

FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
OFFICE OF AGRICULTURAL CENSUS COMMISSION
CENTRAL STATISTICAL AUTHORITY

ETHIOPIAN AGRICULTURAL SAMPLE ENUMERATION
2001/02 (1994 E.C.)
(September 11-October 11, 2001)



REPORT ON
FORECAST OF AREA AND PRODUCTION OF MAJOR CROPS
(For Rural Private Peasant Holdings)

Addis Ababa
December 2001

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CENTRAL STATISTICAL AUTHORITY
P.O.BOX 1143 ADDIS ABABA
Tel. 55-30-11

Foreward

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 and is being carried out since 1980/81 by the Central Statistical Authority (CSA). Although, this annual survey has some limitations on scope, coverage and level of disaggregation, it has served as a means of narrowing the data gap in the sector.

On the other hand, the CSA has put a number of requests to 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, to overcome the above mentioned limitations of the Annual Agricultural Sample Surveys and provide a benchmark data on the agriculture sector, the CSA launched the field work 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 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, Regional, Zonal, Wereda Census Commissions and Kebele Census Committees were established to enhance and facilitate the census enumeration activities. In the conduct of this census, full cooperation and assistance of government and non-government organizations, external donor agencies and the public in general has been obtained.

The 2001/02 Crop Production Forecast Report is a part and parcel of the Ethiopian Agricultural Sample Enumeration and is carried out in September-October 2001 as the first phase of the enumeration.

The office found it necessary to release the results of this Crop Production Forecast Survey, which is the first phase of the 2001/02 Ethiopian Agricultural Sample Enumeration, to the data users.

This Crop Production Forecast Survey has some unique features when compared to those crop production forecast survey reports produced by the CSA prior to 2001/2002. The major unique features of this report are:-

- This report is published at the first quarter of the year 2001/02(1994 E.C) right after the first ever Ethiopian Agricultural Sample Enumeration was launched all over the country.

- The sample size of the 2001/02 (1994 E.C) Crop Production Forecast Sample Survey which has covered a total of 1928 randomly selected enumeration areas is the largest ever recorded coverage since the inception of this survey in 1980/81(1973 E.C).
- In addition to the old zones, the results of this survey presents the 2001/02(1994 E.C) Crop Production Forecast estimates for newly established Zones and Special Weredas (not found in any of the previous reports).

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 information. 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 and the other socio-economic and demographic statistics.

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 financial and technical assistance for the census. Moreover, thanks are due to the European Union (EU) for its financial assistance.

Abdulahi . Hassen (Ph.D.)

Member and Secretary,

Central Agricultural Census Commission

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PART I

INTRODUCTION AND OBJECTIVES OF THE SURVEY

1.1. Introduction

Nowadays, the need for the availability of reliable, accurate and timely statistical data on agriculture is getting momentum in almost all developing countries, where the sector plays a major role in the countries economy.

To be more specific, reliable annual food crop production forecast estimates prior to harvest are in a rapidly growing demand, as countries mark serious efforts to plan development programs at national and regional levels, so as to help tackle the problem of feeding their population and to raise their levels of living.

Likewise, in Ethiopia agriculture is the predominant activity of the population and the leading sector in the country's economy. It accounts for about 50 percent of the GDP, employs about 80 percent of the labour force, generates about 85 percent of commodity export earnings and provides raw materials for about 70 percent of the country's large and medium sized industries (MEDaC, July, 1999).

Moreover, crop production sub-sector's contribution of the country is estimated to be the highest, which is about 60 percent when compared with the contributions of other sub-sectors such as livestock, forestry, fishery and...etc., which among others, proved food availability for the majority of the Ethiopians remain and continue to be determined by its domestic crop production (MEDaC, July, 1999).

On the contrary, for the last two decades, Ethiopia has been hit by frequent drought and consequently faced food shortages to feed its population in some

parts of the country. However, in recent years the situation is improving as a result of a number of efforts that are being made by government and non government organizations to make the country self sufficient in food production.

In Ethiopia, assessing total food supplies and providing timely early warning signals to the emerging difficulties are and remain to be primary objectives of the efforts made by the government and the concerned non-government organizations. Towards this end, many factors need to be taken into consideration. Among them, obtaining reliable and timely pre-harvest forecast estimates of food crop production is paramount importance. Hence, compiling reliable, accurate and timely crop production forecast data for data users should get prior consideration. In order to take all the necessary and appropriate measures in administering exports or imports, management of stocks and distribution of food to deficit regions, regulation of price control both during periods of surplus or deficit ...etc. have to be given due attention

In agricultural statistics the term “forecast” is used to indicate qualitative or quantitative information compiled and released before harvest. It differs from an “estimate” which is always quantitative and compiled during harvest time or afterwards.

A forecast of crop production can therefore be defined as a statement of the most probable production of the crop which can be obtained from the coming harvest based on reasonable expectations of the crop growing conditions through the harvest period.

The 2001/02 (1994 E.C) Crop Production Forecast estimates are based on data collected from producers (farmers) using scientifically accepted probability sampling methodology subject to the conditions and expectations for harvest at

the time of data collection from 11 September through 10 October 2001 (i.e. from Meskerem 1 to 30, 1994 E.C).

This report presents basic information of crop production forecast for 2001/02 (1994 E.C.), i.e. for Meher season harvest, and indicates the area coverage and expected production of major crops for the coming harvest at the national, regional as well as zonal/special wereda levels.

1.2. OBJECTIVES OF THE SURVEY

The objectives of the 2001/02 (1994 E.C) Crop Production Forecast sample survey is to collect basic quantitative information on area and expected production of major crops. These information can serve as an earlier indicator to warn policy makers and planners about the emerging difficulties that result from surplus or deficit crop production in the coming main season harvest. Therefore, timely forecast estimates made on the quantity of the expected production of the 2001/02 (1994 E.C.) Meher (Main) season crops prior to their harvest are used as a primary input for policy preparation and implementation of timely measures such as administering exports or imports, management of stocks and distributing of food to different regions, regulation of prices at the time of surplus or deficits, ... etc.

PART II

SURVEY METHODOLOGY, DATA COLLECTION AND PROCESSING

2.1. SCOPE, COVERAGE AND CONTENT OF THE SURVEY

The 2001/02 (1994 E.C.) annual Crop Production Forecast Sample Survey was designed to cover the **sedentary rural** agricultural population in all regions of the country. This coverage encompasses a total of 11 regions, 61 zones and five special weredas which were designated in the sampling design as the area basis to be domains /reporting levels/ for the survey. The geographic coverage of the survey is given in Table A.

The original sample selected totaled 1928 enumeration areas (EAs). These EAs were selected at the zonal level to be enumerated for the survey to provide specific coverage within all regions. For this report, however, the number of EAs which were completed and acceptable for tabulation, totaled 1854 EAs. The remaining 74 EAs were incomplete and unusable due to various reasons. In each EA a sample of 30 agricultural households were selected and interviewed for the forecast sample survey which resulted in a total of 55,650 sampled households. The forecast estimates of area under crops are obtained from a sub-sample of 10 agricultural households out of the 30 selected from each EA.

2.2. SAMPLE DESIGN

The 2001/02 (1994 E.C.) Crop Production Forecast Survey covered all the rural parts of the country except three zones in **Afar** region and six zones in **Somalie** region that are predominantly nomadic. A two-stage stratified systematic sample design was used to select the sample. Each zones/special wereda was adopted as stratum for which major findings of the survey are reported. But each of the four

regions; namely, Gambela, Harari, Addis Ababa and Dire Dawa were considered as strata/reporting levels.

TABLE A AREAL COVERAGE OF THE 2001/02 (1994 E.C.)
CROP PRODUCTION FORECAST SURVEY

| Region | Number of Zones | | Number of Weredas Covered in the survey |
|--------------------------|-----------------|-----------------------|---|
| | Total | Covered in the survey | |
| Tigray ¹ | 5 | 4 | 34 |
| Afar ² | 5 | 2 | 6 |
| Amhara | 10 | 10 | 99 |
| Oromia | 12 | 12 | 188 |
| Somalie ³ | 9 | 3 | 8 |
| Benshangul-Gumez | 3 | 3 | 20 |
| S.N.N.P.R. | 19 | 19 | 93 |
| Gambela | 2 | 2 | 4 |
| Harari | 1 | 1 | 1 |
| Addis Ababa ⁴ | 6 | 2 | 5 |
| Dire Dawa | 1 | 1 | 1 |
| Total | 73 | 61 | 459 |

Notes:-

- 1 - In Tigray Region, four out of five zones have rural settled population.
- 2 - Afar Region has a total of five Zones, however only two Zones have significant rural sedentary population.
- 3 - Somalie Region has a total of nine Zones, however only three Zones have significant rural sedentary population.
- 4 - Addis Ababa has a total of six Zones, however, only two Zones have rural settled population. In the remaining four Zones the entire population is urban residents.

S.N.N.P.R. Southern Nations, Nationalities and peoples' Region.

The primary sampling units (PSUs) were enumeration areas (EAs) and agricultural households were the secondary sampling units. The survey questionnaires were administered to all agricultural holders within the sample households. A fixed number of sample EAs was determined for each stratum /reporting level based on precision of major estimates and cost considerations.

Within each stratum EAs were selected using probability proportional to size; size being total number of households in the EAs as obtained from each sample EA. 30 agricultural households were systematically selected for the Ethiopian Agricultural Sample Enumeration from a fresh list of households prepared at the beginning of the field work. For the crop forecast survey, data on crop condition factors were collected from 30 sampled agricultural households while ten sub-sampled agricultural households were selected for the area measurement.

A total of 1928 EAs were selected for the Crop Production Forecast Survey. However, from 74 EAs forecast data were not collected for various reasons. Hence the survey succeeded in covering 1854 (96.16%) EAs. With respect to ultimate sampling units, for the crop forecast survey, it was planned to cover 18,540 and 57,840 agricultural households for area measurement and crop condition factors, respectively. Estimation procedures of parameters of interest (total and ratio) and their sampling error is presented in Appendix I. Standard errors and co-efficient of variation of estimate are given in Appendix II. Distribution of the number of sampling units sampled and covered by strata is given in Appendix III.

2.3. FIELD ORGANIZATION

The field organization of this year's crop production forecast sample survey was planned to be carried out along with the on going 2001/02 Ethiopian Agricultural Sample Census Enumeration. Accordingly, all the technical

personnel of CSA, 47 Branch Statistical Offices heads as well as field supervisors and enumerators were fully involved in the administration of the 2001/02 Agricultural Sample Census Enumeration and the Crop Production Forecast Sample Survey simultaneously. At any given time during the census and the survey there were 12,390 (including 10% reserves) field enumerators in which one field enumerator is assigned in each EA selected. Out of the total enumerators, 1928 Enumerators were assigned for collecting data on crop production forecast in addition to the data they collect for the Agricultural Sample Census Enumeration. One supervisor is assigned to closely supervise and follow up the work of 4-5 enumerators. Moreover, experts from the CSA's headquarters, and other support staff were involved in the census and survey operations.

All enumerators were provided the necessary survey and census material and equipment such as questionnaires, compass, measuring tape, programmable calculator, iron pegs, ...etc. just before they were deployed to their respective enumeration areas.

2.4. TRAINING OF FIELD STAFF

Along with the 2001/02 Ethiopian Agricultural Sample Census Enumeration, preparation for the Crop Production Forecast Sample Survey required considerable planning and acquisition of all relevant materials. These include the training of personnel, procurement of equipment, designing and printing of questionnaires, as well as enumerator's and supervisor's instruction manuals.

To make the training manageable and economical in utilizing resources such as manpower, time, finance and ... etc., the training of both Crop Production Forecast Sample Survey and the 2001/02 Ethiopian Agricultural Sample Enumeration was provided at the same time.

The training program for both the census and the survey were carried out in two stages. In the first stage, 514 trainees from various disciplines of the CSA and from different government offices were trained for a period of one month at two training centers in Addis Ababa. Those trained in the first stage conducted similar training for about 2,447 field supervisors and, 12,390 field enumerators at 47 training centers all over the country.

The content of the training document focused on specific details pertaining to the census and survey, including detailed class room instruction on the purpose of both census and survey, terminology, concepts and definitions used for the survey, and the census. Furthermore, the training comprised how to correctly complete each questionnaire, description on field area measurement techniques, procedures for conducting crop cutting excises, etc. The training was conducted for a period of 45 days at 47 training centers. To reinforce the classroom training and to insure that each enumerator was thoroughly familiar with method of interviewing holders, field area measurement and crop cutting procedure ...etc, repetitive field practices were carried out.

2.5. METHOD OF DATA COLLECTION AND CROP PRODUCTION FORECASTING

i. Method of Data Collection

The data collected from agricultural holders for the crop production forecast estimates consisted of both subjective questions that is meant to obtain information pertaining to the nature of productivity expectations through direct interviews and objective method associated with field measurement. Data are collected objectively by measuring all cropped fields under temporary and permanent crops using compasses and measuring tapes (see **Appendix III** for the total number of fields measured). However, for Crop Production Forecast Survey, only area under major temporary crops (i.e cereals pulses and oilseeds)

are reported and published. On the other hand, the expected crop production forecast estimates are calculated from data that are collected directly from the sampled holder or producer. The sampled holders report the “conditions” or the percentage changes on their expected crop yield (i.e. increase or decrease) as compared to last year’s yield. The enumerator is trained to ask this question on percentage change using the local translation and meaning. The enumerator is also trained on how to use comparative associations to represent the concept of percentage change in units to the holder in such a way that the enumerator could calculate the percentage change and fill in the questionnaire.

This forecast estimation procedure has proven successful in past years and also avoids the serious problems in Ethiopia of using many different local units of measurements that the farmers could otherwise report an absolute yield. This subjective data on percentage yield change is recorded on the questionnaire for each temporary crop by interviewing all holders within the selected 30 agricultural households in each enumeration area.

ii. Method of Crop Production Forecasting

The Crop Production Forecast for 2001/02 (1994 E.C.) is based on what could be considered a three component production “Models”. The first component production “model” is the survey’s direct expansion estimate of the actual cultivated area (obtained from the objectively measured fields during the September-October field data collection period). The second component production uses last year’s Meher (Main) season crop yield estimate obtained from objectively collected crop cuttings. The third component production is the average “condition” factor which adjusts the yield of this year’s crop comparing with the previous year.

All specific condition factors (such as weather, pest damage,...etc.) affecting the crop growth for the rest of the current season have been taken into account

by the holders in these “condition” factors and represents the holder’s own subjective assessment on the future production. Forecast estimates are published for all major temporary crops for which objective field area measurements were performed.

iii. Main Factors Which Influence the Expected Crop Production

In order for the holder to intuitively formulate the future production of his field crop production, there are numerous factors subjectively assessed. Besides the meteorological factors, there are a number of other factors that influence production and yield of major crops. These are:

a. Reason for expected decrease

- too much rainfall and lodging of the crop,
- shortage of rainfall,
- insect (locust), disease and other pest (birds) damage,
- hail and frost damage,
- wild and domestic animal damage,
- shortage of seed,
- depletion of the soil fertility and
- others.

b. Reason for expected increase

- favorable weather conditions,
- improved seed and cultural practices,
- application of fertilizers,
- application of pesticides (absence of pests) and
- others.

2.6. DATA EDITING, CODING AND VERIFICATION

To facilitate the 2001/02 Crop Production Forecast Survey data processing activities, editing and coding instruction manuals were prepared and printed prior to the training.

Before receipt of the completed questionnaires from the branch offices, the CSA regular editor/coder staff were given two full day of intensive training on proper questionnaire review techniques. Instructions and rules associated with correctly coding the questionnaire and correcting inconsistent records were thoroughly given to the editors. In order to undertake this task at CSA headquarters a total of 55 editors/coders were involved.

During the coding process, three of the professional staff members from ASD were assigned to guide and supervise the editors/coders in correction of the difficult problems on the filled-in questionnaire. These technical experts were also involved in answering questions, clear doubts...etc. so as to facilitate the editing and coding activity. Each editor/coder was assigned to work on a single EA at a time to assure that all questionnaires were accounted for and completed. Next the edited and coded questionnaires were checked by about 15 supervisors/verifiers. All EAs were included in this final verification process.

2.7. DATA ENTRY, CLEANING AND PROCESSING

The data entry process deployed about 60 data encoders and as many personal computers. The data was entered in the PCs using IMPS (Integrated Microcomputer Processing System) software which is a software package developed by the United States Bureau of the Census. Following data entry, the data was further reviewed for data inconsistencies, missing data, reasonableness ... etc. by the regular professional staff from Agricultural Statistics Department and on the other hand, computer operators skilled in data cleaning from Data Processing Department fully participated to make appropriate data cleaning

according to the output of the edit program. The final stage of the data processing was to summarize the cleaned data using the PC based IMPS software.

The summary tables required reformatting and merging with the report text file for publication purposes. Two programmers were responsible for all of the data processing activity.

2.8. BASIC CONCEPTS AND DEFINITIONS

The concepts and definitions used in the survey are described as follows:

Enumeration Area (EA):- Is the survey primary sampling unit classified as located in the rural area of the country which is less than or equal to a peasant's Association's area and usually consists of 150-200 households.

Households:- A household may be either;

- a) a one person household, that is a person who makes provision for his own food or other essentials for 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 provision for food or other essentials for living. The persons in the group may pool their incomes and have a common budget more or less. They may be related or unrelated persons, or a combination of both.

Agricultural Households: A household is considered an agricultural household when at least one member of the household is engaged in growing crops and/or breeding and raising livestock in private or in partnership with others.

Holder: A holder is a person who exercises management control over the operations of the agricultural holdings and makes the major decisions regarding the utilization of the available resources. He has technical and economic responsibility for the holding. He may operate the holding directly as an owner or as a manager.

Using the terminology of a traditional agricultural holding the holder may be regarded as the person, who with or without help of others, operates land or raises livestock for his own purposes, i.e. the person who decides on what, when, where and how to grow crops or raise livestock and has right to determine the utilization of the products.

Holding: A holding is all the land and livestock kept which is used wholly or partially for agricultural production and is operated as one administratively managed unit by one person alone, or with others, without regard to title, legal form, size or location. A holding may consist of one or more parcels.

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

Field: A field is defined as any plot of land within a parcel which can be whole or part of a parcel under the same cultural practice.

Forecast of crop production: It is an estimation of the future realization of final crop production growing under conditions which introduce a random variable which can cause an uncertainty as to what the final production at harvest will be.

PART III

SUMMARY OF THE RESULTS OF THE 2001/02 (1994 E.C)

CROP PRODUCTION FORECAST SURVEY

In this part of the report, the results of crop area and production for the 2001/02 (1994 E.C.) Crop Production Forecast Sample Survey at the Country, regional, zonal and special wereda levels are presented. Discussions of some of the major findings and important points of the survey result are given below.

3.1. Major Findings of the Survey

Based on the data collected for the 2001/02 (1994 E.C) Crop Production Forecast Survey results, it is estimated that an area of about 8.15 million hectares are covered by major crops, of which in the coming harvest season it is expected that about 90.50 million quintals are to be produced.

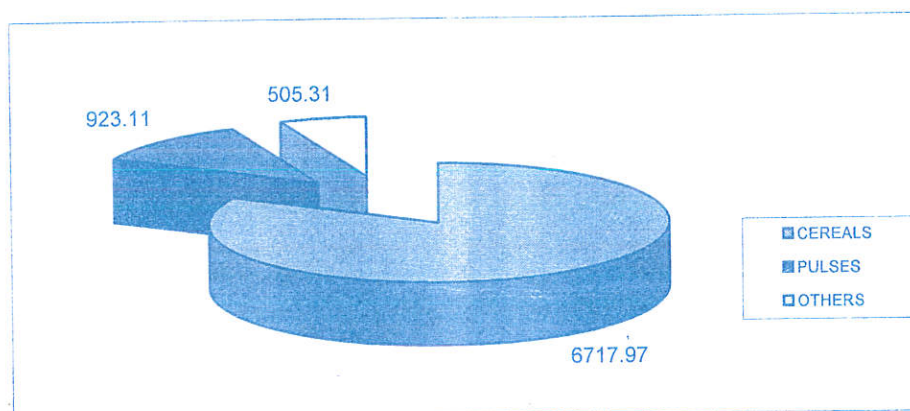
Table B Area and Forecast of Expected Production of Major Crops for Private Peasant Holdings in Ethiopia, 2001/02 (1994 E.C)

| Crop Type | Area | | Production | | Yield Qt/ha |
|------------------|-------------------|---------------|-------------------|---------------|----------------|
| | In million ha. | % | In million qt. | % | |
| Cereals | 6.72 | 82.45 | 83.03 | 91.75 | 12.36 |
| Pulses | 0.92 | 11.29 | 7.13 | 7.87 | 7.75 |
| Others | 0.51 | 6.26 | 0.34 | 0.38 | 0.67 |
| All Crops | 8.15 | 100.00 | 90.50 | 100.00 | |

Out of the total cultivated land area under major crops, the highest area, which is about 6.72 million hectares (82.45%) is under cereals with an expected production of about 83.03 million quintals (91.75 %)

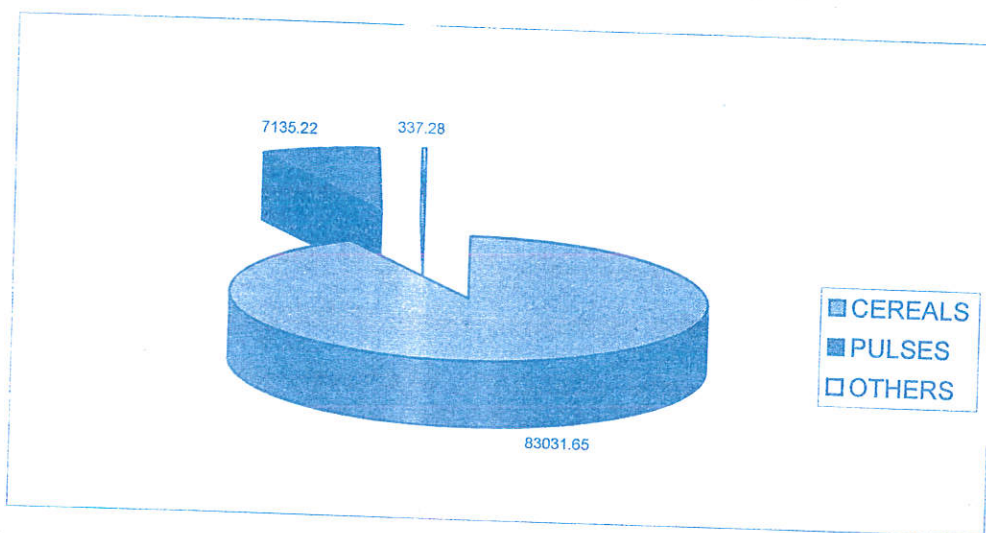
The area under cereal crops indicated has a mean yield of 12.36 qts/ha. This is followed by pulses, with an area of about 0.92 million hectares (11.29 %) and with a production of about 7.13 million quintals (7.87%) with a mean yield of 7.75 qts/ha., and by other crops (mainly oilseeds) with 0.51 million hectares (6.26 %) and with a production of about 0.34 million quintals (0.38 %), with a mean yield of 0.67 qts/ha. (For details see the Table B).

F.g . 1 Forecasted area under major crops of private peasant holdings in Ethiopia, Meher Season (2001/02) (in '000' ha.)



Moreover, comparison with that of last year's main season estimates of total area, crop production and yield of major crops per hectare with this year's crop area, expected production and yield of major crops are presented in Table 1. As it can be seen from the table the total cultivated area and expected production of major crops of the coming main season harvest have decreased by about 13.75 % and 14.75 %, respectively, when compared with last year's estimates at country level.

F.g.2 Forecast of production of Major crops for private holdings in Ethiopia, Meher Season (2001/02) (in '000' Qts.)



As indicated in the same table the highest decrease in this year's crop area is reported for sunflower which is about 82.13 % followed by vetch with a decrease of 69.96 % and then by rape seed with a decrease of 49.86 %. On the other hand, increase of crop area is reported for sesame and ground nuts which is 179 % and 62.44%, respectively.

Like that of this year crop area, the expected production and yield of major crops in the coming main season harvest have also decreased when compared with that of last year's estimates. The decrease in the expected production ranges from 98.89 % for fenugreek to 11.39 % for sorghum, while the decrease in the expected yield ranges from 98.37 % for fenugreek to 1.13% for chickpeas .

3.2. Statistical Estimation

It is important for data users to note that the objective of a probability sample survey is to make inferences about the true population value based on a sample drawn from that population. Statistical estimation can be presented into two forms: point estimates and interval estimates. For point estimates, where

one value is computed on the real number scale derived from a sample of data elements, e.g. x_1, x_2, \dots, x_n , such that it is used to estimate the true population value of x . Thus, point estimator is directly dependent on the individual values of the data which will vary with multiple samples. Hence, the estimates in this report are point estimates of their respective true population values, which would differ on the real number scale depending on the composition of the data elements for each subsequent survey sample. To alleviate the problem of not knowing the true population value, statisticians use the second form of estimation, called interval estimation, where two points are used to define an interval on the real number scale, which should contain the true population value. Based on sample survey data, this interval is constructed such that given a certain specified level of probability, the resulting confidence interval has a specific chance to contain the true population value. Moreover, it is important to note that every sample will have its own unique confidence interval which also has a specific probability of containing the true population value.

The interval estimates for cereals, pulses and other crops (mainly, oil seeds) on the results obtained from the sampled households in the selected EAs in the 2001/02 (1994 E.C) Crop Production Forecast Sample Survey are presented in Table C. The confidence intervals are based on probability such that, unless due to chance alone, the true population values would be expected to be contained within a 95% confidence interval.

In Appendix II, Standard Error (SE) and the Coefficient of Variation (CV) for the area and crop production forecast estimates are presented. These estimates of the SE for production must be used with caution since they contain an unknown measure of forecast error.

Table C Interval Estimates for Area and production of Major Crops for Private Peasant Holdings in Ethiopia, 2001/02 (1994 E.C.)

| Crop Type | Area | | Production | |
|------------------|-------------|-----------------------------------|-------------|---|
| | CV | 95 % Confidence interval for area | CV | 95 % Confidence interval for Production |
| | % | Hectares | % | Quintals |
| Cereals | 3.68 | 6232.99-7202.95 | 4.54 | 75642.50-90420.80 |
| Pulses | 4.13 | 848.43-997.79 | 4.87 | 6453.53-7816.90 |
| Others | 10.12 | 405.07-605.56 | 12.06 | 257.53-417.03 |
| All Crops | 3.48 | 7590.62-8702.17 | 4.27 | 82931.87-98076.42 |

Finally, users of this report should be aware that the information on what is called condition factors were collected in the month's of September 2001 (Meskerem 1994 E.C). Therefore, the results should be used with great caution in light of the favorable or adverse conditions of weather and other factors which may affect the crop after the crop production forecast survey data was collected. The effect of these subsequent changes in crop conditions are not reflected in this report.

Note:-

1. *If in some tables figures do not add up to total it is due to rounding.*
2. *Those forecasts designated by "*" in all tables could not be reported because of high coefficient of variation (i.e. they are less reliable). However they are consolidated in the total estimates.*
3. *In all tables "-" indicates not reported and "0.00" indicates the value is insignificant.*

Table 1. Forecast of 2001/02 and Estimate of 2000/01 Area, Production and YIELD of major crops for peasant holdings in Ethiopia (Meher Season)

| CROP TYPE | TOTAL AREA IN '000 HA | | | TOTAL PROD. IN '000 QTS | | | YIELD | | |
|---------------|-----------------------|---------------------|--------------|-------------------------|---------------------|--------------|-----------------------|---------------------|--------------|
| | Estimates of 2000/01 | Forecast of 2001/02 | % age Change | Estimate's of 2000/01 | Forecast of 2001/02 | % age Change | Estimate's of 2000/01 | Forecast of 2001/02 | % age Change |
| CEREALS | 7636.65 | 6717.97 | -12.03 | 92960.34 | 83031.65 | -10.68 | 12.17 | 12.36 | 1.53 |
| Teff | 2182.53 | 1980.58 | -9.25 | 17369.24 | 17729.74 | 2.08 | 7.96 | 8.95 | 12.48 |
| Barley | 874.01 | 672.92 | -23.01 | 9454.25 | 7289.08 | -22.90 | 10.82 | 10.83 | 0.14 |
| Wheat | 1139.72 | 939.55 | -17.56 | 15711.69 | 12169.7 | -22.54 | 13.79 | 12.95 | -6.04 |
| Maize | 1719.73 | 1388.89 | -19.24 | 31384.53 | 23738.92 | -24.36 | 18.25 | 17.09 | -6.34 |
| Sorghum | 1332.89 | 1367.27 | 2.58 | 15382.81 | 18048.63 | 17.33 | 11.54 | 13.20 | 14.38 |
| Millet | 346.78 | 342.12 | -1.34 | 3161.66 | 3769.29 | 19.22 | 9.12 | 11.02 | 20.84 |
| Oats | 40.98 | 26.63 | -35.02 | 496.16 | 286.29 | -42.30 | 12.11 | 10.75 | -11.21 |
| PULSES | 1233.94 | 923.11 | -25.19 | 10736.14 | 7135.22 | -33.54 | 8.70 | 7.73 | -11.16 |
| Horse Beans | 426.24 | 395.44 | -7.23 | 4528.41 | 3845.46 | -15.08 | 10.62 | 9.72 | -8.47 |
| Field Peas | 204.76 | 178.53 | -12.81 | 1413.65 | 801.41 | -43.31 | 6.90 | 4.49 | -34.98 |
| Haricot Beans | 186.76 | 126.26 | -32.39 | 1489.64 | 794.27 | -46.68 | 7.98 | 6.29 | -21.13 |
| Chick Peas | 211.91 | 126.85 | -40.14 | 1757.34 | 1132.68 | -35.55 | 8.29 | 8.93 | 7.67 |
| Lentils | 90.21 | 60.01 | -33.48 | 552.91 | 319.11 | -42.29 | 6.13 | 5.32 | -13.24 |
| Vetch | 114.06 | 36.02 | -68.42 | 994.19 | 242.29 | -75.63 | 8.72 | 6.73 | -22.83 |
| OTHERS | 574.89 | 505.31 | -12.10 | 2463.37 | 337.28 | -86.31 | 4.28 | 0.67 | -84.42 |
| Neug | 335.66 | 229.21 | -31.71 | 1189.88 | 44.54 | -96.26 | 3.54 | 0.19 | -94.52 |
| Line seed | 130.52 | 104.22 | -20.15 | 640.52 | 176.77 | -72.40 | 4.91 | 1.70 | -65.44 |
| Rapeseed | 24.99 | 13.8 | -44.78 | 147.36 | 75.84 | -48.53 | 5.90 | 5.50 | -6.80 |
| Ground Nuts | 17.2 | 27.94 | 62.44 | 152.1 | ** | ** | 8.84 | ** | ** |
| Sunflower | 10.63 | 2.04 | -80.81 | 64.66 | 2.37 | -96.33 | 6.08 | 1.16 | -80.90 |
| Sesame | 42.37 | 118.34 | 179.30 | 188.78 | 35.69 | -81.09 | 4.46 | 0.30 | -93.23 |
| Fenugreek | 13.52 | 9.76 | -27.81 | 80.08 | 2.07 | -97.42 | 5.92 | 0.21 | -96.42 |
| ALLCROPS | 9445.48 | 8146.4 | -13.75 | 106159.85 | 90501 | -14.75 | | | |

Fig 3. 2000/01 Estimates and 2001/02 Forecasted area under major Crops For privateholdings on Ethiopia by Region (Meher Season)

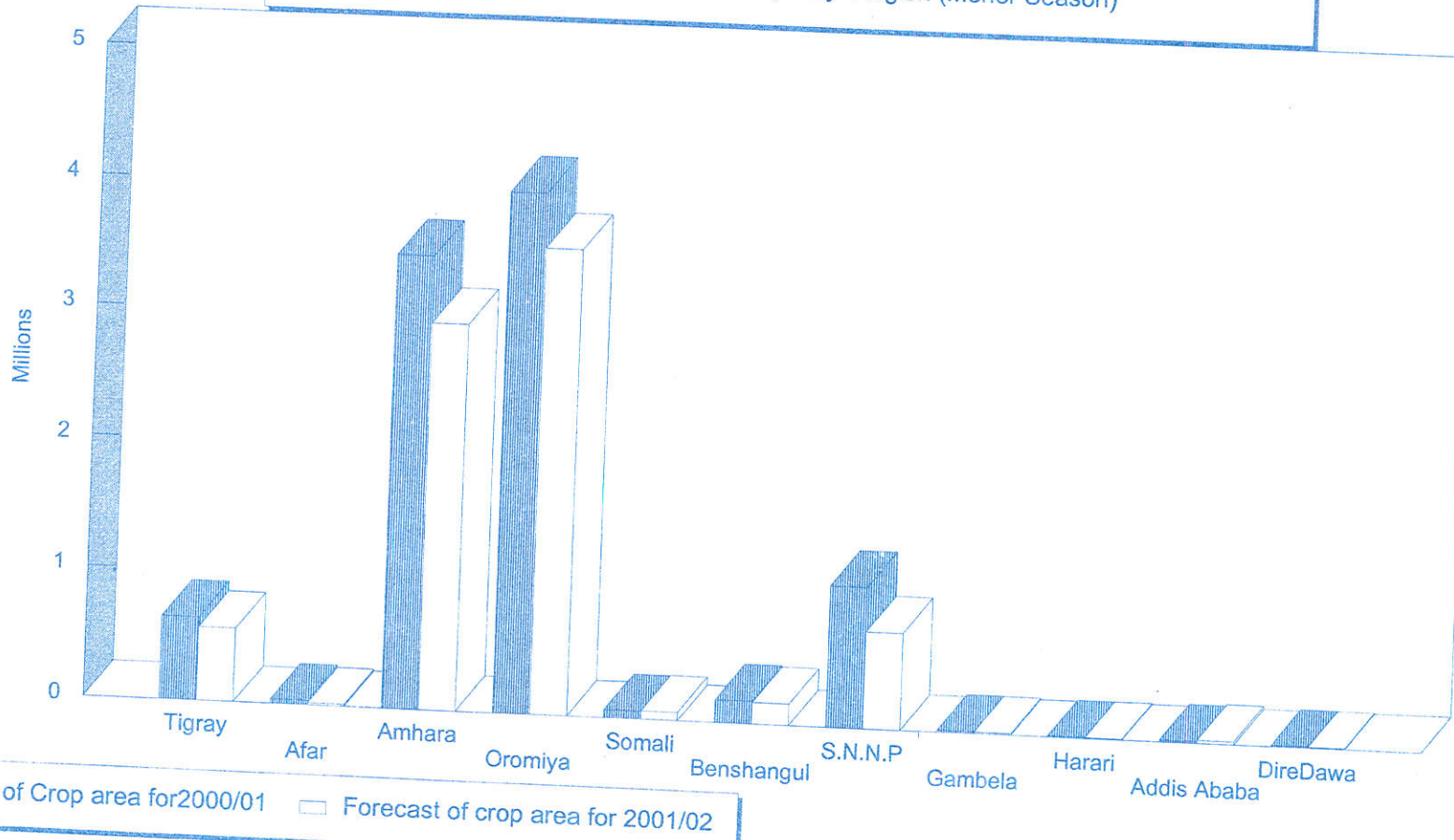


Table 2. Forecast of 2001/02 and Estimate of 2000/01 Area, Production and YIELD
of major crops for peasant holdings in Ethiopia
By Region (Meher Season)

| Region | TOTAL AREA IN '000 HA | | | TOTAL PROD. IN '000 QTS | | | YIELD | | |
|-------------|--------------------------|------------------------|-----------------|--------------------------|------------------------|-----------------|--------------------------|------------------------|-----------------|
| | Estimate's of 2000/01 | Forecast of 2001/02 | % age Change | Estimate's of 2000/01 | Forecast of 2001/02 | % age Change | Estimate's of 2000/01 | Forecast of 2001/02 | % age Change |
| Tigray | 634.69 | 560.89 | -11.63 | 6232.29 | 5665.84 | -9.09 | 9.82 | 10.10 | 2.87 |
| Afar | 29.27 | 11.62 | -60.30 | 74.43 | 221.44 | 197.51 | 2.54 | 19.06 | 649.42 |
| Amhara | 3459.37 | 2941.32 | -14.98 | 33038.45 | 29588.48 | -10.44 | 9.55 | 10.06 | 5.33 |
| Oromiya | 3975.56 | 3551.51 | -10.67 | 51265.76 | 42862.95 | -16.39 | 12.90 | 12.07 | -6.41 |
| Somali | 59.73 | 62.49 | 4.62 | 452.74 | 512.33 | 13.16 | 7.58 | 8.20 | 8.16 |
| Benshangul | 172.42 | 162.87 | -5.54 | 1761.2 | 2121.83 | 20.48 | 10.21 | 13.03 | 27.54 |
| S.N.N.P | 1072.81 | 736.35 | -31.36 | 12749.12 | 8735.81 | -31.48 | 11.88 | 11.86 | -0.17 |
| Gambela | 14.24 | 10.49 | -26.33 | 306.26 | 321.99 | 5.14 | 21.51 | 30.69 | 42.72 |
| Harari | 7.68 | 6.64 | -13.54 | 57.77 | 77.85 | 34.76 | 7.52 | 11.72 | 55.87 |
| Addis Ababa | 11.68 | 21.42 | 83.39 | 147.87 | 296.06 | 100.22 | 12.66 | 13.82 | 9.17 |
| DireDawa | 8.02 | 6.26 | -21.95 | 73.96 | 99.57 | 34.63 | 9.22 | 15.91 | 72.48 |
| All Regions | 9445.48 | 8146.4 | -13.75 | 106159.85 | 90504.15 | -14.75 | | | |

Fig 4. Forecast of 2001/02 and Estimates of 2000/01 Production of Major Crops
 For privateholdings in Ethiopia, By Region

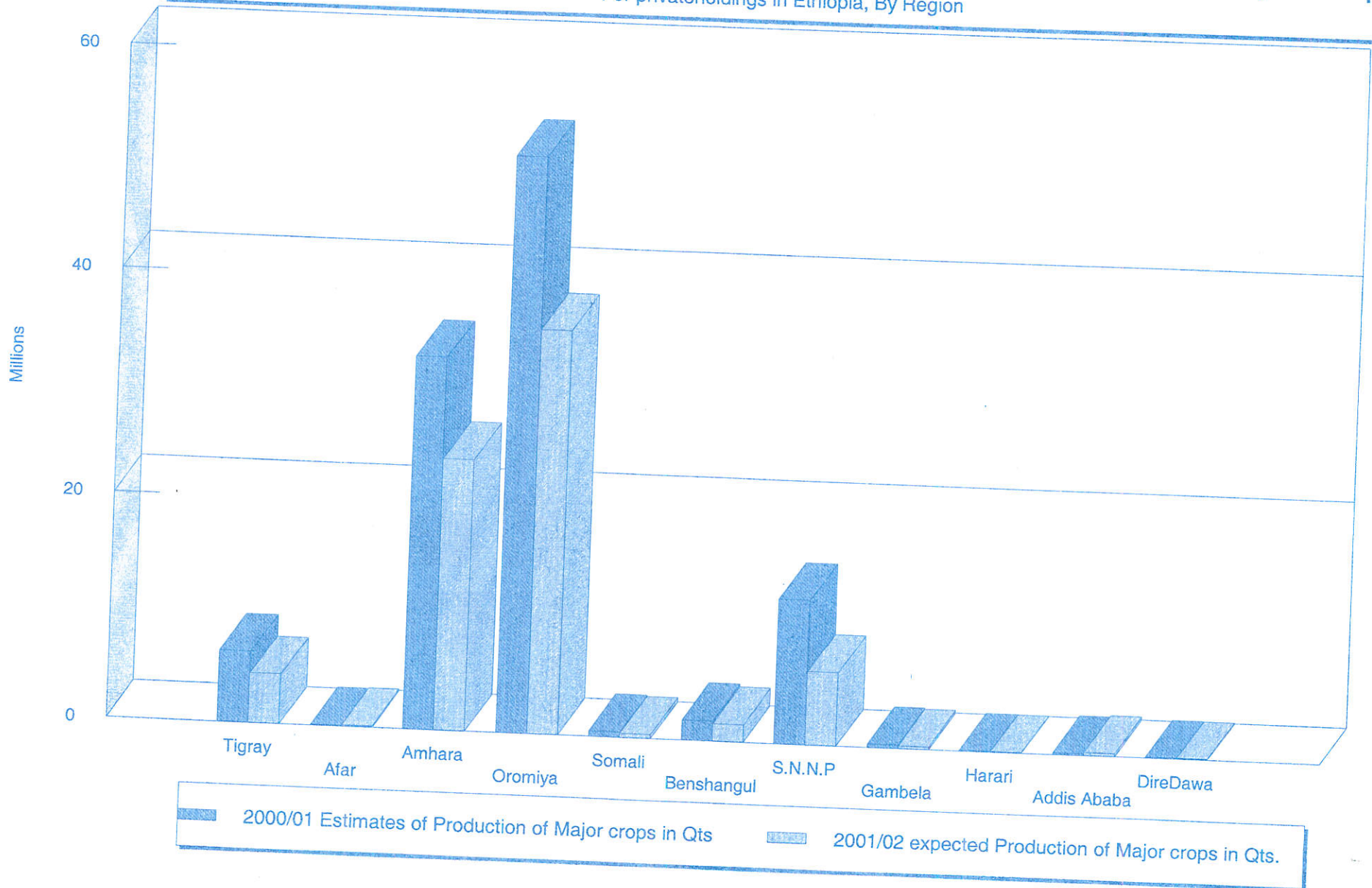


Table 3. Forecast of Area, Production and Yield of Major Crops for Private Peasant Holdings 2001/2002(1994 E.C.)

National

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|---------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 6,717.97 | 82.47 | 83,031.65 | 91.74 | 12.36 |
| Teff | 1,980.58 | 24.31 | 17,729.74 | 19.59 | 8.95 |
| Barley | 672.92 | 8.26 | 7,289.08 | 8.05 | 10.83 |
| Wheat | 939.55 | 11.53 | 12,169.70 | 13.45 | 12.95 |
| Maize | 1,388.89 | 17.05 | 23,738.92 | 26.23 | 17.09 |
| Sorghum | 1,367.27 | 16.78 | 18,048.63 | 19.94 | 13.20 |
| Millet | 342.12 | 4.20 | 3,769.29 | 4.16 | 11.02 |
| Oats | 26.63 | .33 | 286.29 | .32 | 10.75 |
| Pulses | 923.11 | 11.33 | 7,135.22 | 7.88 | 7.73 |
| Horse Beans | 395.44 | 4.85 | 3,845.46 | 4.25 | 9.72 |
| Field Peas | 178.53 | 2.19 | 801.41 | .89 | 4.49 |
| Haricot Beans | 126.26 | 1.55 | 794.27 | .88 | 6.29 |
| Chick Peas | 126.85 | 1.56 | 1,132.68 | 1.25 | 8.93 |
| Lentils | 60.01 | .74 | 319.11 | .35 | 5.32 |
| Vetch | 36.02 | .44 | 242.29 | .27 | 6.73 |
| Others | 505.31 | 6.20 | 337.28 | .37 | .67 |
| Neug | 229.21 | 2.81 | 44.54 | .05 | .19 |
| Linseed | 104.22 | 1.28 | 176.77 | .20 | 1.70 |
| Rapeseed | 13.80 | .17 | 75.84 | .08 | 5.50 |
| Ground Nuts | 27.94 | .34 | * | * | * |
| Sunflower | 2.04 | .03 | 2.37 | * | 1.16 |
| Sesame | 118.34 | 1.45 | 35.69 | .04 | .30 |
| Fenugreek | 9.76 | .12 | * | * | * |
| All Crops | 8,146.40 | 100.00 | 90,504.15 | 100.00 | |

* These estimates could not be reported in this table because of high coefficient of variation (i.e. they are less reliable). However they are consolidated in the total estimate.

Fig 5. Forecast of 2001/02 and Estimates of 2000/01 Area and production of major crops by type for private holdings in Ethiopia,(MHERE SEASON)

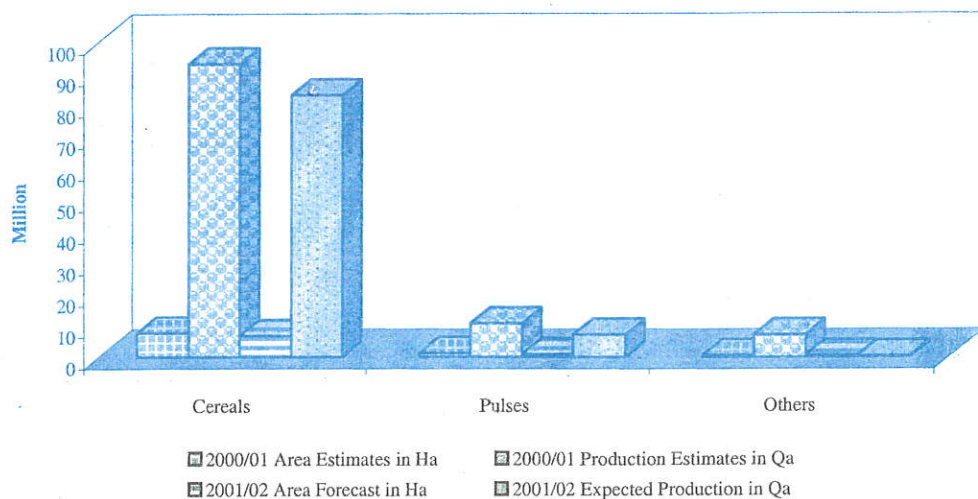


Fig 6. 2001/02 Forecast of yield for cereals, pulses and other crops for private holdings in Ethiopia By region (Meher Season)

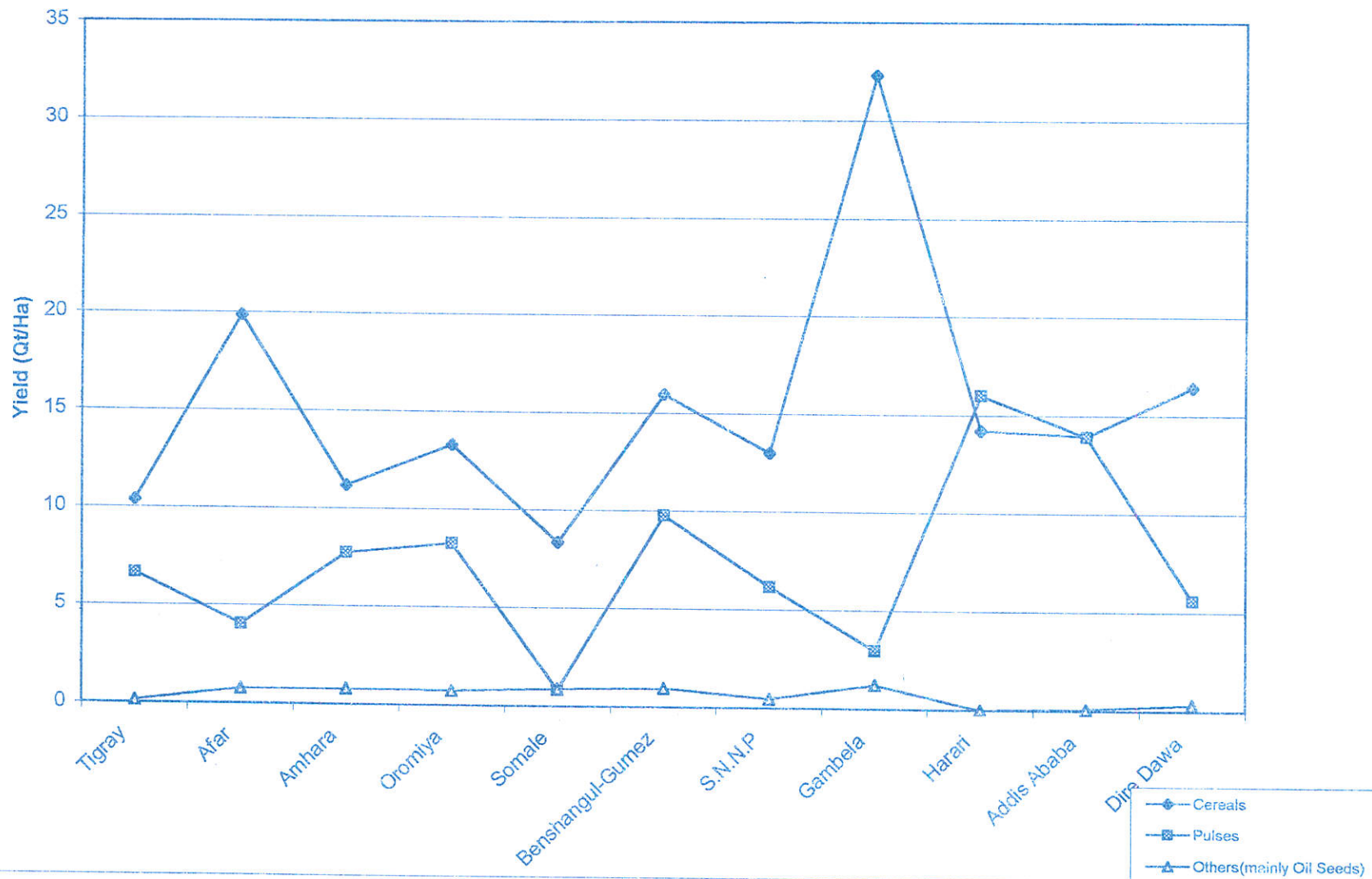


Table 4. Forecast of Area, Production and Yield of Major Crops .
for Private Peasant Holdings 2001/2002(1994 E.C.)

Tigray

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 513.08 | 80.75 | 5,329.10 | 94.06 | 10.39 |
| Teff | 143.80 | 22.63 | 1,125.11 | 19.86 | 7.82 |
| Barley | 59.35 | 9.34 | 550.61 | 9.72 | 9.28 |
| Wheat | 70.29 | 11.06 | 687.32 | 12.13 | 9.78 |
| Maize | 56.99 | 8.97 | 768.23 | 13.56 | 13.48 |
| Sorghum | 134.81 | 21.22 | 1,656.78 | 29.24 | 12.29 |
| Millet | 47.71 | 7.51 | 540.75 | 9.54 | 11.33 |
| Oats | * | * | * | * | * |
| Pulses | 49.38 | 7.77 | 327.08 | 5.77 | 6.62 |
| Horse Beans | 22.45 | 3.53 | 176.57 | 3.12 | 7.87 |
| Field Peas | 3.81 | .60 | 19.85 | .35 | 5.21 |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | 9.38 | 1.48 | 55.49 | .98 | 5.92 |
| Lentils | 2.93 | .46 | 12.49 | .22 | 4.26 |
| Vetch | 5.85 | .92 | 46.84 | .83 | 8.01 |
| Others | * | * | 9.66 | .17 | * |
| Neug | 6.42 | 1.01 | - | - | - |
| Linseed | 3.90 | .61 | 9.10 | .16 | 2.33 |
| Rapeseed | * | * | * | * | * |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | * | * | * | * | * |
| Fenugreek | .68 | .11 | - | - | - |
| All Crops | 635.43 | 100.00 | 5,665.84 | 100.00 | |

Table 4.1 West Tigray Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 153.89 | 67.59 | 1,732.96 | 97.53 | 11.26 |
| Teff | 26.82 | 11.78 | 236.76 | 13.32 | 8.83 |
| Barley | * | * | * | * | * |
| Wheat | * | * | * | * | * |
| Maize | 24.59 | 10.80 | 434.45 | 24.45 | 17.67 |
| Sorghum | 68.04 | 29.89 | 621.78 | 34.99 | 9.14 |
| Millet | 33.22 | 14.59 | 427.47 | 24.06 | 12.87 |
| Oats | - | - | * | * | - |
| Pulses | 6.56 | 2.88 | 41.02 | 2.31 | 6.25 |
| Horse Beans | 1.97 | .87 | 19.13 | 1.08 | 9.71 |
| Field Peas | * | * | * | * | * |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | 3.67 | 1.61 | 15.81 | .89 | 4.31 |
| Lentils | - | - | - | - | - |
| Vetch | * | * | * | * | * |
| Others | * | * | 2.83 | .16 | * |
| Neug | 4.93 | 2.17 | - | - | - |
| Linseed | .66 | .29 | 2.27 | .13 | 3.44 |
| Rapeseed | * | * | * | * | * |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | * | * | * | * | * |
| Fenugreek | * | * | - | - | - |
| All Crops | 227.67 | 100.00 | 1,776.82 | 100.00 | |

Table 4.2 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)
Central Tigray Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 179.01 | 87.36 | 1,401.35 | 92.26 | 7.83 |
| Teff | 63.39 | 30.94 | 366.87 | 24.15 | 5.79 |
| Barley | 24.35 | 11.88 | 194.15 | 12.78 | 7.97 |
| Wheat | 23.32 | 11.38 | 181.18 | 11.93 | 7.77 |
| Maize | 22.21 | 10.84 | 217.28 | 14.31 | 9.78 |
| Sorghum | 34.77 | 16.97 | 361.88 | 23.83 | 10.41 |
| Millet | 10.98 | 5.36 | 79.99 | 5.27 | 7.29 |
| Oats | - | - | - | - | - |
| Pulses | 22.43 | 10.95 | 112.98 | 7.44 | 5.04 |
| Horse Beans | 13.49 | 6.58 | 67.01 | 4.41 | 4.97 |
| Field Peas | .93 | .45 | 4.44 | .29 | 4.77 |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | 2.45 | 1.20 | 12.62 | .83 | 5.15 |
| Lentils | 1.16 | .57 | 3.47 | .23 | 2.99 |
| Vetch | 2.95 | 1.44 | 23.99 | 1.58 | 8.13 |
| Others | 3.45 | 1.68 | 4.53 | .30 | 1.31 |
| Neug | 1.47 | .72 | - | - | - |
| Linseed | 1.53 | .75 | 4.53 | .30 | 2.96 |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | .45 | .22 | - | - | - |
| All Crops | 204.90 | 100.00 | 1,518.87 | 100.00 | |

Table 4.3 East Tigray Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 47.31 | 87.59 | 633.85 | 89.29 | 13.40 |
| Teff | 6.39 | 11.83 | 111.87 | 15.76 | 17.51 |
| Barley | 17.60 | 32.59 | 226.66 | 31.93 | 12.88 |
| Wheat | 15.59 | 28.87 | 200.15 | 28.19 | 12.84 |
| Maize | 3.55 | 6.57 | 49.98 | 7.04 | 14.08 |
| Sorghum | 1.71 | 3.17 | 19.45 | 2.74 | 11.37 |
| Millet | 2.48 | 4.59 | 25.75 | 3.63 | 10.38 |
| Oats | - | - | - | - | - |
| Pulses | 6.22 | 11.52 | 75.33 | 10.61 | 12.11 |
| Horse Beans | 2.06 | 3.81 | 36.36 | 5.12 | 17.65 |
| Field Peas | 1.03 | 1.91 | 9.50 | 1.34 | 9.22 |
| Haricot Beans | - | - | - | - | - |
| Chick Peas | .97 | 1.80 | 7.35 | 1.04 | 7.58 |
| Lentils | * | * | * | * | * |
| Vetch | * | * | * | * | * |
| Others | .48 | .89 | * | * | * |
| Neug | - | - | - | - | - |
| Linseed | .46 | .85 | * | * | * |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | * | * | - | - | - |
| All Crops | 54.01 | 100.00 | 709.88 | 100.00 | |

Table 4.4 Forecast of Area, Production and Yield of Major Crops for Private Peasant Holdings 2001/2002(1994 E.C.)

South Tigray Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|---------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 135.54 | 89.45 | 1,685.41 | 94.43 | 12.43 |
| Teff | 47.21 | 31.16 | 409.61 | 22.95 | 8.68 |
| Barley | 16.79 | 11.08 | 122.56 | 6.87 | 7.30 |
| Wheat | 30.79 | 20.32 | 300.85 | 16.86 | 9.77 |
| Maize | 9.28 | 6.12 | 190.99 | 10.70 | 20.58 |
| Sorghum | 30.30 | 20.00 | 653.67 | 36.63 | 21.57 |
| Millet | * | * | * | * | * |
| Oats | * | * | * | * | * |
| Pulses | 14.17 | 9.35 | 97.75 | 5.48 | 6.90 |
| Horse Beans | 4.94 | 3.26 | 54.07 | 3.03 | 10.95 |
| Field Peas | 1.74 | 1.15 | * | * | * |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | 2.29 | 1.51 | 19.71 | 1.10 | 8.61 |
| Lentils | 1.36 | .90 | 5.44 | .30 | 4.00 |
| Vetch | * | * | * | * | * |
| Others | 1.81 | 1.19 | * | * | * |
| Neug | * | * | - | - | - |
| Linseed | 1.25 | .82 | * | * | * |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | * | * | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | 151.52 | 100.00 | 1,784.76 | 100.00 | |

Table 5. Forecast of Area, Production and Yield of Major Crops for Private Peasant Holdings 2001/2002(1994 E.C.)

Afar

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|---------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 11.08 | 95.35 | 220.05 | 99.37 | 19.86 |
| Teff | 2.18 | 18.76 | 16.44 | 7.42 | 7.54 |
| Barley | * | * | * | * | * |
| Wheat | * | * | * | * | * |
| Maize | 4.25 | 36.57 | 164.99 | 74.51 | 38.82 |
| Sorghum | 4.42 | 38.04 | 37.39 | 16.88 | 8.46 |
| Millet | - | - | - | - | - |
| Oats | - | - | - | - | - |
| Pulses | .30 | 2.58 | 1.21 | .55 | 4.03 |
| Horse Beans | - | - | - | - | - |
| Field Peas | - | - | - | - | - |
| Haricot Beans | .11 | .95 | * | * | * |
| Chick Peas | .18 | 1.55 | .89 | .40 | 4.94 |
| Lentils | * | * | - | - | - |
| Vetch | - | - | - | - | - |
| Others | .24 | 2.07 | * | * | * |
| Neug | - | - | - | - | - |
| Linseed | - | - | - | - | - |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | * | * | - | - | - |
| Sunflower | * | * | * | * | * |
| Sesame | * | * | * | * | * |
| Fenugreek | - | - | - | - | - |
| All Crops | 11.62 | 100.00 | 221.44 | 100.00 | |

Table 5.1 Zone 1 Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|---------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 2.67 | 100.00 | 124.47 | 100.00 | 46.62 |
| Teff | - | - | - | - | - |
| Barley | - | - | - | - | - |
| Wheat | - | - | - | - | - |
| Maize | 2.63 | 98.50 | 124.47 | 100.00 | 47.33 |
| Sorghum | * | * | - | - | - |
| Millet | - | - | - | - | - |
| Oats | - | - | - | - | - |
| Pulses | - | - | - | - | - |
| Horse Beans | - | - | - | - | - |
| Field Peas | - | - | - | - | - |
| Haricot Beans | - | - | - | - | - |
| Chick Peas | - | - | - | - | - |
| Lentils | - | - | - | - | - |
| Vetch | - | - | - | - | - |
| Others | - | - | - | - | - |
| Neug | - | - | - | - | - |
| Linseed | - | - | - | - | - |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | 2.67 | 100.00 | 124.47 | 100.00 | |

Table 5.2 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)

Zone 3 Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 8.40 | 93.85 | 95.58 | 98.57 | 11.38 |
| Teff | 2.18 | 24.36 | 16.44 | 16.95 | 7.54 |
| Barley | * | * | * | * | * |
| Wheat | * | * | * | * | * |
| Maize | 1.61 | 17.99 | 40.52 | 41.79 | 25.17 |
| Sorghum | 4.38 | 48.94 | 37.39 | 38.56 | 8.54 |
| Millet | - | - | - | - | - |
| Oats | - | - | - | - | - |
| Pulses | .30 | 3.35 | 1.21 | 1.25 | 4.03 |
| Horse Beans | - | - | - | - | - |
| Field Peas | - | - | - | - | - |
| Haricot Beans | .11 | 1.23 | * | * | * |
| Chick Peas | .18 | 2.01 | .89 | .92 | 4.94 |
| Lentils | * | * | - | - | - |
| Vetch | - | - | - | - | - |
| Others | .24 | 2.68 | * | * | * |
| Neug | - | - | - | - | - |
| Linseed | - | - | - | - | - |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | * | * | - | - | - |
| Sunflower | * | * | * | * | * |
| Sesame | * | * | * | * | * |
| Fenugreek | - | - | - | - | - |
| All Crops | 8.95 | 100.00 | 96.97 | 100.00 | |

Table 6. Forecast of Area, Production and Yield of Major Crops for Private Peasant Holdings 2001/2002(1994 E.C.)

Amhara

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|---------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 2,357.38 | 80.15 | 26,351.83 | 89.06 | 11.18 |
| Teff | 848.35 | 28.84 | 7,741.11 | 26.16 | 9.12 |
| Barley | 207.86 | 7.07 | 1,774.21 | 6.00 | 8.54 |
| Wheat | 234.22 | 7.96 | 2,426.79 | 8.20 | 10.36 |
| Maize | 334.19 | 11.36 | 5,293.90 | 17.89 | 15.84 |
| Sorghum | 499.34 | 16.98 | 6,545.65 | 22.12 | 13.11 |
| Millet | 224.83 | 7.64 | 2,498.58 | 8.44 | 11.11 |
| Oats | 8.60 | .29 | 71.59 | .24 | 8.32 |
| Pulses | 400.16 | 13.60 | 3,092.43 | 10.45 | 7.73 |
| Horse Beans | 176.76 | 6.01 | 1,823.71 | 6.16 | 10.32 |
| Field Peas | 73.89 | 2.51 | 357.40 | 1.21 | 4.84 |
| Haricot Beans | 31.13 | 1.06 | 140.96 | .48 | 4.53 |
| Chick Peas | 53.65 | 1.82 | 418.82 | 1.42 | 7.81 |
| Lentils | 44.56 | 1.51 | 232.50 | .79 | 5.22 |
| Vetch | 20.16 | .69 | 119.03 | .40 | 5.90 |
| Others | 183.78 | 6.25 | 144.22 | .49 | .78 |
| Neug | 111.12 | 3.78 | * | * | * |
| Linseed | 23.96 | .81 | 47.13 | .16 | 1.97 |
| Rapeseed | 8.05 | .27 | 57.13 | .19 | 7.10 |
| Ground Nuts | * | * | - | - | - |
| Sunflower | 1.77 | .06 | - | - | - |
| Sesame | * | * | 2.04 | .01 | 1.15 |
| Fenugreek | 5.48 | .19 | 16.60 | .06 | * |
| All Crops | 2,941.32 | 100.00 | 29,588.48 | 100.00 | * |

Table 6.1 North Gonder Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|---------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 396.91 | 78.38 | 3,775.60 | 92.40 | 9.51 |
| Teff | 104.54 | 20.64 | 713.80 | 17.47 | 6.83 |
| Barley | 39.44 | 7.79 | 297.84 | 7.29 | 7.55 |
| Wheat | 18.12 | 3.58 | 105.23 | 2.58 | 5.81 |
| Maize | 41.34 | 8.16 | 432.77 | 10.59 | 10.47 |
| Sorghum | 148.66 | 29.36 | 1,787.53 | 43.74 | 12.02 |
| Millet | 40.61 | 8.02 | 421.53 | 10.32 | 10.38 |
| Oats | * | * | * | * | * |
| Pulses | 52.12 | 10.29 | 305.31 | 7.47 | 5.86 |
| Horse Beans | 18.73 | 3.70 | 140.13 | 3.43 | 7.48 |
| Field Peas | 10.70 | 2.11 | 35.48 | .87 | 3.32 |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | 9.71 | 1.92 | 90.63 | 2.22 | 9.33 |
| Lentils | * | * | * | * | * |
| Vetch | * | * | * | * | * |
| Others | 57.35 | 11.33 | 5.39 | .13 | .09 |
| Neug | 25.63 | 5.06 | - | - | - |
| Linseed | 2.44 | .48 | 4.18 | .10 | 1.71 |
| Rapeseed | * | * | * | * | * |
| Ground Nuts | - | - | - | - | - |
| Sunflower | * | * | - | - | - |
| Sesame | * | * | - | - | - |
| Fenugreek | * | * | - | - | - |
| All Crops | 506.39 | 100.00 | 4,086.30 | 100.00 | - |

Table 6.2 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)
South Gonder Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 231.14 | 73.51 | 1,747.71 | 80.51 | 7.56 |
| Teff | 106.28 | 33.80 | 805.15 | 37.09 | 7.58 |
| Barley | 36.23 | 11.52 | 250.02 | 11.52 | 6.90 |
| Wheat | 23.12 | 7.35 | 168.93 | 7.78 | 7.31 |
| Maize | 28.66 | 9.11 | 254.82 | 11.74 | 8.89 |
| Sorghum | 16.75 | 5.33 | 85.80 | 3.95 | 5.12 |
| Millet | 20.10 | 6.39 | 183.00 | 8.43 | 9.10 |
| Oats | - | - | - | - | - |
| Pulses | 62.91 | 20.01 | 405.04 | 18.66 | 6.44 |
| Horse Beans | 27.78 | 8.83 | 254.58 | 11.73 | 9.16 |
| Field Peas | 10.62 | 3.38 | 39.52 | 1.82 | 3.72 |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | 10.86 | 3.45 | 71.86 | 3.31 | 6.62 |
| Lentils | 6.37 | 2.03 | 11.04 | .51 | 1.73 |
| Vetch | * | * | * | * | * |
| Others | 20.39 | 6.48 | 18.10 | .83 | .89 |
| Neug | 14.03 | 4.46 | - | - | - |
| Linseed | 5.07 | 1.61 | 13.41 | .62 | 2.64 |
| Rapeseed | .92 | .29 | * | * | * |
| Ground Nuts | - | - | - | - | - |
| Sunflower | * | * | - | - | - |
| Sesame | * | * | - | - | - |
| Fenugreek | * | * | - | - | - |
| All Crops | 314.44 | 100.00 | 2,170.85 | 100.00 | |

Table 6.3 North Wolo Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 169.91 | 77.59 | 2,168.93 | 84.02 | 12.77 |
| Teff | 58.02 | 26.50 | 604.56 | 23.42 | 10.42 |
| Barley | 33.81 | 15.44 | 363.96 | 14.10 | 10.76 |
| Wheat | 20.68 | 9.44 | 243.19 | 9.42 | 11.76 |
| Maize | * | * | * | * | * |
| Sorghum | 39.42 | 18.00 | 645.53 | 25.01 | 16.38 |
| Millet | 1.20 | .55 | 12.48 | .48 | 10.40 |
| Oats | * | * | * | * | * |
| Pulses | 41.89 | 19.13 | 405.98 | 15.73 | 9.69 |
| Horse Beans | 8.09 | 3.69 | 118.09 | 4.57 | 14.60 |
| Field Peas | 10.01 | 4.57 | 73.24 | 2.84 | 7.32 |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | 9.44 | 4.31 | 90.53 | 3.51 | 9.59 |
| Lentils | 9.30 | 4.25 | 74.01 | 2.87 | 7.96 |
| Vetch | * | * | * | * | * |
| Others | 7.18 | 3.28 | * | * | * |
| Neug | * | * | - | - | - |
| Linseed | 4.58 | 2.09 | * | * | * |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | * | * | - | - | - |
| Sunflower | * | * | - | - | - |
| Sesame | * | * | - | - | - |
| Fenugreek | * | * | * | * | * |
| All Crops | 218.98 | 100.00 | 2,581.52 | 100.00 | |

Table 6.4 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)
South Wolo Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 188.48 | 78.29 | 1,807.65 | 82.06 | 9.59 |
| Teff | 65.54 | 27.22 | 629.19 | 28.56 | 9.60 |
| Barley | 17.12 | 7.11 | 154.63 | 7.02 | 9.03 |
| Wheat | 39.73 | 16.50 | 405.87 | 18.42 | 10.22 |
| Maize | 10.82 | 4.49 | 112.97 | 5.13 | 10.44 |
| Sorghum | 52.04 | 21.62 | 474.56 | 21.54 | 9.12 |
| Millet | * | * | * | * | * |
| Oats | 2.96 | 1.23 | 28.36 | 1.29 | 9.58 |
| Pulses | 45.80 | 19.02 | 388.26 | 17.63 | 8.48 |
| Horse Beans | 21.01 | 8.73 | 233.90 | 10.62 | 11.13 |
| Field Peas | 7.32 | 3.04 | 28.10 | 1.28 | 3.84 |
| Haricot Beans | 2.71 | 1.13 | 13.71 | .62 | 5.06 |
| Chick Peas | 5.67 | 2.36 | 54.91 | 2.49 | 9.68 |
| Lentils | 6.38 | 2.65 | 33.37 | 1.51 | 5.23 |
| Vetch | 2.71 | 1.13 | 24.27 | 1.10 | 8.96 |
| Others | 6.48 | 2.69 | * | * | * |
| Neug | * | * | - | - | - |
| Linseed | 2.41 | 1.00 | * | * | * |
| Rapeseed | * | * | * | * | * |
| Ground Nuts | - | - | - | - | - |
| Sunflower | * | * | * | * | * |
| Sesame | * | * | * | * | * |
| Fenugreek | 1.71 | .71 | - | - | - |
| All Crops | 240.75 | 100.00 | 2,202.85 | 100.00 | |

Table 6.5 North Shewa-Amhara Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 278.30 | 80.43 | 2,517.30 | 83.43 | 9.05 |
| Teff | 79.23 | 22.90 | 700.11 | 23.20 | 8.84 |
| Barley | 27.13 | 7.84 | 202.05 | 6.70 | 7.45 |
| Wheat | 52.74 | 15.24 | 341.12 | 11.31 | 6.47 |
| Maize | 7.13 | 2.06 | 55.48 | 1.84 | 7.78 |
| Sorghum | 111.58 | 32.25 | 1,213.43 | 40.22 | 10.87 |
| Millet | * | * | * | * | * |
| Oats | - | - | - | - | - |
| Pulses | 58.43 | 16.89 | 491.42 | 16.29 | 8.41 |
| Horse Beans | 30.84 | 8.91 | 342.28 | 11.34 | 11.10 |
| Field Peas | 8.72 | 2.52 | 43.71 | 1.45 | 5.01 |
| Haricot Beans | 2.23 | .64 | 5.43 | .18 | 2.43 |
| Chick Peas | 9.87 | 2.85 | 65.65 | 2.18 | 6.65 |
| Lentils | 5.57 | 1.61 | 30.00 | .99 | 5.39 |
| Vetch | * | * | * | * | * |
| Others | 9.28 | 2.68 | * | * | * |
| Neug | * | * | - | - | - |
| Linseed | 5.07 | 1.47 | * | * | * |
| Rapeseed | * | * | - | - | - |
| Ground Nuts | - | - | - | - | - |
| Sunflower | * | * | - | - | - |
| Sesame | 1.62 | .47 | * | * | * |
| Fenugreek | * | * | * | * | * |
| All Crops | 346.01 | 100.00 | 3,017.22 | 100.00 | |

Table 6.6. Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)
East Gojam Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 506.74 | 81.72 | 6,632.23 | 92.56 | 13.09 |
| Teff | 258.28 | 41.65 | 2,750.11 | 38.38 | 10.65 |
| Barley | 28.46 | 4.59 | 304.42 | 4.25 | 10.70 |
| Wheat | 53.76 | 8.67 | 836.26 | 11.67 | 15.56 |
| Maize | * | * | 1,078.60 | 15.05 | * |
| Sorghum | * | * | * | * | * |
| Millet | * | * | * | * | * |
| Oats | - | - | - | - | - |
| Pulses | 83.06 | 13.40 | 516.37 | 7.21 | 6.22 |
| Horse Beans | 35.74 | 5.76 | 279.98 | 3.91 | 7.83 |
| Field Peas | 13.75 | 2.22 | 61.06 | .85 | 4.44 |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | 6.40 | 1.03 | * | * | * |
| Lentils | * | * | * | * | * |
| Vetch | 8.63 | 1.39 | * | * | * |
| Others | 30.28 | 4.88 | * | * | * |
| Neug | 27.39 | 4.42 | - | - | - |
| Linseed | * | * | * | * | * |
| Rapeseed | * | * | 7.52 | .10 | * |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | * | * | - | - | - |
| Fenugreek | * | * | - | - | - |
| All Crops | 620.08 | 100.00 | 7,165.07 | 100.00 | |

Table 6.7 West Gojam Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 357.78 | 85.57 | 4,905.58 | 91.26 | 13.71 |
| Teff | 102.34 | 24.48 | 904.54 | 16.83 | 8.84 |
| Barley | 12.34 | 2.95 | 84.16 | 1.57 | 6.82 |
| Wheat | 15.68 | 3.75 | * | * | * |
| Maize | 97.99 | 23.44 | 2,135.38 | 39.73 | 21.79 |
| Sorghum | * | * | * | * | * |
| Millet | * | * | * | * | * |
| Oats | - | - | - | - | - |
| Pulses | 34.60 | 8.27 | 431.40 | 8.03 | 12.47 |
| Horse Beans | 24.68 | 5.90 | 374.81 | 6.97 | 15.19 |
| Field Peas | 8.55 | 2.04 | 43.18 | .80 | 5.05 |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | - | - | - | - | - |
| Lentils | - | - | - | - | - |
| Vetch | * | * | * | * | * |
| Others | 25.75 | 6.16 | 38.28 | .71 | 1.49 |
| Neug | 19.63 | 4.69 | - | - | - |
| Linseed | 1.56 | .37 | 5.70 | .11 | 3.65 |
| Rapeseed | 4.56 | 1.09 | 32.58 | .61 | 7.14 |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | 418.13 | 100.00 | 5,375.27 | 100.00 | |

Table 6.8 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)
Waghamera Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 54.04 | 79.52 | 379.64 | 80.59 | 7.03 |
| Teff | 20.14 | 29.64 | 140.77 | 29.88 | 6.99 |
| Barley | 8.40 | 12.36 | 63.88 | 13.56 | 7.60 |
| Wheat | 5.96 | 8.77 | 42.58 | 9.04 | 7.14 |
| Maize | 1.10 | 1.62 | 5.41 | 1.15 | 4.92 |
| Sorghum | 18.11 | 26.65 | 124.29 | 26.38 | 6.86 |
| Millet | .32 | .47 | * | * | * |
| Oats | - | - | - | - | - |
| Pulses | 12.80 | 18.83 | 88.72 | 18.83 | 6.93 |
| Horse Beans | 6.19 | 9.11 | 51.10 | 10.85 | 8.26 |
| Field Peas | 1.43 | 2.10 | 12.48 | 2.65 | 8.73 |
| Haricot Beans | 1.76 | 2.59 | 4.97 | 1.06 | 2.82 |
| Chick Peas | 1.14 | 1.68 | 7.22 | 1.53 | 6.33 |
| Lentils | 2.28 | 3.35 | 12.95 | 2.75 | 5.68 |
| Vetch | - | - | - | - | - |
| Others | 1.13 | 1.66 | 2.70 | .57 | 2.39 |
| Neug | * | * | - | - | - |
| Linseed | .46 | .68 | 1.91 | .41 | 4.15 |
| Rapeseed | * | * | * | * | * |
| Ground Nuts | - | - | - | - | - |
| Sunflower | .24 | .35 | * | * | * |
| Sesame | .26 | .38 | * | * | * |
| Fenugreek | * | * | - | - | - |
| All Crops | 67.96 | 100.00 | 471.07 | 100.00 | |

Table 6.9 Agwi Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 129.25 | 80.60 | 1,716.78 | 95.46 | 13.28 |
| Teff | 44.19 | 27.56 | 404.89 | 22.51 | 9.16 |
| Barley | 4.51 | 2.81 | 47.74 | 2.65 | 10.59 |
| Wheat | 4.38 | 2.73 | 56.55 | 3.14 | 12.91 |
| Maize | 34.24 | 21.35 | 790.09 | 43.93 | 23.08 |
| Sorghum | * | * | * | * | * |
| Millet | 33.88 | 21.13 | 344.78 | 19.17 | 10.18 |
| Oats | - | - | - | - | - |
| Pulses | 7.18 | 4.48 | 49.33 | 2.74 | 6.87 |
| Horse Beans | 3.60 | 2.25 | 28.78 | 1.60 | 7.99 |
| Field Peas | 2.67 | 1.67 | 19.97 | 1.11 | 7.48 |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | * | * | * | * | * |
| Lentils | - | - | - | - | - |
| Vetch | - | - | - | - | - |
| Others | 23.92 | 14.92 | 32.32 | 1.80 | 1.35 |
| Neug | 21.81 | 13.60 | * | * | * |
| Linseed | .87 | .54 | * | * | * |
| Rapeseed | .92 | .57 | 10.22 | .57 | 11.11 |
| Ground Nuts | * | * | - | - | - |
| Sunflower | * | * | - | - | - |
| Sesame | * | * | - | - | - |
| Fenugreek | * | * | - | - | - |
| All Crops | 160.35 | 100.00 | 1,798.43 | 100.00 | |

Table 6.10 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)
Oromia -Amhara Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 44.83 | 92.93 | 700.41 | 97.29 | 15.62 |
| Teff | 9.81 | 20.34 | 87.99 | 12.22 | 8.97 |
| Barley | .42 | .87 | 5.49 | .76 | 13.07 |
| Wheat | * | * | * | * | * |
| Maize | 9.53 | 19.76 | 155.39 | 21.58 | 16.31 |
| Sorghum | 24.94 | 51.70 | 449.86 | 62.49 | 18.04 |
| Millet | * | * | * | * | * |
| Oats | * | * | * | * | * |
| Pulses | 1.39 | 2.88 | 10.58 | 1.47 | 7.61 |
| Horse Beans | * | * | * | * | * |
| Field Peas | * | * | * | * | * |
| Haricot Beans | .65 | 1.35 | 5.61 | .78 | 8.63 |
| Chick Peas | .50 | 1.04 | 4.16 | .58 | 8.32 |
| Lentils | * | * | * | * | * |
| Vetch | * | * | * | * | * |
| Others | 2.01 | 4.17 | * | * | * |
| Neug | .08 | .17 | - | - | - |
| Linseed | * | * | * | * | * |
| Rapeseed | * | * | * | * | * |
| Ground Nuts | - | - | - | - | - |
| Sunflower | .11 | .23 | * | * | * |
| Sesame | 1.77 | 3.67 | * | * | * |
| Fenugreek | - | - | - | - | - |
| All Crops | 48.24 | 100.00 | 719.90 | 100.00 | |

Table 7. Forecast of Area, Production and Yield of Major Crops for Private Peasant Holdings 2001/2002(1994 E.C.)
Oromia

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|---------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 2,993.97 | 84.30 | 39,853.29 | 92.98 | 13.31 |
| Teff | 818.96 | 23.06 | 7,384.00 | 17.23 | 9.02 |
| Barley | 324.84 | 9.15 | 4,113.64 | 9.60 | 12.66 |
| Wheat | 500.32 | 14.09 | 7,064.06 | 16.48 | 14.12 |
| Maize | 746.48 | 21.02 | 13,345.13 | 31.13 | 17.88 |
| Sorghum | 543.49 | 15.30 | 7,349.11 | 17.15 | 13.52 |
| Millet | 42.85 | 1.21 | 385.64 | .90 | 9.00 |
| Oats | 17.03 | .48 | 211.71 | .49 | 12.43 |
| Pulses | 346.18 | 9.75 | 2,855.77 | 6.66 | 8.25 |
| Horse Beans | 146.59 | 4.13 | 1,417.46 | 3.31 | 9.67 |
| Field Peas | 69.64 | 1.96 | 338.94 | .79 | 4.87 |
| Haricot Beans | 53.13 | 1.50 | 365.66 | .85 | 6.88 |
| Chick Peas | 57.46 | 1.62 | 606.22 | 1.41 | 10.55 |
| Lentils | 10.96 | .31 | 66.88 | .16 | 6.10 |
| Vetch | 8.40 | .24 | 60.60 | .14 | 7.21 |
| Others | 211.36 | 5.95 | 153.90 | .36 | .73 |
| Neug | 92.48 | 2.60 | * | * | * |
| Linseed | 74.98 | 2.11 | 118.51 | .28 | 1.58 |
| Rapeseed | 4.54 | .13 | 15.63 | .04 | 3.44 |
| Ground Nuts | 23.40 | .66 | - | - | - |
| Sunflower | * | * | - | - | - |
| Sesame | 12.76 | .36 | * | * | * |
| Fenugreek | 3.12 | .09 | * | * | * |
| All Crops | 3,551.51 | 100.00 | 42,862.95 | 100.00 | |

Table 7.1 Forecast of Area, Production and Yield of Major Crops for Private Peasant Holdings 2001/2002(1994 E.C.)
West Welega Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|---------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 175.19 | 88.61 | 2,310.38 | 96.83 | 13.19 |
| Teff | 37.45 | 18.94 | 178.52 | 7.48 | 4.77 |
| Barley | 1.40 | .71 | 9.84 | .41 | 7.03 |
| Wheat | 9.98 | 5.05 | * | * | * |
| Maize | 74.45 | 37.65 | 1,315.21 | 55.12 | 17.67 |
| Sorghum | 33.97 | 17.18 | 496.15 | 20.79 | 14.61 |
| Millet | 17.86 | 9.03 | 127.21 | 5.33 | 7.12 |
| Oats | * | * | * | * | * |
| Pulses | 15.67 | 7.93 | 72.70 | 3.05 | 4.64 |
| Horse Beans | 7.20 | 3.64 | 26.48 | 1.11 | 3.68 |
| Field Peas | 2.95 | 1.49 | 12.48 | .52 | 4.23 |
| Haricot Beans | 5.21 | 2.64 | 29.87 | 1.25 | 5.73 |
| Chick Peas | * | * | * | * | * |
| Lentils | * | * | * | * | * |
| Vetch | * | * | * | * | * |
| Others | 6.86 | 3.47 | 2.87 | .12 | .42 |
| Neug | 5.33 | 2.70 | - | - | - |
| Linseed | * | * | * | * | * |
| Rapeseed | 1.34 | .68 | 2.78 | .12 | 2.07 |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | * | * | - | - | - |
| All Crops | 197.72 | 100.00 | 2,385.95 | 100.00 | |

Table 7.2 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)
East Welega Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 236.03 | 74.94 | 3,209.56 | 95.05 | 13.60 |
| Teff | 85.51 | 27.15 | 743.73 | 22.03 | 8.70 |
| Barley | 14.05 | 4.46 | 156.47 | 4.63 | 11.14 |
| Wheat | 14.93 | 4.74 | 240.98 | 7.14 | 16.14 |
| Maize | 73.21 | 23.24 | 1,457.48 | 43.16 | 19.91 |
| Sorghum | 35.61 | 11.31 | 503.79 | 14.92 | 14.15 |
| Millet | 12.55 | 3.98 | 105.97 | 3.14 | 8.44 |
| Oats | * | * | * | * | * |
| Pulses | 16.17 | 5.13 | 136.64 | 4.05 | 8.45 |
| Horse Beans | 10.52 | 3.34 | 98.81 | 2.93 | 9.39 |
| Field Peas | 4.24 | 1.35 | 34.93 | 1.03 | 8.24 |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | - | - | - | - | - |
| Lentils | - | - | - | - | - |
| Vetch | - | - | - | - | - |
| Others | 62.74 | 19.92 | 30.53 | .90 | .49 |
| Neug | 46.54 | 14.78 | * | * | * |
| Linseed | 1.54 | .49 | * | * | * |
| Rapeseed | 1.00 | .32 | 6.71 | .20 | 6.71 |
| Ground Nuts | * | * | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | * | * | * | * | * |
| Fenugreek | * | * | - | - | - |
| All Crops | 314.95 | 100.00 | 3,376.73 | 100.00 | |

Table 7.3 Illibabor Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 177.25 | 87.65 | 2,392.69 | 94.70 | 13.50 |
| Teff | 55.39 | 27.39 | 478.58 | 18.94 | 8.64 |
| Barley | 2.12 | 1.05 | 19.83 | .78 | 9.35 |
| Wheat | 5.78 | 2.86 | * | * | * |
| Maize | 84.62 | 41.84 | 1,445.92 | 57.23 | 17.09 |
| Sorghum | 24.01 | 11.87 | 327.05 | 12.94 | 13.62 |
| Millet | 5.31 | 2.63 | 52.20 | 2.07 | 9.83 |
| Oats | * | * | - | - | - |
| Pulses | 22.49 | 11.12 | 131.58 | 5.21 | 5.85 |
| Horse Beans | 8.31 | 4.11 | 43.51 | 1.72 | 5.24 |
| Field Peas | 9.25 | 4.57 | 42.59 | 1.69 | 4.60 |
| Haricot Beans | 4.74 | 2.34 | 45.10 | 1.78 | 9.51 |
| Chick Peas | * | * | * | * | * |
| Lentils | - | - | - | - | - |
| Vetch | - | - | - | - | - |
| Others | 2.50 | 1.24 | 2.35 | .09 | .94 |
| Neug | 1.17 | .58 | - | - | - |
| Linseed | * | * | * | * | * |
| Rapeseed | .16 | .08 | * | * | * |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | * | * | * | * | * |
| Fenugreek | .10 | .05 | - | - | - |
| All Crops | 202.23 | 100.00 | 2,526.63 | 100.00 | |

Table 7.4 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)
Jimma Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 282.50 | 87.06 | 3,806.10 | 95.84 | 13.47 |
| Teff | 85.80 | 26.44 | 599.12 | 15.09 | 6.98 |
| Barley | 13.64 | 4.20 | 102.29 | 2.58 | 7.50 |
| Wheat | 28.35 | 8.74 | 294.06 | 7.40 | 10.37 |
| Maize | 109.83 | 33.85 | 2,265.09 | 57.03 | 20.62 |
| Sorghum | 39.43 | 12.15 | 457.68 | 11.52 | 11.61 |
| Millet | * | * | * | * | * |
| Oats | 1.03 | .32 | * | * | * |
| Pulses | 27.01 | 8.32 | 160.89 | 4.05 | 5.96 |
| Horse Beans | 15.18 | 4.68 | 116.43 | 2.93 | 7.67 |
| Field Peas | 9.75 | 3.00 | * | * | * |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | - | - | - | - | - |
| Lentils | * | * | * | * | * |
| Vetch | - | - | - | - | - |
| Others | 14.99 | 4.62 | * | * | * |
| Neug | 9.84 | 3.03 | - | - | - |
| Linseed | 3.21 | .99 | * | * | * |
| Rapeseed | * | * | * | * | * |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | * | * | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | 324.50 | 100.00 | 3,971.48 | 100.00 | |

Table 7.5 West Shewa Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 532.84 | 83.26 | 5,974.33 | 89.53 | 11.21 |
| Teff | 230.98 | 36.09 | 2,488.02 | 37.29 | 10.77 |
| Barley | 69.23 | 10.82 | 715.84 | 10.73 | 10.34 |
| Wheat | 63.59 | 9.94 | 759.65 | 11.38 | 11.95 |
| Maize | 63.42 | 9.91 | 706.28 | 10.58 | 11.14 |
| Sorghum | * | * | * | * | * |
| Millet | * | * | * | * | * |
| Oats | * | * | * | * | * |
| Pulses | 71.09 | 11.11 | 668.37 | 10.02 | 9.40 |
| Horse Beans | 21.63 | 3.38 | 255.14 | 3.82 | 11.80 |
| Field Peas | 8.39 | 1.31 | 39.82 | .60 | 4.75 |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | 33.32 | 5.21 | 335.00 | 5.02 | 10.05 |
| Lentils | 1.64 | .26 | 3.76 | .06 | 2.29 |
| Vetch | 4.43 | .69 | * | * | * |
| Others | 36.06 | 5.63 | * | * | * |
| Neug | 16.96 | 2.65 | * | * | * |
| Linseed | 17.76 | 2.78 | * | * | * |
| Rapeseed | .80 | .13 | 4.58 | .07 | 5.73 |
| Ground Nuts | * | * | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | * | * | - | - | - |
| All Crops | 639.99 | 100.00 | 6,672.74 | 100.00 | |

Table 7.6 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)
North Shewa-Oromia Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 219.26 | 80.26 | 1,869.37 | 80.87 | 8.53 |
| Teff | 75.49 | 27.63 | 602.12 | 26.05 | 7.98 |
| Barley | 56.22 | 20.58 | 474.66 | 20.53 | 8.44 |
| Wheat | 37.03 | 13.56 | 353.46 | 15.29 | 9.55 |
| Maize | 5.93 | 2.17 | 60.83 | 2.63 | 10.26 |
| Sorghum | 43.20 | 15.81 | 371.00 | 16.05 | 8.59 |
| Millet | - | - | - | - | - |
| Oats | 1.38 | .51 | 7.28 | .31 | 5.28 |
| Pulses | 43.61 | 15.96 | 440.84 | 19.07 | 10.11 |
| Horse Beans | 28.36 | 10.38 | 343.82 | 14.87 | 12.12 |
| Field Peas | 5.19 | 1.90 | 19.84 | .86 | 3.82 |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | 3.55 | 1.30 | * | * | * |
| Lentils | * | * | * | * | * |
| Vetch | 2.45 | .90 | 20.23 | .88 | 8.26 |
| Others | 10.31 | 3.77 | * | * | * |
| Neug | 5.47 | 2.00 | - | - | - |
| Linseed | 4.77 | 1.75 | * | * | * |
| Rapeseed | * | * | - | - | - |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | * | * | - | - | - |
| All Crops | 273.18 | 100.00 | 2,311.57 | 100.00 | |

Table 7.7 East Shewa Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 361.27 | 87.47 | 5,717.63 | 93.70 | 15.83 |
| Teff | 117.19 | 28.37 | 1,176.61 | 19.28 | 10.04 |
| Barley | 8.03 | 1.94 | 93.88 | 1.54 | 11.69 |
| Wheat | 63.82 | 15.45 | 882.04 | 14.45 | 13.82 |
| Maize | 147.01 | 35.59 | 3,149.90 | 51.62 | 21.43 |
| Sorghum | * | * | * | * | * |
| Millet | * | * | * | * | * |
| Oats | - | - | - | - | - |
| Pulses | 51.23 | 12.40 | 384.32 | 6.30 | 7.50 |
| Horse Beans | 7.85 | 1.90 | 78.57 | 1.29 | 10.01 |
| Field Peas | 6.52 | 1.58 | * | * | * |
| Haricot Beans | 13.74 | 3.33 | 29.13 | .48 | 2.12 |
| Chick Peas | 19.64 | 4.76 | 242.69 | 3.98 | 12.36 |
| Lentils | * | * | * | * | * |
| Vetch | 1.49 | .36 | * | * | * |
| Others | .53 | .13 | * | * | * |
| Neug | - | - | - | - | - |
| Linseed | * | * | - | - | - |
| Rapeseed | * | * | - | - | - |
| Ground Nuts | - | - | - | - | - |
| Sunflower | * | * | - | - | - |
| Sesame | * | * | * | * | * |
| Fenugreek | * | * | - | - | - |
| All Crops | 413.03 | 100.00 | 6,102.37 | 100.00 | |

Table 7.8 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)

Arsi Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 463.03 | 84.25 | 6,005.51 | 92.24 | 12.97 |
| Teff | 82.75 | 15.06 | 548.70 | 8.43 | 6.63 |
| Barley | 93.12 | 16.94 | 1,423.51 | 21.86 | 15.29 |
| Wheat | 189.15 | 34.42 | 2,879.84 | 44.23 | 15.23 |
| Maize | 67.86 | 12.35 | 864.73 | 13.28 | 12.74 |
| Sorghum | 24.29 | 4.42 | 211.62 | 3.25 | 8.71 |
| Millet | * | * | * | * | * |
| Oats | 5.77 | 1.05 | * | * | * |
| Pulses | 56.58 | 10.29 | 447.61 | 6.87 | 7.91 |
| Horse Beans | 35.91 | 6.53 | 336.67 | 5.17 | 9.38 |
| Field Peas | 13.64 | 2.48 | 93.18 | 1.43 | 6.83 |
| Haricot Beans | 6.27 | 1.14 | * | * | * |
| Chick Peas | - | - | - | - | - |
| Lentils | .77 | .14 | * | * | * |
| Vetch | - | - | - | - | - |
| Others | 30.00 | 5.46 | 57.73 | .89 | 1.92 |
| Neug | * | * | * | * | * |
| Linseed | 21.97 | 4.00 | 57.25 | .88 | 2.61 |
| Rapeseed | * | * | - | - | - |
| Ground Nuts | - | - | - | - | - |
| Sunflower | * | * | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | * | * | - | - | - |
| All Crops | 549.61 | 100.00 | 6,510.86 | 100.00 | |

Table 7.9 West Harerge Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 160.18 | 89.87 | 2,986.26 | 93.11 | 18.64 |
| Teff | 10.23 | 5.74 | 126.03 | 3.93 | 12.32 |
| Barley | 6.62 | 3.71 | 63.37 | 1.98 | 9.57 |
| Wheat | 4.52 | 2.54 | 23.58 | .74 | 5.22 |
| Maize | 44.14 | 24.76 | 789.20 | 24.61 | 17.88 |
| Sorghum | 92.14 | 51.69 | 1,964.29 | 61.25 | 21.32 |
| Millet | 1.87 | 1.05 | * | * | * |
| Oats | .66 | .37 | 5.13 | .16 | 7.77 |
| Pulses | 14.52 | 8.15 | 219.16 | 6.83 | 15.09 |
| Horse Beans | * | * | 43.20 | 1.35 | * |
| Field Peas | * | * | * | * | * |
| Haricot Beans | 9.97 | 5.59 | 166.93 | 5.20 | 16.74 |
| Chick Peas | * | * | * | * | * |
| Lentils | .89 | .50 | * | * | * |
| Vetch | * | * | * | * | * |
| Others | 3.55 | 1.99 | * | * | * |
| Neug | * | * | - | - | - |
| Linseed | .40 | .22 | * | * | * |
| Rapeseed | * | * | - | - | - |
| Ground Nuts | 1.77 | .99 | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | * | * | - | - | - |
| Fenugreek | .26 | .15 | * | * | * |
| All Crops | 178.24 | 100.00 | 3,207.23 | 100.00 | |

Table 7.10 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)
East Harerge Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 144.07 | 85.72 | 2,001.88 | 96.38 | 13.90 |
| Teff | * | * | * | * | * |
| Barley | * | * | * | * | * |
| Wheat | 10.14 | 6.03 | 124.14 | 5.98 | 12.24 |
| Maize | 33.35 | 19.84 | 554.30 | 26.69 | 16.62 |
| Sorghum | 96.83 | 57.61 | 1,268.89 | 61.09 | 13.10 |
| Millet | * | * | * | * | * |
| Oats | .41 | .24 | * | * | * |
| Pulses | 5.86 | 3.49 | 74.51 | 3.59 | 12.72 |
| Horse Beans | .80 | .48 | * | * | * |
| Field Peas | * | * | - | - | - |
| Haricot Beans | 4.68 | 2.78 | 63.51 | 3.06 | 13.57 |
| Chick Peas | * | * | * | * | * |
| Lentils | * | * | * | * | * |
| Vetch | - | - | - | - | - |
| Others | 18.15 | 10.80 | * | * | * |
| Neug | - | - | - | - | - |
| Linseed | * | * | - | - | - |
| Rapeseed | * | * | - | - | - |
| Ground Nuts | 17.36 | 10.33 | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | * | * | * | * | * |
| Fenugreek | * | * | - | - | - |
| All Crops | 168.08 | 100.00 | 2,077.12 | 100.00 | |

Table 7.11 Bale Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 176.73 | 82.35 | 2,660.37 | 95.52 | 15.05 |
| Teff | 34.38 | 16.02 | 399.70 | 14.35 | 11.63 |
| Barley | 33.46 | 15.59 | 585.04 | 21.01 | 17.48 |
| Wheat | 69.18 | 32.23 | 1,220.16 | 43.81 | 17.64 |
| Maize | 21.82 | 10.17 | 317.99 | 11.42 | 14.57 |
| Sorghum | 11.10 | 5.17 | * | * | * |
| Millet | - | - | - | - | - |
| Oats | 6.79 | 3.16 | 95.03 | 3.41 | 14.00 |
| Pulses | 12.33 | 5.75 | 103.64 | 3.72 | 8.41 |
| Horse Beans | 5.14 | 2.39 | 55.96 | 2.01 | 10.89 |
| Field Peas | 4.67 | 2.18 | 37.20 | 1.34 | 7.97 |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | * | * | * | * | * |
| Lentils | * | * | * | * | * |
| Vetch | - | - | - | - | - |
| Others | 25.57 | 11.91 | * | * | * |
| Neug | * | * | - | - | - |
| Linseed | 24.22 | 11.29 | * | * | * |
| Rapeseed | * | * | * | * | * |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | * | * | * | * | * |
| All Crops | 214.62 | 100.00 | 2,785.07 | 100.00 | |

Table 7.12 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)
Borena Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 65.62 | 87.08 | 919.21 | 98.29 | 14.01 |
| Teff | * | * | * | * | * |
| Barley | * | * | * | * | * |
| Wheat | 3.85 | 5.11 | 33.88 | 3.62 | 8.80 |
| Maize | 20.84 | 27.65 | 418.20 | 44.72 | 20.07 |
| Sorghum | * | * | - | - | - |
| Millet | - | - | - | - | - |
| Oats | - | - | - | - | - |
| Pulses | 9.63 | 12.78 | 15.51 | 1.66 | 1.61 |
| Horse Beans | * | * | * | * | * |
| Field Peas | * | * | * | * | * |
| Haricot Beans | 2.48 | 3.29 | * | * | * |
| Chick Peas | - | - | - | - | - |
| Lentils | - | - | - | - | - |
| Vetch | - | - | - | - | - |
| Others | * | * | * | * | * |
| Neug | - | - | - | - | - |
| Linseed | * | * | - | - | - |
| Rapeseed | * | * | - | - | - |
| Ground Nuts | - | - | * | * | * |
| Sunflower | * | * | - | - | - |
| Sesame | - | - | * | * | * |
| Fenugreek | - | - | - | - | - |
| All Crops | 75.36 | 100.00 | 935.21 | 100.00 | |

Table 8 Forecast of Area, Production and Yield of Major Crops for Private Peasant Holdings 2001/2002(1994 E.C.)

Somale

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|---------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 61.27 | 98.05 | 511.25 | 99.79 | 8.34 |
| Teff | * | * | * | * | * |
| Barley | 7.10 | 11.36 | 81.68 | 15.94 | 11.50 |
| Wheat | 12.32 | 19.72 | 64.11 | 12.51 | 5.20 |
| Maize | 21.10 | 33.77 | 214.62 | 41.89 | 10.17 |
| Sorghum | 20.26 | 32.42 | 149.92 | 29.26 | 7.40 |
| Millet | * | * | * | * | * |
| Oats | * | * | .44 | .09 | * |
| Pulses | .87 | 1.39 | * | * | * |
| Horse Beans | - | - | - | - | - |
| Field Peas | * | * | * | * | * |
| Haricot Beans | .45 | .72 | * | * | * |
| Chick Peas | * | * | * | * | * |
| Lentils | * | * | - | - | - |
| Vetch | - | - | - | - | - |
| Others | * | * | * | * | * |
| Neug | * | * | - | - | - |
| Linseed | * | * | * | * | * |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | * | * | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | * | * | - | - | - |
| All Crops | 62.49 | 100.00 | 512.33 | 100.00 | |

Table 8.1 Shinele Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|---------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | .73 | 100.00 | 5.83 | 100.00 | 7.99 |
| Teff | - | - | - | - | - |
| Barley | - | - | - | - | - |
| Wheat | - | - | - | - | - |
| Maize | .06 | 8.22 | 1.26 | 21.61 | 21.00 |
| Sorghum | .67 | 91.78 | 4.57 | 78.39 | 6.82 |
| Millet | - | - | - | - | - |
| Oats | - | - | - | - | - |
| Pulses | - | - | - | - | - |
| Horse Beans | - | - | - | - | - |
| Field Peas | - | - | - | - | - |
| Haricot Beans | - | - | - | - | - |
| Chick Peas | - | - | - | - | - |
| Lentils | - | - | - | - | - |
| Vetch | - | - | - | - | - |
| Others | - | - | - | - | - |
| Neug | - | - | - | - | - |
| Linseed | - | - | - | - | - |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | .73 | 100.00 | 5.83 | 100.00 | |

Table 8.2 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)
Jijiga Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 59.07 | 98.16 | 481.49 | 99.78 | 8.15 |
| Teff | * | * | * | * | * |
| Barley | 7.10 | 11.80 | 81.68 | 16.93 | 11.50 |
| Wheat | 12.32 | 20.47 | 64.11 | 13.29 | 5.20 |
| Maize | 19.60 | 32.57 | 189.44 | 39.26 | 9.67 |
| Sorghum | 19.56 | 32.50 | 145.33 | 30.12 | 7.43 |
| Millet | * | * | * | * | * |
| Oats | * | * | .44 | .09 | * |
| Pulses | .76 | 1.26 | * | * | * |
| Horse Beans | - | - | - | - | - |
| Field Peas | * | * | * | * | * |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | * | * | * | * | * |
| Lentils | * | * | * | * | * |
| Vetch | - | - | - | - | - |
| Others | * | * | * | * | * |
| Neug | * | * | - | - | - |
| Linseed | * | * | * | * | * |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | * | * | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | * | * | - | - | - |
| All Crops | 60.18 | 100.00 | 482.57 | 100.00 | |

Table 8.3 Liben Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|---|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 1.47 | 93.04 | * | * | * |
| Teff | - | - | - | - | - |
| Barley | - | - | - | - | - |
| Wheat | - | - | - | - | - |
| Maize | 1.43 | 90.51 | * | * | * |
| Sorghum | * | * | * | * | * |
| Millet | - | - | - | - | - |
| Oats | - | - | - | - | - |
| Pulses | * | * | - | - | - |
| Horse Beans | - | - | - | - | - |
| Field Peas | - | - | - | - | - |
| Haricot Beans | * | * | - | - | - |
| Chick Peas | - | - | - | - | - |
| Lentils | - | - | - | - | - |
| Vetch | - | - | - | - | - |
| Others | - | - | - | - | - |
| Neug | - | - | - | - | - |
| Linseed | - | - | - | - | - |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | 1.58 | 100.00 | * | * | |

Table 9 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)
Benshangul-Gumuz

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 123.12 | 75.59 | 1,961.18 | 92.43 | 15.93 |
| Teff | 10.04 | 6.16 | 73.88 | 3.48 | 7.36 |
| Barley | 1.36 | .84 | 14.48 | .68 | 10.65 |
| Wheat | * | * | * | * | * |
| Maize | 29.01 | 17.81 | 528.87 | 24.93 | 18.23 |
| Sorghum | 59.06 | 36.26 | 1,033.73 | 48.72 | 17.50 |
| Millet | 22.42 | 13.77 | 299.23 | 14.10 | 13.35 |
| Oats | * | * | * | * | * |
| Pulses | 13.95 | 8.57 | * | * | * |
| Horse Beans | .68 | .42 | 8.09 | .38 | 11.90 |
| Field Peas | 1.19 | .73 | * | * | * |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | * | * | * | * | * |
| Lentils | * | * | * | * | * |
| Vetch | * | * | * | * | * |
| Others | 25.79 | 15.83 | 24.49 | 1.15 | .95 |
| Neug | 13.13 | 8.06 | 19.89 | .94 | 1.51 |
| Linseed | .15 | .09 | * | * | * |
| Rapeseed | .17 | .10 | .35 | .02 | 2.06 |
| Ground Nuts | 2.92 | 1.79 | - | - | - |
| Sunflower | * | * | - | - | - |
| Sesame | 9.39 | 5.77 | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | 162.87 | 100.00 | 2,121.83 | 100.00 | |

Table 9.1 Metekel Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 68.41 | 74.92 | 1,093.07 | 90.44 | 15.98 |
| Teff | 6.97 | 7.63 | 60.29 | 4.99 | 8.65 |
| Barley | 1.30 | 1.42 | 14.47 | 1.20 | 11.13 |
| Wheat | * | * | * | * | * |
| Maize | 11.91 | 13.04 | 213.94 | 17.70 | 17.96 |
| Sorghum | 26.98 | 29.55 | 523.43 | 43.31 | 19.40 |
| Millet | 20.07 | 21.98 | 269.97 | 22.34 | 13.45 |
| Oats | * | * | * | * | * |
| Pulses | * | * | * | * | * |
| Horse Beans | .65 | .71 | 8.09 | .67 | 12.45 |
| Field Peas | 1.17 | 1.28 | * | * | * |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | * | * | * | * | * |
| Lentils | * | * | * | * | * |
| Vetch | - | - | - | - | - |
| Others | 12.58 | 13.78 | * | * | * |
| Neug | * | * | * | * | * |
| Linseed | * | * | * | * | * |
| Rapeseed | .13 | .14 | .34 | .03 | 2.62 |
| Ground Nuts | * | * | - | - | - |
| Sunflower | * | * | - | - | - |
| Sesame | 1.90 | 2.08 | * | * | * |
| Fenugreek | - | - | - | - | - |
| All Crops | 91.31 | 100.00 | 1,208.63 | 100.00 | |

Table 9.2 Forecast of Area, Production and Yield of Major Crops for Private Peasant Holdings 2001/2002(1994 E.C.)
Asosa Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|---------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 36.77 | 74.04 | 541.14 | 93.99 | 14.72 |
| Teff | 1.37 | 2.76 | 6.03 | 1.05 | 4.40 |
| Barley | * | * | - | - | - |
| Wheat | * | * | * | * | * |
| Maize | 10.84 | 21.83 | 186.06 | 32.32 | 17.16 |
| Sorghum | 23.91 | 48.15 | 344.83 | 59.89 | 14.42 |
| Millet | .54 | 1.09 | 4.22 | .73 | 7.81 |
| Oats | - | - | - | - | - |
| Pulses | 3.06 | 6.16 | 17.69 | 3.07 | 5.78 |
| Horse Beans | * | * | - | - | - |
| Field Peas | * | * | * | * | * |
| Haricot Beans | 2.58 | 5.20 | 16.13 | 2.80 | 6.25 |
| Chick Peas | * | * | * | * | * |
| Lentils | * | * | * | * | * |
| Vetch | * | * | * | * | * |
| Others | 9.84 | 19.81 | 16.92 | 2.94 | 1.72 |
| Neug | 4.70 | 9.46 | * | * | * |
| Linseed | * | * | * | * | * |
| Rapeseed | * | * | * | * | * |
| Ground Nuts | .47 | .95 | - | - | - |
| Sunflower | * | * | - | - | - |
| Sesame | 4.54 | 9.14 | * | * | * |
| Fenugreek | - | - | - | - | - |
| All Crops | 49.66 | 100.00 | 575.74 | 100.00 | - |

Table 9.3 Kemeshi Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|---------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 17.95 | 81.96 | 232.67 | 97.42 | 12.96 |
| Teff | 1.70 | 7.76 | * | * | * |
| Barley | - | - | - | - | - |
| Wheat | - | - | - | - | - |
| Maize | 6.26 | 28.58 | 93.24 | 39.04 | 14.89 |
| Sorghum | 8.17 | 37.31 | 112.30 | 47.02 | 13.75 |
| Millet | 1.82 | 8.31 | 20.34 | 8.52 | 11.18 |
| Oats | - | - | - | - | - |
| Pulses | .57 | 2.60 | 4.20 | 1.76 | 7.37 |
| Horse Beans | - | - | - | - | - |
| Field Peas | - | - | - | - | - |
| Haricot Beans | .54 | 2.47 | 4.18 | 1.75 | 7.74 |
| Chick Peas | * | * | * | * | * |
| Lentils | - | - | - | - | - |
| Vetch | - | - | - | - | - |
| Others | 3.38 | 15.43 | * | * | * |
| Neug | .42 | 1.92 | * | * | * |
| Linseed | * | * | - | - | - |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | .01 | .05 | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | 2.95 | 13.47 | * | * | * |
| Fenugreek | - | - | - | - | - |
| All Crops | 21.90 | 100.00 | 238.82 | 100.00 | - |

Table 10. Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)
(S.N.N.P.R)

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 619.67 | 84.15 | 8,070.28 | 92.38 | 13.02 |
| Teff | 148.69 | 20.19 | 1,289.82 | 14.76 | 8.67 |
| Barley | 72.24 | 9.81 | 752.72 | 8.62 | 10.42 |
| Wheat | 112.54 | 15.28 | 1,776.83 | 20.34 | 15.79 |
| Maize | 188.19 | 25.56 | 3,118.46 | 35.70 | 16.57 |
| Sorghum | 93.42 | 12.69 | 1,085.74 | 12.43 | 11.62 |
| Millet | 4.20 | .57 | 44.76 | .51 | 10.66 |
| Oats | .38 | .05 | 1.94 | .02 | 5.11 |
| Pulses | 107.63 | 14.62 | 661.47 | 7.57 | 6.15 |
| Horse Beans | 48.81 | 6.63 | 417.27 | 4.78 | 8.55 |
| Field Peas | 29.86 | 4.06 | 71.68 | .82 | 2.40 |
| Haricot Beans | 24.50 | 3.33 | 156.14 | 1.79 | 6.37 |
| Chick Peas | * | * | 12.29 | .14 | * |
| Lentils | .58 | .08 | 1.26 | .01 | 2.17 |
| Vetch | * | * | * | * | * |
| Others | 9.04 | 1.23 | 4.06 | .05 | .45 |
| Neug | * | * | - | - | - |
| Linseed | .98 | .13 | 1.39 | .02 | 1.42 |
| Rapeseed | 1.01 | .14 | * | * | * |
| Ground Nuts | .26 | .04 | - | - | - |
| Sunflower | .14 | .02 | * | * | * |
| Sesame | .43 | .06 | - | - | - |
| Fenugreek | .17 | .02 | - | - | - |
| All Crops | 736.35 | 100.00 | 8,735.81 | 100.00 | |

Table 10.1 Gurage Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 142.33 | 87.75 | 1,834.60 | 96.74 | 12.89 |
| Teff | 43.65 | 26.91 | 357.27 | 18.84 | 8.18 |
| Barley | 18.18 | 11.21 | 201.76 | 10.64 | 11.10 |
| Wheat | 34.07 | 21.00 | 521.48 | 27.50 | 15.31 |
| Maize | 33.99 | 20.96 | 629.69 | 33.20 | 18.53 |
| Sorghum | 12.20 | 7.52 | 122.83 | 6.48 | 10.07 |
| Millet | * | * | * | * | * |
| Oats | * | * | * | * | * |
| Pulses | 13.11 | 8.08 | 60.10 | 3.17 | 4.58 |
| Horse Beans | 4.89 | 3.01 | 29.16 | 1.54 | 5.96 |
| Field Peas | 3.46 | 2.13 | * | * | * |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | * | * | * | * | * |
| Lentils | * | * | - | - | - |
| Vetch | * | * | * | * | * |
| Others | * | * | * | * | * |
| Neug | * | * | - | - | - |
| Linseed | * | * | * | * | * |
| Rapeseed | * | * | * | * | * |
| Ground Nuts | - | - | - | - | - |
| Sunflower | * | * | - | - | - |
| Sesame | * | * | - | - | - |
| Fenugreek | * | * | - | - | - |
| All Crops | 162.20 | 100.00 | 1,896.39 | 100.00 | |

Table 10.2 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)
Hadiya Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 79.97 | 88.47 | 1,348.72 | 92.44 | 16.87 |
| Teff | 17.95 | 19.86 | 197.43 | 13.53 | 11.00 |
| Barley | 5.01 | 5.54 | 82.37 | 5.65 | 16.44 |
| Wheat | 32.65 | 36.12 | 736.67 | 50.49 | 22.56 |
| Maize | 18.96 | 20.98 | 272.69 | 18.69 | 14.38 |
| Sorghum | 5.16 | 5.71 | 57.95 | 3.97 | 11.23 |
| Millet | * | * | * | * | * |
| Oats | - | - | - | - | - |
| Pulses | 9.97 | 11.03 | 109.89 | 7.53 | 11.02 |
| Horse Beans | 7.01 | 7.76 | 95.03 | 6.51 | 13.56 |
| Field Peas | 1.41 | 1.56 | * | * | * |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | * | * | * | * | * |
| Lentils | * | * | * | * | * |
| Vetch | - | - | - | - | - |
| Others | .45 | .50 | * | * | * |
| Neug | - | - | - | - | - |
| Linseed | * | * | * | * | * |
| Rapeseed | .22 | .24 | * | * | * |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | * | * | - | - | - |
| All Crops | 90.39 | 100.00 | 1,459.07 | 100.00 | |

Table 10.3 Kembata Alaba Tembaro Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 47.01 | 88.56 | 827.51 | 94.42 | 17.60 |
| Teff | 9.85 | 18.56 | 91.96 | 10.49 | 9.34 |
| Barley | 1.26 | 2.37 | 15.30 | 1.75 | 12.14 |
| Wheat | 12.03 | 22.66 | 214.70 | 24.50 | 17.85 |
| Maize | 16.90 | 31.84 | 390.07 | 44.51 | 23.08 |
| Sorghum | 5.34 | 10.06 | 82.43 | 9.41 | 15.44 |
| Millet | 1.63 | 3.07 | 33.04 | 3.77 | 20.27 |
| Oats | * | * | - | - | - |
| Pulses | 5.94 | 11.19 | 47.85 | 5.46 | 8.06 |
| Horse Beans | 3.33 | 6.27 | 29.07 | 3.32 | 8.73 |
| Field Peas | .62 | 1.17 | 1.81 | .21 | 2.92 |
| Haricot Beans | 1.93 | 3.64 | 16.97 | 1.94 | 8.79 |
| Chick Peas | * | * | - | - | - |
| Lentils | * | * | - | - | - |
| Vetch | - | - | - | - | - |
| Others | .13 | .24 | * | * | * |
| Neug | - | - | - | - | - |
| Linseed | * | * | - | - | - |
| Rapeseed | .07 | .13 | * | * | * |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | * | * | - | - | - |
| All Crops | 53.08 | 100.00 | 876.42 | 100.00 | |

Table 10.4 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)
Sidama Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 44.05 | 88.33 | 405.27 | 92.13 | 9.20 |
| Teff | 2.19 | 4.39 | * | * | * |
| Barley | 9.79 | 19.63 | 107.14 | 24.36 | 10.94 |
| Wheat | 7.28 | 14.60 | 49.13 | 11.17 | 6.75 |
| Maize | 23.64 | 47.40 | 222.31 | 50.54 | 9.40 |
| Sorghum | 1.11 | 2.23 | 8.64 | 1.96 | 7.78 |
| Millet | - | - | - | - | - |
| Oats | * | * | - | - | - |
| Pulses | 5.50 | 11.03 | 34.64 | 7.87 | 6.30 |
| Horse Beans | 2.58 | 5.17 | * | * | * |
| Field Peas | * | * | - | - | - |
| Haricot Beans | 2.54 | 5.09 | * | * | * |
| Chick Peas | - | - | - | - | - |
| Lentils | - | - | - | - | - |
| Vetch | - | - | - | - | - |
| Others | * | * | - | - | - |
| Neug | - | - | - | - | - |
| Linseed | * | * | - | - | - |
| Rapeseed | * | * | - | - | - |
| Ground Nuts | * | * | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | 49.87 | 100.00 | 439.90 | 100.00 | |

Table 10.5 Gedio Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 7.88 | 74.34 | 121.01 | 90.52 | 15.36 |
| Teff | * | * | * | * | * |
| Barley | 2.96 | 27.92 | 38.89 | 29.09 | 13.14 |
| Wheat | * | * | * | * | * |
| Maize | 3.79 | 35.75 | 65.03 | 48.64 | 17.16 |
| Sorghum | * | * | * | * | * |
| Millet | - | - | - | - | - |
| Oats | - | - | - | - | - |
| Pulses | 2.68 | 25.28 | 12.68 | 9.48 | 4.73 |
| Horse Beans | 1.34 | 12.64 | 11.71 | 8.76 | 8.74 |
| Field Peas | 1.21 | 11.42 | * | * | * |
| Haricot Beans | .12 | 1.13 | * | * | * |
| Chick Peas | - | - | - | - | - |
| Lentils | - | - | - | - | - |
| Vetch | - | - | - | - | - |
| Others | .04 | .38 | - | - | - |
| Neug | - | - | - | - | - |
| Linseed | - | - | - | - | - |
| Rapeseed | .04 | .38 | - | - | - |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | 10.60 | 100.00 | 133.69 | 100.00 | |

Table 10.6 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)
Wolayita Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 49.79 | 85.95 | 598.57 | 96.37 | 12.02 |
| Teff | 14.70 | 25.38 | 77.27 | 12.44 | 5.26 |
| Barley | * | * | * | * | * |
| Wheat | 1.94 | 3.35 | 12.03 | 1.94 | 6.20 |
| Maize | 24.95 | 43.07 | 438.76 | 70.64 | 17.59 |
| Sorghum | 2.92 | 5.04 | 31.34 | 5.05 | 10.73 |
| Millet | * | * | * | * | * |
| Oats | - | - | - | - | - |
| Pulses | 8.05 | 13.90 | 22.52 | 3.63 | 2.80 |
| Horse Beans | 1.16 | 2.00 | 2.60 | .42 | 2.24 |
| Field Peas | 1.09 | 1.88 | * | * | * |
| Haricot Beans | 5.35 | 9.24 | 18.73 | 3.02 | 3.50 |
| Chick Peas | .44 | .76 | .93 | .15 | 2.11 |
| Lentils | * | * | * | * | * |
| Vetch | - | - | - | - | - |
| Others | .09 | .16 | - | - | - |
| Neug | - | - | - | - | - |
| Linseed | * | * | - | - | - |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | * | * | - | - | - |
| Sunflower | * | * | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | 57.93 | 100.00 | 621.09 | 100.00 | |

Table 10.7 South Omo Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 26.98 | 88.72 | 269.00 | 90.11 | 9.97 |
| Teff | 3.41 | 11.21 | 25.75 | 8.63 | 7.55 |
| Barley | 1.61 | 5.29 | 18.90 | 6.33 | 11.74 |
| Wheat | * | * | * | * | * |
| Maize | 5.29 | 17.40 | 111.27 | 37.27 | 21.03 |
| Sorghum | 16.18 | 53.21 | 110.14 | 36.90 | 6.81 |
| Millet | * | * | * | * | * |
| Oats | - | - | - | - | - |
| Pulses | 3.00 | 9.87 | 29.52 | 9.89 | 9.84 |
| Horse Beans | 1.25 | 4.11 | * | * | * |
| Field Peas | * | * | * | * | * |
| Haricot Beans | 1.07 | 3.52 | 10.85 | 3.63 | 10.14 |
| Chick Peas | - | - | - | - | - |
| Lentils | - | - | - | - | - |
| Vetch | - | - | - | - | - |
| Others | .43 | 1.41 | - | - | - |
| Neug | - | - | - | - | - |
| Linseed | * | * | - | - | - |
| Rapeseed | * | * | - | - | - |
| Ground Nuts | * | * | - | - | - |
| Sunflower | .10 | .33 | - | - | - |
| Sesame | * | * | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | 30.41 | 100.00 | 298.52 | 100.00 | |

Table 10.8 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)

Shaka Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 5.84 | 64.60 | 127.90 | 94.15 | 21.90 |
| Teff | .86 | 9.51 | 6.87 | 5.06 | 7.99 |
| Barley | .25 | 2.77 | 1.88 | 1.38 | 7.52 |
| Wheat | .34 | 3.76 | 2.73 | 2.01 | 8.03 |
| Maize | 1.08 | 11.95 | 8.31 | 6.12 | 7.69 |
| Sorghum | 2.95 | 32.63 | 107.01 | 78.77 | 36.27 |
| Millet | * | * | * | * | * |
| Oats | - | - | - | - | - |
| Pulses | 3.16 | 34.96 | 7.96 | 5.86 | 2.52 |
| Horse Beans | 1.30 | 14.38 | 7.69 | 5.66 | 5.92 |
| Field Peas | 1.80 | 19.91 | - | - | - |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | - | - | - | - | - |
| Lentils | - | - | - | - | - |
| Vetch | - | - | - | - | - |
| Others | * | * | - | - | - |
| Neug | - | - | - | - | - |
| Linseed | * | * | - | - | - |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | * | * | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | 9.04 | 100.00 | 135.85 | 100.00 | |

Table 10.9 Keffa Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 58.84 | 68.21 | 702.21 | 83.49 | 11.93 |
| Teff | 16.07 | 18.63 | 129.16 | 15.36 | 8.04 |
| Barley | 7.26 | 8.42 | 53.30 | 6.34 | 7.34 |
| Wheat | 9.19 | 10.65 | 84.98 | 10.10 | 9.25 |
| Maize | 18.84 | 21.84 | 340.04 | 40.43 | 18.05 |
| Sorghum | 6.52 | 7.56 | 89.00 | 10.58 | 13.65 |
| Millet | * | * | * | * | * |
| Oats | * | * | * | * | * |
| Pulses | 27.31 | 31.66 | 138.83 | 16.51 | 5.08 |
| Horse Beans | 14.41 | 16.71 | 102.70 | 12.21 | 7.13 |
| Field Peas | 11.76 | 13.63 | 26.45 | 3.14 | 2.25 |
| Haricot Beans | 1.13 | 1.31 | 9.60 | 1.14 | 8.50 |
| Chick Peas | * | * | * | * | * |
| Lentils | - | - | - | - | - |
| Vetch | - | - | - | - | - |
| Others | .12 | .14 | - | - | - |
| Neug | * | * | - | - | - |
| Linseed | .07 | .08 | - | - | - |
| Rapeseed | * | * | - | - | - |
| Ground Nuts | * | * | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | 86.26 | 100.00 | 841.04 | 100.00 | |

Table 10.10 Forecast of Area, Production and Yield of Major Crops for Private Peasant Holdings 2001/2002(1994 E.C.) Gaomo Gofa Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|---------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 62.18 | 87.37 | 571.86 | 93.56 | 9.20 |
| Teff | 14.48 | 20.35 | 63.21 | 10.34 | 4.37 |
| Barley | 16.36 | 22.99 | 133.14 | 21.78 | 8.14 |
| Wheat | 7.86 | 11.04 | 61.60 | 10.08 | 7.84 |
| Maize | 16.09 | 22.61 | 232.99 | 38.12 | 14.48 |
| Sorghum | 7.40 | 10.40 | 80.92 | 13.24 | 10.94 |
| Millet | - | - | - | - | - |
| Oats | - | - | - | - | - |
| Pulses | 8.67 | 12.18 | 39.02 | 6.38 | 4.50 |
| Horse Beans | 3.24 | 4.55 | 15.68 | 2.57 | 4.84 |
| Field Peas | 2.64 | 3.71 | * | * | * |
| Haricot Beans | 2.59 | 3.64 | * | * | * |
| Chick Peas | * | * | * | * | * |
| Lentils | * | * | * | * | * |
| Vetch | - | - | - | - | - |
| Others | .32 | .45 | * | * | * |
| Neug | - | - | - | - | - |
| Linseed | .07 | .10 | * | * | * |
| Rapeseed | * | * | * | * | * |
| Ground Nuts | * | * | * | * | * |
| Sunflower | - | - | - | - | - |
| Sesame | * | * | - | - | - |
| Fenugreek | * | * | - | - | - |
| All Crops | 71.17 | 100.00 | 611.20 | 100.00 | |

Table 10.11 Bench-Maji Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|---------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 20.23 | 88.07 | 240.82 | 96.68 | 11.90 |
| Teff | 2.27 | 9.88 | 26.98 | 10.83 | 11.89 |
| Barley | .93 | 4.05 | 6.77 | 2.72 | 7.28 |
| Wheat | * | * | * | * | * |
| Maize | 8.53 | 37.14 | 128.67 | 51.66 | 15.08 |
| Sorghum | 8.20 | 35.70 | 74.20 | 29.79 | 9.05 |
| Millet | * | * | * | * | * |
| Oats | - | - | - | - | - |
| Pulses | 2.66 | 11.58 | * | * | * |
| Horse Beans | .73 | 3.18 | * | * | * |
| Field Peas | .18 | .78 | - | - | - |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | - | - | - | - | - |
| Lentils | - | - | - | - | - |
| Vetch | - | - | - | - | - |
| Others | * | * | - | - | - |
| Neug | - | - | - | - | - |
| Linseed | - | - | - | - | - |
| Rapeseed | * | * | - | - | - |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | 22.97 | 100.00 | 249.08 | 100.00 | |

Table 10.12 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)
Yem Special Wereda

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 9.58 | 79.97 | 143.87 | 86.13 | 15.02 |
| Teff | 3.40 | 28.38 | 46.53 | 27.86 | 13.69 |
| Barley | 1.12 | 9.35 | 10.97 | 6.57 | 9.79 |
| Wheat | 2.95 | 24.62 | 41.50 | 24.85 | 14.07 |
| Maize | 1.58 | 13.19 | 36.55 | 21.88 | 23.13 |
| Sorghum | .52 | 4.34 | 8.29 | 4.96 | 15.94 |
| Millet | - | - | * | * | - |
| Oats | - | - | - | - | - |
| Pulses | 2.27 | 18.95 | 22.70 | 13.59 | 10.00 |
| Horse Beans | 1.33 | 11.10 | 17.10 | 10.24 | 12.86 |
| Field Peas | .85 | 7.10 | 5.08 | 3.04 | 5.98 |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | - | - | - | - | - |
| Lentils | .09 | .75 | .41 | .25 | 4.56 |
| Vetch | - | - | - | - | - |
| Others | .14 | 1.17 | * | * | * |
| Neug | * | * | - | - | - |
| Linseed | .10 | .83 | * | * | * |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | 11.98 | 100.00 | 167.03 | 100.00 | |

Table 10.13 Amaro Special Wereda

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 3.97 | 83.58 | 79.99 | 92.90 | 20.15 |
| Teff | 1.92 | 40.42 | 37.35 | 43.38 | 19.45 |
| Barley | 1.10 | 23.16 | 24.86 | 28.87 | 22.60 |
| Wheat | .52 | 10.95 | 10.70 | 12.43 | 20.58 |
| Maize | .31 | 6.53 | * | * | * |
| Sorghum | .12 | 2.53 | 1.32 | 1.53 | 11.00 |
| Millet | - | - | - | - | - |
| Oats | - | - | - | - | - |
| Pulses | .79 | 16.63 | 6.10 | 7.08 | 7.72 |
| Horse Beans | .24 | 5.05 | 4.65 | 5.40 | 19.38 |
| Field Peas | .41 | 8.63 | * | * | * |
| Haricot Beans | .13 | 2.74 | 1.12 | 1.30 | 8.62 |
| Chick Peas | - | - | - | - | - |
| Lentils | * | * | * | * | * |
| Vetch | - | - | - | - | - |
| Others | - | - | - | - | - |
| Neug | - | - | - | - | - |
| Linseed | - | - | - | - | - |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | 4.75 | 100.00 | 86.10 | 100.00 | |

Table 10.14 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)
Burji Special Wereda

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 2.68 | 71.47 | 39.96 | 83.93 | 14.91 |
| Teff | .92 | 24.53 | 12.80 | 26.89 | 13.91 |
| Barley | .10 | 2.67 | 1.34 | 2.81 | 13.40 |
| Wheat | .24 | 6.40 | 3.23 | 6.78 | 13.46 |
| Maize | .56 | 14.93 | 6.93 | 14.56 | 12.38 |
| Sorghum | .86 | 22.93 | 15.66 | 32.89 | 18.21 |
| Millet | - | - | - | - | - |
| Oats | - | - | - | - | - |
| Pulses | 1.06 | 28.27 | 7.65 | 16.07 | 7.22 |
| Horse Beans | * | * | * | * | * |
| Field Peas | * | * | * | * | * |
| Haricot Beans | .95 | 25.33 | 6.37 | 13.38 | 6.71 |
| Chick Peas | .06 | 1.60 | 1.03 | 2.16 | 17.17 |
| Lentils | .02 | .53 | * | * | * |
| Vetch | - | - | * | * | - |
| Others | * | * | - | - | - |
| Neug | - | - | - | - | - |
| Linseed | - | - | - | - | - |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | * | * | - | - | - |
| All Crops | 3.75 | 100.00 | 47.61 | 100.00 | |

Table 10.15 Konso Special Wereda

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 14.97 | 84.72 | 133.91 | 86.09 | 8.95 |
| Teff | 1.94 | 10.98 | 14.98 | 9.63 | 7.72 |
| Barley | * | * | * | * | * |
| Wheat | * | * | * | * | * |
| Maize | 3.04 | 17.20 | 28.67 | 18.43 | 9.43 |
| Sorghum | 9.80 | 55.46 | 88.22 | 56.71 | 9.00 |
| Millet | - | - | - | - | - |
| Oats | - | - | - | - | - |
| Pulses | 2.68 | 15.17 | 21.64 | 13.91 | 8.07 |
| Horse Beans | - | - | - | - | - |
| Field Peas | .79 | 4.47 | - | - | - |
| Haricot Beans | 1.87 | 10.58 | 21.57 | 13.87 | 11.53 |
| Chick Peas | * | * | * | * | * |
| Lentils | * | * | - | - | - |
| Vetch | - | - | - | - | - |
| Others | * | * | - | - | - |
| Neug | - | - | - | - | - |
| Linseed | - | - | - | - | - |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | - | - | - | - | - |
| Sunflower | * | * | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | 17.67 | 100.00 | 155.55 | 100.00 | |

Table 10.16 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)
Derashe Special Wereda

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 13.37 | 94.22 | 218.99 | 97.60 | 16.38 |
| Teff | 1.44 | 10.15 | 23.18 | 10.33 | 16.10 |
| Barley | .13 | .92 | * | * | * |
| Wheat | * | * | * | * | * |
| Maize | 3.48 | 24.52 | 73.32 | 32.68 | 21.07 |
| Sorghum | 8.26 | 58.21 | 119.59 | 53.30 | 14.48 |
| Millet | - | - | - | - | - |
| Oats | - | - | - | - | - |
| Pulses | .82 | 5.78 | 5.37 | 2.39 | 6.55 |
| Horse Beans | * | * | * | * | * |
| Field Peas | * | * | * | * | * |
| Haricot Beans | .73 | 5.14 | 4.16 | 1.85 | 5.70 |
| Chick Peas | * | * | * | * | * |
| Lentils | * | * | * | * | * |
| Vetch | - | - | - | - | - |
| Others | - | - | * | * | - |
| Neug | - | - | - | - | - |
| Linseed | - | - | - | - | - |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | * | * | - |
| Sesame | - | - | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | 14.19 | 100.00 | 224.37 | 100.00 | |

Table 10.17 Dawro Zone

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 23.55 | 73.46 | 314.60 | 80.04 | 13.36 |
| Teff | 10.48 | 32.69 | 125.41 | 31.91 | 11.97 |
| Barley | .91 | 2.84 | 9.14 | 2.33 | 10.04 |
| Wheat | 1.77 | 5.52 | 14.60 | 3.71 | 8.25 |
| Maize | 6.03 | 18.81 | 115.94 | 29.50 | 19.23 |
| Sorghum | 4.35 | 13.57 | 49.48 | 12.59 | 11.37 |
| Millet | - | - | - | - | - |
| Oats | * | * | * | * | * |
| Pulses | 8.41 | 26.23 | 78.38 | 19.94 | 9.32 |
| Horse Beans | 4.96 | 15.47 | 58.10 | 14.78 | 11.71 |
| Field Peas | 2.24 | 6.99 | 12.77 | 3.25 | 5.70 |
| Haricot Beans | .94 | 2.93 | 6.33 | 1.61 | 6.73 |
| Chick Peas | * | * | * | * | * |
| Lentils | .15 | .47 | * | * | * |
| Vetch | * | * | * | * | * |
| Others | .10 | .31 | * | * | * |
| Neug | - | - | - | - | - |
| Linseed | .09 | .28 | * | * | * |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | * | * | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | 32.06 | 100.00 | 393.04 | 100.00 | |

Table 10.18 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)
Basketo Special Wereda

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 1.77 | 92.19 | 29.61 | 96.92 | 16.73 |
| Teff | .87 | 45.31 | 15.79 | 51.69 | 18.15 |
| Barley | .06 | 3.13 | .63 | 2.06 | 10.50 |
| Wheat | - | - | - | - | - |
| Maize | .46 | 23.96 | 6.89 | 22.55 | 14.98 |
| Sorghum | .38 | 19.79 | 6.30 | 20.62 | 16.58 |
| Millet | - | - | - | - | - |
| Oats | - | - | - | - | - |
| Pulses | .14 | 7.29 | .94 | 3.08 | 6.71 |
| Horse Beans | * | * | * | * | * |
| Field Peas | .07 | 3.65 | .29 | .95 | 4.14 |
| Haricot Beans | .06 | 3.13 | .41 | 1.34 | 6.83 |
| Chick Peas | * | * | * | * | * |
| Lentils | - | - | - | - | - |
| Vetch | - | - | - | - | - |
| Others | - | - | - | - | - |
| Neug | - | - | - | - | - |
| Linseed | - | - | - | - | - |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | 1.92 | 100.00 | 30.55 | 100.00 | |

Table 10.19 Konta Special Wereda

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 4.68 | 76.72 | 61.88 | 89.28 | 13.22 |
| Teff | 2.21 | 36.23 | 18.96 | 27.36 | 8.58 |
| Barley | * | * | * | * | * |
| Wheat | * | * | * | * | * |
| Maize | .67 | 10.98 | 4.56 | 6.58 | 6.81 |
| Sorghum | 1.03 | 16.89 | 32.23 | 46.50 | 31.29 |
| Millet | - | - | - | - | - |
| Oats | - | - | * | * | - |
| Pulses | 1.42 | 23.28 | 7.43 | 10.72 | 5.23 |
| Horse Beans | 1.00 | 16.39 | 6.41 | 9.25 | 6.41 |
| Field Peas | .23 | 3.77 | * | * | * |
| Haricot Beans | .19 | 3.11 | .70 | 1.01 | 3.68 |
| Chick Peas | - | - | - | - | - |
| Lentils | - | - | - | - | - |
| Vetch | - | - | - | - | - |
| Others | * | * | - | - | - |
| Neug | - | - | - | - | - |
| Linseed | * | * | - | - | - |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | 6.10 | 100.00 | 69.31 | 100.00 | |

Table 11 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)

Gambela

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 9.93 | 94.66 | 320.98 | 99.69 | 32.32 |
| Teff | - | - | - | - | - |
| Barley | - | - | - | - | - |
| Wheat | - | - | - | - | - |
| Maize | 7.56 | 72.07 | 284.93 | 88.49 | 37.69 |
| Sorghum | 2.28 | 21.73 | 35.95 | 11.16 | 15.77 |
| Millet | * | * | .11 | .03 | * |
| Oats | - | - | - | - | - |
| Pulses | * | * | * | * | * |
| Horse Beans | - | - | - | - | - |
| Field Peas | - | - | - | - | - |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | - | - | - | - | - |
| Lentils | - | - | - | - | - |
| Vetch | - | - | - | - | - |
| Others | .37 | 3.53 | * | * | * |
| Neug | - | - | - | - | - |
| Linseed | - | - | - | - | - |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | .04 | .38 | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | .32 | 3.05 | * | * | * |
| Fenugreek | - | - | - | - | - |
| All Crops | 10.49 | 100.00 | 321.99 | 100.00 | |

Table 12 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)

Harari

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 5.45 | 82.08 | 77.53 | 99.59 | 14.23 |
| Teff | - | - | - | - | - |
| Barley | * | * | * | * | * |
| Wheat | .14 | 2.11 | 1.74 | 2.24 | 12.43 |
| Maize | .83 | 12.50 | 12.85 | 16.51 | 15.48 |
| Sorghum | 4.47 | 67.32 | 62.54 | 80.33 | 13.99 |
| Millet | - | - | - | - | - |
| Oats | - | - | - | - | - |
| Pulses | .02 | .30 | * | * | * |
| Horse Beans | - | - | * | * | - |
| Field Peas | - | - | * | * | - |
| Haricot Beans | * | * | * | * | * |
| Chick Peas | - | - | * | * | - |
| Lentils | - | - | - | - | - |
| Vetch | - | - | - | - | - |
| Others | 1.17 | 17.62 | - | - | - |
| Neug | - | - | - | - | - |
| Linseed | - | - | - | - | - |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | 1.16 | 17.47 | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | * | * | - | - | - |
| Fenugreek | - | - | - | - | - |
| All Crops | 6.64 | 100.00 | 77.85 | 100.00 | |

Table 13. Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)

Addis Ababa

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 17.04 | 79.55 | 238.11 | 80.43 | 13.97 |
| Teff | 8.52 | 39.78 | 99.11 | 33.48 | 11.63 |
| Barley | .10 | .47 | .96 | .32 | 9.60 |
| Wheat | * | * | * | * | * |
| Maize | .05 | .23 | .59 | .20 | 11.80 |
| Sorghum | * | * | .15 | .05 | * |
| Millet | - | - | - | - | - |
| Oats | * | * | * | * | * |
| Pulses | * | * | 57.93 | 19.57 | * |
| Horse Beans | .15 | .70 | 2.35 | .79 | 15.67 |
| Field Peas | .04 | .19 | * | * | * |
| Haricot Beans | - | - | - | - | - |
| Chick Peas | * | * | 38.39 | 12.97 | * |
| Lentils | * | * | * | * | * |
| Vetch | 1.03 | 4.81 | 11.74 | 3.97 | 11.40 |
| Others | * | * | * | * | * |
| Neug | - | - | - | - | - |
| Linseed | * | * | - | - | - |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | - | - | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | - | - | - | - | - |
| Fenugreek | * | * | * | * | * |
| All Crops | 21.42 | 100.00 | 296.06 | 100.00 | |

Table 14 Forecast of Area, Production and Yield of Major Crops
for Private Peasant Holdings 2001/2002(1994 E.C.)

Dire Dawa

| CROP | TOTAL AREA | | TOTAL PRODUCTION | | YIELD (QT/HA) |
|---------------|----------------|--------|------------------|--------|------------------|
| | (000' hectare) | % | (000' quintal) | % | |
| Cereals | 5.97 | 95.37 | 98.05 | 98.47 | 16.42 |
| Teff | - | - | - | - | - |
| Barley | - | - | * | * | - |
| Wheat | - | - | - | - | - |
| Maize | .25 | 3.99 | 6.34 | 6.37 | 25.36 |
| Sorghum | 5.71 | 91.21 | 91.70 | 92.10 | 16.06 |
| Millet | - | - | - | - | - |
| Oats | - | - | - | - | - |
| Pulses | .27 | 4.31 | * | * | * |
| Horse Beans | - | - | - | - | - |
| Field Peas | - | - | - | - | - |
| Haricot Beans | .27 | 4.31 | * | * | * |
| Chick Peas | - | - | - | - | - |
| Lentils | - | - | - | - | - |
| Vetch | - | - | - | - | - |
| Others | * | * | * | * | * |
| Neug | - | - | - | - | - |
| Linseed | - | - | - | - | - |
| Rapeseed | - | - | - | - | - |
| Ground Nuts | * | * | - | - | - |
| Sunflower | - | - | - | - | - |
| Sesame | * | * | - | - | - |
| Fenugreek | - | - | * | * | - |
| All Crops | 6.26 | 100.00 | 99.57 | 100.00 | |

APPENDIX I

ESTIMATION PROCEDURES OF TOTAL, RATIO AND SAMPLING ERRORS

Estimator of Total

The estimate of stratum total \hat{Y}_h is given by:

$$\hat{Y}_h = \sum_i^{n_h} \left[\frac{M_h}{n_h M_{hi}} \frac{H_{hi}}{h_{hi}} \sum_j^{h_{hi}} y_{hij} \right] \quad (1)$$

Where:

N_h = total number of EAs in stratum h

n_h = number of sample EAs in stratum h

M_{hi} = total number of households of EA i in stratum h obtained from the 1994 census map work

M_h = $\sum_i^{N_h} M_{hi}$, total number of households of stratum h

H_{hi} = total number of agricultural households listed during the survey for EA i in stratum h

h_{hi} = number of agricultural households and successfully covered

y_{hij} = the observed value of the variable y for agricultural households j, of EA i in stratum h

Estimator of Variance for Total

The variance of stratum total estimate \hat{Y}_h is:

$$v(\hat{Y}_h) = \frac{n_h}{n_h - 1} \left[\sum (\hat{Y}_{hi} - \frac{\hat{Y}_h}{n_h})^2 \right] \quad (2)$$

Where:

\hat{Y}_{hi} = estimated total for EA i in stratum h

\hat{Y}_h = estimated total for stratum h

Coefficient of variation of total

The coefficient of variation of total is defined as:

$$CV = \frac{\sqrt{v(\hat{Y}_h)}}{\hat{Y}_h} \times 100$$

Estimator of Ratio

The estimator of a given ratio \hat{R}_h in stratum h is the following:

$$\hat{R}_h = \frac{\hat{Y}_h}{\hat{X}_h}$$

Where:

\hat{R}_h = estimate for the ratio of \hat{Y}_h to X_h in stratum h

\hat{Y}_h = estimated total for variable Y in stratum h, given by formula (1)

\hat{X}_h = estimated total for variable X in stratum h, given by formula (2)

Estimator of variance for ratio

The variance of a ratio is given by

$$v(\hat{R}_h) = \frac{1}{\hat{X}_h^2} [v(\hat{Y}_h) + \hat{R}_h^2 v(\hat{X}_h) - 2 \hat{R}_h \text{cov}(\hat{X}_h, \hat{Y}_h)] \quad (3)$$

Coefficient of variation of ratio

The coefficient of variation of ratio is defined as:

$$cv = \frac{\sqrt{v(\hat{R}_h)}}{\hat{R}_h} \times 100$$

Confidence Interval for Total

The confidence interval (CI) for a total is:

$$CI_{(1-\alpha)} = \hat{Y} \pm t_{(1-\alpha/2)} \hat{SE}$$

Where:

\hat{Y} = estimate of a population total.

$t_{(1-\alpha/2)}$ = level of probability under the normal distribution, with the acceptable level of error.

$\hat{SE} = \sqrt{v(\hat{Y})}$ = standard error of a total.

APPENDIX II

STANDARD ERROR AND COEFFICIENT OF VARIATION FOR AREA AND PRODUCTION FORECAST

APPENDIX II STANDARD ERROR AND COEFFICIENT OF VARIATION FOR FORECAST OF
AREA AND PRODUCTION, OF MAJOR CROPS, 2000/01(1993 E.C.)

STANDARD ERROR AND COEFFICIENT OF VARIATION FOR FORECAST OF
AREA AND PRODUCTION, OF MAJOR CROPS, ETHIOPIA
2001/02 (1994 E.C.)

NATIONAL

| TYPE OF CROP | AREA (000' HA) | S.E. (000' HA) | C.V. (%) | PRODUCTION (000' QT) | S.E. (000' QT) | C.V. (%) |
|--------------|----------------|----------------|----------|----------------------|----------------|----------|
| CEREALS | 6717.97 | 247.44 | 3.68 | 83031.65 | 3769.97 | 4.54 |
| TEFF | 1980.58 | 111.89 | 5.56 | 17729.74 | 1269.31 | 7.16 |
| BARELY | 672.92 | 42.70 | 6.35 | 7289.08 | 550.82 | 7.56 |
| WHEAT | 939.55 | 51.10 | 5.44 | 12169.70 | 907.50 | 7.46 |
| MAIZE | 1388.89 | 64.71 | 4.66 | 23738.92 | 1139.05 | 4.80 |
| SORGHUM | 1367.27 | 103.20 | 7.55 | 18048.63 | 1898.23 | 10.52 |
| MILLET | 342.12 | 84.93 | 24.83 | 3769.29 | 1021.83 | 27.11 |
| OATS | 26.63 | 4.44 | 16.68 | 286.29 | 57.78 | 20.18 |
| PULSES | 923.11 | 38.10 | 4.13 | 7135.22 | 347.80 | 4.87 |
| HORSEBEANS | 395.44 | 20.46 | 5.17 | 3845.46 | 233.58 | 6.07 |
| FIELDPEAS | 173.53 | 11.99 | 6.72 | 801.41 | 76.79 | 9.58 |
| HARICOTBEANS | 126.26 | 12.09 | 9.58 | 794.27 | 112.88 | 14.21 |
| CHICKPEAS | 126.85 | 15.76 | 12.43 | 1132.68 | 163.79 | 14.46 |
| LENTILS | 60.01 | 10.66 | 17.77 | 319.11 | 64.67 | 20.26 |
| VECTH | 36.02 | 5.68 | 15.76 | 242.29 | 40.94 | 16.89 |
| OTHERS | 505.31 | 51.15 | 10.12 | 337.28 | 40.69 | 12.06 |
| NEUG | 229.21 | 21.80 | 9.51 | 44.54 | 15.95 | 35.82 |
| LINSEED | 104.22 | 13.57 | 13.02 | 176.77 | 30.67 | 17.35 |
| RAPESEED | 13.80 | 1.72 | 12.50 | 75.84 | 14.47 | 19.08 |
| GROUNDNUTS | 27.94 | 9.14 | 32.70 | ** | ** | ** |
| SUNFLOWER | 2.04 | 0.46 | 22.37 | 2.37 | 0.96 | 40.35 |
| SEASAME | 118.34 | 43.71 | 36.94 | 35.69 | 14.92 | 41.81 |
| FENUGREEK | 9.76 | 1.64 | 16.80 | ** | ** | ** |
| ALL CROPS | 8146.40 | 283.56 | 3.48 | 90504.15 | 3863.41 | 4.27 |

STANDARD ERROR AND COEFFICIENT OF VARIATION FOR FORECAST OF
AREA AND PRODUCTION, OF MAJOR CROPS, 2001/02 (1994 E.C.)

TIGRAY

| TYPE OF CROP | AREA (000' HA) | S.E. (000' HA) | C.V. (%) | PRODUCTION (000' QT) | S.E. (000' QT) | C.V. (%) |
|--------------|----------------|----------------|----------|----------------------|----------------|----------|
| CEREALS | 513.08 | 40.20 | 7.84 | 5329.10 | 443.26 | 8.32 |
| TEFF | 143.80 | 16.46 | 11.45 | 1125.11 | 145.96 | 12.97 |
| BARELY | 59.35 | 10.26 | 17.28 | 550.61 | 83.72 | 15.21 |
| WHEAT | 70.29 | 10.03 | 14.26 | 687.32 | 88.19 | 12.83 |
| MAIZE | 56.99 | 8.37 | 14.69 | 768.23 | 140.95 | 18.35 |
| SORGHUM | 134.81 | 26.00 | 19.29 | 1656.78 | 311.28 | 18.79 |
| MILLET | 47.71 | 5.25 | 11.01 | 540.75 | 69.33 | 12.82 |
| OATS | ** | ** | ** | ** | ** | ** |
| PULSES | 49.38 | 5.79 | 11.72 | 327.08 | 40.58 | 12.41 |
| HORSEBEANS | 22.45 | 4.44 | 19.76 | 176.57 | 31.74 | 17.97 |
| FIELDPEAS | 3.81 | 0.74 | 19.38 | 19.85 | 5.42 | 27.31 |
| HARICOTBEANS | ** | ** | ** | ** | ** | ** |
| CHICKPEAS | 9.38 | 1.83 | 19.51 | 55.49 | 11.51 | 20.73 |
| LENTILS | 2.93 | 0.55 | 18.75 | 12.49 | 3.62 | 28.94 |
| VECTH | 5.85 | 1.56 | 26.61 | 46.84 | 15.60 | 33.32 |
| OTHERS | ** | ** | ** | 9.66 | 2.79 | 28.93 |
| NEUG | 6.42 | 1.50 | 23.29 | 0.00 | 0.00 | **** |
| LINSEED | 3.90 | 0.82 | 21.00 | 9.10 | 2.74 | 30.14 |
| RAPESEED | ** | ** | ** | ** | ** | ** |
| GROUNDNUTS | . | . | . | . | . | . |
| SUNFLOWER | . | . | . | . | . | . |
| SEASAME | ** | ** | ** | ** | ** | ** |
| FENUGREEK | 0.68 | 0.28 | 41.30 | ** | ** | ** |
| ALL CROPS | 635.43 | 69.32 | 10.91 | 5665.84 | 448.47 | 7.92 |

Abbreviations

S.E. = Standard Error

C.V. = Coefficient of Variation

- = Insignificant or not available

STANDARD ERROR AND COEFFICIENT OF VARIATION FOR FORECAST OF
AREA AND PRODUCTION, OF MAJOR CROPS, 1997/98(1991 E.C.)
2001/02 (1994 E.C.)

AFAR

| TYPE OF CROP | AREA (000' HA) | S.E. (000' HA) | C.V. (%) | PRODUCTION (000' QT) | S.E. (000' QT) | C.V. (%) |
|--------------|-------------------|-------------------|-------------|-------------------------|-------------------|-------------|
| CEREALS | 11.08 | 2.39 | 21.53 | 220.25 | 46.71 | 21.23 |
| TEFF | 2.18 | 0.69 | 31.56 | 16.44 | 5.08 | 30.91 |
| BARELY | ** | ** | ** | ** | ** | ** |
| WHEAT | ** | ** | ** | ** | ** | ** |
| MAIZE | 4.25 | 0.76 | 17.97 | 164.99 | 42.09 | 25.51 |
| SORGHUM | 4.42 | 1.29 | 29.26 | 37.39 | 11.50 | 30.76 |
| MILLET | . | . | . | . | . | . |
| OATS | . | . | . | . | . | . |
| PULSES | 0.30 | 0.12 | 39.82 | 1.21 | 0.48 | 39.50 |
| HORSEBEANS | . | . | . | . | . | . |
| FIELDPEAS | . | . | . | . | . | . |
| HARICOTBEANS | 0.11 | 0.05 | 43.68 | ** | ** | ** |
| CHICKPEAS | 0.18 | 0.08 | 43.87 | 0.89 | 0.38 | 42.73 |
| LENTILS | ** | ** | ** | ** | ** | ** |
| VECTH | . | . | . | . | . | . |
| OTHERS | 0.24 | 0.10 | 41.48 | ** | ** | ** |
| NEUG | ** | ** | ** | ** | ** | ** |
| LINSEED | . | . | . | . | . | . |
| RAPESEED | . | . | . | . | . | . |
| GROUNDNUTS | ** | ** | ** | ** | ** | ** |
| SUNFLOWER | ** | ** | ** | ** | ** | ** |
| SEASAME | ** | ** | ** | ** | ** | ** |
| FENUGREEK | ** | ** | ** | ** | ** | ** |
| ALL CROPS | 11.62 | 2.54 | 21.87 | 221.44 | 46.86 | 21.16 |

STANDARD ERROR AND COEFFICIENT OF VARIATION FOR FORECAST OF
AREA AND PRODUCTION, OF MAJOR CROPS, 2001/02 (1994 E.C.)

AMHARA

| TYPE OF CROP | AREA (000' HA) | S.E. (000' HA) | C.V. (%) | PRODUCTION (000' QT) | S.E. (000' QT) | C.V. (%) |
|--------------|-------------------|-------------------|-------------|-------------------------|-------------------|-------------|
| CEREALS | 2357.38 | 209.89 | 8.90 | 26351.83 | 3190.97 | 12.11 |
| TEFF | 848.35 | 91.16 | 10.75 | 7741.11 | 1068.93 | 13.81 |
| BARELY | 207.86 | 19.98 | 9.61 | 1774.21 | 184.79 | 10.42 |
| WHEAT | 234.22 | 24.58 | 10.50 | 2426.79 | 314.77 | 12.97 |
| MAIZE | 334.19 | 47.68 | 14.27 | 5293.90 | 610.15 | 11.53 |
| SORGHUM | 499.34 | 69.58 | 13.94 | 6545.65 | 1539.07 | 23.51 |
| MILLET | 224.83 | 84.41 | 37.54 | 2498.58 | 1015.54 | 40.64 |
| OATS | 8.60 | 2.85 | 33.17 | 71.59 | 20.33 | 28.40 |
| PULSES | 400.16 | 26.96 | 6.74 | 3092.43 | 213.70 | 6.91 |
| HORSEBEANS | 176.76 | 15.14 | 8.57 | 1823.71 | 163.79 | 8.98 |
| FIELDPEAS | 73.89 | 7.45 | 10.08 | 357.40 | 40.60 | 11.36 |
| HARICOTBEANS | 31.13 | 6.98 | 22.44 | 140.96 | 32.95 | 23.37 |
| CHICKPEAS | 53.65 | 7.04 | 13.13 | 418.82 | 68.13 | 16.27 |
| LENTILS | 44.56 | 10.20 | 22.89 | 232.50 | 56.88 | 24.47 |
| VECTH | 20.16 | 4.97 | 24.64 | 119.03 | 31.91 | 26.81 |
| OTHERS | 183.78 | 24.00 | 13.06 | 144.22 | 23.89 | 16.56 |
| NEUG | 111.12 | 16.20 | 14.58 | ** | ** | ** |
| LINSEED | 23.96 | 3.63 | 15.14 | 47.13 | 10.87 | 23.06 |
| RAPESEED | 8.05 | 1.39 | 17.27 | 57.13 | 13.77 | 24.11 |
| GROUNDNUTS | ** | ** | ** | ** | ** | ** |
| SUNFLOWER | 1.77 | 0.45 | 25.50 | 2.04 | 0.91 | 44.59 |
| SEASAME | ** | ** | ** | 16.60 | 7.61 | 45.84 |
| FENUGREEK | 5.48 | 1.40 | 25.49 | ** | ** | ** |
| ALL CROPS | 2941.32 | 235.74 | 8.01 | 29588.48 | 3253.78 | 11.00 |

Abbreviations

S.E. = Standard Error

C.V. = Coefficient of Variation

- = Insignificant or not available

STANDARD ERROR AND COEFFICIENT OF VARIATION FOR FORECAST OF
AREA AND PRODUCTION, OF MAJOR CROPS, 2001/02 (1994 E.C.)

OROMIYA

| TYPE OF CROP | AREA (000' HA) | S.E. (000' HA) | C.V. (%) | PRODUCTION (000' QT) | S.E. (000' QT) | C.V. (%) |
|--------------|-------------------|-------------------|-------------|-------------------------|-------------------|-------------|
| CEREALS | 2993.97 | 117.72 | 3.93 | 39853.29 | 1844.94 | 4.63 |
| TEFF | 818.96 | 59.60 | 7.28 | 7384.00 | 646.48 | 8.76 |
| BARELY | 324.84 | 35.22 | 10.84 | 4113.64 | 503.19 | 12.23 |
| WHEAT | 500.32 | 40.93 | 8.18 | 7064.06 | 797.01 | 11.28 |
| MAIZE | 746.48 | 39.73 | 5.32 | 13345.13 | 880.46 | 6.60 |
| SORGHUM | 543.49 | 70.64 | 13.00 | 7349.11 | 1044.67 | 14.21 |
| MILLET | 42.85 | 5.78 | 13.48 | 385.64 | 57.01 | 14.78 |
| OATS | 17.03 | 3.39 | 19.92 | 211.71 | 54.08 | 25.54 |
| PULSES | 346.18 | 24.31 | 7.02 | 2855.77 | 255.43 | 8.94 |
| HORSEBEANS | 146.59 | 12.35 | 8.43 | 1417.46 | 157.85 | 11.14 |
| FIELDPEAS | 69.64 | 8.85 | 12.70 | 338.94 | 63.35 | 18.69 |
| HARICOTBEANS | 53.13 | 6.37 | 11.98 | 365.66 | 78.94 | 21.59 |
| CHICKPEAS | 57.46 | 13.72 | 23.88 | 606.22 | 147.11 | 24.27 |
| LENTILS | 10.96 | 3.01 | 27.46 | 66.88 | 30.26 | 45.25 |
| VECTH | 8.40 | 2.19 | 26.03 | 60.60 | 19.39 | 32.00 |
| OTHERS | 211.36 | 21.33 | 10.09 | 153.90 | 31.69 | 20.59 |
| NEUG | 92.48 | 13.03 | 14.08 | ** | ** | ** |
| LINSEED | 74.98 | 13.04 | 17.39 | 118.51 | 28.55 | 24.09 |
| RAPESEED | 4.54 | 0.97 | 21.37 | 15.63 | 4.14 | 26.51 |
| GROUNDNUTS | 23.40 | 9.02 | 38.55 | ** | ** | ** |
| SUNFLOWER | ** | ** | ** | ** | ** | ** |
| SEASAME | 12.76 | 5.81 | 45.50 | ** | ** | ** |
| FENUGREEK | 3.12 | 0.80 | 25.56 | ** | ** | ** |
| ALL CROPS | 3551.51 | 133.09 | 3.75 | 42862.95 | 1911.26 | 4.46 |

STANDARD ERROR AND COEFFICIENT OF VARIATION FOR FORECAST OF
AREA AND PRODUCTION, OF MAJOR CROPS, 2001/02 (1994 E.C.)

SOMALE

| TYPE OF CROP | AREA (000' HA) | S.E. (000' HA) | C.V. (%) | PRODUCTION (000' QT) | S.E. (000' QT) | C.V. (%) |
|--------------|-------------------|-------------------|-------------|-------------------------|-------------------|-------------|
| CEREALS | 61.27 | 6.63 | 10.82 | 511.25 | 69.45 | 13.58 |
| TEFF | ** | ** | ** | ** | ** | ** |
| BARELY | 7.10 | 2.61 | 36.69 | 81.68 | 32.99 | 40.39 |
| WHEAT | 12.32 | 2.91 | 23.61 | 64.11 | 22.83 | 35.61 |
| MAIZE | 21.10 | 2.44 | 11.58 | 214.62 | 23.64 | 11.02 |
| SORGHUM | 20.26 | 2.58 | 12.74 | 149.92 | 34.15 | 22.78 |
| MILLET | ** | ** | ** | ** | ** | ** |
| OATS | ** | ** | ** | 0.44 | 0.20 | 45.13 |
| PULSES | 0.87 | 0.30 | 34.65 | ** | ** | ** |
| HORSEBEANS | ** | ** | ** | ** | ** | ** |
| FIELDPEAS | ** | ** | ** | ** | ** | ** |
| HARICOTBEANS | 0.45 | 0.20 | 44.25 | ** | ** | ** |
| CHICKPEAS | ** | ** | ** | ** | ** | ** |
| LENTILS | ** | ** | ** | ** | ** | ** |
| VECTH | - | - | - | - | - | - |
| OTHERS | ** | ** | ** | ** | ** | ** |
| NEUG | ** | ** | ** | ** | ** | ** |
| LINSEED | ** | ** | ** | ** | ** | ** |
| RAPESEED | - | - | - | - | - | - |
| GROUNDNUTS | ** | ** | ** | ** | ** | ** |
| SUNFLOWER | - | - | - | - | - | - |
| SEASAME | - | - | - | - | - | - |
| FENUGREEK | ** | ** | ** | ** | ** | ** |
| ALL CROPS | 62.49 | 6.77 | 10.83 | 512.33 | 69.65 | 13.60 |

Abbreviations

S.E. = Standard Error

C.V. = Coefficient of Variation

- = Insignificant or not available

STANDARD ERROR AND COEFFICIENT OF VARIATION FOR FORECAST OF
AREA AND PRODUCTION, OF MAJOR CROPS, 2001/02(1994 E.C.)

BENSHANGUL GUMUZ

| TYPE OF CROP | AREA (000' HA) | S.E. (000' HA) | C.V. (%) | PRODUCTION (000' QT) | S.E. (000' QT) | C.V. (%) |
|--------------|-------------------|-------------------|-------------|-------------------------|-------------------|-------------|
| CEREALS | 123.12 | 14.82 | 12.04 | 1961.18 | 272.31 | 13.88 |
| TEFF | 10.04 | 2.05 | 20.43 | 73.88 | 17.88 | 24.20 |
| BARELY | 1.36 | 0.63 | 46.63 | 14.48 | 6.64 | 45.89 |
| WHEAT | ** | ** | ** | ** | ** | ** |
| MAIZE | 29.01 | 5.77 | 19.90 | 528.87 | 105.37 | 19.92 |
| SORGHUM | 59.06 | 9.35 | 15.83 | 1033.73 | 191.66 | 18.54 |
| MILLET | 22.42 | 5.15 | 22.97 | 299.23 | 67.12 | 22.43 |
| OATS | ** | ** | ** | ** | ** | ** |
| PULSES | 13.95 | 6.47 | 46.34 | ** | ** | ** |
| HORSEBEANS | 0.68 | 0.23 | 33.92 | 8.09 | 3.08 | 38.06 |
| FIELDPEAS | 1.19 | 0.58 | 48.85 | ** | ** | ** |
| HARICOTBEANS | ** | ** | ** | ** | ** | ** |
| CHICKPEAS | ** | ** | ** | ** | ** | ** |
| LENTILS | ** | ** | ** | ** | ** | ** |
| VECTH | ** | ** | ** | ** | ** | ** |
| OTHERS | 25.79 | 5.10 | 19.79 | 24.49 | 8.30 | 33.88 |
| NEUG | 13.13 | 4.79 | 36.48 | 19.89 | 8.12 | 40.84 |
| LINSEED | 0.15 | 0.07 | 46.29 | ** | ** | ** |
| RAPESEED | 0.17 | 0.06 | 34.04 | 0.35 | 0.16 | 45.67 |
| GROUNDNUTS | 2.92 | 1.43 | 49.13 | ** | ** | ** |
| SUNFLOWER | ** | ** | ** | ** | ** | ** |
| SEASAME | 9.39 | 1.70 | 18.11 | ** | ** | ** |
| FENUGREEK | - | - | - | - | - | - |
| ALL CROPS | 162.87 | 22.28 | 13.68 | 2121.83 | 324.93 | 15.31 |

STANDARD ERROR AND COEFFICIENT OF VARIATION FOR FORECAST OF
AREA AND PRODUCTION, OF MAJOR CROPS, 2001/02 (1994 E.C.)

S.N.N.P.R

| TYPE OF CROP | AREA (000' HA) | S.E. (000' HA) | C.V. (%) | PRODUCTION (000' QT) | S.E. (000' QT) | C.V. (%) |
|--------------|-------------------|-------------------|-------------|-------------------------|-------------------|-------------|
| CEREALS | 619.67 | 36.96 | 5.96 | 8070.28 | 572.32 | 7.09 |
| TEFF | 148.69 | 19.28 | 12.97 | 1289.82 | 166.44 | 12.90 |
| BARELY | 72.24 | 8.46 | 11.71 | 752.72 | 88.92 | 11.81 |
| WHEAT | 112.54 | 14.05 | 12.49 | 1776.83 | 272.73 | 15.35 |
| MAIZE | 188.19 | 14.93 | 7.93 | 3118.46 | 327.04 | 10.49 |
| SORGHUM | 93.42 | 6.65 | 7.12 | 1085.74 | 86.25 | 7.94 |
| MILLET | 4.20 | 1.31 | 31.28 | 44.76 | 15.72 | 35.12 |
| OATS | 0.38 | 0.15 | 39.59 | 1.94 | 0.94 | 48.48 |
| PULSES | 107.63 | 7.38 | 6.86 | 661.47 | 52.51 | 7.94 |
| HORSEBEANS | 48.81 | 4.13 | 8.45 | 417.27 | 42.37 | 10.15 |
| FIELDPEAS | 29.86 | 3.02 | 10.13 | 71.68 | 12.52 | 17.46 |
| HARICOTBEANS | 24.50 | 2.62 | 10.69 | 156.14 | 21.22 | 13.59 |
| CHICKPEAS | ** | ** | ** | 12.29 | 5.32 | 43.31 |
| LENTILS | 0.58 | 0.15 | 25.04 | 1.26 | 0.51 | 40.38 |
| VECTH | ** | ** | ** | ** | ** | ** |
| OTHERS | 9.04 | 4.24 | 46.93 | 4.06 | 1.84 | 45.38 |
| NEUG | ** | ** | ** | ** | ** | ** |
| LINSEED | 0.98 | 0.32 | 32.64 | 1.39 | 0.46 | 33.36 |
| RAPESEED | 1.01 | 0.31 | 30.29 | ** | ** | ** |
| GROUNDNUTS | 0.26 | 0.13 | 47.87 | ** | ** | ** |
| SUNFLOWER | 0.14 | 0.05 | 36.62 | ** | ** | ** |
| SEASAME | 0.43 | 0.18 | 42.54 | ** | ** | ** |
| FENUGREEK | 0.17 | 0.07 | 42.60 | ** | ** | ** |
| ALL CROPS | 736.35 | 40.77 | 5.54 | 8735.81 | 586.60 | 6.71 |

Abbreviations

S.E. = Standard Error

C.V. = Coefficient of Variation

- = Insignificant or not available

STANDARD ERROR AND COEFFICIENT OF VARIATION FOR FORECAST OF
AREA AND PRODUCTION, OF MAJOR CROPS, 2001/02 (1994 E.C.)

GAMBELA

| TYPE OF CROP | AREA (000' HA) | S.E. (000' HA) | C.V. (%) | PRODUCTION (000' QT) | S.E. (000' QT) | C.V. (%) |
|--------------|----------------|----------------|----------|----------------------|----------------|----------|
| CEREALS | 9.93 | 2.00 | 20.11 | 320.98 | 94.35 | 29.39 |
| TEFF | ** | ** | ** | 0.00 | 0.00 | ***** |
| BARELY | - | - | - | - | - | - |
| WHEAT | - | - | - | - | - | - |
| MAIZE | 7.56 | 1.76 | 23.21 | 284.93 | 87.72 | 30.79 |
| SORGHUM | 2.28 | 0.59 | 25.88 | 35.93 | 15.02 | 41.79 |
| MILLET | ** | ** | ** | 0.11 | 0.05 | 46.06 |
| OATS | - | - | - | - | - | - |
| PULSES | ** | ** | 23.21 | ** | ** | ** |
| HORSEBEANS | - | - | - | - | - | - |
| FIELDPEAS | - | - | - | - | - | - |
| HARICOTBEANS | ** | ** | ** | ** | ** | ** |
| CHICKPEAS | - | - | - | - | - | - |
| LENTILS | - | - | - | - | - | - |
| VECTH | - | - | - | - | - | - |
| OTHERS | 0.37 | 0.14 | 37.43 | ** | ** | ** |
| NEUG | - | - | - | - | - | - |
| LINSEED | - | - | - | - | - | - |
| RAPESEED | ** | ** | ** | ** | ** | ** |
| GROUNDNUTS | 0.04 | 0.02 | 40.66 | ** | ** | ** |
| SUNFLOWER | ** | ** | ** | ** | ** | ** |
| SEASAME | 0.32 | 0.14 | 43.26 | ** | ** | ** |
| FENUGREEK | - | - | - | - | - | - |
| ALL CROPS | 10.49 | 2.05 | 19.54 | 321.99 | 94.27 | 29.28 |

STANDARD ERROR AND COEFFICIENT OF VARIATION FOR FORECAST OF
AREA AND PRODUCTION, OF MAJOR CROPS, 2001/02 (1994 E.C.)

HARARI

| TYPE OF CROP | AREA (000' HA) | S.E. (000' HA) | C.V. (%) | PRODUCTION (000' QT) | S.E. (000' QT) | C.V. (%) |
|--------------|----------------|----------------|----------|----------------------|----------------|----------|
| CEREALS | 5.45 | 0.71 | 13.10 | 77.53 | 10.83 | 13.97 |
| TEFF | - | - | - | - | - | - |
| BARELY | ** | ** | ** | ** | ** | ** |
| WHEAT | 0.14 | 0.06 | 44.05 | 1.74 | 0.85 | 49.14 |
| MAIZE | 0.83 | 0.14 | 16.64 | 12.85 | 2.48 | 19.28 |
| SORGHUM | 4.47 | 0.62 | 13.94 | 62.54 | 9.15 | 14.63 |
| MILLET | - | - | - | - | - | - |
| OATS | ** | ** | ** | ** | ** | ** |
| PULSES | 0.02 | 0.01 | 42.05 | ** | ** | ** |
| HORSEBEANS | ** | ** | ** | ** | ** | ** |
| FIELDPEAS | ** | ** | ** | ** | ** | ** |
| HARICOTBEANS | ** | ** | ** | ** | ** | ** |
| CHICKPEAS | ** | ** | ** | ** | ** | ** |
| LENTILS | - | - | - | - | - | - |
| VECTH | - | - | - | - | - | - |
| OTHERS | 1.17 | 0.28 | 23.52 | 0.00 | 0.00 | 29.25 |
| NEUG | - | - | - | - | - | - |
| LINSEED | - | - | - | - | - | - |
| RAPESEED | - | - | - | - | - | - |
| GROUNDNUTS | 1.16 | 0.28 | 23.69 | - | - | - |
| SUNFLOWER | - | - | - | - | - | - |
| SEASAME | ** | ** | ** | ** | ** | ** |
| FENUGREEK | ** | ** | ** | ** | ** | ** |
| ALL CROPS | 6.64 | 0.86 | 13.01 | 77.85 | 10.84 | 13.93 |

Abbreviations

S.E. = Standard Error

C.V. = Coefficient of Variation

- = Insignificant or not available

STANDARD ERROR AND COEFFICIENT OF VARIATION FOR FORECAST OF
AREA AND PRODUCTION, OF MAJOR CROPS, 2001/02 (1994 E.C.)

ADDIS ABABA

| TYPE OF CROP | AREA (000' HA) | S.E. (000' HA) | C.V. (%) | PRODUCTION (000' QT) | S.E. (000' QT) | C.V. (%) |
|--------------|-------------------|-------------------|-------------|-------------------------|-------------------|-------------|
| CEREALS | 17.04 | 7.73 | 45.35 | 238.11 | 106.42 | 44.70 |
| TEFF | 8.52 | 3.13 | 36.74 | 99.11 | 32.66 | 32.96 |
| BARELY | 0.10 | 0.05 | 47.15 | 0.96 | 0.45 | 46.71 |
| WHEAT | ** | ** | ** | ** | ** | ** |
| MAIZE | 0.05 | 0.02 | 36.36 | 0.59 | 0.27 | 46.23 |
| SORGHUM | ** | ** | ** | 0.15 | 0.07 | 45.21 |
| MILLET | - | - | - | - | - | - |
| OATS | ** | ** | ** | ** | ** | ** |
| PULSES | ** | ** | ** | 57.93 | 27.77 | 47.93 |
| HORSEBEANS | 0.15 | 0.05 | 35.51 | 2.35 | 0.79 | 33.51 |
| FIELDPEAS | 0.04 | 0.02 | 43.57 | ** | ** | ** |
| HARICOTBEANS | ** | ** | ** | ** | ** | ** |
| CHICKPEAS | ** | ** | ** | 38.39 | 19.03 | 49.58 |
| LENTILS | ** | ** | ** | ** | ** | ** |
| VECTH | 1.03 | 0.43 | 41.49 | 11.74 | 5.21 | 44.39 |
| OTHERS | ** | ** | ** | ** | ** | ** |
| NEUG | ** | ** | ** | ** | ** | ** |
| LINSEED | ** | ** | ** | ** | ** | ** |
| RAPESEED | ** | ** | ** | ** | ** | ** |
| GROUNDNUTS | - | - | - | - | - | - |
| SUNFLOWER | ** | ** | ** | ** | ** | ** |
| SEASAME | - | - | - | - | - | - |
| FENUGREEK | ** | ** | ** | ** | ** | ** |
| ALL CROPS | 21.42 | 9.92 | 46.29 | 269.06 | 133.91 | 33.60 |

STANDARD ERROR AND COEFFICIENT OF VARIATION FOR FORECAST OF
AREA AND PRODUCTION, OF MAJOR CROPS, 2001/02 (1994 E.C.)

DIRE DAWA

| TYPE OF CROP | AREA (000' HA) | S.E. (000' HA) | C.V. (%) | PRODUCTION (000' QT) | S.E. (000' QT) | C.V. (%) |
|--------------|-------------------|-------------------|-------------|-------------------------|-------------------|-------------|
| CEREALS | 5.97 | 0.69 | 11.55 | 98.05 | 18.37 | 18.73 |
| TEFF | - | - | - | - | - | - |
| BARELY | ** ** | ** | ** | ** | ** | ** |
| WHEAT | - | - | - | - | - | - |
| MAIZE | 0.25 | 0.07 | 26.33 | 6.34 | 1.76 | 27.71 |
| SORGHUM | 5.71 | 0.69 | 12.01 | 91.70 | 18.30 | 19.96 |
| MILLET | - | - | - | - | - | - |
| OATS | - | - | - | - | - | - |
| PULSES | 0.27 | 0.09 | 33.83 | ** | ** | ** |
| HORSEBEANS | - | - | - | - | - | - |
| FIELDPEAS | - | - | - | - | - | - |
| HARICOTBEANS | 0.27 | 0.09 | 33.83 | ** | ** | ** |
| CHICKPEAS | - | - | - | - | - | - |
| LENTILS | - | - | - | - | - | - |
| VECTH | - | - | - | - | - | - |
| OTHERS | ** | ** | ** | ** | ** | ** |
| NEUG | - | - | - | - | - | - |
| LINSEED | - | - | - | - | - | - |
| RAPESEED | - | - | - | - | - | - |
| GROUNDNUTS | ** | ** | ** | ** | ** | ** |
| SUNFLOWER | - | - | - | - | - | - |
| SEASAME | ** | ** | ** | ** | ** | ** |
| FENUGREEK | ** | ** | ** | ** | ** | ** |
| ALL CROPS | 8.08 | 0.75 | 12.01 | 99.57 | 18.80 | 18.88 |

Abbreviations

S.E. = Standard Error

C.V. = Coefficient of Variation

- = Insignificant or not available

APPENDIX III

NUMBER OF FIELDS MEASURED

UNDER MAJOR CROPS

**APPENDIX III. THE 1994 E.C (2001/2002) CROP PRODUCTION FORCAST
SURVEY NUMBER OF EAs AGRICULTURAL ACTUALLY
COVERED AND TOTAL NUMBER OF FIELDS MEASURED**

| Region | Stratum Zone/sp. Wereda | Number of EAS | Number of | Number of | Number of |
|--------------------|-------------------------------|---------------|-------------|--------------|--------------|
| | | Covered | Households | Parcels | Fields |
| Tigray | W.Tigray | 35 | 350 | 908 | 2401 |
| | C.Tigray | 35 | 350 | 1376 | 3805 |
| | E.Tigray | 35 | 350 | 964 | 3005 |
| | S.Tigray | 35 | 350 | 1293 | 2098 |
| | Total | 140 | 1400 | 4541 | 11309 |
| Afar | Zone one | 35 | 341 | 611 | 1103 |
| | Zone three | 32 | 319 | 393 | 1259 |
| | Total | 67 | 660 | 1004 | 2362 |
| Amhara | N.Gonder | 34 | 339 | 1410 | 2410 |
| | S.Gonder | 33 | 330 | 1484 | 2476 |
| | N.Wello | 35 | 350 | 1558 | 3266 |
| | S.Wello | 35 | 349 | 1916 | 3784 |
| | N.Shoa | 35 | 350 | 1751 | 4150 |
| | E.Gojam | 35 | 350 | 1490 | 2710 |
| | W.Gojam | 35 | 350 | 1450 | 2807 |
| | Waghimra | 35 | 350 | 1312 | 2361 |
| | Awi | 34 | 340 | 1375 | 2913 |
| | Oromia zone | 35 | 350 | 928 | 2893 |
| | Total | 346 | 3458 | 14674 | 29770 |
| | Oromia | W.Wellega | 35 | 350 | 1476 |
| E.Wellega | | 35 | 350 | 1021 | 2967 |
| Illubabor | | 35 | 349 | 1174 | 4246 |
| Jimma | | 35 | 350 | 1032 | 4060 |
| W.Shoa | | 35 | 350 | 1345 | 3293 |
| N.Shoa | | 35 | 350 | 1855 | 3132 |
| E.Shoa | | 35 | 350 | 1287 | 2619 |
| Arsi | | 35 | 350 | 1364 | 3026 |
| W.Harergie | | 34 | 339 | 939 | 3141 |
| E.Harergie | | 34 | 340 | 887 | 2475 |
| Bale | | 33 | 330 | 899 | 2550 |
| Borena | | 33 | 329 | 473 | 1954 |
| Total | | 414 | 4137 | 13752 | 37915 |
| Somale | | Shinle | 19 | 188 | 242 |
| | Jijiga | 35 | 346 | 967 | 2325 |
| | Libon | 51 | 504 | 1692 | 3974 |
| | Total | 105 | 1038 | 2901 | 6975 |
| Grand Total | | 967 | 9655 | 33971 | 81356 |

| Region | Stratum Zone/sp. Wereda | Number of EAS | Number of Households | Number of Parcels | Number of Fields |
|----------------------|-------------------------------|---------------|-------------------------|----------------------|---------------------|
| | | Covered | | | |
| Benishangul Gumze | Metekel | 34 | 339 | 999 | 2202 |
| | Assosa | 33 | 330 | 932 | 3089 |
| | Kemeshi | 35 | 350 | 876 | 2302 |
| | Total | 1155 | 11526 | 38488 | 93037 |
| S.N.N.P | Guraghie | 35 | 349 | 535 | 4564 |
| | Hadya | 35 | 350 | 461 | 6179 |
| | Kembata A.T | 34 | 340 | 538 | 5532 |
| | Sidama | 35 | 350 | 441 | 3484 |
| | Ghedio | 35 | 350 | 654 | 2874 |
| | Wolayta | 35 | 347 | 344 | 5042 |
| | Debub Omo | 34 | 338 | 498 | 2366 |
| | Sheka | 35 | 350 | 518 | 2889 |
| | Keffa | 35 | 349 | 587 | 3656 |
| | Gomgofa | 35 | 350 | 764 | 3474 |
| | Benchmaje | 30 | 300 | 441 | 2293 |
| | Yem Special | 25 | 250 | 827 | 3877 |
| | Amaro Special | 25 | 250 | 470 | 2336 |
| | Burji Special | 25 | 250 | 639 | 2232 |
| | Konso Special | 25 | 250 | 739 | 2112 |
| | Derashe Special | 25 | 250 | 495 | 2013 |
| | Dawro | 35 | 350 | 376 | 4005 |
| | Basketo Special | 24 | 240 | 296 | 2524 |
| | Konta Special | 25 | 250 | 241 | 2572 |
| | Total | 587 | 5863 | 9864 | 64024 |
| Gambela | Zone one | 6 | 60 | 89 | 395 |
| | Zone two | 21 | 209 | 361 | 1892 |
| | Total | 27 | 269 | 450 | 2287 |
| Harer | - | 25 | 250 | 745 | 2505 |
| | Total | 25 | 250 | 745 | 2505 |
| Addis Ababa | Three | 25 | 250 | 754 | 1924 |
| | Six | 10 | 100 | 498 | 1059 |
| | Total | 35 | 350 | 1252 | 2983 |
| Dere Dawa | - | 25 | 250 | 696 | 1536 |
| | Total | 25 | 250 | 696 | 1536 |
| Grand Total | | 1854 | 18508 | 51495 | 164836 |

APPENDIX IV

QUESTIONER

Part I - IDENTIFICATION PARTICULARS

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------|------|--------|---------------------|------------------|------------------|---|--------|-----|------------------------|---------------------------------------|
| Region | zone | Woreda | Farmers Association | Enumeration Area | Household Number | | Holder | | Sex | Type of Holding |
| | | | | | | | Name | Age | male → 1 Female → 2 | Crop → 1 Livestack → 2 Both → 3 |
| | | | | | | | | | | |

Part II - Area Under Temporary Crops and Agricultural Practice

| 1 | 2 | 3 | | | 4 | | | 5 | | | 6 | | |
|---------|--|------------|-----------|-----------|------------|-----------|-----------|------------|-----------|-----------|------------|-----------|-----------|
| | | Parcel No. | Field No. | crop name | Parcel No. | field NO. | crop name | Parcel No. | filed NO. | crop name | Parcel No. | filed NO. | crop name |
| Sr. No. | Questions | | | | | | | | | | | | |
| 0 | 1 Type of Holding Private → 1 Others → 3 Rnted/contract → 2 | | | | | | | | | | | | |
| 0 | 2 Crop Area in local unit | Name | code | Area | Name | code | Area | Name | code | Area | Name | code | Area |
| 0 | 3 Have the field been included in the extention Package program Yes → 1 No → 2 | | | | | | | | | | | | |
| 0 | 4 Was the field irrigated? Yes → 1 No → 2 | | | | | | | | | | | | |
| 0 | 5 Variety of seeds used Improved → 1 Indiginous → 2 | | | | | | | | | | | | |
| 0 | 6 (For Cereals,Pulses and Oil seeds only) If indiginous seed was used, What was the total quantity | Kg. | Gram | | Kg. | Gram | | Kg. | Gram | | Kg. | Gram | |
| 0 | 7 (For Cereals,Pulses and Oil seeds only) If Improved seed was used, what was the total quantity | Kg. | Gram | | Kg. | Gram | | Kg. | Gram | | Kg. | Gram | |
| 0 | 8 (For Cereals,Pulses and Oil seeds only) If Improved seed was used what was the cost/price | Birr | cent | | Birr | cent | | Birr | cent | | Birr | cent | |
| 0 | 9 Was the crop Damaged Yes → 1 No → 2 | | | | | | | | | | | | |
| 1 | 0 If yes, what was the major cause of damage | Reason | code | | Reason | code | | Reason | code | | Reason | code | |
| 1 | 1 Percentage of damage | | | | | | | | | | | | |
| 1 | 2 Any control/protection measure taken for crop damage? Yes → 1 No → 2 | | | | | | | | | | | | |
| 1 | 3 If yes, what Type of measure? Chemical → 1 Both → 3 Non chemical → 2 | | | | | | | | | | | | |
| 1 | 4 If chemical Insecticide → 1 1&3 → 5 Herbicide → 2 2&3 → 6 Fungicide → 3 All → 7 1&2 → 4 | | | | | | | | | | | | |
| 1 | 5 Was the field fertilized? Yes → 1 No → 2 | | | | | | | | | | | | |
| 1 | 6 If fertilized what type ? Natural → 1 Both → 3 Chemical → 2 | | | | | | | | | | | | |
| 1 | 7 One main reason for not using chemical fertilizer | Reason | Code | | Reason | Code | | Reason | Code | | Reason | Code | |
| 1 | 8 If chemical fertilizer used 18.1 Type Urea → 1 Both → 3 Dap → 2 18.2 Quantity in K.g | Kg. | Gram | | Kg. | Gram | | Kg. | Gram | | Kg. | Gram | |
| 1 | 9 If natural fertilizer used mainly What type? Manure → 1 Both → 3 compost → 2 Others → 4 /ከዚህ 4 ከተሞላ በባሉ በኃላው ይገልጹ/ /If others specify/ → | | | | | | | | | | | | |

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 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------|------|--------|----------------------|-------------------|------------------|---------------|------|-----|------------------------|---------------------------------------|
| Region | Zone | Wereda | Farmers' Association | Enumeration Areas | Household Number | Holder Number | Name | Age | Sex | Type of Holding |
| | | | | | | | | | male → 1 female → 2 | Crop → 1 Livestock → 2 Both → 3 |

Part II - Area Under Mixed Crops and Agricultural Practice

| 1 | 2 | 3 | | | 4 | | |
|---|--|--------------------|-----------|-----------|------------|--------------------|-----------|
| | | Parcel No. | Field No. | | Parcel No. | Field No. | |
| | Questions | Crop Name | Corp Name | Crop Name | Corp Name | Corp Name | Corp Name |
| | | code | code | code | code | code | code |
| 0 | 1 Type of Holding Private → 1 Others → 3 Contract/contract → 2 | | | | | | |
| 0 | 2 Total mixed corp area in local unit | Name of Local Unit | | code | Area | Name of Local Unit | |
| 0 | 3 Was the field been included in the extension package program Yes → 1 No → 2 | | | | | | |
| 0 | 4 Area in percentag share for Each crop | | | | | | |
| 0 | 5 Number of trees for permanent Crop | Quantity | Quantity | Quantity | Quantity | Quantity | Quantity |
| 0 | 6 Number of trees of fruit of permanent crop | Quantity | Quantity | Quantity | Quantity | Quantity | Quantity |
| 0 | 7 was the field irrigated yes → 1 No → 2 | | | | | | |
| 0 | 8 Variety of seeds used Improved → 1 Indignous → 2 | | | | | | |
| 0 | 9 If indignous seed was used what was the quantity | Kg. Gram | Kg. Gram | Kg. Gram | Kg. Gram | Kg. Gram | Kg. Gram |
| 1 | 0 If Improved seed was used, what was the quantity | Kg. Gram | Kg. Gram | Kg. Gram | Kg. Gram | Kg. Gram | Kg. Gram |
| 1 | 1 If Improved seed was used what was the cost/price | Birr sent | Birr sent | Birr sent | Birr sent | Birr sent | Birr sent |
| 1 | 2 was the crop Damager? Yes → 1 No → 2 | | | | | | |
| 1 | 3 If, yes, what was the major cause of Damage | Reason | Code | Reason | Code | Reason | Code |
| 1 | 4 percentage of Damage | | | | | | |
| 1 | 5 Any control/ preventive measure Taken for crop damage → 1 → 2 | | | | | | |
| 1 | 6 If yes, what type of measure Chemical → 1 Both → 3 Non-chemical → 2 | | | | | | |
| 1 | 7 If chemical insecticide Insecticide → 1 1&3 → 5 Herbicide → 2 2&3 → 6 Fungicide → 3 All → 7 1&2 → 4 | | | | | | |
| 1 | 8 Was the field fertilized yes → 1 No → 2 | | | | | | |
| 1 | 9 if fertilized what type? Natural → 1 Both → 3 Chemical → 2 | | | | | | |
| 2 | 0 One main Reson for not using Chemical fertilizer | Reason | | Code | Reason | | Code |
| 2 | 1 if chemical fertilizer used 21.1 Type Urea → 1 Both → 3 Dap → 2 21.2 ጠጠን በኪሎ ግራም Quantity in kg. | Kg. Gram | | Kg. Gram | | Kg. Gram | |
| 2 | 2 If natural fertilizer used mainly what type Manure → 1 Both → 3 Compost → 2 Others → 4 / If others specify/ | | | | | | |

RURAL

Ethiopian Agricultural Sample Enumeration
List of Fields Under Permanent Crops and their Agricultural Practices
(Mehere Season) - 2001/02 (1994 E.C.)

Form EASE -R -94/3C

Part I IDENTIFICATION PARTICULARS

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------|------|--------|----------------------|------------------|------------------|---------------|----------|-----|-------------------------------|--|
| Region | Zone | Wereda | Farmers' Association | Enumeration Area | Household Number | Holder Number | Holder's | | | Type of Holding crop → 1 Livestock → 2 Both → 3 |
| | | | | | | | Name | Age | Sex male → 1 Female → 2 | |
| | | | | | | | | | | |

Part II - Area Under Permanent Crops and Agricultural Practice

| 1 | 2 | 3 | | | 4 | | | 5 | | | 6 | | |
|-----|--|-------------|----------|-----------|-------------|----------|-----------|-------------|----------|-----------|-------------|----------|-----------|
| | | parcel No | Field No | Crop Name | parcel No | Field No | Crop Name | parcel No | Field No | Crop Name | parcel No | Field No | Crop Name |
| 0 1 | Type of Holding Private → 1 Other → 3 Rented/contract → 2 | | | | | | | | | | | | |
| 0 2 | Crop Area in Local unit | Name | Code | Area | Name | Code | Area | Name | Code | Area | Name | Code | Area |
| 0 3 | Has the field been included in the extension package program Yes → 1 No → 2 | | | | | | | | | | | | |
| 0 4 | Total number of trees in the field. (Excluding Coffe,Chat,Pineapple,Sugar-cane) | Quantity | | | Quantity | | | Quantity | | | Quantity | | |
| 0 5 | Number of trees of fruit bearing age (Excluding Coffe,Chat,Pineapple,Sugar-cane) | Quantity | | | Quantity | | | Quantity | | | Quantity | | |
| 0 6 | Was the field irrigated Yes → 1 No → 2 | | | | | | | | | | | | |
| 0 7 | Variety of seeds used Improved → 1 Indiginous → 2 | | | | | | | | | | | | |
| 0 8 | Was the crop Damaged Yes → 1 No → 2 | | | | | | | | | | | | |
| 0 9 | If yes, what was the major cause of damage | Reason code | | | Reason code | | | Reason code | | | Reason code | | |
| 1 0 | Percentage of Damage | | | | | | | | | | | | |
| 1 1 | Any control /preventive measure taken for crop Damage Yes → 1 No → 2 | | | | | | | | | | | | |
| 1 2 | Chemical → 1 Both → 3 Non chemical → 2 | | | | | | | | | | | | |
| 1 3 | If chemica Insectide → 1 1&3 → 5 Herbicide → 2 2&3 → 6 Fungicids → 3 All → 7 1&2 → 4 | | | | | | | | | | | | |
| 1 4 | Was the field fertilized Yes → 1 No → 2 | | | | | | | | | | | | |
| 1 5 | If fertilized what type? Natural → 1 Both → 3 Chemica → 2 | | | | | | | | | | | | |
| 1 6 | Reason for not using chemical fertilizer | Reason code | | | Reason code | | | Reason code | | | Reason code | | |
| 1 7 | If chemical (comercial) fertilizer used 17.1 Type Urea → 1 Both → 3 Dap → 2 17.2 Quantity in Kg. | Kg. Gram | | | Kg. Gram | | | Kg. Gram | | | Kg. Gram | | |
| 1 8 | If natural fertilizer used mainly what type? Manure → 1 Both → 3 Compost → 2 Others → 4 /if others specify/ → | | | | | | | | | | | | |

Ethiopian Agricultural Sample Enumeration Assessment of Crop Conditions - 2001/02 (1994 E.C.)

*NOTE:- This Form should be Filled Out For Mixed Crops
According to their Type in Pure Stands*

| Job ID | | | Part I - Identification Particulars | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|--|--|-------------------------------------|--|---|------|---|--|--------|--|---|----------------------|---|--|------------------|--|----|-----------|----|--|----|--|----|--|----|--|----|--|
| | | | 1 | | | 2 | | | 3 | | | 4 | | | 5 | | | 6 | | | | | | | | | | |
| | | | Region | | | Zone | | | Wereda | | | Farmers' Association | | | Enumeration Area | | | Crop Name | | | | | | | | | | |
| | | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Part II - Assessment of Crop Conditions (For Meher Season)

| 1 | | 2 | | 3 | | | 4 | | 5 | | 6 | | | 7 | | | 8 | | | 9 | | | 10 | | | 11 | | | | | | | | | | | | | | | | | |
|------------|----------------|----|---------------------------|------------------------|---------------------|----|---|----|---|------------------------|---|----|-------------------------|----|--|---------|---|----|---------------------------|----|--|-------------------------------------|----|----|--|----|--|----|--|----|--|------|--|----|--|----|--|----|--|----|--|----|--|
| Sr. No. | Name of Holder | | Household ID Number | Holder ID Number | Number of Fields | | Crop Productivity Compared to Last Year | | | | | | Change In Percent | | | Remarks | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | Increase =1 | | | If Increase | | | | | | | | | If Decrease | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | Equal / No change =2 | | | Quantity in Percent | | | | | | | | | Quantity In Percent | | | One Major Reason for Decrease | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | 31 | | 32 | | Code | | 33 | | 34 | | 35 | | 36 | | 37 | |
| 0 | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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. | Field Under Temp/Veg/Root Croups → 1 | Name of Crop Type of Land use | If in col.11 code 1,2 or 3 Quantity of prod. In Local unit | Identification particulars | If mixed Preparation Of Area under Each crop | |
| | | Permanent → 2 | | | | | |
| | | Mixed → 3 | | | | | |
| | | Other land use → 4 | | | | | |
| | | code | SR. No. | code | Name | Code | Quantity |
| | | | 1 | | | | |
| | | | 2 | | | | |
| | | | 3 | | | | |

Part II. Area Measurement Result

| | | | | |
|---------------------|---------------|---------------------|-------------------------|--|
| 1 | 2 | 3 | 4 | 5 |
| Date of measurement | Area in Sq.m. | Area in Local Units | | Reason if area Measurement not conducted |
| Date | | Month | Name of Local Area Unit | |
| | | code | | Code |

Part III. Bearing and Distances of the Measured Area

| | | | | | | | |
|--------------|-----|-----|----|----|----|----|----|
| v`L esÄ | A-B | B-C | C- | D- | E- | F- | G- |
| Bearing | | | | | | | |
| Distanse of | | | | | | | |
| v`L esÄ | H- | I- | J- | K- | L- | M- | N- |
| Bearing | | | | | | | |
| Distances of | | | | | | | |
| v`L esÄ | O- | P- | Q- | R- | S- | T- | U- |
| Bearing | | | | | | | |
| Distance of | | | | | | | |

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