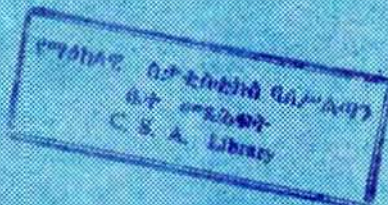


TRANSITIONAL GOVERNMENT OF ETHIOPIA  
CENTRAL STATISTICAL AUTHORITY



AGRICULTURAL SAMPLE SURVEY  
1994/95(1987 E.C.)

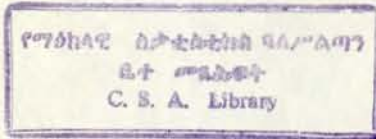
REPORT ON  
**AREA AND PRODUCTION FOR  
MAJOR CROPS**  
( PRIVATE PEASANT HOLDINGS, MAIN SEASON )

VOLUME I

ADDIS ABABA

JUNE, 1995

TRANSITIONAL GOVERNMENT OF ETHIOPIA  
CENTRAL STATISTICAL AUTHORITY



AGRICULTURAL SAMPLE SURVEY  
1994/95(1987 E.C.)

REPORT ON  
**AREA AND PRODUCTION FOR  
MAJOR CROPS**  
( PRIVATE PEASANT HOLDINGS, MAIN SEASON )

VOLUME I

ADDIS ABABA  
JUNE, 1995

CONTENTS

|                                   | <u>PAGE</u> |
|-----------------------------------|-------------|
| 1. LIST OF TABLES.....            | ii          |
| 2. LIST OF FIGURES.....           | v           |
| 3. INTRODUCTION.....              | 1           |
| 4. OBJECTIVE OF THE SURVEY.....   | 2           |
| 5. COVERAGE AND CONTENT.....      | 2           |
| 6. SAMPLE DESIGN .....            | 5           |
| 7. FIELD ORGANIZATION.....        | 6           |
| 8. TRAINING OF FIELD STAFFS.....  | 7           |
| 9. METHOD OF DATA COLLECTION..... | 7           |
| 10. SURVEY RESULTS.....           | 8           |
| 11. APPENDIX I .....              | 64          |
| 12. APPENDIX II.....              | 88          |
| 13. APPENDIX III.....             | 91          |
| 14. APPENDIX IV.....              | 94          |
| 15. APPENDIX V.....               | 97          |
| 16. APPENDIX VI.....              | 103         |

## LIST OF TABLES

|            |  |    |
|------------|--|----|
| Table 1    | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings : NATIONAL<br>1994/95 (1987 E.C.).....                      | 13 |
| Table 2    | Estimate of Area, Production and Yield by region for Private Peasant Holdings, NATIONAL<br>1994/95 (1987 E.C.).....                            | 14 |
| Table 3    | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in TIGRAY REGION<br>1994/95 (1987 E.C.).....                | 16 |
| Table 4    | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in AFAR REGION<br>1994/95 (1987 E.C.).....                  | 17 |
| Table 5    | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in AMARA REGION<br>1994/95 (1987 E.C.).....                 | 18 |
| Table 5.1  | Estimate of Area, Production and Yield of major crops for Private Peasant holdings in Amara Region, AGEWAWI ZONE 1994/95 (1987 E.C.).....      | 19 |
| Table 5.2  | Estimate of Area, Production and Yield of major crops for Private Peasant holdings in Amara Region, EAST GOJAM ZONE 1994/95 (1987 E.C.).....   | 20 |
| Table 5.3  | Estimate of Area, Production and Yield of major crops for Private Peasant holdings in Amara Region, WEST GOJAM ZONE 1994/95 (1987 E.C.).....   | 21 |
| Table 5.4  | Estimate of Area, Production and Yield of major crops for Private Peasant holdings in Amara Region, NORTH GONDER ZONE 1994/95 (1987 E.C.)..... | 22 |
| Table 5.5  | Estimate of Area, Production and Yield of major crops for Private Peasant holdings in Amara Region, SOUTH GONDER ZONE 1994/95 (1987 E.C.)..... | 23 |
| Table 5.6  | Estimate of Area, Production and Yield of major crops for Private Peasant holdings in Amara Region, NORTH SHEWA ZONE 1994/95 (1987 E.C.).....  | 24 |
| Table 5.7  | Estimate of Area, Production and Yield of major crops for Private Peasant holdings in Amara Region, OROMIA ZONE 1994/95 (1987 E.C.).....       | 25 |
| Table 5.8  | Estimate of Area, Production and Yield of major crops for Private Peasant holdings in Amara Region, WAG-HAMRA ZONE 1994/95 (1987 E.C.).....    | 26 |
| Table 5.9  | Estimate of Area, Production and Yield of major crops for Private Peasant holdings in Amara Region, NORTH WOLO ZONE 1994/95 (1987 E.C.).....   | 27 |
| Table 5.10 | Estimate of Area, Production and Yield of major crops for Private Peasant holdings in Amara Region, SOUTH WOLO ZONE 1994/95 (1987 E.C.).....   | 28 |
| Table 6    | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in OROMIA REGION<br>1994/95 (1987 E.C.).....                | 29 |

|            |   |    |
|------------|---|----|
| Table 6.1  | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in Oromia Region, ARSI ZONE 1994/95 (1987 E.C.).....                   | 30 |
| Table 6.2  | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in Oromia Region, BALE ZONE 1994/95 (1987 E.C.).....                   | 31 |
| Table 6.3  | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in Oromia Region, BORENA ZONE 1994/95 (1987 E.C.).....                 | 32 |
| Table 6.4  | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in Oromia Region, EAST HARERGE ZONE 1994/95 (1987 E.C.).....           | 33 |
| Table 6.5  | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in Oromia Region, WEST HARERGE ZONE 1994/95 (1987 E.C.).....           | 34 |
| Table 6.6  | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in Oromia Region, ILUBABOR ZONE 1994/95 (1987 E.C.).....               | 35 |
| Table 6.7  | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in Oromia Region, JIMA ZONE 1994/95 (1987 E.C.).....                   | 36 |
| Table 6.8  | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in Oromia Region, EAST SHEWA ZONE 1994/95 (1987 E.C.).....             | 37 |
| Table 6.9  | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in Oromia Region, NORTH SHEWA ZONE 1994/95 (1987 E.C.).....            | 38 |
| Table 6.10 | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in Oromia Region, WEST SHEWA ZONE 1994/95 (1987 E.C.).....             | 39 |
| Table 6.11 | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in Oromia Region, EAST WELEGA ZONE 1994/95 (1987 E.C.).....            | 40 |
| Table 6.12 | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in Oromia Region, WEST WELEGA ZONE 1994/95 (1987 E.C.).....            | 41 |
| Table 7    | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in BENSANGUL REGION 1994/95 (1987 E.C.).....                           | 42 |
| Table 8    | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in S.ETHIOPIAN PEOPLES' ADMINISTRATIVE REGION 1994/95 (1987 E.C.)..... | 43 |
| Table 8.1  | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in S.E.P.A. Region, BENCH ZONE 1994/95 (1987 E.C.).....                | 44 |
| Table 8.2  | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in S.E.P.A. Region, GEDIO ZONE 1994/95 (1987 E.C.).....                | 45 |
| Table 8.3  | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in S.E.P.A. Region, GURAGE ZONE 1994/95 (1987 E.C.).....               | 46 |

|            |  |    |
|------------|--|----|
| Table 8.4  | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in S.E.P.A. Region, HADIYA ZONE 1994/95 (1987 E.C.).....    | 47 |
| Table 8.5  | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in S.E.P.A. Region, KEMBATA ZONE 1994/95 (1987 E.C.).....   | 48 |
| Table 8.6  | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in S.E.P.A. Region, KEFICHO ZONE 1994/95 (1987 E.C.).....   | 49 |
| Table 8.7  | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in S.E.P.A. Region, MAJI ZONE 1994/95 (1987 E.C.).....      | 50 |
| Table 8.8  | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in S.E.P.A. Region, N. OMO ZONE 1994/95 (1987 E.C.).....    | 51 |
| Table 8.9  | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in S.E.P.A. Region, S. OMO ZONE 1994/95 (1987 E.C.).....    | 52 |
| Table 8.10 | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in S.E.P.A. Region, SHEKICHO ZONE 1994/95 (1987 E.C.).....  | 53 |
| Table 8.11 | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in S.E.P.A. Region, SIDAMA ZONE 1994/95 (1987 E.C.).....    | 54 |
| Table 8.12 | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in S.E.P.A. Region, AMARO WEREDA 1994/95 (1987 E.C.).....   | 55 |
| Table 8.13 | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in S.E.P.A. Region, BURJI WEREDA 1994/95 (1987 E.C.).....   | 56 |
| Table 8.14 | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in S.E.P.A. Region, DERASHE WEREDA 1994/95 (1987 E.C.)..... | 57 |
| Table 8.15 | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in S.E.P.A. Region, KONSO WEREDA 1994/95 (1987 E.C.).....   | 58 |
| Table 8.16 | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in S.E.P.A. Region, YEM WEREDA 1994/95 (1987 E.C.).....     | 59 |
| Table 9    | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in GAMBELA REGION 1994/95 (1987 E.C.).....                  | 60 |
| Table 10   | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in HARARI REGION 1994/95 (1987 E.C.).....                   | 61 |
| Table 11   | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in ADDIS ABABA REGION 1994/95 (1987 E.C.).....              | 62 |
| Table 12   | Estimate of Area, Production and Yield of major crops for Private Peasant Holdings in DIRE DAWA 1994/95 (1987 E.C.).....                       | 63 |

LIST OF FIGURES

|          |   |    |
|----------|---|----|
| FIGURE 1 | Estimate of Area under major crops for Private Peasant Holdings: NATIONAL<br>1994/95 (1987 E.C.).....                       | 12 |
| FIGURE 2 | Estimate of Production for major crops for Private Peasant Holdings: NATIONAL<br>1994/95 (1987 E.C.).....                   | 12 |
| FIGURE 3 | Estimate of Area and Production of major crops for Private Peasant Holdings by Region, NATIONAL<br>1994/95 (1987 E.C.)..... | 15 |

REPORT ON  
AREA AND PRODUCTION OF MAJOR CROPS

**I. INTRODUCTION**

Ethiopia's economy is predominantly agrarian and the majority of the population in the country is engaged in agriculture. In this respect, the collection of reliable, comprehensive and timely statistical information on agriculture is very essential. The information is expected to be used for the formulation of agricultural policy.

The Central Statistical Authority (CSA) has been conducting Agricultural Sample Surveys on annual basis since 1980/81 (1973 E.C.) to provide the statistical data mentioned above. The survey was interrupted in 1992/93 and 1993/94 because during these two years the CSA was fully engaged in undertaking the preparatory activities for the 1994 Population and Housing Census. However, right after undertaking the 1994 Population and Housing Census, the annual agricultural survey was resumed in November 1994.

This volume presents the objectives of the survey; coverage and content of the survey; sample design; field organization; training of field staff; method of data collection; and survey results on area, production and yield of major crops. Moreover, it presents the appendices that comprise survey questionnaires; number of sampled EAs, number of EAs that are actually covered and not covered in the survey; number of households expected to be

covered and those actually covered in the survey for the purpose of area and production of major crops, agricultural practices, ...etc.; number of fields measured and crop cutting conducted; estimation procedure; standard errors and coefficient of variations for area and production estimates of major crops.

## **II. OBJECTIVES OF THE SURVEY.**

The general objective of the agricultural sample survey was to collect basic quantitative information on the nation's agriculture that are considered essential for development planning and socio-economic policy formulation.

In particular, the objectives of the survey were also to estimate the total cultivated land; total production and yield of major crops per hectare; land under different land uses; quantity and cost of agricultural inputs by type; number of livestock and poultry by type, purpose, sex and age; number of beehives and honey production in the private peasant holdings at national, regional and zonal levels.

## **III. COVERAGE AND CONTENT.**

The 1994/95 (1987 E.C) annual agricultural sample survey was designed to cover sedentary rural agricultural population in all regions of the country except Region 5. A total of 52 zones and 441 weredas were covered in the survey. The areal coverage of the survey is given in the following table.

**AREAL COVERAGE OF THE 1994/95 AGRICULTURAL SAMPLE SURVEY**

1987e

| REGION                | NUMBER OF ZONES |                             |                                    | NUMBER OF WEREDAS |                             |                                    |
|-----------------------|-----------------|-----------------------------|------------------------------------|-------------------|-----------------------------|------------------------------------|
|                       | TOTAL           | COVERED<br>IN THE<br>SURVEY | NOT<br>COVERED<br>IN THE<br>SURVEY | TOTAL             | COVERED<br>IN THE<br>SURVEY | NOT<br>COVERED<br>IN THE<br>SURVEY |
| TIGRAY <sup>1</sup>   | 5               | 4                           | 1                                  | 71                | 32                          | 39                                 |
| AFAR <sup>2</sup>     | 5               | 2                           | 3                                  | 27                | 3                           | 24                                 |
| AMARA                 | 10              | 10                          | -                                  | 127               | 111                         | 16                                 |
| OROMIA                | 12              | 12                          | -                                  | 222               | 196                         | 26                                 |
| SOMALI <sup>3</sup>   | 9               | -                           | 9                                  | 45                | -                           | 45                                 |
| BENSHANGUL            | 3               | 3                           | -                                  | 16                | 5                           | 11                                 |
| S.E.P.A.R.            | 16              | 16                          | -                                  | 94                | 83                          | 11                                 |
| GAMBELA               | 1               | 1                           | -                                  | 7                 | 4                           | 3                                  |
| HARARI                | 1               | 1                           | -                                  | 1                 | 1                           | -                                  |
| A. ABABA <sup>4</sup> | 6               | 2                           | 4                                  | 5                 | 5                           | -                                  |
| DIRE DAWA             | 1               | 1                           | -                                  | 1                 | 1                           | -                                  |
| <b>TOTAL</b>          | <b>69</b>       | <b>52</b>                   | <b>17</b>                          | <b>616</b>        | <b>441</b>                  | <b>175</b>                         |

**Note**

S.E.P.A.R = Southern Ethiopian Peoples' Administrative Region

- 1 - In Tigray Region, four out of five zones have rural settled population. In the remaining one zone the entire population is urban residents.
- 2 - When the sampled EAs were drawn they fall in three zones. But, during the field work, in one out of these three zones, the sampled EAs were found to be nomadic areas.
- 3 - During the field work some of the sampled EAs in the region were found to be nomadic areas. For those EAs where the population is sedentary, Somali speaking enumerators were not available in the area and hiring translators was impossible because of the high cost associated with it.
- 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.

Moreover, for the survey 960 enumeration areas were selected to be covered in all regions. An Enumeration Area in rural parts of the country is a locality that is less than or equal to a farmer's association area and usually it consists of 150 - 200 households. However, during the data collection stage the survey succeeded to cover only 884 enumeration areas(EAs). For details see appendix II. Furthermore, from each of the selected EAs a sample of 25 agricultural households were covered.

From these households, information on area under crops, production of major crops (temporary or annual), land utilization, agricultural practices, crop damage, quantity and price of agricultural inputs used, number of livestock and poultry by type, purpose, age and sex and number of beehives by type were collected. In addition, it was attempted for the first time to collect information on the yield of permanent crops per tree, frequency of harvests in the crop year and number of yielding trees during the survey year ( For details refer to survey questionnaire in Appendix I).

It should be noted here that of the total 25 agricultural households covered in the selected EAs the data collection on area measurement, crop cutting and agricultural practices were administered only on the first 15 households. Thus, a total of 12,793 agricultural households were covered for these exercises. In addition, area measurements of 74,874 fields with different crops belonging to these households were done and 12,645 crop cutting

exercises on major crops (temporary) in the sub-sample of the fields were conducted. For details refer to Appendix III and IV.

This report, which is volume I of the 1994/95 annual agricultural sample survey consists of results on area, production and yield of major crops per hectare. The remaining information collected in the survey will be published in subsequent volumes.

#### **IV. SAMPLE DESIGN.**

The reporting levels for the 1994/95 survey were zones in Amara, Oromia and Southern Ethiopian Peoples' Administrative Regions and regions for the remaining regions. The five special weredas of Southern Ethiopian Peoples' Administrative Region were considered as an independent zone each.

In this survey, 960 rural enumeration areas (EAs) were sampled in 11 regions. These sample EAs were allocated to the regions taking into account their relative sizes with respect to the number of households.

A two-stage stratified sample design was used for sample selection. In Amara, Oromia and Southern Ethiopia Peoples' Administrative Regions strata were zones and regions for the remaining regions. The primary sampling units in all strata were EAs and the ultimate sampling units were agricultural households.

In Oromia, Amara and Southern Ethiopian Peoples' Administrative Regions the share of each region were reallocated to the zones in the region proportional to the sizes, size being the total number of households as obtained from the listing operation in the 1994 Population and Housing Census map work.

In each stratum (zone/region) the primary sampling units (EAs) were selected with probability proportional to size without replacement, again size being the total number of household of the EA as obtained for the census map work.

From each selected EA a sample of 25 agricultural households were selected using systematic sampling technique from the identified agricultural households in the listing form (Form 1) of the 1994 Population and Housing Census. All holders in the selected agricultural households were covered by the survey.

Formula for variance calculation and the measure of precision of area and production are given in Appendix V and VI.

#### **V. FIELD ORGANIZATION.**

CSA branch statistical office heads, field supervisors and enumerators were fully involved in the survey. Hence, 14 statistical branch office heads, about 200 field supervisors, each supervising 5 enumerators in most cases and about 1000 enumerators stationed in each of the selected EAs, experts from head office,

other support staff and about 40 drivers were involved in the operation.

For all enumerators the necessary survey equipment, such as compass, protractor, ruler, measuring tapes, balance scale, poles, ropes, sample bags etc. were made available and to facilitate the field work about 40 vehicles were put on operation.

#### **VI. TRAINING OF FIELD STAFF.**

At the outset all relevant materials, like equipment, questionnaires and instruction manuals were prepared. Then the training programme for the field staff was carried out in two stages. In the first stage, about 90 trainees, i.e. experts from the head office, branch statistical office heads and some of the field supervisors were given training for two weeks at the head office. Those trained in the first stage conducted similar training for about 200 field supervisors and about 1000 enumerators in all the 14 branch offices all over the country. During the training, the field staff were given detailed class room instruction on the purpose of the survey, concept and definitions of terms used, method of area measurement, method of crop cutting, interviewing procedures,... etc. The training sessions included thorough field practices with regard to data collection.

#### **VII. METHOD OF DATA COLLECTION.**

The information were collected both by subjective and

objective methods of data collection. Information on agricultural practices( use of fertilizer, use of pesticide, use of improved seed and use of irrigation), livestock, poultry and belg season information were collected subjectively by interviewing the holders in the sampled households. Moreover, the objective measurements were done for only 15 of the selected households in which all crop areas and all land uses(fallow land, grazing land, wood land and other lands) were physically measured using compasses and measuring tapes. All fields under temporary crops of each holder in the sampled households were classified by type of crop and from each type a field was randomly selected for crop cutting. Then, a sixteen meter square plot was demarcated in the selected field in which the crop in the plot was harvested. The harvested crop was threshed and carried in bag with identification information like name of the crop, holding number, parcel and field number. The crop in the bag was weighed immediately after threshing and weighed again after two weeks of drying. The weights were recorded in the respective questionnaire.

#### **VIII. SURVEY RESULTS.**

As mentioned in the introduction, the result of area, production and yield for major crops (temporary or annual) are presented in this publication. Area and production for each crop was estimated using the estimation procedure described in Appendix V.

The 1994/95 annual agricultural sample survey which was supposed to be launched around mid September 1994 was slightly delayed and started in November 1994. This was because CSA staff and logistics were fully engaged during September and October with the data collection of the 1994 Population and Housing Census. Due to this delay, some crops were harvested before the arrival of the enumerators to the sample sites and they were not able to conduct crop-cutting exercises. In such cases, estimated average yields from the present survey were used to supplement the missing values within the stratum to estimate the production of these crops. In addition estimated average yields from the previous surveys of CSA or yields of the 1993/94 MOA/CSA crop assessment results were used wherever crop cutting results are missed for those crops within the stratum. It should also be noted here that the MOA/CSA crop assessment results were used only where no data was available in the recent surveys conducted by CSA.

As presented in the summary table, the estimate of total area under major crops is about 6960 thousand hectares at national level. Out of the total area, cereals account for about 5746 thousand hectares (82.56%) which is the highest share while the 878 thousand hectares (12.62%) and 336 thousand hectares (4.82%) are shared by pulses and other crops respectively. Comparing to the results of previous years' sample survey, there is an increase of area under major crops. This is mainly due to the contribution of Tigray, some parts of North Gonder, South Gonder and North Wolo which are covered in the current sample survey. The above mentioned

areas were excluded due to security problems in the past. In addition, most of cooperative land holdings were turned to private holdings.

**SUMMARY TABLE. Area, Production and Yield of Major Crops 1987 EC**

| TYPE OF CROP | AREA IN 000' HA. |        | PRODUCTION IN 000'QT. |        | YIELD QT/HA |
|--------------|------------------|--------|-----------------------|--------|-------------|
|              | NUMBER           | %      | NUMBER                | %      |             |
| CEREALS      | 5746.01          | 82.56  | 61542.00              | 87.40  | 10.12       |
| PULSES       | 878.48           | 12.62  | 7723.46               | 10.97  | 8.79        |
| OTHER CROPS  | 335.69           | 4.82   | 1152.53               | 1.64   | 3.43        |
| TOTAL        | 6960.19          | 100.00 | 70417.99              | 100.00 | 10.12       |

Furthermore, the total production estimate at national level is about 70.42 million quintals, of which cereals are 61.54 million quintals, pulses are about 7.72 million quintals and other crops, like Nueg, Rape seed, Fenugreek, Linseed totalled to 1.15 million quintals. (See Table 1.)

The survey result also indicates that at national level, the yield of all crops is about 10 quintals per hectare, the yield of cereals is about 10 quintals per hectare, the yield of pulses is

about 9 quintals per hectare and the yield of other crops mentioned above is about 3 quintals per hectare. It is also shown in Table 1 the highest yield is reported for maize, which is 15.15 quintals per hectare and the smallest is for nueg, 2.25 quintals per hectare.

When one looks at the regional estimates( Table 2), in Tigray Region 506.04, in Afar Region 16.55, in Amara Region 2608.32, in Oromia Region 3138.26, in Benshangul Region 60.42, in Southern Ethiopian Peoples' Administrative Region 599.23, in Gambela Region 6.24, in Harari Region 5.29, in Addis Ababa Region 10.31 and in Dire Dawa Provisional Administration 9.52 thousand hectares were cultivated. For details on production of major crops refer to Tables 3 -12.

**Fig 1. Estimates of Area Under Major Crops for  
Private Peasant Holdings: National\*  
1994/95 (1987 E.C.)**



**Fig 2. Estimates of Production for Major Crops for  
Private Peasant Holdings: National\*  
1994/95 (1987 E.C.)**



\*EXCLUDING REGION 5 AND OTHER NOMADIC AREAS.

Table 1 Estimates of Area, Production and Yield of Major Crops  
for Private Holdings: NATIONAL\*  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION<br>(000' QT) |        | YIELD<br>(QT/HA) |
|---------------|----------------------|--------|-------------------------------|--------|------------------|
|               | NUMBER               | %      | NUMBER                        | %      |                  |
| CEREALS       | 5746.01              | 82.56  | 61542.00                      | 87.40  | 10.71            |
| Teff          | 1843.76              | 26.49  | 12983.89                      | 18.44  | 7.04             |
| Barley        | 879.17               | 12.63  | 8476.85                       | 12.04  | 9.64             |
| Wheat         | 769.34               | 11.05  | 10239.14                      | 14.54  | 13.31            |
| Maize         | 1104.70              | 15.87  | 16732.02                      | 23.76  | 15.15            |
| Sorghum       | 886.01               | 12.73  | 11219.13                      | 15.93  | 12.66            |
| Millet        | 228.53               | 3.28   | 1530.51                       | 2.17   | 6.70             |
| Oats          | 34.50                | 0.50   | 360.46                        | 0.51   | 10.45            |
| PULSES        | 878.48               | 12.62  | 7723.46                       | 10.97  | 8.79             |
| Horse Beans   | 341.91               | 4.91   | 3737.90                       | 5.31   | 10.93            |
| Field Peas    | 154.97               | 2.23   | 1432.93                       | 2.03   | 9.25             |
| Haricot Beans | 68.75                | 0.99   | 363.63                        | 0.52   | 5.29             |
| Chick Peas    | 175.05               | 2.52   | 1224.96                       | 1.74   | 7.00             |
| Lentils       | 58.01                | 0.83   | 367.55                        | 0.52   | 6.34             |
| Vetch         | 79.79                | 1.15   | 622.90                        | 0.88   | 7.81             |
| OTHERS        | 335.69               | 4.82   | 1152.53                       | 1.64   | 3.43             |
| Neug          | 197.12               | 2.83   | 443.01                        | 0.63   | 2.25             |
| Linseed       | 110.92               | 1.59   | 535.52                        | 0.76   | 4.83             |
| Fenugreek     | 12.81                | 0.18   | 61.91                         | 0.09   | 4.83             |
| Rapeseed      | 14.83                | 0.21   | 112.09                        | 0.16   | 7.56             |
| ALL CROPS     | 6960.19              | 100.00 | 70417.99                      | 100.00 | 10.12            |

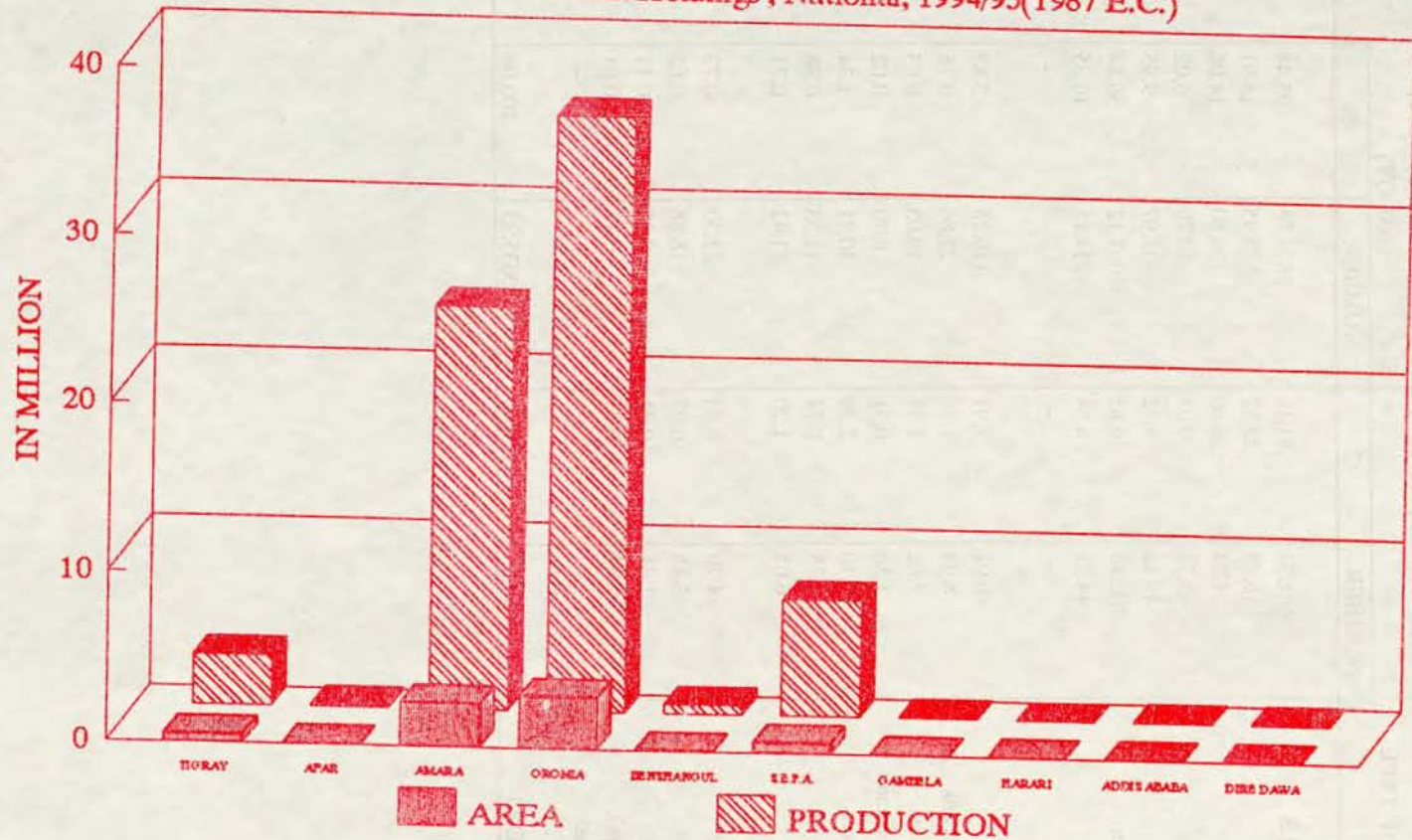
\* EXCLUDING REGION 5 AND OTHER NOMADIC AREAS.

Table 2 Estimates of Area, Production and Yield of Major Crops by Region for Private Peasant Holdings, NATIONAL\* 1994/95 (1987 E.C.)

| REGION       | CEREALS           |                         | PULSES            |                         | OTHERS            |                         | TOTAL             |                         |
|--------------|-------------------|-------------------------|-------------------|-------------------------|-------------------|-------------------------|-------------------|-------------------------|
|              | AREA<br>(000' HA) | PRODUCTION<br>(000' QT) | AREA<br>(000' HA) | PRODUCTION<br>(000' QT) | AREA<br>(000' HA) | PRODUCTION<br>(000' QT) | AREA<br>(000' HA) | PRODUCTION<br>(000' QT) |
| TIGRAY       | 461.33            | 2896.78                 | 40.01             | 116.25                  | 4.70              | 22.30                   | 506.04            | 3035.33                 |
| AFAR         | 16.51             | 146.35                  | 0.04              | 0.20                    | -                 | -                       | 16.55             | 146.55                  |
| AMARA        | 2055.84           | 19912.07                | 409.60            | 3560.73                 | 142.88            | 373.33                  | 2608.32           | 23846.13                |
| OROMIA       | 2614.27           | 31512.40                | 341.76            | 3183.86                 | 182.23            | 740.25                  | 3138.26           | 35436.51                |
| BENSHANGUL   | 53.15             | 612.16                  | 2.66              | 17.80                   | 4.61              | 11.36                   | 60.42             | 641.32                  |
| S. E. P. A.  | 516.55            | 6105.62                 | 81.52             | 808.79                  | 1.15              | 4.89                    | 599.23            | 6919.30                 |
| GAMBELA      | 6.14              | 78.39                   | 0.10              | 0.37                    | -                 | -                       | 6.24              | 78.76                   |
| HARARI       | 5.04              | 58.91                   | 0.25              | 1.92                    | -                 | -                       | 5.29              | 60.83                   |
| ADDIS ABA BA | 7.66              | 85.29                   | 2.54              | 33.54                   | 0.11              | 0.40                    | 10.31             | 119.23                  |
| DIRE DAWA    | 9.52              | 134.03                  | -                 | -                       | -                 | -                       | 9.52              | 134.03                  |
| TOTAL        | 5746.01           | 61542.00                | 878.48            | 7723.46                 | 335.69            | 1152.53                 | 6960.19           | 70417.99                |

\* EXCLUDING NOMADIC AREAS.

Figure 3.  
**Estimate of Area and Production of Major Crops by Region**  
 For Private Peasant Holdings , National, 1994/95(1987 E.C.)



EXCLUDING NOMADIC AREAS.

Table 3 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in TIGRAY REGION  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 461.33               | 91.16  | 2896.78                    | 95.44  | 6.28          |
| Teff          | 116.98               | 23.12  | 573.95                     | 18.91  | 4.91          |
| Barley        | 104.24               | 20.60  | 426.80                     | 14.06  | 4.09          |
| Wheat         | 45.72                | 9.03   | 182.79                     | 6.02   | 4.00          |
| Maize         | 49.18                | 9.72   | 301.97                     | 9.95   | 6.14          |
| Sorghum       | 100.46               | 19.85  | 1097.12                    | 36.14  | 10.92         |
| Millet        | 44.75                | 8.84   | 314.15                     | 10.35  | 7.02          |
| Oats          | -                    | -      | -                          | -      | -             |
| PULSES        | 40.01                | 7.91   | 116.25                     | 3.83   | 2.91          |
| Horse Beans   | 8.93                 | 1.76   | 22.86                      | 0.75   | 2.56          |
| Field Peas    | 7.62                 | 1.51   | 19.03                      | 0.63   | 2.50          |
| Haricot Beans | 1.56                 | 0.31   | 0.70                       | 0.02   | 0.45          |
| Chick Peas    | 12.10                | 2.39   | 40.71                      | 1.34   | 3.36          |
| Lentils       | 3.75                 | 0.74   | 11.53                      | 0.38   | 3.07          |
| Vetch         | 6.05                 | 1.20   | 21.42                      | 0.71   | 3.54          |
| OTHERS        | 4.70                 | 0.93   | 22.30                      | 0.73   | 4.74          |
| Neug          | 3.45                 | 0.68   | 18.88                      | 0.62   | 5.47          |
| Linseed       | 1.21                 | 0.24   | 3.25                       | 0.11   | 2.69          |
| Fenugreek     | 0.04                 | 0.01   | 0.17                       | 0.01   | 4.25          |
| Rapeseed      | -                    | -      | -                          | -      | -             |
| ALL CROPS     | 506.04               | 100.00 | 3035.33                    | 100.00 | 6.00          |

Table 4 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in AFAR REGION  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 16.51                | 99.76  | 146.35                     | 99.86  | 8.86          |
| Teff          | 6.32                 | 38.19  | 64.07                      | 43.72  | 10.14         |
| Barley        | -                    | -      | -                          | -      | -             |
| FS            | -                    | -      | -                          | -      | -             |
| Maize         | 0.46                 | 2.78   | 4.37                       | 2.98   | 9.50          |
| Sorghum       | 9.73                 | 58.79  | 77.91                      | 53.16  | 8.01          |
| Millet        | -                    | -      | -                          | -      | -             |
| Oats          | -                    | -      | -                          | -      | -             |
| PULSES        | 0.04                 | 0.24   | 0.20                       | 0.14   | 5.00          |
| Horse Beans   | -                    | -      | -                          | -      | -             |
| Field Peas    | -                    | -      | -                          | -      | -             |
| Haricot Beans | -                    | -      | -                          | -      | -             |
| Chick Peas    | 0.04                 | 0.24   | 0.20                       | 0.14   | 5.00          |
| Lentils       | -                    | -      | -                          | -      | -             |
| Vetch         | -                    | -      | -                          | -      | -             |
| OTHERS        | -                    | -      | -                          | -      | -             |
| Neug          | -                    | -      | -                          | -      | -             |
| Linseed       | -                    | -      | -                          | -      | -             |
| Fenugreek     | -                    | -      | -                          | -      | -             |
| Rapeseed      | -                    | -      | -                          | -      | -             |
| ALL CROPS     | 16.55                | 100.00 | 146.55                     | 100.00 | 8.85          |

Table 5 Estimates of Area, Production and Yield of Major Crops  
for Private Holdings in AMARA REGION  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION<br>(000' QT) |        | YIELD<br>(QT/HA) |
|---------------|----------------------|--------|-------------------------------|--------|------------------|
|               | NUMBER               | %      | NUMBER                        | %      |                  |
| CEREALS       | 2055.84              | 78.82  | 19912.07                      | 83.50  | 9.69             |
| Teff          | 809.56               | 31.04  | 5606.78                       | 23.51  | 6.93             |
| Barley        | 331.64               | 12.71  | 3092.15                       | 12.97  | 9.32             |
| Wheat         | 240.00               | 9.20   | 3219.15                       | 13.50  | 13.41            |
| Maize         | 226.46               | 8.68   | 3148.83                       | 13.20  | 13.90            |
| Sorghum       | 303.36               | 11.63  | 3902.89                       | 16.37  | 12.87            |
| Millet        | 136.40               | 5.23   | 898.62                        | 3.77   | 6.59             |
| Oats          | 8.42                 | 0.32   | 43.65                         | 0.18   | 5.18             |
| PULSES        | 409.60               | 15.70  | 3560.73                       | 14.93  | 8.69             |
| Horse Beans   | 145.99               | 5.60   | 1554.31                       | 6.52   | 10.65            |
| Field Peas    | 68.62                | 2.63   | 695.97                        | 2.92   | 10.14            |
| Haricot Beans | 13.06                | 0.50   | 64.93                         | 0.27   | 4.97             |
| Chick Peas    | 105.70               | 4.05   | 737.90                        | 3.09   | 6.98             |
| Lentils       | 29.96                | 1.15   | 150.81                        | 0.63   | 5.03             |
| Vetch         | 46.27                | 1.77   | 356.81                        | 1.50   | 7.71             |
| OTHERS        | 142.88               | 5.48   | 373.33                        | 1.57   | 2.61             |
| Neug          | 106.96               | 4.10   | 227.60                        | 0.95   | 2.13             |
| Linseed       | 25.54                | 0.98   | 83.44                         | 0.35   | 3.27             |
| Fenugreek     | 5.46                 | 0.21   | 25.45                         | 0.11   | 4.66             |
| Rapeseed      | 4.92                 | 0.19   | 36.84                         | 0.15   | 7.49             |
| ALL CROPS     | 2608.32              | 100.00 | 23846.13                      | 100.00 | 9.14             |

Table 5.1 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Amara Region, AGEWAWI ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 115.14               | 86.13  | 961.61                     | 90.68  | 8.35          |
| Teff          | 52.09                | 38.97  | 365.18                     | 34.44  | 7.01          |
| Barley        | 23.01                | 17.21  | 209.10                     | 19.72  | 9.09          |
| Wheat         | 3.44                 | 2.57   | 32.60                      | 3.07   | 9.48          |
| Maize         | 21.27                | 15.91  | 226.44                     | 21.35  | 10.65         |
| Sorghum       | -                    | -      | -                          | -      | -             |
| Millet        | 14.67                | 10.97  | 125.37                     | 11.82  | 8.55          |
| Oats          | 0.66                 | 0.49   | 2.92                       | 0.28   | 4.42          |
| PULSES        | 9.48                 | 7.09   | 68.46                      | 6.46   | 7.22          |
| Horse Beans   | 4.99                 | 3.73   | 40.95                      | 3.86   | 8.21          |
| Field Peas    | 2.76                 | 2.06   | 15.17                      | 1.43   | 5.50          |
| Haricot Beans | -                    | -      | -                          | -      | -             |
| Chick Peas    | 1.68                 | 1.26   | 11.52                      | 1.09   | 6.86          |
| Lentils       | -                    | -      | -                          | -      | -             |
| Vetch         | 0.05                 | 0.04   | 0.82                       | 0.08   | 16.40         |
| OTHERS        | 9.06                 | 6.78   | 30.36                      | 2.86   | 3.35          |
| Neug          | 8.71                 | 6.52   | 29.95                      | 2.82   | 3.44          |
| Linseed       | 0.27                 | 0.20   | 0.32                       | 0.03   | 1.19          |
| Fenugreek     | 0.05                 | 0.04   | 0.04                       | 0.00   | 0.80          |
| Rapeseed      | 0.03                 | 0.02   | 0.05                       | 0.00   | 1.67          |
| ALL CROPS     | 133.68               | 100.00 | 1060.43                    | 100.00 | 7.93          |

Table 5.2 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Amara Region, EAST GOJAM ZONE  
1994/95 (1987 E.C.)

| CROP TYPE        | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION<br>(000' QT) |        | YIELD<br>(QT/HA) |
|------------------|----------------------|--------|-------------------------------|--------|------------------|
|                  | NUMBER               | %      | NUMBER                        | %      |                  |
| <b>CEREALS</b>   | 335.46               | 78.30  | 3181.79                       | 79.95  | 9.48             |
| Teff             | 173.46               | 40.49  | 1219.84                       | 30.65  | 7.03             |
| Barley           | 50.26                | 11.73  | 348.27                        | 8.75   | 6.93             |
| Wheat            | 62.74                | 14.64  | 778.44                        | 19.56  | 12.41            |
| Maize            | 36.09                | 8.42   | 659.59                        | 16.57  | 18.28            |
| Sorghum          | 12.72                | 2.97   | 174.16                        | 4.38   | 13.69            |
| Millet           | 0.19                 | 0.04   | 1.49                          | 0.04   | 7.84             |
| Oats             | -                    | -      | -                             | -      | -                |
| <b>PULSES</b>    | 63.93                | 14.92  | 735.70                        | 18.49  | 11.51            |
| Horse Beans      | 21.04                | 4.91   | 320.53                        | 8.05   | 15.23            |
| Field Peas       | 9.45                 | 2.21   | 99.70                         | 2.51   | 10.55            |
| Haricot Beans    | 3.29                 | 0.77   | 20.56                         | 0.52   | 6.25             |
| Chick Peas       | 12.95                | 3.02   | 101.38                        | 2.55   | 7.83             |
| Lentils          | 0.54                 | 0.13   | 3.11                          | 0.08   | 5.76             |
| Vetch            | 16.66                | 3.89   | 190.42                        | 4.78   | 11.43            |
| <b>OTHERS</b>    | 29.04                | 6.78   | 62.48                         | 1.57   | 2.15             |
| Neug             | 20.79                | 4.85   | 37.99                         | 0.95   | 1.83             |
| Linseed          | 7.56                 | 1.76   | 19.19                         | 0.48   | 2.54             |
| Fenugreek        | 0.21                 | 0.05   | 0.48                          | 0.01   | 2.29             |
| Rapeseed         | 0.48                 | 0.11   | 4.82                          | 0.12   | 10.04            |
| <b>ALL CROPS</b> | 428.43               | 100.00 | 3979.97                       | 100.00 | 9.29             |

Table 5.3 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Amara Region, WEST GOJAM ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 306.61               | 78.57  | 3347.09                    | 86.25  | 10.92         |
| Teff          | 114.52               | 29.35  | 1317.17                    | 33.94  | 11.50         |
| Barley        | 45.92                | 11.77  | 350.60                     | 9.03   | 7.64          |
| Wheat         | 9.14                 | 2.34   | 121.72                     | 3.14   | 13.32         |
| Maize         | 74.45                | 19.08  | 1012.11                    | 26.08  | 13.59         |
| Sorghum       | 6.65                 | 1.70   | 63.55                      | 1.64   | 9.56          |
| Millet        | 55.24                | 14.16  | 474.25                     | 12.22  | 8.59          |
| Oats          | 0.69                 | 0.18   | 7.69                       | 0.20   | 11.14         |
| PULSES        | 45.90                | 11.76  | 425.72                     | 10.97  | 9.27          |
| Horse Beans   | 12.53                | 3.21   | 125.95                     | 3.25   | 10.05         |
| Field Peas    | 11.86                | 3.04   | 173.69                     | 4.48   | 14.65         |
| Haricot Beans | 0.25                 | 0.06   | 1.17                       | 0.03   | 4.68          |
| Chick Peas    | 6.98                 | 1.79   | 39.97                      | 1.03   | 5.73          |
| Lentils       | 2.95                 | 0.76   | 18.07                      | 0.47   | 6.13          |
| Vetch         | 11.33                | 2.90   | 66.87                      | 1.72   | 5.90          |
| OTHERS        | 37.70                | 9.66   | 107.85                     | 2.78   | 2.86          |
| Neug          | 32.10                | 8.23   | 71.11                      | 1.83   | 2.22          |
| Linseed       | 1.25                 | 0.32   | 5.22                       | 0.13   | 4.18          |
| Fenugreek     | 0.004                | 0.00   | 0.02                       | 0.00   | 5.00          |
| Rapeseed      | 4.35                 | 1.11   | 31.50                      | 0.81   | 7.24          |
| ALL CROPS     | 390.21               | 100.00 | 3880.66                    | 100.00 | 9.94          |

Table 5.4 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Amara Region, NORTH GONDER ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION<br>(000' QT) |        | YIELD<br>(QT/HA) |
|---------------|----------------------|--------|-------------------------------|--------|------------------|
|               | NUMBER               | %      | NUMBER                        | %      |                  |
| CEREALS       | 337.01               | 81.17  | 2814.64                       | 86.82  | 8.35             |
| Teff          | 110.67               | 26.66  | 460.63                        | 14.21  | 4.16             |
| Barley        | 36.40                | 8.77   | 313.50                        | 9.67   | 8.61             |
| Wheat         | 16.76                | 4.04   | 156.11                        | 4.82   | 9.31             |
| Maize         | 27.41                | 6.60   | 267.34                        | 8.25   | 9.75             |
| Sorghum       | 117.00               | 28.18  | 1459.53                       | 45.02  | 12.47            |
| Millet        | 28.77                | 6.93   | 157.53                        | 4.86   | 5.48             |
| Oats          | -                    | -      | -                             | -      | -                |
| PULSES        | 48.30                | 11.63  | 334.04                        | 10.30  | 6.92             |
| Horse Beans   | 12.30                | 2.96   | 138.12                        | 4.26   | 11.23            |
| Field Peas    | 7.56                 | 1.82   | 55.42                         | 1.71   | 7.33             |
| Haricot Beans | 1.30                 | 0.31   | 8.53                          | 0.26   | 6.56             |
| Chick Peas    | 23.28                | 5.61   | 117.54                        | 3.63   | 5.05             |
| Lentils       | 3.29                 | 0.79   | 13.58                         | 0.42   | 4.13             |
| Vetch         | 0.57                 | 0.14   | 0.85                          | 0.03   | 1.49             |
| OTHERS        | 29.86                | 7.19   | 93.31                         | 2.88   | 3.12             |
| Neug          | 26.39                | 6.36   | 76.60                         | 2.36   | 2.90             |
| Linseed       | 2.70                 | 0.65   | 14.69                         | 0.45   | 5.44             |
| Fenugreek     | 0.77                 | 0.19   | 2.02                          | 0.06   | 2.62             |
| Rapeseed      | -                    | -      | -                             | -      | -                |
| ALL CROPS     | 415.17               | 100.00 | 3241.99                       | 100.00 | 7.81             |

Table 5.5 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Amara Region, SOUTH GONDER ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 326.52               | 75.02  | 2724.63                    | 78.25  | 8.34          |
| Teff          | 129.09               | 29.66  | 818.17                     | 23.50  | 6.34          |
| Barley        | 67.28                | 15.46  | 637.61                     | 18.31  | 9.48          |
| Wheat         | 30.56                | 7.02   | 417.41                     | 11.99  | 13.66         |
| Maize         | 36.74                | 8.44   | 487.02                     | 13.99  | 13.26         |
| Sorghum       | 25.32                | 5.82   | 224.44                     | 6.45   | 8.86          |
| Millet        | 37.53                | 8.62   | 139.98                     | 4.02   | 3.73          |
| Oats          | -                    | -      | -                          | -      | -             |
| PULSES        | 81.92                | 18.82  | 708.98                     | 20.36  | 8.65          |
| Horse Beans   | 25.60                | 5.88   | 248.74                     | 7.14   | 9.72          |
| Field Peas    | 10.72                | 2.46   | 124.80                     | 3.58   | 11.64         |
| Haricot Beans | 5.81                 | 1.33   | 17.42                      | 0.50   | 3.00          |
| Chick Peas    | 26.50                | 6.09   | 241.38                     | 6.93   | 9.11          |
| Lentils       | 5.09                 | 1.17   | 31.23                      | 0.90   | 6.14          |
| Vetch         | 8.20                 | 1.88   | 45.41                      | 1.30   | 5.54          |
| OTHERS        | 26.78                | 6.15   | 48.18                      | 1.38   | 1.80          |
| Neug          | 16.93                | 3.89   | 7.37                       | 0.21   | 0.44          |
| Linseed       | 7.68                 | 1.76   | 30.73                      | 0.88   | 4.00          |
| Fenugreek     | 2.13                 | 0.49   | 9.73                       | 0.28   | 4.57          |
| Rapeseed      | 0.04                 | 0.01   | 0.35                       | 0.01   | 8.75          |
| ALL CROPS     | 435.22               | 100.00 | 3481.79                    | 100.00 | 8.00          |

Table 5.6 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Amara Region, NORTH SHEWA ZONE  
1994/95 (1987 E.C.)

| CROP TYPE        | TOTAL AREA (000' HA) |               | TOTAL PRODUCTION (000' QT) |               | YIELD (QT/HA) |
|------------------|----------------------|---------------|----------------------------|---------------|---------------|
|                  | NUMBER               | %             | NUMBER                     | %             |               |
| <b>CEREALS</b>   | 227.14               | 78.50         | 2117.85                    | 85.72         | 9.32          |
| Teff             | 97.89                | 33.83         | 535.28                     | 21.67         | 5.47          |
| Barley           | 28.43                | 9.82          | 270.33                     | 10.94         | 9.51          |
| Wheat            | 39.07                | 13.50*        | 584.58                     | 23.66         | 14.96         |
| Maize            | 8.87                 | 3.06          | 141.54                     | 5.73          | 15.96         |
| Sorghum          | 52.88                | 18.27         | 586.12                     | 23.72         | 11.08         |
| Millet           | -                    | -             | -                          | -             | -             |
| Oats             | -                    | -             | -                          | -             | -             |
| <b>PULSES</b>    | 58.37                | 20.17         | 343.10                     | 13.89         | 5.88          |
| Horse Beans      | 23.32                | 8.06          | 113.23                     | 4.58          | 4.86          |
| Field Peas       | 4.54                 | 1.57          | 41.11                      | 1.66          | 9.06          |
| Haricot Beans    | 0.26                 | 0.09          | 1.06                       | 0.04          | 4.08          |
| Chick Peas       | 19.31                | 6.67          | 132.73                     | 5.37          | 6.87          |
| Lentils          | 8.18                 | 2.83          | 35.58                      | 1.44          | 4.35          |
| Vetch            | 2.76                 | 0.95          | 19.39                      | 0.78          | 7.03          |
| <b>OTHERS</b>    | 3.86                 | 1.33          | 9.73                       | 0.39          | 2.52          |
| Neug             | 1.62                 | 0.56          | 4.19                       | 0.17          | 2.59          |
| Linseed          | 2.00                 | 0.69          | 4.84                       | 0.20          | 2.42          |
| Fenugreek        | 0.22                 | 0.07          | 0.58                       | 0.02          | 2.64          |
| Rapeseed         | 0.02                 | 0.01          | 0.12                       | 0.00          | 6.00          |
| <b>ALL CROPS</b> | <b>289.37</b>        | <b>100.00</b> | <b>2470.68</b>             | <b>100.00</b> | <b>8.54</b>   |

Table 5.7 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Amara Region, OROMIA ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 38.99                | 95.91  | 503.22                     | 97.09  | 12.91         |
| Teff          | 6.49                 | 15.95  | 43.38                      | 8.37   | 6.68          |
| Barley        | 0.17                 | 0.42   | 1.92                       | 0.37   | 11.29         |
| Wheat         | -                    | -      | -                          | -      | -             |
| Maize         | 5.28                 | 13.00  | 81.45                      | 15.71  | 15.43         |
| Sorghum       | 26.94                | 66.26  | 374.85                     | 72.32  | 13.91         |
| Millet        | -                    | -      | -                          | -      | -             |
| Oats          | 0.11                 | 0.28   | 1.62                       | 0.31   | 14.73         |
| PULSES        | 1.66                 | 4.09   | 15.10                      | 2.91   | 9.10          |
| Horse Beans   | 0.43                 | 1.07   | 5.22                       | 1.01   | 16.27         |
| Field Peas    | 0.42                 | 1.03   | 2.78                       | 0.54   | 6.62          |
| Haricot Beans | 0.71                 | 1.74   | 6.12                       | 1.18   | 8.62          |
| Chick Peas    | 0.08                 | 0.19   | 0.70                       | 0.14   | 8.75          |
| Lentils       | 0.02                 | 0.05   | 0.28                       | 0.05   | 14.00         |
| Vetch         | -                    | -      | -                          | -      | -             |
| OTHERS        | -                    | -      | -                          | -      | -             |
| Neug          | -                    | -      | -                          | -      | -             |
| Linseed       | -                    | -      | -                          | -      | -             |
| Fenugreek     | -                    | -      | -                          | -      | -             |
| Rapeseed      | -                    | -      | -                          | -      | -             |
| ALL CROPS     | 40.65                | 100.00 | 518.32                     | 100.00 | 12.75         |

Table 5.8 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Amara Region, WAG-HAMRA ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION<br>(000' QT) |        | YIELD<br>(QT/HA) |
|---------------|----------------------|--------|-------------------------------|--------|------------------|
|               | NUMBER               | %      | NUMBER                        | %      |                  |
| CEREALS       | 44.29                | 80.84  | 549.61                        | 84.99  | 12.41            |
| Teff          | 10.34                | 18.87  | 57.77                         | 8.93   | 5.59             |
| Barley        | 13.38                | 24.42  | 143.39                        | 22.17  | 10.72            |
| Wheat         | 9.88                 | 18.03  | 115.87                        | 17.92  | 11.73            |
| Maize         | 0.57                 | 1.05   | 9.06                          | 1.40   | 15.89            |
| Sorghum       | 10.12                | 18.47  | 223.52                        | 34.56  | 22.09            |
| Millet        | -                    | -      | -                             | -      | -                |
| Oats          | -                    | -      | -                             | -      | -                |
| PULSES        | 10.45                | 19.08  | 97.05                         | 15.01  | 9.29             |
| Horse Beans   | 3.41                 | 6.22   | 50.57                         | 7.82   | 14.83            |
| Field Peas    | 3.88                 | 7.09   | 23.41                         | 3.62   | 6.03             |
| Haricot Beans | 1.09                 | 1.99   | 8.93                          | 1.38   | 8.19             |
| Chick Peas    | 1.26                 | 2.30   | 10.63                         | 1.64   | 8.44             |
| Lentils       | 0.81                 | 1.48   | 3.51                          | 0.54   | 4.33             |
| Vetch         |                      |        |                               |        |                  |
| OTHERS        | 0.04                 | 0.07   | 0.05                          | 0.01   | 1.25             |
| Neug          | -                    | -      | -                             | -      | -                |
| Linseed       | 0.04                 | 0.07   | 0.05                          | 0.01   | 1.25             |
| Fenugreek     | -                    | -      | -                             | -      | -                |
| Rapeseed      | -                    | -      | -                             | -      | -                |
| ALL CROPS     | 54.78                | 100.00 | 646.71                        | 100.00 | 11.81            |

Table 5.9 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Amara Region, NORTH WOLO ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION<br>(000' QT) |        | YIELD<br>(QT/HA) |
|---------------|----------------------|--------|-------------------------------|--------|------------------|
|               | NUMBER               | %      | NUMBER                        | %      |                  |
| CEREALS       | 147.47               | 78.69  | 1735.45                       | 85.37  | 11.77            |
| Teff          | 50.62                | 27.01  | 282.65                        | 13.90  | 5.58             |
| Barley        | 29.87                | 15.94  | 396.40                        | 19.50  | 13.27            |
| Wheat         | 29.28                | 15.62  | 490.99                        | 24.15  | 16.77            |
| Maize         | 6.33                 | 3.38   | 110.58                        | 5.44   | 17.47            |
| Sorghum       | 29.71                | 15.85  | 441.12                        | 21.70  | 14.85            |
| Millet        | -                    | -      | -                             | -      | -                |
| Oats          | 1.66                 | 0.89   | 13.71                         | 0.67   | 8.26             |
| PULSES        | 37.74                | 20.14  | 289.72                        | 14.25  | 7.68             |
| Horse Beans   | 18.75                | 10.01  | 172.51                        | 8.49   | 9.20             |
| Field Peas    | 5.48                 | 10.01  | 24.97                         | 1.23   | 4.56             |
| Haricot Beans | -                    | -      | -                             | -      | -                |
| Chick Peas    | 7.94                 | 4.24   | 65.54                         | 3.22   | 8.25             |
| Lentils       | 4.48                 | 2.39   | 18.87                         | 0.93   | 4.21             |
| Vetch         | 1.09                 | 0.58   | 7.83                          | 0.39   | 7.18             |
| OTHERS        | 2.19                 | 1.17   | 7.75                          | 0.38   | 3.54             |
| Neug          | -                    | -      | -                             | -      | -                |
| Linseed       | 1.56                 | 0.83   | 3.33                          | 0.16   | 2.13             |
| Fenugreek     | 0.63                 | 0.34   | 4.42                          | 0.22   | 7.02             |
| Rapeseed      | -                    | -      | -                             | -      | -                |
| ALL CROPS     | 187.40               | 100.00 | 2032.92                       | 100.00 | 10.85            |

Table 5.10 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Amara Region, SOUTH WOLO ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION<br>(000' QT) |        | YIELD<br>(QT/HA) |
|---------------|----------------------|--------|-------------------------------|--------|------------------|
|               | NUMBER               | %      | NUMBER                        | %      |                  |
| CEREALS       | 177.21               | 75.93  | 1976.18                       | 78.03  | 11.15            |
| Teff          | 64.39                | 27.59  | 506.71                        | 20.01  | 7.87             |
| Barley        | 36.92                | 15.82  | 421.03                        | 16.62  | 11.40            |
| Wheat         | 39.13                | 16.77  | 521.43                        | 20.59  | 13.33            |
| Maize         | 9.45                 | 4.05   | 153.70                        | 6.07   | 16.26            |
| Sorghum       | 22.02                | 9.43   | 355.60                        | 14.04  | 16.15            |
| Millet        | -                    | -      | -                             | -      | -                |
| Oats          | 5.30                 | 2.27   | 17.71                         | 0.70   | 3.34             |
| PULSES        | 51.85                | 22.21  | 542.86                        | 21.43  | 10.47            |
| Horse Beans   | 23.62                | 10.12  | 338.49                        | 13.36  | 14.33            |
| Field Peas    | 11.95                | 5.12   | 134.92                        | 5.33   | 11.29            |
| Haricot Beans | 0.35                 | 0.15   | 1.14                          | 0.05   | 3.26             |
| Chick Peas    | 5.72                 | 2.45   | 16.51                         | 0.65   | 2.89             |
| Lentils       | 4.60                 | 1.97   | 26.58                         | 1.05   | 5.78             |
| Vetch         | 5.61                 | 2.40   | 25.22                         | 1.00   | 4.50             |
| OTHERS        | 4.35                 | 1.86   | 13.62                         | 0.54   | 3.13             |
| Neug          | 0.42                 | 0.18   | 0.39                          | 0.02   | 0.93             |
| Linseed       | 2.48                 | 1.06   | 5.07                          | 0.20   | 2.04             |
| Fenugreek     | 1.45                 | 0.62   | 8.16                          | 0.32   | 5.63             |
| Rapeseed      | -                    | -      | -                             | -      | -                |
| ALL CROPS     | 233.41               | 100.00 | 2532.66                       | 100.00 | 10.85            |

Table 6 Estimates of Area, Production and Yield of Major Crops  
for Private Holdings OROMIA REGION  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 2614.27              | 83.30  | 31512.40                   | 88.93  | 12.05         |
| Teff          | 754.69               | 24.05  | 5621.93                    | 15.86  | 7.45          |
| Barley        | 370.39               | 11.80  | 4251.81                    | 12.00  | 11.48         |
| Wheat         | 406.23               | 12.94  | 5677.87                    | 16.02  | 13.98         |
| Maize         | 663.11               | 21.13  | 10599.12                   | 29.91  | 15.98         |
| Sorghum       | 355.64               | 11.33  | 4802.30                    | 13.55  | 13.50         |
| Millet        | 38.42                | 1.22   | 244.75                     | 0.69   | 6.37          |
| Oats          | 25.79                | 0.82   | 314.62                     | 0.89   | 12.20         |
| PULSES        | 341.76               | 10.89  | 3183.86                    | 8.98   | 9.32          |
| Horse Beans   | 146.17               | 4.66   | 1708.23                    | 4.82   | 11.69         |
| Field Peas    | 56.55                | 1.80   | 464.68                     | 1.31   | 8.22          |
| Haricot Beans | 40.37                | 1.29   | 205.07                     | 0.58   | 5.08          |
| Chick Peas    | 49.26                | 1.57   | 375.36                     | 1.06   | 7.62          |
| Lentils       | 22.88                | 0.73   | 196.67                     | 0.55   | 8.60          |
| Vetch         | 26.53                | 0.85   | 233.85                     | 0.66   | 8.81          |
| OTHERS        | 182.23               | 5.81   | 740.25                     | 2.09   | 4.06          |
| Neug          | 82.07                | 2.62   | 184.97                     | 0.52   | 2.25          |
| Linseed       | 84.14                | 2.68   | 448.66                     | 1.27   | 5.33          |
| Fenugreek     | 6.12                 | 0.20   | 31.43                      | 0.09   | 5.14          |
| Rapeseed      | 9.90                 | 0.32   | 75.19                      | 0.21   | 7.59          |
| ALL CROPS     | 3138.26              | 100.00 | 35436.51                   | 100.00 | 11.29         |

Table 6.1 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Oromia Region, ARSI ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION<br>(000' QT) |        | YIELD<br>(QT/HA) |
|---------------|----------------------|--------|-------------------------------|--------|------------------|
|               | NUMBER               | %      | NUMBER                        | %      |                  |
| CEREALS       | 424.76               | 81.90  | 6534.31                       | 88.74  | 15.38            |
| Teff          | 64.20                | 12.38  | 488.88                        | 6.64   | 7.61             |
| Barley        | 118.98               | 22.94  | 1904.53                       | 25.86  | 16.01            |
| Wheat         | 149.56               | 28.84  | 2165.93                       | 29.41  | 14.48            |
| Maize         | 72.65                | 14.01  | 1704.91                       | 23.15  | 23.47            |
| Sorghum       | 13.85                | 2.67   | 204.40                        | 2.78   | 14.76            |
| Millet        | -                    | -      | -                             | -      | -                |
| Oats          | 5.52                 | 1.06   | 65.66                         | 0.89   | 11.89            |
| PULSES        | 45.74                | 8.82   | 580.02                        | 7.88   | 12.68            |
| Horse Beans   | 31.65                | 6.10   | 447.31                        | 6.07   | 14.13            |
| Field Peas    | 5.36                 | 1.03   | 52.55                         | 0.71   | 9.80             |
| Haricot Beans | 4.40                 | 0.85   | 42.60                         | 0.58   | 9.68             |
| Chick Peas    | 1.12                 | 0.22   | 10.23                         | 0.14   | 9.13             |
| Lentils       | 1.78                 | 0.34   | 14.56                         | 0.20   | 8.18             |
| Vetch         | 1.43                 | 0.28   | 12.77                         | 0.17   | 8.93             |
| OTHERS        | 48.14                | 9.28   | 249.21                        | 3.38   | 5.18             |
| Neug          | 4.02                 | 0.77   | 20.59                         | 0.28   | 5.12             |
| Linseed       | 39.79                | 7.67   | 202.84                        | 2.75   | 5.10             |
| Fenugreek     | 0.51                 | 0.10   | 5.11                          | 0.07   | 10.02            |
| Rapeseed      | 3.82                 | 0.74   | 20.67                         | 0.28   | 5.41             |
| ALL CROPS     | 518.64               | 100.00 | 7363.54                       | 100.00 | 14.20            |

Table 6.2 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Oromia Region, BALE ZONE  
1994/95 (1987 E.C.)

| CROP TYPE        | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|------------------|----------------------|--------|----------------------------|--------|---------------|
|                  | NUMBER               | %      | NUMBER                     | %      |               |
| <b>CEREALS</b>   | 151.92               | 78.81  | 1751.22                    | 84.48  | 11.53         |
| Teff             | 16.62                | 8.62   | 177.01                     | 8.54   | 10.65         |
| Barley           | 37.66                | 19.54  | 401.34                     | 19.36  | 10.66         |
| Wheat            | 60.00                | 31.13  | 686.44                     | 33.12  | 11.44         |
| Maize            | 13.17                | 6.83   | 182.27                     | 8.79   | 13.84         |
| Sorghum          | 7.96                 | 4.13   | 82.07                      | 3.96   | 10.31         |
| Millet           | -                    | -      | -                          | -      | -             |
| Oats             | 16.51                | 8.57   | 222.09                     | 10.71  | 13.45         |
| <b>PULSES</b>    | 22.50                | 11.67  | 164.90                     | 7.96   | 7.33          |
| Horse Beans      | 8.20                 | 4.25   | 68.47                      | 3.30   | 8.35          |
| Field Peas       | 10.49                | 5.44   | 62.74                      | 3.03   | 5.98          |
| Haricot Beans    | 0.35                 | 0.18   | 2.48                       | 0.12   | 7.09          |
| Chick Peas       | 1.08                 | 0.56   | 14.92                      | 0.72   | 13.81         |
| Lentils          | 1.51                 | 0.78   | 9.13                       | 0.44   | 6.05          |
| Vetch            | 0.87                 | 0.45   | 7.16                       | 0.35   | 8.23          |
| <b>OTHERS</b>    | 18.34                | 9.51   | 156.77                     | 7.56   | 8.55          |
| Neug             | 0.06                 | 0.03   | 0.04                       | 0.00   | 0.67          |
| Linseed          | 17.38                | 9.02   | 150.57                     | 7.26   | 8.66          |
| Fenugreek        | 0.89                 | 0.46   | 6.13                       | 0.30   | 6.89          |
| Rapeseed         | 0.01                 | 0.01   | 0.03                       | 0.00   | 3.00          |
| <b>ALL CROPS</b> | 192.76               | 100.00 | 2072.89                    | 100.00 | 10.75         |

Table 6.3 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Oromia Region, BORENA ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION<br>(000' QT) |        | YIELD<br>(QT/HA) |
|---------------|----------------------|--------|-------------------------------|--------|------------------|
|               | NUMBER               | %      | NUMBER                        | %      |                  |
| CEREALS       | 54.36                | 91.30  | 657.37                        | 94.06  | 12.09            |
| Teff          | 8.91                 | 14.97  | 62.51                         | 8.94   | 7.02             |
| Barley        | 16.17                | 27.15  | 133.97                        | 19.17  | 8.29             |
| Wheat         | 4.76                 | 7.99   | 49.37                         | 7.06   | 10.37            |
| Maize         | 23.41                | 39.31  | 400.29                        | 57.28  | 17.10            |
| Sorghum       | 1.11                 | 1.87   | 11.23                         | 1.61   | 10.12            |
| Millet        | -                    | -      | -                             | -      | -                |
| Oats          | -                    | -      | -                             | -      | -                |
| PULSES        | 5.18                 | 8.70   | 41.48                         | 5.94   | 8.01             |
| Horse Beans   | 1.18                 | 1.98   | 12.50                         | 1.79   | 10.59            |
| Field Peas    | 1.62                 | 2.72   | 20.14                         | 2.88   | 12.43            |
| Haricot Beans | 1.99                 | 3.34   | 7.39                          | 1.06   | 3.71             |
| Chick Peas    | 0.39                 | 0.66   | 1.45                          | 0.21   | 3.72             |
| Lentils       | -                    | -      | -                             | -      | -                |
| Vetch         | -                    | -      | -                             | -      | -                |
| OTHERS        | -                    | -      | -                             | -      | -                |
| Neug          | -                    | -      | -                             | -      | -                |
| Linseed       | -                    | -      | -                             | -      | -                |
| Fenugreek     | -                    | -      | -                             | -      | -                |
| Rapeseed      | -                    | -      | -                             | -      | -                |
| ALL CROPS     | 59.54                | 100.00 | 698.85                        | 100.00 | 11.74            |

Table 6.4 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Oromia Region, EAST HARERGE ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 148.19               | 95.63  | 1824.42                    | 95.51  | 12.31         |
| Teff          | 6.50                 | 4.20   | 62.90                      | 3.29   | 9.68          |
| Barley        | 3.66                 | 2.36   | 38.23                      | 2.00   | 10.45         |
| Wheat         | 8.19                 | 5.29   | 109.23                     | 5.72   | 13.34         |
| Maize         | 45.36                | 29.27  | 565.92                     | 29.62  | 12.48         |
| Sorghum       | 84.32                | 54.41  | 1046.06                    | 54.76  | 12.41         |
| Millet        | -                    | -      | -                          | -      | -             |
| Oats          | 0.16                 | 0.10   | 2.08                       | 0.11   | 13.00         |
| PULSESES      | 6.18                 | 3.98   | 84.07                      | 4.40   | 13.60         |
| Horse Beans   | 4.58                 | 2.95   | 63.12                      | 3.30   | 13.78         |
| Field Peas    | 1.30                 | 0.84   | 17.91                      | 0.94   | 13.78         |
| Haricot Beans | 0.13                 | 0.08   | 1.76                       | 0.09   | 13.54         |
| Chick Peas    | -                    | -      | -                          | -      | -             |
| Lentils       | 0.17                 | 0.11   | 1.28                       | 0.07   | 7.53          |
| Vetch         | -                    | -      | -                          | -      | -             |
| OTHERS        | 0.59                 | 0.38   | 1.79                       | 0.09   | 3.03          |
| Neug          | -                    | -      | -                          | -      | -             |
| Linseed       | 0.52                 | 0.34   | 1.08                       | 0.06   | 2.08          |
| Fenugreek     | 0.07                 | 0.05   | 0.71                       | 0.04   | 10.14         |
| Rapeseed      | -                    | -      | -                          | -      | -             |
| ALL CROPS     | 154.96               | 100.00 | 1910.28                    | 100.00 | 12.33         |

Table 6.5 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Oromia Region, WEST HARERGE ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION<br>(000' QT) |        | YIELD<br>(QT/HA) |
|---------------|----------------------|--------|-------------------------------|--------|------------------|
|               | NUMBER               | %      | NUMBER                        | %      |                  |
| CEREALS       | 131.40               | 96.32  | 1798.57                       | 96.88  | 13.69            |
| Teff          | 3.07                 | 2.25   | 21.39                         | 1.15   | 6.97             |
| Barley        | 2.68                 | 1.97   | 19.52                         | 1.05   | 7.28             |
| Wheat         | 0.75                 | 0.55   | 7.18                          | 0.39   | 9.57             |
| Maize         | 33.65                | 24.66  | 434.51                        | 23.40  | 12.91            |
| Sorghum       | 90.81                | 66.56  | 1314.27                       | 70.79  | 14.47            |
| Millet        | -                    | -      | -                             | -      | -                |
| Oats          | 0.44                 | 0.32   | 1.70                          | 0.09   | 3.86             |
| PULSES        | 4.27                 | 3.13   | 48.63                         | 2.62   | 11.39            |
| Horse Beans   | 2.32                 | 1.70   | 26.37                         | 1.42   | 11.37            |
| Field Peas    | 0.06                 | 0.04   | 0.53                          | 0.03   | 8.83             |
| Haricot Beans | 0.95                 | 0.70   | 9.07                          | 0.49   | 9.55             |
| Chick Peas    | 0.73                 | 0.54   | 10.13                         | 0.55   | 13.88            |
| Lentils       | 0.21                 | 0.16   | 2.53                          | 0.14   | 12.05            |
| Vetch         | -                    | -      | -                             | -      | -                |
| OTHERS        | 0.75                 | 0.55   | 9.29                          | 0.50   | 12.39            |
| Neug          | -                    | -      | -                             | -      | -                |
| Linseed       | 0.30                 | 0.22   | 3.18                          | 0.17   | 10.60            |
| Fenugreek     | 0.45                 | 0.33   | 6.11                          | 0.33   | 13.58            |
| Rapeseed      | -                    | -      | -                             | -      | -                |
| ALL CROPS     | 136.42               | 100.00 | 1856.49                       | 100.00 | 13.61            |

Table 6.6 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Oromia Region, ILUBABOR ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 140.61               | 85.32  | 1884.93                    | 89.67  | 13.41         |
| Teff          | 48.44                | 29.39  | 311.77                     | 14.83  | 6.44          |
| Barley        | 9.08                 | 5.51   | 109.89                     | 5.23   | 12.10         |
| Wheat         | 1.61                 | 0.98   | 19.01                      | 0.90   | 11.81         |
| Maize         | 56.08                | 34.03  | 1012.53                    | 48.17  | 18.06         |
| Sorghum       | 21.38                | 12.97  | 399.91                     | 19.02  | 18.70         |
| Millet        | 4.02                 | 2.44   | 31.82                      | 1.51   | 7.92          |
| Oats          | -                    | -      | -                          | -      | -             |
| PULSES        | 22.88                | 13.88  | 214.26                     | 10.19  | 9.36          |
| Horse Beans   | 11.89                | 7.22   | 121.84                     | 5.80   | 10.25         |
| Field Peas    | 8.20                 | 4.98   | 75.24                      | 3.58   | 9.18          |
| Haricot Beans | 1.96                 | 1.19   | 11.85                      | 0.56   | 6.05          |
| Chick Peas    | 0.62                 | 0.37   | 4.14                       | 0.20   | 6.68          |
| Lentils       | 0.01                 | 0.00   | 0.00                       | 0.00   | 0.00          |
| Vetch         | 0.20                 | 0.12   | 1.19                       | 0.06   | 5.95          |
| OTHERS        | 1.32                 | 0.80   | 2.87                       | 0.14   | 2.17          |
| Neug          | 0.92                 | 0.56   | 1.13                       | 0.05   | 1.23          |
| Linseed       | 0.15                 | 0.09   | 1.33                       | 0.06   | 8.87          |
| Fenugreek     | 0.25                 | 0.15   | 0.41                       | 0.02   | 1.64          |
| Rapeseed      | -                    | -      | -                          | -      | -             |
| ALL CROPS     | 164.81               | 100.00 | 2102.06                    | 100.00 | 12.75         |

Table 6.7 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Oromia Region, JIMA ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION<br>(000' QT) |        | YIELD<br>(QT/HA) |
|---------------|----------------------|--------|-------------------------------|--------|------------------|
|               | NUMBER               | %      | NUMBER                        | %      |                  |
| CEREALS       | 204.72               | 91.89  | 2199.86                       | 92.10  | 10.75            |
| Teff          | 76.41                | 34.30  | 316.58                        | 14.49  | 4.14             |
| Barley        | 14.93                | 6.70   | 177.85                        | 8.14   | 11.91            |
| Wheat         | 12.86                | 5.77   | 158.84                        | 7.27   | 12.35            |
| Maize         | 66.67                | 29.93  | 1037.67                       | 47.50  | 15.56            |
| Sorghum       | 29.26                | 13.13  | 468.87                        | 12.86  | 16.02            |
| Millet        | 3.68                 | 1.65   | 30.72                         | 1.41   | 8.35             |
| Oats          | 0.91                 | 0.41   | 9.33                          | 0.43   | 10.25            |
| PULSES        | 15.08                | 6.77   | 168.40                        | 7.71   | 11.17            |
| Horse Beans   | 12.96                | 5.82   | 144.66                        | 6.62   | 11.16            |
| Field Peas    | 0.81                 | 0.36   | 6.89                          | 0.32   | 8.51             |
| Haricot Beans | 0.96                 | 0.43   | 15.55                         | 0.71   | 16.20            |
| Chick Peas    | -                    | -      | -                             | -      | -                |
| Lentils       | 0.35                 | 0.16   | 1.30                          | 0.06   | 3.71             |
| Vetch         | -                    | -      | -                             | -      | -                |
| OTHERS        | 2.98                 | 1.34   | 4.11                          | 0.19   | 1.38             |
| Neug          | 2.52                 | 1.13   | 2.83                          | 0.13   | 1.12             |
| Linseed       | 0.46                 | 0.21   | 1.28                          | 0.06   | 2.78             |
| Fenugreek     | -                    | -      | -                             | -      | -                |
| Rapeseed      | -                    | -      | -                             | -      | -                |
| ALL CROPS     | 222.78               | 100.00 | 2372.37                       | 100.00 | 10.65            |

Table 6.8 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Oromia Region, EAST SHEWA ZONE  
1994/95 (1987 E.C.)

| CROP TYPE        | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|------------------|----------------------|--------|----------------------------|--------|---------------|
|                  | NUMBER               | %      | NUMBER                     | %      |               |
| <b>CEREALS</b>   | 325.81               | 86.23  | 4254.98                    | 92.88  | 13.06         |
| Teff             | 111.46               | 29.50  | 1279.94                    | 27.94  | 11.48         |
| Barley           | 8.78                 | 2.32   | 89.38                      | 1.95   | 10.18         |
| Wheat            | 37.75                | 9.99   | 509.78                     | 11.13  | 13.50         |
| Maize            | 157.86               | 41.78  | 2273.46                    | 49.62  | 14.40         |
| Sorghum          | 9.21                 | 2.44   | 95.53                      | 2.09   | 10.37         |
| Millet           | 0.48                 | 0.13   | 4.57                       | 0.10   | 9.52          |
| Oats             | 0.27                 | 0.07   | 2.32                       | 0.05   | 8.59          |
| <b>PULSES</b>    | 50.90                | 13.47  | 324.39                     | 7.08   | 6.37          |
| Horse Beans      | 5.93                 | 1.57   | 60.47                      | 1.32   | 10.20         |
| Field Peas       | 2.70                 | 0.71   | 22.94                      | 0.50   | 8.50          |
| Haricot Beans    | 24.33                | 6.44   | 81.01                      | 1.77   | 3.33          |
| Chick Peas       | 8.25                 | 2.18   | 60.42                      | 1.32   | 7.32          |
| Lentils          | 6.62                 | 1.75   | 69.53                      | 1.52   | 10.50         |
| Vetch            | 3.07                 | 0.81   | 30.02                      | 0.66   | 9.78          |
| <b>OTHERS</b>    | 1.12                 | 0.30   | 1.91                       | 0.04   | 1.71          |
| Neug             | -                    | -      | -                          | -      | -             |
| Linseed          | 0.03                 | 0.01   | 0.42                       | 0.01   | 14.00         |
| Fenugreek        | 1.08                 | 0.29   | 1.35                       | 0.03   | 1.25          |
| Rapeseed         | 0.01                 | 0.00   | 0.14                       | 0.00   | 14.00         |
| <b>ALL CROPS</b> | 377.83               | 100.00 | 4581.28                    | 100.00 | 12.13         |

Table 6.9 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Oromia Region, NORTH SHEWA ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION<br>(000' QT) |        | YIELD<br>(QT/HA) |
|---------------|----------------------|--------|-------------------------------|--------|------------------|
|               | NUMBER               | %      | NUMBER                        | %      |                  |
| CEREALS       | 193.72               | 77.03  | 1708.56                       | 80.76  | 8.82             |
| Teff          | 84.06                | 33.43  | 613.77                        | 29.01  | 7.30             |
| Barley        | 54.57                | 21.70  | 327.96                        | 15.50  | 6.01             |
| Wheat         | 35.32                | 14.05  | 538.57                        | 25.46  | 15.25            |
| Maize         | 3.39                 | 1.35   | 38.58                         | 1.82   | 11.38            |
| Sorghum       | 15.55                | 6.18   | 184.41                        | 8.72   | 11.86            |
| Millet        | -                    | -      | -                             | -      | -                |
| Oats          | 0.83                 | 0.33   | 5.27                          | 0.25   | 6.35             |
| PULSES        | 42.72                | 16.99  | 369.08                        | 17.45  | 8.64             |
| Horse Beans   | 18.59                | 7.39   | 186.47                        | 8.81   | 10.03            |
| Field Peas    | 7.70                 | 3.06   | 65.40                         | 3.09   | 8.49             |
| Haricot Beans | 0.45                 | 0.18   | 0.92                          | 0.04   | 2.04             |
| Chick Peas    | 7.03                 | 2.79   | 53.91                         | 2.55   | 7.67             |
| Lentils       | 3.69                 | 1.47   | 20.86                         | 0.99   | 5.65             |
| Vetch         | 5.26                 | 2.09   | 41.52                         | 1.96   | 7.89             |
| OTHERS        | 15.04                | 5.98   | 37.95                         | 1.79   | 2.52             |
| Neug          | 11.67                | 4.64   | 30.63                         | 1.45   | 2.62             |
| Linseed       | 1.73                 | 0.69   | 4.39                          | 0.21   | 2.54             |
| Fenugreek     | 1.63                 | 0.65   | 2.87                          | 0.14   | 1.76             |
| Rapeseed      | 0.01                 | 0.00   | 0.06                          | 0.00   | 6.00             |
| ALL CROPS     | 251.48               | 100.00 | 2115.59                       | 100.00 | 8.41             |

Table 6.10 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Oromia Region, WEST SHEWA ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 415.23               | 75.34  | 4782.60                    | 83.24  | 11.52         |
| Teff          | 194.04               | 35.21  | 1539.35                    | 26.79  | 7.93          |
| Barley        | 82.32                | 14.94  | 890.27                     | 15.50  | 10.81         |
| Wheat         | 77.59                | 14.08  | 1229.90                    | 21.41  | 15.85         |
| Maize         | 39.69                | 7.20   | 820.82                     | 14.29  | 20.68         |
| Sorghum       | 20.88                | 3.79   | 297.61                     | 5.18   | 14.25         |
| Millet        | 0.08                 | 0.01   | 0.72                       | 0.01   | 9.00          |
| Oats          | 0.63                 | 0.11   | 3.93                       | 0.07   | 6.24          |
| PULSES        | 82.46                | 14.96  | 748.54                     | 13.03  | 9.08          |
| Horse Beans   | 25.83                | 4.69   | 253.60                     | 4.41   | 9.82          |
| Field Peas    | 6.51                 | 1.18   | 70.68                      | 1.23   | 10.86         |
| Haricot Beans | —                    | —      | —                          | —      | —             |
| Chick Peas    | 27.49                | 4.99   | 210.06                     | 3.66   | 7.64          |
| Lentils       | 7.89                 | 1.43   | 75.78                      | 1.32   | 9.60          |
| Vetch         | 14.74                | 2.67   | 138.42                     | 2.41   | 9.39          |
| OTHERS        | 53.46                | 9.70   | 214.12                     | 3.73   | 4.01          |
| Neug          | 26.67                | 4.84   | 77.44                      | 1.35   | 2.90          |
| Linseed       | 21.10                | 3.83   | 80.81                      | 1.41   | 3.83          |
| Fenugreek     | 0.90                 | 0.16   | 7.72                       | 0.13   | 8.58          |
| Rapeseed      | 4.79                 | 0.87   | 48.15                      | 0.84   | 10.05         |
| ALL CROPS     | 551.15               | 100.00 | 5745.26                    | 100.00 | 10.42         |

Table 6.11 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Oromia Region, EAST WELEGA ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 208.84               | 78.82  | 1707.62                    | 86.14  | 8.18          |
| Teff          | 96.80                | 36.53  | 345.94                     | 17.45  | 3.57          |
| Barley        | 18.05                | 6.81   | 131.24                     | 6.62   | 7.27          |
| Wheat         | 12.65                | 4.77   | 144.08                     | 7.27   | 11.39         |
| Maize         | 58.88                | 22.22  | 905.02                     | 45.66  | 15.37         |
| Sorghum       | 12.83                | 4.84   | 131.44                     | 6.63   | 10.24         |
| Millet        | 9.56                 | 3.61   | 48.92                      | 2.47   | 5.12          |
| Oats          | 0.07                 | 0.03   | 0.98                       | 0.05   | 14.00         |
| PULSES        | 21.91                | 8.26   | 222.78                     | 11.24  | 10.17         |
| Horse Beans   | 12.28                | 4.63   | 159.57                     | 8.05   | 12.99         |
| Field Peas    | 8.88                 | 3.35   | 61.46                      | 3.10   | 6.92          |
| Haricot Beans | 0.03                 | 0.01   | 0.00                       | 0.00   | 0.00          |
| Chick Peas    | 0.07                 | 0.03   | 0.05                       | 0.00   | 0.71          |
| Lentils       | 0.65                 | 0.24   | 1.70                       | 0.09   | 2.62          |
| Vetch         | -                    | -      | -                          | -      | -             |
| OTHERS        | 34.24                | 12.92  | 51.90                      | 2.62   | 1.52          |
| Neug          | 30.54                | 11.53  | 44.23                      | 2.23   | 1.45          |
| Linseed       | 2.68                 | 1.01   | 2.76                       | 0.14   | 1.03          |
| Fenugreek     | 0.05                 | 0.02   | 0.20                       | 0.01   | 4.00          |
| Rapeseed      | 0.97                 | 0.36   | 4.71                       | 0.24   | 4.86          |
| ALL CROPS     | 264.99               | 100.00 | 1982.30                    | 100.00 | 7.48          |

Table 6.12 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in Oromia Region, WEST WELEGA ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION<br>(000' QT) |        | YIELD<br>(QT/HA) |
|---------------|----------------------|--------|-------------------------------|--------|------------------|
|               | NUMBER               | %      | NUMBER                        | %      |                  |
| CEREALS       | 214.71               | 88.40  | 2407.96                       | 91.36  | 11.21            |
| Teff          | 44.18                | 18.19  | 401.89                        | 15.25  | 9.10             |
| Barley        | 3.51                 | 1.45   | 27.63                         | 1.05   | 7.87             |
| Wheat         | 5.19                 | 2.14   | 59.54                         | 2.26   | 11.47            |
| Maize         | 92.30                | 38.00  | 1223.14                       | 46.41  | 13.25            |
| Sorghum       | 48.48                | 19.96  | 566.50                        | 21.49  | 11.69            |
| Millet        | 20.60                | 8.48   | 128.00                        | 4.86   | 6.21             |
| Oats          | 0.45                 | 0.18   | 1.26                          | 0.05   | 2.80             |
| PULSES        | 21.94                | 9.03   | 217.31                        | 8.25   | 9.90             |
| Horse Beans   | 10.76                | 4.43   | 163.85                        | 6.22   | 15.23            |
| Field Peas    | 2.92                 | 1.20   | 8.20                          | 0.31   | 2.81             |
| Haricot Beans | 4.82                 | 1.98   | 32.44                         | 1.23   | 6.73             |
| Chick Peas    | 2.48                 | 1.02   | 10.05                         | 0.38   | 4.05             |
| Lentils       | -                    | -      | -                             | -      | -                |
| Vetch         | 0.96                 | 0.39   | 2.77                          | 0.11   | 2.89             |
| OTHERS        | 6.25                 | 2.57   | 10.33                         | 0.39   | 1.65             |
| Neug          | 5.67                 | 2.33   | 8.08                          | 0.31   | 1.43             |
| Linseed       | -                    | -      | -                             | -      | -                |
| Fenugreek     | 0.29                 | 0.12   | 0.82                          | 0.03   | 2.83             |
| Rapeseed      | 0.29                 | 0.12   | 1.43                          | 0.05   | 4.93             |
| ALL CROPS     | 242.90               | 100.00 | 2635.60                       | 100.00 | 10.85            |

Table 7 Estimates of Area, Production and Yield of Major Crops for Private Peasant Holdings in BENSANGULE REGION 1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 53.15                | 87.95  | 612.16                     | 95.45  | 11.52         |
| Teff          | 11.98                | 19.83  | 63.15                      | 9.85   | 5.27          |
| Barley        | 0.16                 | 0.26   | 0.94                       | 0.15   | 5.88          |
| Wheat         | 0.11                 | 0.19   | 1.27                       | 0.20   | 11.55         |
| Maize         | 13.41                | 22.20  | 235.22                     | 36.68  | 17.54         |
| Sorghum       | 21.93                | 36.29  | 270.33                     | 42.15  | 12.33         |
| Millet        | 5.54                 | 9.16   | 41.12                      | 6.41   | 7.42          |
| Oats          | 0.02                 | 0.03   | 0.13                       | 0.02   | 6.50          |
| PULSES        | 2.66                 | 4.41   | 17.80                      | 2.78   | 6.69          |
| Horse Beans   | 0.23                 | 0.38   | 1.17                       | 0.18   | 5.09          |
| Field Peas    | —                    | —      | —                          | —      | —             |
| Haricot Beans | 2.21                 | 3.66   | 15.76                      | 2.46   | 7.13          |
| Chick Peas    | 0.09                 | 0.16   | 0.42                       | 0.07   | 4.67          |
| Lentils       | 0.13                 | 0.22   | 0.45                       | 0.07   | 3.46          |
| Vetch         | —                    | —      | —                          | —      | —             |
| OTHERS        | 4.61                 | 7.63   | 11.36                      | 1.77   | 2.46          |
| Neug          | 4.60                 | 7.62   | 11.30                      | 1.76   | 2.46          |
| Linseed       | —                    | —      | —                          | —      | —             |
| Fenugreek     | —                    | —      | —                          | —      | —             |
| Rapeseed      | 0.01                 | 0.01   | 0.06                       | 0.01   | 6.00          |
| ALL CROPS     | 60.42                | 100.00 | 641.32                     | 100.00 | 10.61         |

Table 8 Estimates of Area, Production and Yield of Major Crops  
for Private Holdings in S. E. P. A. REGION\*  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 516.55               | 86.20  | 6105.62                    | 88.24  | 11.82         |
| Teff          | 139.04               | 23.20  | 1001.64                    | 14.48  | 7.20          |
| Barley        | 72.64                | 12.12  | 703.98                     | 10.17  | 9.69          |
| Wheat         | 74.39                | 12.41  | 1122.27                    | 16.22  | 15.09         |
| Maize         | 148.42               | 24.77  | 2394.27                    | 34.60  | 16.13         |
| Sorghum       | 78.40                | 13.08  | 849.71                     | 12.28  | 10.84         |
| Millet        | 3.42                 | 0.57   | 31.87                      | 0.46   | 9.32          |
| Oats          | 0.24                 | 0.04   | 1.88                       | 0.03   | 7.74          |
| PULSES        | 81.52                | 13.60  | 808.79                     | 11.69  | 9.92          |
| Horse Beans   | 40.51                | 6.76   | 448.79                     | 6.49   | 11.08         |
| Field Peas    | 22.11                | 3.69   | 252.71                     | 3.65   | 11.43         |
| Haricot Beans | 11.45                | 1.91   | 51.82                      | 0.75   | 4.53          |
| Chick Peas    | 6.65                 | 1.11   | 50.22                      | 0.73   | 7.55          |
| Lentils       | 0.80                 | 0.13   | 5.25                       | 0.08   | 6.56          |
| Vetch         | -                    | -      | -                          | -      | -             |
| OTHERS        | 1.15                 | 0.19   | 4.89                       | 0.07   | 4.24          |
| Neug          | 0.04                 | 0.01   | 0.26                       | 0.00   | 6.50          |
| Linseed       | 0.03                 | 0.01   | 0.17                       | 0.00   | 5.00          |
| Fenugreek     | 1.08                 | 0.18   | 4.46                       | 0.06   | 4.13          |
| Rapeseed      | -                    | -      | -                          | -      | -             |
| ALL CROPS     | 599.23               | 100.00 | 6919.30                    | 100.00 | 11.55         |

\* S. E. P. A. REGION = Southern Ethiopian Peoples' Administrative Region

Table 8.1 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in S.E.P.A. Region, BENCHI ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 16.57                | 85.92  | 157.97                     | 80.68  | 9.53          |
| Teff          | 2.56                 | 13.26  | 12.56                      | 6.42   | 4.91          |
| Barley        | 0.77                 | 4.01   | 4.11                       | 2.10   | 5.34          |
| Wheat         | 0.36                 | 1.86   | 3.98                       | 2.03   | 11.06         |
| Maize         | 8.84                 | 45.83  | 96.78                      | 49.43  | 10.95         |
| Sorghum       | 4.04                 | 20.96  | 40.54                      | 20.71  | 10.03         |
| Millet        | -                    | -      | -                          | -      | -             |
| Oats          | -                    | -      | -                          | -      | -             |
| PULSES        | 2.71                 | 14.08  | 37.82                      | 19.32  | 13.96         |
| Horse Beans   | 1.92                 | 9.97   | 27.07                      | 13.83  | 14.10         |
| Field Peas    | 0.70                 | 3.65   | 10.73                      | 5.48   | 15.33         |
| Haricot Beans | 0.09                 | 0.46   | 0.02                       | 0.01   | 0.22          |
| Chick Peas    | -                    | -      | -                          | -      | -             |
| Lentils       | -                    | -      | -                          | -      | -             |
| Vetch         | -                    | -      | -                          | -      | -             |
| OTHERS        | -                    | -      | -                          | -      | -             |
| Neug          | -                    | -      | -                          | -      | -             |
| Linseed       | -                    | -      | -                          | -      | -             |
| Fenugreek     | -                    | -      | -                          | -      | -             |
| Rapeseed      | -                    | -      | -                          | -      | -             |
| ALL CROPS     | 19.28                | 100.00 | 195.79                     | 100.00 | 10.16         |

Table 8.2 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in S.E.P.A. Region, GEDIO ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION<br>(000' QT) |        | YIELD<br>(QT/HA) |
|---------------|----------------------|--------|-------------------------------|--------|------------------|
|               | NUMBER               | %      | NUMBER                        | %      |                  |
| CEREALS       | 15.05                | 76.57  | 168.26                        | 79.23  | 11.18            |
| Teff          | 0.15                 | 0.78   | .082                          | 0.38   | 5.47             |
| Barley        | 5.87                 | 29.85  | 32.41                         | 15.38  | 5.52             |
| Wheat         | 2.20                 | 11.19  | 25.89                         | 12.28  | 11.77            |
| Maize         | 6.65                 | 33.83  | 107.03                        | 50.79  | 16.09            |
| Sorghum       | 0.18                 | 0.93   | 2.11                          | 0.40   | 11.72            |
| Millet        | -                    | -      | -                             | -      | -                |
| Oats          | -                    | -      | -                             | -      | -                |
| PULSES        | 4.61                 | 23.43  | 43.76                         | 20.77  | 9.49             |
| Horse Beans   | 4.21                 | 21.41  | 41.33                         | 19.61  | 9.82             |
| Field Peas    | 0.40                 | 2.02   | 2.43                          | 1.15   | 6.08             |
| Haricot Beans | -                    | -      | -                             | -      | -                |
| Chick Peas    | -                    | -      | -                             | -      | -                |
| Lentils       | -                    | -      | -                             | -      | -                |
| Vetch         | -                    | -      | -                             | -      | -                |
| OTHERS        | -                    | -      | -                             | -      | -                |
| Neug          | -                    | -      | -                             | -      | -                |
| Linseed       | -                    | -      | -                             | -      | -                |
| Fenugreek     | -                    | -      | -                             | -      | -                |
| Rapeseed      | -                    | -      | -                             | -      | -                |
| ALL CROPS     | 19.66                | 100.00 | 212.02                        | 100.00 | 10.78            |

Table 8.3 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in S.E.P.A. Region, GURAGE ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 76.61                | 85.40  | 870.76                     | 88.38  | 11.37         |
| Teff          | 21.49                | 23.96  | 178.17                     | 18.08  | 8.29          |
| Barley        | 12.37                | 13.79  | 95.83                      | 9.73   | 7.75          |
| Wheat         | 10.02                | 11.17  | 163.47                     | 16.59  | 16.31         |
| Maize         | 24.57                | 27.39  | 326.18                     | 33.11  | 13.28         |
| Sorghum       | 8.16                 | 9.10   | 107.11                     | 10.87  | 13.13         |
| Millet        | -                    | -      | -                          | -      | -             |
| Oats          | -                    | -      | -                          | -      | -             |
| PULSES        | 13.06                | 14.56  | 114.22                     | 11.59  | 8.75          |
| Horse Beans   | 5.19                 | 5.78   | 38.37                      | 3.89   | 7.39          |
| Field Peas    | 3.24                 | 3.61   | 31.15                      | 3.16   | 9.61          |
| Haricot Beans | -                    | -      | -                          | -      | -             |
| Chick Peas    | 4.33                 | 4.82   | 42.73                      | 4.34   | 9.87          |
| Lentils       | 0.30                 | 0.34   | 1.97                       | 0.20   | 6.57          |
| Vetch         | -                    | -      | -                          | -      | -             |
| OTHERS        | 0.04                 | 0.05   | 0.26                       | 0.03   | 6.50          |
| Neug          | 0.04                 | 0.05   | 0.26                       | 0.03   | 6.50          |
| Linseed       | -                    | -      | -                          | -      | -             |
| Fenugreek     | -                    | -      | -                          | -      | -             |
| Rapeseed      | -                    | -      | -                          | -      | -             |
| ALL CROPS     | 89.71                | 100.00 | 985.24                     | 100.00 | 10.98         |

Table 8.4 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in S.E.P.A. Region, HADIYA ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 101.35               | 91.47  | 1492.76                    | 93.77  | 14.73         |
| Teff          | 24.20                | 21.84  | 262.18                     | 16.47  | 10.83         |
| Barley        | 7.32                 | 6.60   | 94.37                      | 5.93   | 12.89         |
| Wheat         | 35.33                | 31.89  | 599.96                     | 37.69  | 16.98         |
| Maize         | 27.79                | 25.08  | 449.84                     | 28.26  | 16.19         |
| Sorghum       | 5.67                 | 5.12   | 76.21                      | 4.79   | 13.44         |
| Millet        | 1.04                 | 0.94   | 10.20                      | 0.64   | 9.81          |
| Oats          | -                    | -      | -                          | -      | -             |
| PULSES        | 9.40                 | 8.50   | 99.12                      | 6.23   | 10.54         |
| Horse Beans   | 5.39                 | 4.87   | 55.24                      | 3.47   | 10.25         |
| Field Peas    | 2.85                 | 2.58   | 34.38                      | 2.16   | 12.06         |
| Haricot Beans | 0.67                 | 0.61   | 6.96                       | 0.44   | 10.39         |
| Chick Peas    | 0.30                 | 0.27   | 1.40                       | 0.09   | 4.67          |
| Lentils       | 0.19                 | 0.17   | 1.14                       | 0.07   | 6.00          |
| Vetch         | -                    | -      | -                          | -      | -             |
| OTHERS        | 0.03                 | 0.03   | 0.13                       | 0.01   | 4.33          |
| Neug          | -                    | -      | -                          | -      | -             |
| Linseed       | 0.03                 | 0.03   | 0.13                       | 0.01   | 4.33          |
| Fenugreek     | -                    | -      | -                          | -      | -             |
| Rapeseed      | -                    | -      | -                          | -      | -             |
| ALL CROPS     | 110.78               | 100.00 | 1592.01                    | 100.00 | 14.37         |

Table 8.5 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in S.E.P.A. Region, KEMBATA ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' Q T) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|-----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                      | %      |               |
| CEREALS       | 65.57                | 95.71  | 1022.67                     | 97.95  | 15.60         |
| Teff          | 15.37                | 22.44  | 169.18                      | 16.20  | 11.01         |
| Barley        | 0.60                 | 0.88   | 7.47                        | 0.72   | 12.45         |
| Wheat         | 10.33                | 15.08  | 145.97                      | 13.98  | 14.13         |
| Maize         | 30.40                | 44.37  | 555.23                      | 53.18  | 18.26         |
| Sorghum       | 6.84                 | 9.98   | 126.58                      | 12.12  | 18.51         |
| Millet        | 1.81                 | 2.64   | 16.52                       | 1.58   | 9.13          |
| Oats          | 0.22                 | 0.32   | 1.72                        | 0.16   | 7.82          |
| PULSES        | 1.86                 | 2.71   | 16.98                       | 1.63   | 9.13          |
| Horse Beans   | 1.02                 | 1.48   | 11.33                       | 1.09   | 11.11         |
| Field Peas    | 0.25                 | 0.36   | 2.78                        | 0.27   | 11.12         |
| Haricot Beans | 0.15                 | 0.22   | 1.48                        | 0.14   | 9.87          |
| Chick Peas    | 0.44                 | 0.64   | 1.39                        | 0.13   | 3.16          |
| Lentils       | -                    | -      | -                           | -      | -             |
| Vetch         | -                    | -      | -                           | -      | -             |
| OTHERS        | 1.08                 | 1.58   | 4.46                        | 0.43   | 4.13          |
| Neug          | -                    | -      | -                           | -      | -             |
| Linseed       | -                    | -      | -                           | -      | -             |
| Fenugreek     | 1.08                 | 1.58   | 4.46                        | 0.43   | 4.13          |
| Rapeseed      | -                    | -      | -                           | -      | -             |
| ALL CROPS     | 68.51                | 100.00 | 1044.11                     | 100.00 | 15.24         |

Table 8.6 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in S.E.P.A. Region, KEFICHO ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 40.36                | 72.51  | 480.27                     | 66.85  | 11.90         |
| Teff          | 15.35                | 27.58  | 91.77                      | 12.77  | 5.98          |
| Barley        | 6.67                 | 11.99  | 75.90                      | 10.56  | 11.38         |
| Wheat         | 2.27                 | 4.08   | 23.84                      | 3.32   | 10.50         |
| Maize         | 9.76                 | 17.53  | 216.89                     | 30.19  | 22.22         |
| Sorghum       | 6.20                 | 11.14  | 70.71                      | 9.84   | 11.40         |
| Millet        | 0.11                 | 0.19   | 1.16                       | 0.16   | 10.55         |
| Oats          | -                    | -      | -                          | -      | -             |
| PULSES        | 15.29                | 27.49  | 238.18                     | 33.15  | 15.58         |
| Horse Beans   | 10.12                | 18.19  | 159.07                     | 22.14  | 15.72         |
| Field Peas    | 4.73                 | 8.50   | 75.98                      | 10.58  | 16.06         |
| Haricot Beans | 0.41                 | 0.74   | 2.84                       | 0.40   | 6.93          |
| Chick Peas    | 0.03                 | 0.06   | 0.29                       | 0.04   | 9.67          |
| Lentils       | -                    | -      | -                          | -      | -             |
| Vetch         | -                    | -      | -                          | -      | -             |
| OTHERS        | -                    | -      | -                          | -      | -             |
| Neug          | -                    | -      | -                          | -      | -             |
| Linseed       | -                    | -      | -                          | -      | -             |
| Fenugreek     | -                    | -      | -                          | -      | -             |
| Rapeseed      | -                    | -      | -                          | -      | -             |
| ALL CROPS     | 55.65                | 100.00 | 718.45                     | 100.00 | 12.91         |

Table 8.7 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in S.E.P.A. Region, MAJI ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION<br>(000' QT) |        | YIELD<br>(QT/HA) |
|---------------|----------------------|--------|-------------------------------|--------|------------------|
|               | NUMBER               | %      | NUMBER                        | %      |                  |
| CEREALS       | 5.25                 | 94.89  | 62.11                         | 94.88  | 11.83            |
| Teff          | 0.41                 | 7.39   | 2.56                          | 3.91   | 6.24             |
| Barley        | 0.81                 | 14.65  | 8.88                          | 13.57  | 10.96            |
| Wheat         | 0.01                 | 0.26   | 0.22                          | 0.34   | 22.00            |
| Maize         | 1.86                 | 33.62  | 15.31                         | 23.39  | 8.23             |
| Sorghum       | 2.16                 | 38.97  | 35.14                         | 53.68  | 16.27            |
| Millet        | -                    | -      | -                             | -      | -                |
| Oats          | -                    | -      | -                             | -      | -                |
| PULSES        | 0.29                 | 5.11   | 3.35                          | 5.12   | 11.55            |
| Horse Beans   | 0.08                 | 1.39   | 1.10                          | 1.68   | 13.75            |
| Field Peas    | 0.20                 | 3.62   | 2.23                          | 3.41   | 11.15            |
| Haricot Beans | 0.01                 | 0.10   | 0.02                          | 0.03   | 2.00             |
| Chick Peas    | -                    | -      | -                             | -      | -                |
| Lentils       | -                    | -      | -                             | -      | -                |
| Vetch         | -                    | -      | -                             | -      | -                |
| OTHERS        | -                    | -      | -                             | -      | -                |
| Neug          | -                    | -      | -                             | -      | -                |
| Linseed       | -                    | -      | -                             | -      | -                |
| Fenugreek     | -                    | -      | -                             | -      | -                |
| Rapeseed      | -                    | -      | -                             | -      | -                |
| ALL CROPS     | 5.54                 | 100.00 | 65.46                         | 100.00 | 11.82            |

Table 8.8 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in S.E.P.A. Region, NORTH OMO ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION<br>(000' QT) |        | YIELD<br>(QT/HA) |
|---------------|----------------------|--------|-------------------------------|--------|------------------|
|               | NUMBER               | %      | NUMBER                        | %      |                  |
| CEREALS       | 109.60               | 83.45  | 880.88                        | 85.51  | 8.04             |
| Teff          | 42.41                | 32.29  | 151.08                        | 14.67  | 3.56             |
| Barley        | 31.21                | 23.76  | 311.99                        | 30.28  | 10.00            |
| Wheat         | 10.98                | 8.36   | 117.88                        | 11.44  | 10.74            |
| Maize         | 3.82                 | 2.91   | 69.57                         | 6.75   | 18.21            |
| Sorghum       | 21.02                | 16.01  | 228.38                        | 22.17  | 10.86            |
| Millet        | 0.14                 | 0.11   | 1.85                          | 0.18   | 13.21            |
| Oats          | 0.02                 | 0.01   | 0.13                          | 0.01   | 6.50             |
| PULSES        | 21.75                | 16.55  | 149.31                        | 14.49  | 6.86             |
| Horse Beans   | 8.43                 | 6.42   | 71.67                         | 6.96   | 8.50             |
| Field Peas    | 5.71                 | 4.34   | 54.03                         | 5.24   | 9.46             |
| Haricot Beans | 6.98                 | 5.31   | 19.42                         | 1.89   | 2.78             |
| Chick Peas    | 0.43                 | 0.33   | 3.92                          | 0.38   | 9.12             |
| Lentils       | 0.20                 | 0.15   | 0.27                          | 0.03   | 1.35             |
| Vetch         | -                    | -      | -                             | -      | -                |
| OTHERS        | -                    | -      | -                             | -      | -                |
| Neug          | -                    | -      | -                             | -      | -                |
| Linseed       | -                    | -      | -                             | -      | -                |
| Fenugreek     | -                    | -      | -                             | -      | -                |
| Rapeseed      | -                    | -      | -                             | -      | -                |
| ALL CROPS     | 131.35               | 100.00 | 1030.19                       | 100.00 | 7.84             |

Table 8.9 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in S.E.P.A. Region, SOUTH OMO ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION<br>(000' QT) |        | YIELD<br>(QT/HA) |
|---------------|----------------------|--------|-------------------------------|--------|------------------|
|               | NUMBER               | %      | NUMBER                        | %      |                  |
| CEREALS       | 17.95                | 88.85  | 161.83                        | 88.32  | 9.02             |
| Teff          | 4.95                 | 24.51  | 28.35                         | 15.47  | 5.73             |
| Barley        | 1.50                 | 7.42   | 14.06                         | 7.67   | 9.37             |
| Wheat         | 0.10                 | 0.50   | 1.17                          | 0.64   | 11.70            |
| Maize         | 5.15                 | 25.52  | 60.18                         | 32.84  | 11.69            |
| Sorghum       | 6.02                 | 29.78  | 56.83                         | 31.02  | 9.44             |
| Millet        | 0.23                 | 1.13   | 1.24                          | 0.68   | 5.39             |
| Oats          | -                    | -      | -                             | -      | -                |
| PULSES        | 2.25                 | 11.13  | 21.36                         | 11.66  | 9.49             |
| Horse Beans   | 1.32                 | 6.55   | 15.22                         | 8.31   | 11.53            |
| Field Peas    | 0.66                 | 3.24   | 6.07                          | 3.31   | 9.20             |
| Haricot Beans | 0.27                 | 1.33   | 0.07                          | 0.04   | 0.26             |
| Chick Peas    | -                    | -      | -                             | -      | -                |
| Lentils       | -                    | -      | -                             | -      | -                |
| Vetch         | -                    | -      | -                             | -      | -                |
| OTHERS        | 0.004                | 0.02   | 0.04                          | 0.02   | 10.00            |
| Neug          | -                    | -      | -                             | -      | -                |
| Linseed       | 0.004                | 0.02   | 0.04                          | 0.02   | 10.00            |
| Fenugreek     | -                    | -      | -                             | -      | -                |
| Rapeseed      | -                    | -      | -                             | -      | -                |
| ALL CROPS     | 20.20                | 100.00 | 183.23                        | 100.00 | 9.07             |

**Table 8.10 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in S.E.P.A. Region, SHEKICHO ZONE  
1994/95 (1987 E.C.)**

| CROP TYPE        | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|------------------|----------------------|--------|----------------------------|--------|---------------|
|                  | NUMBER               | %      | NUMBER                     | %      |               |
| <b>CEREALS</b>   | 7.12                 | 81.28  | 76.14                      | 87.13  | 10.69         |
| Teff             | 2.04                 | 23.34  | 13.95                      | 15.96  | 6.84          |
| Barley           | 0.24                 | 2.79   | 2.31                       | 2.64   | 9.63          |
| Wheat            | 0.25                 | 2.81   | 1.75                       | 2.00   | 7.00          |
| Maize            | 3.10                 | 35.37  | 39.85                      | 45.60  | 12.85         |
| Sorghum          | 1.40                 | 15.99  | 17.38                      | 19.89  | 12.41         |
| Millet           | 0.09                 | 0.98   | 0.90                       | 1.03   | 10.00         |
| Oats             | -                    | -      | -                          | -      | -             |
| <b>PULSES</b>    | 1.63                 | 18.72  | 11.25                      | 12.87  | 6.90          |
| Horse Beans      | 0.74                 | 8.50   | 6.39                       | 7.31   | 8.64          |
| Field Peas       | 0.63                 | 7.21   | 4.27                       | 4.89   | 6.78          |
| Haricot Beans    | 0.26                 | 3.01   | 0.59                       | 0.68   | 2.27          |
| Chick Peas       | -                    | -      | -                          | -      | -             |
| Lentils          | -                    | -      | -                          | -      | -             |
| Vetch            | -                    | -      | -                          | -      | -             |
| <b>OTHERS</b>    | -                    | -      | -                          | -      | -             |
| Neug             | -                    | -      | -                          | -      | -             |
| Linseed          | -                    | -      | -                          | -      | -             |
| Fenugreek        | -                    | -      | -                          | -      | -             |
| Rapeseed         | -                    | -      | -                          | -      | -             |
| <b>ALL CROPS</b> | 8.75                 | 100.00 | 87.39                      | 100.00 | 9.99          |

Table 8.11 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in S.E.P.A. Region, SIDAMA ZONE  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 33.61                | 90.83  | 552.15                     | 94.02  | 16.43         |
| Teff          | 5.71                 | 15.43  | 63.21                      | 10.76  | 11.07         |
| Barley        | 2.35                 | 6.36   | 29.25                      | 4.98   | 12.45         |
| Wheat         | 0.48                 | 1.29   | 6.60                       | 1.12   | 13.75         |
| Maize         | 24.73                | 66.83  | 446.66                     | 76.06  | 18.06         |
| Sorghum       | 0.34                 | 0.92   | 6.43                       | 1.09   | 18.91         |
| Millet        | -                    | -      | -                          | -      | -             |
| Oats          | -                    | -      | -                          | -      | -             |
| PULSES        | 3.40                 | 9.17   | 35.13                      | 5.98   | 10.33         |
| Horse Beans   | 0.94                 | 2.54   | 10.25                      | 1.75   | 10.90         |
| Field Peas    | 0.56                 | 1.50   | 6.25                       | 1.06   | 11.16         |
| Haricot Beans | 1.90                 | 5.13   | 18.63                      | 3.17   | 9.81          |
| Chick Peas    | -                    | -      | -                          | -      | -             |
| Lentils       | -                    | -      | -                          | -      | -             |
| Vetch         | -                    | -      | -                          | -      | -             |
| OTHERS        | -                    | -      | -                          | -      | -             |
| Neug          | -                    | -      | -                          | -      | -             |
| Linseed       | -                    | -      | -                          | -      | -             |
| Fenugreek     | -                    | -      | -                          | -      | -             |
| Rapeseed      | -                    | -      | -                          | -      | -             |
| ALL CROPS     | 37.01                | 100.00 | 587.28                     | 100.00 | 15.87         |

Table 8.12 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in S.E.P.A. Region, AMARO WEREDA  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION<br>(000' QT) |        | YIELD<br>(QT/HA) |
|---------------|----------------------|--------|-------------------------------|--------|------------------|
|               | NUMBER               | %      | NUMBER                        | %      |                  |
| CEREALS       | 3.90                 | 57.71  | 47.06                         | 57.01  | 12.07            |
| Teff          | 0.36                 | 5.35   | 4.83                          | 5.11   | 13.42            |
| Barley        | 2.14                 | 31.68  | 19.16                         | 31.83  | 8.95             |
| Wheat         | 1.40                 | 20.69  | 23.07                         | 20.08  | 16.48            |
| Maize         | -                    | -      | -                             | -      | -                |
| Sorghum       | -                    | -      | -                             | -      | -                |
| Millet        | -                    | -      | -                             | -      | -                |
| Oats          | -                    | -      | -                             | -      | -                |
| PULSES        | 2.85                 | 42.29  | 31.69                         | 42.99  | 11.12            |
| Horse Beans   | 0.69                 | 10.24  | 8.35                          | 10.36  | 12.10            |
| Field Peas    | 2.06                 | 30.53  | 21.51                         | 31.07  | 10.44            |
| Haricot Beans | -                    | -      | -                             | -      | -                |
| Chick Peas    | -                    | -      | -                             | -      | -                |
| Lentils       | 0.10                 | 1.52   | 1.83                          | 1.56   | 18.30            |
| Vetch         | -                    | -      | -                             | -      | -                |
| OTHERS        | -                    | -      | -                             | -      | -                |
| Neug          | -                    | -      | -                             | -      | -                |
| Linseed       | -                    | -      | -                             | -      | -                |
| Fenugreek     | -                    | -      | -                             | -      | -                |
| Rapeseed      | -                    | -      | -                             | -      | -                |
| ALL CROPS     | 6.75                 | 100.00 | 78.75                         | 100.00 | 11.67            |

Table 8.13 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in S.E.P.A. Region, BURJI WEREDA  
1994/95 (1987 E.C.)

| CROP TYPE        | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|------------------|----------------------|--------|----------------------------|--------|---------------|
|                  | NUMBER               | %      | NUMBER                     | %      |               |
| <b>CEREALS</b>   | 1.13                 | 88.05  | 10.74                      | 87.89  | 9.50          |
| Teff             | 0.63                 | 49.38  | 5.04                       | 41.24  | 8.00          |
| Barley           | 0.28                 | 21.71  | 3.05                       | 24.96  | 10.89         |
| Wheat            | -                    | -      | -                          | -      | -             |
| Maize            | -                    | -      | -                          | -      | -             |
| Sorghum          | 0.22                 | 16.96  | 2.65                       | 21.69  | 12.05         |
| Millet           | -                    | -      | -                          | -      | -             |
| Oats             | -                    | -      | -                          | -      | -             |
| <b>PULSES</b>    | 0.15                 | 11.95  | 1.48                       | 12.11  | 9.87          |
| Horse Beans      | -                    | -      | -                          | -      | -             |
| Field Peas       | -                    | -      | -                          | -      | -             |
| Haricot Beans    | 0.14                 | 10.87  | 1.44                       | 11.78  | 10.29         |
| Chick Peas       | -                    | -      | -                          | -      | -             |
| Lentils          | 0.01                 | 1.09   | 0.04                       | 0.33   | 4.00          |
| Vetch            | -                    | -      | -                          | -      | -             |
| <b>OTHERS</b>    | -                    | -      | -                          | -      | -             |
| Neug             | -                    | -      | -                          | -      | -             |
| Linseed          | -                    | -      | -                          | -      | -             |
| Fenugreek        | -                    | -      | -                          | -      | -             |
| Rapeseed         | -                    | -      | -                          | -      | -             |
| <b>ALL CROPS</b> | 1.28                 | 100.00 | 12.22                      | 100.00 | 9.55          |

Table 8.14 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in S.E.P.A. Region, DERASHE WEREDA  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 12.71                | 94.50  | 61.43                      | 99.91  | 4.83          |
| Teff          | 1.24                 | 9.22   | 4.82                       | 7.83   | 3.89          |
| Barley        | -                    | -      | -                          | -      | -             |
| Wheat         | -                    | -      | -                          | -      | -             |
| Maize         | 1.32                 | 9.78   | 6.50                       | 10.57  | 4.92          |
| Sorghum       | 10.15                | 75.49  | 50.11                      | 81.51  | 4.94          |
| Millet        | -                    | -      | -                          | -      | -             |
| Oats          | -                    | -      | -                          | -      | -             |
| PULSES        | 0.74                 | 5.50   | 0.05                       | 0.09   | 0.07          |
| Horse Beans   | -                    | -      | -                          | -      | -             |
| Field Peas    | -                    | -      | -                          | -      | -             |
| Haricot Beans | -                    | -      | -                          | -      | -             |
| Chick Peas    | 0.74                 | 5.50   | 0.05                       | 0.09   | 0.07          |
| Lentils       | -                    | -      | -                          | -      | -             |
| Vetch         | -                    | -      | -                          | -      | -             |
| OTHERS        | -                    | -      | -                          | -      | -             |
| Neug          | -                    | -      | -                          | -      | -             |
| Linseed       | -                    | -      | -                          | -      | -             |
| Fenugreek     | -                    | -      | -                          | -      | -             |
| Rapeseed      | -                    | -      | -                          | -      | -             |
| ALL CROPS     | 13.45                | 100.00 | 61.48                      | 100.00 | 4.57          |

Table 8.15 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in S.E.P.A. Region, KONSO WEREDA  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 5.95                 | 86.23  | 25.41                      | 96.98  | 4.27          |
| Teff          | 0.29                 | 4.19   | 0.57                       | 2.18   | 1.97          |
| Barley        | 0.06                 | 0.89   | 0.05                       | 0.19   | 0.83          |
| Wheat         | -                    | -      | -                          | -      | -             |
| Maize         | 0.10                 | 1.44   | 0.10                       | 0.38   | 1.00          |
| Sorghum       | 5.50                 | 79.71  | 24.69                      | 94.24  | 4.49          |
| Millet        | -                    | -      | -                          | -      | -             |
| Oats          | -                    | -      | -                          | -      | -             |
| PULSES        | 0.95                 | 13.77  | 0.79                       | 3.02   | 0.83          |
| Horse Beans   | -                    | -      | -                          | -      | -             |
| Field Peas    | -                    | -      | -                          | -      | -             |
| Haricot Beans | 0.57                 | 8.21   | 0.35                       | 1.34   | 0.61          |
| Chick Peas    | 0.38                 | 5.56   | 0.44                       | 1.68   | 1.16          |
| Lentils       | -                    | -      | -                          | -      | -             |
| Vetch         | -                    | -      | -                          | -      | -             |
| OTHERS        | -                    | -      | -                          | -      | -             |
| Neug          | -                    | -      | -                          | -      | -             |
| Linseed       | -                    | -      | -                          | -      | -             |
| Fenugreek     | -                    | -      | -                          | -      | -             |
| Rapeseed      | -                    | -      | -                          | -      | -             |
| ALL CROPS     | 6.90                 | 100.00 | 26.20                      | 100.00 | 3.80          |

Table 8.16 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in S.E.P.A. Region, YEM WEREDA  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 3.82                 | 86.77  | 35.18                      | 89.11  | 9.20          |
| Teff          | 1.88                 | 42.72  | 12.55                      | 31.79  | 6.68          |
| Barley        | 0.45                 | 10.18  | 5.14                       | 13.02  | 11.42         |
| Wheat         | 0.66                 | 15.04  | 8.47                       | 21.45  | 12.83         |
| Maize         | 0.33                 | 7.48   | 4.15                       | 10.51  | 12.58         |
| Sorghum       | 0.50                 | 11.28  | 4.84                       | 12.26  | 9.68          |
| Millet        | -                    | -      | -                          | -      | -             |
| Oats          | 0.003                | 0.07   | 0.03                       | 0.08   | 10.00         |
| PULSES        | 0.58                 | 13.23  | 4.30                       | 10.89  | 7.41          |
| Horse Beans   | 0.46                 | 10.39  | 3.40                       | 8.61   | 7.39          |
| Field Peas    | 0.12                 | 2.84   | 0.90                       | 2.28   | 7.50          |
| Haricot Beans | -                    | -      | -                          | -      | -             |
| Chick Peas    | -                    | -      | -                          | -      | -             |
| Lentils       | -                    | -      | -                          | -      | -             |
| Vetch         | -                    | -      | -                          | -      | -             |
| OTHERS        | -                    | -      | -                          | -      | -             |
| Neug          | -                    | -      | -                          | -      | -             |
| Linseed       | -                    | -      | -                          | -      | -             |
| Fenugreek     | -                    | -      | -                          | -      | -             |
| Rapeseed      | -                    | -      | -                          | -      | -             |
| ALL CROPS     | 4.40                 | 100.00 | 39.48                      | 100.00 | 8.97          |

Table 9 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in GAMBELA REGION  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION (000' QT) |        | YIELD (QT/HA) |
|---------------|----------------------|--------|----------------------------|--------|---------------|
|               | NUMBER               | %      | NUMBER                     | %      |               |
| CEREALS       | 6.14                 | 98.32  | 78.39                      | 99.60  | 12.77         |
| Teff          | 0.03                 | 0.43   | 0.10                       | 0.11   | 3.33          |
| Barley        | -                    | -      | -                          | -      | -             |
| Wheat         | -                    | -      | -                          | -      | -             |
| Maize         | 3.34                 | 53.48  | 44.63                      | 63.07  | 13.36         |
| Sorghum       | 2.77                 | 44.41  | 33.66                      | 36.43  | 12.15         |
| Millet        | -                    | -      | -                          | -      | -             |
| Oats          | -                    | -      | -                          | -      | -             |
| PULSES        | 0.10                 | 1.68   | 0.37                       | 0.40   | 3.70          |
| Horse Beans   | -                    | -      | -                          | -      | -             |
| Field Peas    | -                    | -      | -                          | -      | -             |
| Haricot Beans | 0.10                 | 1.68   | 0.37                       | 0.40   | 3.70          |
| Chick Peas    | -                    | -      | -                          | -      | -             |
| Lentils       | -                    | -      | -                          | -      | -             |
| Vetch         | -                    | -      | -                          | -      | -             |
| OTHERS        | -                    | -      | -                          | -      | -             |
| Neug          | -                    | -      | -                          | -      | -             |
| Linseed       | -                    | -      | -                          | -      | -             |
| Fenugreek     | -                    | -      | -                          | -      | -             |
| Rapeseed      | -                    | -      | -                          | -      | -             |
| ALL CROPS     | 6.24                 | 100.00 | 78.76                      | 100.00 | 12.62         |

Table 10 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in HARARI REGION  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION<br>(000' QT) |        | YIELD<br>(QT/HA) |
|---------------|----------------------|--------|-------------------------------|--------|------------------|
|               | NUMBER               | %      | NUMBER                        | %      |                  |
| CEREALS       | 5.04                 | 95.27  | 58.91                         | 96.84  | 11.69            |
| Teff          | 0.03                 | 0.57   | 0.00                          | 0.00   | 0.00             |
| Barley        | 0.09                 | 1.70   | 1.04                          | 1.71   | 11.56            |
| Wheat         | 0.42                 | 7.94   | 3.21                          | 5.28   | 7.64             |
| Maize         | 0.18                 | 3.40   | 2.67                          | 4.39   | 14.83            |
| Sorghum       | 4.30                 | 81.29  | 51.86                         | 85.25  | 12.06            |
| Millet        | -                    | -      | -                             | -      | -                |
| Oats          | 0.02                 | 0.38   | 0.13                          | 0.21   | 6.50             |
| PULSES        | 0.25                 | 4.73   | 1.92                          | 3.16   | 7.68             |
| Horse Beans   | -                    | -      | -                             | -      | -                |
| Field Peas    | -                    | -      | -                             | -      | -                |
| Haricot Beans | -                    | -      | -                             | -      | -                |
| Chick Peas    | 0.25                 | 4.73   | 1.92                          | 3.16   | 7.68             |
| Lentils       | -                    | -      | -                             | -      | -                |
| Vetch         | -                    | -      | -                             | -      | -                |
| OTHERS        | -                    | -      | -                             | -      | -                |
| Neug          | -                    | -      | -                             | -      | -                |
| Linseed       | -                    | -      | -                             | -      | -                |
| Fenugreek     | -                    | -      | -                             | -      | -                |
| Rapeseed      | -                    | -      | -                             | -      | -                |
| ALL CROPS     | 5.29                 | 100.00 | 60.83                         | 100.00 | 11.50            |

Table 11 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in ADDIS ABABA REGION  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION<br>(000' QT) |        | YIELD<br>(QT/HA) |
|---------------|----------------------|--------|-------------------------------|--------|------------------|
|               | NUMBER               | %      | NUMBER                        | %      |                  |
| CEREALS       | 7.66                 | 74.27  | 85.29                         | 71.53  | 11.13            |
| Teff          | 5.13                 | 49.74  | 52.27                         | 43.84  | 10.19            |
| Barley        | 0.01                 | 0.10   | 0.13                          | 0.11   | 13.00            |
| Wheat         | 2.47                 | 23.95  | 32.58                         | 27.33  | 13.19            |
| Maize         | 0.03                 | 0.29   | 0.21                          | 0.18   | 7.00             |
| Sorghum       | 0.01                 | 0.10   | 0.05                          | 0.04   | 5.00             |
| Millet        | -                    | -      | -                             | -      | -                |
| Oats          | 0.01                 | 0.10   | 0.05                          | 0.04   | 5.00             |
| PULSES        | 2.54                 | 24.64  | 33.54                         | 28.13  | 13.20            |
| Horse Beans   | 0.08                 | 0.78   | 1.10                          | 0.92   | 13.75            |
| Field Peas    | 0.07                 | 0.68   | 0.54                          | 0.45   | 7.71             |
| Haricot Beans | 0.001                | 0.01   | 0.01                          | 0.01   | 10.00            |
| Chick Peas    | 0.96                 | 9.31   | 18.23                         | 15.29  | 18.99            |
| Lentils       | 0.49                 | 4.75   | 2.84                          | 2.38   | 5.80             |
| Vetch         | 0.94                 | 9.11   | 10.82                         | 9.07   | 11.51            |
| OTHERS        | 0.11                 | 1.10   | 0.40                          | 0.34   | 3.54             |
| Neug          | 0.003                | 0.03   | 0.00                          | 0.00   | 0.00             |
| Linseed       | -                    | -      | -                             | -      | -                |
| Fenugreek     | 0.11                 | 1.07   | 0.40                          | 0.34   | 3.64             |
| Rapeseed      | -                    | -      | -                             | -      | -                |
| ALL CROPS     | 10.31                | 100.00 | 119.23                        | 100.00 | 11.56            |

Table 12 Estimates of Area, Production and Yield of Major Crops  
for Private Peasant Holdings in DIRE DAWA  
1994/95 (1987 E.C.)

| CROP TYPE     | TOTAL AREA (000' HA) |        | TOTAL PRODUCTION<br>(000' QT) |        | YIELD<br>(QT/HA) |
|---------------|----------------------|--------|-------------------------------|--------|------------------|
|               | NUMBER               | %      | NUMBER                        | %      |                  |
| CEREALS       | 9.52                 | 100.00 | 134.03                        | 100.00 | 14.08            |
| Teff          | -                    | -      | -                             | -      | -                |
| Barley        | -                    | -      | -                             | -      | -                |
| Wheat         | -                    | -      | -                             | -      | -                |
| Maize         | 0.11                 | 1.11   | 0.73                          | 0.54   | 6.64             |
| Sorghum       | 9.41                 | 98.89  | 133.30                        | 99.46  | 14.17            |
| Millet        | -                    | -      | -                             | -      | -                |
| Oats          | -                    | -      | -                             | -      | -                |
| PULSES        | -                    | -      | -                             | -      | -                |
| Horse Beans   | -                    | -      | -                             | -      | -                |
| Field Peas    | -                    | -      | -                             | -      | -                |
| Haricot Beans | -                    | -      | -                             | -      | -                |
| Chick Peas    | -                    | -      | -                             | -      | -                |
| Lentils       | -                    | -      | -                             | -      | -                |
| Vetch         | -                    | -      | -                             | -      | -                |
| OTHERS        | -                    | -      | -                             | -      | -                |
| Neug          | -                    | -      | -                             | -      | -                |
| Linseed       | -                    | -      | -                             | -      | -                |
| Fenugreek     | -                    | -      | -                             | -      | -                |
| Rapeseed      | -                    | -      | -                             | -      | -                |
| ALL CROPS     | 9.52                 | 100.00 | 134.03                        | 100.00 | 14.08            |

**APPENDIX I**  
**SURVEY QUESTIONNAIRES**









PART 3 - LIST OF FIELDS AND AGRICULTURAL PRACTICES FOR MIXED CROPS (MEHER SEASON)

| JOB ID   |               |       | PART 3 - LIST OF FIELDS AND AGRICULTURAL PRACTICES FOR MIXED CROPS (MEHER SEASON) |    |    |                          |                                |                   |                                     |                      |      |                  |      |                 |    |        |                              |                       |                                    |                                    |                    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|----------|---------------|-------|---|----|----|--------------------------|--------------------------------|-------------------|-------------------------------------|----------------------|------|------------------|------|-----------------|----|--------|------------------------------|-----------------------|------------------------------------|------------------------------------|--------------------|----|----|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|
| 1        |               |       | 2   |    | 3  |                          | 4                              | 5                 |                                     | 6                    |      |                  | 7    |                 |    | 8      |                              |                       | 9                                  |                                    |                    | 10 |    | 11      |    | 12 |    | 13 |    | 14 |    | 15 |    | 16 |    |    | 17 |    | 18 |    | 19 |    | 20 |  |
| LINE NO. | SERIAL NO. OF |       |   |    |    | CROP NAME<br>MIXED STAND | USE OF IRRIG.<br>YES=1<br>NO=2 | USE YES=1<br>NO=2 | IF YES NATURL=1<br>COMM=2<br>BOTH=3 | USE OF FERTILIZERS   |      |                  |      |                 |    | SR NO. | LIST OF CROPS IN MIXED STAND | PERCENT SHARE OF AREA | TYPE OF SEED IMPRVD=1<br>INDIGN.=2 | USE OF PEST-CIDES<br>YES=1<br>NO=2 | WAS CROP DAMAGED ? |    |    | REMARKS |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|          | PARCEL        | FIELD | QUANTITY USED   |    |    |                          |                                |                   |                                     | CROPS IN MIXED STAND | CODE | REASON OF DAMAGE | CODE | PERCENT DAMAGED |    |        |                              |                       |                                    |                                    |                    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|          | 30            | 31    | 32  | 33 | 34 |                          |                                |                   |                                     |                      |      |                  |      |                 | 35 |        |                              |                       |                                    |                                    | 36                 | 37 | 38 |         | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 |  |
| 0        | 1             |       |   |    |    |                          |                                |                   |                                     |                      |      |                  |      |                 |    |        |                              |                       |                                    |                                    |                    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| 0        | 2             |       |   |    |    |                          |                                |                   |                                     |                      |      |                  |      |                 |    |        |                              |                       |                                    |                                    |                    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| 0        | 3             |       |   |    |    |                          |                                |                   |                                     |                      |      |                  |      |                 |    |        |                              |                       |                                    |                                    |                    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| 0        | 4             |       |   |    |    |                          |                                |                   |                                     |                      |      |                  |      |                 |    |        |                              |                       |                                    |                                    |                    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| 0        | 5             |       |   |    |    |                          |                                |                   |                                     |                      |      |                  |      |                 |    |        |                              |                       |                                    |                                    |                    |    |    |         |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |

PART 4 - LIST OF NON-CROPED LAND USES (MEHER SEASON)

| JOB ID   |               |       | PART 4 - LIST OF NON-CROPED LAND USES (MEHER SEASON) |      |    |                  |    |         |   |  |   |  |  |  |  |  |  |  |  |  |  |
|----------|---------------|-------|--|------|----|------------------|----|---------|---|--|---|--|--|--|--|--|--|--|--|--|--|
| 1        |               |       | 2  |      | 3  |                  | 4  |         | 5 |  | 6 |  |  |  |  |  |  |  |  |  |  |
| LINE NO. | SERIAL NO. OF |       |  |      |    | LAND UTILIZATION |    | REMARKS |   |  |   |  |  |  |  |  |  |  |  |  |  |
|          | PARCEL        | FIELD | TYPE (NAME)  | CODE |    |                  |    |         |   |  |   |  |  |  |  |  |  |  |  |  |  |
| 30       | 31            | 32    | 33   | 34   | 35 | 36               | 37 |         |   |  |   |  |  |  |  |  |  |  |  |  |  |
|          |               |       |  |      |    |                  |    |         |   |  |   |  |  |  |  |  |  |  |  |  |  |
|          |               |       |  |      |    |                  |    |         |   |  |   |  |  |  |  |  |  |  |  |  |  |
|          |               |       |  |      |    |                  |    |         |   |  |   |  |  |  |  |  |  |  |  |  |  |
|          |               |       |  |      |    |                  |    |         |   |  |   |  |  |  |  |  |  |  |  |  |  |

PART 5 - LIST OF PERMANENT CROPS, NUMBER OF TREES AND PRODUCTION

| JOB ID   |                |      | PART 5 - LIST OF PERMANENT CROPS, NUMBER OF TREES AND PRODUCTION |      |         |                       |  |                             |   |    |         |    |    |    |    |    |    |    |  |  |  |
|----------|----------------|------|--|------|---------|-----------------------|--|-----------------------------|---|----|---------|----|----|----|----|----|----|----|--|--|--|
| 1        |                |      | 2  |      | 3       |                       | 4  |                             | 5                                       |    |         | 6  |    | 7  |    |    | 8  |    |  |  |  |
| LINE NO. | PERMANENT CROP |      |  |      |         | TOTAL NUMBER OF TREES | NUMBER OF TREES GIVING YIELD IN CURRENT YEAR | NUMBER OF HARVESTS PER YEAR | AVERAGE PRODUCTION PER HARVEST PER TREE |    | REMARKS |    |    |    |    |    |    |    |  |  |  |
|          | NAME           | CODE | TYPE   | AREA | PERCENT |                       |  |                             | GRAM                                    |    |         |    |    |    |    |    |    |    |  |  |  |
| 30       | 31             | 32   | 33   | 34   | 35      | 36                    | 37   | 38                          | 39                                      | 40 | 41      | 42 | 43 | 44 | 45 | 46 | 47 | 48 |  |  |  |
|          |                |      |  |      |         |                       |  |                             |   |    |         |    |    |    |    |    |    |    |  |  |  |
|          |                |      |  |      |         |                       |  |                             |   |    |         |    |    |    |    |    |    |    |  |  |  |
|          |                |      |  |      |         |                       |  |                             |   |    |         |    |    |    |    |    |    |    |  |  |  |
|          |                |      |  |      |         |                       |  |                             |   |    |         |    |    |    |    |    |    |    |  |  |  |

ENUMERATOR \_\_\_\_\_ SUPERVISOR \_\_\_\_\_ BRANCH OFFICE STAT. HEAD \_\_\_\_\_  
 SIGNATURE \_\_\_\_\_ SIGNATURE \_\_\_\_\_ SIGNATURE \_\_\_\_\_  
 DATE \_\_\_\_\_ DATE \_\_\_\_\_ DATE \_\_\_\_\_



PART 4 - QUANTITY OF CROP PROTECTION CHEMICALS AND PRICE

| JOB      |                  | 1  | 2                              | 3  |                          |    |                               |    |          |    |       |    |         |    |      |    |    |    |    |    |    |    |
|----------|------------------|----|--------------------------------|----|--------------------------|----|-------------------------------|----|----------|----|-------|----|---------|----|------|----|----|----|----|----|----|----|
| ID       |                  | 1  | 8                              | 4  |                          |    |                               |    |          |    |       |    |         |    |      |    |    |    |    |    |    |    |
| 1        | 2                |    | 3                              | 4  | 5                        | 6  | 7                             | 8  |          | 9  |       |    |         | 10 |      |    |    |    |    |    |    |    |
| LINE NO. | USE OF CHEMICALS |    | IF YES TYPE (NAME) OF CHEMICAL |    | INSECT=1 FUNGI=2 HERBI=3 |    | CROP PROTECTION CHEMICAL USED |    | QUANTITY |    | PRICE |    | REMARKS |    |      |    |    |    |    |    |    |    |
|          | YES=1            |    |                                |    |                          |    | NAME OF UNIT                  |    |          |    | BIRR  |    |         |    | CENT |    |    |    |    |    |    |    |
|          | 30               | 31 | NO=2                           | 32 | 33                       | 34 | 35                            | 36 | 37       | 38 | 39    | 40 |         |    | 41   | 42 | 43 | 44 | 45 | 46 | 47 | 48 |
| 0        | 1                |    |                                |    |                          |    |                               |    |          |    |       |    |         |    |      |    |    |    |    |    |    |    |
| 0        | 2                |    |                                |    |                          |    |                               |    |          |    |       |    |         |    |      |    |    |    |    |    |    |    |
| 0        | 3                |    |                                |    |                          |    |                               |    |          |    |       |    |         |    |      |    |    |    |    |    |    |    |
| 0        | 4                |    |                                |    |                          |    |                               |    |          |    |       |    |         |    |      |    |    |    |    |    |    |    |
| 0        | 5                |    |                                |    |                          |    |                               |    |          |    |       |    |         |    |      |    |    |    |    |    |    |    |
| 0        | 6                |    |                                |    |                          |    |                               |    |          |    |       |    |         |    |      |    |    |    |    |    |    |    |
| 0        | 7                |    |                                |    |                          |    |                               |    |          |    |       |    |         |    |      |    |    |    |    |    |    |    |

71

|         |
|---------|
| REMARKS |
|         |
|         |
|         |
|         |
|         |
|         |

|                          | NAME | SIGNATURE | DATE |
|--------------------------|------|-----------|------|
| ENUMERATOR               |      |           |      |
| SUPERVISOR               |      |           |      |
| BRANCH OFFICE STAT. HEAD |      |           |      |

CENTRAL STATISTICAL AUTHORITY  
 NATIONAL INTEGRATED HOUSEHOLD SURVEY PROGRAM  
 AGRICULTURAL SAMPLE SURVEY - 1967 E.C.

FORM ASS-87/4

| JOB ID | PART 1 - IDENTIFICATION PARTICULARS |   |        |   |                  |    |                      |    |                  |    |   |    | PRIVATE PEASANT HOLDINGS                   |    |    |    |    |    |  |
|--------|-------------------------------------|---|--------|---|------------------|----|----------------------|----|------------------|----|---|----|--|----|----|----|----|----|--|
| 1      | 2                                   |   | 3      |   | 4                |    | 5                    |    | 6                |    | 7   |    | 8  |    |    |    |    |    |  |
| REGION | ZONE                                |   | WEREDA |   | SUPERVISION AREA |    | FARMERS' ASSOCIATION |    | ENUMERATION AREA |    | HOUSEHOLD ID NUMBER<br>(ASS 87/1 pt1 2 col 1) |    | HOLDER ID NUMBER<br>(ASS 87/1 pt1 2 col 3) |    |    |    |    |    |  |
| 4      | 5                                   | 6 | 7      | 8 | 9                | 10 | 11                   | 12 | 13               | 14 | 15  | 16 | 17   | 18 | 19 | 20 | 21 | 22 |  |
|        |                                     |   |        |   |                  |    |                      |    |                  |    |   |    |  |    |    |    |    |    |  |

| 9           | 10     | 11    | 12                       | 11   |
|-------------|--------|-------|--------------------------|------|
| HOLDER NAME | PARCEL | FIELD | NAME OF CROP OR LAND USE | CODE |
| 23          | 24     | 25    | 26                       | 27   |
| 27          | 28     | 29    | 30                       | 31   |
|             |        |       |                          |      |

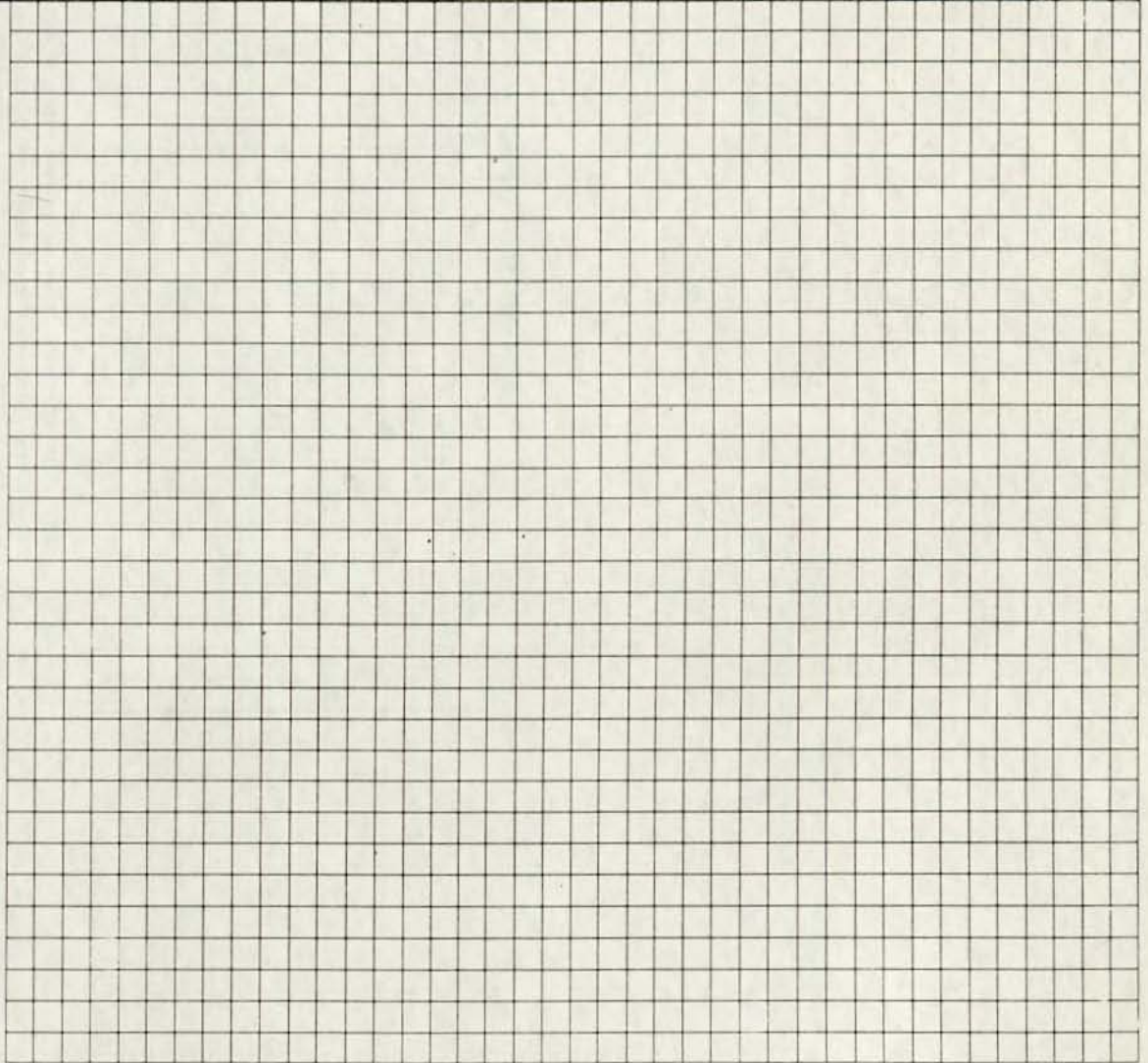
PART 2 - RESULTS OF AREA MEASUREMENTS

| 1                        | 2                     | 3                   | 4    | 5    | 6    | 7                           | 8  |
|--------------------------|-----------------------|---------------------|------|------|------|-----------------------------|--|
| DATE OF AREA MEASUREMENT | AREA IN SQUARE METERS | AREA IN LOCAL UNITS | NAME | CODE | AREA | IF AREA NOT MEASURED REASON | C<br>O<br>D<br>E<br>E<br>C<br>R<br>O<br>P<br>S<br>T<br>A<br>N<br>D<br>I<br>N<br>F<br>I<br>E<br>L<br>D<br>P<br>U<br>R<br>E<br>= 1<br>M<br>I<br>X<br>E<br>D<br>= 2 |
| DAY                      | MONTH                 | 33                  | 34   | 35   | 36   | 37                          | 38   |
| 29                       | 30                    | 31                  | 32   | 33   | 34   | 35                          | 36   |
| 40                       | 41                    | 42                  | 43   | 44   | 45   | 46                          | 47   |
| 47                       | 48                    | 49                  | 50   | 51   | 52   | 53                          | 54   |
|                          |                       |                     |      |      |      |                             |  |
|                          |                       |                     |      |      |      |                             |  |
|                          |                       |                     |      |      |      |                             |  |
|                          |                       |                     |      |      |      |                             |  |
|                          |                       |                     |      |      |      |                             |  |

|                         | NAME | SIGNATURE | DATE |
|-------------------------|------|-----------|------|
| ENUMERATOR              |      |           |      |
| SUPERVISOR              |      |           |      |
| BRANCH OFFICE STAT HEAD |      |           |      |

PART 5 - FIELD AREA MEASUREMENT

|              |       |     |     |       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|--------------|-------|-----|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| SIDE         | A - B |     |     | B - C |     |     | C - |     |     | D - |     |     | E - |     |     | F - |     |     | G - |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| BEARING (°)  | 49    | 50  | 51  | 52    | 53  | 54  | 55  | 56  | 57  | 58  | 59  | 60  | 61  | 62  | 63  | 64  | 65  | 66  | 67  | 68  | 69  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| DISTANCE (M) | 70    | 71  | 72  | 73    | 74  | 75  | 76  | 77  | 78  | 79  | 80  | 81  | 82  | 83  | 84  | 85  | 86  | 87  | 88  | 89  | 90  | 91  | 92  | 93  | 94  | 95  | 96  | 97  | 98  | 99  | 100 | 101 | 102 | 103 | 104 |
| SIDE         | F -   |     |     | I -   |     |     | J - |     |     | K - |     |     | L - |     |     | M - |     |     | N - |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| BEARING (°)  | 105   | 106 | 107 | 108   | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| DISTANCE (M) | 126   | 127 | 128 | 129   | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 |
| SIDE         | O -   |     |     | P -   |     |     | Q - |     |     | R - |     |     | S - |     |     | T - |     |     | U - |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| BEARING (°)  | 161   | 162 | 163 | 164   | 165 | 166 | 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 | 178 | 179 | 180 | 181 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| DISTANCE (M) | 182   | 183 | 184 | 185   | 186 | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 | 201 | 202 | 203 | 204 | 205 | 206 | 207 | 208 | 209 | 210 | 211 | 212 | 213 | 214 | 215 | 216 |



SCALE 1 CM ----- METERS  
 NUMBER OF FULL SQUARES ----- HALF AND GREATER SQUARES -----  
 TOTAL NUMBER OF SQUARES ----- FIELD AREA ----- SQUARE METERS







| JOB     |      | 1      | 2           | 3     | PART 5 - HORSES, ASSES, MULES AND CAMELS BY AGE AND PURPOSE |                 |     |     |               |    |     |                 |     |               |     |                 |     |         |     |  |
|---------|------|--------|-------------|-------|---|-----------------|-----|-----|---------------|----|-----|-----------------|-----|---------------|-----|-----------------|-----|---------|-----|--|
| ID      |      | 1      | 6           | 0     |   |                 |     |     |               |    |     |                 |     |               |     |                 |     |         |     |  |
| 1       | 2    |        | 3           |       |   | 4               |     |     | 5             |    |     | 6               |     | 7             |     | 8               |     | 9       |     |  |
| SR. NO. | TYPE |        | GRAND TOTAL |       |   | LESS TH. 3 YEAR |     |     | 3 YRS & ABOVE |    |     | LESS TH. 4 YEAR |     | 4 YRS & ABOVE |     | MAINLY FOR AGR. |     | REMARKS |     |  |
| 30      | 31   | TOTAL  |             | 32    | 33  | 34              | 35  | 36  | 37            | 38 | 39  | 40              |     |               | 41  | 42              | 43  |         |     |  |
| 0       | 1    | HORSE  |             | TOTAL |   | 44              | 45  | 46  | 47            | 48 | 49  | 50              | 51  | 52            |     |                 | 53  | 54      | 55  |  |
|         |      | MALE   |             |       |   |                 |     |     |               |    |     |                 |     |               |     |                 |     |         |     |  |
|         |      | FEMALE |             |       |   | 56              | 57  | 58  | 59            | 60 | 61  | 62              | 63  | 64            |     |                 | 65  | 66      | 67  |  |
| 0       | 2    | ASSES  |             | TOTAL |   | 68              | 69  | 70  | 71            | 72 | 73  | 74              | 75  | 76            |     |                 | 77  | 78      | 79  |  |
|         |      | MALE   |             |       |   | 80              | 81  | 82  | 83            | 84 | 85  | 86              | 87  | 88            |     |                 | 89  | 90      | 91  |  |
|         |      | FEMALE |             |       |   | 92              | 93  | 94  | 95            | 96 | 97  | 98              | 99  | 100           |     |                 | 101 | 102     | 103 |  |
| 0       | 3    | MULES  |             | TOTAL |   | 104             | 105 | 106 |               |    |     |                 |     |               | 107 | 108             | 109 |         |     |  |
|         |      | MALE   |             |       |   | 110             | 111 | 112 |               |    |     |                 |     |               | 113 | 114             | 115 |         |     |  |
|         |      | FEMALE |             |       |   | 116             | 117 | 118 |               |    |     |                 |     |               | 119 | 120             | 121 |         |     |  |
| 0       | 4    | CAMEL  |             | TOTAL |   | 122             | 123 | 124 |               |    | 125 | 126             | 127 | 128           | 129 | 130             | 131 | 132     | 133 |  |
|         |      | MALE   |             |       |   | 134             | 135 | 136 |               |    | 137 | 138             | 139 | 140           | 141 | 142             | 143 | 144     | 145 |  |
|         |      | FEMALE |             |       |   | 146             | 147 | 148 |               |    | 149 | 150             | 151 | 152           | 153 | 154             | 155 | 156     | 157 |  |

NOTE : THE DATE OF REFERENCE IS TAHSAS 23/1987 E.C (JAN. 1/1985)

| JOB         |         | 1  | 2           | 3  | PART 6 - NUMBER OF CHICKENS |                 |    |    |          |    |       |    |        |    |         |    |    |    |    |    |    |  |
|-------------|---------|----|-------------|----|-----------------------------|-----------------|----|----|----------|----|-------|----|--------|----|---------|----|----|----|----|----|----|--|
| ID          |         | 1  | 6           | 1  |                             |                 |    |    |          |    |       |    |        |    |         |    |    |    |    |    |    |  |
| 1           | 2       |    | 3           |    |                             | 4               |    |    | 5        |    | 6     |    | 7      |    | 8       |    |    |    |    |    |    |  |
| GRAND TOTAL | PULLETS |    | LAYING HENS |    |                             | NON LAYING HENS |    |    | COCKRELS |    | COCKS |    | CHICKS |    | REMARKS |    |    |    |    |    |    |  |
| 30          | 31      | 32 | 33          | 34 | 35                          | 36              | 37 | 38 | 39       | 40 | 41    | 42 | 43     | 44 | 45      | 46 | 47 | 48 | 49 | 50 | 51 |  |
|             |         |    |             |    |                             |                 |    |    |          |    |       |    |        |    |         |    |    |    |    |    |    |  |

PART 7 - BEEHIVES AND HONEY PRODUCTION

| 1                    |    | 2                           |    |      |    | 3                               |    |    |  | 4       |    |  |
|----------------------|----|-----------------------------|----|------|----|---------------------------------|----|----|--|---------|----|--|
| BEEHIVES (with bees) |    | AVG. HONEY PRD. PER BEEHIVE |    |      |    | PRODUCTION PER BEEHIVE PER YEAR |    |    |  | REMARKS |    |  |
|                      |    | KG                          |    | GRAM |    |                                 |    |    |  |         |    |  |
| TRAD.                | 52 | 53                          | 54 | 55   | 56 | 57                              | 58 | 59 |  |         | 60 |  |
|                      | 61 | 62                          | 63 | 64   | 65 | 66                              | 67 | 68 |  |         | 69 |  |
| MODERN               |    |                             |    |      |    |                                 |    |    |  |         |    |  |

|                          | NAME | SIGNATURE | DATE |
|--------------------------|------|-----------|------|
| ENUMERATOR               |      |           |      |
| SUPERVISOR               |      |           |      |
| BRANCH OFFICE STAT. HEAD |      |           |      |

NOTE : BEEHIVES (WITH BEES) REFER TO THE PERIOD TAHSAS 24/1988 - TAHSAS 23/1987

( JAN. 2/1984 - JAN. 1/1985) FROM WHICH HONEY WAS PRODUCED AT LEAST ONCE IN THE PERIOD.

CENTRAL STATISTICAL AUTHORITY  
NATIONAL INTEGRATED HOUSEHOLD SURVEY PROGRAM  
LIVESTOCK, POULTRY, BEEHIVES AND HONEY PRODUCTION - 1987 E.C.

FORM ASS-87/6

| JOB ID | 1    |    | 2 |    | 3      |    | PART 1 - IDENTIFICATION PARTICULARS |    |                  |    |  |    |                      |    |  |    |                  |    |  |    | PRIVATE PEASANT HOLDINGS                    |    |  |    |               |    |  |    |     |    |     |    |                               |    |                                  |    |  |    |   |    |   |    |   |    |   |    |   |    |   |    |    |    |    |    |    |    |    |    |    |    |  |    |  |
|--------|------|----|---|----|--------|----|-------------------------------------|----|------------------|----|--|----|----------------------|----|--|----|------------------|----|--|----|---|----|--|----|---------------|----|--|----|-----|----|-----|----|-------------------------------|----|----------------------------------|----|--|----|---|----|---|----|---|----|---|----|---|----|---|----|----|----|----|----|----|----|----|----|----|----|--|----|--|
|        | 1    | 2  | 3 | 4  | 5      |    |                                     |    |                  |    |  |    |                      |    |  |    |                  |    |  |    |   |    |  |    |               |    |  |    |     |    |     |    |                               |    |                                  |    |  |    |   |    |   |    |   |    |   |    |   |    |   |    |    |    |    |    |    |    |    |    |    |    |  |    |  |
| REGION | ZONE |    |   |    | WEREDA |    |                                     |    | SUPERVISION AREA |    |  |    | FARMERS' ASSOCIATION |    |  |    | ENUMERATION AREA |    |  |    | HOUSEHOLD ID NUMBER<br>(ASS 87/1 prt col 1) |    | HOLDER ID NUMBER<br>(ASS 87/1 prt 2 col 3) |    | HOLDER'S NAME |    |  |    | SEX |    | AGE |    | EDUC. STATUS<br>(grade compl) |    | NUMBER OF MEMBERS OF HOLDR'S HH. |    | TYPE OF AGRICULT CROP = 1<br>LV. STO = 2<br>BOTH = 3 |    |   |    |   |    |   |    |   |    |   |    |   |    |    |    |    |    |    |    |    |    |    |    |  |    |  |
|        |      |    |   |    |        |    |                                     |    |                  |    |  |    |                      |    |  |    |                  |    |  |    |   |    |  |    |               |    |  |    |     |    |     |    |                               |    |                                  |    |  |    | 4 |    | 5 |    | 6 |    | 7 |    | 8 |    | 9 |    | 10 |    | 11 |    | 12 |    | 13 |    | 14 |    |  |    |  |
| 30     |      | 31 |   | 32 |        | 33 |                                     | 34 |                  | 35 |  | 36 |                      | 37 |  | 38 |                  | 39 |  | 40 |   | 41 |  | 42 |               | 43 |  | 44 |     | 45 |     | 46 |                               | 47 |                                  | 48 |  | 49 |   | 50 |   | 51 |   | 52 |   | 53 |   | 54 |   | 55 |    | 56 |    | 57 |    | 58 |    | 59 |    | 60 |  | 61 |  |

PART 8 - CATTLE 2 YEARS AND ABOVE FOR BEEF, MILK, AGRI. PURPOSE AND OTHER USES

| CATTLE 2 YEARS AND ABOVE | BEEF CATTLE | MILK COWS | MAINLY FOR AGRICULTURAL PURPOSES | FOR OTHER PURPOSES | REMARKS |       |      |        |       |      |        |       |      |        |       |      |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--------------------------|-------------|-----------|----------------------------------|--------------------|---------|-------|------|--------|-------|------|--------|-------|------|--------|-------|------|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|                          |             |           |                                  |                    |         | TOTAL | MALE | FEMALE | TOTAL | MALE | FEMALE | TOTAL | MALE | FEMALE | TOTAL | MALE | FEMALE |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 30                       | 31          | 32        | 33                               | 34                 | 35      |       |      |        |       |      |        |       |      |        |       |      |        | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 |

NOTES ON COL. 12 ABOVE

- ILLITERATE = 1
- GRADES 1-3 = 2
- GRADES 4-6 = 3
- GRADES 7-8 = 4
- GRADES 9-11 = 5
- GRADE 12 COMP. = 6
- ABOVE 12 GRADE = 7

78

| JOB ID            | 1         |   | 2 |   | 3                              |  | PART 9 - NUMBER OF COWS 2 YEARS AND ABOVE AND AVERAGE MILK PRODUCTION |  |                              |  |  |  |   |  |  |  |                               |  |         |  |    |  |    |  |    |  |    |  |    |  |    |
|-------------------|-----------|---|---|---|--------------------------------|--|---|--|------------------------------|--|--|--|---|--|--|--|-------------------------------|--|---------|--|----|--|----|--|----|--|----|--|----|--|----|
|                   | 1         | 2 | 3 | 4 |                                |  |   |  |                              |  |  |  |   |  |  |  |                               |  |         |  |    |  |    |  |    |  |    |  |    |  |    |
| 2 YEARS AND ABOVE | MILK COWS |   |   |   | MILKING COWS IN LAST 12 MONTHS |  |   |  | AVERAGE LACTATION PERIOD MO. |  |  |  | AVERAGE MILK PROD. PER DAY PER COW LITERS |  |  |  | % OF MILK CONVERTED TO BUTTER |  | REMARKS |  |    |  |    |  |    |  |    |  |    |  |    |
|                   |           |   |   |   |                                |  |   |  |                              |  |  |  |   |  |  |  |                               |  |         |  | 30 |  | 31 |  | 32 |  | 33 |  | 34 |  | 35 |

PLEASE RETURN TO SECTION 3

NOTES : 1) DATE OF REFERENCE IS TAHSAS 23/1987 E.C (JAN. 1/1995)

2) MILK COWS THE 12 MONTHS PERIOD IS TAHSAS 24/1986 - TAHSAS 23/1987 JAN. 2/1994 - JAN. 1/1995

3) LACTATION PERIOD AND MILK PRODUCTION REFERS TO COWS RECORDED IN COL 2 NOT ONLY IN COLUMN 3 OF PART 9.

PART 10 – SHEEP AND GOATS 2 YEARS AND ABOVE FOR MEAT

|         |      | 1      | 2 | 3              | AND OTHER PURPOSES |    |          |    |    |                  |    |    |         |    |    |    |
|---------|------|--------|---|----------------|--------------------|----|----------|----|----|------------------|----|----|---------|----|----|----|
|         |      | 1      | 6 | 4              |                    |    |          |    |    |                  |    |    |         |    |    |    |
| 1       | 2    |        |   | 3              |                    |    | 4        |    |    | 5                |    |    | 6       |    |    |    |
| SR. NO. | TYPE |        |   | 1 YEAR & ABOVE |                    |    | FOR MEAT |    |    | FOR OTH. PURPOSE |    |    | REMARKS |    |    |    |
| 30      | 31   |        |   |                | 32                 | 33 | 34       | 35 | 36 | 37               | 38 | 39 | 40      |    |    |    |
| 0       | 1    | SHEEP  |   |                | TOTAL              |    |          |    |    |                  |    |    |         |    |    |    |
|         |      | MALE   |   |                |                    |    |          | 41 | 42 | 43               | 44 | 45 | 46      | 47 | 48 | 49 |
|         |      | FEMALE |   |                |                    |    |          | 50 | 51 | 52               | 53 | 54 | 55      | 56 | 57 | 58 |
|         |      |        |   |                |                    |    |          | 59 | 60 | 61               | 62 | 63 | 64      | 65 | 66 | 67 |
| 0       | 2    | GOATS  |   |                | TOTAL              |    |          |    |    |                  |    |    |         |    |    |    |
|         |      | MALE   |   |                |                    |    |          | 68 | 69 | 70               | 71 | 72 | 73      | 74 | 75 | 76 |
|         |      | FEMALE |   |                |                    |    |          | 77 | 78 | 79               | 80 | 81 | 82      | 83 | 84 | 85 |
|         |      |        |   |                |                    |    |          |    |    |                  |    |    |         |    |    |    |

PLEASE RETURN TO SECTION 4

|                          | NAME | SIGNATURE | DATE |
|--------------------------|------|-----------|------|
| ENUMERATOR               |      |           |      |
| SUPERVISOR               |      |           |      |
| BRANCH OFFICE STAT. HEAD |      |           |      |

CENTRAL STATISTICAL AUTHORITY  
NATIONAL INTEGRATED HOUSEHOLD SURVEY PROGRAM  
AGRICULTURAL SAMPLE SURVEY - 1987 E.C.

FORM ASS-87/7A-1

| PART 1 - IDENTIFICATION PARTICULARS |      |        |                  |                      |                  |   |  |               |     |     |                               |                                  |  | PRIVATE PEASANT HOLDINGS |    |    |    |    |    |    |    |    |    |    |    |
|-------------------------------------|------|--------|------------------|----------------------|------------------|---|--|---------------|-----|-----|-------------------------------|----------------------------------|--|--------------------------|----|----|----|----|----|----|----|----|----|----|----|
| JOB ID                              | 1    | 2      | 3                | 1                    | 8                | 5   | 1  | 2             | 3   | 4   | 5                             | 6                                | 7  | 8                        | 9  | 10 | 11 | 12 | 13 | 14 |    |    |    |    |    |
| REGION                              | ZONE | WEREDA | SUPERVISION AREA | FARMERS' ASSOCIATION | ENUMERATION AREA | HOUSEHOLD ID NUMBER<br>(ASS 87/1 prt col 1) | HOLDER ID NUMBER<br>(ASS 87/1 prt 2 col 3) | HOLDER'S NAME | SEX | AGE | EDUC. STATUS<br>(grade compl) | NUMBER OF MEMBERS OF HOLDERS HH. | TYPE OF AGRICULT. CROP=1<br>LV.STO=2<br>BOTH=3 |                          |    |    |    |    |    |    |    |    |    |    |    |
| 4                                   | 5    | 6      | 7                | 8                    | 9                | 10  | 11   | 12            | 13  | 14  | 15                            | 16                               | 17   | 18                       | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |

PART 2 - LIST OF FIELDS AND AGRICULTURAL PRACTICES (1986 E.C. BELG SEASON)

| 1        | 2                   | 3     | 4         | 5         | 6    | 7                | 8          | 9                  | 10     | 11                  | 12                | 13                | 14     | 15               | 16   | 17              |         |    |    |    |    |    |    |    |  |  |
|----------|---------------------|-------|-----------|-----------|------|------------------|------------|--------------------|--------|---------------------|-------------------|-------------------|--------|------------------|------|-----------------|---------|----|----|----|----|----|----|----|--|--|
| LINE NO. | SERIAL NO. OF PARCE | FIELD | CROP NAME | TEMPORARY | CODE | TYPE OF SEED USE | IRRIG. USE | USE OF FERTILIZERS | IF YES | IF COMMERCIAL FERT. | USE OF PESTICIDES | WAS CROP DAMAGED? | IF YES | REASON OF DAMAGE | CODE | PERCENT DAMAGED | REMARKS |    |    |    |    |    |    |    |  |  |
| 30       | 31                  | 32    | 33        | 34        | 35   | 36               | 37         | 38                 | 39     | 40                  | 41                | 42                | 43     | 44               | 45   | 46              | 47      | 48 | 49 | 50 | 51 | 52 | 53 | 54 |  |  |
| 0        | 1                   |       |           |           |      |                  |            |                    |        |                     |                   |                   |        |                  |      |                 |         |    |    |    |    |    |    |    |  |  |
| 0        | 2                   |       |           |           |      |                  |            |                    |        |                     |                   |                   |        |                  |      |                 |         |    |    |    |    |    |    |    |  |  |
| 0        | 3                   |       |           |           |      |                  |            |                    |        |                     |                   |                   |        |                  |      |                 |         |    |    |    |    |    |    |    |  |  |
| 0        | 4                   |       |           |           |      |                  |            |                    |        |                     |                   |                   |        |                  |      |                 |         |    |    |    |    |    |    |    |  |  |
| 0        | 5                   |       |           |           |      |                  |            |                    |        |                     |                   |                   |        |                  |      |                 |         |    |    |    |    |    |    |    |  |  |
| 0        | 6                   |       |           |           |      |                  |            |                    |        |                     |                   |                   |        |                  |      |                 |         |    |    |    |    |    |    |    |  |  |
| 0        | 7                   |       |           |           |      |                  |            |                    |        |                     |                   |                   |        |                  |      |                 |         |    |    |    |    |    |    |    |  |  |
| 0        | 8                   |       |           |           |      |                  |            |                    |        |                     |                   |                   |        |                  |      |                 |         |    |    |    |    |    |    |    |  |  |
| 0        | 9                   |       |           |           |      |                  |            |                    |        |                     |                   |                   |        |                  |      |                 |         |    |    |    |    |    |    |    |  |  |
| 1        | 0                   |       |           |           |      |                  |            |                    |        |                     |                   |                   |        |                  |      |                 |         |    |    |    |    |    |    |    |  |  |

NOTES ON COL. 12 ABOVE

- ILLITERATE = 1
- GRADES 1-3 = 2
- GRADES 4-6 = 3
- GRADES 7-8 = 4
- GRADES 9-11 = 5
- GRADE 12 COMP. = 6
- ABOVE 12 GRADE = 7

NOTE: THIS FORM SHOULD BE FILLED OUT ONLY FOR TEMPORARY PURE STAND CROPS  
AND TEMPORARY WITH OTHER MIXED STAND CROPS.





|     |   |   |   |
|-----|---|---|---|
| JOB | 1 | 2 | 3 |
| ID  | 1 | 8 | 8 |

PART 4 - QUANTITY OF PLANT PROTECTION CHEMICALS AND PRICE (1986 E.C. BELG SEASON)

| 1        |                             | 2                                  |    | 3                        | 4                             | 5  | 6        | 7  | 8  |    |    |       |    | 9    |         |    |    | 10 |    |    |  |
|----------|-----------------------------|------------------------------------|----|--------------------------|-------------------------------|----|----------|----|----|----|----|-------|----|------|---------|----|----|----|----|----|--|
| LINE NO. | USE OF CHEMICALS YES=1 NO=2 | IF YES TYPE(NAME) OF CHEMICAL CODE |    | INSECT=1 FUNGI=2 HERBI=3 | CROP PROTECTION CHEMICAL USED |    |          |    |    |    |    |       |    |      | REMARKS |    |    |    |    |    |  |
|          |                             |                                    |    |                          | NAME OF UNIT                  |    | QUANTITY |    |    |    |    | PRICE |    |      |         |    |    |    |    |    |  |
|          |                             |                                    |    |                          | CODE                          |    |          |    |    |    |    | BIRR  |    | CENT |         |    |    |    |    |    |  |
| 30       | 31                          | NO=2                               | 32 | 33                       | 34                            | 35 | 36       | 37 | 38 | 39 | 40 | 41    | 42 | 43   | 44      | 45 | 46 | 47 | 48 | 49 |  |
| 0        | 1                           |                                    |    |                          |                               |    |          |    |    |    |    |       |    |      |         |    |    |    |    |    |  |
| 0        | 2                           |                                    |    |                          |                               |    |          |    |    |    |    |       |    |      |         |    |    |    |    |    |  |
| 0        | 3                           |                                    |    |                          |                               |    |          |    |    |    |    |       |    |      |         |    |    |    |    |    |  |
| 0        | 4                           |                                    |    |                          |                               |    |          |    |    |    |    |       |    |      |         |    |    |    |    |    |  |
| 0        | 5                           |                                    |    |                          |                               |    |          |    |    |    |    |       |    |      |         |    |    |    |    |    |  |
| 0        | 6                           |                                    |    |                          |                               |    |          |    |    |    |    |       |    |      |         |    |    |    |    |    |  |
| 0        | 7                           |                                    |    |                          |                               |    |          |    |    |    |    |       |    |      |         |    |    |    |    |    |  |

83

|         |
|---------|
| REMARKS |
|         |
|         |
|         |
|         |
|         |
|         |
|         |

|                          | NAME | SIGNATURE | DATE |
|--------------------------|------|-----------|------|
| ENUMERATOR               |      |           |      |
| SUPERVISOR               |      |           |      |
| BRANCH OFFICE STAT. HEAD |      |           |      |





CENTRAL STATISTICAL AUTHORITY  
NATIONAL INTEGRATED HOUSEHOLD SURVEY PROGRAM  
INDUSTRIAL INPUTS OF BELG SEASON - 1987 E.C.

FORM ASS - 87/78 - 2

| JO3 ID | 1      | 2 | 3    | PART 1 - IDENTIFICATION PARTICULARS |        |   |                  |    |                      |    |                  |    |  |    |   |    |               | PRIVATE PEASANT HOLDINGS |    |     |     |                           |                                  |  |    |    |    |  |    |  |    |
|--------|--------|---|------|-------------------------------------|--------|---|------------------|----|----------------------|----|------------------|----|--|----|---|----|---------------|--------------------------|----|-----|-----|---------------------------|----------------------------------|--|----|----|----|--|----|--|----|
|        | 1      | 2 | 3    | 1                                   |        | 2 |                  | 3  |                      | 4  |                  | 5  |  | 6  |   | 7  |               | 8                        |    | 9   |     |                           | 10                               |  | 11 |    | 12 |  | 13 |  | 14 |
|        | REGION |   | ZONE |                                     | WEREDA |   | SUPERVISION AREA |    | FARMERS' ASSOCIATION |    | ENUMERATION AREA |    | HOUSEHOLD ID NUMBER (ASS 87/1 prt col 1) |    | HOLDER ID NUMBER (ASS 87/1 prt 2 col 3) |    | HOLDER'S NAME |                          |    | SEX | AGE | EDUC STATUS (grade compl) | NUMBER OF MEMBERS OF HOLDER'S HH | TYPE OF AGRICULT. CROP = 1<br>LV STO = 2<br>BOTH = 3 |    |    |    |  |    |  |    |
|        | 4      | 5 | 6    | 7                                   | 8      | 9 | 10               | 11 | 12                   | 13 | 14               | 15 | 16                                       | 17 | 18                                      | 19 | 20            | 21                       | 22 | 23  | 24  | 25                        | 26                               | 27   | 28 | 29 |    |  |    |  |    |

PART 2 - QUANTITY OF IMPROVED SEED AND PRICE (1987 E.C. BELG SEASON)

| LINE NO | USE OF IMPROVED SEED |    | IF YES NAME OF CROP |    | QUANTITY           |    |    |      | PRICE |      |    |      | REMARKS |    |    |    |
|---------|----------------------|----|---------------------|----|--------------------|----|----|------|-------|------|----|------|---------|----|----|----|
|         | YES = 1              |    |                     |    | IMPROVED SEED USED |    |    |      |       |      |    |      |         |    |    |    |
|         | NO = 2               |    |                     |    | CODE               | KG |    | GRAM |       | BIRR |    | CENT |         |    |    |    |
| 30      | 31                   | 32 | 33                  | 34 | 35                 | 36 | 37 | 38   | 39    | 40   | 41 | 42   | 43      | 44 | 45 | 46 |
| 0       | 1                    |    |                     |    |                    |    |    |      |       |      |    |      |         |    |    |    |
| 0       | 2                    |    |                     |    |                    |    |    |      |       |      |    |      |         |    |    |    |
| 0       | 3                    |    |                     |    |                    |    |    |      |       |      |    |      |         |    |    |    |
| 0       | 4                    |    |                     |    |                    |    |    |      |       |      |    |      |         |    |    |    |
| 0       | 5                    |    |                     |    |                    |    |    |      |       |      |    |      |         |    |    |    |
| 0       | 6                    |    |                     |    |                    |    |    |      |       |      |    |      |         |    |    |    |

NOTES ON COL. 12 ABOVE

- ILLITERATE = 1
- GRADES 1-3 = 2
- GRADES 4-6 = 3
- GRADES 7-8 = 4
- GRADES 9-11 = 5
- GRADE 12 COMP = 6
- ABOVE 12 GRADE = 7

PART 3 - QUANTITY OF FERTILIZERS AND PRICE (1987 E.C. BELG SEASON)

| JOB ID | 1       | 2  | 3                  | PART 3 - QUANTITY OF FERTILIZERS AND PRICE (1987 E.C. BELG SEASON) |                                  |   |                 |    |    |    |       |    |    |    |    |         |    |
|--------|---------|----|--------------------|--|----------------------------------|---|-----------------|----|----|----|-------|----|----|----|----|---------|----|
|        | 1       | 2  | 3                  | 1  |                                  | 2 |                 | 3  |    | 4  |       | 5  |    | 6  |    | REMARKS |    |
|        | LINE NO |    | USE OF FERTILIZERS |  | IF YES TYPE (NAME) OF FERTILIZER |   | QUANTITY        |    |    |    | PRICE |    |    |    |    |         |    |
|        | YES = 1 |    | NO = 2             |  |                                  |   | FERTILIZER USED |    |    |    |       |    |    |    |    |         |    |
|        | 30      | 31 | 32                 | 33   |                                  |   | 34              | 35 | 36 | 37 | 38    | 39 | 40 | 41 | 42 | 43      | 44 |
| 0      | 1       |    |                    |  |                                  |   |                 |    |    |    |       |    |    |    |    |         |    |
| 0      | 2       |    |                    |  |                                  |   |                 |    |    |    |       |    |    |    |    |         |    |
| 0      | 3       |    |                    |  |                                  |   |                 |    |    |    |       |    |    |    |    |         |    |
| 0      | 4       |    |                    |  |                                  |   |                 |    |    |    |       |    |    |    |    |         |    |

|     |   |   |   |
|-----|---|---|---|
| JOB | 1 | 2 | 3 |
| ID  | 1 | 8 | 8 |

PART 4 - QUANTITY OF PLANT PROTECTION CHEMICALS AND PRICE (1987 E.C. BELG SEASON)

| 1        |                        | 2                              |    | 3                             |         | 4    |              | 5  |          | 6    |    | 7  |    | 8     |         |    |    |    | 9  |    |  | 10 |  |  |
|----------|------------------------|--------------------------------|----|-------------------------------|---------|------|--------------|----|----------|------|----|----|----|-------|---------|----|----|----|----|----|--|----|--|--|
| LINE NO. | USE OF CHEMICALS YES=1 | IF YES TYPE (NAME) OF CHEMICAL |    | CROP PROTECTION CHEMICAL USED |         |      |              |    |          |      |    |    |    |       | REMARKS |    |    |    |    |    |  |    |  |  |
|          |                        |                                |    | INSECT=1                      |         |      | NAME OF UNIT |    | QUANTITY |      |    |    |    | PRICE |         |    |    |    |    |    |  |    |  |  |
|          |                        |                                |    | FUNGI=2                       | HERBI=3 | CODE |              |    | BIRR     | CENT |    |    |    |       |         |    |    |    |    |    |  |    |  |  |
| 30       | 31                     | NO=2                           | 32 | 33                            | 34      | 35   | 36           | 37 | 38       | 39   | 40 | 41 | 42 | 43    | 44      | 45 | 46 | 47 | 48 | 49 |  |    |  |  |
| 0        | 1                      |                                |    |                               |         |      |              |    |          |      |    |    |    |       |         |    |    |    |    |    |  |    |  |  |
| 0        | 2                      |                                |    |                               |         |      |              |    |          |      |    |    |    |       |         |    |    |    |    |    |  |    |  |  |
| 0        | 3                      |                                |    |                               |         |      |              |    |          |      |    |    |    |       |         |    |    |    |    |    |  |    |  |  |
| 0        | 4                      |                                |    |                               |         |      |              |    |          |      |    |    |    |       |         |    |    |    |    |    |  |    |  |  |
| 0        | 5                      |                                |    |                               |         |      |              |    |          |      |    |    |    |       |         |    |    |    |    |    |  |    |  |  |
| 0        | 6                      |                                |    |                               |         |      |              |    |          |      |    |    |    |       |         |    |    |    |    |    |  |    |  |  |
| 0        | 7                      |                                |    |                               |         |      |              |    |          |      |    |    |    |       |         |    |    |    |    |    |  |    |  |  |

87

|         |
|---------|
| REMARKS |
|         |
|         |
|         |
|         |
|         |
|         |
|         |

|                          | NAME | SIGNATURE | DATE |
|--------------------------|------|-----------|------|
| ENUMERATOR               |      |           |      |
| SUPERVISOR               |      |           |      |
| BRANCH OFFICE STAT. HEAD |      |           |      |

## APPENDIX II.

## NUMBER OF EAs SAMPLED, ACTUALLY COVERED AND NOT COVERED

| REGION      | ZONE       | NUMBER OF EAs SAMPLED | NUMBER OF EAs ACTUALLY COVERED | NUMBER OF EAs Not COVERED | REMARKS |
|-------------|------------|-----------------------|--------------------------------|---------------------------|---------|
| TIGRAY      |            | 40                    | 33                             | 7                         |         |
| AFAR        |            | 15                    | 7                              | 8                         |         |
| AMARA       | AGEWAWI    | 15                    | 15                             | -                         |         |
|             | E. GOJAM   | 30                    | 30                             | -                         |         |
|             | W. GOJAM   | 30                    | 30                             | -                         |         |
|             | N GONDER   | 30                    | 29                             | 1                         |         |
|             | S. GONDER  | 30                    | 30                             | -                         |         |
|             | N. SHEWA   | 30                    | 27                             | 3                         |         |
|             | OROMIA     | 15                    | 15                             | -                         |         |
|             | WAG-HAMRA  | 15                    | 15                             | -                         |         |
|             | N. WOLO    | 30                    | 28                             | 2                         |         |
|             | S. WOLO    | 30                    | 30                             | -                         |         |
|             | TOTAL      | 255                   | 249                            | 6                         |         |
| OROMIA      | ARSI       | 30                    | 28                             | 2                         |         |
|             | BALE       | 30                    | 29                             | 1                         |         |
|             | BORENA     | 30                    | 27                             | 3                         |         |
|             | E. HARARGE | 30                    | 28                             | 2                         |         |
|             | W. HARARGE | 30                    | 28                             | 2                         |         |
|             | ILUBABOR   | 30                    | 30                             | -                         |         |
|             | JIMA       | 30                    | 30                             | -                         |         |
|             | E. SHEWA   | 30                    | 28                             | 2                         |         |
|             | N. SHEWA   | 30                    | 29                             | 1                         |         |
|             | W. SHEWA   | 30                    | 27                             | 3                         |         |
|             | E. WELEGA  | 30                    | 30                             | -                         |         |
|             | W. WELEGA  | 30                    | 30                             | -                         |         |
|             | TOTAL      | 360                   | 344                            | 16                        |         |
| SOMALI      |            | 15                    | 1                              | 14                        |         |
| BEN SHANGUL |            | 15                    | 9                              | 6                         |         |

**APPENDIX II**

**NUMBER OF EAs SAMPLED, ACTUALLY COVERED AND  
NOT COVERED**

|             |          |     |     |    |  |
|-------------|----------|-----|-----|----|--|
| S.E.P.A.R.  | BENCH    | 15  | 14  | 1  |  |
|             | GEDIO    | 15  | 15  | -  |  |
|             | GURAGHE  | 30  | 27  | 3  |  |
|             | HADIYA   | 15  | 15  | -  |  |
|             | KEMBATA  | 15  | 15  | -  |  |
|             | KEFICHO  | 15  | 15  | -  |  |
|             | MAJI     | 15  | 15  | -  |  |
|             | N. OMO   | 30  | 30  | -  |  |
|             | S. OMO   | 15  | 15  | -  |  |
|             | SHEKICHO | 15  | 14  | 1  |  |
|             | SIDAMA   | 20  | 20  | -  |  |
|             | AMARO    | 3   | 3   | -  |  |
|             | BURJI    | 2   | 2   | -  |  |
|             | DERASHE  | 3   | 3   | -  |  |
|             | KONSO    | 5   | 5   | -  |  |
|             | YEM      | 2   | 2   | -  |  |
| TOTAL       | 215      | 210 | 5   |    |  |
| GAMBELA     |          | 15  | 9   | 6  |  |
| HARARI      |          | 10  | 4   | 6  |  |
| ADDIS ABABA |          | 10  | 10  | -  |  |
| DIRE DAWA   |          | 10  | 9   | 1  |  |
| GRAND TOTAL |          | 960 | 885 | 75 |  |

APPENDIX III.

NUMBER OF HOUSEHOLDS EXPECTED TO BE COVERED AND ACTUALLY COVERED

| REGION     | ZONE       | NUMBER OF HOUSEHOLDS EXPECTED TO BE COVERED | NUMBER OF HOUSEHOLDS ACTUALLY COVERED | DIFFERENCE | REMARKS |
|------------|------------|---|---------------------------------------|------------|---------|
| TIGRAY     |            | 600   | 399                                   | 201        |         |
| AFAR       |            | 225   | 100                                   | 125        |         |
| AMARA      | AGEWAWI    | 225   | 219                                   | 6          |         |
|            | E. GOJAM   | 450   | 439                                   | 11         |         |
|            | W. GOJAM   | 450   | 440                                   | 10         |         |
|            | N GONDER   | 450   | 432                                   | 18         |         |
|            | S. GONDER  | 450   | 443                                   | 7          |         |
|            | N. SHEWA   | 450   | 395                                   | 55         |         |
|            | OROMIA     | 225   | 218                                   | 7          |         |
|            | WAG-HAMRA  | 225   | 215                                   | 10         |         |
|            | N. WOLO    | 450   | 407                                   | 43         |         |
|            | S.Wolo     | 450   | 426                                   | 24         |         |
|            | TOTAL      |   | 3825                                  | 3634       | 191     |
| OROMIA     | ARSI       | 450   | 413                                   | 37         |         |
|            | BALE       | 450   | 399                                   | 51         |         |
|            | BORENA     | 450   | 385                                   | 65         |         |
|            | E. HARARGE | 450   | 412                                   | 38         |         |
|            | W. HARARGE | 450   | 415                                   | 35         |         |
|            | ILUBABOR   | 450   | 440                                   | 10         |         |
|            | JIMA       | 450   | 447                                   | 3          |         |
|            | E. SHEWA   | 450   | 402                                   | 48         |         |
|            | N. SHEWA   | 450   | 426                                   | 24         |         |
|            | W. SHEWA   | 450   | 390                                   | 60         |         |
|            | E. WELEGA  | 450   | 446                                   | 4          |         |
|            | W. WELEGA  | 450   | 440                                   | 10         |         |
|            | TOTAL      |   | 5400                                  | 5015       | 385     |
| SOMALI     |            | 225   | 0                                     | 225        |         |
| BENSHANGUL |            | 225   | 127                                   | 98         |         |

Continued

|             |          |       |       |      |  |
|-------------|----------|-------|-------|------|--|
| S.E.P.A.R.  | BENCH    | 225   | 202   | 23   |  |
|             | GEDIO    | 225   | 220   | 5    |  |
|             | GURAGHE  | 450   | 399   | 51   |  |
|             | HADIYA   | 225   | 224   | 1    |  |
|             | KEMBATA  | 225   | 221   | 4    |  |
|             | KEFICHO  | 225   | 220   | 5    |  |
|             | MAJI     | 225   | 208   | 17   |  |
|             | N. OMO   | 450   | 448   | 2    |  |
|             | S. OMO   | 225   | 212   | 13   |  |
|             | SHEKICHO | 225   | 176   | 49   |  |
|             | SIDAMA   | 300   | 298   | 2    |  |
|             | AMARO    | 45    | 45    | -    |  |
|             | BURJI    | 30    | 28    | 2    |  |
|             | DERASHE  | 45    | 43    | 2    |  |
|             | KONSO    | 75    | 75    | -    |  |
|             | YFM      | 30    | 30    | -    |  |
| TOTAL       | 3225     | 3049  | 176   |      |  |
| GAMBELA     |          | 225   | 133   | 92   |  |
| HARARI      |          | 150   | 142   | 8    |  |
| ADDIS ABABA |          | 150   | 142   | 8    |  |
| DIRE DAWA   |          | 150   | 135   | 15   |  |
| GRAND TOTAL |          | 14400 | 12793 | 1607 |  |

**APPENDIX IV**

**NUMBER OF FIELDS MEASURED AND CROP  
CUTTING CONDUCTED**

**APPENDIX IV.**

**NUMBER OF FIELDS MEASURED AND CROP CUTTING CONDUCTED**

| REGION     | ZONE       | NUMBER OF FIELDS MEASURED | NUMBER OF CROP CUTTING CONDUCTED | REMARKS |
|------------|------------|---------------------------|----------------------------------|---------|
| TIGRAY     |            | 2385                      | 294                              |         |
| AFAR       |            | 207                       | 2                                |         |
| AMARA      | AGEWAWI    | 1378                      | 389                              |         |
|            | E. GOJAM   | 3308                      | 829                              |         |
|            | W. GOJAM   | 2894                      | 720                              |         |
|            | N GONDER   | 2483                      | 400                              |         |
|            | S. GONDER  | 3445                      | 385                              |         |
|            | N. SHEWA   | 2752                      | 385                              |         |
|            | OROMIA     | 782                       | 126                              |         |
|            | WAG-HAMRA  | 1023                      | 98                               |         |
|            | N. WOLO    | 1998                      | 439                              |         |
|            | S. WOLO    | 2374                      | 308                              |         |
|            | TOTAL      | 22437                     | 4079                             |         |
| OROMIA     | ARSI       | 3445                      | 856                              |         |
|            | BALE       | 2208                      | 760                              |         |
|            | BORENA     | 1497                      | 345                              |         |
|            | E. HARARGE | 1812                      | 226                              |         |
|            | W. HARARGE | 1495                      | 140                              |         |
|            | ILUBABOR   | 2701                      | 508                              |         |
|            | JIMA       | 2760                      | 442                              |         |
|            | E. SHEWA   | 2567                      | 190                              |         |
|            | N. SHEWA   | 3046                      | 462                              |         |
|            | W. SHEWA   | 3149                      | 606                              |         |
|            | E. WELEGA  | 3356                      | 581                              |         |
|            | W. WELEGA  | 3562                      | 849                              |         |
|            | TOTAL      | 31598                     | 5965                             |         |
| SOMALI     |            | -                         | -                                |         |
| BENSHNGULE |            | 344                       | 98                               |         |

Continued

|                |          |       |       |  |
|----------------|----------|-------|-------|--|
| S. E. P. A. R. | BENCH    | 908   | 134   |  |
|                | GEDIO    | 946   | 130   |  |
|                | GURAGHE  | 2102  | 21    |  |
|                | HADIYA   | 1491  | 38    |  |
|                | KEMBATA  | 1413  | 25    |  |
|                | KEFICHO  | 1230  | 174   |  |
|                | MAJI     | 781   | 108   |  |
|                | N. OMO   | 2933  | 404   |  |
|                | S. OMO   | 890   | 195   |  |
|                | SHEKICHO | 770   | 125   |  |
|                | SIDAMA   | 1390  | 155   |  |
|                | AMARO    | 189   | 36    |  |
|                | BURJI    | 126   | 14    |  |
|                | DERASHE  | 142   | 48    |  |
|                | KONSO    | 273   | 66    |  |
|                | YEM      | 181   | 78    |  |
| TOTAL          | 15765    | 1751  |       |  |
| GAMBELA        |          | 458   | 122   |  |
| HARARI         |          | 213   | 1     |  |
| ADDIS ABABA    |          | 1092  | 330   |  |
| DIRE DAWA      |          | 375   | 3     |  |
| GRAND TOTAL    |          | 74874 | 12645 |  |

**APPENDIX V**

**ESTIMATION PROCEDURE OF TOTAL, RATIO AND**

**SAMPLING ERROR**

$M_{hi}$  is the total number of agricultural households of the  $i^{\text{th}}$  sample EA in the  $h^{\text{th}}$  stratum obtained from households listing of the survey.

$m_{hi}$  is number of sample agricultural households of the  $i^{\text{th}}$  sample EA in the  $h^{\text{th}}$  stratum.

$a_{hi}$  is the sample total of values of area in the  $i^{\text{th}}$  EA in the  $h^{\text{th}}$  stratum.

$A_h$  is estimate of total area under specific crop in the  $h^{\text{th}}$  stratum.

$$\hat{P}_h = \sum_{i1}^{n_h} W_{hi} P_{hi}$$

in which

$$P_{hi} = \bar{a}_{hn} \times \bar{y}_{hn}; \bar{a}_{hn} = \frac{a_{hn}}{m_{hi}}; \bar{y}_{hn} = \frac{y_{hi}}{16 C_{hi}}$$

where  $Y_{hi}$  is sample total of yield from  $16 \text{ mt}^2$  area of land for crop Cutting of crop in the  $i^{\text{th}}$  EA is the  $h^{\text{th}}$  stratum.

$C_{hi}$  is number of crop-cuttings of a crop in the  $i^{\text{th}}$  EA  
is the  $h^{\text{th}}$  stratum.

$\bar{a}_{hi}$  is average area per household under specific crop  
in the  $i^{\text{th}}$  EA in the  $h^{\text{th}}$  stratum

$\bar{Y}_{hi}$  is average yield per square meter of specific crop  
in the  $i^{\text{th}}$  EA in the  $h^{\text{th}}$  stratum.

$\hat{P}_{hi}$  is estimate of production quantity per household of  
specific crop in the  $i^{\text{th}}$  EA in the  $h^{\text{th}}$  stratum.

$P_h$  is estimate of total production quantity of  
specific crop in the  $h^{\text{th}}$  stratum.

Estimate of yield of a specific crop in the  $h^{\text{th}}$  stratum is given  
by:

$$\hat{Y}_h = \frac{\hat{P}_h}{\hat{A}_h}$$

Sampling variance of estimate of stratum total of area and  
production for a specific crop are estimated by the following  
formulas, respectively.

$$\text{Var}(\hat{A}_h) = \frac{n_h}{n_h - 1} \left[ \sum_{n1}^{n_h} \hat{A}_{hi}^2 - \frac{\hat{A}_h^2}{n_h} \right]$$

$$\text{Var}(\hat{P}_h) = \frac{n_h}{n_h - 1} \left[ \sum_{n1}^{n_h} \hat{P}_{hi}^2 - \frac{\hat{P}_h^2}{n_h} \right]$$

In estimating the sampling variance by the above formula, selection of EAs within a stratum is assumed to be with replacement. By so doing the variance estimate may be slightly over estimated but it greatly simplify the estimation procedure. Further more the finite population correction (fpc) is ignored in the formula. This is due to the fact that its effect is negligible.

Sampling variance of yield estimate,  $\hat{Y}_h$ , is given by:

$$\text{Var}(\hat{Y}_h) = \frac{1}{\hat{A}_h^2} [\text{Var}(\hat{P}_h) + \hat{Y}_h^2 \text{Var}(\hat{A}_h) - 2\hat{Y}_h \text{Cov}(\hat{P}_h, \hat{A}_h)]$$

Coefficient of variation (CV) of estimate of stratum total of area, production and yield for a specific crop are given respectively by:

$$CV(\hat{A}_h) = \frac{\sqrt{\text{Var}(\hat{A}_h)}}{\hat{A}_h} \times 100$$

$$CV(\hat{P}_h) = \frac{\sqrt{\text{Var}(\hat{P}_h)}}{\hat{P}_h} \times 100$$

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

**APPENDIX VI**

**ESTIMATES OF AREA, PRODUCTION, STANDARD ERROR AND  
COEFFICIENT OF VARIATION FOR MAJOR CROPS**

## APPENDIX VI.

ESTIMATES OF AREA, PRODUCTION, STANDARD ERROR AND COEFFICIENT OF VARIATION FOR  
MAJOR CROPS, NATIONAL.

| TYPE OF<br>CROP | AREA<br>(000 HA) | SE<br>(000 HA) | CV<br>(%)   | PROD.<br>(000 QT) | SE<br>(000 QT) | CV<br>(%)   |
|-----------------|------------------|----------------|-------------|-------------------|----------------|-------------|
| Barley          | 879.16           | 54.95          | 6.25        | 8476.85           | 652.76         | 7.70        |
| Maize           | 1104.70          | 50.75          | 4.59        | 16732.02          | 910.59         | 5.44        |
| Millet          | 228.52           | 23.65          | 10.35       | 1530.51           | 175.46         | 11.46       |
| Oats            | 34.49            | 6.58           | 19.08       | 360.46            | 84.77          | 23.52       |
| Sorghum         | 885.99           | 47.81          | 5.40        | 11219.13          | 703.12         | 6.27        |
| Teff            | 1843.76          | 70.50          | 3.82        | 12983.89          | 615.84         | 4.74        |
| Wheat           | 769.33           | 48.38          | 6.29        | 10239.14          | 710.27         | 6.94        |
| Chick Peas      | 175.05           | 20.33          | 11.61       | 1224.96           | 156.19         | 12.75       |
| Haricot Beans   | 68.75            | 9.82           | 14.29       | 338.65            | 61.82          | 18.26       |
| Horse Beans     | 341.92           | 19.43          | 5.68        | 3736.46           | 262.14         | 7.02        |
| Lentiles        | 58.02            | 7.95           | 13.70       | 367.55            | 67.46          | 18.35       |
| Field Peas      | 154.97           | 12.23          | 7.89        | 1432.93           | 125.09         | 8.73        |
| Vetch           | 79.79            | 10.90          | 13.67       | 622.90            | 95.18          | 15.28       |
| Linseed         | 110.93           | 15.66          | 14.12       | 535.52            | 128.25         | 23.95       |
| Neug            | 197.12           | 19.69          | 9.99        | 443.01            | 57.61          | 13.00       |
| Rapeseed        | 14.83            | 5.43           | 36.58       | 112.09            | 45.26          | 40.38       |
| Fenugreek       | 12.81            | 2.41           | 18.83       | 61.91             | 11.46          | 18.52       |
| <b>TOTAL</b>    | <b>6960.14</b>   | <b>132.97</b>  | <b>1.91</b> | <b>70417.99</b>   | <b>1679.14</b> | <b>2.38</b> |

Abbreviations

SE = Standard Error

CV = Coefficient of Variation

PROD. = Production

ESTIMATES OF AREA, PRODUCTION, STANDARD ERROR AND COEFFICIENT OF VARIATION FOR  
MAJOR CROPS IN TIGRAY REGION.

| TYPE OF CROP  | AREA<br>(000' HA) | SE<br>(000' HA) | CV<br>(%) | PROD.<br>(000'QT) | SE<br>(000'QT) | CV<br>(%) |
|---------------|-------------------|-----------------|-----------|-------------------|----------------|-----------|
| Barley        | 104.24            | 20.99           | 20.13     | 426.80            | 91.97          | 21.55     |
| Maize         | 49.18             | 10.75           | 21.86     | 301.97            | 67.16          | 22.24     |
| Millet        | 44.75             | 11.22           | 25.08     | 314.15            | 77.89          | 24.79     |
| Oats          | -                 | -               | -         | -                 | -              | -         |
| Sorghum       | 100.46            | 25.46           | 25.35     | 1097.12           | 394.01         | 35.91     |
| Teff          | 116.98            | 18.53           | 15.84     | 573.95            | 117.68         | 20.50     |
| Wheat         | 45.72             | 10.02           | 21.92     | 182.79            | 43.47          | 23.78     |
| Chick Peas    | 12.10             | 6.40            | 52.90     | 40.71             | 22.21          | 54.56     |
| Haricot Beans | 1.56              | 1.56            | 100.00    | 0.70              | 0.70           | 100.00    |
| Horse Beans   | 8.93              | 3.64            | 40.78     | 22.86             | 22.86          | 100.00    |
| Lentiles      | 3.75              | 1.98            | 52.83     | 11.53             | 6.21           | 53.86     |
| Field Peas    | 7.62              | 2.77            | 36.39     | 19.03             | 13.14          | 69.04     |
| Vetch         | 6.05              | 3.03            | 50.14     | 21.42             | 16.54          | 77.24     |
| Lirseed       | 1.21              | 0.60            | 49.20     | 3.25              | 1.60           | 49.23     |
| Neug          | 3.45              | 2.37            | 68.88     | 18.88             | 1.24           | 6.57      |
| Rapeseed      | -                 | -               | -         | -                 | -              | -         |
| Fenugreek     | 0.04              | 0.04            | 100.00    | 0.17              | 0.17           | 100.00    |

ESTIMATES OF AREA, PRODUCTION, STANDARD ERROR AND COEFFICIENT OF VARIATION FOR  
MAJOR CROPS IN AFAR REGION.

| TYPE OF CROP  | AREA<br>(000' HA) | SE<br>(000' HA) | CV<br>(%) | PROD.<br>(000'QT) | SE<br>(000'QT) | CV<br>(%) |
|---------------|-------------------|-----------------|-----------|-------------------|----------------|-----------|
| Barley        | -                 | -               | -         | -                 | -              | -         |
| Maize         | 0.46              | 0.28            | 61.42     | 4.37              | 2.19           | 50.11     |
| Millet        | -                 | -               | -         | -                 | -              | -         |
| Oats          | -                 | -               | -         | -                 | -              | -         |
| Sorghum       | 9.73              | 5.60            | 57.59     | 77.91             | 44.79          | 57.49     |
| Teff          | 6.32              | 3.77            | 59.68     | 64.07             | 39.05          | 60.95     |
| Wheat         | -                 | -               | -         | -                 | -              | -         |
| Chick Peas    | 0.04              | 0.04            | 100.00    | 0.20              | 0.20           | 100.00    |
| Haricot Beans | -                 | -               | -         | -                 | -              | -         |
| Horse Beans   | -                 | -               | -         | -                 | -              | -         |
| Lentiles      | -                 | -               | -         | -                 | -              | -         |
| Field Peas    | -                 | -               | -         | -                 | -              | -         |
| Vetch         | -                 | -               | -         | -                 | -              | -         |
| Lirseed       | -                 | -               | -         | -                 | -              | -         |
| Neug          | -                 | -               | -         | -                 | -              | -         |
| Rapeseed      | -                 | -               | -         | -                 | -              | -         |
| Fenugreek     | -                 | -               | -         | -                 | -              | -         |

Abbreviations

SE = Standard Error

CV = Coefficient of Variation

PROD. = Production

ESTIMATES OF AREA, PRODUCTION, STANDARD ERROR AND COEFFICIENT OF VARIATION FOR  
MAJOR CROPS IN AMARA REGION.

| TYPE OF CROP  | AREA<br>(000 HA) | SE<br>(000 HA) | CV<br>(%) | PROD.<br>(000QT) | SE<br>(000QT) | CV<br>(%) |
|---------------|------------------|----------------|-----------|------------------|---------------|-----------|
| Barley        | 331.64           | 26.68          | 8.04      | 3092.15          | 277.87        | 8.99      |
| Maize         | 226.46           | 14.87          | 6.57      | 3148.83          | 229.79        | 7.30      |
| Millet        | 136.40           | 19.52          | 14.31     | 898.62           | 149.46        | 16.63     |
| Oats          | 8.42             | 2.56           | 30.37     | 43.65            | 13.76         | 31.52     |
| Sorghum       | 303.36           | 30.53          | 10.06     | 3902.89          | 450.54        | 11.54     |
| Teff          | 809.56           | 41.32          | 5.10      | 5606.78          | 360.20        | 6.42      |
| Wheat         | 240.00           | 23.66          | 9.86      | 3219.15          | 321.77        | 10.00     |
| Chick Peas    | 105.70           | 13.60          | 12.87     | 737.90           | 108.29        | 14.68     |
| Haricot Beans | 13.06            | 4.26           | 32.65     | 64.93            | 20.89         | 32.17     |
| Horse Beans   | 145.99           | 12.65          | 8.66      | 1554.31          | 171.37        | 11.03     |
| Lentiles      | 29.96            | 5.48           | 18.29     | 150.81           | 38.91         | 25.80     |
| Field Peas    | 68.62            | 8.56           | 12.47     | 695.97           | 94.45         | 13.57     |
| Vetch         | 46.27            | 8.25           | 17.83     | 356.81           | 74.54         | 20.89     |
| Linseed       | 25.54            | 4.78           | 18.73     | 83.44            | 16.22         | 19.44     |
| Neug          | 106.96           | 13.90          | 13.00     | 227.60           | 42.53         | 18.69     |
| Rapeseed      | 4.92             | 2.38           | 48.36     | 36.84            | 17.94         | 48.70     |
| Fenugreek     | 5.46             | 1.45           | 26.63     | 25.45            | 7.16          | 28.13     |

ESTIMATES OF AREA, PRODUCTION, STANDARD ERROR AND COEFFICIENT OF VARIATION FOR  
MAJOR CROPS IN OROMIA REGION.

| TYPE OF CROP  | AREA<br>(000 HA) | SE<br>(000 HA) | CV<br>(%) | PROD.<br>(000QT) | SE<br>(000QT) | CV<br>(%) |
|---------------|------------------|----------------|-----------|------------------|---------------|-----------|
| Barley        | 370.39           | 40.69          | 10.99     | 4251.81          | 563.18        | 13.25     |
| Maize         | 663.11           | 43.56          | 6.57      | 10599.12         | 820.02        | 7.74      |
| Millet        | 38.42            | 6.45           | 16.79     | 244.75           | 41.46         | 16.94     |
| Oats          | 25.79            | 6.06           | 23.50     | 314.62           | 83.63         | 26.58     |
| Sorghum       | 355.64           | 23.18          | 6.52      | 4802.30          | 343.73        | 7.16      |
| Teff          | 754.69           | 51.10          | 6.77      | 5621.93          | 460.30        | 8.19      |
| Wheat         | 406.23           | 39.12          | 9.63      | 5677.87          | 602.43        | 10.61     |
| Chick Peas    | 49.26            | 12.95          | 26.29     | 375.36           | 101.30        | 26.99     |
| Haricot Beans | 40.37            | 7.81           | 19.35     | 205.07           | 53.74         | 26.21     |
| Horse Beans   | 146.17           | 13.01          | 8.90      | 1708.23          | 186.39        | 10.91     |
| Lentiles      | 22.88            | 5.39           | 23.56     | 196.67           | 54.67         | 27.80     |
| Field Peas    | 56.55            | 7.52           | 13.30     | 464.68           | 70.87         | 15.25     |
| Vetch         | 26.53            | 6.45           | 24.31     | 233.85           | 56.81         | 24.29     |
| Linseed       | 84.14            | 14.90          | 17.71     | 448.66           | 127.21        | 28.35     |
| Neug          | 82.07            | 13.58          | 16.54     | 184.97           | 38.50         | 20.81     |
| Rapeseed      | 9.90             | 4.88           | 49.25     | 75.19            | 41.55         | 55.26     |
| Fenugreek     | 6.12             | 1.59           | 25.98     | 31.43            | 7.76          | 24.69     |

Abbreviations

SE = Standard Error

CV = Coefficient of Variation

PROD. = Production

ESTIMATES OF AREA, PRODUCTION, STANDARD ERROR AND COEFFICIENT OF VARIATION FOR  
MAJOR CROPS IN BENSANGUL REGION.

| TYPE OF<br>CROP | AREA      |                 |           | PROD.    |                |           |
|-----------------|-----------|-----------------|-----------|----------|----------------|-----------|
|                 | (000' HA) | SE<br>(000' HA) | CV<br>(%) | (000'QT) | SE<br>(000'QT) | CV<br>(%) |
| Barley          | 0.16      | 0.16            | 100.00    | 0.94     | 0.94           | 100.00    |
| Maize           | 13.41     | 4.70            | 35.07     | 235.22   | 83.14          | 35.35     |
| Millet          | 5.54      | 2.95            | 53.18     | 41.12    | 22.44          | 54.57     |
| Oats            | 0.02      | 0.02            | 100.00    | 0.13     | 0.13           | 100.00    |
| Sorghum         | 21.93     | 7.63            | 34.80     | 270.33   | 76.36          | 28.25     |
| Teff            | 11.98     | 2.99            | 24.96     | 63.15    | 21.80          | 34.53     |
| Wheat           | 0.11      | 0.11            | 100.00    | 1.27     | 1.27           | 100.00    |
| Chick Peas      | 0.09      | 0.05            | 57.23     | 0.42     | 0.24           | 57.14     |
| Haricot Beans   | 2.21      | 2.15            | 97.36     | 15.76    | 15.34          | 97.34     |
| Horse Beans     | 0.23      | 0.23            | 100.00    | 1.17     | 1.17           | 100.00    |
| Lentiles        | 0.13      | 0.13            | 100.00    | 0.45     | 0.45           | 100.00    |
| Field Peas      | -         | -               | -         | -        | -              | -         |
| Vetch           | -         | -               | -         | -        | -              | -         |
| Linseed         | -         | -               | -         | -        | -              | -         |
| Neug            | 4.60      | 2.11            | 45.85     | 11.30    | 5.10           | 45.15     |
| Rapeseed        | 0.01      | 0.01            | 100.00    | 0.06     | 0.06           | 100.00    |
| Fenugreek       | -         | -               | -         | -        | -              | -         |

ESTIMATES OF AREA, PRODUCTION, STANDARD ERROR AND COEFFICIENT OF VARIATION FOR  
MAJOR CROPS IN S.E.P.A. REGION.

| TYPE OF<br>CROP | AREA      |                 |           | PROD.    |                |           |
|-----------------|-----------|-----------------|-----------|----------|----------------|-----------|
|                 | (000' HA) | SE<br>(000' HA) | CV<br>(%) | (000'QT) | SE<br>(000'QT) | CV<br>(%) |
| Barley          | 72.64     | 14.54           | 20.01     | 703.98   | 152.48         | 21.66     |
| Maize           | 148.42    | 17.84           | 12.02     | 2394.27  | 303.84         | 12.69     |
| Millet          | 3.42      | 1.33            | 38.88     | 31.87    | 12.66          | 39.72     |
| Oats            | 0.24      | 0.22            | 91.30     | 1.88     | 1.73           | 92.02     |
| Sorghum         | 78.40     | 8.22            | 10.49     | 849.71   | 89.92          | 10.58     |
| Teff            | 139.04    | 16.88           | 12.14     | 1001.64  | 147.41         | 14.72     |
| Wheat           | 74.39     | 12.22           | 16.43     | 1122.27  | 189.95         | 16.93     |
| Chick Peas      | 6.65      | 4.39            | 65.93     | 50.22    | 42.88          | 85.38     |
| Haricot Beans   | 11.45     | 3.19            | 27.89     | 51.82    | 16.18          | 31.22     |
| Horse Beans     | 40.51     | 5.93            | 14.63     | 448.79   | 63.90          | 14.24     |
| Lentiles        | 0.80      | 0.41            | 50.70     | 5.25     | 2.85           | 54.29     |
| Field Peas      | 22.11     | 3.46            | 15.64     | 252.71   | 39.12          | 15.48     |
| Vetch           | -         | -               | -         | -        | -              | -         |
| Linseed         | 0.03      | 0.03            | 90.29     | 0.17     | 0.14           | 82.35     |
| Neug            | 0.04      | 0.04            | 100.00    | 0.26     | 0.26           | 100.00    |
| Rapeseed        | -         | -               | -         | -        | -              | -         |
| Fenugreek       | 1.08      | 1.08            | 100.00    | 4.46     | 4.46           | 100.00    |

Abbreviations

SE = Standard Error

CV = Coefficient of Variation

PROD. = Production

ESTIMATES OF AREA, PRODUCTION, STANDARD ERROR AND COEFFICIENT OF VARIATION FOR  
MAJOR CROPS IN GAMBELA REGION.

| TYPE OF<br>CROP | AREA<br>(000' HA) | SE<br>(000' HA) | CV<br>(%) | PROD.<br>(000'QT) | SE<br>(000'QT) | CV<br>(%) |
|-----------------|-------------------|-----------------|-----------|-------------------|----------------|-----------|
| Barley          | -                 | -               | -         | -                 | -              | -         |
| Maize           | 3.34              | 1.00            | 29.94     | 44.63             | 13.51          | 30.27     |
| Millet          | -                 | -               | -         | -                 | -              | -         |
| Oats            | -                 | -               | -         | -                 | -              | -         |
| Sorghum         | 2.77              | 1.51            | 54.51     | 33.66             | 19.11          | 56.77     |
| Teff            | 0.03              | 0.03            | 100.00    | 0.10              | 0.10           | 100.00    |
| Wheat           | -                 | -               | -         | -                 | -              | -         |
| Chick Peas      | -                 | -               | -         | -                 | -              | -         |
| Haricot Beans   | 0.10              | 0.10            | 100.00    | 0.37              | 0.37           | 100.00    |
| Horse Beans     | -                 | -               | -         | -                 | -              | -         |
| Lentiles        | -                 | -               | -         | -                 | -              | -         |
| Field Peas      | -                 | -               | -         | -                 | -              | -         |
| Vetch           | -                 | -               | -         | -                 | -              | -         |
| Linseed         | -                 | -               | -         | -                 | -              | -         |
| Neug            | -                 | -               | -         | -                 | -              | -         |
| Rapeseed        | -                 | -               | -         | -                 | -              | -         |
| Fenugreek       | -                 | -               | -         | -                 | -              | -         |

ESTIMATES OF AREA, PRODUCTION, STANDARD ERROR AND COEFFICIENT OF VARIATION FOR  
MAJOR CROPS IN HARARI REGION.

| TYPE OF<br>CROP | AREA<br>(000' HA) | SE<br>(000' HA) | CV<br>(%) | PROD.<br>(000'QT) | SE<br>(000'QT) | CV<br>(%) |
|-----------------|-------------------|-----------------|-----------|-------------------|----------------|-----------|
| Barley          | 0.09              | 0.05            | 59.35     | 1.04              | 0.62           | 59.66     |
| Maize           | 0.18              | 0.12            | 65.25     | 2.67              | 1.76           | 65.92     |
| Millet          | -                 | -               | -         | -                 | -              | -         |
| Oats            | 0.02              | 0.02            | 100.00    | 0.13              | 0.13           | 100.00    |
| Sorghum         | 4.30              | 0.90            | 20.93     | 51.86             | 10.57          | 20.38     |
| Teff            | 0.03              | 0.03            | 100.00    | 0.00              | 0.00           | 0.00      |
| Wheat           | 0.42              | 0.27            | 64.37     | 3.21              | 2.14           | 66.67     |
| Chick Peas      | 0.25              | 0.21            | 86.90     | 1.92              | 1.67           | 86.98     |
| Haricot Beans   | -                 | -               | -         | -                 | -              | -         |
| Horse Beans     | -                 | -               | -         | -                 | -              | -         |
| Lentiles        | -                 | -               | -         | -                 | -              | -         |
| Field Peas      | -                 | -               | -         | -                 | -              | -         |
| Vetch           | -                 | -               | -         | -                 | -              | -         |
| Linseed         | -                 | -               | -         | -                 | -              | -         |
| Neug            | -                 | -               | -         | -                 | -              | -         |
| Rapeseed        | -                 | -               | -         | -                 | -              | -         |
| Fenugreek       | -                 | -               | -         | -                 | -              | -         |

Abbreviations

SE = Standard Error

CV = Coefficient of Variation

PROD. = Production

ESTIMATES OF AREA, PRODUCTION, STANDARD ERROR AND COEFFICIENT OF VARIATION FOR  
MAJOR CROPS IN ADDIS ABABA REGION.

| TYPE OF<br>CROP | AREA<br>(000' HA) | SE<br>(000' HA) | CV<br>(%) | PROD.<br>(000' QT) | SE<br>(000' QT) | CV<br>(%) |
|-----------------|-------------------|-----------------|-----------|--------------------|-----------------|-----------|
| Barley          | 0.01              | 0.01            | 66.82     | 0.13               | 0.07            | 53.85     |
| Maize           | 0.03              | 0.02            | 92.57     | 0.21               | 0.18            | 85.71     |
| Millet          | -                 | -               | -         | -                  | -               | -         |
| Oats            | 0.01              | 0.004           | 69.93     | 0.05               | 0.03            | 60.00     |
| Sorghum         | 0.01              | 0.01            | 100.00    | 0.05               | 0.05            | 100.00    |
| Teff            | 5.13              | 0.78            | 15.16     | 52.27              | 8.04            | 15.38     |
| Wheat           | 2.47              | 0.51            | 20.64     | 32.58              | 6.83            | 20.96     |
| Chick Peas      | 0.96              | 0.45            | 46.67     | 18.23              | 8.52            | 46.74     |
| Haricot Beans   | 0.001             | 0.001           | 100.00    | 0.00               | 0.00            | 0.00      |
| Horse Beans     | 0.08              | 0.04            | 55.30     | 1.10               | 0.63            | 57.27     |
| Lentiles        | 0.49              | 0.13            | 26.13     | 2.84               | 0.76            | 26.76     |
| Field Peas      | 0.07              | 0.06            | 78.12     | 0.54               | 0.42            | 77.78     |
| Vetch           | 0.94              | 0.13            | 14.18     | 10.82              | 1.58            | 14.60     |
| Linseed         | -                 | -               | -         | -                  | -               | -         |
| Neug            | 0.003             | 0.003           | 100.00    | 0.00               | 0.00            | 0.00      |
| Rapeseed        | -                 | -               | -         | -                  | -               | -         |
| Fenugreek       | 0.11              | 0.04            | 33.35     | 0.40               | 0.13            | 32.50     |

ESTIMATES OF AREA, PRODUCTION, STANDARD ERROR AND COEFFICIENT OF VARIATION FOR  
MAJOR CROPS IN DIRE DAWA.

| TYPE OF<br>CROP | AREA<br>(000' HA) | SE<br>(000' HA) | CV<br>(%) | PROD.<br>(000' QT) | SE<br>(000' QT) | CV<br>(%) |
|-----------------|-------------------|-----------------|-----------|--------------------|-----------------|-----------|
| Barley          | -                 | -               | -         | -                  | -               | -         |
| Maize           | 0.11              | 0.05            | 51.14     | 0.73               | 0.49            | 67.12     |
| Millet          | -                 | -               | -         | -                  | -               | -         |
| Oats            | -                 | -               | -         | -                  | -               | -         |
| Sorghum         | 9.41              | 2.82            | 29.97     | 133.30             | 40.02           | 30.02     |
| Teff            | -                 | -               | -         | -                  | -               | -         |
| Wheat           | -                 | -               | -         | -                  | -               | -         |
| Chick Peas      | -                 | -               | -         | -                  | -               | -         |
| Haricot Beans   | -                 | -               | -         | -                  | -               | -         |
| Horse Beans     | -                 | -               | -         | -                  | -               | -         |
| Lentiles        | -                 | -               | -         | -                  | -               | -         |
| Field Peas      | -                 | -               | -         | -                  | -               | -         |
| Vetch           | -                 | -               | -         | -                  | -               | -         |
| Linseed         | -                 | -               | -         | -                  | -               | -         |
| Neug            | -                 | -               | -         | -                  | -               | -         |
| Rapeseed        | -                 | -               | -         | -                  | -               | -         |
| Fenugreek       | -                 | -               | -         | -                  | -               | -         |

Abbreviations

SE = Standard Error

CV = Coefficient of Variation

PROD. = Production