387	2308	14482	4282
Tigray	13455	7365	1960	200	536	798	735	530	412	291	253	116	70	37	104	49
Afar	595	331	122	4	7	27	20	14	21	11	15	7	*	*	8	-
Amhara	32639	15592	6654	233	685	1196	1230	1268	1133	938	938	547	390	223	1217	394
Oromia	95953	35637	10079	1014	3009	4688	4876	5624	5470	4660	5154	3014	1951	1291	7425	2062
Somali	3285	1863	710	17	20	43	45	81	77	68	83	47	44	12	157	20
Benishangul-Gumuz	3843	1543	485	48	116	242	141	325	160	209	75	132	34	25	231	76
S.N.N.P.R	49366	19183	2825	610	1571	2224	2312	2980	2985	2612	2535	1501	821	623	5030	1553
Gambella	1611	866	58	17	39	21	68	48	44	53	80	20	26	34	190	48
Harari	811	386	85	*	12	32	28	63	53	61	25	10	17	*	25	*
Addis Ababa	2897	1304	358	37	39	103	139	150	159	178	146	41	27	49	97	70
Dire Dawa	628	461	86	*	*	*	-	30	11	*	*	-	*	*	-	-

TABLE 6.31: APPLICATION OF IMPROVED SEEDS BY EDUCATIONAL ATTAINMENT IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Holders Applying Improved Seeds															
	All	Illiterate	Literate but not Formal Education	Grades Completed by Holder												Above Grade 12
				Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	
National	986003	536577	164597	19188	35714	43538	35581	32299	37524	21982	22899	10652	6051	2602	13166	3635
Tigray	41595	26466	8103	570	1270	1927	1025	872	678	312	179	*	15	*	55	20
Afar	1135	*	*	*	*	*	*	*	*	-	*	*	*	*	*	-
Amhara	291150	169442	80555	2370	5532	8237	5007	4584	5455	2848	2834	1182	570	287	1716	531
Oromia	493620	261377	62114	12365	22998	25567	21085	19516	22443	12182	13626	6711	3973	1357	6752	1555
Somali	2671	1447	977	-	*	*	52	*	-	*	*	-	*	2	*	-
Benishangul-Gumuz	15838	8077	2544	248	964	781	763	638	549	515	239	160	88	*	175	43
S.N.N.P.R	134905	66079	9958	3522	4785	6767	7264	6330	8036	5908	5796	2435	1353	823	4380	1470
Gambella	1849	860	*	87	*	120	182	150	108	101	80	*	*	*	26	*
Harari	923	626	98	*	*	*	*	10	*	*	*	*	-	-	6	-
Addis Ababa	1196	625	99	*	31	30	90	26	88	43	48	43	*	*	*	*
Dire Dawa	1122	835	*	-	*	*	*	*	*	*	*	-	*	*	-	-

TABLE 6.31.1: RURAL HOLDINGS

Geographic Area	Holders Applying Improved Seeds															
	Grades Completed by Holder															
	All	Illiterate	Literate but not Formal Education	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Above Grade 12
National	960110	528966	161851	18947	34916	42345	34257	30581	35766	20726	21322	9841	5402	2242	10381	2568
Tigray	40206	25872	7884	552	1215	1834	963	765	599	272	*	*	-	*	*	-
Afar	1106	*	*	*	*	*	*	*	*	-	*	*	*	*	*	-
Amhara	286985	167939	79729	2341	5443	8076	4860	4387	5289	2643	2688	1091	510	254	1328	408
Oromia	479795	257602	60836	12231	22527	24880	20269	18563	21522	11489	12635	6246	3549	1164	5229	1053
Somali	2607	1406	970	-	*	*	52	*	-	-	*	-	*	-	-	-
Benishangul-Gumuz	15460	7952	2461	245	958	776	746	613	511	507	217	152	88	*	152	29
S.N.N.P.R	129563	64863	9699	3478	4619	6533	7016	5942	7557	5617	5451	2227	1208	721	3563	1068
Gambella	1763	825	*	87	*	120	172	142	104	101	76	*	*	*	*	*
Harari	840	598	86	-	*	-	*	-	*	-	-	-	-	-	-	-
Addis Ababa	729	371	48	-	*	30	71	*	34	35	27	40	*	-	*	-
Dire Dawa	1054	795	*	-	*	*	*	*	*	*	-	-	-	-	-	-

TABLE 6.31.2: RURAL MEHER

Geographic Area	Holders Applying Improved Seeds															
	Grades Completed by Holder															
	All	Illiterate	Literate but not Formal Education	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Above Grade 12
National	915515	502751	156115	17885	33481	40601	32300	29106	33773	19552	20453	9597	5316	2114	9914	2558
Tigray	35659	23208	6989	506	1075	1625	676	644	432	254	*	*	-	*	*	-
Afar	987	*	*	*	*	*	*	*	*	-	*	*	*	*	*	-
Amhara	280116	164001	77839	2321	5443	8012	4680	4269	4917	2553	2637	1007	510	254	1267	408
Oromia	463998	247550	58699	11960	22021	24147	19837	18080	20974	11307	12469	6134	3549	1143	5075	1053
Somali	2506	1375	916	-	*	*	52	*	-	-	*	-	*	-	-	-
Benishangul-Gumuz	15101	7784	2450	227	937	700	746	600	501	486	207	152	77	*	152	29
S.N.N.P.R	113198	55855	8950	2789	3891	5881	5968	5230	6714	4800	4808	2179	1139	614	3311	1068
Gambella	1661	810	*	70	*	120	168	142	98	69	76	*	-	*	*	-
Harari	812	598	86	-	*	-	*	-	*	-	-	-	-	-	-	-
Addis Ababa	674	351	48	-	*	*	65	*	34	*	27	40	*	-	*	-
Dire Dawa	803	584	*	-	*	*	*	*	*	*	-	-	-	-	-	-

TABLE 6.31.3: RURAL BELG

Geographic Area	Holders Applying Improved Seeds															
	All	Grades Completed by Holder														
		Illiterate	Literate but not Formal Education	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Above Grade 12
National	53599	30784	7161	1174	1712	2116	2402	1642	2407	1518	1244	473	*	184	687	*
Tigray	6318	3823	1153	*	158	361	356	141	196	*	-	-	-	-	-	-
Afar	*	*	-	-	-	-	*	*	-	-	-	-	-	-	-	-
Amhara	8760	4785	2715	*	*	*	222	*	372	159	*	*	-	-	*	-
Oromia	18144	11120	2367	351	525	883	556	547	822	278	318	151	-	*	205	-
Somali	133	*	*	*	*	-	-	*	-	-	-	-	-	-	-	-
Benishangul-Gumuz	459	229	*	*	*	*	*	*	*	*	*	*	*	*	*	*
S.N.N.P.R	18952	10215	860	721	927	680	1246	783	935	930	865	181	*	*	376	-
Gambella	106	20	-	*	*	-	*	-	*	*	-	-	*	-	-	*
Harari	*	-	-	-	-	-	-	-	*	-	-	-	-	-	-	-
Addis Ababa	72	26	-	-	*	*	*	-	*	*	-	*	-	-	-	-
Dire Dawa	*	*	-	-	*	*	-	-	*	-	-	-	-	-	-	-

TABLE 6.31.4: URBAN HOLDINGS

Geographic Area	Holders Applying Improved Seeds															
	All	Grades Completed by Holder														
		Illiterate	Literate but not Formal Education	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Above Grade 12
National	25893	7611	2746	240	799	1193	1324	1718	1758	1256	1577	811	648	361	2785	1067
Tigray	1388	595	219	18	55	92	63	107	79	39	46	22	15	4	14	20
Afar	28	*	*	-	-	-	-	2	10	-	-	-	-	*	-	-
Amhara	4164	1503	825	29	89	161	148	197	166	205	147	91	60	33	388	124
Oromia	13824	3775	1278	134	470	687	816	952	921	693	991	465	424	193	1524	502
Somali	64	41	7	-	-	-	-	*	-	*	-	-	-	2	*	-
Benishangul-Gumuz	378	125	83	*	*	*	*	25	38	*	22	*	-	*	*	15
S.N.N.P.R	5342	1216	258	43	166	235	248	389	479	291	344	207	145	102	817	401
Gambella	87	34	*	-	-	-	*	*	*	-	*	*	-	*	*	-
Harari	83	28	12	*	-	*	*	10	*	*	*	*	-	-	6	-
Addis Ababa	466	254	51	*	*	-	19	12	54	*	*	*	-	*	-	*
Dire Dawa	68	40	*	-	-	*	-	*	*	-	-	-	*	*	-	-

TABLE 6.32: USES OF IRRIGATION BY EDUCATIONAL ATTAINMENT IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Holders Practicing Irrigation															
	Grades Completed by Holder															
	All	Illiterate	Literate but not Formal Education	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Above Grade 12
National	1063381	652332	214588	14418	30406	32840	26899	23140	23700	13442	12653	5843	3596	1604	6670	1250
Tigray	106602	71623	20936	1372	3188	3219	2225	1555	1237	614	298	112	119	*	38	34
Afar	8782	6679	1086	*	144	90	165	121	107	49	*	*	*	*	*	*
Amhara	475706	298937	122765	3048	7954	9827	7979	7398	6406	3442	3227	1805	601	515	1416	388
Oromia	381642	223012	59952	8256	15677	15679	12332	10336	11771	7090	7009	3204	2316	774	3750	484
Somali	8971	5878	1939	71	180	70	252	193	80	130	74	*	*	-	46	11
Benishangul-Gumuz	11115	5772	1905	174	685	527	569	505	407	212	150	107	*	*	52	*
S.N.N.P.R	61151	33776	4930	1319	2391	3235	3220	2831	3315	1754	1704	509	458	*	1240	286
Gambella	128	*	-	-	*	*	-	-	*	*	*	-	*	*	*	-
Harari	1721	1112	304	*	*	*	*	*	*	4	*	*	*	-	9	*
Addis Ababa	1193	519	106	14	*	*	64	59	60	97	47	*	*	45	55	*
Dire Dawa	6368	4979	664	*	*	*	*	115	216	*	*	-	*	*	-	-

TABLE 6.32.1: RURAL HOLDINGS

Geographic Area	Holders Practicing Irrigation															
	Grades Completed by Holder															
	All	Illiterate	Literate but not Formal Education	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Above Grade 12
National	1046212	645547	212299	14245	29943	32109	26136	22186	22776	12753	11938	5414	3296	1467	5338	765
Tigray	105055	70917	20686	1358	3107	3152	2119	1464	1171	573	261	*	*	*	-	*
Afar	8209	6362	968	*	137	63	146	107	86	*	*	*	*	*	*	*
Amhara	471502	297195	121966	3022	7875	9676	7829	7211	6244	3321	3056	1719	525	485	1125	*
Oromia	375148	220679	59194	8217	15505	15361	12023	9915	11401	6793	6690	2991	2163	716	3168	332
Somali	8551	5708	1868	60	180	*	235	175	*	*	74	*	*	-	*	-
Benishangul-Gumuz	10854	5667	1873	174	673	519	557	492	401	201	136	*	*	*	*	-
S.N.N.P.R	58676	33007	4795	1254	2291	3106	3100	2673	3121	1625	1591	427	426	*	948	144
Gambella	113	*	-	-	*	*	-	-	*	*	*	-	*	*	-	-
Harari	1602	1061	291	*	*	*	*	*	*	-	-	-	-	-	-	-
Addis Ababa	450	159	*	-	*	*	45	*	*	*	*	*	*	*	*	*
Dire Dawa	6051	4750	624	*	*	*	*	95	208	*	*	-	-	-	-	-

TABLE 6.32.2: RURAL MEHER

Geographic Area	Holders Practicing Irrigation															
	All	Illiterate	Literate but not Formal Education	Grades Completed by Holder												Above Grade 12
				Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	
National	685026	427191	136420	9564	19048	20823	17017	14430	14293	8311	7226	3430	2106	1056	3536	574
Tigray	63431	42474	12689	761	2050	2056	1454	730	618	311	144	*	*	*	-	*
Afar	7902	6062	961	*	137	63	146	107	86	*	*	*	*	*	*	*
Amhara	276032	178283	70320	1670	4086	5271	3655	3753	2935	1800	1691	1111	198	285	792	*
Oromia	263271	157503	44534	5643	9893	9965	8207	6666	7238	4265	3720	1697	1378	505	1811	245
Somali	8290	5617	1770	60	150	*	235	175	*	*	74	*	*	-	*	-
Benishangul-Gumuz	6778	3223	1198	116	530	376	378	316	297	141	87	*	-	*	*	-
S.N.N.P.R	51940	28499	4205	1154	2032	2910	2832	2565	2791	1588	1386	427	426	*	845	113
Gambella	99	*	-	-	*	*	-	-	*	*	-	-	-	*	-	-
Harari	1377	949	179	*	*	*	*	*	*	-	-	-	-	-	-	-
Addis Ababa	275	95	*	-	*	*	*	*	*	*	*	*	*	*	*	*
Dire Dawa	5630	4445	546	*	*	*	*	95	*	*	*	-	-	-	-	-

TABLE 6.32.3: RURAL BELG

Geographic Area	Holders Practicing Irrigation															
	All	Illiterate	Literate but not Formal Education	Grades Completed by Holder												Above Grade 12
				Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	
National	547993	333179	115473	7109	15436	16961	13929	11685	12523	6398	6772	3230	1789	557	2762	191
Tigray	64609	43970	12371	860	1689	1693	1419	936	816	462	188	*	*	-	-	-
Afar	1224	1084	66	-	-	-	*	*	-	-	-	-	-	-	-	-
Amhara	282190	172926	74442	2064	5204	6324	5421	4922	4420	1959	2125	968	417	316	608	*
Oromia	169991	97354	24996	3680	7229	7839	5414	4939	6070	3442	3925	1899	1067	242	1808	*
Somali	1808	1210	317	*	*	*	74	*	*	*	*	-	-	-	-	-
Benishangul-Gumuz	6411	3410	1196	114	402	283	272	257	231	97	87	*	*	-	-	-
S.N.N.P.R	18399	10617	1733	363	784	734	1200	529	883	390	410	224	*	-	336	*
Gambella	*	-	-	-	-	-	-	-	-	-	*	-	*	-	-	-
Harari	*	*	*	-	-	-	-	-	*	-	-	-	-	-	-	-
Addis Ababa	248	84	*	-	*	*	*	*	*	*	-	*	-	-	*	-
Dire Dawa	2763	2326	208	-	*	*	*	*	*	-	*	-	-	-	-	-

TABLE 6.32.4: URBAN HOLDINGS

Geographic Area	Holders Practicing Irrigation															
	All	Grades Completed by Holder														
		Illiterate	Literate but not Formal Education	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Above Grade 12
National	17168	6785	2289	173	462	731	763	954	923	689	715	429	300	137	1332	485
Tigray	1548	706	250	14	82	68	106	92	66	41	37	18	9	3	38	18
Afar	573	317	118	4	7	27	19	14	21	8	15	7	*	*	8	-
Amhara	4203	1741	799	26	80	151	150	187	162	120	171	86	76	30	291	133
Oromia	6494	2333	758	39	172	318	309	420	370	298	319	213	153	57	581	152
Somali	420	170	71	11	-	24	17	18	40	15	-	*	*	-	33	11
Benishangul-Gumuz	261	105	32	-	12	8	12	*	*	*	14	9	-	-	*	*
S.N.N.P.R	2475	768	134	64	100	129	120	158	194	129	113	82	31	18	292	142
Gambella	*	*	-	-	-	-	-	-	-	-	*	-	-	-	*	-
Harari	119	51	*	*	*	6	*	9	*	4	*	*	*	-	9	*
Addis Ababa	743	360	74	14	-	-	*	*	55	57	40	*	*	18	41	*
Dire Dawa	318	228	40	-	*	-	-	21	8	*	-	-	*	*	-	-

TABLE 6.33: APPLICATION OF FERTILIZERS BY EDUCATIONAL ATTAINMENT IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Holders Applying Fertilizers															
	All	Grades Completed by Holder														
		Illiterate	Literate but not Formal Education	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Above Grade 12
National	7589474	4755460	1073992	144668	263778	284541	238082	204344	212229	126758	121624	53791	29868	13396	54403	11850
Tigray	517709	357699	91194	9144	16755	16511	10350	6031	4652	2395	1249	639	444	184	312	150
Afar	2802	2193	335	*	*	29	*	*	12	*	*	*	*	*	*	-
Amhara	2051666	1352084	479147	13517	32143	42738	35733	26608	26349	13804	12073	5994	3131	1340	5761	1170
Oromia	2960487	1775637	370064	70556	124758	128262	106687	90840	97484	58597	58013	26222	15791	6534	26144	4889
Somali	17329	12026	4121	*	137	166	83	304	63	150	99	*	33	-	69	*
Benishangul-Gumuz	59029	36076	7248	1396	2760	2558	2330	2004	1677	1128	679	382	183	168	267	175
S.N.N.P.R	1943140	1194339	117911	49318	86332	93185	81696	77639	80919	50031	48877	20256	10105	5044	21518	5362
Gambella	3892	2317	109	115	169	154	236	227	164	97	96	30	*	*	79	*
Harari	11243	7783	1541	254	219	265	416	239	220	171	*	*	*	-	12	*
Addis Ababa	13858	8793	1404	222	*	574	366	327	463	341	440	176	77	111	225	44
Dire Dawa	8317	6514	918	*	163	*	106	100	227	*	*	-	*	*	-	-

TABLE 6.33.1: RURAL HOLDINGS

Geographic Area	Holders Applying Fertilizers															
	All	Illiterate	Literate but not Formal Education	Grades Completed by Holder												Above Grade 12
				Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	
National	7489163	4718140	1062978	143611	260869	279753	233145	198480	206541	122022	116448	50761	27941	12140	46171	9473
Tigray	511758	354892	90261	9055	16485	16056	9990	5727	4426	2243	1132	565	403	157	247	*
Afar	2733	2162	329	*	*	*	*	*	*	*	*	*	*	*	*	*
Amhara	2040230	1347509	476615	13427	31931	42295	35301	26085	25930	13404	11679	5752	2909	1242	5107	973
Oromia	2910980	1758982	364677	70080	123294	125803	104098	87859	94451	56147	55003	24498	14664	5824	21864	3724
Somali	16821	11824	4006	*	137	151	70	282	*	141	*	*	*	*	*	*
Benishangul-Gumuz	58032	35714	7126	1387	2746	2477	2297	1909	1637	1085	647	301	171	153	230	151
S.N.N.P.R	1914180	1183034	116307	48966	85406	91963	80324	75867	79180	48509	47403	19387	9628	4690	18455	4452
Gambella	3862	2303	109	115	169	154	230	227	164	97	96	30	*	*	68	*
Harari	10820	7606	1501	252	213	241	404	196	183	140	*	*	*	*	*	*
Addis Ababa	11563	7702	1140	185	*	493	243	213	323	215	333	148	59	68	156	*
Dire Dawa	8186	6412	907	*	163	*	106	*	227	*	*	*	*	*	*	*

TABLE 6.33.2: RURAL MEHER

Geographic Area	Holders Applying Fertilizers															
	All	Illiterate	Literate but not Formal Education	Grades Completed by Holder												Above Grade 12
				Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	
National	7178609	4513827	1031605	136733	248271	269647	222465	190329	195358	117434	111234	48846	26847	11453	44615	9256
Tigray	506110	350887	89377	9028	16273	15900	9922	5639	4351	2152	1088	565	403	157	247	*
Afar	2606	2051	314	*	*	*	*	*	*	*	*	*	*	*	*	*
Amhara	1968782	1298898	461567	12938	30470	40995	33790	25482	24625	12940	11438	5523	2882	1120	5090	950
Oromia	2816250	1692698	355011	68083	119519	123216	101177	85784	92019	55331	53893	24266	14456	5658	21415	3713
Somali	15582	11062	3691	*	*	151	51	259	*	*	*	*	*	*	*	*
Benishangul-Gumuz	57398	35243	7076	1378	2737	2448	2279	1884	1637	1085	625	301	171	153	230	151
S.N.N.P.R	1778995	1100051	111075	44644	78367	85948	74251	70559	71847	45331	43627	17967	8797	4291	17365	4269
Gambella	3431	2085	76	115	159	144	177	213	140	88	75	20	*	*	68	*
Harari	10711	7573	1477	228	213	241	388	196	170	140	*	*	*	*	*	*
Addis Ababa	11534	7702	1140	185	*	*	243	199	323	215	333	143	59	68	156	*
Dire Dawa	7209	5577	801	*	128	*	106	*	227	*	*	*	*	*	*	*

TABLE 6.33.3: RURAL BELG

Geographic Area	Holders Applying Fertilizers															
	All	Illiterate	Literate but not Formal Education	Grades Completed by Holder												Above Grade 12
				Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	
National	2498968	1531942	301655	50594	90173	103251	90953	78044	86357	51698	51841	22357	11566	4729	20170	3434
Tigray	36530	24290	6663	532	1231	1158	1074	506	487	301	114	*	*	-	-	*
Afar	340	274	30	-	-	-	*	-	-	-	-	-	-	-	-	-
Amhara	483555	300971	125739	2791	7678	10437	10234	6376	7988	3665	3409	1643	575	445	1357	*
Oromia	822648	501369	104785	20020	33662	34938	29660	23602	27014	14732	15288	5948	4009	1069	6013	537
Somali	1697	963	483	*	*	*	*	*	-	*	-	*	-	-	-	-
Benishangul-Gumuz	5255	3156	734	159	252	287	178	151	127	*	117	*	-	-	-	-
S.N.N.P.R	1143461	697223	62421	26975	47158	56282	49527	47253	50614	32824	32870	14614	6863	3214	12784	2682
Gambella	599	311	*	*	*	*	*	*	*	*	*	*	*	-	*	-
Harari	1465	722	361	*	*	*	*	85	*	*	-	*	-	-	-	-
Addis Ababa	251	95	*	-	*	*	*	*	*	*	*	*	-	-	-	-
Dire Dawa	3168	2569	360	*	*	*	*	*	-	*	-	*	-	-	-	-

TABLE 6.33.4: URBAN HOLDINGS

Geographic Area	Holders Applying Fertilizers															
	All	Illiterate	Literate but not Formal Education	Grades Completed by Holder												Above Grade 12
				Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	
National	100310	37320	11013	1057	2909	4787	4938	5864	5688	4736	5175	3031	1927	1256	8233	2376
Tigray	5951	2807	933	89	270	456	360	305	226	151	117	73	41	27	65	31
Afar	70	30	6	*	-	*	-	*	*	-	*	*	-	*	*	-
Amhara	11436	4575	2533	90	212	443	432	523	420	400	394	242	222	98	654	197
Oromia	49507	16655	5386	476	1464	2459	2589	2981	3033	2450	3010	1724	1127	710	4280	1166
Somali	508	202	115	-	-	15	13	21	47	9	17	*	22	-	37	*
Benishangul-Gumuz	997	363	122	*	14	*	32	*	40	43	32	*	*	*	37	24
S.N.N.P.R	28961	11305	1603	352	925	1222	1372	1773	1739	1523	1474	869	477	354	3064	910
Gambella	30	*	-	-	-	-	*	-	-	-	-	-	-	-	-	-
Harari	424	176	41	*	*	24	12	43	36	32	14	*	9	-	12	*
Addis Ababa	2295	1090	264	37	20	81	123	114	140	126	108	28	*	43	69	35
Dire Dawa	131	102	*	-	-	-	-	6	-	*	*	-	-	*	-	-

TABLE 6.34: APPLICATION OF PESTICIDES BY EDUCATIONAL ATTAINMENT IN RURAL AND URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Holders With Application of Pesticides															
	Grades Completed by Holder															Above Grade 12
	All	Illiterate	Literate but not Formal Education	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	
National	1648216	930302	218662	39600	68233	75488	67320	56013	60698	38441	40547	16917	9508	4131	18442	3832
Tigray	37313	22751	7572	662	1488	1872	1359	500	624	306	88	15	*	-	*	*
Afar	970	563	170	-	*	*	*	*	*	-	*	*	-	*	*	-
Amhara	142995	84772	38386	1202	2946	3480	3385	2183	2022	1742	1328	487	254	*	719	45
Oromia	972993	533613	136054	25035	42510	45606	41061	33582	36990	22798	23432	10251	6014	2981	10996	2037
Somali	678	359	220	-	*	*	*	*	*	*	*	*	*	-	8	-
Benishangul-Gumuz	4302	2179	860	*	301	298	279	149	56	-	-	*	-	-	*	-
S.N.N.P.R	484834	283869	34933	12583	20864	24012	20977	19374	20753	13336	15585	6058	3205	1034	6515	1690
Gambella	959	431	108	-	*	65	62	50	*	*	23	*	*	*	*	*
Harari	828	481	132	*	*	*	*	*	*	*	*	*	-	-	-	*
Addis Ababa	1687	761	188	25	*	63	98	107	100	115	53	*	*	57	63	*
Dire Dawa	655	522	*	*	*	*	-	*	*	-	-	-	-	*	-	-

TABLE 6.34.1: RURAL HOLDINGS

Geographic Area	Holders With Application of Pesticides															
	Grades Completed by Holder															Above Grade 12
	All	Illiterate	Literate but not Formal Education	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	
National	1609972	918123	214349	39137	66919	73549	65202	53484	58343	36393	38186	15601	8700	3492	15261	3151
Tigray	36156	22276	7344	656	1434	1777	1268	433	581	272	*	-	-	-	*	-
Afar	895	533	168	-	*	*	*	*	*	-	*	*	-	-	*	-
Amhara	140839	84009	37877	1188	2904	3405	3250	2087	1908	1655	1235	440	219	*	636	-
Oromia	947910	526252	133281	24738	41673	44268	39677	31956	35334	21418	21723	9272	5400	2516	8796	1575
Somali	588	333	189	-	-	-	-	*	-	*	-	*	-	-	-	-
Benishangul-Gumuz	4159	2113	835	*	289	287	277	145	*	*	-	*	*	-	-	-
S.N.N.P.R	476480	280913	34326	12456	20523	23654	20532	18716	20309	12885	15114	5794	3068	923	5679	1541
Gambella	869	403	105	-	*	64	56	48	*	*	*	*	*	-	*	*
Harari	767	468	128	*	*	*	*	*	*	-	-	-	-	-	-	-
Addis Ababa	717	336	74	*	*	*	51	58	30	33	*	*	-	*	45	-
Dire Dawa	592	489	*	-	*	*	-	-	*	-	-	-	-	-	-	-

TABLE 6.34.2: RURAL MEHER

Geographic Area	Holders With Application of Pesticides															
	All	Grades Completed by Holder														
		Illiterate	Literate but not Formal Education	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Above Grade 12
National	1331744	740637	193089	32684	55137	62160	53698	43750	48122	30882	32229	13196	7486	2962	12844	2836
Tigray	33515	20395	6996	656	1365	1720	1029	433	560	272	*	-	-	-	*	-
Afar	859	510	155	-	*	*	*	*	*	-	*	*	-	-	*	-
Amhara	126836	75436	34679	1168	2652	3091	2541	1835	1781	1494	1170	395	*	*	410	-
Oromia	872321	479008	124282	23122	38264	41503	36878	29724	32847	19926	20485	8729	5109	2419	8430	1563
Somali	549	302	186	-	-	-	-	*	-	*	-	-	-	-	-	-
Benishangul-Gumuz	2801	1351	656	*	136	170	209	124	*	*	-	*	*	-	-	-
S.N.N.P.R	293006	162604	25909	7660	12629	15553	12878	11571	12812	9081	10485	4010	2205	489	3884	1237
Gambella	350	140	50	-	*	29	21	*	*	-	*	*	*	-	*	*
Harari	692	422	*	*	*	*	*	-	*	-	-	-	-	-	-	-
Addis Ababa	610	307	59	*	*	*	51	29	24	*	*	*	-	*	35	-
Dire Dawa	203	163	-	-	*	*	-	-	-	-	-	-	-	-	-	-

TABLE 6.34.3: RURAL BELG

Geographic Area	Holders With Application of Pesticides															
	All	Grades Completed by Holder														
		Illiterate	Literate but not Formal Education	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Above Grade 12
National	362003	219156	32733	8365	15308	15818	15315	13027	14470	8301	9173	3783	1874	677	3424	533
Tigray	2794	1974	371	-	*	*	239	-	*	*	*	-	-	-	-	-
Afar	40	27	*	-	-	-	-	-	-	-	-	-	-	-	-	-
Amhara	16536	9826	3986	*	303	459	*	363	153	234	87	*	*	-	*	-
Oromia	122211	70394	16777	2859	5782	5254	5107	3812	4504	2636	2412	1011	609	126	836	*
Somali	*	*	*	-	-	-	-	-	-	-	-	*	-	-	-	-
Benishangul-Gumuz	1457	783	221	*	172	117	*	*	*	*	*	-	-	-	-	-
S.N.N.P.R	217803	135443	11258	5425	8977	9897	9118	8746	9686	5341	6648	2688	1204	551	2333	440
Gambella	519	263	54	-	-	*	*	*	*	*	-	*	-	-	*	-
Harari	*	*	*	-	-	-	-	*	*	-	-	-	-	-	-	-
Addis Ababa	141	*	*	-	*	-	*	*	*	*	*	*	-	-	*	-
Dire Dawa	389	326	*	-	-	-	-	-	*	-	-	-	-	-	-	-

TABLE 6.34.4: URBAN HOLDINGS

Geographic Area	Holders With Application of Pesticides																
	All	Illiterate	Literate but not Formal Education	Grades Completed by Holder													Above Grade 12
				Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12		
National	38244	12178	4314	463	1314	1939	2118	2529	2355	2048	2361	1316	807	639	3181	682	
Tigray	1157	474	229	7	55	96	91	67	43	34	17	15	*	-	15	*	
Afar	75	31	2	-	*	*	*	7	10	-	*	-	-	*	*	-	
Amhara	2156	764	509	13	42	75	136	96	114	87	93	47	35	18	83	45	
Oromia	25084	7362	2773	297	837	1338	1385	1626	1656	1380	1708	979	614	465	2200	462	
Somali	90	26	31	-	-	*	*	*	-	*	*	*	-	-	8	-	
Benishangul-Gumuz	144	66	24	-	12	12	*	*	*	4	-	-	*	-	*	-	
S.N.N.P.R	8354	2956	607	127	341	358	445	658	443	450	472	264	136	110	836	149	
Gambella	90	28	*	-	*	1	*	*	*	-	*	-	-	*	*	*	
Harari	61	14	*	-	*	*	-	*	*	*	*	*	-	-	-	*	
Addis Ababa	970	425	114	*	*	43	47	49	70	83	43	*	*	29	19	*	
Dire Dawa	63	33	*	*	-	-	-	*	-	-	-	-	-	*	-	-	

TABLE 6.35: HOLDERS PARTICIPATING IN AGRICULTURAL EXTENSION BY EDUCATIONAL ATTAINMENT IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Holders Participating in Agricultural Extension																
	All	Illiterate	Literate but not Formal Education	Grades Completed by Holder													Above Grade 12
				Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12		
National	581994	331951	98955	11878	21762	25332	20392	16610	18057	10934	11471	5142	2683	842	4349	1636	
Tigray	91288	60014	17590	1875	3249	3840	1966	982	972	372	198	118	*	*	*	-	
Afar	*	*	*	-	-	-	*	-	-	-	-	-	-	*	*	-	
Amhara	148963	87037	40291	1454	2513	4508	2957	2642	2781	1515	1287	615	369	*	336	494	
Oromia	274575	145861	34697	6945	13468	14008	12157	10559	11948	7188	7686	3860	1961	497	3115	625	
Somali	1468	1021	334	*	-	*	-	*	*	-	*	-	-	-	-	-	
Benishangul-Gumuz	5738	2765	959	97	452	294	396	284	161	110	*	34	*	*	55	*	
S.N.N.P.R	58049	34102	4932	1430	2041	2600	2708	2071	2065	1724	2238	509	259	104	785	479	
Gambella	275	65	*	-	*	*	*	*	*	11	*	-	*	-	-	*	
Harari	657	419	*	*	-	-	*	*	*	*	-	-	*	-	-	-	
Addis Ababa	93	*	*	-	*	-	*	*	*	-	-	*	-	-	*	-	
Dire Dawa	449	323	-	-	-	*	*	-	*	-	-	-	-	-	-	-	

TABLE 6.36: TOTAL CROP AREA (HECTARES) DAMAGE BY SIZE OF HOLDINGS IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Total Crop Area Damage							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	1578579	5103	135779	310373	554876	489628	69930	12891
Tigray	127651	345	15800	33027	43746	28779	3882	2072
Afar	2298	7	158	409	858	583	98	*
Amhara	556139	1705	38408	105034	223681	173085	11564	2663
Oromia	704756	1870	52594	122935	224426	246239	49468	7224
Somali	19308	46	1899	4736	7216	4901	460	*
Benishangul-Gumuz	18616	78	1427	3232	6357	6507	804	211
S.N.N.P.R	144577	1010	24531	39504	47176	28529	3358	469
Gambella	1507	23	337	413	432	275	*	-
Harari	1438	8	291	514	493	*	-	-
Addis Ababa	1020	3	19	39	143	529	270	*
Dire Dawa	1269	8	316	530	347	*	-	-

TABLE 6.36.1:RURAL MEHER

Geographic Area	Total Crop Area Damage							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	1487910	3897	123948	290513	526454	464937	65679	12482
Tigray	124063	282	15246	32148	42492	27941	3882	2072
Afar	2115	7	117	376	769	564	98	*
Amhara	531235	1450	35226	98617	214302	167725	11264	2652
Oromia	659245	1323	48011	114728	212035	230564	45752	6833
Somali	18953	25	1822	4625	7128	4846	457	*
Benishangul-Gumuz	18586	78	1424	3226	6344	6500	804	211
S.N.N.P.R	128638	700	21212	35330	41992	25817	3125	462
Gambella	1417	16	290	396	415	274	*	-
Harari	1425	8	285	510	493	*	-	-
Addis Ababa	1019	3	19	39	143	528	270	*
Dire Dawa	1214	8	297	518	341	*	-	-

TABLE 6.36.2:RURAL BELG

Geographic Area	Total Crop Area Damage							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	90670	6642	37721	23350	17324	5283	349	-
Tigray	3588	218	1879	889	528	*	-	-
Afar	183	5	107	42	*	-	-	-
Amhara	24904	2178	13263	6347	2470	642	*	-
Oromia	45511	2618	15155	12035	11828	3628	248	-
Somali	355	17	151	97	76	*	-	-
Benishangul-Gumuz	30	12	14	*	-	-	-	-
S.N.N.P.R	15939	1559	7048	3919	2391	925	*	-
Gambella	90	15	64	*	*	-	-	-
Harari	*	*	*	-	-	-	-	-
Addis Ababa	*	*	*	-	-	-	-	-
Dire Dawa	55	16	30	*	-	-	-	-

TABLE 6.37: CROP AREA (HECTARES) DAMAGED BY CROP DISEASE AND TOTAL SIZE OF HOLDING IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Area Damaged by Crop Disease							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	244311	834	23510	53263	87834	67873	9853	1145
Tigray	14617	42	1688	3855	5111	3101	676	*
Afar	760	1	64	153	308	169	*	*
Amhara	89873	319	7338	18831	37388	24570	1365	*
Oromia	106253	273	9341	21783	34303	32863	6888	802
Somali	6624	*	471	1490	2570	1885	*	-
Benishangul-Gumuz	4805	20	457	971	1605	1504	204	*
S.N.N.P.R	20269	152	3918	5760	6242	3653	482	*
Gambella	315	3	100	105	78	29	-	-
Harari	266	*	47	99	75	*	-	-
Addis Ababa	48	1	*	*	7	21	16	-
Dire Dawa	480	*	86	213	147	*	-	-

TABLE 6.37.1:RURAL MEHER

Geographic Area	Area Damaged by Crop Disease							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	232752	693	22025	50643	84376	64815	9171	1029
Tigray	14533	37	1668	3833	5076	3098	676	*
Afar	714	1	39	152	292	167	*	*
Amhara	87625	311	7045	18157	36539	24150	1361	*
Oromia	98966	203	8724	20445	32268	30402	6236	688
Somali	6443	3	435	1419	2529	1868	*	-
Benishangul-Gumuz	4797	20	455	967	1605	1502	204	*
S.N.N.P.R	18600	111	3439	5256	5769	3507	456	*
Gambella	298	3	93	103	71	29	-	-
Harari	260	*	43	99	75	*	-	-
Addis Ababa	47	1	*	*	7	20	16	-
Dire Dawa	470	*	83	209	146	*	-	-

TABLE 6.37.2:RURAL BELG

Geographic Area	Area Damaged by Crop Disease							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	11559	825	4482	3022	2389	806	*	-
Tigray	84	15	48	*	*	-	-	-
Afar	*	*	*	*	*	-	-	-
Amhara	2248	140	983	684	371	*	-	-
Oromia	7288	395	2425	1980	1821	631	*	-
Somali	181	9	98	39	36	-	-	-
Benishangul-Gumuz	8	2	4	*	-	-	-	-
S.N.N.P.R	1669	258	870	297	140	104	-	-
Gambella	17	2	9	*	-	-	-	-
Harari	*	*	*	-	-	-	-	-
Addis Ababa	*	*	*	-	-	-	-	-
Dire Dawa	*	3	*	-	-	-	-	-

TABLE 6.38: CROP AREA (HECTARES) DAMAGED BY FROST OR FLOODS AND TOTAL SIZE OF HOLDING IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Area Damaged by Frost or Floods							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	87132	303	8367	18797	31292	24318	3313	743
Tigray	2581	19	652	771	723	366	*	-
Afar	67	*	*	*	*	*	-	-
Amhara	21381	64	1896	5210	8504	5081	395	*
Oromia	47472	111	3362	8670	16917	15529	2506	378
Somali	604	4	83	181	226	*	*	-
Benishangul-Gumuz	2574	5	223	507	871	846	96	*
S.N.N.P.R	12287	96	2114	3405	3952	2374	236	*
Gambella	127	*	31	29	47	17	*	-
Harari	*	-	*	6	*	-	-	-
Addis Ababa	*	*	*	-	*	*	*	-
Dire Dawa	5	*	*	*	*	-	-	-

TABLE 6.38.1:RURAL MEHER

Geographic Area	Area Damaged by Frost or Floods							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	81493	219	7450	17250	29418	23204	3236	717
Tigray	2511	17	623	745	711	366	*	-
Afar	40	*	*	*	5	*	-	-
Amhara	20044	54	1692	4748	8007	4918	395	*
Oromia	45025	76	2959	8050	16166	14989	2433	352
Somali	552	*	73	172	216	*	*	-
Benishangul-Gumuz	2570	5	223	507	870	845	96	*
S.N.N.P.R	10585	62	1847	2976	3373	1984	235	*
Gambella	126	*	30	29	47	17	*	-
Harari	*	-	*	6	*	-	-	-
Addis Ababa	*	*	*	-	*	*	*	-
Dire Dawa	4	*	*	*	*	-	-	-

TABLE 6.38.2:RURAL BELG

Geographic Area	Area Damaged by Frost or Floods							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	5640	509	2661	1386	831	252	-	-
Tigray	70	16	47	*	*	-	-	-
Afar	*	-	*	-	*	-	-	-
Amhara	1337	88	716	337	*	*	-	-
Oromia	2448	254	1186	615	342	50	-	-
Somali	51	2	16	*	*	*	-	-
Benishangul-Gumuz	3	*	*	*	-	-	-	-
S.N.N.P.R	1702	147	688	416	281	171	-	-
Gambella	1	*	*	-	-	-	-	-
Harari	-	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-
Dire Dawa	*	*	-	-	-	-	-	-

TABLE 6.39: CROP AREA (HECTARES) DAMAGED BY LOCUST AND TOTAL SIZE OF HOLDING IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Area Damaged by Locust							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	268250	810	18797	46066	94075	93599	12515	2389
Tigray	20575	49	2088	4751	6887	5929	713	*
Afar	649	*	*	122	238	203	*	-
Amhara	96392	269	5284	14957	37873	33887	2957	1167
Oromia	119194	292	7034	18602	38405	45986	7877	999
Somali	356	*	74	105	162	*	-	-
Benishangul-Gumuz	6642	38	466	1050	2327	2456	276	*
S.N.N.P.R	23478	152	3720	6318	7949	4800	508	*
Gambella	364	6	73	109	105	70	*	-
Harari	40	*	6	13	*	*	-	-
Addis Ababa	500	1	4	23	*	249	*	*
Dire Dawa	60	-	8	17	*	*	-	-

TABLE 6.39.1:RURAL MEHER

Geographic Area	Area Damaged by Locust							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	254482	574	16752	42495	89340	90867	12101	2353
Tigray	19821	45	1937	4440	6682	5848	713	*
Afar	626	*	*	111	226	203	*	-
Amhara	94176	248	4973	14355	36937	33546	2949	1167
Oromia	112930	177	6327	17122	36370	44450	7521	964
Somali	339	*	72	100	158	*	-	-
Benishangul-Gumuz	6633	38	465	1049	2321	2454	276	*
S.N.N.P.R	19007	60	2852	5160	6413	4037	457	*
Gambella	353	5	68	106	104	70	*	-
Harari	38	-	6	13	*	*	-	-
Addis Ababa	499	1	4	23	*	249	*	*
Dire Dawa	59	-	8	17	*	*	-	-

TABLE 6.39.2:RURAL BELG

Geographic Area	Area Damaged by Locust							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	13767	915	5373	3814	2685	904	*	-
Tigray	754	48	286	*	*	*	-	-
Afar	*	*	*	*	*	-	-	-
Amhara	2216	311	1105	428	143	*	-	-
Oromia	6264	258	1992	1842	1626	470	*	-
Somali	17	*	6	*	*	-	-	-
Benishangul-Gumuz	9	3	5	*	-	-	-	-
S.N.N.P.R	4471	293	1959	1341	721	157	-	-
Gambella	*	1	*	*	*	-	-	-
Harari	*	*	*	-	-	-	-	-
Addis Ababa	*	*	-	-	-	-	-	-
Dire Dawa	*	*	*	-	-	-	-	-

TABLE 6.40: CROP AREA (HECTARES) DAMAGED BY SHORTAGE OF RAIN AND TOTAL SIZE OF HOLDING IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Area Damaged by Shortage of Rain							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	85255	222	7110	16650	31302	25721	3389	861
Tigray	5203	22	745	1649	1779	971	*	*
Afar	6	*	-	*	3	*	-	-
Amhara	33530	68	2366	6814	13796	9736	491	*
Oromia	34962	92	2571	5357	11372	12470	2549	552
Somali	86	*	*	40	17	*	-	-
Benishangul-Gumuz	1289	1	57	179	497	463	82	*
S.N.N.P.R	10074	37	1328	2577	3816	2053	233	*
Gambella	32	*	13	10	9	*	-	-
Harari	*	-	*	*	*	*	-	-
Addis Ababa	20	*	*	*	4	7	5	*
Dire Dawa	*	-	*	*	*	-	-	-

TABLE 6.40.1:RURAL MEHER

Geographic Area	Area Damaged by Shortage of Rain							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	82509	169	6543	15843	30449	25309	3335	861
Tigray	5184	22	738	1639	1778	970	*	*
Afar	6	*	-	*	3	*	-	-
Amhara	32667	65	2224	6521	13459	9647	491	*
Oromia	33723	50	2280	5026	11053	12237	2527	552
Somali	60	-	*	33	*	*	-	-
Benishangul-Gumuz	1287	1	56	179	496	463	82	*
S.N.N.P.R	9480	30	1204	2410	3631	1974	201	*
Gambella	31	*	12	10	9	*	-	-
Harari	*	-	*	*	*	*	-	-
Addis Ababa	20	*	*	*	4	7	5	*
Dire Dawa	*	-	*	*	*	-	-	-

TABLE 6.40.2:RURAL BELG

Geographic Area	Area Damaged by Shortage of Rain							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	2746	283	1283	582	439	137	*	-
Tigray	19	6	11	*	-	*	-	-
Afar	-	-	-	-	-	-	-	-
Amhara	863	47	435	235	*	*	-	-
Oromia	1239	182	580	227	142	87	*	-
Somali	*	*	*	*	*	*	-	-
Benishangul-Gumuz	2	*	*	-	-	-	-	-
S.N.N.P.R	594	44	253	109	151	*	-	-
Gambella	*	-	*	-	-	-	-	-
Harari	-	-	-	-	-	-	-	-
Addis Ababa	*	*	-	-	-	-	-	-
Dire Dawa	*	*	-	-	-	-	-	-

TABLE 6.41: CROP AREA (HECTARES) DAMAGED BY TOO MUCH RAIN AND TOTAL SIZE OF HOLDING IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Area Damaged by Too Much Rain							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	187759	864	21946	43431	66502	47502	6565	948
Tigray	12579	33	1774	3660	4728	2132	188	*
Afar	*	-	*	5	22	24	*	*
Amhara	36868	119	3196	8744	15232	9022	376	*
Oromia	108285	391	10395	22690	38170	31093	5033	513
Somali	249	*	45	54	*	*	-	-
Benishangul-Gumuz	1227	4	76	221	399	387	63	*
S.N.N.P.R	27813	309	6388	7880	7662	4663	859	*
Gambella	433	*	45	101	134	122	*	-
Harari	120	*	17	59	*	*	-	-
Addis Ababa	4	*	*	*	*	*	*	-
Dire Dawa	*	*	9	*	*	-	-	-

TABLE 6.41.1:RURAL MEHER

Geographic Area	Area Damaged by Too Much Rain							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	184111	814	21341	42431	65388	46715	6501	920
Tigray	12473	32	1734	3614	4715	2126	188	*
Afar	*	-	*	5	22	24	*	*
Amhara	35484	105	2984	8306	14755	8785	368	*
Oromia	106915	379	10239	22438	37764	30628	4981	486
Somali	243	*	45	52	*	*	-	-
Benishangul-Gumuz	1225	4	76	220	398	387	63	*
S.N.N.P.R	27038	288	6192	7618	7452	4583	855	*
Gambella	428	4	45	101	131	122	*	-
Harari	120	*	17	59	*	*	-	-
Addis Ababa	4	*	*	*	*	*	*	-
Dire Dawa	*	*	*	*	*	-	-	-

TABLE 6.41.2:RURAL BELG

Geographic Area	Area Damaged by Too Much Rain							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	3648	420	1878	847	422	80	*	-
Tigray	105	32	63	*	-	*	-	-
Afar	*	*	-	-	-	-	-	-
Amhara	1384	126	732	359	150	*	-	-
Oromia	1370	153	701	291	180	44	-	-
Somali	6	*	2	*	-	-	-	-
Benishangul-Gumuz	*	*	*	-	-	-	-	-
S.N.N.P.R	776	105	375	185	92	*	*	-
Gambella	*	*	*	*	-	-	-	-
Harari	-	-	-	-	-	-	-	-
Addis Ababa	*	*	-	-	-	-	-	-
Dire Dawa	*	*	-	-	-	-	-	-

TABLE 6.42: CROP AREA (HECTARES) DAMAGED BY WILD ANIMALS AND TOTAL SIZE OF HOLDING IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Area Damaged by Wild Animals							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	98534	362	9344	19218	35223	30573	3290	524
Tigray	9880	27	1458	2663	3837	1276	*	*
Afar	6	-	*	-	*	*	-	-
Amhara	48705	177	3672	8490	19036	16487	839	*
Oromia	32389	86	3047	6176	9496	11342	2056	186
Somali	*	-	-	*	*	*	-	-
Benishangul-Gumuz	618	6	50	102	233	201	25	-
S.N.N.P.R	6733	66	1104	1757	2535	1188	*	*
Gambella	*	-	-	*	*	*	-	-
Harari	*	*	*	*	*	-	-	-
Addis Ababa	*	*	*	*	*	*	*	-
Dire Dawa	*	-	*	*	*	-	-	-

TABLE 6.42.1:RURAL MEHER

Geographic Area	Area Damaged by Wild Animals							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	96326	315	8804	18567	34618	30232	3271	520
Tigray	9776	26	1391	2641	3828	1272	*	*
Afar	6	-	*	-	*	*	-	-
Amhara	47797	158	3459	8144	18825	16389	822	-
Oromia	32113	85	3020	6119	9426	11222	2055	186
Somali	*	-	-	*	*	*	-	-
Benishangul-Gumuz	618	6	50	102	233	201	25	-
S.N.N.P.R	5814	40	872	1532	2220	1069	*	*
Gambella	*	-	-	*	*	*	-	-
Harari	*	*	*	*	*	-	-	-
Addis Ababa	*	*	*	*	*	*	*	-
Dire Dawa	*	-	*	*	*	-	-	-

TABLE 6.42.2:RURAL BELG

Geographic Area	Area Damaged by Wild Animals							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	2207	215	1355	462	170	*	-	-
Tigray	104	24	73	*	*	-	-	-
Afar	-	-	-	-	-	-	-	-
Amhara	908	33	678	181	*	-	-	-
Oromia	276	24	122	*	*	-	-	-
Somali	-	-	-	-	-	-	-	-
Benishangul-Gumuz	-	-	-	-	-	-	-	-
S.N.N.P.R	919	134	481	211	88	*	-	-
Gambella	-	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-

TABLE 6.43: CROP AREA (HECTARES) DAMAGED BY BIRDS AND TOTAL SIZE OF HOLDING IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Area Damaged by Birds							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	166	3	20	27	64	*	*	-
Tigray	*	-	*	-	*	-	-	-
Afar	-	-	-	-	-	-	-	-
Amhara	39	-	*	*	*	*	-	-
Oromia	71	*	3	*	*	*	*	-
Somali	-	-	-	-	-	-	-	-
Benishangul-Gumuz	*	-	*	*	*	-	-	-
S.N.N.P.R	56	2	17	12	18	7	-	-
Gambella	-	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-

TABLE 6.43.1:RURAL MEHER

Geographic Area	Area Damaged by Birds							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	104	-	*	*	43	*	-	-
Tigray	*	-	-	-	*	-	-	-
Afar	-	-	-	-	-	-	-	-
Amhara	38	-	-	*	*	*	-	-
Oromia	*	-	*	*	*	*	-	-
Somali	-	-	-	-	-	-	-	-
Benishangul-Gumuz	*	-	*	-	-	-	-	-
S.N.N.P.R	*	-	-	*	*	-	-	-
Gambella	-	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-

TABLE 6.43.2:RURAL BELG

Geographic Area	Area Damaged by Birds							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	62	4	28	17	12	*	-	-
Tigray	*	*	*	-	*	-	-	-
Afar	-	-	-	-	-	-	-	-
Amhara	*	*	*	*	-	-	-	-
Oromia	7	*	6	*	*	-	-	-
Somali	-	-	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	-	-	-	-	-
S.N.N.P.R	53	3	21	17	12	*	-	-
Gambella	-	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-

TABLE 6.44: CROP AREA (HECTARES) DAMAGED BY HAIL STONE AND TOTAL SIZE OF HOLDING IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Area Damaged by Hail Stone							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	207054	380	14857	36269	67363	71955	13239	2990
Tigray	26245	54	3946	7741	8406	5647	317	*
Afar	*	*	*	-	*	*	-	-
Amhara	72142	148	4574	13519	28955	22432	1982	*
Oromia	81804	95	2938	7962	20895	37470	10205	2239
Somali	*	-	*	*	*	*	-	-
Benishangul-Gumuz	798	3	28	94	225	430	18	-
S.N.N.P.R	25728	78	3337	6929	8834	5808	665	*
Gambella	53	*	15	11	10	*	-	-
Harari	*	-	-	*	-	-	-	-
Addis Ababa	246	*	*	7	29	141	53	*
Dire Dawa	*	-	*	*	*	-	-	-

TABLE 6.44.1:RURAL MEHER

Geographic Area	Area Damaged by Hail Stone							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	204751	365	14556	35770	66648	71245	13179	2989
Tigray	26188	53	3932	7716	8391	5643	317	*
Afar	*	*	*	-	*	*	-	-
Amhara	71708	148	4534	13373	28777	22365	1982	*
Oromia	80632	87	2810	7788	20552	36987	10168	2239
Somali	*	-	*	*	*	*	-	-
Benishangul-Gumuz	798	3	28	94	225	430	18	-
S.N.N.P.R	25088	72	3218	6773	8654	5652	642	*
Gambella	53	*	15	11	10	*	-	-
Harari	*	-	-	*	-	-	-	-
Addis Ababa	246	*	*	7	29	141	53	*
Dire Dawa	*	-	*	*	*	-	-	-

TABLE 6.44.2:RURAL BELG

Geographic Area	Area Damaged by Hail Stone							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	2303	137	1009	680	350	128	-	-
Tigray	57	*	30	*	-	-	-	-
Afar	-	-	-	-	-	-	-	-
Amhara	433	16	208	123	78	*	-	-
Oromia	1173	24	500	426	180	*	-	-
Somali	-	-	-	-	-	-	-	-
Benishangul-Gumuz	-	-	-	-	-	-	-	-
S.N.N.P.R	640	91	271	108	92	77	-	-
Gambella	-	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-
Dire Dawa	*	*	-	-	-	-	-	-

TABLE 6.45: CROP AREA (HECTARES) DAMAGED BY PESTS AND INSECTS, AND TOTAL SIZE OF HOLDING IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Area Damaged by Pests and Insects							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	5009	*	305	1001	2011	1509	166	*
Tigray	128	*	10	31	*	*	-	-
Afar	*	-	*	-	*	-	-	-
Amhara	681	*	39	194	277	156	*	-
Oromia	3465	2	205	601	1378	1116	163	-
Somali	405	*	*	*	*	*	-	-
Benishangul-Gumuz	51	-	5	2	15	25	-	*
S.N.N.P.R	*	*	31	78	*	*	-	-
Gambella	6	-	*	2	-	*	-	-
Harari	*	-	-	*	*	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-

TABLE 6.45.1:RURAL MEHER

Geographic Area	Area Damaged by Pests and Insects							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	3634	3	207	761	1502	1070	88	*
Tigray	128	*	10	31	*	*	-	-
Afar	*	-	*	-	*	-	-	-
Amhara	575	*	33	175	234	130	-	-
Oromia	2357	*	125	410	979	755	88	-
Somali	404	*	*	*	*	*	-	-
Benishangul-Gumuz	51	-	5	2	15	25	-	*
S.N.N.P.R	110	*	18	49	39	*	-	-
Gambella	6	-	*	2	-	*	-	-
Harari	*	-	-	*	*	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-

TABLE 6.45.2:RURAL BELG

Geographic Area	Area Damaged by Pests and Insects							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	1375	24	175	275	570	327	*	-
Tigray	-	-	-	-	-	-	-	-
Afar	-	-	-	-	-	-	-	-
Amhara	106	*	68	*	*	-	-	-
Oromia	1107	6	93	242	491	271	*	-
Somali	*	-	*	-	-	-	-	-
Benishangul-Gumuz	*	*	-	-	-	-	-	-
S.N.N.P.R	*	*	14	*	*	*	-	-
Gambella	-	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-

TABLE 6.46: CROP AREA (HECTARES) DAMAGED BY WEEDS AND TOTAL SIZE OF HOLDING IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Area Damaged by Weeds							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	393320	1277	31136	75239	138712	126124	17546	3287
Tigray	35824	97	3438	7900	12192	9343	1558	*
Afar	662	*	48	113	253	153	-	*
Amhara	156252	526	10019	28213	62500	51616	3150	*
Oromia	170443	523	13611	30978	53344	58270	12161	1556
Somali	10860	20	1188	2753	3924	2684	*	*
Benishangul-Gumuz	598	1	66	105	178	187	40	*
S.N.N.P.R	16829	91	2300	4555	5805	3697	342	*
Gambella	167	5	57	46	40	*	-	-
Harari	942	6	215	317	330	*	-	-
Addis Ababa	132	*	*	*	17	48	54	*
Dire Dawa	612	4	190	255	128	*	-	-

TABLE 6.46.1: RURAL MEHER

Geographic Area	Area Damaged by Weeds							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	347482	743	26257	66694	124601	111330	14766	3091
Tigray	33436	49	3213	7484	11233	8603	1558	*
Afar	575	*	36	92	215	138	-	*
Amhara	141030	357	8281	24821	56732	47725	2891	*
Oromia	146407	267	11518	27308	47402	48828	9719	1365
Somali	10798	18	1162	2738	3907	2682	*	*
Benishangul-Gumuz	596	1	66	105	178	186	40	*
S.N.N.P.R	12886	36	1566	3546	4428	3007	263	*
Gambella	112	1	23	34	35	*	-	-
Harari	936	6	213	314	330	*	-	-
Addis Ababa	132	*	*	*	17	48	54	*
Dire Dawa	573	4	176	249	124	*	-	-

TABLE 6.46.2: RURAL BELG

Geographic Area	Area Damaged by Weeds							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	45838	3146	18827	11976	9239	2452	*	-
Tigray	2388	70	1319	658	317	*	-	-
Afar	86	5	61	19	*	-	-	-
Amhara	15222	1384	8208	3953	1387	285	*	-
Oromia	24037	1271	7365	6300	6963	2028	*	-
Somali	62	*	25	26	*	-	-	-
Benishangul-Gumuz	1	*	*	-	-	-	-	-
S.N.N.P.R	3943	391	1783	1009	561	115	*	-
Gambella	55	12	40	*	*	-	-	-
Harari	*	*	*	-	-	-	-	-
Addis Ababa	*	*	-	-	-	-	-	-
Dire Dawa	39	9	21	*	-	-	-	-

TABLE 6.47: CROP AREA (HECTARES) DAMAGED BY OTHER CAUSE AND TOTAL SIZE OF HOLDING IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Area Damaged by Other Causes							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	1789	33	388	412	499	401	54	*
Tigray	19	*	2	6	6	*	*	-
Afar	*	*	-	*	*	-	-	-
Amhara	276	*	23	52	99	92	*	*
Oromia	417	5	87	112	121	62	*	-
Somali	21	*	1	6	*	*	-	-
Benishangul-Gumuz	16	*	*	1	*	*	-	-
S.N.N.P.R	1038	25	274	234	257	231	*	*
Gambella	1	*	*	*	*	*	-	-
Harari	*	-	-	*	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-
Dire Dawa	2	-	*	*	*	*	-	-

TABLE 6.47.1:RURAL MEHER

Geographic Area	Area Damaged by Other Causes							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	265	*	13	45	70	104	*	-
Tigray	13	*	*	5	3	*	*	-
Afar	*	-	-	-	*	-	-	-
Amhara	91	*	*	*	15	62	*	-
Oromia	114	*	8	20	32	29	*	-
Somali	*	-	-	*	*	*	-	-
Benishangul-Gumuz	11	*	*	*	*	*	-	-
S.N.N.P.R	27	*	*	10	*	*	*	-
Gambella	*	-	*	*	*	*	-	-
Harari	*	-	-	*	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-

TABLE 6.47.2:RURAL BELG

Geographic Area	Area Damaged by Other Causes							
	Size of Holding (Hectares)							
	All	Under 0.1	0.1-0.5	0.51-1.00	1.01-2.00	2.01-5.00	5.01-10.00	Over 10
National	1524	166	651	289	215	191	*	-
Tigray	*	1	1	*	-	-	-	-
Afar	*	*	*	-	-	-	-	-
Amhara	185	16	128	32	9	-	-	-
Oromia	303	51	184	43	21	*	*	-
Somali	12	*	1	4	*	*	-	-
Benishangul-Gumuz	5	2	2	*	-	-	-	-
S.N.N.P.R	1011	94	333	207	182	184	*	-
Gambella	1	*	*	-	-	-	-	-
Harari	-	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-
Dire Dawa	2	*	*	*	-	-	-	-

TABLE 6.54: NUMBER OF AGRICULTURAL HOLDERS APPLYING IRRIGATION BY SOURCE OF WATER IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Source of Water			
	River	Lake	Pond	Others
National	731876	122535	114907	81931
Tigray	58021	6905	4907	7698
Afar	9111	31	*	*
Amhara	336585	35810	27581	43819
Oromia	263634	48077	77380	25219
Somali	6774	461	*	*
Benishangul-Gumuz	9816	1344	271	195
S.N.N.P.R	42904	27868	2706	2695
Gambella	81	457	*	-
Harari	1158	*	437	*
Addis Ababa	50	*	217	49
Dire Dawa	3743	444	*	1362

TABLE 6.55: NUMBER OF AGRICULTURAL HOLDERS IMPROVING SOIL FERTILITY BY METHOD OF APPLICATION IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Method to Improve Soil Fertility	
	Crop Rotation	Burning of Soil
National	7967844	577234
Tigray	622573	42267
Afar	3314	512
Amhara	2706068	177493
Oromia	2974721	245676
Somali	45034	4141
Benishangul-Gumuz	71931	10679
S.N.N.P.R	1519087	93412
Gambella	9668	594
Harari	1363	*
Addis Ababa	11449	*
Dire Dawa	2637	2090

TABLE 6.56: NUMBER OF HOLDERS BY REASON FOR NOT USING CHEMICAL FERTILIZER IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Reason for not Using Chemical Fertilizer						
	Do not Know the Advantage	Too Expensive	Shortage of Money	Insufficient Supply	No Credit Service	Suspicious of its Efficiency	Others
National	1649296	881714	4912043	421792	38150	334487	2358801
Tigray	83685	34445	352756	15923	994	29986	175539
Afar	2659	*	1949	3425	*	71	1240
Amhara	552996	224319	1706166	82792	9832	175883	752782
Oromia	646415	475427	1928984	180677	16739	78444	981151
Somali	10247	1154	34203	32818	*	32	2333
Benishangul-Gumuz	34066	12459	66023	10606	548	1265	20783
S.N.N.P.R	305618	131443	803820	85267	8659	48034	404457
Gambella	10256	359	3018	9559	140	376	9394
Harari	664	1290	5433	174	-	140	1003
Addis Ababa	1025	283	1846	277	*	*	8380
Dire Dawa	1663	457	7844	275	*	*	1738

TABLE 6.57: NUMBER OF AGRICULTURAL HOLDERS BY PLOWING METHOD
IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Method of Plowing				
	Hand Dung	Ox/Horse Driven	Tractor	Hand Dung and Ox/Horse Driven	Tractor and Ox/horse Driven
National	1864987	4540917	9775	3818850	18769
Tigray	10011	499706	3378	155237	696
Afar	3473	3841	452	4993	120
Amhara	86153	1647998	328	1231755	2046
Oromia	584265	1972904	2111	1388812	10569
Somali	11497	27595	3139	41885	3209
Benishangul-Gumuz	66984	30664	-	23116	*
S.N.N.P.R	1066350	342798	245	958335	1331
Gambella	24668	923	-	1065	58
Harari	6316	2090	*	4416	*
Addis Ababa	1469	11059	-	396	*
Dire Dawa	3801	1338	*	8841	*

TABLE 6.58: NUMBER OF AGRICULTURAL HOLDERS BY METHOD OF
SOIL CONSERVATION IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Method of Soil Conservation				
	Terracing	Water Catchments	Afforestation	Plowing along The Counter	Others
National	1846994	949493	77648	4532326	676436
Tigray	305328	143318	1068	198155	2694
Afar	1717	2007	*	1410	295
Amhara	757987	381564	5399	1421830	218295
Oromia	504109	307246	15212	2036603	354092
Somali	13076	11526	*	14918	190
Benishangul-Gumuz	4586	10895	247	37784	3520
S.N.N.P.R	242940	85559	54426	812639	92961
Gambella	485	269	414	348	883
Harari	8109	1831	196	760	*
Addis Ababa	581	351	*	7264	3333
Dire Dawa	8076	4928	*	616	*

TABLE 6.59: NUMBER OF AGRICULTURAL HOLDERS PRACTICING EXTENSION
PACKAGES BY TYPE IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Rain Shortage Areas	Rain Abundant Areas	Post Harvest Technology	Livestock Development	Economically Important Crops	Any two or more packages
National	189070	902688	47278	5541	132291	60252
Tigray	41577	30404	2065	703	14007	6479
Afar	54	-	-	-	*	-
Amhara	88435	282106	22895	3363	39779	26094
Oromia	42330	444169	11943	385	44000	16283
Somali	*	*	-	-	*	-
Benishangul-Gumuz	1137	9156	658	*	979	240
S.N.N.P.R	14656	135989	9713	1011	32732	11103
Gambella	236	268	-	10	84	*
Harari	*	328	-	-	*	-
Addis Ababa	-	236	*	-	148	-
Dire Dawa	281	-	-	*	*	*

TABLE 6.60: NUMBER OF HOLDERS BY REASON FOR NOT BEING COVERED BY EXTENSION PROGRAM IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Reason for not Being Covered by Extension Program					
	Do not Know the Advantage	Shortage of Money	Suspicious of Its Efficiency	Program not Available	Insufficient Arable Land	Others
National	1514694	4029740	591350	1847715	968814	597336
Tigray	78865	209925	36952	176096	45703	55187
Afar	2522	*	77	20069	229	406
Amhara	405759	1289669	221800	308404	219678	192390
Oromia	553048	1575052	187965	778465	328971	215148
Somali	9625	12778	724	72433	*	1071
Benishangul-Gumuz	27332	63435	5058	8643	3212	4624
S.N.N.P.R	421040	866756	135964	451198	365506	126423
Gambella	7963	1164	896	15841	1255	494
Harari	4353	4008	1216	1052	1702	643
Addis Ababa	1152	1222	322	11171	1394	347
Dire Dawa	3035	5207	376	4343	1132	603

TABLE 6.61: NUMBER OF AGRICULTURAL HOLDERS WHO USE SERVICES IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Service Type			
	Credit Service	%	Advisory Service	%
National	2097649	100.00	2118895	100.00
Tigray	241758	11.53	323267	15.26
Afar	*	*	1339	0.06
Amhara	654102	31.18	905454	42.73
Oromia	1058332	50.45	702706	33.16
Somali	*	*	459	0.02
Benishangul-Gumuz	8396	0.40	17458	0.82
S.N.N.P.R	127392	6.07	162146	7.65
Gambella	302	0.01	2162	0.10
Harari	1948	0.09	1517	0.07
Addis Ababa	3604	0.17	360	0.02
Dire Dawa	1208	0.06	2028	0.10

TABLE 6.62: NUMBER OF HOLDERS BY SOURCE OF CHEMICAL FERTILIZERS AND COST OF CHEMICAL FERTILIZERS IN RURAL AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Number of Holders by Source of Chemical Fertilizer					Cost of Chemical		
	Government	Private Organization	Traders	Others	Do not buy	Not Reporting	DAP	UREA
National	2469767	556497	781091	166228	6246041	9234	285.13	215.71
Tigray	316920	33385	2671	9160	303406	627	281.58	217.36
Afar	631	*	414	*	11602	158	268.00	195.26
Amhara	608588	369285	63645	4968	1905802	3063	285.90	217.03
Oromia	1312363	117259	266098	27530	2232353	2610	281.11	217.06
Somali	364	494	556	*	85427	240	254.00	219.00
Benishangul-Gumuz	13052	458	2555	*	104320	315	299.33	241.07
S.N.N.P.R	207324	31934	440533	124008	1555315	2168	294.44	206.70
Gambella	259	49	*	*	26310	19	244.88	203.26
Harari	3955	178	2875	-	6414		277.89	248.05
Addis Ababa	5859	*	1301	*	2184	5	279.64	223.88
Dire Dawa	452	117	437	-	12909	17	253.53	219.58

TABLE 6.63: NUMBER OF HOLDERS WHO PRACTICE BELG FROM 1999/2000 TO 2001/02 IN URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Holders who Practice Belg from 1999/2000 to 2001/02				
	Total	Male	%	Female	%
National	59428	49396	83.12	10033	16.88
Tigray	1187	932	78.52	255	21.48
Afar	69	69	100.00	-	-
Amhara	6310	5187	82.20	1123	17.80
Oromia	24256	20665	85.20	3591	14.80
Somali	1455	1111	76.36	344	23.64
Benishangul-Gumuz	104	100	96.15	*	*
S.N.N.P.R	24847	20425	82.20	4422	17.80
Gambella	343	237	69.10	106	30.90
Harari	104	67	64.42	37	35.58
Addis Ababa	567	441	77.78	126	22.22
Dire Dawa	186	162	87.10	24	12.90

TABLE 6.64: NUMBER OF HOLDERS WHO PRACTICE IRRIGATION BY SOURCE OF WATER IN URBAN AREAS, FOR PRIVATE HOLDINGS

Geographic Area	Holders who Practice Irrigation in Meher Season					
	River	Lake	Well	Tap Water	Others	Not Stated
National	10145	2555	745	2019	1107	1125
Tigray	1119	52	56	241	45	69
Afar	563	-	-	9	-	1
Amhara	2763	167	173	678	451	124
Oromia	3621	1205	407	655	200	583
Somali	241	13	7	95	57	16
Benishangul-Gumuz	147	57	*	33	29	*
S.N.N.P.R	896	996	30	212	145	275
Gambella	*	-	-	-	-	-
Harari	63	22	*	8	9	*
Addis Ababa	584	37	*	*	*	41
Dire Dawa	134	6	25	16	156	*

TABLE 6.59: NUMBER OF HOLDERS PARTICIPATING IN CROP SPECIFIC EXTENSION PACKAGE AND AREA UNDER CROP SPECIFIC EXTENSION PACKAGE, FOR RURAL AREAS IN MEHER SEASON

Geographic Area	All crops		Teff		Barley		Wheat	
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Holder	Hectare
National	553199	176045	87515	28869	43055	6558	81658	21160
Tigray	80935	26527	36881	9877	27996	3936	33860	5604
Afar	*	*	-	-	-	-	-	-
Amhara	144763	49103	30581	12100	7780	1343	24883	7202
Oromia	268451	89241	16355	5971	4888	979	18690	7481
Somali	1346	473	-	-	*	*	309	64
Benishangul-Gumuz	5563	2347	203	68	52	*	*	*
S.N.N.P.R	50317	7632	3449	831	1990	246	3719	757
Gambella	245	81	-	-	-	-	-	-
Harari	657	95	-	-	-	-	*	*
Addis Ababa	93	54	46	20	-	-	61	33
Dire Dawa	*	*	-	-	-	-	*	*

TABLE 6.59: CONTD.1

Geographic Area	Maize		Sorghum		Rice		Field peas	
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Holder	Hectare
National	357666	104516	33422	7354	766	172	7059	764
Tigray	20524	3864	8579	2460	-	-	2094	160
Afar	*	*	*	*	-	-	-	-
Amhara	88231	24413	5937	1455	699	156	2600	363
Oromia	224511	70151	13061	2419	*	*	1359	192
Somali	833	137	738	214	-	-	-	-
Benishangul-Gumuz	4885	1919	444	205	*	*	-	-
S.N.N.P.R	17709	3801	3625	445	-	-	1006	49
Gambella	181	58	73	*	*	*	-	-
Harari	206	*	565	58	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-
Dire Dawa	*	*	*	*	-	-	-	-

TABLE 6.59: CONTD.2

Geographic Area	Haricot beans		Chick peas		Lentils		Neug	
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Holder	Hectare
National	10874	920	3809	705	2150	336	2842	429
Tigray	206	*	1054	142	905	99	651	37
Afar	*	*	-	-	-	-	-	-
Amhara	445	22	1453	349	591	84	1453	253
Oromia	5887	595	1155	201	655	154	538	111
Somali	*	*	-	-	-	-	-	-
Benishangul-Gumuz	541	53	-	-	-	-	137	21
S.N.N.P.R	3673	236	*	*	-	-	*	*
Gambella	*	*	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-	-
Addis Ababa	-	-	*	*	-	-	-	-
Dire Dawa	*	*	-	-	-	-	-	-

TABLE 6.59: CONTD.3

Geographic Area	Linseed		Ground nuts		Sesame		Rapeseed	
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Holder	Hectare
National	2174	235	721	89	1972	479	9128	481
Tigray	818	64	-	-	102	*	*	*
Afar	-	-	*	*	*	*	-	-
Amhara	505	33	-	-	1268	305	6295	378
Oromia	732	137	464	59	291	19	2534	98
Somali	-	-	-	-	-	-	-	-
Benishangul-Gumuz	*	*	42	*	214	39	*	*
S.N.N.P.R	*	*	*	*	*	*	175	*
Gambella	-	-	-	-	*	*	-	-
Harari	-	-	128	*	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	*	*	-	-

TABLE 6.59: CONTD.4

Geographic Area	Other Grains		Tomatoes		Red Pepper		Onions	
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Holder	Hectare
National	1350	*	1473	73	6731	357	5429	173
Tigray	*	*	671	15	949	*	911	*
Afar	*	*	-	-	-	-	*	*
Amhara	522	292	*	*	3367	160	2027	100
Oromia	171	1	626	*	1894	53	1140	18
Somali	-	-	*	*	-	-	*	*
Benishangul-Gumuz	*	*	-	-	136	2	*	*
S.N.N.P.R	586	27	*	*	385	51	1282	13
Gambella	-	-	*	*	-	-	-	-
Harari	-	-	-	-	-	-	-	-
Addis Ababa	-	-	-	-	-	-	-	-
Dire Dawa	-	-	-	-	-	-	-	-

TABLE 6.59: CONTD.5

Geographic Area	Potatoes		Sweet potatoes		Enset		Other Permanent Crops	
	Holder	Hectare	Holder	Hectare	Holder	Hectare	Holder	Hectare
National	5395	220	5304	182	30976	1442	*	*
Tigray	1381	41	*	*	-	-	-	-
Afar	-	-	-	-	-	-	-	-
Amhara	1800	96	*	*	-	-	*	*
Oromia	1095	58	2141	91	9328	400	-	-
Somali	*	*	-	-	-	-	-	-
Benishangul-Gumuz	*	*	*	*	-	-	-	-
S.N.N.P.R	1015	23	2927	86	21601	1041	*	*
Gambella	-	-	*	*	*	*	-	-
Harari	*	*	*	*	-	-	-	-
Addis Ababa	*	*	-	-	-	-	-	-
Dire Dawa	-	-	*	*	-	-	-	-

**ANNEX TABLES PRESENTING ESTIMATES,
STANDARD ERRORS AND COEFFICIENTS OF VARIATION
FOR SELECTED FARM MANAGEMENT PRACTICES VARIABLES**

Annex Tables 6.1 and 6.2

TABLE 6.1: AREA UNDER FARM MANAGEMENT PRACTICES WITH THEIR STANDAD ERRORS AND COEFFICIENT OF VARIATION IN RURAL AREAS FOR MEHER SEASON

Type of Crop	Improved Seed Applied			Irrigation			Fertilizer Applied			Pesticide Applied		
	Hectare	S.E	C.V	Hectare	S.E	C.V	Hectare	S.E	C.V	Hectare	S.E	C.V
TOTAL	260614	5868	2	98702	3694	4	3428876	28189	1	730999	12707	2
Grain Crops	246712	5721	2	56524	2768	5	3071825	26781	1	719547	12678	2
Cereals	239029	5556	2	49824	2484	5	2842279	25395	1	704006	12498	2
Teff	9750	644	7	8486	895	11	922689	12769	1	299282	7490	3
Barley	3159	325	10	3809	451	12	326432	7776	2	74127	2889	4
Wheat	19359	926	5	3177	323	10	587104	10554	2	284241	7471	3
Maize	201605	5247	3	21955	1149	5	670393	9200	1	20632	1090	5
Sorghum	4034	534	13	11327	1172	10	190691	4306	2	12410	788	6
Finger millet	867	121	14	495	176	36	136640	5243	4	10117	1169	12
Oats ('Aja')	74	20	27	120	28	24	7522	460	6	3020	277	9
Rice	181	42	23	456	286	63	808	151	19	177	65	37
Pulses	5188	649	13	4231	532	13	172753	3087	2	11880	714	6
Horse beans	1388	130	9	864	105	12	96117	2104	2	3590	265	7
Field peas	751	99	13	247	50	20	32618	1168	4	5178	521	10
Haricot beans	1056	103	10	582	72	12	22840	983	4	756	149	20
Chick peas	1276	591	46	1226	169	14	9891	511	5	997	127	13
Lentils	279	51	18	361	137	38	3976	250	6	419	67	16
Vetch	260	60	23	811	315	39	3176	294	9	793	268	34
Soya	144	41	28	4	3	70	861	171	20	43	19	43
Fenugreek	34	9	28	99	23	24	2370	174	7	102	36	36
Gibto	-	-	-	38	39	102	903	142	16	4	4	98
Oil Seeds	1639	196	12	675	161	24	50134	2034	4	2752	281	10
Neug	379	68	18	293	140	48	24670	1640	7	380	72	19
Linseed	275	63	23	57	20	35	7513	445	6	2020	258	13
Ground nuts	82	32	39	75	30	40	3284	477	15	74	36	49
Sunflower	254	128	51	36	14	38	782	96	12	23	10	42
Sesame	322	78	24	158	65	41	3975	386	10	127	55	43
Rapeseed	327	54	16	55	14	25	9910	576	6	127	40	32
Other Grains	856	391	46	1793	569	32	6659	479	7	910	342	38
Vegetables	278	42	15	3200	287	9	42375	1405	3	1909	233	12
Lettuce	11	5	49	71	28	40	86	26	30	24	11	47
Head cabbage	30	7	22	236	95	41	336	103	30	57	27	47
Kale	23	6	25	170	25	15	8409	544	6	62	12	19
Tomatoes	77	25	32	752	149	20	895	182	20	357	114	32
Green peppers	14	6	43	453	51	11	1931	105	5	45	20	45
Red peppers	104	27	26	1452	196	13	26623	1150	4	1341	195	15
Swiss chard	7	2	31	10	3	27	49	15	31	-	-	56
Others	11	4	35	57	8	13	4046	503	12	22	6	29
Root Crops	783	127	16	7423	459	6	60901	1879	3	2876	363	13
Beet root	44	11	25	87	18	21	245	28	11	7	4	60
Carrot	86	18	21	139	26	19	380	54	14	2	1	55
Onions	349	116	33	2410	295	12	6132	426	7	837	211	25
Potatoes	116	24	21	2259	246	11	24607	1629	7	1522	275	18
Garlic	7	2	27	385	42	11	2644	190	7	24	10	43
Taro ('Godere')	29	9	32	60	11	19	9154	343	4	46	14	30
Sweet potatoes	149	34	22	1660	157	9	15640	504	3	347	98	28
Others	3	2	49	422	88	21	2098	309	15	90	38	42
Permanent Crops	12841	878	7	31555	1529	5	253774	3827	2	6667	557	8
Fruit Crops	454	68	15	5865	523	9	10615	321	3	165	71	43
Avocado	68	13	20	80	18	23	628	46	7	1	1	45
Bananas	95	15	16	3687	447	12	5398	217	4	19	4	23
Guava (Zeytuna)	94	42	44	298	48	16	416	34	8	5	2	38
Lemons	6	2	29	197	27	14	192	14	7	2	1	47
Mangoes	57	16	27	297	40	14	1110	105	9	4	2	51
Oranges	28	7	24	435	54	12	828	61	7	24	7	31
Papayas	76	23	30	468	61	13	792	50	6	21	15	70
Pineapples	-	-	99	-	-	79	8	3	35	-	-	-
Others	28	8	30	404	94	23	1241	105	8	88	69	78
Stimulant Crops	12086	870	7	21385	1042	5	90475	1811	2	5904	540	9
Chat	-	-	-	10830	612	6	40591	1089	3	4174	462	11
Coffee	12086	870	7	8494	647	8	40831	1288	3	1617	275	17
Hops	-	-	-	2060	123	6	9038	295	3	113	25	22
Others	-	-	-	-	-	98	16	13	84	-	-	-
Other Permanent Crops	302	51	17	4306	551	13	152684	3257	2	598	84	14
Enset	248	49	20	1066	147	14	148906	3250	2	515	75	15
Sugar Cane	30	8	28	3191	501	16	3385	321	9	74	33	45
Others	23	12	50	49	11	23	394	42	11	10	4	47

TABLE 6.2: AREA UNDER FARM MANAGEMENT PRACTICES WITH THEIR STANDAD ERRORS AND COEFFICIENT OF VARIATION IN URBAN AREAS, FOR MEHER SEASON

Type of Crop	Improved Seed Applied			Irrigation			Fertilizer Applied			Pesticide Applied		
	Hectare	S.E	C.V	Hectare	S.E	C.V	Hectare	S.E	C.V	Hectare	S.E	C.V
TOTAL	12882	635	5	5496	401	7	62755	938	2	31950	610	2
Grain Crops	10582	406	4	2396	194	8	54588	752	1	30422	585	2
Cereals	10188	399	4	2229	190	9	51813	728	1	29562	571	2
Teff	1129	123	11	482	176	36	16270	347	2	10730	331	3
Barley	250	23	9	103	15	14	5052	135	3	2865	122	4
Wheat	2201	101	5	114	12	11	17129	347	2	13540	340	3
Maize	6243	357	6	1146	57	5	10399	389	4	1315	83	6
Sorghum	292	50	17	363	28	8	1583	74	5	705	106	15
Finger millet	63	15	23	17	7	44	1215	83	7	266	61	23
Oats ('Aja')	5	2	53	2	1	48	153	17	11	132	30	23
Rice	6	3	44	3	1	35	11	3	31	9	3	34
Pulses	255	33	13	138	19	13	2235	90	4	526	36	7
Horse beans	39	7	18	10	2	21	843	45	5	142	22	15
Field peas	13	3	23	4	2	36	344	23	7	128	16	13
Haricot beans	160	31	19	49	16	33	679	45	7	100	19	19
Chick peas	20	5	27	27	6	21	112	17	15	77	9	12
Lentils	7	3	35	18	3	17	59	11	18	24	6	25
Vetch	5	1	22	29	4	15	51	8	16	38	5	14
Soya	9	4	48	-	-	-	74	44	60	-	-	-
Fenugreek	3	1	40	1	-	57	48	7	14	18	4	20
Gibto	-	-	-	-	-	70	23	19	82	-	-	-
Oil Seeds	124	50	40	15	6	39	394	81	20	288	105	36
Neug	64	44	68	4	2	58	156	70	45	14	6	39
Linseed	21	6	30	2	2	80	130	16	12	59	12	20
Ground nuts	3	1	42	2	1	39	24	5	20	1	1	43
Safflower	-	-	-	-	-	-	5	4	74	-	-	-
Sesame	37	22	61	7	5	72	27	8	32	211	104	49
Rapeseed	-	-	78	-	-	80	52	34	66	2	1	72
Other Grains	15	7	51	15	4	29	147	29	20	45	20	44
Vegetables	174	45	26	520	94	18	1028	130	13	352	46	13
Lettuce	9	4	40	34	13	39	31	13	41	2	1	30
Head cabbage	3	2	50	22	5	24	16	5	30	10	4	35
Kale	20	7	33	101	39	39	303	71	23	52	27	52
Tomatoes	70	26	37	221	32	14	192	32	17	205	33	16
Green peppers	1	-	56	22	4	20	16	4	23	13	4	30
Red peppers	21	6	26	29	4	13	379	71	19	67	14	20
Swiss chard	44	26	60	81	43	53	72	43	59	2	1	31
Others	5	3	74	10	7	68	18	10	55	1	1	85
Root Crops	316	168	53	776	218	28	1705	247	14	665	131	20
Beet root	11	6	61	14	7	47	14	7	46	3	2	70
Carrot	151	133	88	204	157	77	203	158	78	9	4	47
Onions	109	25	23	389	54	14	494	59	12	279	29	10
Potatoes	25	10	39	135	19	14	518	95	18	190	92	49
Garlic	6	2	36	14	4	29	31	9	27	4	2	44
Taro ('Godere')	1	-	48	6	4	68	155	29	19	-	-	57
Sweet potatoes	13	2	15	13	2	17	247	56	23	175	88	50
Others	-	-	94	1	-	52	43	19	43	4	4	83
Permanent Crops	1809	442	24	1804	185	10	5433	439	8	511	84	16
Fruit Crops	167	36	22	550	89	16	720	113	16	90	21	23
Avocado	32	14	42	58	30	52	252	87	34	-	-	55
Bananas	38	25	66	163	49	30	190	38	20	17	6	36
Guava (Zeytuna)	8	4	45	66	11	17	27	7	25	1	-	50
Lemons	6	3	50	38	17	44	22	16	71	10	6	56
Mangoes	19	7	34	57	7	12	85	11	13	6	2	28
Oranges	26	15	58	42	6	14	36	4	12	7	2	33
Papayas	24	6	26	104	25	24	80	16	20	39	14	37
Pineapples	-	-	87	-	-	70	-	-	61	-	-	68
Others	12	8	68	22	5	24	28	5	19	10	4	43
Stimulant Crops	1600	440	27	762	76	10	2268	268	12	397	79	20
Chat	-	-	-	346	55	16	524	72	14	218	57	26
Coffee	1592	440	28	316	26	8	1489	248	17	101	13	13
Hops	8	4	49	100	15	15	254	59	23	78	53	67
Others	-	-	-	-	-	-	-	-	-	-	-	-
Other Permanent Crops	43	7	17	492	84	17	2445	226	9	24	4	15
Enset	35	7	20	151	43	28	2073	116	6	8	2	19
Sugar Cane	7	2	34	326	72	22	365	194	53	15	3	21
Others	1	1	69	15	9	58	7	1	20	1	1	89

CHAPTER VII
SIZE, CHARACTERISTICS AND PURPOSE OF LIVESTOCK
AND USE OF LIVESTOCK PRODUCTS

1. INTRODUCTION

Ethiopia is one of the most populous countries in Africa, having an estimated population of about 67.2 million in July 2002 with annual growth rate of 2.9%. This growing population demands much better economic performance than in the past, at least to ensure food security and other basic needs. The dominant economic feature of the country is the agriculture sector of which livestock is a very important and essential component. The highlanders raise livestock together with crop cultivation for their livelihood whereas the lowlanders or the 'pastoralists' subsistence is based mainly on livestock and livestock products. Consequently, the government should give due attention to this sector in order to take advantage of its contribution to the economic growth and as a result to meet the needs of the expanding population.

The livestock sector has been contributing significant portion to the economy of Ethiopia, but still has great potential to assist the economic development of this country. It is well known that livestock products and by-products in the form of meat, milk, honey, eggs, cheese, and butter supply the needed animal protein that contribute to the improvement of the nutritional status of the people. Livestock also plays an important role in providing export commodities, such as live animals, hides, and skins to earn foreign exchanges to the country. On the other hand, draught animals provide power for the cultivation of the small holdings and for crop threshing virtually all over the country and are also essential modes of transport to take holders and their families long-distances, to convey their agricultural products to the market places and bring back their domestic necessities. Livestock as well confer a certain degree of security in times of crop failure, as they are a "near-cash" capital stock. Furthermore, livestock provides farmyard manure that is commonly applied to improve soil fertility and also used as a source of energy.

By virtue of the important role that the livestock sector plays in the economy of the country, formulation of development plan regarding the sector is vital. It is therefore imperative that livestock development plans should be formulated on the basis of reliable statistical data, and hence, timely and accurate livestock data are required for the formulation, implementation, monitoring, and evaluation of development plan and program in the sector. These livestock data can be generated more often than not using surveys and censuses. The Central Statistical Authority (CSA) has been generating livestock data through sample surveys since 1981 (1973 E.C.). However, based on the results of these surveys, CSA was not able to satisfy the growing demand of the data users regarding the sector. By realizing this fact, CSA proposed and conducted the first agricultural census in the year 2001/02.

As mentioned earlier in Chapter II, agricultural censuses are classified into two categories: censuses conducted by complete enumeration or conducted by sample enumeration. In agricultural censuses conducted by complete enumeration, data are collected from all holders and the result for each variable is obtained by totaling the values of the respective variable from all holders. On the other hand, agricultural censuses conducted based on sample enumeration are probability sample surveys for which a sample is selected and the method of estimation for each census variable permits establishing its statistical precision. Therefore, conducting complete enumeration is more expensive, time consuming and requires large number of personnel. Likewise, quantity of data to be processed is very large (FAO, 1996). By considering these realities and the economic condition of the country, the sample enumeration was favored.

The livestock census was carried out as part of the agricultural census. The general objective of the livestock census is to establish benchmark data that could be used for development planning and policy formulation regarding the sector, and the specific objectives are to purvey quantitative information on the size and characteristics of the livestock in rural and urban areas at wereda level, and to provide estimates on size and characteristics of livestock for pastoral areas and commercial farms. In order to meet

these objectives, data on: livestock number by type, age, sex, purpose and breed; livestock products particularly milk, egg, and honey; livestock diseases and vaccination; livestock product utilization; and animal feed were collected from sampled agricultural households in rural and urban areas as well as from all commercial farms. In addition, these same data will be collected from pastoral areas in the near future.

The expected users of these data are government organizations involved in planning purposes, individuals or firms raising livestock, non-governmental organizations that provide technical and financial assistance, international organizations which are interested in livestock, and research organizations.

In this chapter of the report: estimates of livestock that include cattle, sheep, goats, draught animals (horses, mules, asses and camels), poultry and beehives were made based on the information obtained from the holders within the sampled agricultural households both in rural and urban areas of the country as to the reference date (February 8, 2002) and reference period (February 9, 2001 to February 8, 2002). Thus, the results obtained from the livestock census for the rural and urban areas of the country as well as brief discussions made on the results are presented in this chapter. Also the census results at zonal and wereda levels are presented in statistical Tables 7.1–7.36. Moreover, the estimates, standard errors (SE), and coefficients of variation (CV) are given in Annex Tables 7.1-7.10 for some relevant variables.

2. LIVESTOCK NUMBER BY BREED, AGE, SEX, AND PURPOSE

This livestock census is the first of its kind in the nation to supply data on the size and characteristics of livestock for rural and urban areas and commercial farms at wereda level, and also for pastoral areas though the census not yet conducted. The livestock census that was carried-out has covered both the rural and urban areas of the country on sample basis. Commercial farms that are found in the country were also covered on complete enumeration basis though the results are not presented here.

The total number of each type of livestock as well as the numbers disaggregated by breed, age, sex, and purpose possessed by holders on the reference date (February 8, 2002), irrespective of ownership, were recorded by interviewing each holder in the sampled agricultural households both in rural and urban areas of the country. The numbers also include the livestock belonging to the holding but temporarily away or in transit at the time of the enumeration.

2.1 Cattle Population

The estimates of cattle for rural and urban areas at country level are presented in Summary Table VII.1. As shown on the table, the total cattle population for the country is estimated to be 41,527,142. Out of this total cattle population, the female cattle constitute about 56.2 percent (23,336,163) and the remaining 43.8 percent (18,190,980) are male cattle. The majority (97.9 percent) of the cattle population is found in rural areas, while very small proportion is accounted for urban areas (2.1 percent).

Regarding age groups, the majority of the cattle population (that is about 59.8 percent) is in the 3 years and under 10 years age category, with about 34.7 percent female and about 25.1 percent male. Moreover, about 36 percent are under three years and small portion, which is 4.2 percent, is over 10 years (also see Fig VII.1).

On the other hand, according to the results obtained, 99.4 percent of the total cattle in the country are local breeds and the remaining are hybrid and exotic breeds that accounted for about 0.5 percent and 0.1 percent, respectively.

The distribution of cattle by purpose is indicated in the same table. Among cattle aged 3 years and under 10 years, those used for draught purposes accounted for 38.3 percent and the percentage share of beef cattle is the lowest that is about one percent.

SUMMARY TABLE VII.1: Estimated Number of Cattle by Sex, Age, Breed, and Purpose for Rural and Urban Holdings

Age, Breed, and Purpose	Cattle on Both Rural and Urban Holdings						Cattle on Rural Holdings						Cattle on Urban Holdings					
	Total		Male		Female		Total		Male		Female		Total		Male		Female	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total	41,527,142	100.0	18,190,980	43.8	23,336,163	56.2	40,638,801	97.9	17,869,756	43.0	22,769,046	54.8	888,341	2.1	321,224	0.8	567,117	1.4
Under 6 months	4,762,312	11.5	2,290,851	5.5	2,471,461	6.0	4,636,477	11.2	2,229,034	5.4	2,407,443	5.8	125,835	0.3	61,817	0.1	64,018	0.2
6 months - under 1 year	3,791,021	9.1	1,796,871	4.3	1,994,150	4.8	3,696,682	8.9	1,752,186	4.2	1,944,496	4.7	94,339	0.2	44,685	0.1	49,654	0.1
1 year - under 3 years	6,409,195	15.4	2,845,073	6.9	3,564,122	8.6	6,270,902	15.1	2,786,677	6.7	3,484,224	8.4	138,293	0.3	58,396	0.1	79,898	0.2
3 years - under 10 years	24,818,995	59.8	10,411,091	25.1	14,407,904	34.7	24,311,830	58.5	10,262,454	24.7	14,049,376	33.8	507,165	1.2	148,637	0.4	358,528	0.9
10 years and older	1,745,619	4.2	847,094	2.0	898,525	2.2	1,722,911	4.1	839,405	2.0	883,506	2.1	22,708	0.1	7,689	0.0	15,019	0.0
Cattle by Breed																		
Total	41,527,142	100.0	18,190,980	43.8	23,336,163	56.2	40,638,801	97.9	17,869,756	42.9	22,769,046	54.8	888,341	2.1	321,224	0.8	567,117	1.4
Indigenous	41,281,496	99.4	18,104,951	43.6	23,176,545	55.8	40,448,721	97.4	17,795,873	0.2	22,652,848	54.5	832,775	2.0	309,078	0.7	523,697	1.3
Hybrid	189,555	0.5	71,502	0.2	118,054	0.3	176,526	0.4	69,148	0.0	107,378	0.3	13,029	0.0	2,354	0.0	10,676	0.0
Exotic	56,091	0.1	14,527	0.0	41,564	0.1	13,554	0.0	4,735	43.0	8,819	0.0	42,537	0.1	9,792	0.0	32,745	0.1
Aged 3 - 10 Years by Purpose																		
Total	24,818,995	100.0	10,411,091	41.9	14,407,904	58.1	24,311,830	98.0	10,262,454	41.3	14,049,376	56.6	507,165	2.0	148,637	0.6	358,528	1.4
Used for Milk	8,310,427	33.5			8,310,427	33.5	8,066,601	32.5			8,066,601	32.5	243,826	1.0			243,826	1.0
Used for Draught	9,502,680	38.3	9,322,045	37.6	180,635	0.7	9,378,659	37.8	9,199,795	37.1	178,864	0.7	124,021	0.5	122,250	0.5	1,771	0.0
Used for Beef	322,710	1.3	248,456	1.0	74,254	0.3	309,909	1.2	238,192	1.0	71,717	0.3	12,801	0.1	10,264	0.0	2,537	0.0
Used for Breeding	5,823,437	23.5	606,618	2.4	5,216,820	21.0	5,716,998	23.0	596,796	2.4	5,120,202	20.6	106,439	0.4	9,822	0.0	96,618	0.4
Used for Other	859,741	3.5	233,972	0.9	625,769	2.5	839,663	3.4	227,671	0.9	611,992	2.5	20,078	0.1	6,301	0.0	13,777	0.1
Dairy Animals																		
Dairy Cows	8,310,427	100.0			8,310,427	100.0	8,066,601	97.1			8,066,601	97.1	243,826	2.9			243,826	2.9
Milking Cows	9,307,582	100.0			9,307,582	100.0	9,048,567	97.2			9,048,567	97.2	259,015	2.8			259,015	2.8

FIGURE VII.1 DISTRIBUTION OF CATTLE BY AGE AND SEX

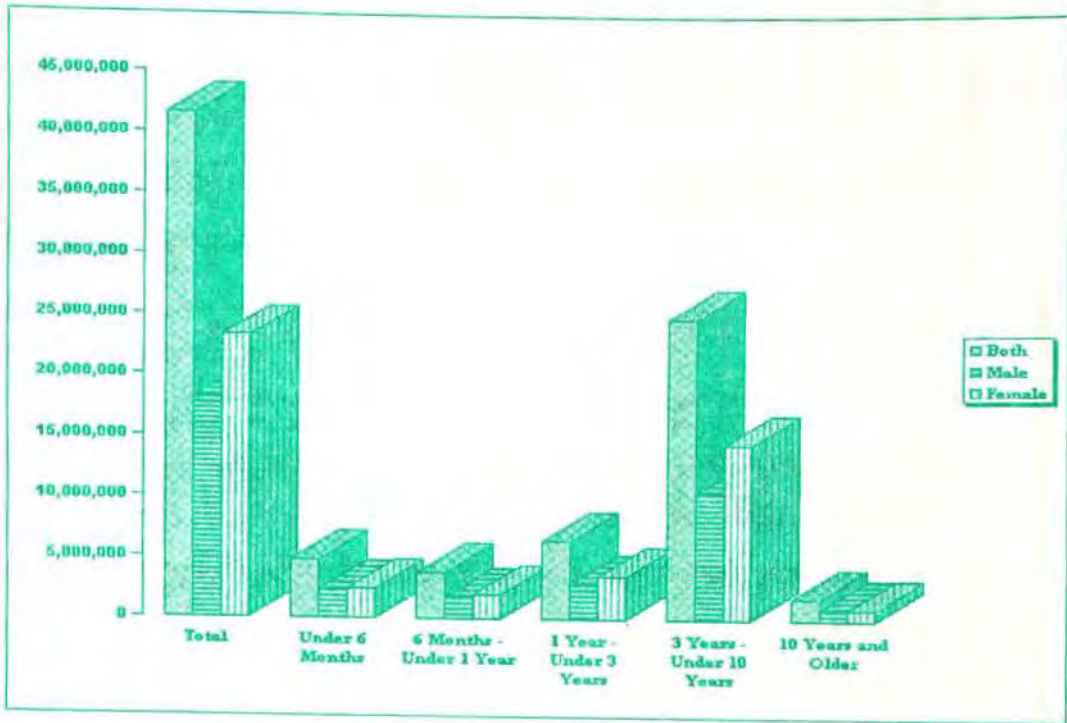
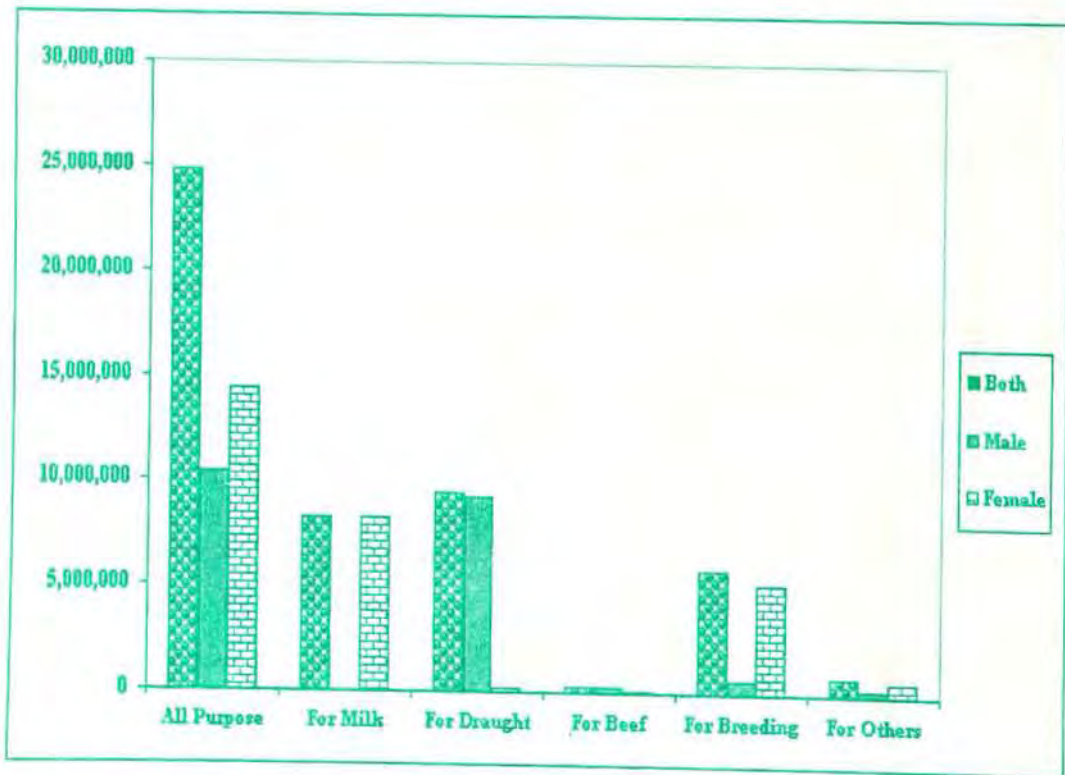


FIGURE VII.2 DISTRIBUTION OF CATTLE AGED 3 AND UNDER 10 YEARS BY PURPOSE, AND SEX



Beef cattle here refer to all cattle reared exclusively for meat that is used either for home consumption or for sale. Further, the number of dairy-cows¹ is estimated to be about 8,310,427 and milking-cows² are about 9,307,582.

As to regional level cattle distribution, Oromia Region took the major share, compared with the other regions in the country, that is 43.43 percent. Amhara and S.N.N.P. also contributed significant portions, 25.32 percent, and 21.27 percent in that order (See Figure VII.9). The rest lies between 0.05 percent and 6.5 percent. Moreover, cattle population by sex, age, breed, and purpose are estimated for each region and presented in the Statistical Tables given at the end of this chapter.

2.2 Sheep And Goat Population

The estimated numbers and percentage distributions of sheep and goats in the sedentary areas of the country by rural and urban areas are given in Summary Table VII.2. As pointed out in this table, about 14,655,565 sheep are estimated to be found in the country, out of which about 73.4 percent are females, and about 26.6 percent are males. Moreover, according to the census result, the number of goats reported in the country is estimated to be about 13,661,562. Out of these total goats, 68.8 percent are females and 31.2 percent are males (See Summary Table VII.2 and Fig. VII.3).

Among these totals reported in the country, 97.7 percent of the sheep and 98.6 percent of the goats are found in the rural areas. Urban areas accounted for only 2.3 percent and 1.4 percent of the sheep and goats, respectively.

Pertaining to the age distribution of both the sheep and the goats, the largest portions are in the age group of two years and older (49.5 percent and about 46.7 percent, in that

¹A Dairy Cow refers to a cow that is primarily kept for milk and has been milked previously or was being milked at the time of enumeration or has never been milked before but expected to be milked in the future or pregnant at the time of enumeration.

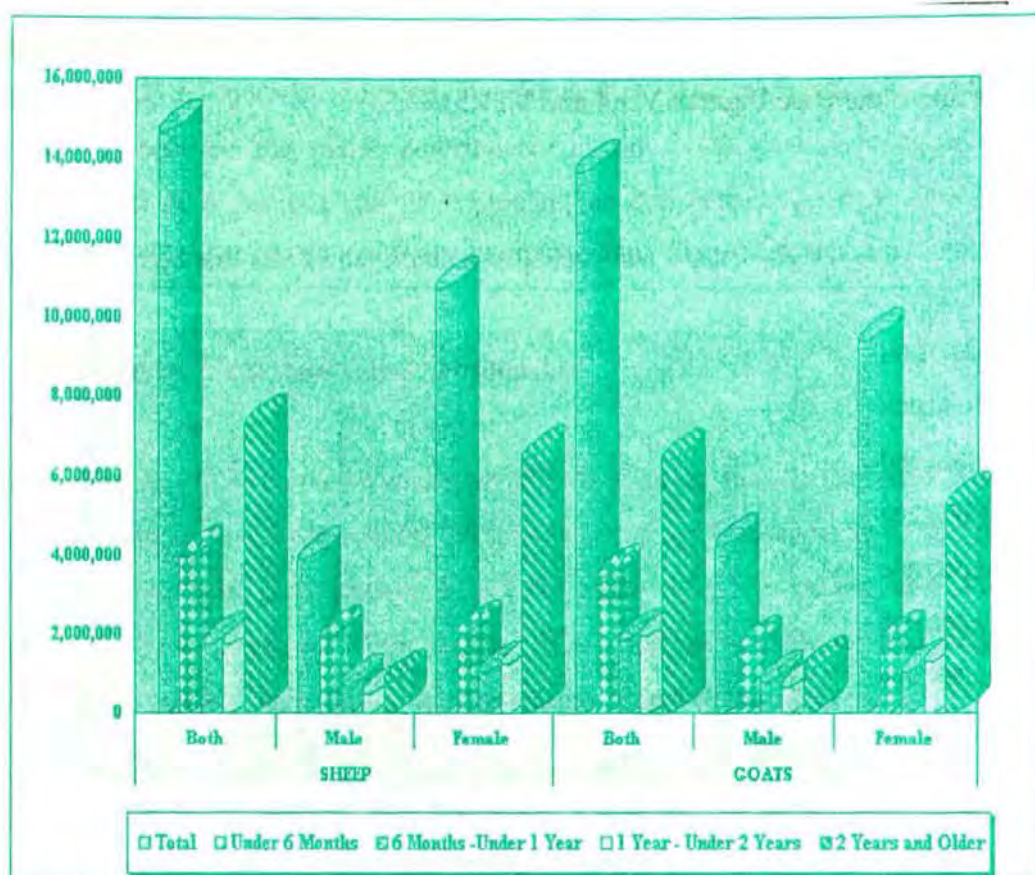
²A Milking Cow refers to any type of cow that actually milked during the reference period (Feb. 9, 2001 to Feb. 8, 2002).

SUMMARY TABLE VII.2: Estimated Number of Sheep and Goats by Sex, Age, Breed, and Purpose for Rural and Urban Holdings

Age, Breed, and Purpose	Both Rural and Urban Holdings						Rural Holdings						Urban Holdings					
	Total		Male		Female		Total		Male		Female		Total		Male		Female	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Sheep	14,655,565	100.0	3,901,054	26.6	10,754,512	73.4	14,321,787	97.7	3,792,618	25.9	10,529,169	71.8	333,778	2.3	108,436	0.7	225,343	1.5
Under 6 months.....	3,933,747	26.8	1,902,873	13.0	2,030,873	13.9	3,849,472	26.3	1,859,917	12.7	1,989,554	13.6	84,275	0.6	42,956	0.3	41,319	0.3
6 months - under 1 year.....	1,721,696	11.7	700,544	4.8	1,021,151	7.0	1,679,052	11.5	679,412	4.6	999,639	6.8	42,644	0.3	21,132	0.1	21,512	0.1
1 year - under 2 years.....	1,740,507	11.9	490,367	3.3	1,250,141	8.5	1,698,579	11.6	473,538	3.2	1,225,042	8.4	41,928	0.3	16,829	0.1	25,099	0.2
2 years and older.....	7,259,617	49.5	807,270	5.5	6,452,347	44.0	7,094,685	48.4	779,751	5.3	6,314,934	43.1	164,932	1.1	27,519	0.2	137,413	0.9
Sheep by Breed																		
Total.....	14,655,565	100.0	3,901,054	26.6	10,754,512	73.4	14,321,787	97.7	3,792,618	25.9	10,529,169	71.8	333,778	2.3	108,436	0.7	225,343	1.5
Indigenous.....	14,637,545	99.9	3,895,731	26.6	10,741,815	73.3	14,305,644	97.6	3,787,859	25.8	10,517,786	71.8	331,901	2.3	107,872	0.7	224,029	1.5
Hybrid.....	12,541	0.1	3,790	0.0	8,750	0.1	11,427	0.1	3,529	0.0	7,897	0.1	1,114	0.0	261	0.0	853	0.0
Exotic.....	5,480	0.0	1,533	0.0	3,948	0.0	4,716	0.0	1,230	0.0	3,487	0.0	764	0.0	303	0.0	461	0.0
Sheep Aged 2 Years and Older by Purpose																		
Total.....	7,259,617	100.0	807,270	11.1	6,452,347	88.9	7,094,685	97.7	779,751	10.7	6,314,934	87.0	164,932	2.3	27,519	0.4	137,413	1.9
Used for Mutton.....	362,029	5.0	292,060	4.0	69,969	1.0	344,199	4.7	276,386	3.8	67,814	0.9	17,830	0.2	15,674	0.2	2,155	0.0
Used for Wool.....	38,619	0.5	5,443	0.1	33,176	0.5	37,699	0.5	5,333	0.1	32,366	0.4	920	0.0	110	0.0	810	0.0
Used for Breeding.....	6,733,357	92.8	446,366	6.1	6,286,991	86.6	6,589,206	90.8	435,989	6.0	6,153,217	84.8	144,151	2.0	10,377	0.1	133,774	1.8
Used for Other.....	125,611	1.7	63,401	0.9	62,211	0.9	123,581	1.7	62,043	0.9	61,538	0.8	2,030	0.0	1,358	0.0	673	0.0
Total Goats	13,661,562	100.0	4,264,351	31.2	9,397,210	68.8	13,464,825	98.6	4,200,792	30.7	9,264,033	67.8	196,737	1.4	63,559	0.5	133,177	1.0
Under 6 months.....	3,462,679	25.3	1,665,462	12.2	1,797,217	13.2	3,415,350	25.0	1,641,626	12.0	1,773,724	13.0	47,329	0.3	23,836	0.2	23,493	0.2
6 months - under 1 year.....	1,848,082	13.5	793,170	5.8	1,054,913	7.7	1,821,589	13.3	781,279	5.7	1,040,310	7.6	26,493	0.2	11,891	0.1	14,603	0.1
1 year - under 2 years.....	1,969,141	14.4	669,753	4.9	1,299,388	9.5	1,941,585	14.2	659,905	4.8	1,281,680	9.4	27,556	0.2	9,848	0.1	17,708	0.1
2 years and older.....	6,381,659	46.7	1,135,966	8.3	5,245,693	38.4	6,286,301	46.0	1,117,982	8.2	5,168,319	37.8	95,358	0.7	17,984	0.1	77,374	0.6
Goats by Breed																		
Total.....	13,661,562	100.0	4,264,351	31.2	9,397,210	68.8	13,464,825	98.6	4,200,792	30.7	9,264,033	67.8	196,737	1.4	63,559	0.5	133,177	1.0
Indigenous.....	13,659,457	100.0	4,263,566	31.2	9,395,890	68.8	13,462,910	98.5	4,200,051	30.7	9,262,859	67.8	196,547	1.4	63,515	0.5	133,031	1.0
Hybrid.....	1,249	0.0	619	0.0	630	0.0	1,181	0.0	596	0.0	585	0.0	68	0.0	23	0.0	45	0.0
Exotic.....	856*	0.0	166*	0.0	690*	0.0	734*	0.0	145*	0.0	589*	0.0	122*	0.0	21*	0.0	101*	0.0
Goats Aged 2 Years and Older by Purpose																		
Total.....	6,381,659	100.0	1,135,966	17.8	5,245,693	82.2	6,286,301	98.5	1,117,982	17.5	5,168,319	81.0	95,358	1.5	17,984	0.3	77,374	1.2
Used for Milk.....	675,732	10.6	675,732	10.6	675,732	10.6	666,101	10.4	666,101	10.4	666,101	10.4	9,631	0.2	9,631	0.2	9,631	0.2
Used for Meat.....	529,498	8.3	458,732	7.2	70,766	1.1	520,023	8.1	450,549	7.1	69,474	1.1	9,475	0.1	8,183	0.1	1,292	0.0
Used for Breeding.....	5,070,098	79.4	618,442	9.7	4,451,657	69.8	4,995,019	78.3	609,385	9.5	4,385,635	68.7	75,079	1.2	9,057	0.1	66,022	1.0
Used for Other.....	106,330	1.7	58,793	0.9	47,538	0.7	105,157	1.6	58,049	0.9	47,109	0.7	1,173	0.0	744	0.0	429	0.0

* Their CVs are greater than 50 percent

FIGURE VII.3 DISTRIBUTION OF SHEEP AND GOATS BY AGE AND SEX



order), followed by the young stock under six months for both sheep and goats, that is about 26.8 percent and 25.3 percent, respectively (See Figure VII.3).

With respect to breed, almost all of the sheep and the goats are indigenous (99.9 percent and nearly 100 percent, in that order).

Summary Table VII.2 also discloses the numbers and percentages of sheep and goats raised for different purposes in the country. The percentages of both sheep and goats kept for mutton and meat are significantly higher for males. Moreover, the data reveals that female sheep and female goats are primarily kept for breeding purposes. Among the sheep flock two years and older, 6,733,357 (92.8 percent) are kept for breeding; about five percent for mutton and only half a percent of the sheep were kept for wool production. Likewise, amid the goat population aged two years and older,

goats kept for breeding accounted for about 5,070,098 percent (79.4) while goats kept for meat accounted for about 8.3 percent. The number of goats kept for milk at country level is estimated to be 675,732, which is 10.6 percent of the total goats aged two years and older (See Figures VII.4 and V11.5).

FIGURE VII.4 DISTRIBUTION OF SHEEP AGED 2 YEARS AND OLDER BY SEX, AND PURPOSE

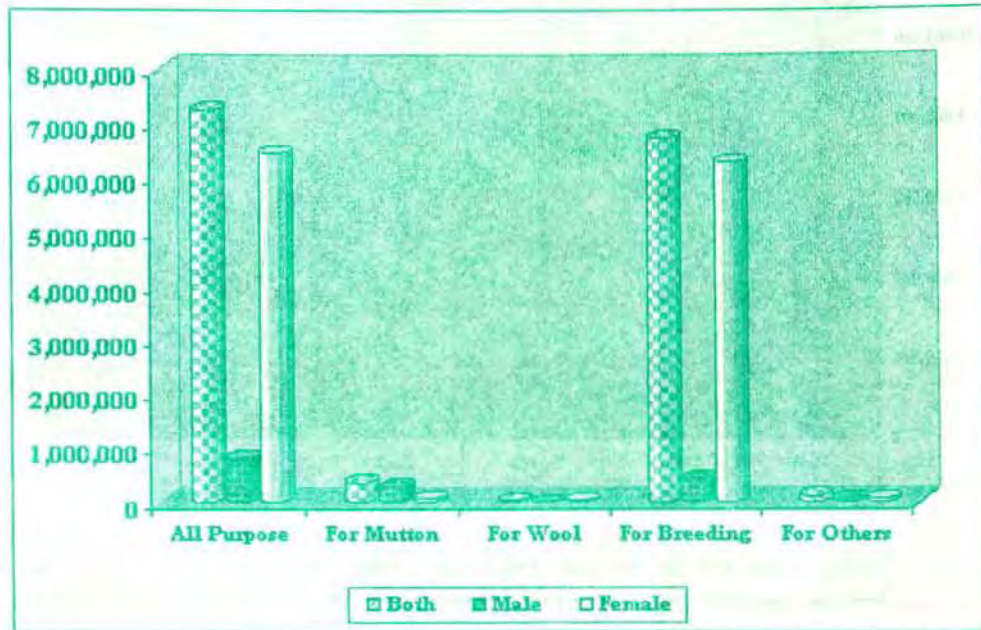
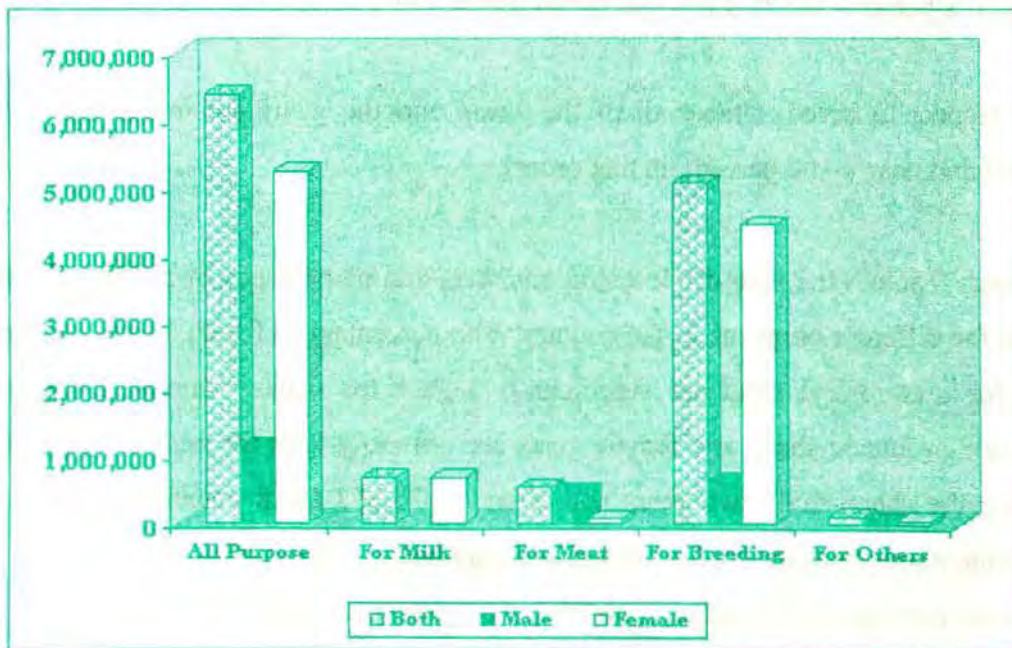


FIGURE VII.5 DISTRIBUTION OF GOATS AGED 2 YEARS AND OLDER BY SEX, AND PURPOSE



The numbers and percentage distributions of sheep and goats at regional level are given in the Statistical Tables. Accordingly, Amhara, Oromia, and S.N.N.P. Regions reported considerable portions of the sheep population, which are 36.3 percent, 32.01 percent, and 21.63 percent, respectively. Regarding goat population, Oromia and Amhara Regions are the major contributors to the 2002 goat population of the country, about 30.6 percent and 27.9 percent, in that order. S.N.N.P. and Tigray Regions also reported substantial number of goats (See Figure VII.9).

2.3 Horse, Asses, Mule And Camel Population

Summary Table VII.3 shows the estimates of horses, asses, mules, and camels for the rural and urban areas of the country for private holdings. According to the census result, there are 1,504,208 horses, 3,962,969 asses, 354,120 mules, and 447,842 camels in the sedentary areas of the country. The result as well shows that very high proportions of horses, asses, mules, and camels are found in the rural areas.

As indicated in the same table, asses are the overwhelming majority in the country compared with the other draught animals. Out of the total ass population in the country, 53.7 percent are females and the remaining 46.3 percent are males. With respect to age distribution, the majorities of the horses, asses and mules are of the age group 3 years and older. Furthermore, 72.8 percent of the camels are of the age group 4 years and older.

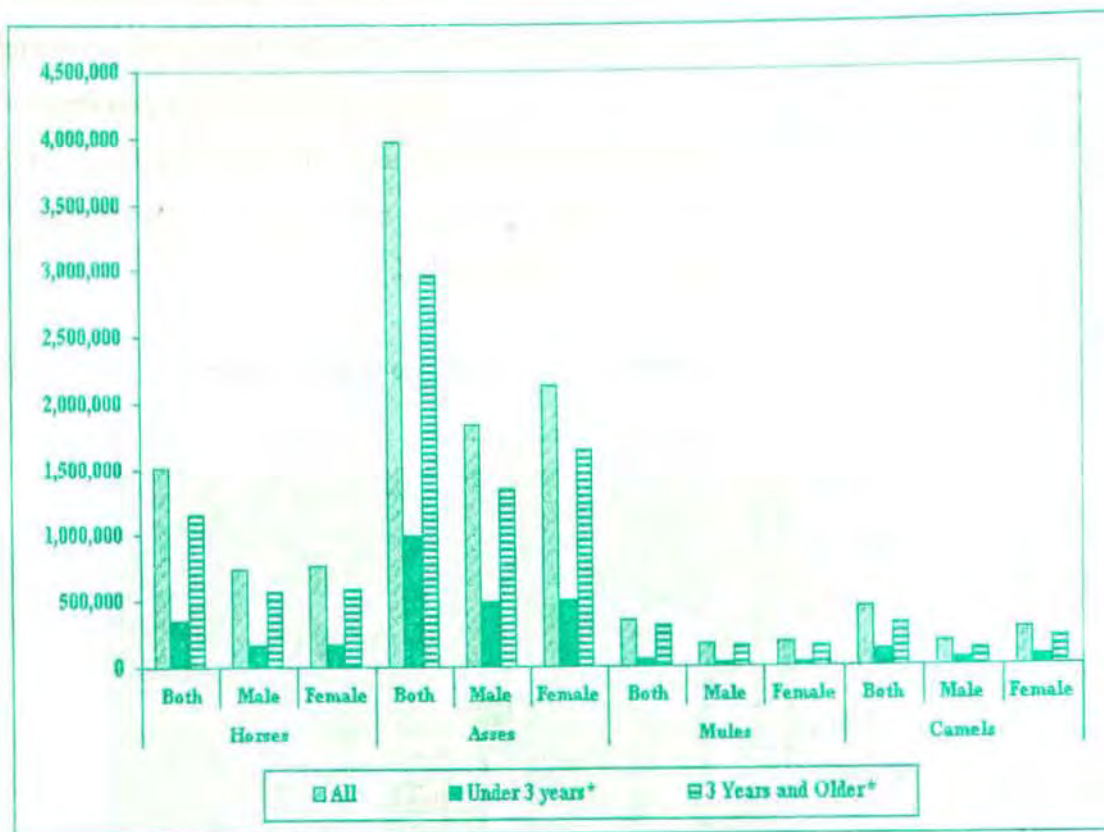
The estimates of these animals (aged 4 years and older for camels and aged 3 years and older for others) by sex and purpose are also given in Summary Table VII.3. As indicated in the table, among the horses aged 3 years and older, 843,656 (73 percent) were used for transportation, 160,941 (13.9 percent) were used for draught, and the remaining 151,577 (13.1 percent) were used for other purposes. With regard to asses, about 78 percent were used for transportation whereas about 19 percent of them were used for draught purposes and only 3.3 percent of them were used for other purposes.

SUMMARY TABLE VII.3: Estimated Number of Horses, Asses, Mules, and Camels by Sex, Age, and Purpose for Rural and Urban Holdings

Age, Breed, and Purpose	Both Rural and Urban Holdings						Rural Holdings						Urban Holdings					
	Total		Male		Female		Total		Male		Female		Total		Male		Female	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Horses	1,504,208	100.0	741,935	49.3	762,273	50.7	1,483,428	98.6	727,405	48.4	756,023	50.3	20,780	1.4	14,530	1.0	6,250	0.4
Under 3 Years	348,035	23.1	174,600	11.6	173,436	11.5	345,504	23.0	173,256	11.5	172,248	11.5	2,531	0.2	1,344	0.1	1,188	0.1
3 years and older	1,156,173	76.9	567,334	37.7	588,838	39.1	1,137,924	75.6	554,148	36.8	583,776	38.8	18,249	1.2	13,186	0.9	5,062	0.3
Horses Aged 3 Years and Older by Purpose																		
All Uses	1,156,173	100.0	567,334	49.1	588,838	50.9	1,137,924	98.4	554,148	47.9	583,776	50.5	18,249	1.6	13,186	1.1	5,062	0.4
Transportation	843,656	73.0	485,639	42.0	358,017	31.0	828,326	71.6	473,543	41.0	354,783	30.7	15,330	1.3	12,096	1.0	3,234	0.3
Draught	160,941	13.9	72,723	6.3	88,218	7.6	159,746	13.8	72,086	6.2	87,660	7.6	1,195	0.1	637	0.1	558	0.0
Other Uses	151,577	13.1	8,974	0.8	142,603	12.3	149,853	13.0	8,520	0.7	141,333	12.2	1,724	0.1	454	0.0	1,270	0.1
Total Asses	3,962,969	100.0	1,835,996	46.3	2,126,973	53.7	3,901,201	98.4	1,794,517	45.3	2,106,684	53.2	61,768	1.6	41,479	1.0	20,289	0.5
Under 3 Years	993,814	25.1	495,078	12.5	498,736	12.6	984,715	24.8	490,288	12.4	494,427	12.5	9,099	0.2	4,790	0.1	4,309	0.1
3 years and older	2,969,154	74.9	1,340,918	33.8	1,628,237	41.1	2,916,485	73.6	1,304,229	32.9	1,612,257	40.7	52,669	1.3	36,689	0.9	15,980	0.4
Asses Aged 3 Years and Older by Purpose																		
All Uses	2,969,154	100.0	1,340,918	45.2	1,628,237	54.8	2,916,485	98.2	1,304,229	43.9	1,612,257	54.3	52,669	1.8	36,689	1.2	15,980	0.5
Transportation	2,319,711	78.1	1,066,646	35.9	1,253,066	42.2	2,276,593	76.7	1,030,369	34.9	1,240,224	41.8	43,118	1.5	30,277	1.0	12,842	0.4
Draught	550,781	18.6	242,231	8.2	308,549	10.4	543,594	18.3	237,561	8.0	306,032	10.3	7,187	0.2	4,670	0.2	2,517	0.1
Other Uses	98,663	3.3	32,040	1.1	66,621	2.2	96,299	3.2	30,298	1.0	66,000	2.2	2,364	0.1	1,742	0.1	621	0.0
Total Mules	354,120	100.0	173,749	49.1	180,371	50.9	349,330	98.6	171,229	48.4	178,101	50.3	4,790	1.4	2,520	0.7	2,270	0.6
Under 3 Years	49,783	14.1	22,773	6.4	27,009	7.6	49,450	14.0	22,597	6.4	26,853	7.6	333	0.1	176	0.0	156	0.0
3 years and older	304,338	85.9	150,976	42.6	153,362	43.3	299,880	84.7	148,632	42.0	151,248	42.7	4,458	1.3	2,344	0.7	2,114	0.6
Mules Aged 3 Years and Older by Purpose																		
All Uses	304,338	100.0	150,976	49.6	153,362	50.4	299,880	98.5	148,632	48.8	151,248	49.7	4,458	1.5	2,344	0.8	2,114	0.7
Transportation	284,563	93.5	139,565	45.9	144,999	47.6	280,555	92.2	137,483	45.2	143,072	47.0	4,008	1.3	2,082	0.7	1,927	0.6
Draught	15,865	5.2	9,898	3.3	5,968	2.0	15,715	5.2	9,812	3.2	5,903	1.9	150	0.0	86	0.0	65	0.0
Other Uses	3,909	1.3	1,513	0.5	2,396	0.8	3,610	1.2	1,336	0.4	2,274	0.7	299	0.1	177	0.1	122	0.0
Total Camels	447,842	100.0	176,203	39.3	271,639	60.7	440,199	98.3	173,293	38.7	266,906	59.6	7,643	1.7	2,910	0.6	4,733	1.1
Under 4 Years	121,692	27.2	53,826	12.0	67,866	15.2	120,021	26.8	53,248	11.9	66,773	14.9	1,671	0.4	578	0.1	1,093	0.2
4 years and older	326,150	72.8	122,376	27.3	203,774	45.5	320,178	71.5	120,044	26.8	200,134	44.7	5,972	1.3	2,332	0.5	3,640	0.8
Camels Aged 4 Years and Older by Purpose																		
All Uses	326,150	100.0	122,376	37.5	203,774	62.5	320,178	98.2	120,044	36.8	200,134	61.4	5,972	1.8	2,332	0.7	3,640	1.1
Meat	7,456	2.3	4,373	1.3	3,083	0.9	7,352	2.3	4,305	1.3	3,047	0.9	104	0.0	68	0.0	36*	0.0
Milk	160,264	49.1			160,264	49.1	157,205	48.2			157,205	48.2	3,059	0.9			3,059	0.9
Transportation	114,768	35.2	103,484	31.7	11,284	3.5	112,834	34.6	101,674	31.2	11,160	3.4	1,934	0.6	1,810	0.6	124	0.0
Draught	4,188	1.3	3,287	1.0	900	0.3	4,012	1.2	3,122	1.0	889	0.3	176	0.1	165	0.1	11*	0.0
Other Uses	39,475	12.1	11,232	3.4	28,243	8.7	38,776	11.9	10,943	3.4	27,833	8.5	699	0.2	289	0.1	410	0.1

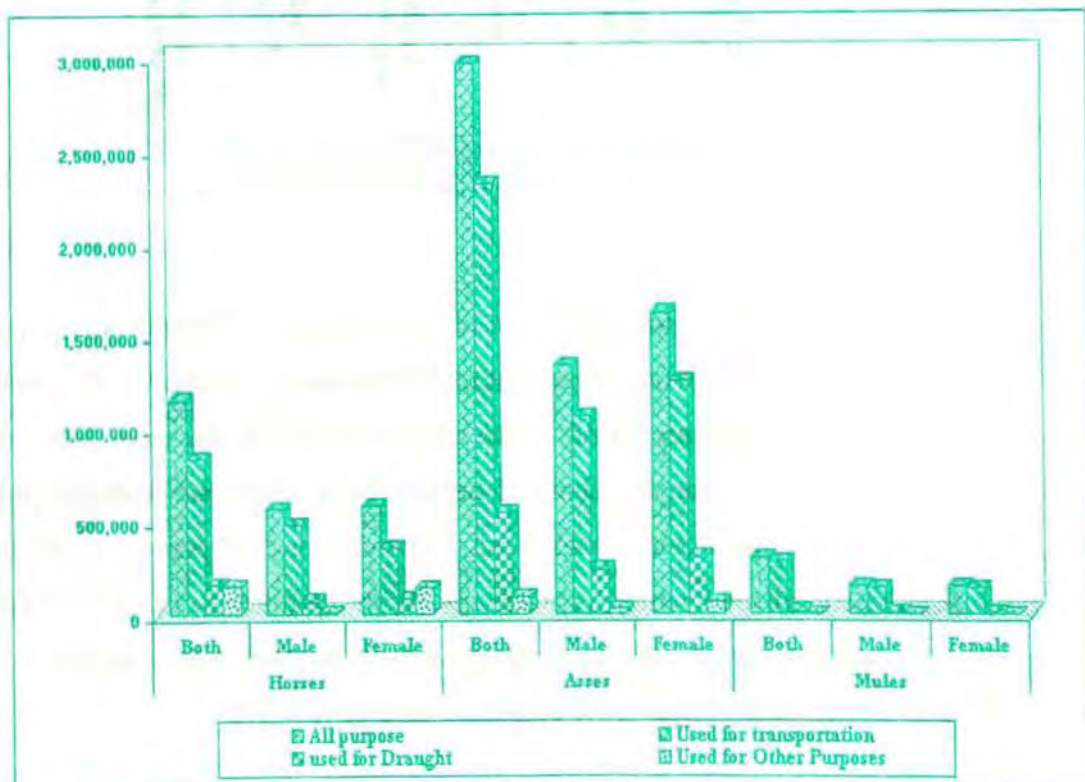
* Their CVs are greater than 50 percent

FIGURE VII.6 DISTRIBUTION OF HORSES, ASSES, MULES, AND CAMELS BY AGE AND SEX



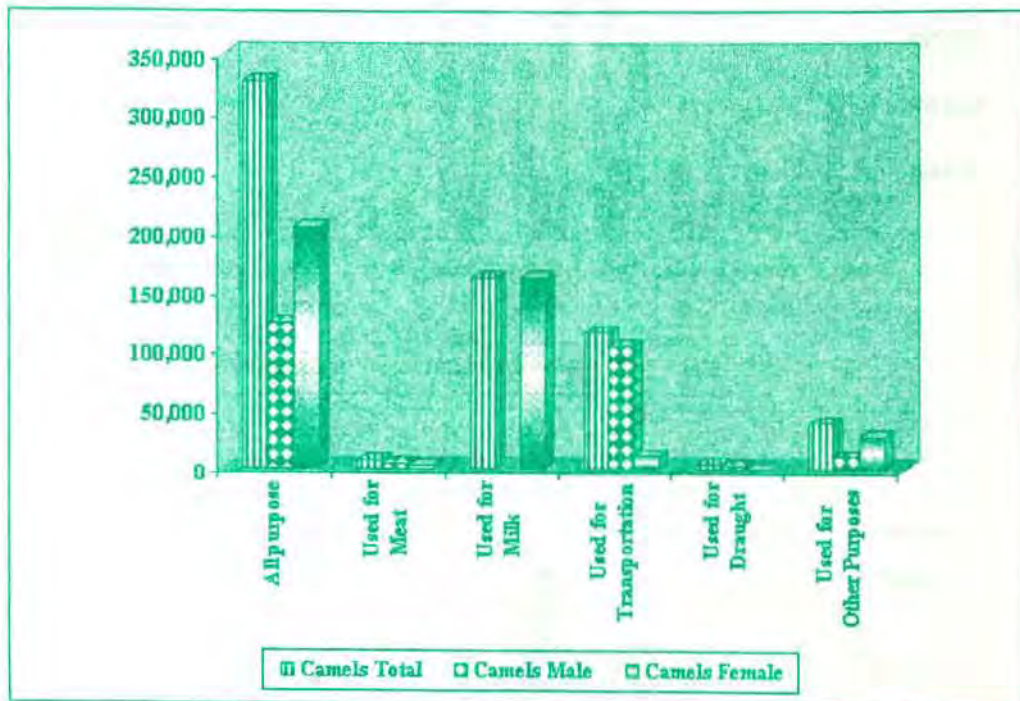
* Note that for camels the age Categories are under 4 years and 4 years & older

FIGURE VII.7 DISTRIBUTION OF HORSES, ASSES, AND MULES BY PURPOSE AND SEX



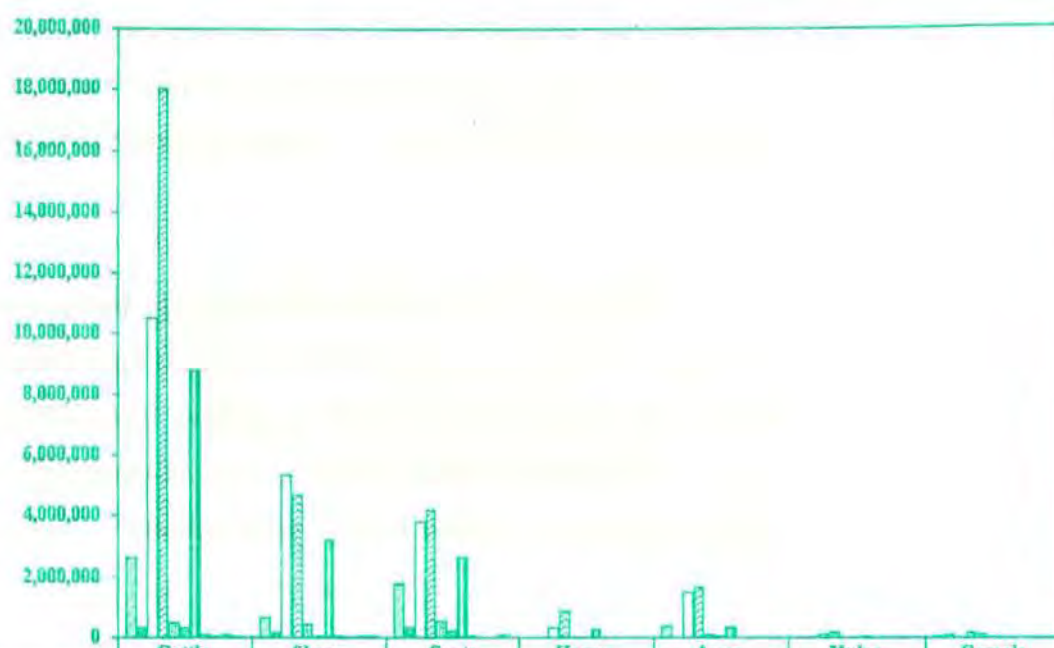
Considering the purpose of the mules, the data shows that 93.5 percent of them were used for transportation and the others 5.2 percent and 1.3 percent were used for draught and other purposes, respectively. The census result also indicates that 49.1 percent of the camels reported were kept for milk, 35.2 percent were used for transportation, and only 4,188 camels were used for draught purposes. On the other hand, the camels kept for other purposes are 39,475 (See also Figures VII.6 to VII.8).

FIGURE VII.8 DISTRIBUTION OF CAMELS BY PURPOSE AND SEX



Regarding the regional distribution of these draught animals, Oromia and Amhara Regions collectively make up about 78 percent of the total ass population in the country, and the remaining 12 percent are found in the other regions. On the other hand, more than half of the horse population and about 45 percent of the mules are found in Oromia Region. Amhara Region also contributed about 20 percent and 30 percent to the horse and mule populations of the country, respectively. With reference to camel population, Oromia and Somali Regions jointly took the greater share, that is 64.7 percent of the total camels in the sedentary areas of the country (See Figure VII.9).

FIGURE VII.9 DISTRIBUTION OF LIVESTOCK BY REGION



	Cattle	Sheep	Goats	Horses	Asses	Mules	Camels
□ Tigray	2,668,078	687,212	1,759,126	7,598	403,517	16,418	37,538
■ Afar	345,635	160,385	307,456	55	11,467	255	92,264
□ Amhara	10,512,770	5,320,330	3,815,859	306,443	1,465,021	105,514	18,186
□ Oromia	18,035,686	4,691,016	4,174,968	894,404	1,626,263	158,440	161,061
■ Somali	512,320	454,821	574,561	51	84,636	633	128,703
■ B. Gumuz	309,627	53,770	200,472	559	30,962	1,394	15
□ SNNP	8,831,450	3,169,816	2,651,077	292,496	305,029	70,365	1,300
□ Gambella	126,198	43,746	49,076	338	264	12	5
■ Harari	34,008	5,774	19,098	1	6,203	82	1,519
■ Addis Ababa	97,215	29,682	18,861	2,135	19,623	809	0
□ Dire Dawa	54,155	34,015	91,007	127	9,934	229	7,260

2.4 Poultry Population

Data on poultry population are collected as part of the livestock census, and the total poultry population at country level is estimated to be about 42,915,629. In this report, poultry includes cocks, cockerels, pullets, laying hens, non-laying hens and chicks. Consequently, as shown in Summary Table VII.4 and Figure VII.10, most of the poultry are chicks (17,897,992), followed by laying hens (11,136,333). Pullets are estimated to

Consequently, as shown in Summary Table VII.4 and Figure VII.10, most of the poultry are chicks (17,897,992), followed by laying hens (11,136,333). Pullets are estimated to be 4,663,657 in the country. Cocks and cockerels are also estimated separately, and are 3,776,632 and 3,281,882, respectively. The others are non-laying hens that make up about 5.03 percent (2,159,131) of the total poultry population in the country. Rural areas constitute about 95.37 percent of the total poultry, which is significant. Urban areas also comprised of 4.63 percent.

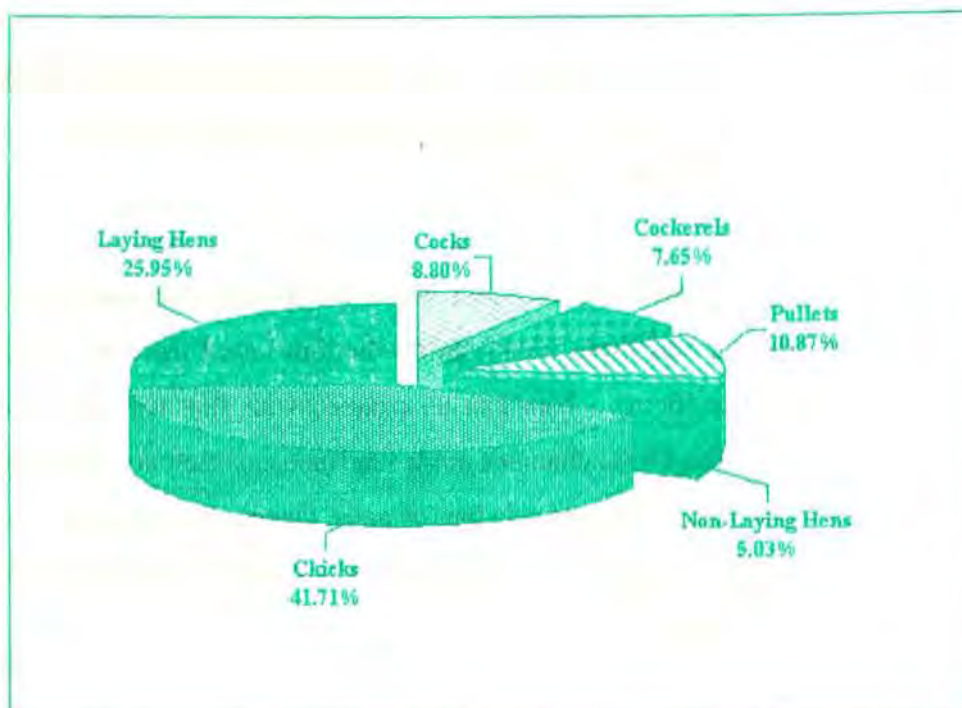
Moreover, average egg-laying period per hen and average number of eggs laid per hen during this period are estimated based on the data collected. Consequently, the single average egg-laying period per hen is estimated to be about 19 days while average number of eggs laid per hen per egg-laying period is about 12 eggs at country level. Egg-laying period and number of eggs laid per period are to some extent higher in urban than in rural areas.

Pertaining to regional distribution, Oromia and Amhara Regions together reported about two-thirds of the total poultry (65.8 percent). S.N.N.P. and Tigray Regions also contributed about 30.5 percent jointly to the country's poultry population while the others reported between 0.05 percent and 2.3 percent (See Table 7-1-a).

SUMMARY TABLE VII.4: Estimated Number of Poultry by Type for Rural and Urban Holdings

Type of Poultry	Rural and Urban Holdings		Rural Holdings		Urban Holdings	
	Number	%	Number	%	Number	%
All Poultry	42,915,629	100.00	40,929,629	95.37	1,986,000	4.63
Cocks.....	3,776,632	8.80	3,628,062	8.45	148,570	0.35
Cockerels.....	3,281,882	7.65	3,158,193	7.36	123,689	0.29
Pullets.....	4,663,657	10.87	4,491,021	10.46	172,636	0.40
Non-Laying Hens	2,159,131	5.03	1,903,043	4.43	256,088	0.60
Chicks.....	17,897,992	41.71	17,420,187	40.59	477,805	1.11
Laying Hens	11,136,333	25.95	10,329,121	24.07	807,212	1.88
Average Number Days/Clutch ...	19		19		21	
Average Eggs/Hen/Clutch	12		12		14	

FIGURE VII.10 DISTRIBUTION OF POULTRY BY TYPE



2.5 Number and Types of Beehives

Information on beehives was also collected during the livestock census. As stated by the Ministry of Agriculture, there are three types of beehives, and these are traditional, intermediate, and modern.

Traditional [Fixed comb] Hive is a hollow structure made of cheap materials like clay, straw, bamboo, false banana leaves, barks of tree, logs, and animal dung. The bees fill all the available space with honeycombs from the top to down wards. The honeycombs cannot be removed since they are attached to the top and the sides of the hive. The honey can be removed only by removing one wall of the hive and breaking or cutting out the honeycomb (Reihard Fichtl and Admasu, 1994; Gezahegn Taddesse, 1993 E.C.).

Intermediate [Transitional] Hive is a long trough-shaped box with sloping sidewalls covered with bars of a fixed width. The hive consists of a bottom board, two sidewalls and front and back walls. One opening is made in the front wall to serve as flight entrance. The cover of the hive can be made from any material, which gives adequate protection against light, sun, and rain (Gezahegn Tadesse, 1993 E.C.; P.Seegeren et al, 1996).

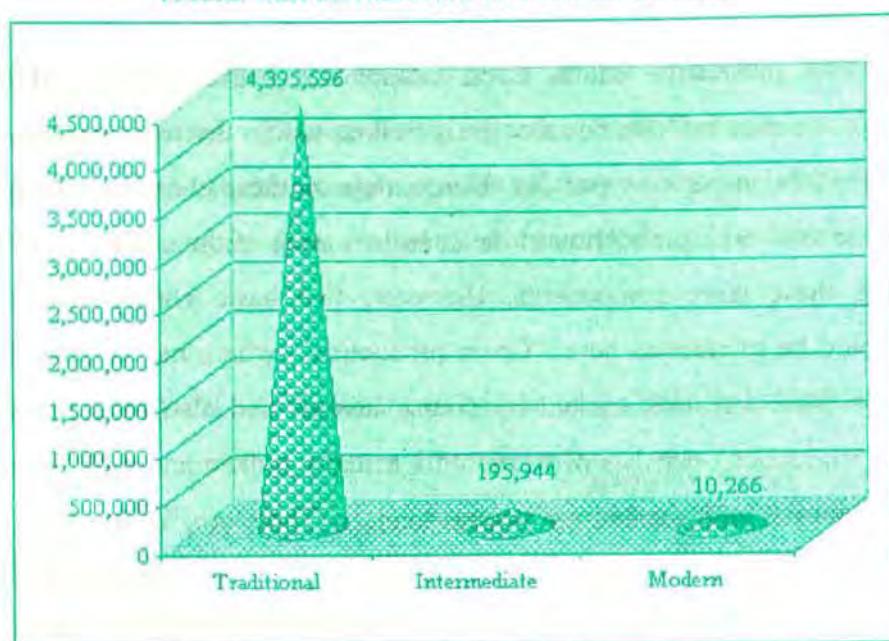
Modern Hive [Hive with Frames] is a brood (offspring) chamber (box) with a fixed bottom board and flight board. In the bottom board there is a ventilation hole of size (15cmx30cm), which can be covered with fine wire mesh or other suitable material. The brood chamber holds ten frames, which are kept separately at the right distance by means of side bar, or nails. Queen excluder (not necessary) placed horizontally on top of the brood chamber (Gezahegn Tadesse, 1993 E.C.; P.Seegeren et al, 1996).

Any type of the above beehives was enumerated if it produced honey at least once during the reference period (February 9, 2001 to February 8, 2002). Accordingly, the result of the census revealed that a total of 4,601,806 hives is estimated to be found in rural and urban areas of the country. From this total hives, 4,395,596 (95.52 percent) are traditional hives, 195,944 are intermediate hives, and the remaining 10,266 are modern hives.

SUMMARY TABLE VII.5: Estimated Number of Beehives by Type for Rural and Urban Holdings

Type of Beehive	Rural and Urban Holdings		Rural Holdings		Urban Holdings	
	Number	%	Number	%	Number	%
All Beehives.....	4,601,806	100.00	4,399,573	95.61	202,233	4.39
Traditional Beehives	4,395,596	95.52	4,383,247	95.25	12,349	0.27
Intermediate Beehives.....	195,944	4.26	6,380	0.14	189,564	4.12
Modern Beehives.....	10,266	0.22	9,946	0.22	320	0.01

FIGURE VII.11 DISTRIBUTION OF BEEHIVES BY TYPE



As indicated in Summary Table VII.5 and Figure VII.11, very significant portion of the beehives are reported in rural areas (about 95.61 percent). Although very little (4.39 percent), urban areas as well contributed to the beehives population of the country.

With regard to regional distribution of hives, Oromia Region reported nearly half of the total hives. S.N.N.P. and Amhara Regions also contributed significant portions to the hive population of the country that is 40.46 percent on aggregate. Tigray Region as well reported about 5 percent of the total hives in the country (See Table 7-1-a).

3. LIVESTOCK PRODUCTS

This section summarizes results on livestock products at country level. The various animal products include milk and milk products, eggs, wool, meat, hides and skins. Although data on such livestock products are not easily obtainable in the Ethiopian traditional agricultural sector, an endeavor was made to collect data on milk and honey productions. The data were collected subjectively from the holders in the sampled households and the results obtained are briefly discussed below.

3.1 Milk Production

Estimation of milk production entails three components, namely number of milking cows, number of months milking cows actually milked within the reference period and average milk production per cow per day. Hence, data on these components have been collected and the total milk production in the sedentary areas of the country is estimated by multiplying these three components. However, two basic concepts about milk production should be mentioned here. "Gross production", which includes whole fresh milk actually milked and milk sucked by young animals and also milk fed to other animals. "Net production" consists of whole milk actually milked and milk fed to other animals but excludes milk sucked by young animals. Therefore, in the case of this census, milk production is estimated based on the concept of "net production", and as indicated in Summary Table VII.6, the estimate of total cow milk production for rural and urban areas at country level during the reference period, is about 2.59 billion liters of which about 2.48 billion liters (95.67 percent) is attributed to rural areas. A total of about 112 million liters of cow milk was as well estimated for urban areas. On the other hand, the estimate of camel milk for the sedentary areas of the country is about 115 million liters.

Data on lactation period and average milk yield per cow per day were also collected. As a result, the average lactation period per cow at country level is estimated to be about eight months, and average milk yield per cow per day is about 1.284 liters. With regard to camel, the average lactation period is about 12 months whereas the average daily milk yield of a camel in the sedentary areas of the country is about 3.536 liters.

3.2 Honey Production

To estimate honey production, number of hives, frequency of honey production and honey production per harvest are required. Therefore, these data were collected from the holders within sampled households both in rural and urban areas of the country. As a result, the estimate of total honey production is about 33 million kilograms of which the

greater portion (99.36 percent) is harvested from traditional hives (See Summary Table VII.6).

As can be seen from the census data, honey was harvested only once during the 12 months period (i.e. the reference period) from a traditional hive while twice from intermediate and modern hives in rural areas of the country. In urban areas, however honey was harvested twice from traditional and intermediate hives during the reference period.

SUMMARY TABLE VII.6: Milk and Honey Production for Rural and Urban Holdings

Item	Quantity Produced and Frequency		
	Rural and Urban Holdings	Rural Holdings	Urban Holdings
Milk Production			
Cow Milk			
Average Daily Milk Production (Liters/Cow).....	1,284	1,259	2,128
Average Lactation Period (Months).....	8	8	8
Total Milk Production (Liters).....	2,591,187,141	2,478,968,904	112,218,236
Camel Milk			
Average Daily Milk Production (Liters/Camel)...	3,536	3,517	5,633
Average Lactation Period (Months).....	12	12	12
Total Milk Production (Liters).....	114,864,928	112,914,475	1,950,453
Honey Production			
All Types of Beehives			
Production (Kilograms).....	32,985,473	32,822,288	163,185
Average Frequency (Harvests/Year).....		1	2
Traditional Beehives			
Production (Kilograms).....	32,775,079	32,638,615	136,464
Average Frequency (Harvests/Year).....		1	2
Intermediate Beehives			
Production (Kilograms).....	87,740	61,740	26,000
Average Frequency (Harvests/Year).....		2	2
Modern Beehives			
Production (Kilograms).....	122,654	121,933	721*
Average Frequency (Harvests/Year).....		2	*

* Their CVs are greater than 50 percent

4. UTILIZATION OF LIVESTOCK PRODUCTS

Data on the utilization of animal products were also collected during the census to assess product usage experience of holders. The products for which utilization data were collected included milk, egg, honey, meat, hides and skins, wool and by-products such as butter, cheese, and bees wax. It is commonly accepted that these products are often used

SUMMARY TABLE VII.7: Livestock Product Utilization – Percentage of Uses for Rural and Urban Holdings

Type of Product	Rural and Urban Holdings					Rural Holdings					Urban Holdings				
	Total %	Percent of Product Utilized for:				Total %	Percent of Product Utilized for:				Total %	Percent of Product Utilized for:			
		Household Consumption	Sale	Wages in Kind	Other		Household Consumption	Sale	Wages in Kind	Other		Household Consumption	Sale	Wages in Kind	Other
Milk	100	48.1	5.06	0.31	46.53	100	44.85	4.44	0.32	50.39	100	77.29	10.65	0.24	11.83
Butter	100	60.23	35.84	0.19	3.74	100	59.2	36.87	0.18	3.74	100	76.55	19.45	0.3	3.7
Cheese	100	83.8	12.82	0.1	3.28	100	83.52	13.21	0.1	3.17	100	89.45	4.95	0.09	5.51
Beef	100	45.56	41.65	0.62	12.16	100	43.11	44.1	0.59	12.2	100	66.96	20.22	0.96	11.86
Mutton/Goat Meat	100	85.38	10.7	0.15	3.77	100	85.5	9.93	0.14	4.43	100	85.15	12.16	0.18	2.52
Eggs	100	31.64	38.06	0.08	30.22	100	28.91	39.71	0.07	31.32	100	65.39	17.76	0.17	16.68
Honey	100	39.28	57.55	0.25	2.92	100	39.15	57.68	0.25	2.92	100	51.64	45.57	0.14	2.64
Bees Wax	100	34.4	32.58	0.18	32.85	100	34.38	32.58	0.18	32.86	100	37.89	32.02	0.11	29.97
Wool	100	34.83	53.36	0.8	11.01	100	35.88	52.02	0.79	11.31	100	6.63	89.47	0.97	2.93
Hide	100	35.53	59.38	0.07	5.02	100	49.77	43.42	0.1	6.71	100	11.68	86.11	0.01	2.2
Skin	100	22.5	74.44	0.1	2.96	100	25.73	70.64	0.07	3.55	100	13.72	84.76	0.17	1.34

for household consumption and/or sold to finance the purchase of basic household commodities such as coffee, salt, cooking oil, sugar, etc. The products are sometimes used as payments and gifts to others. The census data on the utilization of animal products in the rural and urban areas of the country are presented in Summary Table VII.7 and it reveals that of the total annual milk production, 48.1 percent was used for household consumption, 5.06 percent was sold, only 0.31 percent was used for wages in kind and the rest 46.53 percent was used for other purposes (could be for production of butter, Cheese, and the likes). With respect to the utilization of butter, 60.23 percent of the produce was used for household consumption although considerable portion (35.84 percent) was sold. Most of the total cheese produced was used for household consumption that is about 83.8 percent, and the rest 16 percent was used for other purposes, which are indicated in the table.

Of the total honey production in the country, about 39.28 percent was used for household consumption, about 57.55 percent was sold, and less than one percent of the honey production was used as a payment of wages in kind. On the other hand, 34.4 percent of the wax produced in the country was used for household consumption while 32.58 percent was used for sale.

Concerning the utilization of egg production, 31.64 percent of the total egg production was used for household consumption while 38.06 percent of the total egg production was used for sale. More than one-fourth of the egg production in the country (that is about 30.22 percent) was used for other purposes and that could be for hatching. Holders' utilization practices on wool, hides, and skins were also assessed and the results showed that these products are mainly used for sale and household consumption (See Summary Table VII.7).

5. LIVESTOCK VACCINATION, DISEASE, TREATMENT, AND DEATH

Diseases have numerous negative impacts on productivity of herds i.e. death of animals, loss of weights, slow down growth, poor fertility performance, decrease in physical power and the likes. There have been many ways of fighting against diseases and among these,

vaccinations (preventive measures) and treatments (curative measures) are the major ones. However, no efficient fight against disease or disease prevention is possible if descriptive data on prevalence of diseases, deaths, vaccinations, and treatments are not available. The availability of these data is also very important to set-up strategies that can assist in preventing and controlling diseases, by and large in improving veterinary services of the country. Hence, it was considered desirable to collect information on vaccinations, treatments, diseases, and deaths of animals during the census.

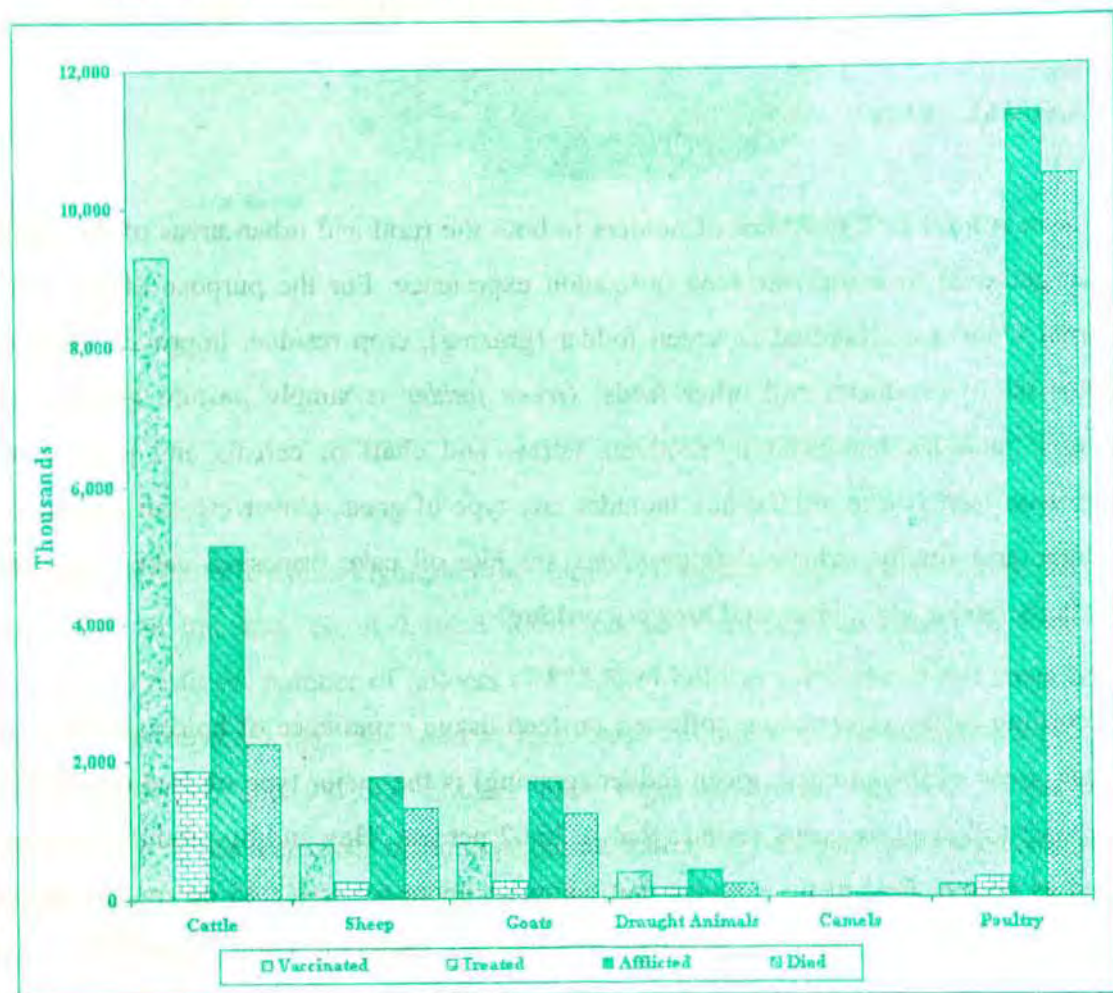
Data on these parameters specifically on number of vaccinated, afflicted, treated and dead animals were therefore collected and the results are shown in Summary Table VII.8. The estimated number of vaccinated animals within the reference period in rural and urban areas of the country is about 11,452,357. Out of these animals, about 81.24 percent were cattle followed by goats, which took about 6.94 percent share. Sheep, draught animals (horses, asses, and mules), and poultry also accounted for about 6.85 percent, 3.25 percent, and 1.39 percent of the total vaccinated animals, respectively. The estimated number of vaccinated camels in the country is about 37,925, which is only 0.33 percent of the total vaccinated animals.

SUMMARY TABLE VII.8: Estimated Number of Livestock Vaccinated, Afflicted, Treated, and Died in Rural and Urban Holdings

Item	Rural and Urban Holdings		Rural Holdings		Urban Holdings	
	Number	%	Number	%	Number	%
Total Vaccinated	11,452,357	100.00	11,016,514	96.19	435,843	3.81
Cattle	9,304,316	81.24	8,969,640	78.32	334,676	2.92
Sheep	783,971	6.85	739,936	6.46	44,035	0.38
Goats	794,935	6.94	775,923	6.78	19,012	0.17
Horses, Asses, and Mules	371,651	3.25	361,191	3.15	10,460	0.09
Camels	37,925	0.33	37,585	0.33	340	0.00
Poultry	159,557	1.39	132,238	1.15	27,319	0.24
Total Afflicted	20,366,738	100.00	19,614,166	96.30	752,572	3.70
Cattle	5,149,263	25.28	5,037,570	24.73	111,693	0.55
Sheep	1,765,586	8.67	1,726,850	8.48	38,736	0.19
Goats	1,695,284	8.32	1,674,032	8.22	21,252	0.10
Horses, Asses, and Mules	380,229	1.87	373,920	1.84	6,309	0.03
Camels	39,666	0.19	39,249	0.19	417	0.00
Poultry	11,336,709	55.66	10,762,544	52.84	574,165	2.82
Total Treated	2,754,857	100.00	2,606,051	94.60	148,806	5.40
Cattle	1,863,573	67.65	1,788,015	64.90	75,558	2.74
Sheep	238,555	8.66	222,539	8.08	16,016	0.58
Goats	231,108	8.39	224,974	8.17	6,134	0.22
Horses, Asses, and Mules	120,094	4.36	116,360	4.22	3,734	0.14
Camels	8,473	0.31	8,351	0.30	122	0.00
Poultry	293,056	10.64	245,813	8.92	47,243	1.71
Total Died	15,358,209	100.00	14,730,605	95.91	627,604	4.09
Cattle	2,243,274	14.61	2,195,634	14.30	47,640	0.31
Sheep	1,289,861	8.40	1,264,285	8.23	25,576	0.17
Goats	1,213,385	7.90	1,198,078	7.80	15,307	0.10
Horses, Asses, and Mules	193,027	1.26	189,526	1.23	3,501	0.02
Camels	17,165	0.11	16,910	0.11	255	0.00
Poultry	10,401,496	67.73	9,866,172	64.24	535,324	3.49

In the same table, it is indicated that about 20,366,738 animals were diseased/afflicted by different types of diseases during the reference period and only 2,754,857 of them were treated. The cattle constituted about 67.65 percent of the total treated animals in the country and substantial number of poultry was treated as well (293,056 heads).

FIGURE VII.12 DISTRIBUTION OF ANIMALS VACCINATED, AFFLICTED, TREATED AND DIED



According to the census data, greater number of animals died during the reference period in the country due to diseases of which the majority (67.73 percent) is poultry. In addition, the estimated numbers of dead cattle, dead sheep, and dead goats in the country are about 2,243,274; 1,289,861; and 1,213,385 heads, respectively. The number of draught animals estimated dead is also considerable that is about 193,027 heads (See Summary Table VII.8).

If we take a look at the regional results to see the distributions in the country, about two-thirds of the total vaccinated-animals are reported in Oromia and Amhara Regions, and the other regions reported the remaining one-third. Regarding diseased animals, the majorities are accounted for Oromia Region followed by S.N.N.P. Region (42 percent and 24.5 percent, in that order). Similar distribution patterns are also observed for dead animals whereas about 44 percent and 23 percent of the total treated animals are reported in Oromia and Amhara Regions, respectively (See Statistical Tables 7.20 a to 7.23 a).

6. ANIMAL FEED

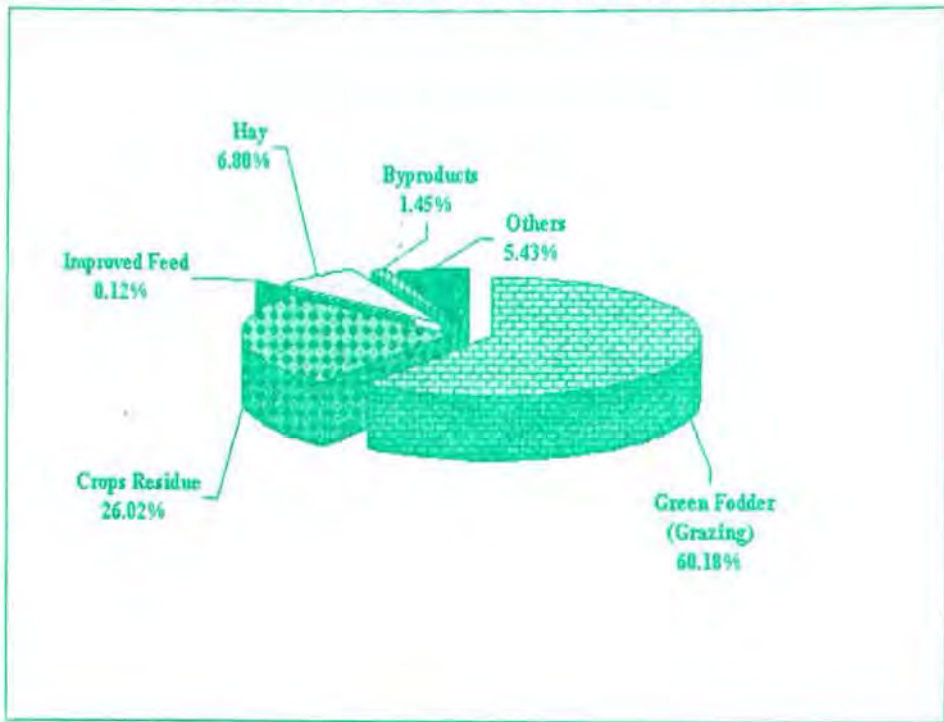
Data on animal feed practices of holders in both the rural and urban areas of the country were gathered to assess the feed utilization experience. For the purpose of this report, animal feeds are classified as green fodder (grazing), crop residue, improved feed, hay, industrial by-products, and other feeds. *Green fodder* is simply pasture grasses; *crop residue* includes harvested by-products (straw and chaff of cereals and pulses, etc.); *improved feed* is like alfalfa; *hay* includes any type of grass, clover etc. cut and dried as fodder; and finally industrial *by-products* are like oil cake (rapeseed cake, nueg cake, sunflower cake, etc.), bran, and brewery residue.

According to the information collected on feed usage experience of holders in rural and urban areas of the country, green fodder (grazing) is the major type of feed (about 60.17 percent) followed by crops residue that is 26.02 percent. Hay and by-products were also used as animal feed in the country that comprise about 6.8 and 1.45 percent of the total feed, respectively. Moreover, as shown in Summary Table VII.9 and Figure VII.13, very small amount of improved feed (only 0.12 percent) was used as animal feed and other types of feed that accounted for about 5.43 percent were also used in the country.

SUMMARY TABLE VII.9: Animal Feed Practices for Rural and Urban Holdings

Item	Rural and Urban Holdings		Rural Holdings		Urban Holdings	
	Number Reporting	Percentage That Use:	Number Reporting	Percentage That Use:	Number Reporting	Percentage That Use:
Total		100		100		100
Green Fodder/Grazing	9,462,178	60.17	9,192,256	60.55	269,922	48.85
Crops Residue	7,825,828	26.02	7,660,221	26.35	165,608	16.3
Improved Feed	66,009	0.12	62,595	0.12	3,414	0.24
Hay	2,852,543	6.8	2,764,117	6.77	88,426	7.67
By-products	987,506	1.45	892,592	1.26	94,914	7.17
Others	3,085,797	5.43	2,868,982	4.95	216,815	19.77

FIGURE VII.13 ANIMAL FEED PRACTICES OF HOLDERS



Summary Table VII.9 also highlights the number of holders reported each type of feed. According to the data, about 9,462,178 holders have used green fodder to feed their animals. Significant number of holders (7,825,828) both in rural and urban areas of the country also reported that they used to feed crops residue for their animals. Moreover, about 2,852,543, and 987,506 holders have reported to use hay and by-products, respectively. Quite a number of holders (about 3,085,797) as well reported using other types of feeds while only 66,009 holders reported to use the improved feed.

**STATISTICAL TABLES PRESENTING
RESULTS AT
REGIONAL LEVEL**

TABLES 7.1 –7.36

TABLE 7-1: NUMBER OF LIVESTOCK BY TYPE OF ANIMAL, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	ALL LIVESTOCK								
	CATTLE	SHEEP	GOATS	HORSES	ASSES	MULES	CAMELS	POULTRY	BEEHIVES
Ethiopia	41,527,142	14,655,566	13,661,562	1,504,208	3,962,969	354,120	447,842	42,915,628	4,601,806
Tigray	2,668,078	687,212	1,759,126	7,598	403,517	16,418	37,530	4,999,678	228,683
Afar	345,635	160,385	307,456	55	11,467	255	92,264	56,376	773
Amhara	10,512,770	5,320,330	3,815,859	306,443	1,465,021	105,514	18,186	13,434,878	917,460
Oromia	18,025,686	4,691,016	4,174,968	894,404	1,626,263	158,440	161,061	14,784,303	2,270,166
Somali	512,320	454,821	574,561	51	84,636	633	128,703	154,746	7,212
Benshangul-Gumuz	309,627	58,770	200,472	559	30,952	1,394	15	961,196	166,736
S.N.N.P.	8,831,450	3,169,816	2,651,077	292,496	305,089	70,365	1,300	8,106,038	944,321
Gambella	126,198	43,746	49,076	338	264	*	*	237,930	59,222
Harari	34,008	5,774	19,098	*	6,203	*	*	33,046	969
Addis Ababa	97,215	29,682	*	2,135	19,623	809	-	100,163	4,231
Diredawa	54,155	34,015	91,007	127	9,934	*	7,260	47,273	2,034

b) Rural Holdings

Geographic Area	ALL LIVESTOCK								
	CATTLE	SHEEP	GOATS	HORSES	ASSES	MULES	CAMELS	POULTRY	BEEHIVES
Ethiopia	40,638,801	14,321,787	13,464,825	1,483,428	3,901,201	349,330	440,199	40,929,629	4,399,573
Tigray	2,619,540	670,801	1,748,296	7,458	397,198	16,285	36,861	4,049,478	211,581
Afar	336,002	151,794	291,014	-	10,961	252	89,075	50,592	658
Amhara	10,360,069	5,232,302	3,800,802	304,205	1,453,894	103,990	17,504	13,139,592	870,322
Oromia	17,583,777	4,565,365	4,101,687	880,855	1,596,067	156,342	160,335	14,366,406	2,178,131
Somali	495,403	430,539	541,103	-	82,187	633	126,424	125,195	6,607
Benshangul-Gumuz	286,735	52,532	197,179	491	30,234	1,344	-	905,258	165,116
S.N.N.P.	8,691,304	3,129,369	2,619,541	288,240	299,775	69,416	1,289	7,936,245	905,649
Gambella	116,074	42,753	46,735	333	199	-	-	220,430	58,625
Harari	33,094	4,949	17,850	-	6,060	*	*	28,936	969
Addis Ababa	66,091	12,432	*	1,846	15,025	800	-	66,325	681
Diredawa	50,712	28,950	84,517	-	9,600	*	7,192	41,172	1,234

c) Urban Holdings

Geographic Area	ALL LIVESTOCK								
	CATTLE	SHEEP	GOATS	HORSES	ASSES	MULES	CAMELS	POULTRY	BEEHIVES
Ethiopia	888,341	333,778	196,737	20,780	61,768	4,790	7,643	1,986,000	202,233
Tigray	48,538	16,411	10,830	140	6,319	133	669	950,200	17,103
Afar	9,633	8,591	16,443	55	505	*	3,189	5,785	*
Amhara	152,701	88,028	15,057	2,238	11,127	1,524	682	295,286	47,138
Oromia	451,908	125,651	73,281	13,549	30,195	2,099	725	417,897	92,035
Somali	16,917	24,282	33,458	51	2,448	-	2,279	29,552	*
Benshangul-Gumuz	22,892	6,238	3,293	68	718	50	15	55,938	1,620
S.N.N.P.	140,146	40,446	31,536	4,257	5,315	949	*	169,794	38,672
Gambella	10,124	993	2,341	*	65	*	*	17,501	*
Harari	914	824	1,248	*	143	-	-	4,109	*
Addis Ababa	31,123	17,250	2,759	289	4,598	*	-	33,838	3,549
Diredawa	3,443	5,065	6,490	127	335	*	69	6,101	*

TABLE 7-2: NUMBER OF CATTLE BY AGE AND SEX OF ANIMAL, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	CATTLE										
	ALL CATTLE	MALE					FEMALE				
		< 6 Months	6 Mo < 1yr	1yr - <3 yrs	3 - <10 yrs	10 yrs &Over	< 6 Months	6 Mo < 1yr	1yr - <3 yrs	3 - <10 yrs	10 yrs &Over
Ethiopia	41,527,142	2,290,851	1,796,871	2,845,073	10,411,091	847,094	2,471,461	1,994,150	3,564,122	14,407,904	898,525
Tigray.....	2,668,078	104,699	125,941	184,427	822,475	67,996	115,029	139,442	203,453	854,121	50,495
Afar	345,635	18,218	11,608	14,891	22,153	2,233	30,627	24,612	42,976	168,090	10,228
Amhara.....	10,512,770	455,625	434,475	742,801	3,258,405	382,084	475,036	450,955	812,595	3,237,968	262,826
Oromia.....	18,035,686	1,099,361	738,968	1,263,554	4,576,945	311,420	1,189,223	804,878	1,527,978	6,155,288	368,070
Somali	512,320	34,435	22,813	31,930	89,550	1,189	39,738	30,232	46,574	208,169	7,689
Benshangul-Gumuz.....	309,627	15,513	15,299	27,173	75,211	2,313	17,073	16,364	30,570	105,600	4,512
S.N.N.P.....	8,831,450	542,778	432,481	559,091	1,511,962	75,133	581,887	509,807	866,379	3,562,344	189,587
Gambella.....	126,198	10,236	8,161	9,105	8,936	303	11,361	8,976	15,413	52,138	1,570
Harari	34,008	2,127	1,734	2,759	6,797	*	2,269	2,195	3,580	11,927	603
Addis Ababa.....	97,215	3,670	3,027	5,085	31,574	4,372	4,624	4,127	8,419	30,878	1,438
Dire-dawa.....	54,155	4,191	2,364	4,257	7,083	*	4,595	2,563	6,185	21,381	1,505

b) Rural Holdings

Geographic Area	CATTLE										
	ALL CATTLE	MALE					FEMALE				
		< 6 Months	6 Mo < 1yr	1yr - <3 yrs	3 - <10 yrs	10 yrs &Over	< 6 Months	6 Mo < 1yr	1yr - <3 yrs	3 - <10 yrs	10 yrs &Over
Ethiopia	40,638,801	2,229,034	1,752,186	2,786,677	10,262,454	839,405	2,407,443	1,944,496	3,484,224	14,049,376	883,506
Tigray.....	2,619,540	102,301	123,190	180,957	812,398	67,434	112,382	136,538	199,203	835,426	49,712
Afar	336,002	17,596	11,252	14,459	21,766	2,197	29,356	23,809	41,758	163,830	9,979
Amhara.....	10,360,069	445,531	426,600	731,918	3,233,762	379,953	465,257	442,440	797,940	3,177,772	258,896
Oromia.....	17,583,777	1,066,678	717,406	1,233,378	4,491,987	307,232	1,155,890	781,739	1,490,860	5,977,929	360,680
Somali	495,403	33,159	21,799	30,926	88,001	1,156	38,137	29,119	45,078	200,435	7,592
Benshangul-Gumuz.....	286,735	14,278	13,903	24,798	71,299	2,238	15,579	15,063	28,262	96,960	4,356
S.N.N.P.....	8,691,304	532,355	424,976	551,434	1,494,305	74,705	571,955	500,802	852,396	3,500,622	187,753
Gambella.....	116,074	9,348	7,553	8,547	7,906	272	10,178	8,280	14,638	47,825	1,527
Harari	33,094	2,081	1,690	2,677	6,640	*	2,228	2,156	3,444	11,576	586
Addis Ababa.....	66,091	1,804	1,603	3,563	27,524	4,176	2,242	2,211	4,878	17,067	1,023
Dire-dawa.....	50,712	3,904	2,214	4,021	6,868	*	4,239	2,338	5,767	19,934	1,403

c) Urban Holdings

Geographic Area	CATTLE										
	ALL CATTLE	MALE					FEMALE				
		< 6 Months	6 Mo < 1yr	1yr - <3 yrs	3yrs - <10 yrs	10 yrs &Over	< 6 Months	6 Mo < 1yr	1yr - <3 yrs	3yrs - <10 yrs	10 yrs &Over
Ethiopia	888,341	61,817	44,685	58,396	148,637	7,689	64,018	49,654	79,898	358,528	15,019
Tigray.....	48,538	2,398	2,750	3,470	10,078	563	2,647	2,904	4,249	18,695	784
Afar	9,633	623	356	432	387	36	1,272	803	1,219	4,259	248
Amhara.....	152,701	10,094	7,875	10,883	24,643	2,131	9,779	8,514	14,655	60,197	3,930
Oromia.....	451,908	32,683	21,562	30,176	84,959	4,189	33,333	23,140	37,117	177,360	7,390
Somali	16,917	1,276	1,014	1,004	1,549	33	1,601	1,113	1,496	7,734	97
Benshangul-Gumuz.....	22,892	1,234	1,397	2,375	3,912	74	1,494	1,301	2,308	8,640	156
S.N.N.P.....	140,146	10,423	7,505	7,657	17,657	428	9,932	9,005	13,983	61,722	1,834
Gambella.....	10,124	888	608	558	1,030	*	1,184	695	774	4,313	43
Harari	914	46	44	82	157	-	40	39	136	351	18
Addis Ababa.....	31,123	1,866	1,424	1,522	4,050	196	2,382	1,916	3,542	13,811	415
Dire-dawa.....	3,443	287	150	235	215	*	355	225	418	1,447	103

TABLE 7-3: NUMBER OF SHEEP BY AGE AND SEX OF ANIMAL, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	SHEEP								
	ALL SHEEP	MALE				FEMALE			
		< 6 Months	6 Mo < 1yr	1yr - <2 yrs	2 yrs & Over	< 6 Months	6 Mo < 1yr	1yr - <2 yrs	2 yrs & Over
Ethiopia	14,655,566	1,902,873	700,544	490,366	807,270	2,030,873	1,021,151	1,250,141	6,452,347
Tigray	687,212	87,271	32,988	21,076	36,956	91,916	44,730	65,425	306,849
Afar	160,385	11,254	6,714	6,484	11,874	18,473	15,470	18,640	71,475
Amhara	5,320,330	702,371	238,478	160,843	274,165	730,689	339,578	401,189	2,473,016
Oromia	4,691,016	696,555	225,658	133,028	171,357	737,719	311,283	379,042	2,036,374
Somali	454,821	38,476	23,874	23,507	44,855	44,095	40,032	45,936	194,044
Benshangul-Gumuz	58,770	7,938	3,617	2,247	3,128	8,484	4,832	5,759	22,765
S.N.N.P.	3,169,816	342,898	164,322	138,727	258,800	384,010	255,406	322,553	1,303,098
Gambella	43,746	6,208	944	699	1,245	6,364	5,624	5,792	16,869
Harari	5,774	655	408	453	540	567	331	503	2,316
Addis Ababa	29,682	4,243	1,697	1,302	2,145	4,034	2,090	2,249	11,923
Diredawa	34,015	5,003	1,846	1,998	2,204	4,521	1,775	3,051	13,616

b) Rural Holdings

Geographic Area	SHEEP								
	ALL SHEEP	MALE				FEMALE			
		< 6 Months	6 Mo < 1yr	1yr - <2 yrs	2 yrs & Over	< 6 Months	6 Mo < 1yr	1yr - <2 yrs	2 yrs & Over
Ethiopia	14,321,787	1,859,917	679,412	473,538	779,751	1,989,554	999,639	1,225,042	6,314,934
Tigray	670,801	85,163	32,018	20,529	35,924	90,122	43,659	63,898	299,487
Afar	151,794	10,424	5,653	5,395	10,352	17,714	14,931	17,998	69,328
Amhara	5,232,302	690,736	232,514	156,198	267,086	720,011	334,446	395,503	2,435,807
Oromia	4,565,365	679,896	217,859	126,874	160,838	721,412	303,382	369,856	1,985,248
Somali	430,539	36,467	22,767	22,174	42,044	41,293	38,312	43,708	183,775
Benshangul-Gumuz	52,532	6,945	3,012	2,026	2,900	7,736	4,256	5,441	20,214
S.N.N.P.	3,129,369	337,564	162,267	137,021	255,923	379,063	252,620	318,946	1,285,966
Gambella	42,753	6,109	919	653	1,085	6,288	5,517	5,714	16,467
Harari	4,949	569	344	419	508	456	268	435	1,950
Addis Ababa	12,432	1,858	555	503	1,235	1,577	903	953	4,848
Diredawa	28,950	4,186	1,502	1,745	1,855	3,882	1,344	2,591	11,844

c) Urban Holdings

Geographic Area	SHEEP								
	ALL SHEEP	MALE				FEMALE			
		< 6 Months	6 Mo < 1yr	1yr - <2 yrs	2 yrs & Over	< 6 Months	6 Mo < 1yr	1yr - <2 yrs	2 yrs & Over
Ethiopia	333,778	42,956	21,132	16,829	27,519	41,319	21,512	25,099	137,413
Tigray	16,411	2,108	969	547	1,032	1,795	1,071	1,528	7,362
Afar	8,591	830	1,061	1,090	1,523	760	539	642	2,147
Amhara	88,028	11,636	5,963	4,645	7,079	10,678	5,132	5,686	37,209
Oromia	125,651	16,659	7,799	6,154	10,519	16,307	7,901	9,186	51,126
Somali	24,282	2,009	1,107	1,333	2,811	2,803	1,720	2,229	10,269
Benshangul-Gumuz	6,238	993	605	221	227	747	575	318	2,551
S.N.N.P.	40,446	5,335	2,055	1,706	2,877	4,947	2,786	3,607	17,133
Gambella	993	*	*	46	160	*	107	78	403
Harari	824	86	63	34	33	111	63	69	366
Addis Ababa	17,250	2,385	1,142	799	910	2,456	1,187	1,296	7,075
Diredawa	5,065	817	343	253	349	639	431	460	1,772

TABLE 7-4: NUMBER OF GOATS BY AGE AND SEX OF ANIMAL, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	GOATS								
	ALL GOATS	MALE				FEMALE			
		< 6 Months	6 Mo < 1yr	1yr - <2 yrs	2 yrs & Over	< 6 Months	6 Mo < 1yr	1yr - <2 yrs	2 yrs & Over
Ethiopia	13,661,562	1,665,462	793,170	669,753	1,135,966	1,797,217	1,054,913	1,299,388	5,245,693
Tigray	1,759,126	205,150	95,616	88,044	146,656	216,753	131,817	174,656	700,436
Afar	307,456	19,227	13,607	12,731	20,790	35,607	30,153	43,406	131,935
Amhara	3,815,859	507,609	226,339	186,101	344,041	526,309	263,286	320,164	1,442,010
Oromia	4,174,968	579,406	241,803	179,097	265,792	607,065	319,019	370,733	1,612,053
Somali	574,561	54,407	27,101	23,314	50,164	65,556	49,559	57,358	247,102
Benshangul-Gumuz	200,472	24,046	11,515	7,678	11,815	29,007	20,039	22,538	73,832
S.N.N.P.	2,651,077	250,996	168,257	165,940	289,952	290,847	224,007	291,195	969,882
Gambella	49,076	6,464	1,385	1,396	1,249	7,923	6,978	7,274	16,406
Harari	19,098	2,541	1,234	1,111	845	2,399	1,453	1,709	7,807
Addis Ababa	*	2,122	*	*	1,296	1,670	*	1,613	*
Diredawa	91,007	13,494	4,145	3,420	3,367	14,081	6,172	8,741	37,588

b) Rural Holdings

Geographic Area	GOATS								
	ALL GOATS	MALE				FEMALE			
		< 6 Months	6 Mo < 1yr	1yr - <2 yrs	2 yrs & Over	< 6 Months	6 Mo < 1yr	1yr - <2 yrs	2 yrs & Over
Ethiopia	13,464,825	1,641,626	781,279	659,905	1,117,982	1,773,724	1,040,310	1,281,680	5,168,319
Tigray	1,748,296	203,947	95,032	87,578	145,846	215,557	131,002	173,660	695,675
Afar	291,014	17,639	12,542	11,919	19,791	33,447	28,393	41,273	126,011
Amhara	3,800,802	505,600	225,443	185,418	342,920	524,397	262,210	319,018	1,435,796
Oromia	4,101,687	569,807	237,233	175,025	258,248	598,017	314,093	364,643	1,584,620
Somali	541,103	51,071	25,619	22,039	46,744	61,993	47,368	54,284	231,985
Benshangul-Gumuz	197,179	23,483	11,322	7,604	11,519	28,575	19,821	22,356	72,498
S.N.N.P.	2,619,541	247,389	165,880	163,907	286,823	287,502	221,510	288,312	958,219
Gambella	46,735	6,171	1,290	1,327	1,070	7,573	6,776	7,100	15,428
Harari	17,850	2,389	1,149	1,050	743	2,228	1,348	1,614	7,330
Addis Ababa	*	1,704	*	*	*	1,311	*	*	*
Diredawa	84,517	12,427	3,792	3,175	3,150	13,124	5,671	8,054	35,123

c) Urban Holdings

Geographic Area	GOATS								
	ALL GOATS	MALE				FEMALE			
		< 6 Months	6 Mo < 1yr	1yr - <2 yrs	2 yrs & Over	< 6 Months	6 Mo < 1yr	1yr - <2 yrs	2 yrs & Over
Ethiopia	196,737	23,836	11,891	9,848	17,984	23,493	14,603	17,708	77,374
Tigray	10,830	1,203	584	466	809	1,196	815	996	4,761
Afar	16,443	1,588	1,065	812	999	2,160	1,760	2,133	5,924
Amhara	15,057	2,009	895	683	1,121	1,912	1,076	1,146	6,214
Oromia	73,281	9,599	4,570	4,072	7,545	9,048	4,926	6,090	27,432
Somali	33,458	3,335	1,482	1,275	3,420	3,563	2,192	3,074	15,117
Benshangul-Gumuz	3,293	563	193	74	296	432	218	182	1,334
S.N.N.P.	31,536	3,607	2,378	2,034	3,129	3,344	2,497	2,883	11,663
Gambella	2,341	294	95	69	179	350	202	174	978
Harari	1,248	152	86	61	102	171	105	95	477
Addis Ababa	2,759	418	190	*	168	359	311	247	1,008
Diredawa	6,490	1,067	353	245	216	957	501	687	2,465

TABLE 7-5: NUMBER OF HORSES AND ASSES BY AGE AND SEX OF ANIMAL, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	HORSES AND ASSES									
	ALL HORSES	HORSES				ALL ASSES	ASSES			
		MALE		FEMALE			MALE		FEMALE	
	< 3 Years	3 Yrs & more	< 3 Years	3 Yrs & more	< 3 Years	3 Yrs & more	< 3 Years	3 Yrs & more	< 3 Years	3 Yrs & more
Ethiopia	1,504,208	174,600	567,335	173,435	588,838	3,962,969	495,078	1,340,918	498,736	1,628,237
Tigray.....	7,598	1,342	4,493	274	1,488	403,517	43,898	171,132	41,849	146,638
Afar	55	-	55	-	-	11,467	2,048	2,984	1,423	5,012
Amhara.....	306,443	35,776	99,480	38,313	132,873	1,465,021	213,425	392,813	225,957	632,826
Oromia.....	894,404	108,885	343,706	105,436	336,377	1,626,263	191,922	581,572	188,294	664,475
Somali	51	-	40	-	11	84,636	9,179	34,845	8,006	32,605
Benshangul-Gumuz.....	559	-	186	-	255	30,952	3,509	17,577	2,566	7,301
S.N.N.P.....	292,496	28,346	117,002	29,353	117,795	305,089	28,995	116,411	28,639	131,045
Gambella.....	338	-	338	-	-	264	-	198	-	59
Harari	-	-	-	-	-	6,203	476	3,304	428	1,995
Addis Ababa.....	2,135	-	1,905	-	-	19,623	649	16,540	602	1,832
Diredawa.....	127	-	127	-	-	9,934	969	3,544	972	4,450

b) Rural Holdings

Geographic Area	HORSES AND ASSES									
	ALL HORSES	HORSES				ALL ASSES	ASSES			
		MALE		FEMALE			MALE		FEMALE	
	< 3 Years	3 Yrs & more	< 3 Years	3 Yrs & more	< 3 Years	3 Yrs & more	< 3 Years	3 Yrs & more	< 3 Years	3 Yrs & more
Ethiopia	1,483,428	173,256	554,148	172,248	583,776	3,901,201	490,288	1,304,229	494,427	1,612,257
Tigray.....	7,458	1,324	4,383	272	1,478	397,198	43,505	166,522	41,547	145,623
Afar	-	-	-	-	-	10,961	2,018	2,576	1,410	4,958
Amhara.....	304,205	35,623	97,954	38,217	132,412	1,453,894	212,443	386,325	225,167	629,960
Oromia.....	880,855	107,996	335,006	104,679	333,175	1,596,067	189,331	565,262	185,943	655,532
Somali	-	-	-	-	-	82,187	9,037	33,324	7,854	31,973
Benshangul-Gumuz.....	491	-	148	-	233	30,234	3,455	17,069	2,524	7,186
S.N.N.P.....	288,240	28,071	114,693	29,025	116,451	299,775	28,673	113,287	28,248	129,567
Gambella.....	333	-	333	-	-	199	-	146	-	54
Harari	-	-	-	-	-	6,060	469	3,175	427	1,988
Addis Ababa.....	1,846	-	1,631	-	-	15,025	425	13,173	363	1,064
Diredawa.....	-	-	-	-	-	9,600	933	3,369	946	4,350

c) Urban Holdings

Geographic Area	HORSES AND ASSES									
	ALL HORSES	HORSES				ALL ASSES	ASSES			
		MALE		FEMALE			MALE		FEMALE	
	< 3 Years	3 Yrs & more	< 3 Years	3 Yrs & more	< 3 Years	3 Yrs & more	< 3 Years	3 Yrs & more	< 3 Years	3 Yrs & more
Ethiopia	20,780	1,344	13,186	1,188	5,062	61,768	4,790	36,689	4,309	15,980
Tigray.....	140	-	110	-	10	6,319	393	4,610	302	1,014
Afar	55	-	55	-	-	505	31	408	13	53
Amhara.....	2,238	153	1,526	97	461	11,127	983	6,488	790	2,866
Oromia.....	13,549	890	8,700	757	3,202	30,195	2,591	16,310	2,351	8,943
Somali	51	-	40	-	11	2,448	142	1,521	153	632
Benshangul-Gumuz.....	68	-	38	-	-	718	54	507	42	115
S.N.N.P.....	4,257	276	2,309	328	1,344	5,315	322	3,124	391	1,478
Gambella.....	-	-	-	-	-	65	-	52	-	-
Harari	-	-	-	-	-	143	-	128	-	-
Addis Ababa.....	289	-	274	-	-	4,598	224	3,366	239	768
Diredawa.....	127	-	127	-	-	335	36	174	25	99

TABLE 7-6: NUMBER OF MULES AND CAMELS BY AGE AND SEX OF ANIMAL, AND REGION

a) Both rural and Urban Holdings

Geographic Area	MULES					CAMELS				
	All Mules	MALE		FEMALE		All Camels	MALE		FEMALE	
		< 3 Years	3 Years and Older	< 3 Years	3 Years and Older		< 4 Years	4 Years and Older	< 4 Years	4 Years and Older
Ethiopia	354,120	22,773	150,976	27,010	153,362	447,842	53,826	122,376	67,866	203,773
Tigray.....	16,418	274	6,355	366	9,423	37,530	2,873	34,376	*	183
Afar	255		129		126	92,264	6,174	14,800	16,870	54,419
Amhara.....	105,514	8,849	39,830	12,538	44,298	18,186	3,072	14,798	*	254
Oromia.....	158,440	9,888	69,146	10,936	68,470	161,061	23,982	25,117	29,662	82,300
Somali	633		581	43	*	128,703	16,009	29,809	19,872	63,013
Benshangul-Gumuz.....	1,394	*	613	*	756	15		15		
S.N.N.P.....	70,365	3,644	33,621	3,042	30,058	1,300	243	245	188	624
Gambella.....	*		*		*			*		*
Harari	*		*		*			*		*
Addis Ababa.....	809	*	*		*					
Diredawa.....	*	*	*	*	*	7,260	1,252	3,109	789	2,111

b) Rural Holdings

Geographic Area	MULES					CAMELS				
	All Mules	MALE		FEMALE		All Camels	MALE		FEMALE	
		< 3 Years	3 Years and Older	< 3 Years	3 Years and Older		< 4 Years	4 Years and Older	< 4 Years	4 Years and Older
Ethiopia	349,330	22,597	148,632	26,853	151,248	440,199	53,248	120,044	66,773	200,134
Tigray.....	16,285	274	6,311	362	9,337	36,861	2,836	33,767	*	*
Afar	252		125		126	89,075	6,020	14,507	16,240	52,308
Amhara.....	103,990	8,814	39,106	12,490	43,581	17,504	3,014	14,174	*	254
Oromia.....	156,342	9,787	68,067	10,877	67,611	160,335	23,858	25,053	29,528	81,896
Somali	633		581	43	*	126,424	15,810	29,136	19,554	61,925
Benshangul-Gumuz.....	1,344	*	586	*	737					
S.N.N.P.....	69,416	3,611	33,174	2,998	29,633	1,289	242	242	186	619
Gambella.....	*		*		*			*		*
Harari	*		*		*			*		*
Addis Ababa.....	800	*	*		*					
Diredawa.....	*	*	*	*	*	7,192	1,248	3,062	786	2,095

c) Urban Holdings

Geographic Area	MULES					CAMELS				
	All Mules	MALE		FEMALE		All Camels	MALE		FEMALE	
		< 3 Years	3 Years and Older	< 3 Years	3 Years and Older		< 4 Years	4 Years and Older	< 4 Years	4 Years and Older
Ethiopia	4,790	176	2,344	156	2,114	7,643	578	2,332	1,093	3,640
Tigray.....	133		44	*	85	669	37	609	*	16
Afar	*		*		*	3,189	154	293	630	2,112
Amhara.....	1,524	35	724	48	717	682	58	624		
Oromia.....	2,099	100	1,080	60	859	725	124	64	134	404
Somali						2,279	199	673	318	1,088
Benshangul-Gumuz.....	50	*	27	*	*	15		15		
S.N.N.P.....	949	32	447	44	425	*	*	*	*	*
Gambella.....	*		*		*			*		*
Harari	*		*		*			*		*
Addis Ababa.....	*		*		*			*		*
Diredawa.....	*	*	*	*	*	69	*	*	*	*

TABLE 7-7: CATTLE AGED 3 – 10 YEARS BY SEX, PURPOSE, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	CATTLE AGED 3 – 10 YEARS									
	Total	MALE					FEMALE			
		Draught	Beef	Breeding	Other	Milk	Draught	Beef	Breeding	Other
Ethiopia	24,818,995	9,322,045	248,456	606,618	233,973	8,310,427	180,635	74,253	5,216,820	625,768
Tigray	1,676,596	775,004	5,945	31,792	9,734	290,038	8,465	6,086	537,381	12,150
Afar	190,242	9,561	512	11,715	364	111,488	197	*	48,988	7,175
Amhara	6,496,374	3,079,655	32,287	92,960	53,503	1,062,223	85,869	18,851	1,968,865	102,160
Oromia	10,732,234	4,141,135	120,839	214,349	100,623	3,988,280	65,408	29,617	1,854,784	217,199
Somali	297,719	70,024	4,341	13,829	1,356	107,305	1,394	1,429	94,819	3,223
Benshangul-Gumuz	180,810	67,553	1,289	4,676	1,693	66,031	1,766	608	34,801	2,394
S.N.N.P.	5,074,306	1,137,257	75,087	233,602	66,016	2,599,452	16,987	16,169	652,030	277,706
Gambella	61,074	1,198	5,070	2,470	199	40,905	*	809	9,306	1,095
Harari	18,724	5,911	755	126	*	8,202	*	*	2,952	683
Addis Ababa	62,452	28,809	1,676	677	413	17,730	*	406	11,182	1,174
Diredawa	28,464	5,940	655	423	*	18,774	*	*	1,711	809

b) Rural Holdings

Geographic Area	CATTLE AGED 3 – 10 YEARS									
	Total	MALE					FEMALE			
		Draught	Beef	Breeding	Other	Milk	Draught	Beef	Breeding	Other
Ethiopia	24,311,830	9,199,795	238,192	596,796	227,671	8,066,601	178,864	71,717	5,120,202	611,992
Tigray	1,647,823	766,183	5,780	31,018	9,416	283,465	8,406	6,014	525,707	11,835
Afar	185,596	9,494	492	11,426	354	108,718	169	*	47,689	7,015
Amhara	6,411,534	3,058,916	31,213	91,385	52,248	1,031,765	85,488	18,408	1,941,706	100,404
Oromia	10,469,915	4,071,337	113,184	210,110	97,356	3,859,610	64,626	28,150	1,813,674	211,869
Somali	288,436	69,332	4,139	13,210	1,319	102,343	1,391	1,423	92,127	3,151
Benshangul-Gumuz	168,259	64,174	1,243	4,305	1,577	60,550	1,569	580	32,106	2,154
S.N.N.P.	4,994,927	1,122,291	74,519	232,625	64,870	2,549,875	16,712	15,959	645,261	272,814
Gambella	55,731	982	4,885	1,852	187	37,401	*	801	8,946	662
Harari	18,215	5,814	717	*	-	7,984	*	*	2,832	669
Addis Ababa	44,591	25,429	1,413	394	287	7,267	*	106	8,693	649
Diredawa	26,802	5,843	606	361	*	17,623	*	*	1,460	770

c) Urban Holdings

Geographic Area	CATTLE AGED 3 – 10 YEARS									
	Total	MALE					FEMALE			
		Draught	Beef	Breeding	Other	Milk	Draught	Beef	Breeding	Other
Ethiopia	507,165	122,250	10,264	9,822	6,301	243,826	1,771	2,537	96,618	13,777
Tigray	28,773	8,821	165	773	318	6,574	59	72	11,675	316
Afar	4,646	67	20	289	10	2,770	*	*	1,299	160
Amhara	84,839	20,739	1,074	1,575	1,255	30,458	381	443	27,159	1,756
Oromia	262,319	69,798	7,655	4,239	3,267	128,670	782	1,467	41,110	5,330
Somali	9,283	691	202	619	37	4,961	*	*	2,691	72
Benshangul-Gumuz	12,552	3,379	46	371	116	5,481	*	28	2,695	240
S.N.N.P.	79,379	14,966	569	977	1,146	49,577	275	209	6,768	4,892
Gambella	5,343	216	*	618	*	3,504	*	*	361	433
Harari	509	96	38	18	*	218	-	-	119	*
Addis Ababa	17,862	3,379	263	282	126	10,463	*	300	2,489	526
Diredawa	1,662	97	48	62	*	1,150	*	-	251	*

TABLE 7-8: SHEEP AGED 2 YEARS AND OLDER BY SEX, PURPOSE, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	SHEEP AGED 2 YEARS AND OLDER								
	Total	MALE				FEMALE			
		Mutton/Meat	Wool	Breeding	Other	Mutton/Meat	Wool	Breeding	Other
Ethiopia	7,259,617	292,060	5,443	446,366	63,401	69,969	33,176	6,286,991	62,210
Tigray	343,805	6,971	411	27,394	2,180	4,156	3,488	296,381	2,825
Afar	83,350	1,843	*	9,381	322	1,082	*	68,921	279
Amhara	2,747,181	108,107	2,512	122,214	41,333	22,470	11,790	2,418,893	19,862
Oromia	2,207,731	84,744	1,201	74,334	11,078	22,019	9,414	1,990,838	14,102
Somali	238,900	14,224	*	29,691	647	2,890	2,011	188,645	499
Benshangul-Gumuz	25,893	829	-	2,102	197	381	*	22,178	176
S.N.N.P.	1,561,898	72,082	656	178,599	7,463	16,503	5,099	1,257,264	24,232
Gambella	18,114	275	-	927	*	148	*	16,537	168
Harari	2,856	295	*	132	113	*	*	2,247	*
Addis Ababa	14,068	1,470	-	653	*	205	59	11,617	*
Diredawa	15,820	1,220	*	940	*	*	*	13,470	*

b) Rural Holdings

Geographic Area	SHEEP AGED 2 YEARS AND OLDER								
	Total	MALE				FEMALE			
		Mutton/Meat	Wool	Breeding	Other	Mutton/Meat	Wool	Breeding	Other
Ethiopia	7,094,685	276,386	5,333	435,989	62,043	67,814	32,366	6,153,217	61,538
Tigray	335,412	6,716	405	26,729	2,073	4,092	3,460	289,160	2,775
Afar	79,680	1,239	*	8,535	255	1,012	*	66,867	270
Amhara	2,702,893	103,439	2,484	120,231	40,933	21,810	11,588	2,382,711	19,698
Oromia	2,146,086	78,148	1,146	71,035	10,509	21,277	9,008	1,941,101	13,861
Somali	225,819	13,130	*	28,049	577	2,594	1,989	178,764	428
Benshangul-Gumuz	23,114	700	-	2,025	175	367	*	19,677	*
S.N.N.P.	1,541,889	70,598	651	177,326	7,349	16,349	5,026	1,240,435	24,155
Gambella	17,552	241	-	801	*	121	*	16,166	168
Harari	2,458	284	-	111	113	*	*	1,892	*
Addis Ababa	6,084	*	-	314	*	86	*	4,711	*
Diredawa	13,699	985	*	833	-	*	*	11,734	-

c) Urban Holdings

Geographic Area	SHEEP AGED 2 YEARS AND OLDER								
	Total	MALE				FEMALE			
		Mutton/Meat	Wool	Breeding	Other	Mutton/Meat	Wool	Breeding	Other
Ethiopia	164,932	15,674	110	10,377	1,358	2,155	810	133,774	673
Tigray	8,394	255	*	665	106	63	27	7,221	*
Afar	3,670	604	*	846	67	70	*	2,054	*
Amhara	44,287	4,668	28	1,983	400	660	203	36,182	164
Oromia	61,645	6,596	55	3,299	569	742	406	49,737	241
Somali	13,081	1,094	*	1,642	70	296	*	9,881	71
Benshangul-Gumuz	2,779	129	-	77	*	*	-	2,501	37
S.N.N.P.	20,009	1,484	*	1,274	114	154	72	16,829	77
Gambella	562	*	-	*	-	*	*	371	*
Harari	399	11	*	20	-	*	*	355	*
Addis Ababa	7,985	564	-	339	*	119	49	6,906	*
Diredawa	2,121	235	*	107	*	*	*	1,737	*

TABLE 7-9: GOATS AGED 2 YEARS AND OLDER BY SEX, PURPOSE, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	GOATS AGED 2 YEARS AND OLDER							
	Total	MALE			FEMALE			
		Meat	Breeding	Other	Meat	Milk	Breeding	Other
Ethiopia	6,381,659	458,732	618,442	58,793	70,766	675,732	4,451,657	47,538
Tigray	847,092	37,922	99,385	9,349	12,281	26,057	655,957	6,142
Afar	152,725	3,287	16,775	*	963	59,818	70,532	622
Amhara	1,786,052	199,948	120,194	23,900	22,654	*	1,319,554	20,498
Oromia	1,877,845	120,665	131,554	13,573	18,986	264,324	1,318,188	10,555
Somali	297,266	15,461	33,642	1,062	2,952	57,020	186,179	951
Benshangul-Gumuz	85,647	3,129	8,356	331	1,076	509	71,498	750
S.N.N.P.	1,259,833	75,453	204,772	9,727	11,423	180,233	770,362	7,864
Gambella	17,655	352	855	*	115	5,783	10,447	61
Harari	8,652	531	232	*	*	980	6,688	*
Addis Ababa	*	489	*	*	61	*	*	*
Diredawa	40,954	1,494	1,871	*	152	1,694	35,682	*

b) Rural Holdings

Geographic Area	GOATS AGED 2 YEARS AND OLDER							
	Total	MALE			FEMALE			
		Meat	Breeding	Other	Meat	Milk	Breeding	Other
Ethiopia	6,286,301	450,549	609,385	58,049	69,474	666,101	4,385,635	47,109
Tigray	841,522	37,761	98,769	9,316	12,224	25,901	651,427	6,124
Afar	145,801	2,990	16,097	*	841	57,012	67,549	609
Amhara	1,778,717	199,257	119,818	23,845	22,444	*	1,313,660	20,435
Oromia	1,842,868	116,508	128,418	13,321	18,653	262,824	1,292,696	10,448
Somali	278,729	14,513	31,286	945	2,615	53,480	175,092	798
Benshangul-Gumuz	84,017	2,947	8,245	326	1,076	501	70,190	732
S.N.N.P.	1,245,041	74,007	203,349	9,467	11,281	179,259	759,874	7,805
Gambella	16,498	309	719	*	110	5,505	9,753	61
Harari	8,073	476	184	*	*	943	6,248	*
Addis Ababa	*	393	*	*	*	*	*	*
Diredawa	38,273	1,386	1,764	*	*	1,413	33,553	*

c) Urban Holdings

Geographic Area	GOATS AGED 2 YEARS AND OLDER							
	Total	MALE			FEMALE			
		Meat	Breeding	Other	Meat	Milk	Breeding	Other
Ethiopia	95,358	8,183	9,057	744	1,292	9,631	66,022	429
Tigray	5,571	161	616	*	*	157	4,529	18
Afar	6,924	297	678	24	122	2,806	2,983	13
Amhara	7,335	691	376	55	210	49	5,894	62
Oromia	34,977	4,157	3,136	251	333	1,501	25,492	107
Somali	18,537	948	2,356	116	337	3,540	11,087	*
Benshangul-Gumuz	1,630	*	110	*	-	8	1,309	17
S.N.N.P.	14,792	1,446	1,423	260	142	974	10,488	59
Gambella	1,157	*	136	*	*	278	695	*
Harari	579	54	48	*	-	37	440	*
Addis Ababa	1,175	96	71	*	30	-	978	*
Diredawa	2,681	108	107	*	*	281	2,129	*

TABLE 7-10: HORSES AGED 3 YEARS AND OLDER BY SEX, PURPOSE, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	HORSES AGED 3 YEARS AND OLDER						
	Total	MALE			FEMALE		
		Transportation	Draught	Other	Transportation	Draught	Other
Ethiopia	1,156,173	485,639	72,723	8,974	358,017	88,218	142,603
Tigray.....	5,981	4,389	-	79	712	468	-
Afar	55	55	-	-	-	-	-
Amhara.....	232,353	40,370	57,342	1,768	29,580	54,330	48,962
Oromia.....	680,083	330,606	8,645	4,455	253,999	16,477	65,901
Somali	51	40	-	-	11	-	-
Benshangul-Gumuz.....	441	182	-	-	92	-	148
S.N.N.P.....	234,797	107,639	6,706	2,657	73,584	16,928	27,283
Gambella.....	338	338	-	-	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa.....	1,944	1,892	-	-	-	-	-
Diredawa.....	127	125	-	-	-	-	-

b) Rural Holdings

Geographic Area	HORSES AGED 3 YEARS AND OLDER						
	TOTAL	MALE			FEMALE		
		Transportation	Draught	Other	Transportation	Draught	Other
Ethiopia	1,137,924	473,543	72,086	8,520	354,783	87,660	141,333
Tigray.....	5,861	4,287	-	78	708	466	-
Afar	-	-	-	-	-	-	-
Amhara.....	230,366	39,349	56,922	1,683	29,451	54,202	48,759
Oromia.....	668,181	322,322	8,509	4,175	251,553	16,297	65,325
Somali	-	-	-	-	-	-	-
Benshangul-Gumuz.....	381	148	-	-	77	-	141
S.N.N.P.....	231,144	105,485	6,636	2,572	72,967	16,680	26,804
Gambella.....	333	333	-	-	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa.....	1,659	1,618	-	-	-	-	-
Diredawa.....	-	-	-	-	-	-	-

c) Urban Holdings

Geographic Area	HORSES AGED 3 YEARS AND OLDER						
	TOTAL	MALE			FEMALE		
		Transportation	Draught	Other	Transportation	Draught	Other
Ethiopia	18,249	12,096	637	454	3,234	558	1,270
Tigray.....	120	102	-	-	-	-	4
Afar	55	55	-	-	-	-	-
Amhara.....	1,988	1,021	420	85	129	128	204
Oromia.....	11,902	8,284	136	280	2,446	180	576
Somali	51	40	-	-	11	-	-
Benshangul-Gumuz.....	60	34	-	-	-	-	-
S.N.N.P.....	3,653	2,154	69	86	617	248	479
Gambella.....	-	-	-	-	-	-	-
Harari	-	-	-	-	-	-	-
Addis Ababa.....	285	274	-	-	-	-	-
Diredawa.....	127	125	-	-	-	-	-

TABLE 7-11: ASSES AGED 3 YEARS AND OLDER BY SEX, PURPOSE, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	ASSES AGED 3 YEARS AND OLDER						
	TOTAL	MALE			FEMALE		
		Transportation	Draught	Other	Transportation	Draught	Other
Ethiopia	2,969,155	1,066,646	242,231	32,041	1,253,065	308,550	66,622
Tigray	317,770	119,885	47,611	3,636	101,831	38,732	6,075
Afar	7,995	2,938	-	-	4,884	-	-
Amhara	1,025,639	304,600	76,805	11,408	447,055	150,029	35,743
Oromia	1,246,047	475,766	93,905	11,901	545,580	100,679	18,216
Somali	67,450	33,707	826	313	31,711	420	474
Benshangul-Gumuz	24,877	12,455	4,670	452	5,509	1,013	778
S.N.N.P.	247,456	106,106	6,303	4,002	111,604	14,463	4,977
Gambella	256	198	-	-	54	-	-
Harari	5,299	1,887	1,317	-	1,291	572	-
Addis Ababa	18,372	7,710	-	204	1,166	666	-
Diredawa	7,994	1,393	2,147	-	2,381	1,963	-

b) Rural Holdings

Geographic Area	ASSES AGED 3 YEARS AND OLDER						
	TOTAL	MALE			FEMALE		
		Transportation	Draught	Other	Transportation	Draught	Other
Ethiopia	2,916,485	1,036,369	237,561	30,298	1,240,224	306,032	66,000
Tigray	312,145	116,319	46,852	3,351	101,051	38,525	6,047
Afar	7,534	2,536	-	-	4,835	-	-
Amhara	1,016,285	299,973	75,467	10,885	445,013	149,383	35,563
Oromia	1,220,794	461,789	91,981	11,492	538,277	99,333	17,922
Somali	65,297	32,231	806	287	31,086	420	467
Benshangul-Gumuz	24,255	12,061	4,595	414	5,426	994	765
S.N.N.P.	242,855	103,314	6,176	3,797	110,284	14,395	4,889
Gambella	199	146	-	-	54	-	-
Harari	5,164	1,816	1,310	-	1,291	565	-
Addis Ababa	14,238	4,919	-	-	599	465	-
Diredawa	7,720	1,265	2,105	-	2,307	1,944	-

c) Urban Holdings

Geographic Area	ASSES AGED 3 YEARS AND OLDER						
	TOTAL	MALE			FEMALE		
		Transportation	Draught	Other	Transportation	Draught	Other
Ethiopia	52,669	30,277	4,670	1,742	12,842	2,517	621
Tigray	5,625	3,566	759	285	779	207	28
Afar	461	402	-	-	48	-	-
Amhara	9,354	4,627	1,338	523	2,041	645	180
Oromia	25,253	13,977	1,925	409	7,303	1,346	294
Somali	2,153	1,476	20	-	624	-	-
Benshangul-Gumuz	622	394	75	38	83	19	-
S.N.N.P.	4,601	2,792	126	205	1,321	69	88
Gambella	57	52	-	-	-	-	-
Harari	135	-	-	-	-	-	-
Addis Ababa	4,134	2,791	377	198	567	-	-
Diredawa	274	128	42	-	74	-	-

TABLE 7-12: MULES AGED 3 YEARS AND OLDER BY SEX, PURPOSE, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	MULES AGED 3 YEARS AND OLDER						
	TOTAL	MALE			FEMALE		
		Transportation	Draught	Other	Transportation	Draught	Other
Ethiopia	304,338	139,565	9,898	1,513	144,999	5,967	2,396
Tigray	15,777	5,445	832	*	8,685	531	207
Afar	255	129	-	-	126	-	-
Amhara	84,128	32,676	6,479	675	40,254	2,765	1,278
Oromia	137,616	67,374	1,671	101	66,330	1,899	241
Somali	590	527	54	-	*	-	-
Benshangul-Gumuz	1,370	583	*	-	745	*	-
S.N.N.P.	63,680	32,189	773	660	28,700	689	669
Gambella	*	*	-	-	*	-	-
Harari	*	-	*	-	-	-	-
Addis Ababa	*	*	*	-	*	-	-
Diredawa	*	*	-	-	-	*	-

b) Rural Holdings

Geographic Area	MULES AGED 3 YEARS AND OLDER						
	TOTAL	MALE			FEMALE		
		Transportation	Draught	Other	Transportation	Draught	Other
Ethiopia	299,880	137,483	9,812	1,336	143,072	5,903	2,274
Tigray	15,648	5,404	832	*	8,604	531	203
Afar	252	125	-	-	126	-	-
Amhara	82,687	32,144	6,429	533	39,643	2,741	1,197
Oromia	135,678	66,346	1,640	*	65,534	1,860	216
Somali	590	527	54	-	*	-	-
Benshangul-Gumuz	1,323	557	*	-	726	*	-
S.N.N.P.	62,807	31,758	768	647	28,289	687	657
Gambella	*	-	-	-	-	-	-
Harari	*	-	*	-	-	-	-
Addis Ababa	*	*	*	-	*	-	-
Diredawa	*	-	-	-	-	*	-

c) Urban Holdings

Geographic Area	MULES AGED 3 YEARS AND OLDER						
	TOTAL	MALE			FEMALE		
		Transportation	Draught	Other	Transportation	Draught	Other
Ethiopia	4,458	2,082	86	177	1,927	65	122
Tigray	129	41	-	*	81	-	*
Afar	*	*	-	-	-	-	-
Amhara	1,441	533	50	141	611	24	81
Oromia	1,939	1,028	31	*	795	39	25
Somali	-	-	-	-	-	-	-
Benshangul-Gumuz	46	27	-	-	*	-	-
S.N.N.P.	872	431	*	*	411	2	12
Gambella	*	*	-	-	*	-	-
Harari	*	-	-	-	-	-	-
Addis Ababa	*	*	*	-	-	-	-
Diredawa	*	*	-	-	-	-	-

TABLE 7-13: CAMELS AGED 4 YEARS AND OLDER BY SEX, PURPOSE, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	CAMELS AGED 4 YEARS AND OLDER									
	TOTAL	MALE				FEMALE				
		Transportation	Meat	Draught	Other	Meat	Transportation	Draught	Milk	Others
Ethiopia	326,150	103,484	4,373	3,287	11,232	3,082	11,284	900	160,264	28,243
Tigray	34,559	30,806		1,249	2,322					
Afar	69,219	13,535	376		832	360			45,173	
Amhara	15,052	12,114		823	1,806					
Oromia	107,417	19,138	2,580	551	2,848		3,665	357	65,165	11,594
Somali	92,822	24,852	1,161	399	3,397	1,203	3,495	372	46,606	11,338
Benshangul-Gumuz	15	15								
S.N.N.P	869	42	182						560	
Gambella										
Harari										
Addis Ababa										
Diredawa	5,219	2,894							2,001	

b) Rural Holdings

Geographic Area	CAMELS AGED 4 YEARS AND OLDER									
	TOTAL	MALE				FEMALE				
		Transportation	Meat	Draught	Other	Meat	Transportation	Draught	Milk	Others
Ethiopia	320,178	101,674	4,305	3,122	10,943	3,047	11,160	889	157,205	27,833
Tigray	33,934	30,439		1,200	2,129					
Afar	66,815	13,265	372		821	336			43,284	
Amhara	14,428	11,663			1,732					
Oromia	106,949	19,084	2,580	545	2,844		3,657	357	64,987	11,376
Somali	91,061	24,249	1,098	396	3,394	1,192	3,426	372	45,627	11,308
Benshangul-Gumuz										
S.N.N.P	861	42	182						555	
Gambella										
Harari										
Addis Ababa										
Diredawa	5,157	2,848							1,991	

c) Urban Holdings

Geographic Area	CAMELS AGED 4 YEARS AND OLDER									
	TOTAL	MALE				FEMALE				
		Transportation	Meat	Draught	Other	Meat	Transportation	Draught	Milk	Others
Ethiopia	5,972	68	165	1,810	289			3,059	124	410
Tigray	625		49	367	193					
Afar	2,405			270				1,889	43	155
Amhara	624		99	451	74					
Oromia	468			54				177		219
Somali	1,761	64		602				979	69	
Benshangul-Gumuz	15			15						
S.N.N.P										
Gambella										
Harari										
Addis Ababa										
Diredawa	62									

TABLE 7-14: POULTRY INVENTORY BY TYPE, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	Total Poultry	Cocks	Cockerels	Pullets	Non-Laying Hens	Chicks	Laying Hens	Avg. Number of Clutches	Avg. Egg Production/Hen/Clutch
Ethiopia	42,915,628	3,776,632	3,281,882	4,663,658	2,159,131	17,897,992	11,136,333	19	12
Tigray.....	4,999,678	372,110	368,830	512,941	430,062	1,903,905	1,411,830	22	14
Afar	56,376	4,588	3,492	5,691	5,126	24,207	13,273	18	11
Amhara.....	13,434,878	1,090,532	934,863	1,368,218	622,798	6,261,813	3,156,655	20	12
Oromia.....	14,784,303	1,450,607	1,161,676	1,556,293	707,679	5,874,179	4,033,869	19	12
Somali	154,746	19,383	11,997	16,391	8,051	42,756	56,169	16	13
Benshangul-Gumuz.....	961,196	70,591	77,868	120,181	27,901	469,573	195,082	18	12
S.N.N.P.....	8,106,038	715,118	686,233	1,034,893	331,645	3,194,299	2,143,850	17	11
Gambella.....	237,930	32,230	24,970	32,763	17,058	74,123	56,787	16	12
Harari.....	33,046	4,148	3,430	3,745	1,569	9,893	10,260	18	12
Addis Ababa.....	100,163	11,731	5,778	7,764	4,994	30,245	39,652	21	15
Diredawa.....	47,273	5,594	2,745	4,779	2,250	13,000	18,905	19	11

b) Rural Holdings

Geographic Area	Total Poultry	Cocks	Cockerels	Pullets	Non-Laying Hens	Chicks	Laying Hens	Avg. Number of Clutches	Avg. Egg Production/Hen/Clutch
Ethiopia	40,929,629	3,628,062	3,158,193	4,491,021	1,903,043	17,420,187	10,329,121	19	12
Tigray.....	4,049,478	321,798	316,158	455,290	234,459	1,793,730	928,042	20	13
Afar	50,592	4,027	3,105	5,244	4,432	21,920	11,864	17	11
Amhara.....	13,139,592	1,072,778	914,751	1,335,721	596,514	6,150,775	3,069,054	20	12
Oromia.....	14,366,406	1,405,805	1,133,583	1,513,182	687,785	5,731,393	3,894,657	19	12
Somali	125,195	15,475	10,311	13,045	5,669	34,714	45,982	16	13
Benshangul-Gumuz.....	905,258	66,931	73,732	113,306	27,015	442,767	181,508	16	11
S.N.N.P.....	7,936,245	695,371	674,172	1,013,678	325,056	3,136,703	2,091,264	17	11
Gambella.....	220,430	29,381	23,324	30,193	16,258	68,998	52,276	16	12
Harari.....	28,936	3,621	3,077	3,271	1,373	8,706	8,888	18	11
Addis Ababa.....	66,325	8,024	3,490	3,865	2,465	19,593	28,887	20	15
Diredawa.....	41,172	4,851	2,489	4,226	2,017	10,889	16,699	19	11

c) Urban Holdings

Geographic Area	Total Poultry	Cocks	Cockerels	Pullets	Non-Laying Hens	Chicks	Laying Hens	Avg. Number of Clutches	Avg. Egg Production/Hen/Clutch
Ethiopia	1,986,000	148,570	123,689	172,636	256,088	477,805	807,212	21	14
Tigray.....	950,200	50,312	52,672	57,651	195,603	110,175	483,788	23	15
Afar	5,785	562	386	447	694	2,287	1,409	21	13
Amhara.....	295,286	17,754	20,112	32,497	26,285	111,038	87,601	22	14
Oromia.....	417,897	44,802	28,093	43,111	19,893	142,785	139,213	21	13
Somali	29,552	3,908	1,686	3,346	2,382	8,042	10,187	16	13
Benshangul-Gumuz.....	55,938	3,660	4,137	6,874	886	26,806	13,574	19	12
S.N.N.P.....	169,794	19,747	12,061	21,215	6,589	57,595	52,586	21	14
Gambella.....	17,501	2,849	1,646	2,570	800	5,126	4,510	14	11
Harari.....	4,109	527	353	474	196	1,188	1,372	19	13
Addis Ababa.....	33,838	3,707	2,288	3,898	2,529	10,651	10,765	24	14
Diredawa.....	6,101	743	255	553	233	2,111	2,206	19	12

TABLE 7-15: BEEHIVE INVENTORY AND PRODUCTION OF HONEY BY TYPE, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	All Beehives		Traditional Beehives			Intermediate Beehives			Modern Beehives		
	Number of hives	Total annual honey production	Number of hives	Avg. frequency of production	Total annual honey production	Number of hives	Avg. frequency of production	Total annual honey production	Number of hives	Avg. frequency of production	Total annual honey production
Ethiopia	4,601,806	32,985,473	4,395,596	1	32,775,079	195,943	2	87,740	10,267	2	122,654
Tigray	228,683	1,938,408	218,270	1	1,903,183	8,708	2	3,414	1,706	1	31,811
Afar	773	5,534	658	2	5,534	-	2	-	-	-	-
Amhara	917,460	6,975,787	866,633	1	6,923,821	48,900	1	21,019	1,927	1	-
Oromia	2,270,166	13,529,223	2,172,212	1	13,460,189	92,665	1	-	5,289	2	45,802
Somali	7,212	49,224	6,347	2	49,224	-	2	-	-	2	-
Benshangul-Gumuz	166,736	745,655	166,499	1	743,721	-	1	-	-	2	-
S.N.N.P.	944,321	8,328,805	903,490	2	8,284,940	39,929	2	32,035	902	2	11,829
Gambella	59,222	1,388,326	58,625	3	1,388,326	-	-	-	-	-	-
Harari	969	4,696	952	1	4,487	-	-	-	-	1	-
Addis Ababa	4,231	-	670	2	2,998	3,543	2	-	-	2	-
Diredawa	2,034	8,655	1,240	2	8,655	-	-	-	-	-	-

b) Rural Holdings

Geographic Area	All Beehives		Traditional Beehives			Intermediate Beehives			Modern Beehives		
	Number of hives	Total annual honey production	Number of hives	Avg. frequency of production	Total annual honey production	Number of hives	Avg. frequency of production	Total annual honey production	Number of hives	Avg. frequency of production	Total annual honey production
Ethiopia	4,399,573	32,822,288	4,383,247	1	32,638,615	6,380	2	61,740	9,946	2	121,933
Tigray	211,581	1,828,792	209,466	1	1,794,504	472	2	2,478	1,643	1	31,811
Afar	658	5,534	658	2	5,534	-	-	-	-	-	-
Amhara	870,322	6,967,150	865,433	1	6,916,873	3,004	1	19,431	1,885	1	-
Oromia	2,178,131	13,514,099	2,171,638	1	13,449,334	1,345	1	-	5,148	2	45,802
Somali	6,607	49,224	6,347	2	49,224	-	-	-	-	2	-
Benshangul-Gumuz	165,116	739,375	164,879	1	737,441	-	1	-	-	2	-
S.N.N.P.	905,649	8,313,290	903,351	2	8,281,300	1,469	2	20,780	828	2	11,210
Gambella	58,625	1,388,326	58,625	3	1,388,326	-	-	-	-	-	-
Harari	969	4,696	952	1	4,487	-	-	-	-	1	-
Addis Ababa	681	3,182	664	2	2,972	-	-	-	-	2	-
Diredawa	1,234	8,619	1,234	2	8,619	-	-	-	-	-	-

c) Urban Holdings

Geographic Area	All Beehives		Traditional Beehives			Intermediate Beehives			Modern Beehives		
	Number of hives	Total annual honey production	Number of hives	Avg. frequency of production	Total annual honey production	Number of hives	Avg. frequency of production	Total annual honey production	Number of hives	Avg. frequency of production	Total annual honey production
Ethiopia	202,233	163,185	12,349	2	136,464	189,564	2	26,000	320	1	-
Tigray	17,103	109,616	8,804	1	108,680	8,236	1	-	-	1	-
Afar	-	-	-	-	-	-	2	-	-	-	-
Amhara	47,138	8,637	1,200	1	6,948	45,896	1	-	-	1	-
Oromia	92,035	15,124	574	1	-	91,320	2	4,269	142	2	-
Somali	-	-	-	-	-	-	2	-	-	-	-
Benshangul-Gumuz	1,620	6,280	1,620	2	6,280	-	-	-	-	-	-
S.N.N.P.	38,672	-	139	2	-	38,459	2	-	74	1	-
Gambella	-	-	-	4	-	-	-	-	-	-	-
Harari	-	-	-	2	-	-	-	-	-	1	-
Addis Ababa	3,549	-	-	2	-	3,543	2	-	-	2	-
Diredawa	-	-	-	2	-	-	-	-	-	-	-

TABLE 7-16: NUMBER OF DAIRY ANIMALS, MILK PRODUCTION, AND LACTATION PERIOD BY REGION

a) Both Rural and Urban Holdings

Geographic Area	Number Of Dairy Cows	Number Of Milking Cows	Average Daily Milk Prod.	Average Lactation Period(Mn)	Total Milk Production (Lt)	Number Of Dairy Camels	Number Of Milking Camels	Average Daily Milk Prod.	Average Lactation Period(Mn)	Total Milk Production (Lt)
Ethiopia	8,310,427	9,307,582	1.284	8	2,591,187,141	160,264	111,486	3.536	12	114,864,928
Tigray.....	290,038	482,599	1.551	8	137,311,704	-	*	-	-	-
Afar	111,488	82,708	2.45	7	43,519,029	45,173	18,064	6.143	11	34,394,354
Amhara.....	1,062,223	1,927,859	1.222	8	492,964,417	*	*	5.773	9	*
Oromia.....	3,988,280	4,236,625	1.281	8	1,151,622,549	65,165	53,302	2.972	11	45,331,565
Somali	107,305	131,694	1.755	8	49,892,646	46,606	30,786	3.606	13	32,473,089
Benshangul-Gumuz.....	66,031	62,929	1.626	7	20,211,814	-	*	-	-	-
S.N.N.P.....	2,599,452	2,304,937	1.289	8	662,660,245	560	240	6.706	14	800,299
Gambella.....	40,905	33,934	1.94	7	13,133,285	-	*	-	-	-
Harari.....	8,202	9,401	1.706	8	3,134,486	*	*	3.315	10	*
Addis Ababa.....	17,730	20,160	2.621	8	12,175,288	-	*	-	-	-
Diredawa.....	18,774	14,737	1.77	7	4,561,678	2,001	1,440	2.565	12	917,274

b) Rural Holdings

Geographic Area	Number Of Dairy Cows	Number Of Milking Cows	Average Daily Milk Prod.	Average Lactation Period(Mn)	Total Milk Production(Lt)	Number Of Dairy Camels	Number Of Milking Camels	Average Daily Milk Prod.	Average Lactation Period(Mn)	Total Milk Production (Lt)
Ethiopia	8,066,601	9,048,567	1.259	8	2,478,968,904	157,205	106,827	3.517	12	112,914,475
Tigray.....	283,465	470,636	1.209	8	133,189,088	-	*	-	-	-
Afar	108,718	80,270	2.442	7	42,161,603	43,284	17,296	6.179	11	33,055,489
Amhara.....	1,031,765	1,885,422	1.21	8	476,858,720	*	*	5.773	9	*
Oromia.....	3,859,610	4,104,698	1.265	8	1,102,327,317	64,987	52,813	2.953	11	45,193,384
Somali	102,343	126,539	1.738	8	47,672,700	45,627	30,375	3.594	13	32,005,237
Benshangul-Gumuz.....	60,550	55,926	1.554	7	18,234,363	-	*	-	-	-
S.N.N.P.....	2,549,875	2,261,038	1.244	8	635,456,629	555	237	6.719	14	796,718
Gambella.....	37,401	30,496	1.908	7	11,574,174	-	*	-	-	-
Harari.....	7,984	9,158	1.671	8	2,981,204	*	*	3.315	10	*
Addis Ababa.....	7,267	10,535	1.948	8	4,368,904	-	*	-	-	-
Diredawa.....	17,623	13,849	1.702	8	4,144,203	1,991	1,352	2.558	12	915,301

c) Urban Holdings

Geographic Area	Number Of Dairy Cows	Number Of Milking Cows	Average Daily Milk Prod.	Average Lactation Period(Mn)	Total Milk Production(Lt)	Number Of Dairy Camels	Number Of Milking Camels	Average Daily Milk Prod.	Average Lactation Period(Mn)	Total Milk Production (Lt)
Ethiopia	243,826	259,015	2.128	8	112,218,236	3,059	*	5.633	12	1,950,453
Tigray	6,574	11,963	1.894	8	4,122,616	-	-	-	-	-
Afar	2,770	2,438	2.625	7	1,357,427	1,889	768	5.01	11	1,338,865
Amhara.....	30,458	42,437	1.809	8	16,105,697	-	*	-	-	-
Oromia.....	128,670	131,927	1.73	8	49,295,231	177	489	9.989	11	138,182
Somali	4,961	5,155	2.21	8	2,219,947	979	411	4.441	12	467,853
Benshangul-Gumuz.....	5,481	7,003	1.698	7	1,977,451	-	-	-	-	-
S.N.N.P.....	49,577	43,899	3.391	8	27,203,615	*	*	2.295	9	*
Gambella.....	3,504	3,438	2.293	7	1,559,111	-	-	-	-	-
Harari.....	218	243	3.116	8	153,283	-	-	-	-	-
Addis Ababa.....	10,463	9,625	3.354	7	7,806,384	-	*	-	-	-
Diredawa.....	1,150	888	2.978	7	417,474	*	*	3.83	13	*

TABLE 7-17: NUMBER OF CATTLE BY SEX, BREED, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	Total	MALE			FEMALE		
		Indigenous	Hybrid	Exotic	Indigenous	Hybrid	Exotic
Ethiopia	41,527,142	18,104,951	71,502	14,527	23,176,545	118,054	41,564
Tigray.....	2,668,078	1,301,678	3,048	812	1,356,706	4,142	1,693
Afar	345,635	68,968	*	*	275,787	*	29
Amhara	10,512,770	5,250,765	19,142	3,483	5,206,331	24,930	8,118
Oromia.....	18,035,686	7,942,394	40,263	7,591	9,959,847	65,962	19,629
Somali	512,320	179,873	-	*	332,322	-	*
Benshangul-Gumuz.....	309,627	135,486	*	*	174,090	*	*
S.N.N.P.....	8,831,450	3,112,931	7,063	1,452	5,685,625	18,196	6,183
Gambella.....	126,198	36,741	-	-	89,456	-	*
Harari.....	34,008	13,322	*	68	20,401	*	95
Addis Ababa.....	97,215	44,921	*	1,053	40,091	3,815	5,581
Diredawa.....	54,155	17,873	*	*	35,890	196	143

b) Rural Holdings

Geographic Area	Total	MALE			FEMALE		
		Indigenous	Hybrid	Exotic	Indigenous	Hybrid	Exotic
Ethiopia	40,638,801	17,795,873	69,148	4,735	22,652,848	107,378	8,819
Tigray.....	2,619,540	1,283,063	2,780	436	1,329,591	3,073	597
Afar	336,002	67,145	*	-	268,023	*	*
Amhara	10,360,069	5,197,917	18,729	1,118	5,118,037	23,245	1,022
Oromia.....	17,583,777	7,774,931	38,989	2,759	9,700,379	61,085	5,634
Somali	495,403	174,997	-	*	320,281	-	*
Benshangul-Gumuz.....	286,735	126,497	*	-	160,195	*	*
S.N.N.P.....	8,691,304	3,070,609	6,865	302	5,594,945	17,352	1,232
Gambella.....	116,074	33,626	-	-	82,446	-	*
Harari.....	33,094	13,051	*	*	19,944	*	-
Addis Ababa.....	66,091	37,023	*	61	25,524	*	174
Diredawa.....	50,712	17,015	*	-	33,484	*	*

c) Urban Holdings

Geographic Area	Total	MALE			FEMALE		
		Indigenous	Hybrid	Exotic	Indigenous	Hybrid	Exotic
Ethiopia	888,341	309,078	2,354	9,792	523,697	10,676	32,745
Tigray.....	48,538	18,615	268	376	27,114	1,068	1,096
Afar	9,633	1,823	-	*	7,764	*	21
Amhara	152,701	52,848	413	2,365	88,295	1,685	7,096
Oromia.....	451,908	167,463	1,274	4,832	259,468	4,876	13,995
Somali	16,917	4,876	-	-	12,041	-	-
Benshangul-Gumuz.....	22,892	8,988	-	*	13,896	-	*
S.N.N.P.....	140,146	42,322	198	1,150	90,680	844	4,952
Gambella.....	10,124	3,115	-	-	7,009	-	-
Harari.....	914	272	*	52	457	*	95
Addis Ababa.....	31,123	7,898	168	993	14,567	2,091	5,407
Diredawa.....	3,443	858	*	*	2,406	*	78

TABLE 7-18: NUMBER OF SHEEP BY SEX, BREED, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	Total	MALE			FEMALE		
		Indigenous	Hybrid	Exotic	Indigenous	Hybrid	Exotic
Ethiopia	14,655,566	3,895,730	3,790	1,533	10,741,815	8,750	3,948
Tigray.....	687,212	177,908	*	*	508,222	*	*
Afar	160,385	36,327	-	-	124,058	-	-
Amhara	5,320,330	1,372,211	2,943	704	3,938,063	5,278	1,132
Oromia	4,691,016	1,225,954	472	172	3,461,114	2,786	518
Somali	454,821	130,713	-	-	324,108	-	-
Benshangul-Gumuz.....	58,770	16,470	*	451	39,853	*	1,979
S.N.N.P.....	3,169,816	904,672	*	*	2,264,839	*	*
Gambella.....	43,746	9,078	-	*	34,650	-	-
Harari.....	5,774	2,056	-	-	3,718	-	-
Addis Ababa.....	29,682	9,371	*	-	20,280	*	-
Diredawa.....	34,015	10,970	*	*	22,909	*	-

b) Rural Holdings

Geographic Area	Total	MALE			FEMALE		
		Indigenous	Hybrid	Exotic	Indigenous	Hybrid	Exotic
Ethiopia	14,321,787	3,787,859	3,529	1,230	10,517,786	7,897	3,487
Tigray.....	670,801	173,263	*	*	496,489	*	*
Afar	151,794	31,823	-	-	119,970	-	-
Amhara	5,232,302	1,343,335	2,691	509	3,880,424	4,476	*
Oromia	4,565,365	1,184,918	466	*	3,376,811	2,750	*
Somali	430,539	123,452	-	-	307,087	-	-
Benshangul-Gumuz.....	52,532	14,424	*	451	35,661	*	1,979
S.N.N.P.....	3,129,369	892,703	*	*	2,236,370	*	*
Gambella.....	42,753	8,749	-	*	33,986	-	-
Harari.....	4,949	1,840	-	-	3,109	-	-
Addis Ababa.....	12,432	4,136	*	-	8,266	*	-
Diredawa.....	28,950	9,216	*	-	19,612	*	-

c) Urban Holdings

Geographic Area	Total	MALE			FEMALE		
		Indigenous	Hybrid	Exotic	Indigenous	Hybrid	Exotic
Ethiopia	333,778	107,872	261	303	224,029	853	461
Tigray.....	16,411	4,645	*	*	11,733	*	*
Afar	8,591	4,503	-	-	4,088	-	-
Amhara	88,028	28,877	252	195	57,640	802	263
Oromia.....	125,651	41,036	*	89	84,303	36	180
Somali	24,282	7,261	-	-	17,021	-	-
Benshangul-Gumuz.....	6,238	2,046	-	-	4,192	-	-
S.N.N.P.....	40,446	11,970	-	*	28,468	-	*
Gambella.....	993	328	-	-	664	-	-
Harari.....	824	216	-	-	609	-	-
Addis Ababa.....	17,250	5,235	-	-	12,014	-	-
Diredawa.....	5,065	1,755	-	*	3,297	*	-

TABLE 7-19: NUMBER OF GOATS BY SEX, BREED, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	Total	MALE			FEMALE		
		Indigenous	Hybrid	Exotic	Indigenous	Hybrid	Exotic
Ethiopia	13,661,562	4,263,566	619	*	9,395,891	630	*
Tigray.....	1,759,126	535,301	*	*	1,223,199	*	*
Afar	307,456	66,355	-	-	241,102	-	-
Amhara	3,815,859	1,263,947	*	*	2,551,451	*	*
Oromia	4,174,968	1,265,870	*	*	2,908,686	*	*
Somali	574,561	154,986	-	-	419,556	-	*
Benshangul-Gumuz.....	200,472	55,014	*	23	145,278	*	103
S.N.N.P.....	2,651,077	874,958	*	*	1,775,773	*	-
Gambella.....	49,076	10,494	-	-	38,582	-	-
Harari.....	19,098	5,731	-	-	13,368	-	-
Addis Ababa	*	*	15	-	*	25	-
Diredawa.....	91,007	24,418	*	-	66,567	*	-

b) Rural Holdings

Geographic Area	Total	MALE			FEMALE		
		Indigenous	Hybrid	Exotic	Indigenous	Hybrid	Exotic
Ethiopia	13,464,825	4,200,051	596	*	9,262,859	585	*
Tigray.....	1,748,296	532,239	*	*	1,215,431	*	*
Afar	291,014	61,891	-	-	229,123	-	-
Amhara	3,800,802	1,259,258	*	-	2,541,198	*	*
Oromia	4,101,687	1,240,088	*	-	2,861,202	*	*
Somali	541,103	145,473	-	-	395,610	-	*
Benshangul-Gumuz.....	197,179	53,888	*	23	143,112	*	103
S.N.N.P.....	2,619,541	863,810	*	*	1,755,385	*	-
Gambella.....	46,735	9,858	-	-	36,877	-	-
Harari.....	17,850	5,330	-	-	12,520	-	-
Addis Ababa	*	*	-	-	*	-	-
Diredawa.....	84,517	22,544	-	-	61,973	-	-

c) Urban Holdings

Geographic Area	Total	MALE			FEMALE		
		Indigenous	Hybrid	Exotic	Indigenous	Hybrid	Exotic
Ethiopia	196,737	63,515	23	*	133,031	45	*
Tigray.....	10,830	3,063	-	-	7,768	-	-
Afar	16,443	4,464	-	-	11,978	-	-
Amhara	15,057	4,689	*	*	10,253	-	*
Oromia	73,281	25,782	*	*	47,485	*	*
Somali	33,458	9,512	-	-	23,946	-	-
Benshangul-Gumuz.....	3,293	1,126	-	-	2,167	-	-
S.N.N.P.....	31,536	11,148	-	-	20,388	-	-
Gambella.....	2,341	637	-	-	1,705	-	-
Harari.....	1,248	401	-	-	848	-	-
Addis Ababa	2,759	819	15	-	1,900	25	-
Diredawa.....	6,490	1,874	*	-	4,595	*	-

TABLE 7-20: ESTIMATED NUMBER OF LIVESTOCK VACCINATED BY REGION

a) Both Urban Rural Holdings

Geographic Area	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Ethiopia	9,304,316	783,971	794,935	371,651	37,925	159,557
Tigray.....	1,351,699	190,853	319,218	42,597	13,607	24,428
Afar	35,778	1,692	2,888	*	235	-
Amhara.....	2,476,995	367,795	171,282	131,745	1,107	53,199
Oromia.....	3,851,696	120,058	118,071	177,851	2,948	53,425
Somali	86,706	55,376	98,662	2,408	19,447	*
Benshangul-Gumuz.....	100,266	1,476	8,634	1,027	*	6,414
S.N.N.P.....	1,317,175	39,247	62,993	15,306	*	20,625
Gambella.....	17,518	374	698	20	-	*
Harari.....	1,105	*	148	*	*	*
Addis Ababa.....	46,618	1,344	86	473	-	*
Diredawa.....	18,760	5,723	12,257	176	*	*

Note: Draught animals in this and the following tables refer to Horses, Asses, and Mules.

b) Rural Holdings

Geographic Area	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Ethiopia	8,969,640	739,936	775,923	361,191	37,585	132,238
Tigray.....	1,318,043	184,521	315,195	40,851	13,426	19,799
Afar	34,870	1,570	2,775	*	221	-
Amhara.....	2,413,734	350,941	168,593	129,869	1,005	45,724
Oromia.....	3,694,090	105,909	112,344	172,106	2,927	44,629
Somali	83,784	53,031	95,390	2,225	19,438	*
Benshangul-Gumuz.....	87,228	1,342	8,376	1,018	-	5,373
S.N.N.P.....	1,271,767	37,519	61,583	14,699	*	15,881
Gambella.....	12,120	*	397	-	-	*
Harari.....	*	-	*	*	*	-
Addis Ababa.....	35,520	*	-	*	-	*
Diredawa.....	17,488	4,816	11,206	*	*	*

c) Urban Holdings

Geographic Area	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Ethiopia	334,676	44,035	19,012	10,460	340	27,319
Tigray.....	33,656	6,332	4,023	1,746	181	4,629
Afar	909	122	113	*	*	-
Amhara.....	63,261	16,854	2,689	1,875	102	7,475
Oromia.....	157,607	14,149	5,727	5,746	*	8,796
Somali	2,922	2,346	3,271	184	*	*
Benshangul-Gumuz.....	13,038	134	258	*	*	1,041
S.N.N.P.....	45,408	1,728	1,410	606	-	4,744
Gambella.....	5,398	*	301	20	-	*
Harari.....	108	*	*	*	-	*
Addis Ababa.....	11,098	1,243	86	182	-	206
Diredawa.....	1,272	907	1,051	68	*	*

TABLE 7-21: ESTIMATED NUMBER OF LIVESTOCK AFFLICTED/DISEASED BY REGION

a) Both Rural and Urban Holdings

Geographic Area	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Ethiopia	5,149,263	1,765,586	1,695,284	380,229	39,666	11,336,709
Tigray	162,782	57,703	166,088	13,400	2,404	456,534
Afar	40,340	32,753	33,488	131	5,413	30,885
Amhara	1,100,058	507,309	439,212	103,273	1,606	2,489,714
Oromia	2,401,055	683,274	495,515	204,796	20,391	4,741,906
Somali	63,732	71,408	71,813	2,334	9,110	15,802
Benshangul-Gumuz	105,653	22,169	110,515	8,112	37	501,874
S.N.N.P.	1,241,033	375,333	363,525	47,287	107	2,967,773
Gambella	20,660	7,369	7,147	101	*	79,240
Harari	4,945	*	744	191	*	7,151
Addis Ababa	5,018	4,786	1,030	402	-	42,830
Diredawa	3,988	2,896	6,207	203	*	2,999

b) Rural Holdings

Geographic Area	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Ethiopia	5,037,570	1,726,850	1,674,032	373,920	39,249	10,762,544
Tigray	160,202	56,211	165,172	13,051	2,361	435,108
Afar	38,786	31,923	31,422	*	5,263	28,370
Amhara	1,084,805	497,385	436,761	102,199	1,541	2,380,852
Oromia	2,341,256	668,398	488,662	201,331	20,337	4,485,554
Somali	62,066	68,289	67,937	2,264	9,015	12,156
Benshangul-Gumuz	96,743	20,343	109,466	7,960	*	469,094
S.N.N.P.	1,223,889	370,808	360,598	46,320	107	2,844,069
Gambella	18,365	7,245	6,876	*	*	74,470
Harari	4,878	*	694	182	*	3,327
Addis Ababa	2,984	3,301	681	319	-	27,945
Diredawa	3,597	2,400	5,764	153	*	1,601

c) Urban Holdings

Geographic Area	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Ethiopia	111,693	38,736	21,252	6,309	417	574,165
Tigray	2,580	1,492	916	348	43	21,427
Afar	1,553	830	2,066	59	150	2,516
Amhara	15,253	9,924	2,451	1,073	65	108,862
Oromia	59,799	14,876	6,854	3,465	54	256,352
Somali	1,666	3,119	3,876	69	94	3,646
Benshangul-Gumuz	8,910	1,825	1,049	152	*	32,780
S.N.N.P.	17,144	4,525	2,927	967	-	123,704
Gambella	2,296	*	*	32	-	4,770
Harari	67	40	50	*	-	3,824
Addis Ababa	2,035	1,484	*	83	-	14,885
Diredawa	391	496	443	*	-	1,398

TABLE 7-22: ESTIMATED NUMBER OF LIVESTOCK TREATED BY REGION

a) Both Rural and Urban Holdings

Geographic Area	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Ethiopia	1,863,572	238,555	231,107	120,094	8,473	293,056
Tigray.....	67,704	19,840	53,239	4,661	1,844	13,730
Afar	5,509	6,669	5,894	20	976	57
Amhara.....	367,896	98,513	63,464	29,679	786	65,987
Oromia.....	889,170	68,012	45,933	67,120	3,255	137,946
Somali	6,599	*	8,721	188	1,398	*
Benshangul-Gumuz.....	80,904	5,233	8,850	3,244	*	13,871
S.N.N.P.....	437,875	26,111	44,314	14,976	*	59,134
Gambella.....	4,223	*	286	15	-	891
Harari	1,439	27	177	*	*	*
Addis Ababa.....	1,547	359	*	38	-	1,193
Diredawa	706	372	210	*	*	*

b) Rural Holdings

Geographic Area	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Ethiopia	1,788,015	222,539	224,974	116,360	8,351	245,813
Tigray.....	65,985	19,149	52,795	4,469	1,804	11,614
Afar	5,235	6,572	5,804	-	976	31
Amhara.....	357,402	92,371	62,364	29,080	731	55,832
Oromia.....	848,861	62,458	43,755	65,048	3,238	114,917
Somali	6,113	*	8,045	157	1,398	*
Benshangul-Gumuz.....	72,859	4,086	8,491	3,120	-	10,961
S.N.N.P.....	426,483	24,602	43,280	14,349	*	51,085
Gambella.....	2,477	*	*	-	-	642
Harari	1,388	-	*	*	*	-
Addis Ababa.....	660	144	-	*	-	662
Diredawa	553	*	*	*	*	-

c) Urban Holdings

Geographic Area	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Ethiopia	75,558	16,016	6,134	3,734	122	47,243
Tigray.....	1,719	691	443	192	40	2,116
Afar	275	97	89	20	-	*
Amhara.....	10,494	6,142	1,100	599	55	10,155
Oromia.....	40,309	5,554	2,179	2,072	17	23,029
Somali	486	380	676	32	-	*
Benshangul-Gumuz.....	8,046	1,147	359	125	*	2,911
S.N.N.P.....	11,392	1,509	1,034	627	-	8,049
Gambella.....	1,746	*	*	15	-	249
Harari	51	27	43	*	-	*
Addis Ababa.....	887	215	*	*	-	531
Diredawa	153	231	140	*	-	*

TABLE 7-23: ESTIMATED NUMBER OF LIVESTOCK DIED BY REGION

a) Both Rural and Urban Holdings

Geographic Area	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Ethiopia	2,243,275	1,289,862	1,213,385	193,027	17,165	10,401,496
Tigray.....	60,658	43,387	108,786	6,052	387	416,944
Afar	22,027	24,461	23,056	109	2,959	29,475
Amhara.....	413,072	357,447	326,051	51,916	496	2,297,532
Oromia	1,106,682	539,868	381,482	104,295	9,651	4,387,538
Somali	31,585	31,486	33,698	627	3,368	13,944
Benshangul-Gumuz.....	32,672	16,031	91,331	4,467	30	438,034
S.N.N.P.	560,096	267,719	237,661	25,083	*	2,695,995
Gambella.....	8,873	2,498	5,272	*	*	71,476
Harari	1,919	*	293	*	*	6,949
Addis Ababa.....	3,083	4,245	915	282	-	40,714
Diredawa.....	2,608	2,338	4,840	96	*	2,896

b) Rural Holdings

Geographic Area	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Ethiopia	2,195,634	1,264,285	1,198,078	189,526	16,910	9,866,172
Tigray.....	59,722	42,376	108,216	5,861	364	397,129
Afar	20,999	23,925	21,410	*	2,859	27,183
Amhara.....	407,995	352,224	324,322	51,331	458	2,196,053
Oromia	1,080,189	529,449	376,494	102,459	9,622	4,145,970
Somali	30,538	29,063	31,065	606	3,307	10,687
Benshangul-Gumuz.....	28,971	15,097	90,479	4,382	*	410,013
S.N.N.P.	552,915	264,389	235,691	24,436	*	2,580,778
Gambella.....	8,117	2,402	5,051	*	*	67,127
Harari	1,892	*	282	*	*	3,170
Addis Ababa.....	1,962	*	580	231	-	26,501
Diredawa.....	2,333	2,000	4,489	*	*	1,561

c) Urban Holders

Geographic Area	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Ethiopia	47,640	25,576	15,307	3,501	255	535,324
Tigray.....	935	1,011	570	192	*	19,816
Afar	1,028	535	1,646	37	100	2,292
Amhara.....	5,076	5,223	1,729	585	*	101,478
Oromia	26,493	10,419	4,988	1,835	29	241,568
Somali	1,047	2,423	2,633	21	61	3,257
Benshangul-Gumuz.....	3,701	934	852	85	*	28,021
S.N.N.P.	7,181	3,330	1,969	647	-	115,216
Gambella.....	756	*	*	*	-	4,349
Harari	28	*	*	*	-	3,779
Addis Ababa.....	1,120	1,242	*	51	-	14,213
Diredawa.....	275	338	352	*	-	1,335

TABLE 7-24: ANIMAL FEED PRACTICES OF PEASNT HOLDERS – PERCENTAGE USED BY TYPE OF FEED, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	Total (%)	Green Fodder	Crop Residue	Improved Feed	Hay	By-Product	Others
Ethiopia	100	60.17	26.02	0.12	6.8	1.45	5.43
Tigray.....	100	31.49	34.17	0.4	13.75	2.44	17.67
Afar	100	75.68	6.46	0.19	9.63	1.69	6.35
Amhara.....	100	46.58	35.31	0.18	13.08	1.31	3.54
Oromia.....	100	68.81	21.55	0.09	3.42	1.42	4.71
Somali.....	100	69.06	22.25	0.05	2.53	0.43	5.68
Benshangul-Gumuz.....	100	69.03	3.6	0.05	1.28	2.45	23.57
S.N.N.P.....	100	67.86	18.88	0.06	2.82	1.47	8.9
Gambella.....	100	68.86	4.09	0.02	0.09	4.1	22.84
Harari.....	100	36.67	47	1.19	3.64	5.55	5.94
Addis Ababa.....	100	41.75	24.99	0.31	13.57	12.57	6.81
Diredawa.....	100	69.87	17.86	0.06	3.86	5.47	2.87

b) Rural Holdings

Geographic Area	Total (%)	Green Fodder	Crop Residue	Improved Feed	Hay	By-Product	Others
Ethiopia	100	60.55	26.35	0.12	6.77	1.26	4.95
Tigray.....	100	36.04	42.65	0.18	14.49	1.53	4.98
Afar	100	81.56	6.66	0.2	6.56	0.56	4.44
Amhara.....	100	51.36	32.99	0.16	11.43	1.02	3.04
Oromia.....	100	69.36	21.73	0.09	3.39	1.2	4.23
Somali.....	100	71.45	22.23	0.05	2.39	0.19	3.7
Benshangul-Gumuz.....	100	81.28	4.96	0.06	1.13	1.61	10.88
S.N.N.P.....	100	68.05	19.05	0.06	2.8	1.39	8.65
Gambella.....	100	71.65	4.47	0.02	0.08	3.95	19.82
Harari.....	100	37.57	48.47	1.2	3.67	4.93	4.16
Addis Ababa.....	100	49.97	33.35	0.13	8.4	6.07	2.07
Diredawa.....	100	72.11	20.38	0.04	3.19	2.88	1.39

c) Urban Holdings

Geographic Area	Total (%)	Green Fodder	Crop Residue	Improved Feed	Hay	By-Product	Others
Ethiopia	100	48.85	16.3	0.24	7.67	7.17	19.77
Tigray.....	100	26.94	25.69	0.63	13.02	3.36	30.35
Afar	100	41.12	5.26	0.09	27.66	8.28	17.58
Amhara.....	100	35.08	17.05	0.38	16.05	8.96	22.47
Oromia.....	100	54.4	17.01	0.19	4.18	7.13	17.09
Somali.....	100	46.16	22.39	0.13	3.88	2.74	24.71
Benshangul-Gumuz.....	100	56.77	2.24	0.03	1.42	3.28	36.27
S.N.N.P.....	100	60.71	12.22	0.11	3.6	4.79	18.57
Gambella.....	100	43.89	0.72	0.03	0.2	5.37	49.8
Harari.....	100	24.82	27.84	1.08	3.37	13.67	29.22
Addis Ababa.....	100	32.1	15.18	0.52	19.65	20.19	12.37
Diredawa.....	100	56.63	2.99	0.19	7.82	20.79	11.59

TABLE 7-25: ANIMAL FEED PRACTICES OF PEASNT HOLDERS – NUMBER OF HOLDERS REPORTING BY TYPE OF FEED, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	Green Fodder	Crop Residue	Improved Feed	Hay	By-Product	Others
Ethiopia	9,462,178	7,825,828	66,009	2,852,543	987,506	3,085,797
Tigray.....	539,684	578,966	6,884	409,853	76,604	141,684
Afar	23,465	8,745	*	5,065	1,319	4,276
Amhara.....	2,670,653	2,545,602	22,475	1,433,118	277,131	617,411
Oromia.....	3,736,109	2,836,792	23,140	626,748	373,220	1,192,676
Somali.....	98,159	77,582	318	14,694	1,772	20,358
Benshangul-Gumuz.....	93,378	28,050	483	6,626	10,925	30,306
S.N.N.P.....	2,239,634	1,706,289	11,134	340,399	224,892	1,055,075
Gambella.....	13,026	2,732	*	106	2,638	9,173
Harari.....	11,216	12,702	975	2,097	3,347	4,854
Addis Ababa.....	19,851	16,546	345	10,791	10,978	7,318
Diredawa.....	17,001	11,822	*	3,046	4,679	2,669

b) Rural Holdings

Geographic Area	Green Fodder	Crop Residue	Improved Feed	Hay	By-Product	Others
Ethiopia	9,192,256	7,660,221	62,595	2,764,117	892,592	2,868,982
Tigray.....	524,194	564,913	6,526	399,882	73,773	126,299
Afar	21,065	8,032	*	2,970	515	2,513
Amhara.....	2,620,172	2,511,832	21,609	1,402,055	254,274	575,992
Oromia.....	3,614,234	2,759,456	21,792	599,740	329,362	1,096,775
Somali.....	90,511	72,497	276	13,613	919	15,025
Benshangul-Gumuz.....	88,281	27,100	472	6,082	9,324	24,351
S.N.N.P.....	2,184,143	1,678,455	10,659	330,969	211,869	1,012,593
Gambella.....	11,709	2,652	*	86	2,172	7,573
Harari.....	10,615	12,122	939	1,944	2,961	4,226
Addis Ababa.....	12,571	11,641	109	4,643	4,152	2,160
Diredawa.....	14,761	11,521	*	2,133	3,271	1,475

c) Urban Holdings

Geographic Area	Green Fodder	Crop Residue	Improved Feed	Hay	By-Product	Others
Ethiopia	269,922	165,608	3,414	88,426	94,914	216,815
Tigray.....	15,490	14,053	358	9,971	2,832	15,384
Afar	2,400	714	17	2,095	804	1,763
Amhara.....	50,481	33,770	866	31,063	22,857	41,418
Oromia.....	121,875	77,337	1,348	27,008	43,858	95,900
Somali.....	7,648	5,086	42	1,082	853	5,333
Benshangul-Gumuz.....	5,097	950	*	544	1,601	5,954
S.N.N.P.....	55,491	27,834	475	9,430	13,023	42,482
Gambella.....	1,316	80	*	20	466	1,600
Harari.....	602	580	36	153	386	629
Addis Ababa.....	7,280	4,904	236	6,148	6,826	5,158
Diredawa.....	2,241	301	23	912	1,409	1,193

TABLE 7-26: LIVESTOCK PRODUCT UTILIZATION - PERCENTAGE OF USES OF MILK BY TYPE OF USE, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	48.1	5.06	0.31	46.53
Tigray.....	100	43.26	7.3	0.59	48.84
Afar	100	83.34	10.12	0.21	6.32
Amhara.....	100	41.0	0.74	0.76	57.46
Oromia.....	100	53.64	6.51	0.15	39.7
Somali	100	66.69	28.21	0.17	4.94
Benshangul-Gumuz.....	100	54.98	5.71	0.67	38.67
S.N.N.P.	100	31.97	2.71	0.19	65.12
Gambella.....	100	61.87	10.03	0.16	27.94
Harari	100	54.9	40.03	0.01	5.06
Addis Ababa.....	100	53.19	10.29	0.01	36.51
Diredawa.....	100	53.22	42.71	0.02	4.06

b) Rural Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	44.85	4.44	0.32	50.39
Tigray.....	100	37.32	0.67	0.71	61.31
Afar	100	78.05	6.22	0.12	15.61
Amhara.....	100	40.74	0.55	0.76	57.96
Oromia	100	53.38	6.37	0.14	40.1
Somali	100	65.83	28.96	0.16	5.06
Benshangul-Gumuz.....	100	47.61	4.17	0.4	47.82
S.N.N.P.	100	31.59	2.54	0.19	65.69
Gambella.....	100	62.32	8.16	0.15	29.36
Harari	100	54.82	40.17	-	5
Addis Ababa.....	100	53.28	9.87	-	36.85
Diredawa.....	100	51.88	43.97	0.02	4.13

c) Urban Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	77.29	10.65	0.24	11.83
Tigray.....	100	49.2	13.94	0.48	36.38
Afar	100	83.52	10.26	0.22	6
Amhara.....	100	56.69	10.79	0.54	31.99
Oromia	100	61.44	10.52	0.22	27.82
Somali	100	81.35	15.42	0.34	2.89
Benshangul-Gumuz.....	100	62.35	7.24	0.93	29.51
S.N.N.P.	100	49.14	10.6	0.26	39.99
Gambella.....	100	58.26	25.02	0.21	16.52
Harari	100	57.33	35.45	0.27	6.95
Addis Ababa.....	100	47.26	38.95	0.11	13.68
Diredawa.....	100	73.66	23.4	-	2.94

TABLE 7-27: LIVESTOCK PRODUCT UTILIZATION - PERCENTAGE OF USES OF BUTTER BY TYPE OF USE, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	60.23	35.84	0.19	3.74
Tigray.....	100	73.89	19.93	0.23	5.95
Afar	100	74.63	21.41	0.33	3.63
Amhara.....	100	58.6	37.9	0.13	3.4
Oromia.....	100	59.67	36.41	0.15	3.77
Somali	100	49.61	46.74	0.08	3.58
Benshangul-Gumuz.....	100	69.2	27.9	0.1	2.81
S.N.N.P.....	100	57.37	37.81	0.36	4.46
Gambella.....	100	66.16	29.43	0.05	4.37
Harari	100	84.86	10.39	-	4.75
Addis Ababa.....	100	66.16	33.01	-	0.83
Diredawa.....	100	83.72	13.42	-	2.85

b) Rural Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	59.2	36.87	0.18	3.74
Tigray.....	100	65.97	28.18	0.08	5.77
Afar	100	78.23	17.77	0.02	3.98
Amhara.....	100	58.25	38.21	0.13	3.41
Oromia.....	100	59.04	37.04	0.15	3.77
Somali	100	49.3	47.02	0.07	3.61
Benshangul-Gumuz.....	100	52.73	44.05	0.12	3.1
S.N.N.P.....	100	57.06	38.12	0.36	4.46
Gambella.....	100	66.36	29.24	0.05	4.36
Harari	100	85.06	10.02	-	4.92
Addis Ababa.....	100	66.07	33.12	-	0.81
Diredawa.....	100	83.31	13.77	-	2.92

c) Urban Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	76.55	19.45	0.3	3.7
Tigray.....	100	81.8	11.69	0.38	6.14
Afar	100	74.39	21.65	0.35	3.61
Amhara.....	100	82.16	14.83	0.18	2.83
Oromia.....	100	83.08	13.18	0.14	3.59
Somali	100	66.35	31.04	0.65	1.96
Benshangul-Gumuz.....	100	85.67	11.75	0.07	2.52
S.N.N.P.....	100	76.2	18.75	0.41	4.63
Gambella.....	100	63.68	31.85	0.03	4.44
Harari	100	80.19	18.97	-	0.84
Addis Ababa.....	100	77.35	18.75	0.09	3.81
Diredawa.....	100	94.34	4.54	-	1.12

TABLE 7-30: LIVESTOCK PRODUCT UTILIZATION - PERCENTAGE OF USES OF GOAT MEAT/MUTTON BY TYPE OF USE, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	85.38	10.7	0.15	3.77
Tigray.....	100	84.73	10.36	0.46	4.45
Afar	100	85.3	11.97	0.18	2.55
Amhara.....	100	89.7	6.2	0.1	4
Oromia	100	84.3	9.73	0.22	5.74
Somali	100	81.57	6.21	0.46	11.76
Benshangul-Gumuz.....	100	74.92	15.7	0.08	9.29
S.N.N.P.	100	75.21	20.37	0.16	4.26
Gambella.....	100	52.87	36.49	0.29	10.36
Harari.....	100	93.48	1.95	-	4.56
Addis Ababa.....	100	87.34	11.86	-	0.8
Diredawa.....	100	79.11	14.95	-	5.94

b) Rural Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	85.5	9.93	0.14	4.43
Tigray.....	100	85.74	10.12	0.17	3.97
Afar	100	89.71	1.59	0.02	8.68
Amhara.....	100	89.73	6.15	0.1	4.02
Oromia	100	84.35	9.62	0.23	5.81
Somali	100	82.43	5.31	0.44	11.83
Benshangul-Gumuz.....	100	71.05	22.19	0.15	6.61
S.N.N.P.	100	75.11	20.45	0.16	4.28
Gambella.....	100	52.27	37.58	0.33	9.82
Harari.....	100	95.48	-	-	4.52
Addis Ababa.....	100	87.42	11.79	-	0.79
Diredawa.....	100	78.92	14.41	-	6.66

c) Urban Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	85.15	12.16	0.18	2.52
Tigray.....	100	83.72	10.6	0.74	4.94
Afar	100	85.24	12.12	0.18	2.47
Amhara.....	100	87.87	9.05	0.11	2.97
Oromia	100	82.56	14.19	0.08	3.18
Somali	100	73.16	15.06	0.62	11.16
Benshangul-Gumuz.....	100	78.79	9.2	-	11.97
S.N.N.P.	100	79.94	16.43	0.25	3.38
Gambella.....	100	57.15	28.65	-	14.2
Harari.....	100	80.31	14.81	-	4.87
Addis Ababa.....	100	78.85	19.13	-	2.02
Diredawa.....	100	80.26	18.29	-	1.45

TABLE 7-31: LIVESTOCK PRODUCT UTILIZATION - PERCENTAGE OF USES OF EGGS BY TYPE OF USE, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	31.64	38.06	0.08	30.22
Tigray.....	100	40.45	34.32	0.03	25.2
Afar	100	69.33	17.03	0.2	13.44
Amhara.....	100	23	40.9	0.07	36
Oromia.....	100	31	42.2	0.09	26.7
Somali	100	32.31	53.58	0.25	13.85
Benshangul-Gumuz.....	100	33.61	10.8	0.04	55.56
S.N.N.P.....	100	31.92	30.59	0.07	37.43
Gambella.....	100	25.82	28.59	0.12	45.46
Harari.....	100	22.76	41.33	0.01	35.9
Addis Ababa.....	100	45.38	43.23	-	11.39
Diredawa.....	100	17.86	65.84	0.03	16.27

b) Rural Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	28.91	39.71	0.07	31.32
Tigray.....	100	25.71	44.15	0.05	30.09
Afar	100	62.44	19.57	0.02	17.97
Amhara.....	100	22.42	41.31	0.07	36.2
Oromia.....	100	30.12	42.86	0.09	26.93
Somali	100	28.34	57	0.19	14.47
Benshangul-Gumuz.....	100	20.03	13.78	0.07	66.11
S.N.N.P.....	100	31.39	30.91	0.07	37.64
Gambella.....	100	24.36	28.97	0.13	46.54
Harari.....	100	19.7	43.91	-	36.38
Addis Ababa.....	100	45.21	43.35	-	11.44
Diredawa.....	100	12.92	70.4	-	16.68

c) Urban Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	65.39	17.76	0.17	16.68
Tigray.....	100	55.19	24.5	-	20.31
Afar	100	69.45	16.98	0.21	13.36
Amhara.....	100	52.25	18.69	0.06	29.01
Oromia.....	100	59.3	21.12	0.1	19.48
Somali	100	52.12	36.52	0.6	10.77
Benshangul-Gumuz.....	100	47.18	7.82	-	45.05
S.N.N.P.....	100	55.33	16.41	0.03	28.23
Gambella.....	100	44.16	23.88	-	31.97
Harari.....	100	46.2	21.52	0.07	32.22
Addis Ababa.....	100	66.08	28.52	0.07	5.33
Diredawa.....	100	71.61	16.23	0.31	11.85

TABLE 7-32: LIVESTOCK PRODUCT UTILIZATION - PERCENTAGE OF USES OF HONEY BY TYPE OF USE, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	39.28	57.55	0.25	2.92
Tigray.....	100	48.99	48.39	0.33	2.3
Afar	100	38.31	61.58	-	0.11
Amhara.....	100	36.6	60.4	0.27	2.7
Oromia	100	41.32	55.06	0.24	3.38
Somali	100	46.41	48.66	-	4.93
Benshangul-Gumuz.....	100	33.89	59.71	0.11	6.3
S.N.N.P.....	100	38.03	58.79	0.3	2.88
Gambella.....	100	18.9	76.74	0.13	4.24
Harari.....	100	63.26	30.69	-	6.05
Addis Ababa.....	100	69.23	29.91	0.01	0.85
Diredawa.....	100	43.01	53.86	-	3.13

b) Rural Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	39.15	57.68	0.25	2.92
Tigray.....	100	39.45	57.98	0.2	2.37
Afar	100	62.3	35.95	-	1.76
Amhara.....	100	36.5	60.52	0.27	2.71
Oromia	100	41.15	55.23	0.24	3.37
Somali	100	46.43	48.63	-	4.95
Benshangul-Gumuz.....	100	25.88	67.33	0.22	6.58
S.N.N.P.....	100	37.9	58.94	0.3	2.86
Gambella.....	100	18.83	76.81	0.12	4.24
Harari.....	100	62.75	31.15	-	6.1
Addis Ababa.....	100	69.19	30.02	-	0.79
Diredawa.....	100	41.73	55.1	-	3.17

c) Urban Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	51.64	45.57	0.14	2.64
Tigray.....	100	58.53	38.79	0.45	2.22
Afar	100	36.67	63.33	-	-
Amhara.....	100	55.2	41.39	0.06	3.36
Oromia	100	62.73	33.56	0.24	3.47
Somali	100	44.86	52.43	-	2.7
Benshangul-Gumuz.....	100	41.9	52.1	-	6.01
S.N.N.P.....	100	56.53	38.55	0.21	4.71
Gambella.....	100	35.15	59.91	1.11	3.83
Harari.....	100	71.24	23.46	-	5.3
Addis Ababa.....	100	72.05	22.33	0.45	5.18
Diredawa.....	100	70.9	26.99	-	2.11

TABLE 7-33: LIVESTOCK PRODUCT UTILIZATION - PERCENTAGE OF USES OF BEES WAX BY TYPE OF USE, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	34.4	32.58	0.18	32.85
Tigray	100	33.61	17.39	0.23	48.77
Afar	-	-	-	-	-
Amhara	100	21.5	33.3	0.17	45
Oromia	100	40.7	41.17	0.17	17.96
Somali	-	-	-	-	-
Benshangul-Gumuz	100	36.33	24.26	0.04	39.3
S.N.N.P.	100	53.27	17.93	0.08	28.72
Gambella	100	21.53	37.31	1.12	40.05
Harari	-	-	-	-	-
Addis Ababa	100	99.09	-	-	0.91
Diredawa	-	-	-	-	-

b) Rural Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	34.38	32.58	0.18	32.86
Tigray	100	35.19	23.64	0.47	40.71
Afar	-	-	-	-	-
Amhara	100	21.47	33.28	0.17	45.09
Oromia	100	40.68	41.24	0.17	17.92
Somali	-	-	-	-	-
Benshangul-Gumuz	100	22.65	48.51	0.07	28.77
S.N.N.P.	100	53.4	17.87	0.09	28.65
Gambella	100	21.59	37.05	1.12	40.24
Harari	-	-	-	-	-
Addis Ababa	100	100	-	-	-
Diredawa	-	-	-	-	-

c) Urban Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	37.89	32.02	0.11	29.97
Tigray	100	32.03	11.14	-	56.83
Afar	-	-	-	-	-
Amhara	100	28.56	36.81	0.44	34.18
Oromia	100	44.58	32.71	-	22.7
Somali	-	-	-	-	-
Benshangul-Gumuz	100	50	-	-	50
S.N.N.P.	100	34.94	26.13	-	38.92
Gambella	100	10	90	-	-
Harari	-	-	-	-	-
Addis Ababa	100	-	-	-	100
Diredawa	-	-	-	-	-

TABLE 7-34: LIVESTOCK PRODUCT UTILIZATION - PERCENTAGE OF USES OF WOOL BY TYPE OF USE, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	34.83	53.36	0.8	11.01
Tigray.....	100	47.95	50.48	-	1.56
Afar	100	-	100	-	-
Amhara.....	100	36	51.8	0.86	11.3
Oromia.....	100	33.73	46.25	-	20.02
Somali	100	5.49	92.59	-	1.92
Benshangul-Gumuz.....	100	26.3	65.37	-	8.34
S.N.N.P.	100	27.87	71.72	-	0.41
Gambella.....	100	100	-	-	-
Harari	-	-	-	-	-
Addis Ababa.....	100	-	100	-	-
Diredawa.....	-	-	-	-	-

b) Rural Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	35.88	52.02	0.79	11.31
Tigray.....	100	62.58	34.3	-	3.13
Afar	-	-	-	-	-
Amhara.....	100	35.99	51.9	0.83	11.28
Oromia.....	100	33.93	45.62	-	20.45
Somali	100	5.79	94.21	-	-
Benshangul-Gumuz.....	100	52.59	30.74	-	16.67
S.N.N.P.	100	28.87	70.71	-	0.42
Gambella.....	100	100	-	-	-
Harari	-	-	-	-	-
Addis Ababa.....	-	-	-	-	-
Diredawa.....	-	-	-	-	-

c) Urban Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	6.63	89.47	0.97	2.93
Tigray.....	100	33.33	66.67	-	-
Afar	100	-	100	-	-
Amhara.....	100	39.1	37.04	6.07	17.8
Oromia.....	100	24.37	75.63	-	-
Somali	100	-	63.23	-	36.77
Benshangul-Gumuz.....	100	-	100	-	-
S.N.N.P.	100	-	100	-	-
Gambella.....	-	-	-	-	-
Harari	-	-	-	-	-
Addis Ababa.....	100	-	100	-	-
Diredawa.....	-	-	-	-	-

TABLE 7-35: LIVESTOCK PRODUCT UTILIZATION - PERCENTAGE OF USES OF HIDES BY TYPE OF USE, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	35.53	59.38	0.07	5.02
Tigray	100	34.83	59.85	0.13	5.18
Afar	100	12.25	85.59	-	2.16
Amhara	100	33.7	57.3	0.08	8.94
Oromia	100	60.64	34.04	0.12	5.2
Somali	100	41.38	43.04	0.14	15.44
Benshangul-Gumuz	100	34.99	61.88	0.12	3
S.N.N.P.	100	45.33	47.82	0.15	6.71
Gambella	100	51.04	46.39	1.01	1.55
Harari	100	43.69	19.3	2.1	34.91
Addis Ababa	100	67.94	31.96	-	0.1
Diredawa	100	73.09	26.91	-	-

b) Rural Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	49.77	43.42	0.1	6.71
Tigray	100	42.27	50.03	0.08	7.62
Afar	100	72.04	24.88	-	3.08
Amhara	100	33.84	57.04	0.08	9.04
Oromia	100	61.2	33.5	0.11	5.19
Somali	100	43.07	40.81	-	16.11
Benshangul-Gumuz	100	44.55	49.21	0.24	6.01
S.N.N.P.	100	45.63	47.47	0.14	6.75
Gambella	100	50.92	46.26	1.11	1.71
Harari	100	65.1	-	-	34.9
Addis Ababa	100	68.64	31.33	-	0.03
Diredawa	100	87.55	12.45	-	-

c) Urban Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	11.68	86.11	0.01	2.2
Tigray	100	27.39	69.67	0.19	2.74
Afar	100	11.33	86.52	-	2.14
Amhara	100	21.48	75.75	0.08	2.69
Oromia	100	30.34	63.64	0.48	5.55
Somali	100	14.79	78.14	2.31	4.76
Benshangul-Gumuz	100	25.43	74.56	-	-
S.N.N.P.	100	18.35	78.3	0.69	2.65
Gambella	100	52.32	47.68	-	-
Harari	100	17.74	42.71	4.64	34.91
Addis Ababa	100	23.8	71.6	-	4.6
Diredawa	100	10.53	89.47	-	-

TABLE 7-36: LIVESTOCK PRODUCT UTILIZATION - PERCENTAGE OF USES OF SKIN BY TYPE OF USE, AND REGION

a) Both Rural and Urban Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	22.5	74.44	0.1	2.96
Tigray.....	100	21.27	75.12	0.02	3.6
Afar	100	14.61	83.79	0.17	1.43
Amhara.....	100	20.87	75.33	0.03	3.76
Oromia.....	100	27.52	68.98	0.16	3.33
Somali	100	25.32	64.7	0.67	9.31
Benshangul-Gumuz.....	100	25.37	64.79	0.02	9.82
S.N.N.P.....	100	22.27	74.3	0.02	3.41
Gambella.....	100	61.33	32.86	2.07	3.74
Harari.....	100	22.46	4.85	-	72.69
Addis Ababa.....	100	34.28	65.72	-	0.01
Diredawa.....	100	89.49	8.68	-	1.83

b) Rural Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	25.73	70.64	0.07	3.55
Tigray.....	100	29.16	66.65	0.03	4.15
Afar	100	72.93	17.53	0.09	9.46
Amhara.....	100	20.94	75.23	0.03	3.79
Oromia.....	100	27.74	68.77	0.16	3.33
Somali	100	25.57	64	0.64	9.79
Benshangul-Gumuz.....	100	48.52	42.91	0.04	8.52
S.N.N.P.....	100	22.39	74.17	0.02	3.41
Gambella.....	100	60.39	32.87	2.36	4.38
Harari.....	100	23.57	2.41	-	74.02
Addis Ababa.....	100	34.31	65.69	-	-
Diredawa.....	100	95.65	2.47	-	1.89

c) Urban Holdings

Geographic Area	Total (%)	PERCENT UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Ethiopia	100	13.72	84.76	0.17	1.34
Tigray.....	100	13.37	83.58	-	3.04
Afar	100	13.58	84.96	0.17	1.29
Amhara.....	100	15.43	83.21	0.06	1.31
Oromia.....	100	16.8	79.32	0.47	3.4
Somali	100	22.17	73.39	1.08	3.35
Benshangul-Gumuz.....	100	2.22	86.67	-	11.11
S.N.N.P.....	100	15.29	81.37	0.02	3.32
Gambella.....	100	66.35	32.8	0.51	0.34
Harari.....	100	-	54.33	-	45.67
Addis Ababa.....	100	28.73	70.19	-	1.08
Diredawa.....	100	14.42	84.45	-	1.13

**ANNEX TABLES PRESENTING
ESTIMATES, STANDARD ERRORS, AND COEFFICIENTS OF VARIATION
FOR
SELECTED LIVESTOCK VARIABLES**

[Annex Tables 7.1 – 7.10]

Annex Table 7.1- Estimates of Livestock, Standard Errors and Coefficients of Variation by Type, and Region

Geographic Area	CATTLE			SHEEP			GOATS		
	Number	SE	CV	Number	SE	CV	Number	SE	CV
Ethiopia	41,527,142	231,102	1	14,655,566	159,081	1	13,661,562	201,479	1
Tigray	2,668,078	48,766	2	687,212	26,959	4	1,759,126	50,631	3
Afar	345,635	30,768	9	160,385	20,803	13	307,456	46,159	15
Amhara	10,512,770	105,254	1	5,320,330	106,812	2	3,815,859	133,387	4
Oromia	18,035,686	165,821	1	4,691,016	71,001	2	4,174,968	94,058	2
Somali	512,320	25,579	5	454,821	39,029	9	574,561	36,665	6
Benshangul-Gumuz	309,627	10,578	3	58,770	2,937	5	200,472	6,768	3
S.N.N.P.	8,831,450	101,377	1	3,169,816	78,287	2	2,651,077	87,604	3
Gambella	126,198	6,958	6	43,746	3,319	8	49,076	2,925	6
Harari	34,008	3,275	10	5,774	785	14	19,098	1,368	7
Addis Ababa	97,215	19,625	20	29,682	2,640	9	18,861	9,856	52
Diredawa	54,155	4,526	8	34,015	4,213	12	91,007	9,398	10

Annex Table 7.1-Cont'd

Geographic Area	HORSES			ASSES			MULES			CAMELS		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Ethiopia	1,504,208	23,979	2	3,962,969	26,698	1	354,120	5,962	2	447,842	21,104	5
Tigray	7,598	891	12	403,517	6,420	2	16,418	1,045	6	37,530	3,403	9
Afar	55	17	30	11,467	1,634	14	255	47	19	92,264	12,378	13
Amhara	306,443	11,821	4	1,465,021	15,271	1	105,514	3,759	4	18,186	1,812	10
Oromia	894,404	18,913	2	1,626,263	17,243	1	158,440	3,674	2	161,061	12,950	8
Somali	51	11	21	84,636	4,284	5	633	155	25	128,703	10,347	8
Benshangul-Gumuz	559	171	31	30,952	1,199	4	1,394	140	10	15	7	49
S.N.N.P.	292,496	8,724	3	305,089	9,842	3	70,365	2,571	4	1,300	284	22
Gambella	338	105	31	264	53	20	12	8	70	5	5	100
Harari	1	1	128	6,203	827	13	52	31	61	1,519	1,077	71
Addis Ababa	2,135	794	37	19,623	4,507	23	809	397	49	-	-	-
Diredawa	127	38	30	9,934	858	9	229	135	59	7,260	1,140	16

Annex Table 7.2- Estimates of Cattle, Standard Errors and Coefficients of Variation by Age group, and Region

Male Cattle

Geographic Area	<6MONTHS			6MONTHS <1YEAR			1<3YEARS			3<10YEARS			10YEARS & OLDER		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Ethiopia	2,290,851	18,971	1	1,796,871	15,186	1	2,845,073	20,218	1	10,411,091	54,875	1	847,094	13,217	2
Tigray	104,699	3,603	3	125,941	4,012	3	184,427	4,719	3	822,475	10,608	1	67,996	2,811	4
Afar	18,218	1,970	11	11,608	1,330	11	14,891	1,549	10	22,153	2,059	9	2,233	340	15
Amhara	455,625	8,206	2	434,475	8,230	2	742,801	9,828	1	3,258,405	27,234	1	382,084	9,394	2
Oromia	1,099,361	13,309	1	738,968	9,637	1	1,263,554	13,077	1	4,576,945	39,432	1	311,420	7,394	2
Somali	34,435	2,349	7	22,813	1,516	7	31,930	1,956	6	89,550	5,248	6	1,189	295	25
Benshangul-Gumuz	15,513	765	5	15,299	747	5	27,173	1,281	5	75,211	2,683	4	2,313	309	13
S.N.N.P.	542,778	9,576	2	432,481	6,972	2	559,091	10,452	2	1,511,962	21,740	1	75,133	4,603	6
Gambella	10,236	596	6	8,161	555	7	9,105	664	7	8,936	556	6	303	91	30
Harari	2,127	384	18	1,734	230	13	2,759	288	10	6,797	999	15	17	18	106
Addis Ababa	3,670	352	10	3,027	515	17	5,085	1,020	20	31,574	9,422	30	4,372	1,536	35
Diredawa	4,191	380	9	2,364	264	11	4,257	468	11	7,083	743	11	33	34	102

Annex Table 7.2- Cont'd

Female Cattle

Geographic Area	<6MONTHS			6MONTHS <1YEAR			1<3YEARS			3<10YEARS			10YEARS & OLDER		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Ethiopia	2,471,461	21,058	1	1,994,150	16,857	1	3,564,122	26,658	1	14,407,904	92,104	1	898,525	15,253	2
Tigray	115,029	4,331	4	139,442	4,814	3	203,453	5,665	3	854,121	18,280	2	50,495	2,962	6
Afar	30,627	2,821	9	24,612	2,113	9	42,976	5,417	13	168,090	14,329	9	10,228	2,699	26
Amhara	475,036	8,827	2	450,955	8,292	2	812,595	11,824	1	3,237,968	42,707	1	262,826	7,371	3
Oromia	1,189,223	15,490	1	804,878	10,405	1	1,527,978	16,343	1	6,155,288	65,176	1	368,070	9,882	3
Somali	39,738	2,969	7	30,232	2,398	8	46,574	3,279	7	208,169	10,289	5	7,689	1,116	15
Benshangul-Gumuz	17,073	845	5	16,364	800	5	30,570	1,227	4	105,600	3,742	4	4,512	494	11
S.N.N.P.	581,887	9,373	2	509,807	8,483	2	866,379	15,019	2	3,562,344	41,479	1	189,587	7,923	4
Gambella	11,361	728	6	8,976	612	7	15,413	1,031	7	52,138	2,799	5	1,570	345	22
Harari	2,269	548	24	2,195	442	20	3,580	366	10	11,927	1,144	10	603	132	22
Addis Ababa	4,624	575	12	4,127	685	17	8,419	1,684	20	30,878	4,322	14	1,438	301	21
Diredawa	4,595	573	12	2,563	365	14	6,185	691	11	21,381	1,885	9	1,505	356	24

Annex Table 7.3- Estimates of Sheep, Standard Errors and Coefficients of Variation by Age group, and Region

Geographic Area	<6MONTHS			6MONTHS - <1YEAR			1-<2YEARS			2 YEARS & OLDER		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Ethiopia	1,902,873	21,249	1	700,544	11,382	2	490,366	11,306	2	807,270	20,259	3
Tigray	87,271	3,889	4	32,988	1,587	5	21,076	1,330	6	36,956	2,269	6
Afar	11,254	2,079	18	6,714	783	12	6,484	1,037	16	11,874	1,666	14
Amhara	702,371	14,935	2	238,478	6,536	3	160,843	6,854	4	274,165	14,075	5
Oromia	696,555	11,898	2	225,658	6,060	3	133,028	5,117	4	171,357	5,427	3
Somali	38,476	3,108	8	23,874	2,714	11	23,507	3,266	14	44,855	4,483	10
Benshangul-Gumuz	7,938	553	7	3,617	325	9	2,247	195	9	3,128	265	8
S.N.N.P.	342,898	7,507	2	164,322	6,274	4	138,727	6,396	5	258,800	12,417	5
Gambella	6,208	564	9	944	160	17	699	116	17	1,245	190	15
Harari	655	134	20	408	108	27	453	108	24	540	131	24
Addis Ababa	4,243	468	11	1,697	161	10	1,302	145	11	2,145	585	27
Diredawa	5,003	750	15	1,846	270	15	1,998	399	20	2,204	459	21

Annex Table 7.3-Cont'd

Geographic Area	<6MONTHS			6MONTHS - <1YEAR			1-<2YEARS			2 YEARS & OLDER		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Ethiopia	2,030,873	23,901	1	1,021,151	15,732	2	1,250,141	19,004	2	6,452,347	71,286	1
Tigray	91,916	4,933	5	44,730	2,563	6	65,425	3,331	5	306,849	11,791	4
Afar	18,473	2,200	12	15,470	1,672	11	18,640	2,468	13	71,475	11,499	16
Amhara	730,689	16,236	2	339,578	9,385	3	401,189	11,246	3	2,473,016	50,892	2
Oromia	737,719	12,651	2	311,283	6,931	2	379,042	9,352	2	2,036,374	31,067	2
Somali	44,095	4,097	9	40,032	4,728	12	45,936	4,308	9	194,044	18,102	9
Benshangul-Gumuz	8,484	474	6	4,832	396	8	5,759	375	7	22,765	1,231	5
S.N.N.P.	384,010	10,023	3	255,406	8,893	3	322,553	10,525	3	1,303,098	30,329	2
Gambella	6,364	508	8	5,624	499	9	5,792	506	9	16,869	1,378	8
Harari	567	155	27	331	89	27	503	111	22	2,316	301	13
Addis Ababa	4,034	383	10	2,090	236	11	2,249	202	9	11,923	1,167	10
Diredawa	4,521	730	16	1,775	319	18	3,051	478	16	13,616	1,744	13

Annex Table 7.4- Estimates of Goats, Standard Errors and Coefficients of Variation by Age group, and Region

Male Goats

Geographic Area	<6MONTHS			6MONTHS - <1YEAR			1-<2YEARS			2 YEARS & OLDER		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Ethiopia	1,665,462	20,490	1	793,170	12,874	2	669,753	13,769	2	1,135,966	39,512	3
Tigray	205,150	6,749	3	95,616	3,472	4	88,044	3,777	4	146,656	6,740	5
Afar	19,227	3,722	19	13,607	3,108	23	12,731	2,497	20	20,790	3,517	17
Amhara	507,609	12,393	2	226,339	7,631	3	186,101	6,734	4	344,041	30,486	9
Oromia.....	579,406	11,961	2	241,803	5,656	2	179,097	5,982	3	265,792	19,233	7
Somali	54,407	3,677	7	27,101	2,178	8	23,314	2,033	9	50,164	4,270	9
Benshangul-Gumuz	24,046	864	4	11,515	576	5	7,678	476	6	11,815	772	7
S.N.N.P.....	250,996	6,848	3	168,257	6,757	4	165,940	9,108	5	289,952	13,583	5
Gambella	6,464	470	7	1,385	180	13	1,396	200	14	1,249	186	15
Harari.....	2,541	297	12	1,234	189	15	1,111	178	16	845	149	18
Addis Ababa	2,122	752	35	2,168	1,630	75	922	631	68	1,296	635	49
Diredawa	13,494	1,327	10	4,145	591	14	3,420	423	12	3,367	570	17

Annex Table 7.4 – Cont'd

Female Goats

Geographic Area	<6MONTHS			6MONTHS - <1YEAR			1-<2YEARS			2 YEARS & OLDER		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Ethiopia	1,797,217	23,635	1	1,054,913	17,135	2	1,299,388	22,731	2	5,245,693	79,983	2
Tigray	216,753	7,232	3	131,817	4,971	4	174,656	6,364	4	700,436	19,807	3
Afar	35,607	4,731	13	30,153	4,375	15	43,406	7,893	18	131,935	18,604	14
Amhara	526,309	13,534	3	263,286	8,721	3	320,164	9,592	3	1,442,010	59,480	4
Oromia.....	607,065	13,494	2	319,019	7,511	2	370,733	10,748	3	1,612,053	32,407	2
Somali	65,556	4,530	7	49,559	4,165	8	57,358	4,569	8	247,102	15,635	6
Benshangul-Gumuz	29,007	1,178	4	20,039	959	5	22,538	1,078	5	73,832	2,557	3
S.N.N.P.....	290,847	9,653	3	224,007	9,748	4	291,195	13,474	5	969,882	28,142	3
Gambella	7,923	511	6	6,978	556	8	7,274	535	7	16,406	1,010	6
Harari.....	2,399	286	12	1,453	201	14	1,709	229	13	7,807	632	8
Addis Ababa	1,670	501	30	2,429	1,629	67	1,613	741	46	6,641	3,449	52
Diredawa	14,081	1,730	12	6,172	993	16	8,741	1,374	16	37,588	3,805	10

Annex Table 7.5- Estimates of Horses, Standard Errors and Coefficients of Variation by Age group, and Region

Geographic Area	MALE						FEMALE					
	<3YEARS		3YEARS & OLDER		<3YEARS		3YEARS & OLDER		<3YEARS		3YEARS & OLDER	
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Ethiopia	174,600	4,152	2	567,335	9,719	2	173,435	3,918	2	588,838	10,896	2
Tigray	1,342	278	21	4,493	553	12	274	84	31	1,488	335	23
Afar	-	-	-	55	17	30	-	-	-	-	-	-
Amhara	35,776	1,855	5	99,480	4,661	5	38,313	2,109	6	132,873	5,074	4
Oromia	108,885	3,438	3	343,706	7,601	2	105,436	2,986	3	336,377	8,194	2
Somali	-	-	-	40	10	24	-	-	-	11	5	43
Benshangul-Gumuz	63	36	57	186	56	30	55	33	60	255	82	32
S.N.N.P	28,346	1,368	5	117,002	3,766	3	29,353	1,406	5	117,795	4,389	4
Gambella	-	-	-	338	105	31	-	-	-	-	-	-
Harari	-	-	-	1	1	128	-	-	-	-	-	-
Addis Ababa	187	163	87	1,905	674	35	4	5	125	40	23	59
Diredawa	-	-	-	127	38	30	-	-	-	-	-	-

Annex Table 7.6- Estimates of Asses, Standard Errors and Coefficients of Variation by Age group, and Region

Geographic Area	MALE						FEMALE					
	<3YEARS		3YEARS & OLDER		<3YEARS		3YEARS & OLDER		<3YEARS		3YEARS & OLDER	
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Ethiopia	495,078	5,808	1	1,340,918	13,441	1	498,736	5,865	1	1,628,237	14,658	1
Tigray	43,898	1,426	3	171,132	4,038	2	41,849	1,396	3	146,638	3,144	2
Afar	2,048	521	25	2,984	420	14	1,423	295	21	5,012	770	15
Amhara	213,425	3,867	2	392,813	7,548	2	225,957	4,121	2	632,826	8,426	1
Oromia	191,922	3,568	2	581,572	8,360	1	188,294	3,493	2	604,475	9,178	1
Somali	9,179	726	8	34,845	1,938	6	8,006	696	9	32,605	2,213	7
Benshangul-Gumuz	3,509	266	8	17,577	820	5	2,566	225	9	7,301	440	6
S.N.N.P	28,995	1,758	6	116,411	3,510	3	28,639	1,611	6	131,045	6,595	5
Gambella	8	5	69	198	50	25	-	-	-	59	15	25
Harari	476	123	26	3,304	461	14	428	116	27	1,995	419	21
Addis Ababa	649	122	19	16,540	4,489	27	602	77	13	1,832	213	12
Diredawa	969	148	15	3,544	467	13	972	163	17	4,450	598	13

Annex Table 7.7- Estimates of Mules, Standard Errors and Coefficients of Variation by Age group, and Region

Geographic Area	MALE						FEMALE					
	<3YEARS			3YEARS & OLDER			<3YEARS			3YEARS & OLDER		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Ethiopia	22,773	1,134	5	150,976	3,467	2	27,010	1,273	5	153,362	3,388	2
Tigray	274	106	39	6,355	614	10	366	131	36	9,423	695	7
Afar	-	-	-	129	40	31	-	-	-	126	25	20
Amhara	8,849	724	8	39,830	2,121	5	12,538	904	7	44,298	2,136	5
Oromia	9,888	757	8	69,146	2,092	3	10,936	791	7	68,470	2,065	3
Somali	-	-	-	581	151	26	43	17	40	9	9	103
Benshangul-Gumuz	13	9	69	613	87	14	11	11	98	756	107	14
S.N.N.P.	3,644	417	11	33,621	1,605	5	3,042	396	13	30,058	1,461	5
Gambella	-	-	-	4	3	77	-	-	-	8	7	88
Harari	-	-	-	52	31	61	-	-	-	-	-	-
Addis Ababa	28	18	65	640	399	62	-	-	-	141	129	91
Diredawa	78	46	59	6	6	94	73	45	63	73	45	63

Annex Table 7.8- Estimates of Camels, Standard Errors and Coefficients of Variation by Age group, and Region

Geographic Area	MALE						FEMALE					
	<4YEARS			4YEARS & OLDER			<4YEARS			4YEARS & OLDER		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Ethiopia	53,826	2,704	5	122,376	5,305	4	67,866	4,103	6	203,773	11,822	6
Tigray	2,873	653	23	34,376	3,143	9	98	53	54	183	90	49
Afar	6,174	894	14	14,800	2,677	18	16,870	2,394	14	54,419	7,595	14
Amhara	3,072	625	20	14,798	1,437	10	62	62	100	254	118	47
Oromia	23,982	1,898	8	25,117	1,977	8	29,662	2,774	9	82,300	6,948	8
Somali	16,009	1,417	9	29,809	2,134	7	19,872	1,821	9	63,013	5,763	9
Benshangul-Gumuz	-	-	-	15	7	49	-	-	-	-	-	-
S.N.N.P.	243	71	29	245	60	25	188	49	26	624	147	24
Gambella	-	-	-	5	5	100	-	-	-	-	-	-
Harari	221	156	71	103	81	78	324	235	73	870	619	71
Addis Ababa	1,252	235	19	3,109	746	24	789	161	20	2,111	395	19
Diredawa	1,252	235	19	3,109	746	24	789	161	20	2,111	395	19

Annex Table 7.9- Estimates of Poultry, Standard Errors and Coefficients of Variation By Type, and Region

Geographic Area	Total Poultry			Cocks			Cockerels			Pullets			Non-laying Hens			Chicks			Laying Hens		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Ethiopia	42,915,628	224,982	1	3,776,632	26,633	1	3,281,882	31,745	1	4,663,658	40,773	1	2,159,131	26,390	1	17,897,992	123,456	1	11,136,333	53,196	0
Tigray	4,999,678	66,588	1	372,110	7,074	2	368,830	9,039	2	512,941	12,244	2	430,062	9,774	2	1,903,905	35,314	2	1,411,830	14,703	1
Afar	56,376	6,216	11	4,588	684	15	3,492	582	17	5,691	902	16	5,126	793	15	24,207	2,428	10	13,273	1,619	12
Amhara	13,434,878	131,630	1	1,090,532	14,165	1	934,863	18,942	2	1,368,218	23,361	2	622,798	17,099	3	6,261,813	81,594	1	3,156,655	28,646	1
Oromia	14,784,303	135,922	1	1,450,607	17,815	1	1,161,676	18,887	2	1,556,293	22,583	1	707,679	14,297	2	5,874,179	68,461	1	4,033,869	32,124	1
Somali	154,746	11,689	8	19,383	1,725	9	11,997	1,886	16	16,391	1,322	8	8,051	789	10	42,756	4,081	10	56,169	4,210	8
Benshangul-Gumuz	961,196	20,955	2	70,591	1,800	3	77,868	2,795	4	120,181	4,009	3	27,901	1,635	6	469,573	10,653	2	195,082	4,819	2
S.N.N.P.	8,106,038	96,445	1	715,118	11,146	2	686,233	14,002	2	1,034,893	20,833	2	331,645	9,914	3	3,194,299	49,490	2	2,143,850	24,933	1
Gambella	237,930	9,564	4	32,230	1,311	4	24,970	1,314	5	32,763	1,638	5	17,058	1,070	6	74,123	4,013	5	56,787	2,094	4
Harari	33,046	3,610	11	4,148	525	13	3,430	586	17	3,745	690	18	1,569	357	23	9,893	1,482	15	10,260	1,144	11
Addis Ababa	100,163	18,646	19	11,731	2,816	24	5,778	688	12	7,764	740	10	4,994	658	13	30,245	6,678	22	39,652	9,375	24
Diredawa	47,273	3,661	8	5,594	643	12	2,745	471	17	4,779	654	14	2,250	444	20	13,000	1,318	10	18,905	1,526	8

Annex Table 7.10- Estimates of Beehives, Standard Errors and Coefficients of Variation By Type, and Region

Geographic Area	ALL BEEHIVES			TRADITIONAL			INTERMEDIATE			MODERN		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Ethiopia	4,601,806	69,798	2	4,395,596	69,597	2	195,943	5,022	3	10,267	1,737	17
Tigray	228,683	7,615	3	218,270	7,472	3	8,708	816	9	1,706	300	18
Afar	773	158	20	658	140	21	115	73	64	-	-	-
Amhara	917,460	22,223	2	866,633	22,076	3	48,900	2,429	5	1,927	742	38
Oromia	2,270,166	59,409	3	2,172,212	59,312	3	92,665	3,457	4	5,289	1,492	28
Somali	7,212	1,480	21	6,347	1,446	23	605	359	59	260	266	102
Benshangul-Gumuz	166,736	9,177	6	166,499	9,178	6	89	70	78	148	148	100
S.N.N.P.	944,321	24,464	3	903,490	24,321	3	39,929	2,401	6	902	238	26
Gambella	59,222	10,232	17	58,625	10,227	17	597	302	51	-	-	-
Harari	969	223	23	952	221	23	-	-	-	17	20	113
Addis Ababa	4,231	756	18	670	139	21	3,543	743	21	18	12	68
Diredawa	2,034	493	24	1,240	287	23	794	401	51	-	-	-

CHAPTER VIII

FARM IMPLEMENTS, DRAUGHT ANIMALS AND STORAGE FACILITIES

1. INTRODUCTION

Agriculture is the single largest sector in the Ethiopian economy. The position of the agricultural sector for the past few decades does not only concern the peasants, but on account of the extent of its inputs, outputs and its function as a largest employer of labour has a profound impact on the entire economy. It is worth to point-out that Ethiopia has large resources in terms of land, agricultural labour, draught animals, ...etc.

Despite all these facts, the average yield of the main food crops and livestock products attained by private peasant holders is very low and it is not adequate to feed the ever-growing population. Because of such prevailing conditions in the agricultural sector, the economy remained at subsistence level. Among the factors that hampered the country not to prosper is the use of primitive farm implements and tools by the peasants to operate their land and to raise livestock.

The role of improved agricultural implements and tools in raising the standard of farming efficiency and increasing average yield of production has been recognized for many years. Land preparation requires modern power source, which results in considerable farm efficiency and expansion of production. For sowing and fertilization, animal and tractor drawn machines appear to be capable of greater efficiency than only hand method. Power-driven line sowing and fertilization are more efficient than hand spreading and this is usually expected to result in higher yield for the same amount of fertilizers and seeds.

The traditional unimproved farm implements used by the peasants and the poor conditions of the draught animals are considered to be among the main factors that retarded the agricultural productivity in the country. On the other hand, the

development of farm implements and machineries can also be crippled by small land size holdings, abundant labour in rural area and non-availability of adequate access to modern farm implements and machineries, which the private peasant holders can afford to rent or buy. In general, effective development of farm implements and machineries takes place when land is abundant and labour is being rapidly absorbed by non-agricultural sector, (WB, 1984).

Since development programmes are in progress in Ethiopia, data generated from censuses and sample surveys on different types of agricultural outputs and inputs are necessary for the formulation of programmes and policies in the sector and thereby for monitoring and evaluation of the impact of the programmes. One of the objectives of this census was to provide benchmark data that can help to assess the growth, quantity, quality and value of farm implements and other farm equipment used by the private peasant holders so as to easily identify the implements that are abundant and those that are in short supply. The structural characteristics of these farm implements and other farm equipment do not change much from year to year and such data are usually obtained from a census of agriculture, which is conducted every 5 or 10 years.

Data on farm implements and other farm equipment have not been collected in Ethiopia and as a result only very little is known about the status and growth of these implements. Thus, in the Ethiopian agricultural census conducted in 2001/2002, data was collected on farm implements, other farm equipment and draught animals. These farm implements include, implements used for clearing land, cultivation, harvesting, threshing and others. In this census draught animals comprises animals engaged specifically in ploughing, threshing and farm transport facilities. Replacement value was one of the variables covered by this census and it is defined as the amount it would cost to replace the farm implement, equipment, draught animal and storage facility with those that are similar in terms of origin, age, quality or condition.

In this chapter the classification of farm implements, farm equipment, draught animals and storage facilities are presented in Section 2. Brief discussions of data on Summary Tables VIII.1 to VIII.5 are also provided in Section 3. Statistical Tables presenting the

census results at regional level are also given as Table series 8.1A - 8.35A and 8.1B - 8.35B. Finally, the estimates, Standard Errors (S.E.) and Coefficients of Variation (C.V.) on number of holders reporting, number of farm implements reported and total value are presented in the Annex Table to this chapter.

2. CLASSIFICATION OF FARM IMPLEMENTS, OTHER FARM EQUIPMENT AND DRAUGHT ANIMALS

The farm implements and draught animals reported were classified into the following eight groups: -

- Implements used for clearing land,
- Implements used for cultivation,
- Parts for traditional plough,
- Implements used for harvesting,
- Implements used for threshing,
- Other farm equipment,
- Draught animals for farm activity, and
- Storage facilities.

These eight groups further broken down to include the following implements and other farm equipment:

2.1 Implements used for clearing land: -

- a) Axes,
- b) 'Gejera '(Chopper), and
- c) Shovel.

2.2 Implements used for cultivation: -

- a) Hoe,
- b) 'Mekeskesha',
- c) Pick-Axe, and
- d) Tractor.

2.3 Parts for traditional plough: -

- a) 'Deger',
- b) 'Erfe',
- c) Plough-Beam,
- d) Plough-Tip, and
- e) 'Wegel'-Tip.

2.4 Implement used for harvesting: -

- a) Sickle.

2.5 Implements used for threshing: -

- a) Hay- Fork (metal or wood),
- b) Threshing Stick, and
- c) Winnower (metal or wood).

2.6 Other farm equipment: -

- a) Cart (hauling),
- b) Sprayer (hand operated),
- c) Sprayer (power operated),
- d) Tying Tool, and
- e) Wheelbarrow.

2.7 Draught animals: -

- a) Animals deployed specifically in ploughing.
 - Ass/Donkey,
 - Camel,
 - Horse,
 - Mule, and
 - Ox.

b) Animals deployed in threshing or transportation: -

- Ass/Donkey,
- Camel,
- Cattle (Working Age),
- Horse, and
- Mule.

2.8 Storage facilities: -

- a) 'Debignit'(Local storage),
- b) 'Gottera' (Local storage),
- c) 'Gudguad'(Local storage), and
- d) Modern storage.

Definitions of storage facilities

'Debignit': - is a round vessel of earthenware storage attached with the wall of a house. The shape of 'Debignit' is similar to the shape of a barrel. Debignit is usually around 1 metre high and 0.5-1 metres wide.

'Gottera': - is storage made of bamboo plant. The bamboo is split and then crisscrossed and woven like a giant basket. Finally, it is laminated with a mixture of animal dung and dry grass (straw). 'Gottera' is usually about 1-3 metres high and about 1 metre wide.

'Gudguad': - is an underground storage, which is formed by digging the ground with certain depth and radius. The wall of 'Gudguad' is usually laminated with animal dung.

Modern storage: - is a storage that has a better quality in protecting grains from humidity and pests than the above mentioned storages.

3. ESTIMATES OF FARM IMPLEMENTS, DRAUGHT ANIMALS AND STORAGE FACILITIES.

The type, quality and quantity of tools and implements in use usually indicate the level of farming practice and agricultural development of a country. Hence, the results of this census can give us some highlights to evaluate the farming system in Ethiopia. In this report farm implements are grouped in terms of their operation and this can help to make appropriate comparisons.

3.1 Farm Implements and Tools

The data in Summary Table VIII.1 indicates that the number of holders reporting axe was the highest followed by 'Gejera'(Chopper) while shovel was the lowest. In Ethiopia it is estimated that there were about 10,316,336 crop holders in rural areas of which about 8,271,873 (80.18%) reported to own axes, about 26.87% reporting 'Gejeras' (choppers), and 23.74% reporting shovels. Among the farm implements used for clearing land, the number of observation for axe was highest and the total value for axe was also the highest followed by 'Gejeras'. The expected duration of service of an axe was estimated to be 9 years, while for 'Gejera' and shovel it was 8 years each.

One of the labour and power intensive farm activities is cultivation. It comprises digging, ploughing, sowing and weeding. In order to accomplish such operations, the Ethiopian peasants use hoe, 'Mekeskesha', pick-axe, and traditional plough. Among these farm implements and tools hoe was the highest in terms of number of holders reporting, total number of implements reported and total value. The second highest was pick-axe while 'Mekeskesha' was the lowest. The data in Summary Table VIII.4 revealed that the percentage distribution of the number of crop holders that owned one, two, three, four and five and above hoes was 23.58%, 6.44%, 1.29%, 0.49% and 0.27%, respectively.

3.2 Draught Animals

Peasants in Ethiopia use domestic animals for draught purpose. In several parts of the country since holdings are far from residence and as a result asses, horses, mules and camels are used to transport various types of goods and agricultural products from holding to residence and vice-versa. As it is indicated from the data in Summary Table VIII.2, among the draught animals that are used for ploughing, ox was the highest in terms of number of holders reporting, number of oxen reported and total value the oxen amounted to 6 billion Birr. About 6 million holders (59.14% of the total crop holders in the country) reported 14 million cattle (working age cattle) used for threshing and these cattle had a value of over 7.7 billion Birr and the average replacement value of a working age cattle was about 226.91 Birr. It was also indicated that asses and horses were used by the holders for threshing and transportation.

The data in Summary Table VIII.4, reveals that in Ethiopia there were about 10,316,336 crop holders in rural areas. Among these 25.43%, 26.27%, 2.7%, 2.24%, and 0.48% holders owned one, two, three, four, and five and above oxen. On the other hand about 42.43% of the crop holders did not own an ox.

In most rural parts of Ethiopia it is essential at least to have a pair of oxen for ploughing. The percentage distribution of oxen presented in Summary Table VIII.4 shows that 42.43% of the total crop holders did not own an ox and 25.43% of the total holders own only one ox. This shows us 67.86% of the total crop holders in rural areas of Ethiopia did not own pair of oxen.

As it is mentioned above, holders with crop fields need at least a pair of oxen to plough their field. However, in some parts of Ethiopia, a pair of oxen may not be essential for a holder because of the type of holding he has. For instance, holders having only 'Chat', 'Enset', or coffee fields may use hand hoe to prepare their land instead of a pair of oxen. In some regions there can also be other factors, which may not force peasants to use a pair of oxen, such as topography, land holding size, lack of traditional experience of ploughing, and other means of subsistence like hunting and being semi-nomadic. Due to these reasons the data in Summary Table VIII.5 is presented not to make comparisons

between regions but to show the number of crop holders and the percentage distribution of those who did not own a pair of oxen to plough their field.

The percentage distribution of the crop holders who did not own a pair of oxen in Gambela, Dire Dawa, S.N.N.P., Harrari and Benshangul-Gumuz Regions is 97.98%, 89.08%, 86.08%, 80.96% and 80.92%, respectively. For details, see Summary Table VIII.5.

3.3 Storage Facilities

One of the methods that minimize post harvest production losses is the usage of modern storage facilities. During the census, data was collected on modern storage facilities and the unimproved local storage facilities such as 'Debignit', 'Gottera' and 'Gudguad'. In this census, buildings or any structure used as storage facilities and other containers that have better storage quality to protect agricultural products from humidity and pests are considered as modern storage facilities.

The data in Summary Table VIII.3 shows the number of holders reporting storage facilities and number of such facilities. Thus, the data in the table reveals that 'Gottera' was reported by the highest number of holders. However, in terms of number of storage facilities reported 'Debignit' was the highest. On the other hand modern storage facilities was reported by insignificant number of holders. The total value of all reported storage facilities was assessed to be 235,889,990 Birr, of which 53.01% and 30.2% comprises of Gottera and Debigint, respectively.

SUMMARY TABLE VIII.1:-Number and Percentage of Holders Reporting Implements and Other Farm Equipment by type, Quantity Reported, Replacement Value, and Duration of Implement, for Private Holdings, Country Level.

Implements and Equipment	Number of Holders Reporting	Percent of Total Holders	Number of Implements and Equipment		Total Value of Imp. and Eq. (Birr)	Average Replacement Value Per Imp. and Eq. (Birr)	Average Duration of Service of Imp. and Eq. (Years)
			Total Reported	Average ¹ Per Crop Holder			
Used for Clearing Land							
Axes.....	8,271,873	80.18	13,482,354	1.31	102,110,823	4.75	9
'Gejeras' (Choppers).....	2,772,239	26.87	3,538,230	0.34	42,126,332	9.58	8
Shovels.....	2,449,144	23.74	2,731,105	0.26	29,825,513	9.73	8
Used for Cultivation							
Hoes.....	3,308,763	32.07	4,538,758	0.44	38,838,253	6.53	7
'Mekeskeshas'.....	576,415	5.59	834,569	0.08	4,291,948	3.99	5
Pick-Axes.....	2,922,674	28.33	4,123,466	0.40	29,344,848	5.41	7
Tractor.....	-	-	-	-	-	-	-
Parts for traditional Plough							
'Degers'.....	6,380,575	61.85	11,961,367	1.16	28,301,057	1.32	2
'Erfes'.....	6,289,158	60.96	9,703,402	0.94	18,627,954	1.22	2
Plow-Beams.....	6,436,099	62.39	9,585,674	0.93	83,913,636	6.04	4
Plow -Tips.....	6,433,074	62.36	7,550,864	0.73	119,845,788	13.44	6
'Wegel'-Tips.....	6,315,357	61.22	7,357,748	0.71	33,828,497	3.93	5
Yokes.....	6,392,643	61.97	7,721,821	0.75	51,305,267	5.47	5
Used for Harvesting							
Sickles.....	8,007,178	77.62	14,240,730	1.38	97,941,253	4.23	5
Used for Threshing							
Hay-Forks (metal).....	396,089	3.84	490,009	0.05	7,081,509	11.78	10
Hay-Forks (wood).....	3,790,823	36.75	6,366,262	0.62	23,221,919	2.23	4
Threshing Sticks.....	1,474,177	14.29	3,085,391	0.30	3,921,309	0.75	2
Winnowers (metal).....	24,794	0.24	28,614	0.00	230,745	7.09	8
Winnowers (wood).....	2,293,855	22.24	2,619,392	0.25	19,919,586	6.74	8
Other farm Equipment							
Carts.....	56,297	0.55	64,924	0.01	14,242,063	206.87	7
Sprayers (Hand operated).....	92,258	0.89	105,090	0.01	19,576,370	183.30	7
Sprayers (Power operated) ..	*	*	*	*	*	*	*
Tying Tools.....	*	*	*	*	*	*	*
Wheelbarrows.....	23,222	0.23	24,517	0.00	2,300,144	90.17	9

- Average per crop holder is the ratio of total number of each implement reported to total number of crop holders in rural areas in the region
- Total number of crop holders comprises, holders participated in crop production only and both crop production and livestock rearing

SUMMARY TABLE VIII.2:-Number and Percentage of Holders Reporting Draught Animals, Quantity Reported, Replacement Value, and Average Age of Animal, for Private Holdings, Country Level.

Draught Animals	Number of Holders Reporting	Percent of Total Holders	Number of Animals		Total Value of Animals (Birr)	Average Replacement Value Per Animal (Birr)	Average Age of Animal (Years)
			Total Reported	Average ¹ Per Crop Holder			
Used for Ploughing							
Asses.....	32,368	0.31	41,711	0.00	17,194,162	308.84	7
Camels.....	1,103	0.01	1,238	0.00	1,589,323	1,177.28	10
Horses.....	60,048	0.58	86,382	0.01	30,357,567	245.05	8
Mules.....	3,879	0.04	4,096	0.00	3,038,525	716.41	10
Oxen.....	5,938,455	57.56	10,518,673	1.02	6,033,407,759	329.30	7
Used for Threshing or Transportation							
Asses.....	2,318,167	22.47	2,878,737	0.28	650,386,746	184.67	8
Camels.....	47,091	0.46	75,786	0.01	81,630,684	680.57	9
Cattle.....	6,101,543	59.14	14,749,936	1.43	7,714,695,707	226.91	7
Horses.....	684,651	6.64	909,604	0.09	321,431,122	271.10	8
Mules.....	196,128	1.90	206,375	0.02	169,874,134	787.32	10

- Average¹ per crop holder is the ratio of total number of each draught animal reported to total number of crop holders in rural areas in the region.
- Total number of crop holders comprises, holders participated in crop production only and both crop production and livestock rearing.

SUMMARY TABLE VIII.3: - Number and Percentage of Holders Reporting Storage facilities, Quantity Reported, Replacement Value, and Storage Capacity, for Private Holdings, Country Level.

Storage Structure	Number of Holders Reporting	Percent of Total Storage Holders	Number of Storages		Total Value of Storages (Birr)	Average Replacement Value Per Storage (Birr)	Average Storage Capacity Per Storage (Quintal)
			Total Reported	Average ¹ Per Crop Holder			
'Debignits'.....	3,720,280	36.06	9,607,886	0.93	71,234,536	2.78	4
'Gotteras'.....	3,990,337	38.68	6,739,609	0.65	125,041,082	11.51	10
'Gudguads'.....	1,762,471	17.08	2,204,445	0.21	37,032,034	14.33	7
Modern Storage Structures...	26,858	0.26	40,586	0.00	2,582,339	59.06	34

- Average¹ per crop holder is the ratio of total number of each storage facility reported to total number of crop holders in rural areas in the region.
- Total number of crop holders comprises, holders participated in crop production only and both crop production and livestock rearing.

SUMMARY TABLE VIII.4: -Number of Crop Holders that Owned Farm Implements, Equipment and Draught Animals.
Country Level

Name of Implement, Equipment, and Draught Animal	Number of Crop holders that owned											
	No Implement, Equipment, or Draught Animal		One Implement, Equipment, and Draught Animal		Two Implements, Equipment, and Draught Animals		Three Implements, Equipment, and Draught Animals		Four Implements, Equipment, and Draught Animals		Five and above Implements, Equipment, and Draught Animals	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Used for Clearing Land												
Axes	2,044,381	19.82	4,603,004	44.62	2,636,725	25.56	743,170	7.20	202,311	1.96	86,745	0.84
'Gejera'	7,543,941	73.13	2,191,282	21.24	461,814	4.48	81,445	0.79	25,087	0.24	12,767	0.12
Shovel	7,867,137	76.26	2,209,774	21.42	208,679	2.02	23,545	0.23	4,600	0.04	2,601	0.03
Used for Cultivation												
Hoes	7,007,561	67.93	2,432,894	23.58	664,795	6.44	132,826	1.29	50,388	0.49	27,872	0.27
'Mekeskeshas'	9,739,919	94.41	395,357	3.83	130,732	1.27	32,552	0.32	12,573	0.12	5,203	0.05
Pick Axes	7,393,595	71.67	2,074,236	20.11	624,791	6.06	152,879	1.48	46,486	0.45	24,349	0.24
Tractors	10,316,093	100.00	-	-	-	-	-	-	-	-	-	-
Parts for traditional Plough												
'Degers'	3,935,692	38.15	2,820,237	27.34	2,668,484	25.87	168,397	1.63	587,309	5.69	136,217	1.32
'Ertes' (Handle)	4,026,966	39.03	3,968,262	38.47	1,706,513	16.54	377,327	3.66	166,000	1.61	71,268	0.69
Plough-Beam	3,880,121	37.61	4,075,124	39.50	1,814,053	17.58	385,478	3.74	117,768	1.14	43,792	0.42
Plough -Tips	3,883,158	37.64	5,449,902	52.83	894,550	8.67	66,234	0.64	16,253	0.16	6,239	0.06
'Wegel' -Tips	4,000,864	38.78	5,426,673	52.60	792,107	7.68	64,831	0.63	23,896	0.23	7,965	0.08
Yokes	3,923,579	38.03	5,220,173	50.60	1,060,768	10.28	81,753	0.79	23,676	0.23	6,387	0.06
Used for Harvesting												
Sickles	2,308,951	22.38	4,037,970	39.14	2,573,253	24.94	861,050	8.35	348,337	3.38	186,775	1.81
Used for Threshing												
Hay-Forks (Metal)	9,920,200	96.16	317,901	3.08	66,498	0.64	8,888	0.09	2,392	0.02	457	0.00
Hay-Forks (Wood)	6,525,318	63.25	2,036,063	19.74	1,225,028	11.87	347,445	3.37	124,577	1.21	57,905	0.56
Threshing Sticks	8,841,992	85.71	730,885	7.08	425,066	4.12	128,572	1.25	94,877	0.92	94,944	0.92
Winnowers (Metal)	10,291,088	99.76	22,557	0.22	2,153	0.02	319	0.00	35	0.00	184	0.00
Winnowers (Wood)	8,022,330	77.76	2,010,746	19.49	253,913	2.46	21,012	0.20	6,235	0.06	2,100	0.02
Other Farm Equipment												
Carts	10,259,926	99.45	49,454	0.48	5,897	0.06	527	0.01	503	0.00	29	0.00
Sprayers (Hand Operated)	10,223,500	99.10	83,914	0.81	6,528	0.06	1,674	0.02	430	0.00	290	0.00
Sprayers (Power Operated)	10,315,874	100.00	*	-	*	-	*	-	-	-	-	-
Tying Tools	10,316,216	100.00	*	-	-	-	-	-	-	-	-	-
Wheelbarrows	10,292,773	99.77	22,668	0.22	648	0.01	115	0.00	75	0.00	57	0.00
Animals Used for Ploughing												
Asses	10,283,627	99.68	24,532	0.24	7,181	0.07	673	0.01	257	0.00	66	0.00
Camels	10,315,138	99.99	1,026	0.01	172	0.00	-	-	-	-	-	-
Horses	10,256,151	99.42	38,192	0.37	18,800	0.18	2,391	0.02	661	0.01	141	0.00
Mules	10,312,456	99.96	3,446	0.03	385	0.00	49	0.00	-	-	-	-
Oxen	4,377,474	42.43	2,623,316	25.43	2,756,638	26.72	278,428	2.70	231,265	2.24	49,215	0.48
Animals Used for Threshing or Transportation												
Asses	7,998,029	77.53	1,888,772	18.31	365,037	3.54	50,027	0.48	9,183	0.09	5,288	0.05
Camels	10,269,119	99.54	32,665	0.32	8,872	0.09	2,479	0.02	1,389	0.01	1,812	0.02
Cattle	4,214,606	40.85	2,126,708	20.61	2,196,319	21.29	722,209	7.00	519,911	5.04	536,583	5.20
Horses	9,631,680	93.36	522,285	5.06	127,188	1.23	25,948	0.25	6,820	0.07	2,415	0.02
Mules	10,120,152	98.10	187,603	1.82	7,716	0.07	484	0.00	211	0.00	170	0.00
Storage Structure												
'Debignits'	6,595,925	63.94	943,022	9.14	1,163,403	11.28	834,488	8.09	451,314	4.37	328,184	3.18
'Gottaras'	6,325,749	61.32	2,310,771	22.40	1,057,433	10.25	391,032	3.79	148,144	1.44	83,207	0.81
'Gudguads'	8,553,601	82.91	1,432,633	13.89	255,466	2.48	52,756	0.51	15,292	0.15	6,588	0.06
Modern Storages	10,289,374	99.74	18,489	0.18	5,081	0.05	2,269	0.02	610	0.01	513	0.00

SUMMARY TABLE VIII. 5: - Percentage distribution and Estimated number of crop holders that owned no ox, one ox and no pair of oxen by Geographic area.

Geographic area	Total Number of Crop Holders	Number of holders that owned					
		No ox		One ox		No pair of oxen	
		Holders	%	Holders	%	Holders	%
Country Level.....	10,316,336	4,377,474	42.43	2,623,316	25.43	7,000,790	67.86
Addis Ababa City Administration .	12,998	3,645	28.04	1,129	8.69	4,774	36.73
Somali Region	89,389	37,113	41.52	16,352	18.29	53,465	59.81
Tigray Region.....	671,737	196,416	29.24	212,166	31.58	408,582	60.82
Amhara Region.....	2,989,354	867,214	29.01	953,497	31.90	1,820,711	60.91
Oromia Region.....	3,981,704	1,585,498	39.82	919,765	23.10	2,505,263	62.92
Afar Region.....	13,970	8,898	63.69	1,310	9.38	10,208	73.07
Benshangul-Gumuz Region.....	122,033	84,553	69.29	14,198	11.63	98,751	80.92
Harari Region.....	13,516	8,661	64.08	2,281	16.88	10,942	80.96
S.N.N.P.R Region	2,380,744	1,551,113	65.15	498,175	20.93	2,049,288	86.08
Dire Dawa Administrative Council.	14,116	8,802	62.35	3,770	26.71	12,572	89.06
Gambela Region	26,775	25,561	95.47	673	2.51	26,234	97.98

STATISTICAL TABLES PRESENTING THE CENSUS
RESULTS AT
ZONAL AND WOREDA LEVELS

Tables 8.1A- 8.35A

TABLE 8.1A: - Number of Holders Reporting Axe Owned, Quantity Reported, Replacement Value, and Duration of Service of Axe, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Axes Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Axe (Birr)	Average Duration of Service of Axe (Years)
Country Level.....	10,316,336	8,271,875	13,482,353	1.31	102,110,823	4.75	9
Tigray Region.....	671,737	481,318	715,388	1.06	8,779,927	8.47	12
Afar Region.....	13,970	9,359	17,580	1.26	161,295	6.18	7
Amhara Region.....	2,989,354	2,517,188	4,524,079	1.51	27,793,994	3.46	9
Oromia Region.....	3,981,704	3,180,735	5,054,757	1.27	44,271,946	5.56	9
Somali Region.....	89,389	74,544	102,402	1.15	1,322,478	9.38	5
Benshangul-Gumuz Region.....	122,033	112,436	193,238	1.58	1,792,568	5.46	9
S.N.N.P. Region.....	2,380,744	1,845,265	2,802,458	1.18	17,050,300	4.11	8
Gambela Region.....	26,775	17,932	21,575	0.81	346,336	13.80	11
Harari Region.....	13,516	11,375	17,801	1.32	185,034	6.46	8
Addis Ababa City Administration.....	12,998	9,674	14,257	1.10	170,633	8.06	20
Dire Dawa Administrative Council.....	14,116	12,049	18,818	1.33	236,312	7.68	9

TABLE 8.2A: - Number of Holders Reporting 'Gejera' Owned, Quantity Reported, Replacement Value, and Duration of Service of 'Gejera', for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of 'Gejeras' Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per 'Gejera' (Birr)	Average Duration of Service of 'Gejera' (Years)
Country Level.....	10,316,336	2,772,238	3,538,228	0.34	42,126,332	9.58	8
Tigray Region.....	671,737	283,849	317,408	0.47	3,949,718	11.14	12
Afar Region.....	13,970	3,994	5,098	0.36	102,017	15.59	7
Amhara Region.....	2,989,354	168,214	183,993	0.06	1,701,068	8.47	9
Oromia Region.....	3,981,704	1,333,104	1,749,572	0.44	22,959,673	10.41	8
Somali Region.....	89,389	13,335	15,885	0.18	224,903	12.10	6
Benshangul-Gumuz Region.....	122,033	46,304	60,996	0.50	725,782	9.20	9
S.N.N.P. Region.....	2,380,744	899,093	1,171,660	0.49	11,820,485	7.94	7
Gambela Region.....	26,775	23,406	32,632	1.22	629,730	14.09	6
Harari Region.....	13,516	*	*	-	*	*	*
Addis Ababa City Administration.....	12,998	370	377	0.03	6,354	16.22	*
Dire Dawa Administrative Council.....	14,116	569	607	0.04	6,602	10.10	9

TABLE 8.3A:- Number of Holders Reporting Shovel Owned, Quantity Reported, Replacement Value, and Duration of Service of Shovel, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Shovels Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Shovel (Birr)	Average Duration of Service of Shovel (Years)
Country Level.....	10,316,336	2,449,144	2,731,105	0.26	29,825,513	9.73	8
Tigray Region.....	671,737	290,835	310,158	0.46	3,767,765	11.41	10
Afar Region.....	13,970	8,170	10,732	0.77	153,788	11.07	7
Amhara Region.....	2,989,354	464,678	493,115	0.16	4,253,731	8.19	9
Oromia Region.....	3,981,704	1,214,645	1,398,222	0.35	16,286,908	10.07	6
Somali Region.....	89,389	57,807	77,500	0.87	1,206,037	11.75	5
Benshangul-Gumuz Region.....	122,033	18,980	20,188	0.17	237,645	11.09	10
S.N.N.P. Region.....	2,380,744	358,864	375,770	0.16	3,488,146	8.84	8
Gambela Region.....	26,775	2,856	3,029	0.11	38,939	12.25	8
Harari Region.....	13,516	12,439	18,695	1.38	148,683	5.13	2
Addis Ababa City Administration.....	12,998	6,945	7,646	0.59	108,781	12.96	10
Dire Dawa Administrative Council.....	14,116	12,925	16,050	1.14	135,090	6.66	3

TABLE 8.4A: - Number of Holders Reporting Hoe Owned, Quantity Reported, Replacement Value, and Duration of Service of Hoe, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Hoes Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Hoe (Birr)	Average Duration of Service of Hoe (Years)
Country Level.....	10,316,336	3,308,763	4,538,757	0.44	38,838,253	6.53	7
Tigray Region.....	671,737	57,671	72,753	0.11	810,516	9.58	10
Afar Region.....	13,970	865	979	0.07	17,087	14.58	10
Amhara Region.....	2,989,354	396,827	537,512	0.18	2,814,556	4.23	7
Oromia Region.....	3,981,704	1,799,090	2,415,953	0.61	24,116,966	7.75	7
Somali Region.....	89,389	40,062	48,675	0.54	883,222	15.39	5
Benshangul-Gumuz Region.....	122,033	78,903	176,832	1.45	1,197,656	3.10	5
S.N.N.P. Region.....	2,380,744	892,598	1,227,774	0.52	8,266,447	4.96	7
Gambela Region.....	26,775	17,999	27,316	1.02	189,871	4.75	7
Harari Region.....	13,516	11,581	15,618	1.16	241,005	11.11	5
Addis Ababa City Administration	12,998	3,289	3,590	0.28	61,384	15.26	14
Dire Dawa Administrative Council	14,116	9,878	11,755	0.83	239,543	17.03	5

TABLE 8.5A: - Number of Holders Reporting 'Meakeshesha' Owned, Quantity Reported, Replacement Value, and Duration of Service of 'Meakeshesha', for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of 'Meakesheshas' Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per 'Meakeshesha' (Birr)	Average Duration of Service of 'Meakeshesha' (Years)
Country Level.....	10,316,336	576,413	834,568	0.08	4,291,948	3.99	5
Tigray Region.....	671,737	88,223	148,712	0.22	890,892	4.11	5
Afar Region.....	13,970	707	814	0.06	11,904	12.93	7
Amhara Region.....	2,989,354	87,567	134,105	0.04	706,148	3.76	6
Oromia Region.....	3,981,704	209,704	302,718	0.08	1,243,920	3.46	5
Somali Region.....	89,389	6,227	6,946	0.08	45,867	5.98	3
Benshangul-Gumuz Region.....	122,033	5,183	6,776	0.06	58,042	6.84	8
S.N.N.P. Region.....	2,380,744	177,036	232,382	0.10	1,323,712	4.53	5
Gambela Region.....	26,775	182	226	0.01	1,047	4.08	7
Harari Region.....	13,516	192	192	0.01	*	*	*
Addis Ababa City Administration	12,998	462	493	0.04	10,416	20.46	*
Dire Dawa Administrative Council	14,116	930	1,204	0.09	*	*	3

TABLE 8.6A:- Number of Holders Reporting Pick-Axe Owned, Quantity Reported, Replacement Value, and Duration of Service of Pick-Axe, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Pick-Axes Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Pick-Axe (Birr)	Average Duration of Service of Pick-Axe (Years)
Country Level.....	10,316,336	2,922,674	4,123,467	0.40	29,344,848	5.41	7
Tigray Region.....	671,737	343,376	458,163	0.68	4,329,010	7.71	8
Afar Region.....	13,970	4,051	7,276	0.52	71,116	5.44	6
Amhara Region.....	2,989,354	1,127,777	1,614,266	0.54	9,070,464	4.16	7
Oromia Region.....	3,981,704	726,698	1,014,770	0.25	8,316,289	6.37	8
Somali Region.....	89,389	17,917	22,894	0.26	340,199	12.13	6
Benshangul-Gumuz Region.....	122,033	24,524	37,523	0.31	338,256	6.40	10
S.N.N.P. Region.....	2,380,744	667,425	956,367	0.40	6,694,456	5.11	6
Gambela Region.....	26,775	1,640	1,907	0.07	27,540	12.23	12
Harari Region.....	13,516	401	529	0.04	6,878	9.14	7
Addis Ababa City Administration	12,998	8,204	9,111	0.70	142,473	13.90	16
Dire Dawa Administrative Council	14,116	661	661	0.05	8,167	12.36	9

TABLE 8.7A: - Number of Holders Reporting 'Deger' Owned, Quantity Reported, Replacement Value, and Duration of Service of 'Deger', for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of 'Degers' Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per 'Deger' (Birr)	Average Duration of Service of 'Deger' (Years)
Country Level.....	10,316,336	6,380,576	11,961,366	1.16	28,301,057	1.32	2
Tigray Region.....	671,737	531,360	1,350,149	2.01	4,272,091	1.32	1
Afar Region.....	13,970	5,956	8,950	0.64	35,088	2.73	2
Amhara Region.....	2,989,354	2,311,694	4,685,784	1.57	9,920,742	1.08	2
Oromia Region.....	3,981,704	2,573,190	4,400,328	1.11	11,040,065	1.56	2
Somali Region.....	89,389	58,131	87,681	0.98	569,556	4.60	3
Benshangul-Gumuz Region.....	122,033	40,280	66,889	0.55	142,254	1.33	2
S.N.N.P. Region.....	2,380,744	838,894	1,311,755	0.55	2,140,031	1.12	2
Gambela Region.....	26,775	1,217	1,537	0.06	5,406	2.90	2
Harari Region.....	13,516	4,739	14,232	1.05	28,070	0.95	2
Addis Ababa City Administration	12,998	10,121	27,237	2.10	116,105	1.64	2
Dire Dawa Administrative Council	14,116	4,994	6,824	0.48	31,649	3.39	2

TABLE 8.8A:- Number of Holders Reporting 'Erfe'(Handle) Owned, Quantity Reported, Replacement Value, and Duration of Service of 'Erfe', for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of 'Erfe's' Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per 'Erfe' (Birr)	Average Duration of Service of 'Erfe' (Years)
Country Level.....	10,316,336	6,289,158	9,703,401	0.94	18,627,954	1.22	2
Tigray Region.....	671,737	529,977	1,034,078	1.54	4,608,222	2.37	2
Afar Region.....	13,970	5,855	7,851	0.56	22,703	2.17	1
Amhara Region.....	2,989,354	2,297,082	3,935,134	1.32	6,415,309	0.96	2
Oromia Region.....	3,981,704	2,534,338	3,596,052	0.90	5,971,842	1.18	1
Somali Region.....	89,389	56,794	66,105	0.74	432,574	5.77	3
Benshangul-Gumuz Region.....	122,033	39,102	54,882	0.45	72,917	0.91	1
S.N.N.P. Region.....	2,380,744	805,191	970,227	0.41	970,092	0.85	2
Gambela Region.....	26,775	1,197	1,449	0.05	2,530	1.52	2
Harari Region.....	13,516	4,651	5,578	0.41	16,096	2.41	2
Addis Ababa City Administration	12,998	10,086	26,684	2.05	99,234	1.46	1
Dire Dawa Administrative Council	14,116	4,885	5,361	0.38	16,435	2.79	1

TABLE 8.9A:- Number of Holders Reporting Plough-Beam Owned, Quantity Reported, Replacement Value, and Duration of Service of Plough-Beam, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Plough-Beams Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Plough-Beam (Birr)	Average Duration of Service of Plough-Beam (Years)
Country Level.....	10,316,336	6,436,100	9,585,675	0.93	83,913,636	6.04	4
Tigray Region.....	671,737	536,480	876,036	1.30	15,058,688	10.93	7
Afar Region.....	13,970	6,074	7,393	0.53	85,776	9.72	4
Amhara Region.....	2,989,354	2,329,211	4,030,791	1.35	27,983,262	4.27	4
Oromia Region.....	3,981,704	2,591,935	3,538,714	0.89	33,026,990	6.88	4
Somali Region.....	89,389	59,288	61,923	0.69	1,509,145	23.63	5
Benshangul-Gumuz Region.....	122,033	40,555	54,191	0.44	285,468	4.08	3
S.N.N.P. Region.....	2,380,744	850,855	978,686	0.41	5,435,321	4.79	4
Gambela Region.....	26,775	1,260	1,656	0.06	13,744	6.85	3
Harari Region.....	13,516	4,937	5,192	0.38	72,479	13.03	5
Addis Ababa City Administration	12,998	10,116	25,489	1.96	330,334	5.07	5
Dire Dawa Administrative Council	14,116	5,389	5,604	0.40	112,429	19.46	5

TABLE 8.10A: - Number of Holders Reporting Plough-Tip (Metal) Owned, Quantity Reported, Replacement Value, and Duration of Service of Plough-Tip, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Plough-Tips Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Plough-Tip (Birr)	Average Duration of Service of Plough-Tip (Years)
Country Level.....	10,316,336	6,433,075	7,550,864	0.73	119,845,788	13.44	6
Tigray Region.....	671,737	535,927	682,770	1.02	18,685,929	21.51	5
Afar Region.....	13,970	6,074	7,201	0.52	137,939	16.14	5
Amhara Region.....	2,989,354	2,283,412	2,628,066	0.88	48,590,555	16.03	8
Oromia Region.....	3,981,704	2,602,623	3,120,697	0.78	41,238,102	11.04	5
Somali Region.....	89,389	58,490	62,831	0.70	1,466,171	21.95	6
Benshangul-Gumuz Region.....	122,033	40,750	47,886	0.39	796,741	14.30	5
S.N.N.P. Region.....	2,380,744	882,992	968,617	0.41	8,510,984	7.97	5
Gambela Region.....	26,775	1,211	1,324	0.05	23,998	15.96	7
Harari Region.....	13,516	5,714	7,756	0.57	71,976	6.39	3
Addis Ababa City Administration	12,998	10,135	17,452	1.34	231,632	7.78	6
Dire Dawa Administrative Council	14,116	5,747	6,264	0.44	91,761	13.63	4

TABLE 8.11A: - Number of Holders Reporting 'Wegel' -Tip Owned, Quantity Reported, Replacement Value, and Duration of Service of 'Wegel' -Tip, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of 'Wegel' -Tips Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per 'Wegel' -Tip (Birr)	Average Duration of Service of 'Wegel' -Tip (Years)
Country Level.....	10,316,336	6,315,356	7,357,748	0.71	33,828,497	3.93	5
Tigray Region.....	671,737	530,386	719,884	1.07	4,210,038	4.38	3
Afar Region.....	13,970	6,026	7,173	0.51	58,103	6.97	5
Amhara Region.....	2,989,354	2,282,885	2,556,122	0.86	10,792,587	3.77	6
Oromia Region.....	3,981,704	2,561,628	3,040,310	0.76	14,529,949	4.04	5
Somali Region.....	89,389	57,161	70,943	0.79	546,935	6.80	4
Benshangul-Gumuz Region.....	122,033	40,007	47,065	0.39	267,648	4.90	5
S.N.N.P. Region.....	2,380,744	816,160	886,363	0.37	3,272,691	3.39	4
Gambela Region.....	26,775	1,205	1,327	0.05	7,944	5.46	6
Harari Region.....	13,516	4,726	6,105	0.45	23,804	3.13	3
Addis Ababa City Administration	12,998	9,993	17,000	1.31	85,626	3.00	5
Dire Dawa Administrative Council	14,116	5,179	5,456	0.39	33,172	5.62	3

TABLE 8.12A: - Number of Holders Reporting Yoke Owned, Quantity Reported, Replacement Value, and Duration of Service of Yoke, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Yokes Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Yoke (Birr)	Average Duration of Service of Yoke (Years)
Country Level.....	10,316,336	6,392,643	7,721,821	0.75	51,305,267	5.47	5
Tigray Region.....	671,737	531,578	734,456	1.09	9,112,985	9.33	8
Afar Region.....	13,970	6,098	7,124	0.51	67,157	7.94	4
Amhara Region.....	2,989,354	2,294,919	2,788,608	0.93	16,174,215	4.85	6
Oromia Region.....	3,981,704	2,585,850	3,104,582	0.78	20,857,735	5.56	5
Somali Region.....	89,389	59,548	63,053	0.71	1,153,360	17.39	4
Benshangul-Gumuz Region.....	122,033	40,318	49,620	0.41	183,542	3.05	3
S.N.N.P. Region.....	2,380,744	852,545	944,469	0.40	3,390,445	3.23	4
Gambela Region.....	26,775	1,234	1,359	0.05	8,193	5.43	3
Harari Region.....	13,516	5,075	5,231	0.39	61,891	11.26	5
Addis Ababa City Administration	12,998	10,090	17,439	1.34	209,443	6.94	7
Dire Dawa Administrative Council	14,116	5,388	5,880	0.42	86,301	14.07	5

TABLE 8.13A: -Number of Holders Reporting Sickle Owned, Quantity Reported, Replacement Value, and Duration of Service of Sickle, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Sickles Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Sickle (Birr)	Average Duration of Service of Sickle (Years)
Country Level	10,316,336	8,007,177	14,240,730	1.38	97,941,253	4.23	5
Tigray Region	671,737	589,958	1,396,916	2.08	11,109,346	3.60	5
Afar Region	13,970	8,818	14,492	1.04	120,460	5.41	5
Amhara Region	2,989,354	2,686,409	5,507,067	1.84	30,832,048	2.97	5
Oromia Region	3,981,704	3,039,059	4,653,886	1.17	43,156,448	6.49	6
Somali Region	89,389	59,046	81,071	0.91	1,091,652	9.76	5
Benshangul-Gumuz Region	122,033	93,840	166,586	1.37	1,296,533	4.58	5
S.N.N.P. Region	2,380,744	1,496,418	2,369,969	1.00	9,717,961	2.82	4
Gambela Region	26,775	12,291	16,369	0.61	140,517	6.48	6
Harari Region	13,516	6,694	8,286	0.61	70,635	7.03	6
Addis Ababa City Administration	12,998	11,271	22,406	1.72	375,795	8.53	5
Dire Dawa Administrative Council	14,116	3,373	3,682	0.26	29,858	7.42	5

TABLE 8.14A: - Number of Holders Reporting Hay-Fork (Metal) Owned, Quantity Reported, Replacement Value, and Duration of Service of Hay-Fork, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Hay-Forks Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Hay-Fork (Birr)	Average Duration of Service of Hay-Fork (Years)
Country Level	10,316,336	396,089	490,010	0.05	7,081,509	11.78	10
Tigray Region	671,737	6,621	9,845	0.01	100,422	7.64	9
Afar Region	13,970	*	*	-	*	*	*
Amhara Region	2,989,354	45,811	56,272	0.02	592,850	9.21	11
Oromia Region	3,981,704	321,442	394,572	0.10	5,989,744	12.38	10
Somali Region	89,389	680	731	0.01	8,890	10.25	5
Benshangul-Gumuz Region	122,033	559	762	0.01	3,302	3.71	6
S.N.N.P. Region	2,380,744	11,593	14,167	0.01	125,765	7.41	8
Gambela Region	26,775	*	*	-	*	*	*
Harari Region	13,516	665	689	0.05	8,914	12.46	10
Addis Ababa City Administration	12,998	8,496	12,750	0.98	248,836	13.26	13
Dire Dawa Administrative Council	14,116	222	222	0.02	2,786	12.55	7

TABLE 8.15A: - Number of Holders Reporting Hay-Fork (Wood) Owned, Quantity Reported, Replacement Value, and Duration of Service of Hay-Fork, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Hay-Forks Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Hay-Fork (Birr)	Average Duration of Service of Hay-Fork (Years)
Country Level	10,316,336	3,790,824	6,366,261	0.62	23,221,919	2.23	4
Tigray Region	671,737	464,284	883,446	1.32	5,284,671	3.17	5
Afar Region	13,970	835	1,261	0.09	2,894	1.52	4
Amhara Region	2,989,354	1,802,766	3,124,631	1.05	10,472,226	1.97	5
Oromia Region	3,981,704	1,229,590	1,924,887	0.48	6,310,750	2.29	4
Somali Region	89,389	29,516	33,259	0.37	338,925	8.96	4
Benshangul-Gumuz Region	122,033	23,042	45,355	0.37	81,684	0.96	3
S.N.N.P. Region	2,380,744	233,458	345,475	0.15	690,443	1.36	3
Gambela Region	26,775	55	95	0.00	*	*	*
Harari Region	13,516	3,260	3,496	0.26	13,678	3.63	4
Addis Ababa City Administration	12,998	524	714	0.05	7,989	7.88	10
Dire Dawa Administrative Council	14,116	3,494	3,642	0.26	18,659	5.02	4

TABLE 8.16A: - Number of Holders Reporting Threshing Stick Owned, Quantity Reported, Replacement Value, and Duration of Service of Threshing Stick, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Threshing Sticks Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Threshing Stick (Birr)	Average Duration of Service of Threshing Stick (Years)
Country Level.....	10,316,336	1,474,176	3,085,392	0.30	3,921,309	0.75	2
Tigray Region.....	671,737	60,233	113,046	0.17	324,870	1.77	2
Afar Region.....	13,970	164	425	0.03	343	0.44	1
Amhara Region.....	2,989,354	264,831	537,963	0.18	626,661	0.65	2
Oromia Region.....	3,981,704	765,449	1,607,086	0.40	2,073,942	0.78	2
Somali Region.....	89,389	41,437	89,011	1.00	385,529	2.35	2
Benshangul-Gumuz Region.....	122,033	27,015	67,057	0.55	66,922	0.53	2
S.N.N.P. Region.....	2,380,744	298,828	645,221	0.27	384,180	0.38	2
Gambela Region.....	26,775	3,132	4,376	0.16	4,331	0.77	2
Harari Region.....	13,516	6,241	10,538	0.78	24,568	1.59	2
Addis Ababa City Administration	12,998	146	248	0.02	883	2.89	2
Dire Dawa Administrative Council	14,116	6,700	10,421	0.74	29,080	1.88	2

TABLE 8.17A: - Number of Holders Reporting Winnower (Metal) Owned, Quantity Reported, Replacement Value, and Duration of Service of Winnower, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Winnowers Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Winnower (Birr)	Average Duration of Service of Winnower (Years)
Country Level.....	10,316,336	24,793	28,614	0.00	230,745	7.09	8
Tigray Region.....	671,737	3,703	4,027	0.01	48,784	11.13	10
Afar Region.....	13,970	-	-	-	-	-	-
Amhara Region.....	2,989,354	8,363	10,171	0.00	73,906	6.07	9
Oromia Region.....	3,981,704	9,681	11,072	0.00	94,136	7.54	7
Somali Region.....	89,389	197	197	0.00	*	*	6
Benshangul-Gumuz Region.....	122,033	364	485	0.00	2,611	4.44	7
S.N.N.P. Region.....	2,380,744	2,382	2,559	0.00	10,135	3.75	4
Gambela Region.....	26,775	-	-	-	-	-	-
Harari Region.....	13,516	*	*	-	*	*	*
Addis Ababa City Administration	12,998	*	*	-	*	*	*
Dire Dawa Administrative Council	14,116	103	103	0.01	1,173	11.39	6

TABLE 8.18A:- Number of Holders Reporting Winnower(Wood) Owned, Quantity Reported, Replacement Value, and Duration of Service of Winnower, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Winnowers Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Winnower (Birr)	Average Duration of Service of Winnower (Years)
Country Level.....	10,316,336	2,293,854	2,619,393	0.25	19,919,586	6.74	8
Tigray Region.....	671,737	112,031	130,588	0.19	1,461,764	9.86	11
Afar Region.....	13,970	687	774	0.06	6,327	7.03	10
Amhara Region.....	2,989,354	1,014,103	1,163,325	0.39	8,335,239	6.31	9
Oromia Region.....	3,981,704	969,714	1,087,145	0.27	8,963,176	7.40	8
Somali Region.....	89,389	16,716	18,353	0.21	217,640	11.19	4
Benshangul-Gumuz Region.....	122,033	19,124	27,359	0.22	111,111	3.07	6
S.N.N.P. Region.....	2,380,744	148,017	176,522	0.07	610,177	2.87	5
Gambela Region.....	26,775	*	*	-	*	*	*
Harari Region.....	13,516	2,768	3,427	0.25	28,403	6.37	7
Addis Ababa City Administration	12,998	6,663	7,530	0.58	139,518	16.25	11
Dire Dawa Administrative Council	14,116	4,031	4,370	0.31	46,231	9.88	7

TABLE 8.19A: - Number of Holders Reporting Cart Owned, Quantity Reported, Replacement Value, Duration of Service of Cart, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Carts Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Cart (Birr)	Average Duration of Service of Cart (Years)
Country Level.....	10,316,336	56,296	64,925	0.01	14,242,063	206.87	7
Tigray Region.....	671,737	1,097	1,207	0.00	2,025,109	1,657.08	17
Afar Region.....	13,970	69	89	0.01	101,010	775.91	7
Amhara Region.....	2,989,354	2,145	2,815	0.00	354,538	125.16	5
Oromia Region.....	3,981,704	37,604	43,940	0.01	6,970,164	147.37	6
Somali Region.....	89,389	609	674	0.01	650,286	890.80	16
Benshangul-Gumuz Region.....	122,033	*	*	-	*	*	*
S.N.N.P. Region.....	2,380,744	14,772	16,200	0.01	4,140,956	242.83	8
Gambela Region.....	26,775	*	*	-	*	*	*
Harari Region.....	13,516	*	*	-	*	*	*
Addis Ababa City Administration	12,998	*	*	-	*	*	*
Dire Dawa Administrative Council	14,116	-	-	-	-	-	-

TABLE 8.20A: - Number of Holders Reporting Sprayer (Hand operated) Owned, Quantity Reported, Replacement Value, Duration of Service of Sprayer, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Sprayers Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Sprayer (Birr)	Average Duration of Service of Sprayer (Years)
Country Level.....	10,316,336	92,259	105,090	0.01	19,576,370	183.30	7
Tigray Region.....	671,737	3,096	5,468	0.01	60,010	7.60	5
Afar Region.....	13,970	156	198	0.01	67,961	254.59	4
Amhara Region.....	2,989,354	10,711	14,981	0.01	1,311,584	84.39	6
Oromia Region.....	3,981,704	57,062	61,051	0.02	15,408,997	248.90	8
Somali Region.....	89,389	296	353	0.00	*	*	6
Benshangul-Gumuz Region.....	122,033	484	719	0.01	7,683	9.04	5
S.N.N.P. Region.....	2,380,744	19,889	21,706	0.01	2,442,874	111.84	6
Gambela Region.....	26,775	162	211	0.01	1,503	5.67	6
Harari Region.....	13,516	403	403	0.03	67,409	167.27	8
Addis Ababa City Administration	12,998	*	*	-	208,349	*	*
Dire Dawa Administrative Council	14,116	-	-	-	-	-	-

TABLE 8.21A: - Number of Holders Reporting Wheelbarrow Owned, Quantity Reported, Replacement Value and Duration of Service of Wheelbarrow, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Wheelbarrows Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Wheelbarrow (Birr)	Average Duration of Service of Wheelbarrow (Years)
Country Level.....	10,316,336	23,222	24,517	0.00	2,300,144	90.17	9
Tigray Region.....	671,737	799	872	0.00	112,450	127.53	18
Afar Region.....	13,970	66	79	0.01	*	*	6
Amhara Region.....	2,989,354	946	946	0.00	69,408	73.37	16
Oromia Region.....	3,981,704	13,992	14,480	0.00	1,516,648	102.71	9
Somali Region.....	89,389	1,532	1,687	0.02	363,920	197.30	7
Benshangul-Gumuz Region.....	122,033	119	119	0.00	*	*	*
S.N.N.P. Region.....	2,380,744	5,277	5,843	0.00	195,004	28.61	6
Gambela Region.....	26,775	94	94	0.00	*	*	*
Harari Region.....	13,516	397	397	0.03	42,714	107.59	7
Addis Ababa City Administration	12,998	*	*	-	*	*	*
Dire Dawa Administrative Council	14,116	*	*	-	*	*	*

TABLE 8.22A: - Number of Holders Reporting Ass (Specifically for ploughing) Owned, Quantity Reported, Replacement Value and Average age of Ass, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Asses Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Ass (Birr)	Average Age of Ass (Years)
Country Level.....	10,316,336	32,368	41,712	0.00	17,194,162	308.84	7
Tigray Region.....	671,737	3,085	3,743	0.01	1,817,973	364.55	8
Afar Region.....	13,970	*	*	-	*	*	*
Amhara Region.....	2,989,354	20,736	26,095	0.01	10,085,830	301.51	8
Oromia Region.....	3,981,704	5,019	7,307	0.00	3,399,143	301.08	6
Somali Region.....	89,389	657	842	0.01	358,052	343.57	7
Benshangul-Gumuz Region.....	122,033	131	204	0.00	47,477	145.30	3
S.N.N.P. Region.....	2,380,744	2,740	3,521	0.00	1,485,687	321.14	6
Gambela Region.....	26,775	-	-	-	-	-	-
Harari Region.....	13,516	*	*	-	*	*	*
Addis Ababa City Administration	12,998	*	*	-	*	*	*
Dire Dawa Administrative Council	14,116	*	*	-	*	*	*

TABLE 8.23A: - Number of Holders Reporting Camel (Specifically For Ploughing) Owned, Quantity Reported, Replacement Value and Average age of Camel, for Private Holdings

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Camels Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Camel (Birr)	Average Age of Camel (Years)
Country Level.....	10,316,336	1,103	1,238	0.00	1,589,323	1,177.28	10
Tigray Region.....	671,737	514	539	0.00	907,200	1,636.36	11
Afar Region.....	13,970	-	-	-	-	-	-
Amhara Region.....	2,989,354	*	*	-	*	*	*
Oromia Region.....	3,981,704	71	71	0.00	64,007	901.51	*
Somali Region.....	89,389	518	628	0.01	618,116	814.44	10
Benshangul-Gumuz Region.....	122,033	-	-	-	-	-	-
S.N.N.P. Region.....	2,380,744	-	-	-	-	-	-
Gambela Region.....	26,775	-	-	-	-	-	-
Harari Region.....	13,516	-	-	-	-	-	-
Addis Ababa City Administration	12,998	-	-	-	-	-	-
Dire Dawa Administrative Council	14,116	-	-	-	-	-	-

TABLE 8.24A:- Number of Holders Reporting Horse (Specifically For Ploughing) Owned, Quantity Reported, Replacement Value and Average age of Horse, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Horses Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Horse (Birr)	Average Age of Horse (Years)
Country Level.....	10,316,336	60,048	86,382	0.01	30,357,567	245.05	8
Tigray Region.....	671,737	*	*	-	*	*	*
Afar Region.....	13,970	-	-	-	-	-	-
Amhara Region.....	2,989,354	59,714	85,860	0.03	30,118,066	244.95	8
Oromia Region.....	3,981,704	334	522	0.00	239,501	261.95	6
Somali Region.....	89,389	-	-	-	-	-	-
Benshangul-Gumuz Region.....	122,033	-	-	-	-	-	-
S.N.N.P. Region.....	2,380,744	*	*	-	*	*	*
Gambela Region.....	26,775	-	-	-	-	-	-
Harari Region.....	13,516	-	-	-	-	-	-
Addis Ababa City Administration	12,998	-	-	-	-	-	-
Dire Dawa Administrative Council	14,116	-	-	-	-	-	-

TABLE 8.25A:- Number of Holders Reporting Mule (Specifically For Ploughing) Owned, Quantity Reported, Replacement Value and Average age of Mule, for Private Holdings

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Mules Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per Mule (Birr)	Average Age of Mule (Years)
Country Level.....	10,316,336	3,880	4,096	0.00	3,038,525	716.41	10
Tigray Region.....	671,737	151	*	-	*	*	10
Afar Region.....	13,970	-	-	-	-	-	-
Amhara Region.....	2,989,354	3,729	4,096	0.00	3,038,525	676.91	10
Oromia Region.....	3,981,704	-	-	-	-	-	-
Somali Region.....	89,389	-	-	-	-	-	-
Benshangul-Gumuz Region.....	122,033	-	-	-	-	-	-
S.N.N.P. Region.....	2,380,744	-	-	-	-	-	-
Gambela Region.....	26,775	-	-	-	-	-	-
Harari Region.....	13,516	-	-	-	-	-	-
Addis Ababa City Administration	12,998	-	-	-	-	-	-
Dire Dawa Administrative Council	14,116	-	-	-	-	-	-

TABLE 8.26A: -Number of Holders Reporting Ox (Specifically for ploughing) Owned, Quantity Reported, Replacement Value and Average age of Ox, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Oxen Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Ox (Birr)	Average Age of Ox (Years)
Country Level.....	10,316,336	5,938,456	10,518,674	1.02	6,033,407,759	329.30	7
Tigray Region.....	671,737	475,321	844,845	1.26	643,505,551	447.67	8
Afar Region.....	13,970	5,051	9,622	0.69	7,142,978	390.83	8
Amhara Region.....	2,989,354	2,122,013	3,769,055	1.26	2,145,166,659	338.12	8
Oromia Region.....	3,981,704	2,396,172	4,459,312	1.12	2,531,549,355	303.64	6
Somali Region.....	89,389	52,215	92,206	1.03	61,275,472	382.04	6
Benshangul-Gumuz Region.....	122,033	37,325	70,623	0.58	37,741,909	274.67	6
S.N.N.P. Region.....	2,380,744	829,622	1,229,944	0.52	572,500,088	311.74	6
Gambela Region.....	26,775	1,215	1,878	0.07	756,855	257.41	3
Harari Region.....	13,516	4,855	7,554	0.56	4,692,484	401.36	4
Addis Ababa City Administration	12,998	9,353	26,529	2.04	24,816,334	329.25	8
Dire Dawa Administrative Council	14,116	5,314	7,106	0.50	4,260,074	440.94	5

TABLE 8.27A: - Number of Holders Reporting Ass (For transportation/threshing) Owned, Quantity Reported, Replacement Value and Average age of Ass, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Asses Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Ass (Birr)	Average Age of Ass (Years)
Country Level.....	10,316,336	2,318,166	2,878,737	0.28	650,386,746	184.67	8
Tigray Region.....	671,737	224,091	293,767	0.44	80,452,942	218.45	8
Afar Region.....	13,970	2,007	2,961	0.21	720,719	163.02	7
Amhara Region.....	2,989,354	886,442	1,105,496	0.37	188,781,125	141.87	8
Oromia Region.....	3,981,704	975,587	1,211,592	0.30	314,041,592	208.78	8
Somali Region.....	89,389	37,489	45,923	0.51	12,563,766	222.30	9
Benshangul-Gumuz Region.....	122,033	19,020	23,484	0.19	6,995,649	239.61	6
S.N.N.P. Region.....	2,380,744	154,515	171,205	0.07	40,075,110	210.99	7
Gambela Region.....	26,775	*	*	-	*	*	*
Harari Region.....	13,516	4,202	4,582	0.34	1,199,957	240.39	9
Addis Ababa City Administration	12,998	8,552	12,999	1.00	3,918,132	199.84	9
Dire Dawa Administrative Council	14,116	6,261	6,728	0.48	1,637,754	226.88	10

TABLE 8.28A: - Number of Holders Reporting Camel (For transportation/threshing) Owned, Quantity Reported, Replacement Value and Average age of Camel, for Private Holdings

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Camels Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Camel (Birr)	Average Age of Camel (Years)
Country Level.....	10,316,336	47,091	75,786	0.01	81,630,684	680.57	9
Tigray Region.....	671,737	10,494	23,639	0.04	31,380,177	650.64	11
Afar Region.....	13,970	2,390	3,383	0.24	3,354,950	780.54	13
Amhara Region.....	2,989,354	9,154	12,764	0.00	12,201,756	727.40	7
Oromia Region.....	3,981,704	11,450	16,944	0.00	14,980,711	590.07	8
Somali Region.....	89,389	11,359	16,070	0.18	17,217,681	772.84	11
Benshangul-Gumuz Region.....	122,033	-	-	-	-	-	-
S.N.N.P. Region.....	2,380,744	*	*	-	*	*	*
Gambela Region.....	26,775	-	-	-	-	-	-
Harari Region.....	13,516	*	*	-	*	*	*
Addis Ababa City Administration	12,998	-	-	-	-	-	-
Dire Dawa Administrative Council	14,116	2,244	2,986	0.21	2,495,409	621.01	10

TABLE 8.29A: - Number of Holders Reporting Cattle (Working Age for Threshing and Transportation) Owned, Quantity Reported, Replacement Value and Average age of Cattle, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Cattle Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Cattle (Birr)	Average Age of Cattle (Years)
Country Level.....	10,316,336	6,101,540	14,749,935	1.43	7,714,695,707	226.91	7
Tigray Region.....	671,737	487,143	1,162,895	1.73	823,638,127	318.03	8
Afar Region.....	13,970	5,006	12,380	0.89	8,270,657	289.19	8
Amhara Region.....	2,989,354	2,240,133	5,776,762	1.93	2,996,251,337	216.15	8
Oromia Region.....	3,981,704	2,444,409	6,242,998	1.57	3,140,442,613	206.13	6
Somali Region.....	89,389	49,169	99,034	1.11	65,010,897	335.47	6
Benshangul-Gumuz Region.....	122,033	40,001	109,360	0.90	53,259,868	178.70	6
S.N.N.P. Region.....	2,380,744	815,040	1,288,880	0.54	585,672,444	287.56	6
Gambela Region.....	26,775	1,132	1,849	0.07	710,988	242.02	3
Harari Region.....	13,516	4,840	7,771	0.57	4,793,856	385.17	4
Addis Ababa City Administration	12,998	9,884	41,255	3.17	32,700,841	203.26	8
Dire Dawa Administrative Council	14,116	4,783	6,751	0.48	3,944,079	410.17	5

TABLE 8.30A:- Number of Holders Reporting Horse (For transportation/threshing) Owned, Quantity Reported, Replacement Value and Average age of Horse, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Horses Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Horse (Birr)	Average Age of Horse (Years)
Country Level.....	10,316,336	684,651	909,603	0.09	321,431,122	271.10	8
Tigray Region.....	671,737	1,138	1,290	0.00	595,014	423.71	10
Afar Region.....	13,970	20	33	0.00	18,487	309.27	8
Amhara Region.....	2,989,354	165,919	232,426	0.08	75,913,894	250.95	8
Oromia Region.....	3,981,704	369,961	508,863	0.13	190,677,389	274.53	8
Somali Region.....	89,389	-	-	-	-	-	-
Benshangul-Gumuz Region.....	122,033	225	351	0.00	202,890	376.84	8
S.N.N.P. Region.....	2,380,744	146,901	166,145	0.07	53,728,062	286.45	8
Gambela Region.....	26,775	312	312	0.01	158,822	509.04	6
Harari Region.....	13,516	-	-	-	-	-	-
Addis Ababa City Administration	12,998	175	183	0.01	136,564	720.12	7
Dire Dawa Administrative Council	14,116	-	-	-	-	-	-

TABLE 8.31A:- Number of Holders Reporting Mule (For transportation/threshing) Owned, Quantity Reported, Replacement Value and Average age of Mule, for Private Holdings

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Mules Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per Mule (Birr)	Average Age of Mule (Years)
Country Level.....	10,316,336	196,127	206,375	0.02	169,874,134	787.32	10
Tigray Region.....	671,737	5,030	6,024	0.01	5,822,048	809.84	10
Afar Region.....	13,970	127	167	0.01	238,053	934.51	11
Amhara Region.....	2,989,354	60,896	65,567	0.02	52,741,268	757.95	10
Oromia Region.....	3,981,704	88,925	92,025	0.02	80,021,173	843.52	10
Somali Region.....	89,389	94	*	-	*	*	10
Benshangul-Gumuz Region.....	122,033	-	-	-	-	-	-
S.N.N.P. Region.....	2,380,744	40,991	42,523	0.02	30,962,985	706.53	10
Gambela Region.....	26,775	-	-	-	-	-	-
Harari Region.....	13,516	-	-	-	-	-	-
Addis Ababa City Administration	12,998	64	69	0.01	88,607	1,220.25	15
Dire Dawa Administrative Council	14,116	*	*	-	*	*	*

TABLE 8.32A:- Number of Holders Reporting 'Debignit' Owned, Quantity Reported, Replacement Value and Storage Capacity of 'Debignit', for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of 'Debignits' Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per 'Debignit' (Birr)	Average Storage Capacity of 'Debignit' (Quintal)
Country Level.....	10,316,336	3,720,281	9,607,887	0.93	71,234,536	2.78	4
Tigray Region.....	671,737	407,035	1,388,697	2.07	13,327,857	2.77	5
Afar Region.....	13,970	676	1,165	0.08	2,574	1.25	2
Amhara Region.....	2,989,354	2,202,125	6,107,517	2.04	42,857,551	2.42	4
Oromia Region.....	3,981,704	962,633	1,898,703	0.48	13,276,313	3.63	3
Somali Region.....	89,389	425	425	0.00	19,158	45.08	6
Benshangul-Gumuz Region.....	122,033	10,485	19,100	0.16	138,175	4.11	5
S.N.N.P. Region.....	2,380,744	131,312	181,085	0.08	1,441,975	5.83	4
Gambela Region.....	26,775	189	246	0.01	3,579	11.66	3
Harari Region.....	13,516	196	256	0.02	2,597	8.85	7
Addis Ababa City Administration	12,998	3,734	8,769	0.67	141,998	6.44	10
Dire Dawa Administrative Council	14,116	1,471	1,924	0.14	22,759	9.71	2

TABLE 8.33A: - Number of Holders Reporting 'Gottera' Owned, Quantity Reported, Replacement Value and Storage Capacity of 'Gottera', for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of 'Gotteras' Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per 'Gottera' (Birr)	Average Storage Capacity of 'Gottera' (Quintal)
Country Level.....	10,316,336	3,990,338	6,739,610	0.65	125,041,082	11.51	10
Tigray Region.....	671,737	213,453	549,341	0.82	10,209,638	8.83	8
Afar Region.....	13,970	1,658	2,860	0.20	30,365	6.75	7
Amhara Region.....	2,989,354	1,030,710	1,970,926	0.66	25,645,365	6.89	8
Oromia Region.....	3,981,704	1,947,637	3,198,187	0.80	66,981,781	13.16	11
Somali Region.....	89,389	6,264	6,739	0.08	973,176	136.86	26
Benshangul-Gumuz Region.....	122,033	89,929	132,450	1.09	2,630,422	15.55	12
S.N.N.P. Region.....	2,380,744	681,769	852,083	0.36	17,973,173	16.02	8
Gambela Region.....	26,775	18,233	25,848	0.97	523,634	15.01	8
Harari Region.....	13,516	-	-	-	-	-	-
Addis Ababa City Administration	12,998	685	1,176	0.09	73,528	36.65	13
Dire Dawa Administrative Council	14,116	*	*	-	*	*	*

TABLE 8.34A: - Number of Holders Reporting 'Gudguad' Owned, Quantity Reported, Replacement Value and Storage Capacity of 'Gudguad', for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of 'Gudguads' Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per 'Gudguad' (Birr)	Average Storage Capacity of 'Gudguad' (Quintal)
Country Level.....	10,316,336	1,762,471	2,204,445	0.21	37,032,034	14.33	7
Tigray Region.....	671,737	22,633	31,182	0.05	912,175	23.52	18
Afar Region.....	13,970	1,752	2,004	0.14	81,054	36.35	18
Amhara Region.....	2,989,354	324,494	414,314	0.14	8,873,563	17.55	10
Oromia Region.....	3,981,704	677,191	786,932	0.20	16,974,914	19.72	8
Somali Region.....	89,389	43,300	56,116	0.63	5,544,268	77.64	14
Benshangul-Gumuz Region.....	122,033	*	*	-	*	*	*
S.N.N.P. Region.....	2,380,744	674,144	894,339	0.38	3,752,398	3.08	4
Gambela Region.....	26,775	*	*	-	*	*	*
Harari Region.....	13,516	7,390	7,711	0.57	297,391	37.15	8
Addis Ababa City Administration	12,998	*	*	-	*	*	*
Dire Dawa Administrative Council	14,116	11,567	11,847	0.84	596,271	49.45	9

TABLE 8.35A - Number of Holders Reporting Modern Storage Facilities Owned, Quantity Reported, Replacement Value and Storage Capacity of Modern Storage, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Modern Storages Reported	Average Number Per Crop Holder	Total Value (Birr)	Average Replacement Value Per Modern Storage (Birr)	Average Storage Capacity of Modern Storage (Quintal)
Country Level.....	10,316,336	26,857	40,584	0.00	2,582,339	59.06	34
Tigray Region.....	671,737	1,141	2,785	0.00	42,732	6.95	7
Afar Region.....	13,970	-	-	-	-	-	-
Amhara Region.....	2,989,354	5,208	10,119	0.00	780,725	63.15	17
Oromia Region.....	3,981,704	15,280	21,301	0.01	*	*	44
Somali Region.....	89,389	5	5	0.00	182	36.47	13
Benshangul-Gumuz Region.....	122,033	548	912	0.01	*	*	40
S.N.N.P. Region.....	2,380,744	4,586	5,373	0.00	1,756,115	323.07	25
Gambela Region.....	26,775	89	89	0.00	2,585	29.04	15
Harari Region.....	13,516	-	-	-	-	-	-
Addis Ababa City Administration	12,998	*	*	-	*	*	*
Dire Dawa Administrative Council	14,116	*	*	-	*	*	*

STATISTICAL TABLES PRESENTING THE CENSUS
RESULTS AT
ZONAL AND WOREDA LEVELS

Tables 8.1B- 8.35B

Table 8.1B:- Number of Crop Holders that Owned Axe by Geographic area.

Geographic Area	Number of Crop holders that owned											
	No Axe		One Axe		Two Axes		Three Axes		Four Axes		Five and above Axes	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	2,044,381	19.82	4,603,004	44.62	2,636,725	25.56	743,170	7.20	202,311	1.96	86,745	0.84
Tigray Region	190,419	28.35	316,419	47.10	131,391	19.56	23,935	3.56	7,071	1.05	2,502	0.37
Afar Region	4,612	33.01	5,516	39.48	2,487	17.80	960	6.87	197	1.41	198	1.42
Amhara Region	472,143	15.79	1,131,142	37.84	966,695	32.34	306,744	10.26	80,707	2.70	31,923	1.07
Oromia Region	800,934	20.12	1,823,684	45.80	993,135	24.94	265,113	6.66	68,777	1.73	30,061	0.75
Somali Region	14,753	16.50	54,261	60.70	15,736	17.60	3,124	3.49	872	0.98	643	0.72
Benshangul-Gumuz Region	9,586	7.86	54,862	44.96	40,827	33.46	12,190	9.99	3,425	2.81	1,143	0.94
S.N.N.P. Region	535,480	22.49	1,182,334	49.66	473,832	19.90	128,556	5.40	40,561	1.70	19,981	0.84
Gambela Region	8,844	33.03	15,126	56.49	2,305	8.61	362	1.35	110	0.41	28	0.10
Harari Region	2,217	16.40	6,804	50.34	3,208	23.73	969	7.17	123	0.91	195	1.44
Addis Ababa City Admin.	3,325	25.58	5,961	45.86	3,104	23.88	386	2.97	200	1.54	22	0.17
Dire Dawa Admin. Council	2,068	14.65	6,895	48.85	4,005	28.37	831	5.89	268	1.90	49	0.35

Table 8.2B:- Number of Crop Holders that Owned 'Gejera' by Geographic area.

Geographic area	Number of Crop holders that owned											
	No 'Gejera'		One 'Gejera'		Two 'Gejeras'		Three 'Gejeras'		Four 'Gejeras'		Five and above 'Gejeras'	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	7,543,941	73.13	2,191,282	21.24	461,814	4.48	81,445	0.79	25,087	0.24	12,767	0.12
Tigray Region	387,888	57.74	253,126	37.68	28,621	4.26	1,756	0.26	257	0.04	89	0.01
Afar Region	9,977	71.42	3,377	24.17	502	3.59	89	0.64	13	0.09	12	0.09
Amhara Region	2,821,140	94.37	155,764	5.21	11,428	0.38	540	0.02	119	0.00	363	0.01
Oromia Region	2,648,565	66.52	1,021,818	25.66	244,063	6.13	45,412	1.14	14,392	0.36	7,454	0.19
Somali Region	76,053	85.08	11,310	12.65	1,620	1.81	329	0.37	35	0.04	42	0.05
Benshangul-Gumuz Region	75,726	62.05	35,302	28.93	8,321	6.82	1,991	1.63	524	0.43	169	0.14
S.N.N.P. Region	1,481,651	62.23	693,389	29.12	161,599	6.79	30,071	1.26	9,438	0.40	4,596	0.19
Gambela Region	3,370	12.59	16,181	60.43	5,616	20.97	1,257	4.69	309	1.15	42	0.16
Harari Region	13,396	99.11	120	0.89	-	-	-	-	-	-	-	-
Addis Ababa City Admin.	12,628	97.15	364	2.80	6	0.05	-	-	-	-	-	-
Dire Dawa Admin. Council	13,547	95.97	531	3.76	38	0.27	-	-	-	-	-	-

Table 8.3B:- Number of Crop Holders that Owned Shovel by Geographic area

Geographic area	Number of Crop holders that owned											
	No Shovel		One Shovel		Two Shovels		Three Shovels		Four Shovels		Five and above Shovels	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	7,867,137	76.26	2,209,774	21.42	208,679	2.02	23,545	0.23	4,600	0.04	2,601	0.03
Tigray Region	380,901	56.70	273,463	40.71	16,108	2.40	980	0.15	170	0.03	115	0.02
Afar Region	5,800	41.52	6,396	45.78	1,373	9.83	251	1.80	110	0.79	40	0.29
Amhara Region	2,524,653	84.45	440,133	14.72	22,116	0.74	1,795	0.06	220	0.01	437	0.01
Oromia Region	2,767,025	69.49	1,058,593	26.59	135,557	3.40	16,079	0.40	3,012	0.08	1,438	0.04
Somali Region	31,532	35.28	42,454	47.49	12,443	13.92	2,039	2.28	597	0.67	324	0.36
Benshangul-Gumuz Region	103,042	84.44	17,940	14.70	922	0.76	112	0.09	6	0.00	11	0.01
S.N.N.P. Region	2,021,880	84.93	343,826	14.44	13,538	0.57	1,268	0.05	96	0.00	136	0.01
Gambela Region	23,908	89.29	2,714	10.14	139	0.52	11	0.04	-	-	3	0.01
Harari Region	1,152	8.52	7,631	56.46	3,646	26.98	738	5.46	286	2.12	63	0.47
Addis Ababa City Admin.	6,053	46.57	6,330	48.70	547	4.21	50	0.38	18	0.14	-	-
Dire Dawa Admin Council	1,191	8.44	10,294	72.92	2,290	16.22	222	1.57	85	0.60	34	0.24

Table 8.4B: - Number of Crop Holders that Owned Hoe by Geographic area

Geographic area	Number of Crop holders that owned											
	No Hoe		One Hoe		Two Hoes		Three Hoes		Four Hoes		Five and above Hoes	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	7,007,561	67.93	2,432,894	23.58	664,795	6.44	132,826	1.29	50,388	0.49	27,872	0.27
Tigray Region	614,067	91.41	46,023	6.85	9,301	1.38	1,562	0.23	539	0.08	245	0.04
Afar Region	13,105	93.81	764	5.47	88	0.63	13	0.09	-	-	-	-
Amhara Region	2,592,505	86.72	305,458	10.22	65,754	2.20	17,692	0.59	4,965	0.17	2,980	0.10
Oromia Region	2,182,613	54.82	1,337,905	33.60	353,522	8.88	75,026	1.88	22,840	0.57	9,798	0.25
Somali Region	49,326	55.18	33,094	37.02	5,859	6.55	787	0.88	223	0.25	100	0.11
Benshangul-Gumuz Region	43,101	35.32	25,830	21.17	28,253	23.15	13,705	11.23	6,440	5.28	4,704	3.85
S.N.N.P. Region	1,488,145	62.51	652,343	27.40	193,724	8.14	22,110	0.93	14,605	0.61	9,817	0.41
Gambela Region	8,768	32.75	11,764	43.94	4,184	15.63	1,319	4.93	572	2.14	168	0.63
Harari Region	1,983	14.67	8,293	61.36	2,715	20.09	322	2.38	149	1.10	54	0.40
Addis Ababa City Admin.	9,710	74.70	3,094	23.80	126	0.97	48	0.37	14	0.11	6	0.05
Dire Dawa Admin.Council.	4,238	30.02	8,326	58.98	1,269	8.99	242	1.71	41	0.29	-	-

Table 8.5B: - Number of Crop Holders that Owned 'Mekesksha' by Geographic area

Geographic area	Number of Crop holders that owned											
	No 'Mekesksha'		One 'Mekesksha'		Two 'Mekeskshas'		Three 'Mekeskshas'		Four 'Mekeskshas'		Five and above 'Mekeskshas'	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	9,739,919	94.41	395,357	3.83	130,732	1.27	32,552	0.32	12,573	0.12	5,203	0.05
Tigray Region	583,513	86.87	49,152	7.32	25,382	3.78	8,795	1.31	3,029	0.45	1,866	0.28
Afar Region	13,263	94.94	599	4.29	108	0.77	-	-	-	-	-	-
Amhara Region	2,901,787	97.07	54,303	1.82	23,687	0.79	6,773	0.23	2,132	0.07	672	0.02
Oromia Region	3,772,000	94.73	143,579	3.61	48,797	1.23	10,745	0.27	4,829	0.12	1,754	0.04
Somali Region	83,162	93.03	5,662	6.33	507	0.57	20	0.02	19	0.02	19	0.02
Benshangul-Gumuz Region	116,849	95.75	3,806	3.12	1,233	1.01	93	0.08	42	0.03	10	0.01
S.N.N.P. Region	2,203,707	92.56	136,789	5.75	30,762	1.29	6,087	0.26	2,517	0.11	882	0.04
Gambela Region	26,593	99.32	153	0.57	19	0.07	5	0.02	5	0.02	-	-
Harari Region	13,324	98.58	192	1.42	-	-	-	-	-	-	-	-
Addis Ababa City Admin.	12,535	96.44	432	3.32	31	0.24	-	-	-	-	-	-
Dire Dawa Admin.Council.	13,186	93.41	690	4.89	206	1.46	34	0.24	-	-	-	-

Table 8.6B:- Number of Crop Holders that Owned Pick-Axe by Geographic area

Geographic area	Number of Crop holders that owned											
	No Pick-Axe		One Pick-Axe		Two Pick-Axes		Three Pick-Axes		Four Pick-Axes		Five and above Pick-Axes	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	7,393,595	71.67	2,074,236	20.11	624,791	6.06	152,879	1.48	46,486	0.45	24,349	0.24
Tigray Region	328,361	48.88	264,926	39.44	56,000	8.34	14,922	2.22	4,827	0.72	2,701	0.40
Afar Region	9,919	71.00	2,351	16.83	1,062	7.60	333	2.38	224	1.60	81	0.58
Amhara Region	1,861,554	62.27	780,685	26.12	257,540	8.62	64,113	2.14	16,620	0.56	8,842	0.30
Oromia Region	3,255,007	81.75	526,557	13.22	145,324	3.65	36,230	0.91	12,047	0.30	6,539	0.16
Somali Region	71,428	79.91	14,074	15.74	3,037	3.40	643	0.72	187	0.21	20	0.02
Benshangul-Gumuz Region	97,509	79.90	17,076	13.99	4,346	3.56	1,920	1.57	579	0.47	603	0.49
S.N.N.P. Region	1,713,319	71.97	458,715	19.27	156,625	6.58	34,569	1.45	11,953	0.50	5,563	0.23
Gambela Region	25,134	93.87	1,469	5.49	106	0.40	37	0.14	29	0.11	-	-
Harari Region	13,115	97.03	301	2.23	72	0.53	28	0.21	-	-	-	-
Addis Ababa City Admin.	4,794	36.88	7,421	57.09	679	5.22	84	0.65	20	0.15	-	-
Dire Dawa Admin.Council.	13,455	95.32	661	4.68	-	-	-	-	-	-	-	-

Table 8.7B: - Number of Crop Holders that Owned 'Deger' by Geographic area

Geographic area	Number of Crop holders that owned											
	No 'Deger'		One 'Deger'		Two 'Degers'		Three 'Degers'		Four 'Degers'		Five and above 'Degers'	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	3,935,692	38.15	2,820,237	27.34	2,668,484	25.87	168,397	1.63	587,309	5.69	136,217	1.32
Tigray Region	140,377	20.90	149,921	22.32	211,811	31.53	36,050	5.37	90,889	13.53	42,689	6.36
Afar Region	8,014	57.37	3,403	24.36	2,288	16.38	116	0.83	136	0.97	13	0.09
Amhara Region	677,636	22.67	819,907	27.43	1,078,827	36.09	89,971	3.01	270,899	9.06	52,114	1.74
Oromia Region	1,408,480	35.37	1,325,411	33.29	993,759	24.96	35,563	0.89	183,533	4.61	34,958	0.88
Somali Region	31,253	34.96	32,169	35.99	24,199	27.07	420	0.47	1,145	1.28	203	0.23
Benshangul-Gumuz	81,754	66.99	21,804	17.87	14,620	11.98	772	0.63	2,604	2.13	479	0.39
S.N.N.P. Region	1,541,851	64.76	459,699	19.31	335,726	14.10	4,722	0.20	34,681	1.46	4,065	0.17
Gambela Region	25,557	95.45	1,003	3.75	153	0.57	18	0.07	44	0.16	-	-
Harari Region	8,778	64.95	1,638	12.12	1,034	7.65	244	1.81	831	6.15	991	7.33
Addis Ababa City Admin.	2,870	22.08	1,899	14.61	4,566	35.13	521	4.01	2,437	18.75	705	5.42
Dire Dawa Admin.Council	9,122	64.62	3,383	23.97	1,501	10.63	-	-	110	0.78	-	-

Table 8.8B:- Number of Crop Holders that Owned 'Erfe' by Geographic area.

Geographic area	Number of Crop holders that owned											
	No 'Erfe'		One 'Erfe'		Two 'Erfes'		Three 'Erfes'		Four 'Erfes'		Five and above 'Erfes'	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	4,026,966	39.03	3,968,262	38.47	1,706,513	16.54	377,327	3.66	166,000	1.61	71,268	0.69
Tigray Region	141,760	21.10	222,030	33.05	194,694	28.98	67,658	10.07	29,238	4.35	16,357	2.44
Afar Region	8,115	58.09	4,767	34.12	775	5.55	173	1.24	97	0.69	43	0.31
Amhara Region	692,144	23.15	1,175,981	39.34	831,605	27.82	195,032	6.52	67,703	2.26	26,889	0.90
Oromia Region	1,447,331	36.35	1,782,071	44.76	576,349	14.47	97,016	2.44	55,865	1.40	23,072	0.58
Somali Region	32,582	36.45	49,884	55.81	5,059	5.66	1,434	1.60	391	0.44	39	0.04
Benshangul-Gumuz	82,900	67.93	27,986	22.93	8,239	6.75	1,719	1.41	961	0.79	228	0.19
S.N.N.P. Region	1,575,553	66.18	692,983	29.11	85,392	3.59	13,361	0.56	9,944	0.42	3,511	0.15
Gambela Region	25,573	95.51	997	3.72	179	0.67	8	0.03	14	0.05	4	0.01
Harari Region	8,865	65.59	3,837	28.39	716	5.30	81	0.60	17	0.13	-	-
Addis Ababa City Admin.	2,912	22.40	3,148	24.22	3,301	25.40	808	6.22	1,704	13.11	1,125	8.66
Dire Dawa Admin.Council	9,231	65.39	4,578	32.43	204	1.45	37	0.26	66	0.47	-	-

Table 8.9B:- Number of Crop Holders that Owned Plow-Beam by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Plow-Beam		One Plow-Beam		Two Plow-Beams		Three Plow-Beams		Four Plow-Beams		Five and above Plow-Beams	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	3,880,121	37.61	4,075,124	39.50	1,814,053	17.58	385,478	3.74	117,768	1.14	43,792	0.42
Tigray Region	135,257	20.14	288,348	42.93	184,777	27.51	44,451	6.62	13,215	1.97	5,689	0.85
Afar Region	7,882	56.42	5,068	36.28	818	5.86	133	0.95	56	0.40	13	0.09
Amhara Region	660,120	22.08	1,075,000	35.96	931,619	31.16	237,458	7.94	63,646	2.13	21,511	0.72
Oromia Region	1,389,734	34.90	1,863,461	46.80	587,301	14.75	90,425	2.27	36,533	0.92	14,250	0.36
Somali Region	30,075	33.65	57,078	63.85	1,987	2.22	177	0.20	32	0.04	40	0.04
Benshangul-Gumuz Region	81,461	66.75	29,436	24.12	9,159	7.51	1,533	1.26	372	0.30	72	0.06
S.N.N.P. Region	1,529,888	64.26	742,744	31.20	94,240	3.96	9,973	0.42	2,621	0.11	1,278	0.05
Gambela Region	25,516	95.30	1,074	4.01	135	0.50	24	0.09	-	-	26	0.10
Harari Region	8,579	63.47	4,698	34.76	222	1.64	17	0.13	-	-	-	-
Addis Ababa City Admin.	2,883	22.18	3,042	23.40	3,580	27.54	1,287	9.90	1,293	9.95	913	7.02
Dire Dawa Admin Council.	8,726	61.82	5,175	36.66	215	1.52	-	-	-	-	-	-

Table 8.10B:- Number of Crop Holders that Owned Plow-Tip by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Plow-Tip		One Plow-Tip		Two Plow-Tips		Three Plow-Tips		Four Plow-Tips		Five and above Plow-Tips	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	3,883,158	37.64	5,449,902	52.83	894,550	8.67	66,234	0.64	16,253	0.16	6,239	0.06
Tigray Region	135,809	20.22	405,535	60.37	117,807	17.54	10,326	1.54	1,624	0.24	636	0.09
Afar Region.....	7,886	56.45	5,154	36.89	822	5.88	81	0.58	9	0.06	18	0.13
Amhara Region.....	705,920	23.61	1,963,653	65.69	303,518	10.15	13,255	0.44	1,898	0.06	1,110	0.04
Oromia Region.....	1,379,046	34.63	2,163,999	54.35	388,456	9.76	35,329	0.89	11,120	0.28	3,754	0.09
Somali Region.....	30,881	34.55	54,537	61.01	3,624	4.05	304	0.34	43	0.05	-	-
Benshangul-Gumuz Region	81,266	66.59	34,827	28.54	5,115	4.19	652	0.53	155	0.13	18	0.01
S.N.N.P. Region.....	1,497,751	62.91	807,026	33.90	68,945	2.90	5,493	0.23	1,008	0.04	521	0.02
Gambela Region.....	25,564	95.48	1,127	4.21	65	0.24	8	0.03	11	0.04	-	-
Harari Region.....	7,803	57.73	4,028	29.80	1,459	10.79	128	0.95	82	0.61	16	0.12
Addis Ababa City Admin....	2,863	22.03	4,755	36.58	4,286	32.97	625	4.81	303	2.33	166	1.28
Dire Dawa Admin.Council.	8,369	59.29	5,261	37.27	453	3.21	33	0.23	-	-	-	-

Table 8.11B:- Number of Crop Holders that Owned 'wegel'-Tip by Geographic area.

Geographic area	Number of Crop holders that owned											
	No 'wegel'-Tip		One 'wegel'-Tip		Two 'wegel'-Tips		Three 'wegel'-Tips		Four 'wegel'-Tips		Five and above 'wegel'-Tips	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	4,000,864	38.78	5,426,673	52.60	792,107	7.68	64,831	0.63	23,896	0.23	7,965	0.08
Tigray Region	141,351	21.04	378,997	56.42	128,436	19.12	15,791	2.35	5,181	0.77	1,981	0.29
Afar Region.....	7,938	56.82	5,127	36.70	764	5.47	69	0.49	59	0.42	13	0.09
Amhara Region.....	706,445	23.63	2,035,193	68.08	231,909	7.76	11,467	0.38	2,720	0.09	1,620	0.05
Oromia Region.....	1,420,040	35.66	2,154,441	54.11	361,099	9.07	31,392	0.79	10,903	0.27	3,829	0.10
Somali Region.....	32,191	36.01	50,230	56.19	3,358	3.76	609	0.68	2,960	3.31	41	0.05
Benshangul-Gumuz Region	82,012	67.20	33,975	27.84	5,292	4.34	538	0.44	194	0.16	22	0.02
S.N.N.P. Region.....	1,564,584	65.72	753,911	31.67	56,503	2.37	4,048	0.17	1,390	0.06	308	0.01
Gambela Region.....	25,570	95.50	1,130	4.22	60	0.22	4	0.01	-	-	11	0.04
Harari Region.....	8,790	65.03	3,752	27.76	648	4.79	247	1.83	79	0.58	-	-
Addis Ababa City Admin....	3,006	23.13	4,926	37.90	3,922	30.17	613	4.72	391	3.01	140	1.08
Dire Dawa Admin.Council.	8,937	63.31	4,991	35.36	116	0.82	53	0.38	19	0.13	-	-

Table 8.12B:- Number of Crop Holders that Owned Yoke by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Yoke		One Yoke		Two Yokes		Three Yokes		Four Yokes		Five and above Yokes	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	3,923,579	38.03	5,220,173	50.60	1,060,768	10.28	81,753	0.79	23,676	0.23	6,387	0.06
Tigray Region	140,159	20.87	359,812	53.56	149,049	22.19	16,703	2.49	4,939	0.74	1,075	0.16
Afar Region.....	7,872	56.35	5,233	37.46	755	5.40	88	0.63	9	0.06	13	0.09
Amhara Region.....	694,412	23.23	1,845,378	61.73	418,122	13.99	23,469	0.79	6,517	0.22	1,456	0.05
Oromia Region.....	1,395,819	35.06	2,135,664	53.64	401,706	10.09	34,915	0.88	10,347	0.26	3,253	0.08
Somali Region.....	29,785	33.32	56,472	63.18	2,797	3.13	296	0.33	39	0.04	-	-
Benshangul-Gumuz	81,715	66.96	32,059	26.27	7,457	6.11	637	0.52	146	0.12	19	0.02
S.N.N.P. Region.....	1,528,198	64.19	769,667	32.33	76,205	3.20	5,036	0.21	1,244	0.05	394	0.02
Gambela Region.....	25,541	95.39	1,112	4.15	118	0.44	4	0.01	-	-	-	-
Harari Region.....	8,442	62.46	4,918	36.39	156	1.15	-	-	-	-	-	-
Addis Ababa City Admin....	2,908	22.37	4,692	36.10	4,215	32.43	605	4.65	435	3.35	143	1.10
Dire Dawa	8,728	61.83	5,166	36.60	188	1.33	-	-	-	-	34	0.24

Table 8.13B:- Number of Crop Holders that Owned Sickle by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Sickle		One Sickle		Two Sickles		Three Sickles		Four Sickles		Five and above Sickles	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	2,308,951	22.38	4,037,970	39.14	2,573,253	24.94	861,050	8.35	348,337	3.38	186,775	1.81
Tigray Region	81,778	12.17	150,397	22.39	235,452	35.05	112,209	16.70	55,141	8.21	36,760	5.47
Afar Region	5,146	36.84	5,170	37.01	2,370	16.96	830	5.94	288	2.06	166	1.19
Amhara Region	302,819	10.13	930,582	31.13	1,086,838	36.36	421,534	14.10	161,539	5.40	86,042	2.88
Oromia Region	942,609	23.67	1,904,822	47.84	821,427	20.63	202,255	5.08	77,274	1.94	33,317	0.84
Somali Region	30,294	33.89	41,677	46.62	13,871	15.52	2,663	2.98	687	0.77	197	0.22
Benshangul-Gumuz Region	28,173	23.09	46,568	38.16	31,120	25.50	10,526	8.63	3,705	3.04	1,941	1.59
S.N.N.P. Region	884,326	37.14	936,308	39.33	374,312	15.72	109,292	4.59	48,599	2.04	27,907	1.17
Gambela Region	14,484	54.10	9,080	33.91	2,572	9.61	449	1.68	161	0.60	29	0.11
Harari Region	6,851	50.69	5,454	40.35	1,014	7.50	138	1.02	26	0.19	33	0.24
Addis Ababa City Admin.	1,728	13.29	4,795	36.89	4,050	31.16	1,138	8.76	917	7.05	370	2.85
Dire Dawa Admin Council	10,743	76.11	3,117	22.08	227	1.61	16	0.11	-	-	13	0.09

Table 8.14B:- Number of Crop Holders that Owned Hay-Fork (metal) by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Hay-Fork (metal)		One Hay-Fork (metal)		Two Hay-Forks (metal)		Three Hay-Forks (metal)		Four Hay-Forks (metal)		Five and above Hay-Forks (metal)	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	9,920,200	96.16	317,901	3.08	66,498	0.64	8,888	0.09	2,392	0.02	457	0.00
Tigray Region	665,116	99.01	4,405	0.66	1,500	0.22	477	0.07	185	0.03	54	0.01
Afar Region	13,959	99.92	11	0.08	-	-	-	-	-	-	-	-
Amhara Region	2,943,543	98.47	37,631	1.26	6,917	0.23	764	0.03	364	0.01	135	0.00
Oromia Region	3,660,261	91.93	259,231	6.51	53,609	1.35	6,784	0.17	1,582	0.04	237	0.01
Somali Region	88,709	99.24	654	0.73	-	-	26	0.03	-	-	-	-
Benshangul-Gumuz Region	121,475	99.54	376	0.31	162	0.13	20	0.02	-	-	-	-
S.N.N.P. Region	2,369,150	99.51	9,653	0.41	1,474	0.06	300	0.01	167	0.01	-	-
Gambela Region	26,760	99.94	11	0.04	4	0.01	-	-	-	-	-	-
Harari Region	12,851	95.08	642	4.75	23	0.17	-	-	-	-	-	-
Addis Ababa City Admin.	4,482	34.48	5,065	38.97	2,809	21.61	517	3.98	94	0.72	31	0.24
Dire Dawa Admin Council	13,894	98.43	222	1.57	-	-	-	-	-	-	-	-

Table 8.15B:- Number of Crop Holders that Owned Hay-Fork (wood) by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Hay-Fork (wood)		One Hay-Fork (wood)		Two Hay-Forks (wood)		Three Hay-Forks (wood)		Four Hay-Forks (wood)		Five and above Hay-Forks (wood)	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	6,525,318	63.25	2,036,063	19.74	1,225,028	11.87	347,445	3.37	124,577	1.21	57,905	0.56
Tigray Region	207,452	30.88	183,620	27.34	187,186	27.87	62,751	9.34	22,043	3.28	8,685	1.29
Afar Region	13,124	93.94	541	3.87	223	1.60	58	0.42	10	0.07	14	0.10
Amhara Region	1,186,462	39.69	898,018	30.04	630,648	21.10	186,040	6.22	59,456	1.99	28,730	0.96
Oromia Region	2,752,114	69.12	755,311	18.97	339,140	8.52	81,509	2.05	37,194	0.93	16,436	0.41
Somali Region	59,826	66.93	26,230	29.34	3,011	3.37	263	0.29	28	0.03	31	0.03
Benshangul-Gumuz Region	98,981	81.11	9,202	7.54	8,764	7.18	3,052	2.50	1,289	1.06	745	0.61
S.N.N.P. Region	2,147,286	90.19	156,310	6.57	55,619	2.34	13,750	0.58	4,520	0.19	3,259	0.14
Gambela Region	26,720	99.79	19	0.07	32	0.12	4	0.01	-	-	-	-
Harari Region	10,256	75.88	3,069	22.71	160	1.18	18	0.13	13	0.10	-	-
Addis Ababa City Admin.	12,475	95.98	360	2.77	153	1.18	-	-	5	0.04	5	0.04
Dire Dawa Admin Council	10,622	75.25	3,383	23.97	92	0.65	-	-	19	0.13	-	-

Table 8.16B:- Number of Crop Holders that Owned Threshing Stick by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Threshing Stick		One Threshing Stick		Two Threshing Sticks		Three Threshing Sticks		Four Threshing Sticks		Five and above Threshing Sticks	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	8,841,992	85.71	730,885	7.08	425,066	4.12	128,572	1.25	94,877	0.92	94,944	0.92
Tigray Region	611,504	91.03	27,951	4.16	19,581	2.91	6,977	1.04	4,502	0.67	1,222	0.18
Afar Region	13,805	98.82	82	0.59	34	0.24	10	0.07	16	0.11	23	0.16
Amhara Region	2,724,500	91.14	131,497	4.40	72,643	2.43	25,411	0.85	17,879	0.60	17,424	0.58
Oromia Region	3,216,254	80.78	393,928	9.89	216,360	5.43	63,864	1.60	42,291	1.06	49,007	1.23
Somali Region	47,813	53.49	23,283	26.05	9,036	10.11	3,044	3.41	2,644	2.96	3,569	3.99
Benshangul-Gumuz Region	95,012	77.86	11,510	9.43	8,523	6.98	2,539	2.08	1,857	1.52	2,592	2.12
S.N.N.P. Region	2,081,916	87.45	131,712	5.53	95,587	4.02	25,805	1.08	25,048	1.05	20,676	0.87
Gambela Region	23,644	88.31	2,130	7.96	840	3.14	141	0.53	-	-	20	0.07
Harari Region	7,275	53.83	4,020	29.74	1,142	8.45	497	3.68	373	2.76	209	1.55
Addis Ababa City Admin.	12,852	98.88	72	0.55	53	0.41	15	0.12	6	0.05	-	-
Dire Dawa Admin.Council.	7,417	52.54	4,700	33.30	1,267	8.98	269	1.91	261	1.85	202	1.43

Table 8.17B:- Number of Crop Holders that Owned Winnow (metal) by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Winnow (metal)		One Winnow (metal)		Two Winnows (metal)		Three Winnows (metal)		Four Winnows (metal)		Five and above Winnows (metal)	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	10,291,088	99.76	22,557	0.22	2,153	0.02	319	0.00	35	0.00	184	0.00
Tigray Region	668,033	99.45	3,418	0.51	267	0.04	-	-	19	0.00	-	-
Afar Region	13,970	100.00	-	-	-	-	-	-	-	-	-	-
Amhara Region	2,980,990	99.72	7,339	0.25	714	0.02	138	0.00	16	0.00	157	0.01
Oromia Region	3,972,022	99.76	8,597	0.22	886	0.02	172	0.00	-	-	27	0.00
Somali Region	89,192	99.78	197	0.22	-	-	-	-	-	-	-	-
Benshangul-Gumuz	121,669	99.70	251	0.21	104	0.09	9	0.01	-	-	-	-
S.N.N.P. Region	2,378,362	99.90	2,205	0.09	177	0.01	-	-	-	-	-	-
Gambela Region	26,775	100.00	-	-	-	-	-	-	-	-	-	-
Harari Region	13,468	99.64	48	0.36	-	-	-	-	-	-	-	-
Addis Ababa City Admin.	12,594	96.89	399	3.07	5	0.04	-	-	-	-	-	-
Dire Dawa Admin.Council.	14,013	99.27	103	0.73	-	-	-	-	-	-	-	-

Table 8.18B:- Number of Crop Holders that Owned Winnow (wood) by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Winnow (wood)		One Winnow (wood)		Two Winnows (wood)		Three Winnows (wood)		Four Winnows (wood)		Five and above Winnows (wood)	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	8,022,33	77.76	2,010,746	19.49	253,913	2.46	21,012	0.20	6,235	0.06	2,100	0.02
Tigray Region	559,706	83.32	96,881	14.42	12,591	1.87	1,934	0.29	536	0.08	89	0.01
Afar Region	13,283	95.08	603	4.32	81	0.58	3	0.02	-	-	-	-
Amhara Region	1,975,14	66.07	882,564	29.52	119,765	4.01	8,401	0.28	2,534	0.08	943	0.03
Oromia Region	3,011,98	75.65	866,558	21.76	93,369	2.34	6,967	0.17	2,081	0.05	740	0.02
Somali Region	72,632	81.25	15,505	17.35	957	1.07	204	0.23	91	0.10	-	-
Benshangul-Gumuz Region	102,908	84.33	13,231	10.84	4,429	3.63	887	0.73	403	0.33	175	0.14
S.N.N.P. Region	2,232,72	93.78	123,744	5.20	20,952	0.88	2,600	0.11	569	0.02	153	0.01
Gambela Region	26,770	99.98	5	0.02	-	-	-	-	-	-	-	-
Harari Region	10,748	79.52	2,142	15.85	610	4.51	-	-	16	0.12	-	-
Addis Ababa City Admin.	6,336	48.75	5,821	44.78	820	6.31	16	0.12	5	0.04	-	-
Dire Dawa Admin.Council.	10,085	71.44	3,692	26.15	339	2.40	-	-	-	-	-	-

Table 8.19B:- Number of Crop Holders that Owned Cart by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Cart		One Cart		Two Carts		Three Carts		Four Carts		Five and above Carts	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	10,259,926	99.45	49,454	0.48	5,897	0.06	527	0.01	503	0.00	29	0.00
Tigray Region	670,641	99.84	1,006	0.15	70	0.01	20	0.00	-	-	-	-
Afar Region	13,901	99.51	53	0.38	13	0.09	3	0.02	-	-	-	-
Amhara Region	2,987,208	99.93	1,642	0.05	381	0.01	80	0.00	43	0.00	-	-
Oromia Region	3,944,100	99.06	32,482	0.82	4,411	0.11	325	0.01	357	0.01	29	0.00
Somali Region	88,779	99.32	568	0.64	30	0.03	-	-	12	0.01	-	-
Benshangul-Gumuz Region	122,012	99.98	21	0.02	-	-	-	-	-	-	-	-
S.N.N.P. Region	2,365,972	99.38	13,607	0.57	992	0.04	82	0.00	91	0.00	-	-
Gambela Region	26,739	99.87	36	0.13	-	-	-	-	-	-	-	-
Harari Region	13,468	99.64	31	0.23	-	-	17	0.13	-	-	-	-
Addis Ababa City Admin	12,990	99.94	8	0.06	-	-	-	-	-	-	-	-
Dire Dawa Admin.Council	14,116	100.00	-	-	-	-	-	-	-	-	-	-

Table 8.20B:- Number of Crop Holders that Owned Sprayer (hand operated) by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Sprayer		One Sprayer		Two Sprayers		Three Sprayers		Four Sprayers		Five and above Sprayers	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	10,223,500	99.10	83,914	0.81	6,528	0.06	1,674	0.02	430	0.00	290	0.00
Tigray Region	668,641	99.54	1,685	0.25	962	0.14	183	0.03	194	0.03	72	0.01
Afar Region	13,815	98.89	125	0.89	18	0.13	12	0.09	-	-	-	-
Amhara Region	2,978,643	99.64	7,927	0.27	1,797	0.06	734	0.02	164	0.01	89	0.00
Oromia Region	3,924,641	98.57	54,134	1.36	2,253	0.06	527	0.01	34	0.00	115	0.00
Somali Region	89,093	99.67	239	0.27	57	0.06	-	-	-	-	-	-
Benshangul-Gumuz	121,548	99.60	348	0.29	106	0.09	26	0.02	-	-	5	0.00
S.N.N.P. Region	2,360,855	99.16	18,338	0.77	1,321	0.06	192	0.01	38	0.00	-	-
Gambela Region	26,612	99.39	140	0.52	14	0.05	-	-	-	-	9	0.03
Harari Region	13,113	97.02	403	2.98	-	-	-	-	-	-	-	-
Addis Ababa City Admin	12,423	95.58	575	4.42	-	-	-	-	-	-	-	-
Dire Dawa Admin.Council	14,116	100.00	-	-	-	-	-	-	-	-	-	-

Table 8.21B:- Number of Crop Holders that Owned Wheelbarrow by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Wheelbarrow		One Wheelbarrow		Two Wheelbarrows		Three Wheelbarrows		Four Wheelbarrows		Five and above Wheelbarrows	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	10,292,773	99.77	22,668	0.22	648	0.01	115	0.00	75	0.00	57	0.00
Tigray Region	670,938	99.88	761	0.11	20	0.00	-	-	18	0.00	-	-
Afar Region	13,904	99.53	53	0.38	13	0.09	-	-	-	-	-	-
Amhara Region	2,988,408	99.97	946	0.03	-	-	-	-	-	-	-	-
Oromia Region	3,967,712	99.65	13,565	0.34	367	0.01	60	0.00	-	-	-	-
Somali Region	87,857	98.29	1,403	1.57	103	0.12	26	0.03	-	-	-	-
Benshangul-Gumuz Region	121,914	99.90	119	0.10	-	-	-	-	-	-	-	-
S.N.N.P. Region	2,375,466	99.78	5,023	0.21	112	0.00	29	0.00	57	0.00	57	0.00
Gambela Region	26,681	99.65	94	0.35	-	-	-	-	-	-	-	-
Harari Region	13,119	97.06	397	2.94	-	-	-	-	-	-	-	-
Addis Ababa City Admin	12,975	99.82	14	0.11	9	0.07	-	-	-	-	-	-
Dire Dawa Admin.Council	13,799	97.75	293	2.08	24	0.17	-	-	-	-	-	-

Table 8.22B:- Number of Crop Holders that Owned Ass (Specifically for ploughing) by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Ass		One Ass		Two Asses		Three Asses		Four Asses		Five and above Asses	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	10,283,627	99.68	24,532	0.24	7,181	0.07	673	0.01	257	0.00	66	0.00
Tigray Region	668,653	99.54	2,573	0.38	401	0.06	74	0.01	36	0.01	-	-
Afar Region.....	13,966	99.97	4	0.03	-	-	-	-	-	-	-	-
Amhara Region	2,968,619	99.31	16,078	0.54	4,206	0.14	352	0.01	74	0.00	25	0.00
Oromia Region.....	3,976,685	99.87	3,302	0.08	1,440	0.04	104	0.00	132	0.00	41	0.00
Somali Region.....	88,732	99.27	481	0.54	172	0.19	-	-	4	0.00	-	-
Benshangul-Gumuz	121,901	99.89	73	0.06	44	0.04	15	0.01	-	-	-	-
S.N.N.P. Region.....	2,378,004	99.88	1,981	0.08	748	0.03	-	-	11	0.00	-	-
Gambela Region.....	26,775	100.00	-	-	-	-	-	-	-	-	-	-
Harari Region.....	13,493	99.83	-	-	23	0.17	-	-	-	-	-	-
Addis Ababa City Admin...	12,723	97.88	-	-	147	1.13	128	0.98	-	-	-	-
Dire Dawa Admin.Council.	14,076	99.72	40	0.28	-	-	-	-	-	-	-	-

Table 8.23B:- Number of Crop Holders that Owned Camel (Specifically for ploughing) by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Camel		One Camel		Two Camels		Three Camels		Four Camels		Five and above Camels	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	10,315,138	99.99	1,026	0.01	172	0.00	-	-	-	-	-	-
Tigray Region	671,223	99.92	489	0.07	25	0.00	-	-	-	-	-	-
Afar Region.....	13,970	100.00	-	-	-	-	-	-	-	-	-	-
Amhara Region	2,989,260	100.00	57	0.00	37	0.00	-	-	-	-	-	-
Oromia Region.....	3,981,633	100.00	71	0.00	-	-	-	-	-	-	-	-
Somali Region.....	88,870	99.42	409	0.46	110	0.12	-	-	-	-	-	-
Benshangul-Gumuz	122,033	100.00	-	-	-	-	-	-	-	-	-	-
S.N.N.P. Region.....	2,380,744	100.00	-	-	-	-	-	-	-	-	-	-
Gambela Region.....	26,775	100.00	-	-	-	-	-	-	-	-	-	-
Harari Region.....	13,516	100.00	-	-	-	-	-	-	-	-	-	-
Addis Ababa City Admin...	12,998	100.00	-	-	-	-	-	-	-	-	-	-
Dire Dawa Admin.Council.	14,116	100.00	-	-	-	-	-	-	-	-	-	-

Table 8.24B:- Number of Crop Holders that Owned Horse (Specifically for ploughing) by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Horse		One Horse		Two Horses		Three Horses		Four Horses		Five and above Horses	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	10,256,151	99.42	38,192	0.37	18,800	0.18	2,391	0.02	661	0.01	141	0.00
Tigray Region	671,713	100.00	-	-	24	0.00	-	-	-	-	-	-
Afar Region.....	13,970	100.00	-	-	-	-	-	-	-	-	-	-
Amhara Region	2,929,640	98.00	37,878	1.27	18,675	0.62	2,391	0.08	629	0.02	141	0.00
Oromia Region.....	3,981,371	99.99	211	0.01	90	0.00	-	-	32	0.00	-	-
Somali Region.....	89,389	100.00	-	-	-	-	-	-	-	-	-	-
Benshangul-Gumuz Region	122,033	100.00	-	-	-	-	-	-	-	-	-	-
S.N.N.P. Region.....	2,380,630	100.00	103	0.00	11	0.00	-	-	-	-	-	-
Gambela Region.....	26,775	100.00	-	-	-	-	-	-	-	-	-	-
Harari Region.....	13,516	100.00	-	-	-	-	-	-	-	-	-	-
Addis Ababa City Admin...	12,998	100.00	-	-	-	-	-	-	-	-	-	-
Dire Dawa Admin.Council.	14,116	100.00	-	-	-	-	-	-	-	-	-	-

Table 8.25B:- Number of Crop Holders that Owned Mule (Specifically for ploughing by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Mule		One Mule		Two Mules		Three Mules		Four Mules		Five and above Mules	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	10,312,456	99.96	3,446	0.03	385	0.00	49	0.00	-	-	-	-
Tigray Region	671,586	99.98	59	0.01	68	0.01	24	0.00	-	-	-	-
Afar Region	13,970	100.00	-	-	-	-	-	-	-	-	-	-
Amhara Region	2,985,625	99.88	3,387	0.11	317	0.01	25	0.00	-	-	-	-
Oromia Region	3,981,704	100.00	-	-	-	-	-	-	-	-	-	-
Somali Region	89,389	100.00	-	-	-	-	-	-	-	-	-	-
Benshangul-Gumuz	122,033	100.00	-	-	-	-	-	-	-	-	-	-
S.N.N.P. Region	2,380,744	100.00	-	-	-	-	-	-	-	-	-	-
Gambela Region	26,775	100.00	-	-	-	-	-	-	-	-	-	-
Harari Region	13,516	100.00	-	-	-	-	-	-	-	-	-	-
Addis Ababa City Admin	12,998	100.00	-	-	-	-	-	-	-	-	-	-
Dire Dawa Admin Council	14,116	100.00	-	-	-	-	-	-	-	-	-	-

Table 8.26B:- Number of Crop Holders that Owned Ox (Specifically for ploughing) by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Ox		One Ox		Two Oxen		Three Oxen		Four Oxen		Five and above Oxen	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	4,377,474	42.43	2,623,316	25.43	2,756,638	26.72	278,428	2.70	231,265	2.24	49,215	0.48
Tigray Region	196,416	29.24	212,166	31.58	221,998	33.05	24,296	3.62	13,506	2.01	3,355	0.50
Afar Region	8,898	63.69	1,310	9.38	3,227	23.10	274	1.96	243	1.74	18	0.13
Amhara Region	867,214	29.01	953,497	31.90	995,066	33.29	113,578	3.80	49,346	1.65	10,653	0.36
Oromia Region	1,585,498	39.82	919,765	23.10	1,185,006	29.76	115,974	2.91	145,452	3.65	30,009	0.75
Somali Region	37,113	41.52	16,352	18.29	33,340	37.30	1,844	2.06	643	0.72	97	0.11
Benshangul-Gumuz	84,553	69.29	14,198	11.63	18,337	15.03	2,050	1.68	2,017	1.65	878	0.72
S.N.N.P. Region	1,551,113	65.15	498,175	20.93	291,246	12.23	19,186	0.81	17,613	0.74	3,411	0.14
Gambela Region	25,561	95.47	673	2.51	476	1.78	24	0.09	29	0.11	12	0.04
Harari Region	8,661	64.08	2,281	16.88	2,450	18.13	124	0.92	-	-	-	-
Addis Ababa City Admin	3,645	28.04	1,129	8.69	4,164	32.04	893	6.87	2,385	18.35	782	6.02
Dire Dawa Admin Council	8,802	62.35	3,770	26.71	1,328	9.41	185	1.31	31	0.22	-	-

Table 8.27B:- Number of Crop Holders that Owned Ass (For threshing or transportation) by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Ass		One Ass		Two Asses		Three Asses		Four Asses		Five and above Asses	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	7,998,029	77.53	1,888,772	18.31	365,037	3.54	50,027	0.48	9,183	0.09	5,288	0.05
Tigray Region	447,646	66.64	174,425	25.97	41,573	6.19	6,594	0.98	820	0.12	679	0.10
Afar Region	11,957	85.59	1,225	8.77	672	4.81	105	0.75	-	-	11	0.08
Amhara Region	2,102,809	70.34	731,149	24.46	134,385	4.50	16,454	0.55	2,153	0.07	2,404	0.08
Oromia Region	3,006,116	75.50	781,908	19.64	161,975	4.07	24,097	0.61	5,668	0.14	1,940	0.05
Somali Region	51,895	58.06	30,108	33.68	6,619	7.40	580	0.65	172	0.19	15	0.02
Benshangul-Gumuz Region	103,013	84.41	15,560	12.75	2,825	2.31	414	0.34	141	0.12	80	0.07
S.N.N.P. Region	2,226,228	93.51	139,750	5.87	13,337	0.56	1,159	0.05	136	0.01	134	0.01
Gambela Region	26,721	99.80	54	0.20	-	-	-	-	-	-	-	-
Harari Region	9,342	69.12	3,834	28.37	300	2.22	40	0.30	-	-	-	-
Addis Ababa City Admin	4,446	34.21	4,891	37.63	3,033	23.33	510	3.92	93	0.72	25	0.19
Dire Dawa Admin Council	7,856	55.65	5,868	41.57	318	2.25	74	0.52	-	-	-	-

Table 8.28B:- Number of Crop Holders that Owned Camel (For threshing or transportation) by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Camel		One Camel		Two Camels		Three Camels		Four Camels		Five and above Camels	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level.....	10,269,119	99.54	32,665	0.32	8,872	0.09	2,479	0.02	1,389	0.01	1,812	0.02
Tigray Region.....	661,243	98.44	5,931	0.88	1,668	0.25	985	0.15	642	0.10	1,268	0.19
Afar Region.....	11,580	82.89	1,878	13.44	389	2.78	50	0.36	18	0.13	55	0.39
Amhara Region.....	2,980,199	99.69	6,556	0.22	1,962	0.07	435	0.01	121	0.00	81	0.00
Oromia Region.....	3,970,253	99.71	8,129	0.20	2,259	0.06	617	0.02	261	0.01	185	0.00
Somali Region.....	78,025	87.29	8,262	9.24	2,227	2.49	392	0.44	314	0.35	169	0.19
Benshangul-Gumuz Region	122,033	100.00	-	-	-	-	-	-	-	-	-	-
S.N.N.P. Region.....	2,380,710	100.00	34	0.00	-	-	-	-	-	-	-	-
Gambela Region.....	26,775	100.00	-	-	-	-	-	-	-	-	-	-
Harari Region.....	13,432	99.38	84	0.62	-	-	-	-	-	-	-	-
Addis Ababa City Admin..	12,998	100.00	-	-	-	-	-	-	-	-	-	-
Dire Dawa Admin.Council	11,871	84.10	1,791	12.69	367	2.60	-	-	33	0.23	54	0.38

Table 8.29B:- Number of Crop Holders that Owned Cattle (For threshing or transportation) by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Cattle		One Cattle		Two Cattle		Three Cattle		Four Cattle		Five and above Cattle	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level.....	4,214,606	40.85	2,126,708	20.61	2,196,319	21.29	722,209	7.00	519,911	5.04	536,583	5.20
Tigray Region.....	184,594	27.48	159,136	23.69	181,882	27.08	69,510	10.35	41,845	6.23	34,770	5.18
Afar Region.....	8,963	64.16	1,114	7.97	2,503	17.92	651	4.66	335	2.40	404	2.89
Amhara Region.....	749,094	25.06	685,033	22.92	785,388	26.27	353,875	11.84	213,732	7.15	202,232	6.77
Oromia Region.....	1,537,259	38.61	775,945	19.49	901,343	22.64	257,459	6.47	232,534	5.84	277,164	6.96
Somali Region.....	40,203	44.98	14,160	15.84	27,052	30.26	4,342	4.86	2,134	2.39	1,498	1.68
Benshangul-Gumuz	82,032	67.22	12,157	9.96	14,248	11.68	4,738	3.88	3,511	2.88	5,347	4.38
S.N.N.P. Region.....	1,565,695	65.76	472,326	19.84	277,425	11.65	29,519	1.24	23,940	1.01	11,839	0.50
Gambela Region.....	25,643	95.77	615	2.30	443	1.65	29	0.11	29	0.11	16	0.06
Harari Region.....	8,676	64.19	2,130	15.76	2,503	18.52	194	1.44	13	0.10	-	-
Addis Ababa City Admin..	3,114	23.96	904	6.95	2,217	17.06	1,707	13.13	1,743	13.41	3,313	25.49
Dire Dawa	9,333	66.12	3,188	22.58	1,315	9.32	185	1.31	95	0.67	-	-

Table 8.30B:- Number of Crop Holders that Owned Horse (For threshing or transportation) by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Horse		One Horse		Two Horses		Three Horses		Four Horses		Five and above Horses	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level.....	9,631,680	93.36	522,285	5.06	127,188	1.23	25,948	0.25	6,820	0.07	2,415	0.02
Tigray Region.....	670,599	99.83	1,025	0.15	93	0.01	-	-	20	0.00	-	-
Afar Region.....	13,949	99.85	8	0.06	13	0.09	-	-	-	-	-	-
Amhara Region.....	2,823,436	94.45	123,645	4.14	34,270	1.15	6,615	0.22	1,036	0.03	352	0.01
Oromia Region.....	3,611,742	90.71	266,440	6.69	78,411	1.97	17,992	0.45	5,230	0.13	1,889	0.05
Somali Region.....	89,389	100.00	-	-	-	-	-	-	-	-	-	-
Benshangul-Gumuz Region	121,808	99.82	129	0.11	65	0.05	31	0.03	-	-	-	-
S.N.N.P. Region.....	2,233,843	93.83	130,559	5.48	14,324	0.60	1,310	0.06	534	0.02	174	0.01
Gambela Region.....	26,463	98.83	312	1.17	-	-	-	-	-	-	-	-
Harari Region.....	13,516	100.00	-	-	-	-	-	-	-	-	-	-
Addis Ababa City Admin..	12,819	98.62	167	1.28	12	0.09	-	-	-	-	-	-
Dire Dawa Admin.Council..	14,116	100.00	-	-	-	-	-	-	-	-	-	-

Table 8.31B:- Number of Crop Holders that Owned Mule (For threshing or transportation) by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Mule		One Mule		Two Mules		Three Mules		Four Mules		Five and above Mules	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	10,120,152	98.10	187,603	1.82	7,716	0.07	484	0.00	211	0.00	170	0.00
Tigray Region	666,706	99.25	4,331	0.64	506	0.08	126	0.02	36	0.01	32	0.00
Afar Region	13,844	99.10	100	0.72	13	0.09	13	0.09	-	-	-	-
Amhara Region	2,928,459	97.96	57,089	1.91	3,598	0.12	72	0.00	27	0.00	109	0.00
Oromia Region	3,892,779	97.77	86,228	2.17	2,456	0.06	109	0.00	103	0.00	29	0.00
Somali Region	89,295	99.89	51	0.06	17	0.02	26	0.03	-	-	-	-
Benshangul-Gumuz	122,033	100.00	-	-	-	-	-	-	-	-	-	-
S.N.N.P. Region	2,339,753	98.28	39,687	1.67	1,121	0.05	138	0.01	45	0.00	-	-
Gambela Region	26,775	100.00	-	-	-	-	-	-	-	-	-	-
Harari Region	13,516	100.00	-	-	-	-	-	-	-	-	-	-
Addis Ababa City Admin.	12,934	99.51	59	0.45	5	0.04	-	-	-	-	-	-
Dire Dawa Admin.Council	14,058	99.59	58	0.41	-	-	-	-	-	-	-	-

Table 8.32B:- Number of Crop Holders that Owned Local Storage 'Debignit' by Geographic area.

Geographic area	Number of Crop holders that owned											
	No 'Debignit'		One 'Debignit'		Two 'Debignits'		Three 'Debignits'		Four 'Debignits'		Five and above 'Debignits'	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	6,595,925	63.94	943,022	9.14	1,163,403	11.28	834,488	8.09	451,314	4.37	328,184	3.18
Tigray Region	264,702	39.41	61,201	9.11	105,883	15.76	88,456	13.17	61,878	9.21	89,617	13.34
Afar Region	13,293	95.15	342	2.45	226	1.62	71	0.51	28	0.20	10	0.07
Amhara Region	787,101	26.33	389,562	13.03	676,932	22.64	601,489	20.12	325,255	10.88	209,015	6.99
Oromia Region	3,019,071	75.82	390,257	9.80	346,649	8.71	135,877	3.41	61,429	1.54	28,421	0.71
Somali Region	88,964	99.52	425	0.48	-	-	-	-	-	-	-	-
Benshangul-Gumuz Region	111,547	91.41	5,443	4.46	2,787	2.28	1,352	1.11	612	0.50	292	0.24
S.N.N.P. Region	2,249,432	94.48	93,511	3.93	28,952	1.22	6,479	0.27	1,785	0.07	585	0.02
Gambela Region	26,586	99.29	132	0.49	57	0.21	-	-	-	-	-	-
Harari Region	13,320	98.55	166	1.23	-	-	30	0.22	-	-	-	-
Addis Ababa City Admin.	9,264	71.27	946	7.28	1,503	11.56	714	5.49	327	2.52	244	1.88
Dire Dawa Admin.Council	12,645	89.58	1,037	7.35	414	2.93	20	0.14	-	-	-	-

Table 8.33B:- Number of Crop Holders that Owned Local Storage 'Gottera' by Geographic area.

Geographic area	Number of Crop holders that owned											
	No 'Gottera'		One 'Gottera'		Two 'Gotteras'		Three 'Gotteras'		Four 'Gotteras'		Five and above 'Gotteras'	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level	6,325,749	61.32	2,310,771	22.40	1,057,433	10.25	391,032	3.79	148,144	1.44	83,207	0.81
Tigray Region	458,285	68.22	65,499	9.75	62,959	9.37	40,787	6.07	21,549	3.21	22,658	3.37
Afar Region	12,312	88.13	863	6.18	538	3.85	157	1.12	64	0.46	36	0.26
Amhara Region	1,958,646	65.52	488,789	16.35	322,221	10.78	138,015	4.62	52,958	1.77	28,725	0.96
Oromia Region	2,034,066	51.09	1,122,574	28.19	545,990	13.71	185,009	4.65	65,890	1.65	28,175	0.71
Somali Region	83,126	92.99	5,807	6.50	437	0.49	19	0.02	-	-	-	-
Benshangul-Gumuz Region	32,021	26.24	61,537	50.43	19,756	16.19	5,948	4.87	2,011	1.65	760	0.62
S.N.N.P. Region	1,698,966	71.36	552,670	23.21	101,047	4.24	19,964	0.84	5,302	0.22	2,795	0.12
Gambela Region	8,542	31.90	12,568	46.94	4,199	15.68	1,062	3.97	358	1.34	46	0.17
Harari Region	13,516	100.00	-	-	-	-	-	-	-	-	-	-
Addis Ababa City Admin.	12,312	94.72	325	2.50	266	2.05	71	0.55	12	0.09	12	0.09
Dire Dawa Admin.Council	13,957	98.87	139	0.98	20	0.14	-	-	-	-	-	-

Table 8.34B:- Number of Crop Holders that Owned Local Storage 'Gudguad' by Geographic area.

Geographic area	Number of Crop holders that owned											
	No 'Gudguad'		One 'Gudguad'		Two 'Gudguads'		Three 'Gudguads'		Four 'Gudguads'		Five and above 'Gudguads'	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level.....	8,553,601	82.91	1,432,633	13.89	255,466	2.48	52,756	0.51	15,292	0.15	6,588	0.06
Tigray Region.....	649,104	96.63	17,832	2.65	3,375	0.50	646	0.10	267	0.04	513	0.08
Afar Region.....	12,211	87.41	1,537	11.00	208	1.49	-	-	5	0.04	9	0.06
Amhara Region.....	2,664,837	89.14	261,549	8.75	47,468	1.59	10,210	0.34	2,965	0.10	2,325	0.08
Oromia Region.....	3,304,513	82.99	597,609	15.01	60,814	1.53	12,047	0.30	4,637	0.12	2,084	0.05
Somali Region.....	46,089	51.56	33,103	37.03	8,282	9.27	1,544	1.73	193	0.22	178	0.20
Benshangul-Gumuz Region	121,936	99.92	78	0.06	19	0.02	-	-	-	-	-	-
S.N.N.P. Region.....	1,706,600	71.68	502,233	21.10	134,941	5.67	28,288	1.19	7,225	0.30	1,457	0.06
Gambela Region.....	26,650	99.53	125	0.47	-	-	-	-	-	-	-	-
Harari Region.....	6,127	45.33	7,090	52.46	278	2.06	21	0.16	-	-	-	-
Addis Ababa City Admin...	12,985	99.90	13	0.10	-	-	-	-	-	-	-	-
Dire Dawa Admin.Council..	2,549	18.06	11,464	81.21	81	0.57	-	-	-	-	22	0.16

Table 8.35B:- Number of Crop Holders that Owned Modern Storage by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Modern Storage		One Modern Storage		Two Modern Storages		Three Modern Storages		Four Modern Storages		Five and above Modern Storages	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Country Level.....	10,289,374	99.74	18,489	0.18	5,081	0.05	2,269	0.02	610	0.01	513	0.00
Tigray Region.....	670,595	99.83	384	0.06	324	0.05	184	0.03	156	0.02	94	0.01
Afar Region.....	13,970	100.00	-	-	-	-	-	-	-	-	-	-
Amhara Region.....	2,984,146	99.83	2,609	0.09	1,176	0.04	931	0.03	187	0.01	305	0.01
Oromia Region.....	3,966,423	99.62	11,121	0.28	2,802	0.07	997	0.03	247	0.01	114	0.00
Somali Region.....	89,384	99.99	5	0.01	-	-	-	-	-	-	-	-
Benshangul-Gumuz	121,485	99.55	271	0.22	208	0.17	49	0.04	20	0.02	-	-
S.N.N.P. Region.....	2,376,158	99.81	3,907	0.16	571	0.02	108	0.00	-	-	-	-
Gambela Region.....	26,686	99.67	89	0.33	-	-	-	-	-	-	-	-
Harari Region.....	13,516	100.00	-	-	-	-	-	-	-	-	-	-
Addis Ababa City Admin...	12,916	99.37	82	0.63	-	-	-	-	-	-	-	-
Dire Dawa Admin.Council..	14,095	99.85	21	0.15	-	-	-	-	-	-	-	-

ANNEX TABLES PRESENTING
ESTIMATES, STANDARD ERRORS AND
COEFFICIENT OF VARIATION
FOR SELECTED FARM IMPLEMENT VARIABLES

Annex Tables 8.1

ANNEX TABLE 8.1:- Standard Errors and Coefficient of Variation For the Number of Holders Reporting, Quantity Reported and Total Value, for Private Holdings, Country Level.

Implements, Equipment, Farm animals and Storage facilities	Number of Holders			Number of Implements, Equipment, Farm animals and Storages			Total Value		
	Reporting	S.E	C.V	Reported	S.E	C.V	(Birr)	S.E	C.V
Used for Clearing Land									
Axes.....	8,271,873	57,504.59	56.60	13,482,354	124,897.58	75.31	102,110,823	134,904,114.26	75.47
'Gejeras'.....	2,772,239	43,368.46	112.39	3,538,230	62,614.57	112.99	42,126,332	90,669,843.79	117.19
Shovels.....	2,449,144	35,038.02	67.88	2,731,105	44,022.98	71.21	29,825,513	62,987,760.80	89.55
Used for Cultivation									
Hoes.....	3,308,763	54,628.18	74.75	4,538,758	96,473.97	80.79	38,838,253	86,508,271.35	94.75
'Mekeskeshas'.....	576,415	34,216.81	229.47	834,569	55,449.38	232.06	4,291,948	31,516,844.92	155.12
Pick Axes.....	2,922,674	58,425.96	122.05	4,123,466	98,519.89	128.79	29,344,848	73,201,414.33	137.74
Tractors.....	-	-	-	-	-	-	-	-	-
Parts for traditional Plough									
'Degers'.....	6,380,575	51,431.76	98.88	11,961,367	144,402.69	115.25	28,301,057	44,354,524.62	117.69
'Erfes' (Handle).....	6,289,158	52,171.81	99.80	9,703,402	116,791.33	110.28	18,627,954	34,036,278.81	122.98
Plough-Beams.....	6,436,099	51,464.84	98.31	9,585,674	88,429.50	100.31	83,913,636	132,230,453.37	110.47
Plough -Tips (Metal).....	6,433,074	52,518.05	95.78	7,550,864	69,348.12	96.07	119,845,788	137,499,974.01	106.96
'Wegel' -Tips.....	6,315,357	51,602.32	98.67	7,357,748	69,747.37	102.51	33,828,497	41,858,312.48	110.23
Yokes.....	6,392,643	51,527.35	97.76	7,721,821	69,779.59	99.22	51,305,267	74,761,373.64	108.94
Used for Harvesting									
Sickles.....	8,007,178	56,214.36	72.95	14,240,730	119,914.37	74.89	97,941,253	128,016,994.12	88.77
Used for Threshing									
Hay-Forks (Metal).....	396,089	13,321.27	170.24	490,009	17,857.55	170.25	7,081,509	30,179,193.81	200.50
Hay-Forks (Wood).....	3,790,823	40,950.89	116.05	6,366,262	80,213.76	121.88	23,221,919	42,111,288.41	105.36
Threshing Sticks.....	1,474,177	47,071.03	122.25	3,085,391	137,395.05	134.91	3,921,309	21,608,769.69	149.79
Winnowers (Metal).....	24,794	3,066.47	164.28	28,614	3,702.70	168.52	230,745	3,135,170.29	135.89
Winnowers (Wood).....	2,293,855	37,345.08	99.61	2,619,392	46,713.07	102.28	19,919,586	43,206,999.71	123.37
Other Farm Equipment									
Carts (Hauling).....	56,297	5,904.87	107.70	64,924	8,010.47	105.13	14,242,063	212,069,057.18	125.58
Sprayers (Hand Operated).....	92,258	5,454.79	147.94	105,090	6,583.83	157.67	19,576,370	132,246,779.92	190.18
Sprayers (Power Operated).....	*	*	*	*	*	*	*	*	*
Tying Tools.....	*	*	*	*	*	*	*	*	*
Wheelbarrows.....	23,222	2,995.74	251.48	24,517	3,274.32	245.55	2,300,144	35,502,262.76	149.19
Animals Used for Ploughing									
Asses.....	32,368	4,179.83	111.50	41,711	5,571.05	117.86	17,194,162	237,394,428.11	119.50
Camels.....	1,103	436.86	121.92	1,238	495.94	122.12	1,589,323	60,672,345.68	121.83
Horses.....	60,048	4,629.97	38.38	86,382	6,742.36	39.07	30,357,567	258,515,379.79	42.15
Mules.....	3,879	1,025.88	72.38	4,096	1,038.11	25.35	3,038,525	81,864,534.34	26.94
Oxen.....	5,938,455	50,284.34	93.42	10,518,673	173,437.13	99.29	6,033,407,759	6,915,993,358.32	100.64
Animals Used for Threshing or Transportation									
Asses.....	2,318,167	37,908.60	83.71	2,878,737	59,581.04	84.91	650,386,746	1,284,785,017.63	88.75
Camels.....	47,091	4,691.38	67.56	75,786	8,749.42	74.13	81,630,684	987,093,797.53	78.36
Cattle.....	6,101,543	51,822.55	99.39	14,749,936	227,102.93	104.29	7,714,695,707	11,651,301,506.37	106.68
Horses.....	684,651	21,699.18	169.45	909,604	32,957.71	165.81	321,431,122	1,084,491,196.63	152.29
Mules.....	196,128	7,729.09	117.04	206,375	8,361.12	81.83	169,874,134	713,925,782.18	95.09
Storage Structure									
'Debignits'.....	3,720,280	47,803.01	192.38	9,607,886	150,752.69	202.44	71,234,536	191,968,630.38	224.67
'Gotteras'.....	3,990,337	59,011.73	48.75	6,739,609	129,239.19	56.64	125,041,082	343,011,959.84	58.35
'Gudguads'.....	1,762,471	42,217.85	44.58	2,204,445	59,777.24	47.71	37,032,034	202,206,762.41	74.33
Modern Storages.....	26,858	2,593.29	97.66	40,586	4,526.58	106.62	2,582,339	116,806,741.75	143.34

APPENDIXES

APPENDIX I - Estimation Procedures of Totals , Ratios and
Sampling Errors

APPENDIX II - Number of EAs and Agricultural Households
Sampled and Covered by Wereda

APPENDIX III - Census Questionnaires

APPENDIX I:

Estimation Procedures of Totals, Ratios and Sampling Errors

The following formulas were used to estimate total land under specific crop, production and yield of specific crop, and totals (for other variables) in a stratum (Wereda).

1. Estimation of Total Area of Land under Specific Crop:

$$\hat{A}_h = \sum_{i=1}^{n_h} W_{hi} a_{hi}$$

in which, $W_{hi} = \frac{M_h H_{hi}}{n_h m_{hi} h_{hi}}$ is the basic weight

Where:

h represents the stratum

n_h is the total number of sample EAs successfully covered in the h^{th} stratum.

M_h is the measure of size of the h^{th} stratum as obtained from the sampling frame.

m_{hi} is the measure of size of the i^{th} sample EA in the h^{th} stratum obtained from the sampling frame.

H_{hi} is the total number of agricultural households of the i^{th} sample EA in the h^{th} stratum.

h_{hi} is number of sample agricultural households successfully covered in the i^{th} sample EA in the h^{th} stratum.

a_{hi} is the sample total of values of area in the i^{th} EA in the h^{th} stratum under a specific crop.

\hat{A}_h is estimate of total area under specific crop in the h^{th} stratum.

2. Estimation of Total Production:

$$\hat{P}_h = \sum_{i=1}^{n_h} W_{hi} P_{hi}$$

in which, $P_{hi} = a_{hi} * \bar{Y}_{hi}$

Where, \bar{Y}_{hi} is average yield per square meter of a specific crop in the i^{th} EA in the h^{th} stratum as defined in the table below for different crops.

Crop	Formula for \bar{Y}_{hi}
Cereals, pulses, oilseeds, chat and coffee	$\bar{Y}_{hi} = \frac{Y_{hi}}{16C_{hi}}$
Pineapple	$\bar{Y}_{hi} = \frac{Y_{hi}}{4C_{hi}}$
Root-crops and vegetables (broadcast type), and sugar cane	$\bar{Y}_{hi} = \frac{Y_{hi}}{C_{hi}}$
Root-crops and vegetables (row type)	$\bar{Y}_{hi} = \frac{Y_{hi}}{d_{hi} \cdot C_{hi}}$
Other permanent crops	$\bar{Y}_{hi} = \frac{Y_{hi}}{b_{hi} \cdot C_{hi}}$

Where, d_{hi} is average sample area of root crop or vegetable (row type) used for crop-cutting in the

$$i^{\text{th}} \text{ EA in the } h^{\text{th}} \text{ stratum, or } d_{hi} = \frac{r}{n-1} * 1 \text{ mt}$$

r is distance measured in meter from Row 1 to Row n in meter.

n is number of rows ($2 \leq n \leq 5$).

b_{hi} is average area of a fruit bearing tree in the i^{th} EA in the h^{th} stratum.

Y_{hi} is sampled total of production of a specific crop from defined area of land for crop cutting of crop in the i^{th} EA in the h^{th} stratum.

C_{hi} is number of crop cutting of a specific crop in the i^{th} EA in the h^{th} stratum.

\bar{Y}_{hi} is average yield per square meter of a specific crop in the i^{th} EA in the h^{th} stratum.

P_{hi} is estimate of total production of a specific crop in the i^{th} EA in the h^{th} stratum.

\hat{P}_h is estimate of total production quantity of a specific crop in the h^{th} stratum.

3. Estimate of Yield of a Specific Crop in Stratum h is given by:

$$\hat{Y}_h = \frac{\hat{P}_h}{\hat{A}_h}$$

4. Estimation of Totals (Holders, Livestock, Farm Implements, etc.)

$$\hat{y}_h = \sum_{i=1}^m \frac{M_h H_{hi}}{n h d_{hi}} \hat{y}_{hi}$$

5. Sampling Variance of Estimates:

Sampling variance of estimate of stratum total of area, production and yield for a specific crop, and totals for other variables are estimated by the following formulas, respectively.

$$Var(\hat{A}_h) = (1 - f_h) \frac{n_h}{n_h - 1} \sum_{i=1}^{n_h} \left(\hat{A}_{hi} - \frac{\hat{A}_h}{n_h} \right)^2 + f_h \sum_{i=1}^{n_h} (1 - f_{hi}) \left(\frac{h_{hi}}{h_{hi} - 1} \right) \sum_{j=1}^{h_{hi}} \left(\hat{A}_{hij} - \frac{\hat{A}_{hi}}{h_{hi}} \right)^2$$

$$Var(\hat{P}_h) = (1 - f_h) \frac{n_h}{n_h - 1} \sum_{i=1}^{n_h} \left(\hat{P}_{hi} - \frac{\hat{P}_h}{n_h} \right)^2 + f_h \sum_{i=1}^{n_h} (1 - f_{hi}) \left(\frac{h_{hi}}{h_{hi} - 1} \right) \sum_{j=1}^{h_{hi}} \left(\hat{P}_{hij} - \frac{\hat{P}_{hi}}{h_{hi}} \right)^2$$

$$Var(\hat{Y}_h) = \frac{1}{\hat{A}_h^2} [Var(\hat{P}_h) + \hat{Y}_h^2 Var(\hat{A}_h) - 2\hat{Y}_h Cov(\hat{P}_h, \hat{A}_h)]$$

Where, $Cov(\hat{P}_h, \hat{A}_h) = (1 - f_h) \frac{n_h}{n_h - 1} \sum_{i=1}^{n_h} \left(\hat{A}_{hi} - \frac{\hat{A}_h}{n_h} \right) \left(\hat{P}_{hi} - \frac{\hat{P}_h}{n_h} \right)$

$$+ f_h \sum_{i=1}^{n_h} (1 - f_{hi}) \left(\frac{h_{hi}}{h_{hi} - 1} \right) \sum_{j=1}^{h_{hi}} \left(\hat{A}_{hij} - \frac{\hat{A}_{hi}}{h_{hi}} \right) \left(\hat{P}_{hij} - \frac{\hat{P}_{hi}}{h_{hi}} \right)$$

$$Var(\hat{y}_h) = (1 - f_h) \frac{n_h}{n_h - 1} \sum_{i=1}^{n_h} \left(\hat{y}_{hi} - \frac{\hat{y}_h}{n_h} \right)^2 + f_h \sum_{i=1}^{n_h} (1 - f_{hi}) \left(\frac{h_{hi}}{h_{hi} - 1} \right) \sum_{j=1}^{h_{hi}} \left(\hat{y}_{hij} - \frac{\hat{y}_{hi}}{h_{hi}} \right)^2$$

f_h = average first stage probability of selection of EAs within Wereda h .

$f_{hi} = \frac{h_{hi}}{H_{hi}}$ = average second stage probability of selection within the i^{th} sample EA in Wereda h .

Since all strata are independent, the total variance at zonal, regional and country level is computed by aggregating the result obtained at wereda level, i.e.

$$Var(\hat{Y}) = \sum_h^L Var(\hat{Y}_h), Var(\hat{P}) = \sum_h^L Var(\hat{P}_h) \text{ and } Var(\hat{A}) = \sum_h^L Var(\hat{A}_h)$$

Where, L is the number of strata (Weredas).

In estimating the sampling variance by the above formula, selection of EAs within a stratum is assumed to be with replacement. By so doing the variance estimate may be slightly over estimated but it greatly simplifies the estimation procedure.

6. Coefficient of Variation (CV) of Estimates:

Coefficient of Variation (CV), in percentage, of estimate of stratum total of area, production and yield for a specific crop (other totals) are given respectively by:

$$CV(\hat{A}_h) = \frac{\sqrt{\text{Var}(\hat{A}_h)}}{\hat{A}_h} * 100$$

$$CV(\hat{P}_h) = \frac{\sqrt{\text{Var}(\hat{P}_h)}}{\hat{P}_h} * 100$$

$$CV(\hat{Y}_h) = \frac{\sqrt{\text{Var}(\hat{Y}_h)}}{\hat{Y}_h} * 100$$

7. Ninety-five percent confidence interval (CI) of stratum total is:

$$\hat{Y}_h \pm 1.96 * S.E(\hat{Y}_h)$$

$$\text{Where, } S.E(\hat{Y}_h) = \sqrt{\text{Var}(\hat{Y}_h)}$$

APPENDIX II:**NUMBER OF EA's AND AGRICULTURAL HOUSEHOLDS
SAMPLED AND COVERED BY REGION (RURAL)**

Region	EA		Households	
	Sampled	Covered	Sampled	Covered
Tigray	850	849	25500	25640
Afar	94	90	2820	2630
Amhara	2525	2504	75750	75037
Oromia	4687	4671	140610	139892
Somali	170	165	5100	4789
Benshangul-Gumuz	436	426	13080	12720
SNNP	2304	2278	69180	68175
Gambella	141	121	4230	3552
Harari	25	25	750	738
Addis Ababa	35	35	1080	1050
Dire Dawa	25	25	750	749
Total	11292	11189	338850	334972

**NUMBER OF EA's AND AGRICULTURAL HOUSEHOLDS
SAMPLED AND COVERED BY REGION (URBAN)**

Region	EA		Households	
	Sampled	Covered	Sampled	Covered
Tigray	418	418	10422	10387
Afar	82	75	2109	2064
Amhara	1123	1113	31655	31312
Oromia	1796	1793	52953	52825
Somali	117	115	2936	2919
Benshangul-Gumuz	45	45	1326	1322
SNNP	646	645	18978	18930
Gambella	21	21	640	640
Harari	25	25	570	569
Addis Ababa	80	79	1970	1970
Dire Dawa	25	25	648	647
Total	4378	4354	124207	123585

APPENDIX III

Ethiopian Agricultural Sample Enumeration- Socio Economic characteristics of Population in Agricultural Households - 2001 /2002 (1994 E.C.)

PART I- IDENTIFICATION PARTICULARS

1	2	3	4	5	6	7
Region	Zone	Wereda		Farmers' Association	Enumeration Area	Household ID Number

PART II - DEMOGRAPHIC CHARACTERISTICS OF EACH MEMBER OF THE AGRICULTURAL

HOUSEHOLD (STARTING WITH THE HEAD OF THE HOUSEHOLD)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	
SR. NO.	FULL NAME	IS MEMBER OF THE HOUSEHOLD A HOLDER Yes =1 No =2	If Column 3, Code 1		SEX MALE = 1 FEMALE = 2	RELATION TO THE HEAD OF HOUSEHOLD	AGE (IN COMP-LETED YEARS)	EDUCATIONAL ATTAINMENT (Highest Grade Completed)	MARITAL STATUS NEVER MARRIED = 1 CURRENTLY MARRIED = 2 DIVORCED = 3 WIDOWED = 4	WERE YOU ENGAGED IN ECONOMIC ACTIVITY DURING THE LAST 12 MONTHS? Yes =1 No =2	10 YEARS AND ABOVE		IF ENGAGED IN ECONOMIC ACTIVITY WHAT WAS THE MAJOR ACTIVITY? FULLY AGRICULTURE = 1 PARTLY AGRICULTURE = 2 Fully in others = 3	IF IN COLUMN 13, CODE 1 OR 2, EMPLOYMENT STATUS EMPLOYER = 1 OWN-ACCOUNT WORKER = 2 EMPLOYEE = 3 UNPAID FAMILY WORKER = 4 OTHERS = 5
			Holder ID	TYPE OF HOLDING CROP =1 LIVESTOCK =2 BOTH =3							EDUCATIONAL ATTAINMENT (Highest Grade Completed)	IF NOT ENGAGED (IN COL. 11 CODE) THE MAIN REASON? STUDENT =1 HOME MAKERS =2 HANDICAP =3 OLD AGE/PENSION =4 OTHERS =5		
Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	Code	
0	1													
0	2													
0	3													
0	4													
0	5													
0	6													
0	7													
0	8													
0	9													
1	0													

Head	= 1
Spouse	= 2
Son/Daughter of head & spouse	= 3
Son/Daughter of head	= 4
Son/Daughter of spouse	= 5
Mother/Father of head/spouse	= 6
Sister/Brother of head/spouse	= 7
Other relatives	= 8
Non relatives	= 9

Biliterate	= 1
Informal Education	= 2
Grade 1 Completed	= 3
Grade 2 Completed	= 4
Grade 3 Completed	= 5
Grade 4 Completed	= 6
Grade 5 Completed	= 7
Grade 6 Completed	= 8
Grade 7 Completed	= 9
Grade 8 Completed	= 10
Grade 9 Completed	= 11
Grade 10 Completed	= 12
Grade 11 Completed	= 13
Grade 12 Completed	= 14
Grade 12 +	= 15

Ethiopian Agricultural Sample Enumeration
List of Fields Under Mixed Crops and their Agricultural Practices
(Mehere Season) - 2001/02 (1994 E.C.)

Part I - IDENTIFICATION PARTICULARS

1	Region	2	Zone	3	Wereda	4	Farmers' Association	5	Enumeration Area	6	Household Number	7	Holder Number	8	Name	9	Holders' Age	10	Sex Male → 1 Female → 2	11	Type of Holding Crop → 1 Livestock → 2 Both → 3
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Part II - Area Under Mixed Crops and Agricultural Practice

1	2	3	4	5	6	7	8	9	10	11
1	2	3	4	5	6	7	8	9	10	11
0	1	Type of Holding Private → 1 Rented/contract → 2 Others → 3	4	5	6	7	8	9	10	11
0	2	Total mixed crop area in local unit	4	5	6	7	8	9	10	11
0	3	Was the field been included in the extension package program Yes → 1 No → 2	4	5	6	7	8	9	10	11
0	4	Area in percentag share for Each crop	4	5	6	7	8	9	10	11
0	5	Number of trees for permanent crop (Excluding Coffee, Chat, Pineapple, Sugar-cane)	4	5	6	7	8	9	10	11
0	6	Number of trees of fruit of permanent crop (Excluding Coffee, Chat, Pineapple, Sugar-cane) was the field irrigated	4	5	6	7	8	9	10	11
0	7	yes → 1 No → 2	4	5	6	7	8	9	10	11
0	8	Variety of seeds used Improved → 1 Indigenous → 2	4	5	6	7	8	9	10	11
0	9	If Indigenous seed was used what was the quantity (for Cereals, Pulses & Oilseeds only)	4	5	6	7	8	9	10	11
1	0	If improved seed was used, what was the quantity (for Cereals, Pulses & Oilseeds only)	4	5	6	7	8	9	10	11
1	1	If improved seed was used what was the cost/price (for Cereals, Pulses & Oilseeds only)	4	5	6	7	8	9	10	11
1	2	Yes → 1 No → 2	4	5	6	7	8	9	10	11
1	3	If, yes, what was the major cause of Damage	4	5	6	7	8	9	10	11
1	4	percentage of Damage	4	5	6	7	8	9	10	11
1	5	Any control preventive measure Taken for crop damage → 1 → 2	4	5	6	7	8	9	10	11
1	6	If yes, what type of measure Chemical → 1 Non-chemical → 2 Both → 3	4	5	6	7	8	9	10	11
1	7	If chemical insecticide Insecticide → 1 Herbicide → 2 Fungicide → 3 All → 4 1&2 → 5 1&3 → 6 2&3 → 7	4	5	6	7	8	9	10	11
1	8	Was the field fertilized yes → 1 No → 2	4	5	6	7	8	9	10	11
1	9	If fertilized what type? Natural → 1 Chemical → 2 Both → 3	4	5	6	7	8	9	10	11
2	0	One main Reason for not using Chemical fertilizer	4	5	6	7	8	9	10	11
2	1	If chemical fertilizer used 2.1.1 Type Urea → 1 Dap → 2 Both → 3	4	5	6	7	8	9	10	11
2	2	Quantity in kg	4	5	6	7	8	9	10	11
2	3	If natural fertilizer used mainly what type Manure → 1 Compost → 2 Others → 3 4	4	5	6	7	8	9	10	11
		If others, specify	4	5	6	7	8	9	10	11

Rural

Ethiopian Agricultural Sample Enumeration Area under Crop Fields and Other Land Uses (1994 E.C)

Part 1: Identification Particular

1	2	3	4	5	6	7	8
Kilil	Zone	Wereda	FA	EA	Household ID NO	Holder ID.No.	Name of Holder

9	10	11	12	13	14	15	16	
Parcel No.	Field No.	The Field or other land used	SR. No.	Name of Crop or Type of Land use	If in col.11 code 1,2 or 3 Quantity of prod. In Local unit			Area in Percentage share for each Crop (If in Col. 11 Code 3)
		Field Under Temp/Veg/Root Crops → 1			Identification particulars			
		Permanent → 2						
		Mixed → 3						
Other land use → 4	cod	code	Name	Code	Quantity			

Part II. Area Measurement Result

1	2	3	4	5
The field or other land use	Area in Sq.m.	Area in Local Units		Reason if area Measurement not conducted
Date of measurement		Name of Local Area Unit		
Date Month				
		code	Area	Code

Part III. Bearing and Distances of the Measured Area

Side ID	A-B	B-C	C -	D -	E -	F -	G -
Bearing							
Distance of							
Side ID	H -	I -	J -	K -	L -	M -	N -
Bearing							
Distances of							
Side ID	O -	P -	Q -	R -	S -	T -	U -
Bearing							
Distance of							

Ethiopian Agricultural Sample Enumeration

Crop Cutting Results - Permanent Crops 2001/02 (1994 E.C.)

Form EASE -R- 94/7C

Part I- Identification Particulars

1	2	3	4	5	6	7	8	9	10	11
Region	Zone	Wereda	Farmers' Association	Enumeration Area	Household ID Number	Holder ID Number	Name of Holder	Age	Sex Male =1 Female =2	Type of Holding Crop = 1 Livestock = 2 Both = 3

Part II- Details of Crop-Cutting (For Permanent Crops) (Excluding Coffee, Chat and Gesho)

1	2	3	4															5	
			FIRST VISIT			SECOND VISIT			THIRD VISIT			FOURTH VISIT			FIFTH VISIT			TOTAL	
			Date	Number	Weight Kg. Gm.	Date	Number	Weight Kg. Gm.	Date	Number	Weight Kg. Gm.	Date	Number	Weight Kg. Gm.	Date	Number	Weight Kg. Gm.	Number	Weight Kg. Gm.
Serial No. Of Parcel	Field	Fruit Type Picked Code																	
		Orange	47																
		Banana	42																
		Lemon	44																
		Papaya	48																
		Mango	46																
		Guava	65																
		Avocado	84																
		Sugar cane	76																
		Pineapple	49																

PART III- DETAILS OF CROP-CUTTING FOR COFFEE, CHAT AND GESHO

1	2	3	4	5																6			
				FIRST VISIT DATE / /				SECOND VISIT DATE / /				THIRD VISIT DATE / /				FOURTH VISIT DATE / /				TOTAL			
				FRUITS		BEANS		FRUITS		BEANS		FRUITS		BEANS		FRUITS		BEANS		FRUITS	BEANS		
PARCE	FIELD	CODE	NUMBER OF TREES PICKED	KG.	GRAMS	KG.	GRAMS	KG.	GRAMS	KG.	GRAMS	KG.	GRAMS	KG.	GRAMS	KG.	GRAMS	KG.	GRAMS	KG.	GRAMS		
		COFFEE	72																				
		GESHO	75	WEIGHT OF FRESH AND DRY TWIGS (KG)																TOTAL			
				FIRST VISIT				SECOND VISIT				THIRD VISIT				FOURTH VISIT				TOTAL			
				DATE / /		DATE / /		DATE / /		DATE / /		DATE / /		DATE / /		DATE / /		DATE / /		DATE / /		DATE / /	
				FRESH		DRY		FRESH		DRY		FRESH		DRY		FRESH		DRY		FRESH		DRY	
		CHAT	71	Date / /																Date / /			

PART I - Identification Particulars

1	2	3	4	5	6	7	8	9	10	11
REGION	ZONE	WEREDA	FARMERS' ASSOCIATION	ENUMERATION AREA	HOUSEHOLD ID. No	HOLDER ID. No	HOLDER'S NAME	Age	Sex Male=1 Female=2	TYPE OF HOLDING CROP - 1 LIVESTOCK - 2 BOTH - 3

PART II-LIVESTOCK, BEEHIVES AND LIVESTOCK PRODUCTS

Question No I- Did you have livestock, And/or beehives on February 8, 2002?

Yes → 1 Complete questions below
 No → 2 Complet question No II

Number of Cattle in Age & Purpose on February 8/2002

1. Cattle of all ages on February 8,2002

- a. Cattle < 6 months
- b. Cattle 6 months & <1 years old
- c. Cattle 1 year to <3 years old
- d. Cattle 3 years to < 10 years
 - (1) Beef Cattle (for meat production purpose)
 - (2) For breeding purpose
 - (3) Dairy cows
 - (4) Cows gave milk for the last 12 months
 - (5) Draft Cattle (for work purpose)
 - (6) Cattle for other purposes
- e. Cattle 10 years and older
- f. Grand Total
 - 1. Total Local breed
 - 2. Total Exotic
 - 3. Total Hybrid

None	Total	Male	Femal
	1	2	3
	4	5	6
	7	8	9
	10	11	12
	13	14	15
	16	17	18
	19	20	21
	22		23
	24		25
	26	27	28
	29	30	31
	32	33	34
	35	36	37
	38	39	40
	41	42	43
	44	45	46

Number of Sheep in Age & Purpose on February 8/2002

	None	Total	Male	Female
2. SHEEP of all ages on February 8, 2002		47	48	49
a. Sheep < 6 months		50	51	52
b. Sheep 6 months & < 1 years old		53	54	55
c. Sheep 1 year to < 2 years old		56	57	58
d. Sheep 2 years and older		59	60	61
(1) Sheep for meat (slaughter purpose)		62	63	64
(2) Sheep for wool only		65	66	67
(3) Sheep for breeding purpose only		68	69	70
(4) Sheep for other purposes		71	72	73
e. Grand Total		74	75	76
1. Total Local breed		77	78	79
2. Total Exotic		80	81	82
3. Total Hybrid		83	84	85

Number of Goats in Age & Purpose on February 8/2002

	None	Total	Male	Female
3. GOATS of all ages on February 8, 2002		86	87	88
a. Goats < 6 months		89	90	91
b. Goats 6 months & < 1 year old		92	93	94
c. Goats 1 year to < 2 years old		95	96	97
d. Goats 2 years and older		98	99	100
(1) Goats for meat (slaughter purpose)		101	102	103
(2) Dairy Goats		104		105
(3) Goats for breeding purpose only		106	107	108
(4) Goats for other purposes		109	110	111
e. Grand Total		112	113	114
1. Total Local breed		115	116	117
2. Total Exotic		118	119	120
3. Total Hybrid		121	122	123

Number of Pigs by age & purpose on February 8, 2002

	None	Total	Male	Female
4. Total Pigs		124	125	126
a. below 6 months		127	128	129
b. 6 months & above		130	131	132
b.1. For meat Purpose		133	134	135
b.2. Pigs for other purpose		136	137	138

Number of Horses, Asses, Mules & Camels in Age and Purpose (Feb. 9, 2001-Feb. 8, 2002)

	None	Total	Male	Female
5. HORSES of all ages		139	140	141
a. Horses <3 years old		142	143	144
b. Horses 3 Years and older		145	146	147
b1) Horses used primarily for draft purpose		148	149	150
b2) Horses for Transportation		151	152	153
b3) Horses for other purpose		154	155	156
6. MULES of all ages		157	158	159
a. Mules <3 years old		160	161	162
b. Mules 3 years older		163	164	165
b1) Mules used primarily for draft purpose		166	167	168
b2) Mules for Transportation purposes		169	170	171
b3) Mules for Other Purpose		172	173	174
7. ASSES of all ages		175	176	177
a. Asses <3 years old		178	179	180
b. Asses 3 years and older		181	182	183
b1) Asses used for draft purpose		184	185	186
b2) Asses for Transportation purposes.		187	188	189
b3) Asses for Other Purpose		190	191	192
8. CAMELS of all ages		193	194	195
a. Camels <4 years old		196	197	198
b. Camels 4 years and older		199	200	201
b1) Camels for slaughter		202	203	204
b2) Camels used for draft purpose		205	206	207
b3) Camels for milk purpose		208		209
b4) Camels for Transportation purposes		210	211	212
b5) Camels for other purposes		213	214	215

CHICKENS

9. CHICKENS Total on February 8, 2002

- a. Laying hens (over 20 weeks old)
- b. Non-laying hens (over 20 weeks old)
- c. Cocks - males (over 20 weeks old)
- d. Cockerels (8 weeks to 20 weeks old)
- e. Pullets (8 weeks to 20 weeks old)
- f. Chicks (below 8 weeks old)

None

216	
217	
218	
219	
220	
221	
222	

Question No II: Did you have livestock, chickens, and/or beehives for the last 12 months (Feb. 9, 2001-Feb.8,2002)?

Yes → 1 Complet question below

No → 2 Complet question No. 11 'c' and 'g' only

10. HONEY BEE COLONIES on February 8, 2002

- a. Traditinal beehives
- b. Intermediate beehives
- c. Modern beehives

None

223	
224	
225	
226	

MILK, EGG AND HONEY PRODUCTION FOR THE LAST 12 MONTHS (Feb. 9, 2001-Feb. 8, 2002)

11. Dairy cows & camels

- a. Dairy cows gave milk
- b. Lactation period of cows (in months)
- c. Average milking month in a caw (traditional)
- d. Milk production - per day per dairy cow in litres
- e. Dairy camels gave milk
- f. Lactation period of camels (in months)
- g. Average milking month in a camel (traditional)
- h. Milk production - per day per camel in litres

None

227	
228	
229	
230	
231	
232	
233	
234	

None

12. Egg production - per hen per clutch

'In nearest hole number of eggs

13. Average number of clutches (in days)

235	
236	

14. Honey production per beehive per year (Feb. 9, 2001 - Feb. 8, 2002) in Kg.

- a. Average honey production from traditional beehive per season per beehive
Frequency of production per year per beehive. _____
- b. Average honey production from intermediate beehive per season per beehive
Frequency of production per year per beehive. _____
- c. Average honey production from modern beehive per season per beehive
Frequency of production per year per beehive. _____

None		
	237	
	238	
	239	
	240	
	241	
	242	

15. Livestock diseases & treatment Feb. 9, 2001-Feb. 8,2002)

1 Sr. No.	2 Type of Livestock	3 Total Vaccinated	4 Total Affected	5 Total Treated	6 Total Died	7 Major cause of death		8 Remark
						Code		
						271	272	
1	Cattle							
2	Sheep							
3	Goats							
4	Equines							
5	Camels							
6	Pigs							
7	Chickens							

16. Source of Livestock feed

1 Sr. No.	2 TYPE OF FEED	Code	3 USE YES = 1 NO = 2		4 IF YES, PERCENT
				Code	
1	Natural grazing	1			
2	Crop Residue	2			
3	Improved pasture	3			
4	Hay	4			
6	Oil seed(noug cake)	5			
7	Other	6			

Ethiopian Agricultural Sample Enumeration

Use of Crop, Livestock and Products - 2000/01 (1994 E.C.) (Peasant Holding)

Part I - Identification Particulars										
Job ID	1	2	3							
1	2	3	4	5	6	7	8	9	10	11
Region	Zone	Wereda	Farmers' Association	Enumeration Area	Household ID. No.	Holder ID No.	Name of Holder	Age	Sex Male =1 Female =2	Type of Holding Crop =1 Livestock =2 Both =3

Part II - Crop Usage Proportions (Percentages)

1	2		3	4					9
	Name of Crop	Code		Proportions of Total Product For					
Sr. No.			Household Consumption	Seed	Sale*	Wages in Kind	Animal Feed	Other (Gifts ...)	Total
0	1								
0	2								
0	3								
0	4								
0	5								
0	6								
0	7								
0	8								
0	9								
1	0								
1	1								
1	2								
1	3								
1	4								
1	5								

Part III - Livestock Product Usage Proportions (Percentages)

1	2		3	4				7
	Name of Livestock & Livestock Products	Code		Proportions in Percentage				
SR. No.			Household Consumption	Sale*	Wages in Kind	Others (Gifts ...)	Total	
0	1							
0	2							
0	3							
0	4							
0	5							
0	6							
0	7							
0	8							
0	9							
1	0							
1	1							
1	2							
1	3							
1	4							
1	5							

*For sale includes the part of products that the holder sold for purchase of agricultural inputs, family clothings, ... etc

Ethiopian Agricultural Sample Enumeration Miscellaneous Questions - 2001/02 (1994 E.C.)

PART I- IDENTIFICATION PARTICULARS

1	2	3	4	5	6	7	8	9	10	11
Region	Zone	Wereda	Farmers' Association	Enumeration Area	Household ID No.	Holder ID No.	Name of Holder	Age	Sex Male =1 Female =2	Type of Holding Crop =1 Livestock =2 Both =3

PART II - MISCELLANEOUS QUESTIONS

Q. No	Question	Code																					
1.	Do you practice crop rotation on your holding? Yes = 1 No = 2																						
2.	Do you practice burning of soil to increase fertility of the soil on your holding? Yes = 1 No = 2																						
3.	If practice irrigation, what is the source of irrigation water? River = 1 Lake = 2 Pond = 3 Others = 4 Not Used = 5																						
4.	Have you used hired labour on your holding during this agricultural year? (last 12 months) Yes = 1 No = 2																						
5.	How many persons were engaged on the holding other than the holder? (Last 12 /mths) 5.1 permanent paid workers (full time) 5.2 Temporary (seasonal paid workers) 5.3 Unpaid family workers 5.4 partners (share holders paid/unpaid) 5.5 Total persons engaged at any time of the year	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">Number</th> </tr> <tr> <th>Male</th> <th>Female</th> <th>Total</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	Number			Male	Female	Total															
Number																							
Male	Female	Total																					
6.	Which ploughing practice do you use on your holding? 6.1 Hand dug = 1 6.2 Oxen /horse driven /pulling = 2 6.3 Mechanized /Tractor = 3 6.4 Both hand dug & oxen/ Horse driven = 4 6.5 Both Oxen/Horse driven & Mechanized = 5																						
7.	What method do you practice to, preserve soil against degradation or erosion? Terracing = 1 Water catchment = 2 Afforestation = 3 Ploughing along the contour = 4 Others /Specify/ = 5 Do not practice = 6																						
8.	Have you ever been included in the extension package program? Yes = 1 No = 2 NRU																						
9.	If yes in 8, which extension package? Rain abundant areas extension package = 1 Rain shortage areas extension package = 2 Post harvest technology = 3 Economically important crops = 4 Livestock development = 5 Any two of the above = 6																						

Q. No	Question	Code																
10.	If the answer is 6 in 9, specify																	
11.	If Yes in 8, when? Specify																	
12.	What percentage of your holding is under the extension package/ (excluding livestock)																	
13.	For which crop are you using the extension package? specify																	
14.	If No in 8, why? specify																	
15.	Are you beneficiary of Credit facilities for agricultural activities Yes =1 No = 2																	
16.	Advisory services Yes = 1 No = 2																	
17.	Where do you get chemical fertilizer? Government Enterprise = 1 Private Enterprise = 2 Private Seller = 3 Others (Specify) = 4 Not Purchased = 5																	
18.	How much do you buy 50 kg Urea?	Birr /Cent																
19.	How much do you buy 50 kg Dap?	Birr /Cent																
20.	How far do you go to Purchase Fertilizer?	kilo meter																
21.	How much time do man & women spend in the household on each of the following agricultural activities? use the codes given below the table*. 21.1 Tilling 21.2 Sowing 21.3 Weeding 21.4 Harvesting 21.5 Feeding /Treating 21.6 Milking 21.7 Marketing of agricultural products	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Male</th> <th>Female</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	Male	Female														
Male	Female																	
* Not Participated = 1 One fourth of the time (1/4) = 2 One half of the time (1/2) = 3 Three fourth of the time (3/4) = 4 Full time = 5 Not applicable = 6																		

2.2 Work Animals (including those used for transport)

Line No.	Name of animal		Code	Number owned	Replacement Value (Cost Per Animal)		Total Value		Average age of animal? (Years)	Do you rent work Animals?	
					Birr	Ct.	Birr	Ct.		Yes=1 No=2	If yes rate per day
	Birr	Ct.	Birr	Ct.	Birr	Ct.					
2	6	Oxen (all including cows)	42								
2	7	Donkeys	43								
2	8	Horses	44								
2	9	Mules	45								
3	0	Camels	46								
3	1	Other (specify _____)									
3	2	Other (specify _____)									
3	3	Other (specify _____)									
3	4	Other (specify _____)									

2.3 Work Animals used specifically for plowing

3	5	Oxen for plowing	42								
3	6	Other for plowing									
3	7	Other (specify _____)									
3	8	Other (specify _____)									
3	9	Other (specify _____)									

2.4 Storage Facilities (Buildings)

Line No.	Storage facilities		Code	Number owned	Replacement Value (cost per building)		Total Value		Average storage capacity of buildings? (in Quintals)	Do you rent storage facilities?	
					Birr	Ct.	Birr	Ct.		Yes=1 No=2	if yes, enter rate per month
	Birr	Ct.	Birr	Ct.	Birr	Ct.					
4	0	Modern buildings	32								
4	1	" Gottera"	33								
4	2	" Debegnet"	34								
4	3	Under ground	35								
4	4	Other (specify _____)									
4	5	Other (specify _____)									
4	6	Other (specify _____)									
4	7	Other (specify _____)									

Note:- Sack, 'Silicha', 'Akumada', Plastic sack etc not used as storage facilities

Agricultural Households Demographic Characteristics - 2001 /2002 (1994 E.C.)

PART I- IDENTIFICATION PARTICULARS

1	2	3	4	5	6	7	8
REGION	ZONE	WEREDA	TOWN	HIGHER/WEREDA	KEBELE	ENUMERATION AREA	HOUSEHOLD ID NO.

PART II - DEMOGRAPHIC CHARACTERISTICS OF EACH MEMBER OF THE AGRICULTURAL

HOUSEHOLD (STARTING WITH THE HEAD OF THE HOUSEHOLD)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	
SR. NO.	FULL NAME	IS MEMBER OF THE HOUSEHOLD A HOLDER Yes =1 No =2	HOLDER ID	TYPE OF HOLDING CROP =1 LIVESTOCK =2 BOTH =3	SEX MALE =1 FEMALE =2	RELATION TO THE HEAD OF HOUSEHOLD	AGE (IN COMPLETED YEARS)	5 YEARS AND ABOVE		10 YEARS AND ABOVE		IF NOT ENGAGED (IN COL. 11 CODE) ECONOMIC ACTIVITY WHAT WAS THE MAIN REASON? STUDENT =1 HOME MAKERS =2 HANDICAP =3 OLD AGE/PENSION =4	IF ENGAGED IN ECONOMIC ACTIVITY WHAT WAS THE MAJOR ACTIVITY? FULLY AGRICULTURE =1 PARTLY AGRICULTURE =2 Fully in others =3	IF IN COLUMN 14 CODE 1 OR 2 EMPLOYMENT STATUS EMPLOYER =1 OWN-ACCOUNT WORKER =2 EMPLOYEE =3 UNPAID FAMILY WORKER =4 OTHERS =5
								EDUCATIONAL ATTAINMENT (Highest Grade Completed)	MARITAL STATUS NEVER MARRIED =1 CURRENTLY MARRIED =2 DIVORCED =3 WIDOWED =4	WERE YOU ENGAGED IN ECONOMIC ACTIVITY DURING THE LAST 12 MONTHS? Yes =1 No =2	OTHERS =5			
0	1													
0	2													
0	3													
0	4													
0	5													
0	6													
0	7													
0	8													
0	9													
1	0													

- Head = 1
- Spouse = 2
- Son/Daughter of head & spouse = 3
- Son/Daughter of head = 4
- Son/Daughter of spouse = 5
- Mother/Father of head/spouse = 6
- Sister/Brother of head/spouse = 7
- Other relatives = 8
- Non relatives = 9

- Illiterate = 1
- Informal Education = 2
- Grade 1 Completed = 3
- Grade 2 Completed = 4
- Grade 3 Completed = 5
- Grade 4 Completed = 6
- Grade 5 Completed = 7
- Grade 6 Completed = 8
- Grade 7 Completed = 9
- Grade 8 Completed = 10
- Grade 9 Completed = 11
- Grade 10 Completed = 12
- Grade 11 Completed = 13
- Grade 12 Completed = 14
- Grade 12 + = 15

