



**IMPERIAL ETHIOPIAN GOVERNMENT
CENTRAL STATISTICAL OFFICE**

**REPORT ON A SURVEY
OF
SIDAMO PROVINCE**

ADDIS ABABA

REPRINT JULY 1970

NATIONAL SAMPLE SURVEY

REPORT NO. 9

316.3
Eth
Rue



6

**IMPERIAL ETHIOPIAN GOVERNMENT
CENTRAL STATISTICAL OFFICE**

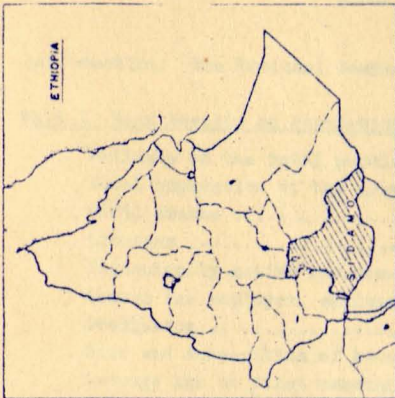
**REPORT ON A SURVEY
OF
SIDAMO PROVINCE**

የእስያቲካክስ ጠ/ጽ/ቤት ፡
ቤተ መጻሕፍት ፡
C. S. O. Library

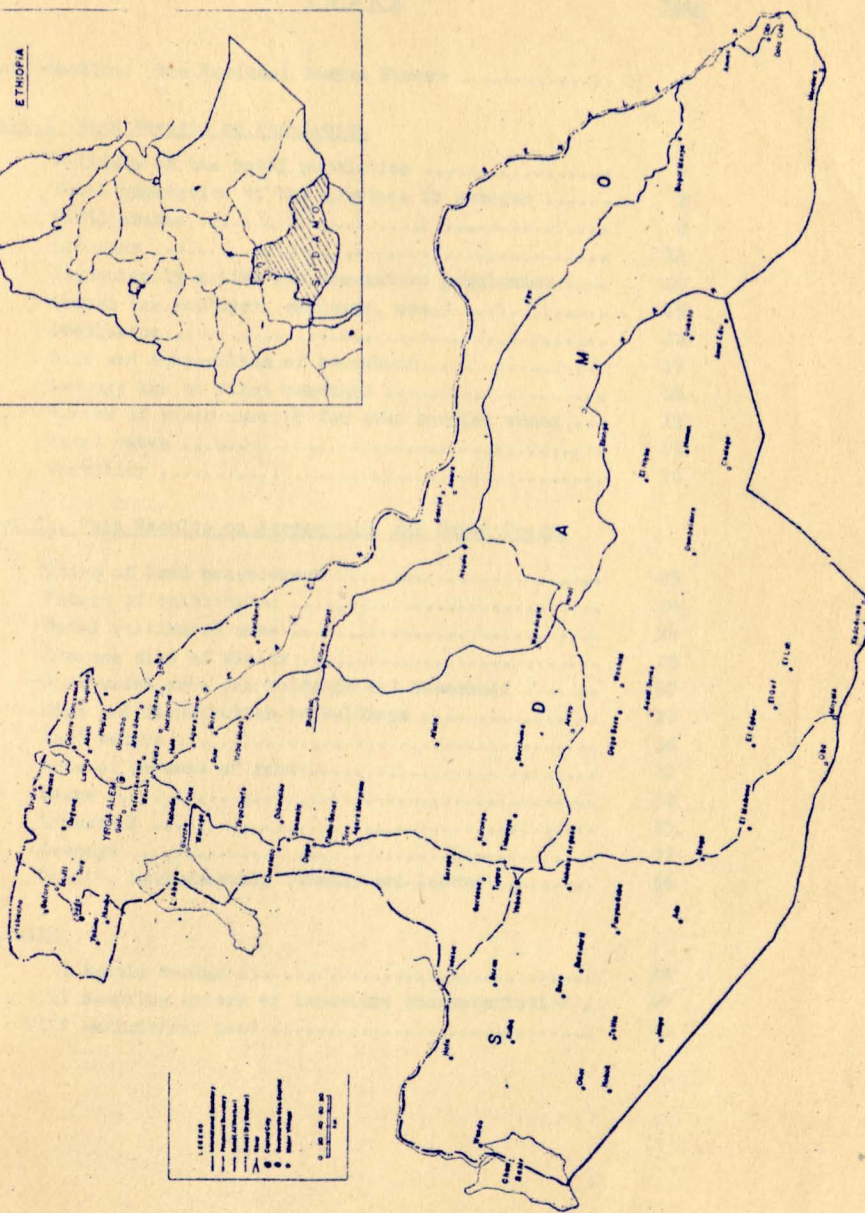
ADDIS ABABA
May 1968

**NATIONAL SAMPLE SURVEY
REPORT N° 9**

ETHIOPIA



- LEGEND
- International Boundary
 - Provincial Boundary
 - Major Railway
 - Road
 - River
 - Lake
 - Mountain Peak
 - Town
 - Capital
- Scale: 1:1,000,000

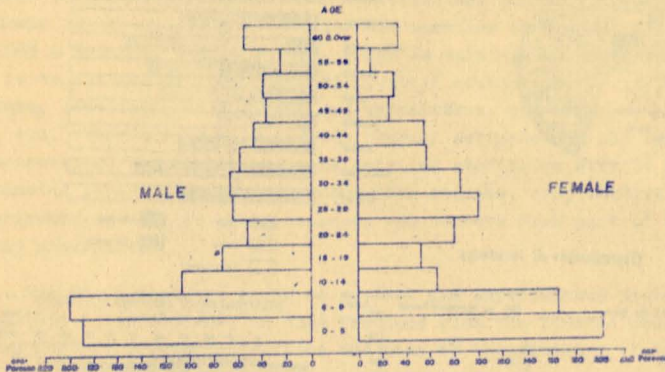


I N D E X

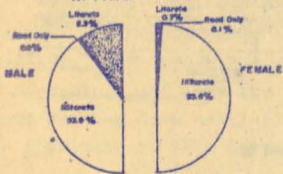
Page

Introduction: The National Sample Survey	1
 <u>Part I. Main Results on Population</u>	
Estimate on the total population	4
Rural population of the province by awrajas	8
Civil status	9
Literacy	12
Economically active and non-active population	14
Status (as employer, employee, etc.)	15
Occupation	16
Size and composition of household	17
Average age at first marriage	18
Number of times married for ever married women ...	19
Vital rates	19
Fertility	20
 <u>Part II. Main Results on Agriculture and Rural Credit</u>	
Units of Land measurement	23
Pattern of cultivation	24
Total cultivated area	24
Average size of fields	25
Cultivated area per holdings and household	27
Size and distribution of holdings	28
Land tenure	30
Mode of payment of rent	30
Loans	32
Livestock	33
Storage	37
Credit, landownership tenancy and labour	39
 <u>Appendix</u>	
I Sample design	44
II Sampling errors of important characteristics .	45
III Definitions used	46

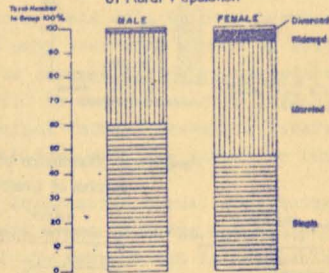
RURAL POPULATION BY AGE GROUP AND SEX



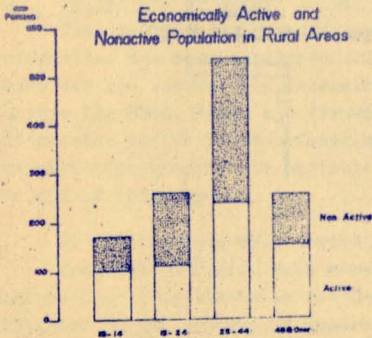
Literacy of Population in Rural Areas



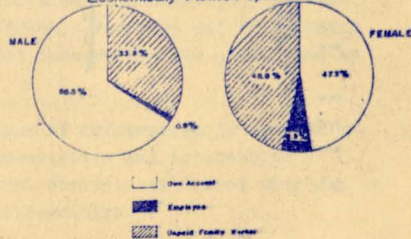
Civil Status of Rural Population



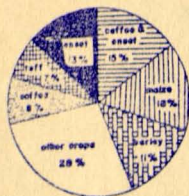
Economically Active and Nonactive Population in Rural Areas



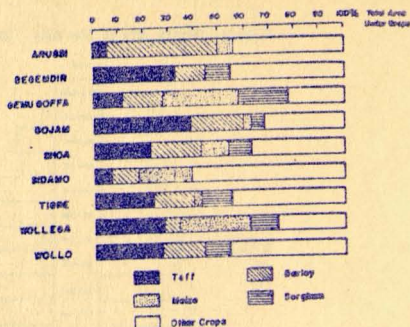
Status of Economically Active Population



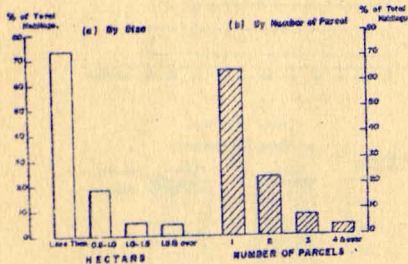
Area Under Crops



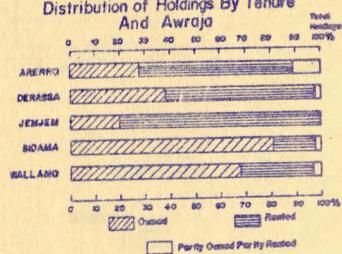
Area Under Crops By Province



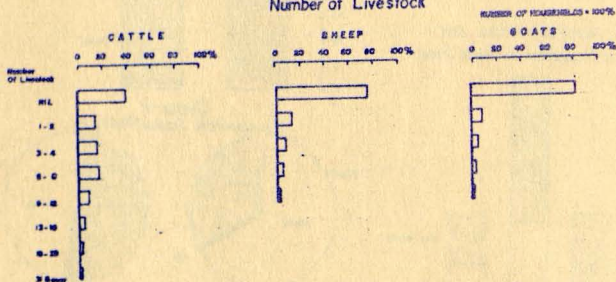
Distribution of Holdings



Distribution of Holdings By Tenure And Awraja



Percentage Distribution of Household by Number of Livestock



NATIONAL SAMPLE SURVEY

1. To fill gaps in the basic statistics of Ethiopia and to provide a scientific basis for future economic development plans, the Central Statistical Office, in co-operation and consultation with most economic and development Ministries and agencies concerned, launched in 1963 a National Sample Survey, which is multi-purpose in character and is to collect data on population, vital statistics, labour, agriculture, livestock, cash income and expenditure, consumption, marketing, etc. This survey will provide overall estimates on the Awraja (sub-province) level, but the more detailed statistics will be for provincial level only. Rural consumption studies, crop cutting experiments as well as urban censuses and surveys form part of the survey programme.
2. The field work was begun on a pilot and experimental scale in 1956 E.C. (1963/64) in Shoa Province with the limited resources of the Central Statistical Office and that of the Ministry of Agriculture. Reports in respect of each Province will be published.
3. Coverage: The survey is planned to cover the whole Empire of Ethiopia. For the rural survey this will be done province by province the number being covered each year will depend on resources available. The urban areas will be covered in the rainy season, July to September, and here the work will be concentrated on largest towns first working down until all municipal (urban) areas are covered. The remainder of this document will deal with the survey in rural areas.
4. Collection of Data: A full instruction manual containing definitions and some eleven different types of forms for collection of information has been developed for the surveys and is available for those who are technically interested. The forms used in the early surveys for Shoa, Gojam and Arrusi contained fundamentally the same information as the later redesigned forms. Forms 43 and 45 on which the basic demographic and agricultural information are given, are at the end of this report.
5. It will be seen that a wide range of information is available from this survey. Much more descriptive and interesting information is available in the Central Statistical Office than can be published in the reports of general information.
6. The enquiries consist of three general types:-
 - (1) basic questions on the number of persons, their age, sex, literacy, occupation, employment status, birth and deaths last year, number of children ever born to married women and questions on agricultural land, tenancy, mode of payment of rent on land, areas under various crops, size of the holding, its fragmentation and livestock number. (See appendices).

- (ii) General information about each sub-district on its accessibility major ethnic groups, type of farming, important crops with harvesting dates, schools and medical facilities, water supply, measurement units used, etc.
- (iii) A market questionnaire for obtaining the prices of main commodities is the local market on the day of visit.

Over the years, as information accumulated, the sample design has gone considerable changes.

7.1 To describe the initial design, a list was made of all sub-districts within a sub-province and a 50% sample of these primary sampling units (psu's) was selected systematically with a random start. The enumerators made lists of the administrative sub-divisions (second stage units) into which each sample psu was divided up. For 8 the randomly selected sub-divisions lists of households (third stage units) were made based on the memory of the officials concerned. For two of these sub-divisions (selected at random) actual lists of households were made by visiting the area. A systematic sample of 16 households was taken from each of these lists and information collected on population and agriculture by interviewing the household heads. Land operated by six households (randomly selected) was measured by chain and compass.

7.2 It was later discovered that there were three basic disadvantages associated with the above design. In the analysis of the data different multipliers were needed for the various sub-divisions which considerably slowed down the work of tabulation. Secondly, the presence of memory-lists (or households) acted as a temptation to the enumerators not to visit the areas but select a sample from the memory lists. Although the use of memory lists did reduce sampling errors, enumerators had to spend a disproportionate amount of time over waiting for the officials to arrive and help make these lists. Thirdly, the sampling errors were found to be rather high since the psus, although varying considerably in size, were selected with equal probability.

7.3 The present design takes care of the above three points. Within each sub-province, population estimates based on previous counts are obtained for each sub-district. The sub-districts (psu's) are allocated at random to groups of two each and one psu is selected with probability proportionate to its relative measure of size (population) in the group. Within selected psu's a list is made of its administrative sub-divisions

1

along with the estimated population of each and two sub-divisions are selected with probability proportionate to size. The sub-divisions in the sample are actually visited and an accurate list of households made by combing the area. A systematic sample of households is selected from each sub-divisions, the sampling interval being so determined that the sample becomes self-weighting for an expected over-all sampling fractions of 1 in 200. One third of the selected households are used for land measurement.

8. The number of field teams has been increased as the work has proceeded. By 1966 the Central Statistical Office had ten teams in the field, each consisting of four enumerators. There are two supervisors who review the work of the teams and control their performance. There is a statistician at headquarters who analyses the data with the help of five assistants. The results are processed mechanically on I.B.M. equipment for which separate staff is available. The enumerators working in the field are well-qualified for their job. As a minimum they have the high school diploma to their credit. They are hired on a permanent basis.

9. Some idea could be given of the sampling errors of important characteristics to which the estimates were subjected. In the province of Sidamo in which 112 sample subdivisions were in the sample 5368 households were interrogated. The relative standard error for the total number of persons was 14.8%, for number of households 14.3% for parcels of land 13.2% and for total cultivated area 13.3%.

PART I

MAIN RESULTS ON POPULATION

ESTIMATE OF THE TOTAL POPULATION OF SIDAMO PROVINCE

An estimate of the entire population of Sidamo province has been worked out from the following components:

1. The results of the rural survey conducted by the Central Statistics Office in April 1966 for Wellamo awraja and May & June 1966 for the rest of Sidamo.
2. An estimate of the population of Borena awraja based on the 1956 Ministry of Interior population reporting. This awraja is largely nomadic and has not been covered by the survey of the Central Statistical Office.
3. The results of urban surveys carried out in 1965 and 1966 in a total of 16 towns by the Central Statistics Office.
4. Estimates of other towns (3) based on the 1956 Ministry of Interior population reporting.

Table 1

TOTAL POPULATION OF SIDAMO

	Male	Female	Total
Rural areas surveyed*	1,004,635	982,955	1,987,590
Borena Awraja*	29,300	28,600	57,900
Surveyed towns	38,897	37,122	76,019
Other towns**	4,290	4,108	8,398
Total	1,077,122	1,052,785	2,129,907

Thus estimated, the total population of the province is 2,129,907 of which 1,077,124 are males and 1,052,785 are females. By far, the vast majority (96.0%) of the total population live in rural areas.

*From a figure for 1962 based on the 1956 Ministry of Interior population reporting raised by 1.6% per annum for 1963 and 1964 and by 1.8% for 1965 and 1966.

**Estimates varying between 1956 and 1962 increased by 10% to get an estimate for 1965 and then raised by 1.8% for 1966.

Borena awraja is largely nomadic and has not been covered by the survey. But an estimate of the population in the awraja has been made from the 1956 Ministry of Interior population reporting. The accuracy of this estimate, however, could not be easily calculated.

Apart from this, the accuracy of the population estimate of other towns has not been determined. But as the population in these towns account for a small fraction (0.4%) of the total estimate, it should not be considered to affect the reliability of the total estimate to any significant degree. Standard error has been calculated for the surveyed areas only, that is the rural areas of only five out of six awrajas and of the present estimate, the population in these surveyed areas account for some 93.3% so that unless Borena awraja has been grossly underestimated, which is unlikely, the standard deviation for the total estimate should not vary much from that for the surveyed rural population which is correct within the limits of 14.8%.

The rest of Part I of the report will deal with characteristics of surveyed rural population only; that for the urban areas has been treated in separate reports.

SIDAMO PROVINCE RURAL POPULATION

TOTAL RURAL POPULATION AND SEX RATIO

The following table shows the distribution of the surveyed rural population of Sidamo province by five years age groups and sex.

Table 2

POPULATION OF SIDAMO* BY AGE GROUP AND SEX

Age Group	Males		Females		Total	
	Number	%	Number	%	Number	%
00-04	189,950	19.0	203,820	20.9	393,770	20.0
05-09	200,335	19.9	167,940	17.0	368,275	18.5
10-14	106,520	10.6	66,730	6.7	173,250	8.7
15-19	72,315	7.2	53,205	5.4	125,520	6.3
20-24	51,340	5.1	81,835	8.3	133,175	6.7
25-29	63,870	6.3	101,430	10.2	165,300	8.2
30-34	65,375	6.4	86,165	8.8	151,540	7.6
35-39	57,620	5.7	58,875	5.9	116,495	5.8
40-44	46,690	4.6	56,915	5.9	103,605	5.2
45-49	35,115	3.5	27,110	2.8	62,225	3.1
50-54	37,865	3.8	31,760	3.3	69,625	3.6
55-59	24,380	2.5	11,620	1.2	36,000	1.8
60 & over	53,260	5.4	35,490	3.6	88,750	4.5
Total	1,004,635	100.0	982,955	100.0	1,987,590	100.0

*Not including Borena Awraja.

According to the present survey the rural population of the province (excluding Borena awraja) is 1,987,590 of whom 1,004,635 are males and 982,955 females. This figure, though much higher than an estimate based on the 1956 Ministry of Interior population reporting, is nevertheless considered to be correct within the limits of 14.8% as already mentioned above.

The number of females in the surveyed rural areas is close to that of the males as can be seen from the sex ratio of 102.2 (i.e. 102.2 males per 100 females). Males predominate in number in the age groups of 5-19 years and in the age groups of 45 years and above. Females outnumber males in the rest of the age groups. It is interesting to note that the reported number of female infants should be more than that of the male infants. In most provinces males outnumber females in the ages of early childhood (0-4 years). But in this province female infants in this age group outnumber the males and then the relative number of females in the next age group falls considerably. In the age groups of 20-44 years the relative number of males falls sharply and this may possibly indicate that in these age groups of adulthood more men than women migrate to towns in search of jobs and other opportunity and business. The fact that some 61% of the residents absent from their localities or subdivision at the time of the survey were males may to some extent support the last statement.

AGE STRUCTURE

Some inaccuracies in age reporting seem to exist. According to the original tabulation of "Reported population by Individual Years" there are more people aged 2 years than those aged one year. In fact the number of people aged just 5 years is close to twice the number of those at the age of one year. In a stable population (i.e. a population that has not experienced recent mass migration) the number of people that fall in each age should generally fall with higher ages. It might also be revealing to note that the recording of births in the last 12 months shows 75,545 children alive of those born within the last 12 months while the number of those reported under the age of 1 year is only 55,340.

This is probably mostly due to a tendency to approximate ages while trying to recall when a baby or an infant was born yields a better result in showing the number of those under the age of 1 year.

The original tabulation of "Reported population by Individual Years" also shows clustering of the population around the fives and noughts years. This has happened in all the provinces so far covered and is also probably the result of a tendency to approximate ages to fives and noughts years by people who do not know their exact ages. To get a smoother curve and a more probable spread of the population over all the ages, a cumulative graph of the five years age groups (as in table 2) was made and the number of people in each age read from the graph. The result of this exercise (i.e. population by individual years and by five years age groups as read from the smoothed curve) is shown in the following table.

Table 3
POPULATION BY INDIVIDUAL YEARS

Age and Age-Group	Number	%	Age and Age-Group	Number	%	
Under	1	85,000	4.3	30	29,000	1.5
	1	80,000	4.0	31	22,000	1.1
	2	77,000	3.9	32	20,000	1.0
	3	78,000	3.9	33	30,000	1.5
	4	74,000	3.7	34	22,000	1.1
	0-4	394,000	19.8	30-34	123,000	6.2
	5	66,000	3.3	35	25,000	1.3
	6	112,000	5.6	36	23,000	1.2
	7	68,000	3.5	37	25,000	1.2
	8	60,000	3.0	38	25,000	1.2
	9	45,000	2.3	39	20,000	1.0
	5-9	351,000	17.7	35-39	118,000	5.9
	10	40,100	2.0	40	22,000	1.1
	11	40,000	2.0	41	18,000	0.9
	12	35,000	1.8	42	19,000	1.0
	13	40,000	2.0	43	18,000	0.9
	14	34,000	1.7	44	18,000	0.9
	10-14	189,100	9.5	40-44	95,000	4.8
	15	30,000	1.5	45	15,000	0.8
	16	28,000	1.4	46	13,100	0.7
	17	28,000	1.4	47	14,000	0.7
	18	28,000	1.4	48	12,900	0.6
	19	30,000	1.5	49	14,000	0.7
	15-19	144,000	7.2	45-49	69,000	3.5
	20	27,000	1.3	50	13,000	0.6
	21	29,000	1.5	51	12,700	0.6
	22	26,000	1.3	52	15,200	0.8
	23	30,000	1.5	53	12,900	0.6
	24	28,000	1.4	54	14,200	0.8
	20-24	140,000	7.0	50-54	68,000	3.4
	25	30,000	1.5	55	13,000	0.6
	26	27,000	1.3	56	14,200	0.8
	27	30,000	1.5	57	12,700	0.6
	28	25,000	1.3	58	12,600	0.6
	29	29,000	1.5	59	14,180	0.8
	25-29	141,000	7.1	55-59	66,680	3.4
				60 & Over	88,810	4.5
				Total	1,987,590	100.0

Well over two-fifth (47%) of the total rural population are children under 15 years of age, while more than half (some 54%) of the total are under 20 years of age. School aged children (i.e. 5-14 years) alone account for slightly over 27% of the total population. Only some 38% of the total fall in the economically active age groups of 15-44 years and slightly over 10% in the age groups of 45-59 years leaving about 4.5% above 59 years of age. The normally dependent population (i.e. those under 15 years of age and those above 59 years taken together) alone account for over half (51.5%) of the entire population.

Variations between the distributions of the sexes by ages are not very significant. In general, a larger portion of females than of males fall in the young and middle adult age groups while the opposite situation prevails in the school age groups.

RURAL POPULATION OF THE PROVINCE BY AWRAJAS

The following table sets out the distribution, by sex, of the rural population among the five surveyed awrajas.

Table 4

POPULATION OF SIDAMO* BY AWRAJA				
Awraja	Males	Females	Total	
			Number	%
Arero	25,650	21,950	47,600	2.4
Derasa	243,600	243,600	487,200	24.5
Jemjem	141,700	143,400	285,100	14.3
Sidama	333,225	312,825	646,050	32.5
Wellamo	260,460	261,180	521,640	26.3
Total	1,004,635	982,955	1,987,590	100.0

Three of the awrajas, Sidama, Wellamo and Derasa are distinctly large. The largest awraja is Sidama with over 32% of the total surveyed rural population, second comes Wellamo with slightly over 26% and Derasa is a close third accounting for 24.5% of the total population. Arero is the smallest of the surveyed awrajas accounting for only 2.4% of the population.

*Not including Borena Awraja.

The distributions, by five years age group and sex, of the rural population of the different surveyed awrajas are set out in table 5.

Table 5

POPULATION OF AWRAJAS BY AGE GROUP AND SEX

Age-Group	A r e r o			D e r a s s e		
	Males	Females	Total	Males	Females	Total
0 - 4	5,050	4,300	9,350	40,100	45,900	86,000
5 - 9	4,000	3,400	7,400	50,500	43,000	93,500
10 - 14	2,750	1,100	3,850	25,500	18,600	44,100
15 - 19	1,700	1,750	3,450	16,900	13,000	29,900
20 - 24	2,050	1,650	3,700	11,300	20,800	32,100
25 - 29	1,650	1,750	3,400	18,400	25,500	43,900
30 - 34	1,250	1,650	2,900	16,100	21,700	37,800
35 - 39	1,000	1,400	2,400	16,800	16,700	33,500
40 - 44	1,300	1,700	3,000	11,300	12,300	23,600
45 - 49	1,550	900	2,450	8,800	7,000	15,800
50 - 54	700	350	1,050	8,700	7,800	16,500
55 - 59	800	150	950	6,300	3,800	10,100
60 & Over	1,850	1,850	3,700	12,900	7,500	20,400
Total	25,650	21,950	47,600	243,600	243,600	487,200

Age-Group	J e m j e m			S i d a m a			W e l l a m o		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
0 - 4	31,300	31,700	63,000	62,850	69,300	132,150	50,650	52,620	103,270
5 - 9	23,700	23,200	46,900	68,325	51,600	119,925	53,810	46,740	100,550
10 - 14	14,400	10,100	24,500	35,250	18,450	53,700	28,620	18,480	47,100
15 - 19	10,200	6,700	16,900	23,475	15,375	38,850	20,040	16,380	36,420
20 - 24	8,200	10,200	18,400	16,200	24,225	40,425	13,590	24,960	38,550
25 - 29	8,700	13,700	22,400	18,450	29,400	47,850	16,670	31,080	47,750
30 - 34	6,700	11,200	17,900	19,125	28,275	47,400	22,200	23,340	45,540
35 - 39	8,300	9,500	17,800	18,600	18,075	36,675	12,920	13,200	26,120
40 - 44	6,200	7,200	13,400	14,250	20,775	35,025	13,640	14,940	28,580
45 - 49	5,700	5,500	11,200	12,225	9,150	21,375	6,840	4,560	11,400
50 - 54	5,200	3,600	8,800	15,525	12,750	28,275	7,740	7,260	15,000
55 - 59	3,900	2,300	6,200	9,300	3,750	13,050	4,080	1,620	5,700
60 & Over	9,200	8,500	17,700	19,650	11,700	31,350	9,660	6,000	15,660
Total	141,700	143,400	285,100	333,225	312,825	646,050	260,460	261,180	521,640

CIVIL STATUS

Each respondent was required to indicate whether he (or she) was single, married, divorced or widowed without further probes into details regarding the types and forms of common practices. Any union reported as married or any separation reported as divorced was accepted as so. Single referred to persons who have never been married. The results are set out in the following table.

Table 6

MARITAL STATUS OF POPULATION BY SEX

Marital status	Males		Females		Total	
	Number	%	Number	%	Number	%
Single	608,950	60.7	459,120	46.6	1,068,070	53.7
Married	378,210	37.6	462,790	47.3	841,000	42.4
Widowed	3,990	0.4	48,895	4.9	52,885	2.6
Divorced	13,485	1.3	12,150	1.2	25,635	1.3
Total	1,004,635	100.0	982,955	100.0	1,987,590	100.0

Over half (some 54%) of the total rural population were reported single, over 42% married, 2.6% widowed and 1.3% divorced. This means only nearly as many singles as the number of those aged under 20 years and shows early age of first marriage, but the age of first marriage for this province is somewhat higher than in many provinces so far covered as will be seen later.

Like in all other provinces so far covered a larger number of men (57% of all singles or 60.7% of all males compared to 46.6% in the case of females) than females have been reported to be single. This is because women get married at earlier ages than men as can be seen from Table 11 which shows civil status by five year age groups.

Conversely, well over half (55%) of all married people were reported to be females despite the fact that in total the province was reported to have more men than women in its surveyed rural areas.

The number of women reported as widowed is also much larger than men, 92.5% of all the widowed being women. But unlike in any of the provinces so far covered the number of reported divorced men is more than divorced women, 52.5% of all reported divorces being men.

The following table, which sets out marital status by five year age groups and by sex, clearly shows that women marry at earlier ages than men.

Table 7

MARITAL STATUS BY AGE GROUP

Age-Group	Single	Married	Widowed	Divorced	Total
<u>M a l e s</u>					
0 - 4	189,950	-	-	-	189,950
5 - 9	200,335	-	-	-	200,335
10 - 14	106,520	-	-	-	106,520
15 - 19	69,690	2,525	-	100	72,315
20 - 24	29,375	19,920	120	1,925	51,340
25 - 29	10,145	50,555	350	2,820	63,870
30 - 34	1,755	60,545	360	2,715	65,375
35 - 39	620	55,410	320	1,270	57,620
40 - 44	150	45,410	210	920	46,690
45 - 49	100	33,785	195	1,035	35,115
50 - 54	150	36,785	560	370	37,865
55 - 59	-	23,260	410	710	24,380
60 & Over	160	50,015	1,465	1,620	53,260
Total	608,950	378,210	3,990	13,485	1,004,635
<u>F e m a l e s</u>					
0 - 4	203,820	-	-	-	203,820
5 - 9	167,940	-	-	-	167,940
10 - 14	65,040	1,540	-	150	66,730
15 - 19	19,020	33,080	390	715	53,205
20 - 24	2,315	78,570	550	400	81,835
25 - 29	370	98,540	835	1,685	101,430
30 - 34	415	82,185	1,955	1,610	85,165
35 - 39	-	55,100	3,155	620	58,875
40 - 44	-	51,035	4,670	1,210	56,915
45 - 49	-	21,360	4,760	990	27,110
50 - 54	-	21,700	8,550	1,510	31,760
55 - 59	-	6,125	4,515	980	11,620
60 & Over	200	13,555	19,515	2,280	35,550
Total	459,120	462,790	48,895	12,150	982,955

The condition of civil status in each of the five surveyed awrajas can be seen from the following table.

Table 8

CIVIL STATUS OF POPULATION BY AWRAJA

Awraja	Single	Married	Widowed	Divorced	Total
<u>M a l e s</u>					
Arero	16,000	9,000	350	300	25,650
Derasa	137,100	101,600	1,000	3,900	243,600
Jemjem	90,000	48,700	600	2,400	141,700
Sidama	203,550	123,750	1,200	4,725	333,225
Wellamo	162,300	95,160	840	2,160	260,460
Total	608,950	378,210	3,990	13,485	1,004,635
<u>F e m a l e s</u>					
Arero	9,900	10,100	1,850	100	21,950
Derasa	112,500	116,600	11,200	3,300	243,600
Jemjem	68,100	66,000	7,300	2,000	143,400
Sidama	142,800	154,650	13,425	1,950	312,825
Wellamo	125,820	115,440	15,120	4,800	261,180
Total	459,120	462,790	48,895	12,150	982,955

LITERACY

In accordance with international practice literacy is here shown only for those people who are 10 years of age and over. Moreover, any person is classified literate only if he (or she) can both read and write in any language or script. However, in the following table, which sets out literacy by sex, those who reported ability to read only are shown separately in order to meet that part of the traditional educational practice in Ethiopia where people learn to read only.

Table 9

LITERACY OF POPULATION IN RURAL AREAS

	M a l e s		F e m a l e s		T o t a l	
	Number	%	Number	%	Number	%
Literate	32,425	5.3	1,990	0.3	34,415	2.8
Read only	4,815	0.8	530	0.1	5,345	0.4
Illiterate	577,110	93.9	608,675	99.6	1,185,785	96.8
Total	614,350	100.0	611,195	100.0	1,225,545	100.0

On the whole, literacy in the surveyed rural areas is low, only 2.8% of the total population aged 10 years and over having been reported literate. A further 0.4% have indicated ability to read only while the remaining 96.8% are illiterate.

Like in all other provinces so far covered there is a big discrepancy between the number of male and female literates, only some 5.8% of the total literate population being females. A similar situation prevails among those who reported ability to read only, 9.9% of them being women.

By sex, among the males aged 10 years and over, only 5.3% are literate, 0.8% are able to read only, leaving a vast majority of almost 94% illiterate. It is much worse among the female population, nearly all 99.6% of the women 10 years of age and over having been reported to be illiterate.

Among the awrajas, literacy varies from as high as 3.5% of its population aged 10 years and over for Derasa to as low as 1% for Arero. In terms of absolute numbers however, Sidama has the largest number of literates (12,075 or 35.2% of all literates in the province). Table 10 below sets out the condition of literacy in each of the surveyed awrajas.

Table 10

LITERACY OF POPULATION BY AWRAJA

	Male		Female		Total	
	Number	%	Number	%	Number	%
<u>ARERO</u>						
Literate	300	1.8	-	-	300	1.0
Read only	-	-	-	-	-	-
Illiterate	16,300	98.2	14,250	100.0	30,550	99.0
Total	16,600	100.0	14,250	100.0	30,850	100.0
<u>DERASA</u>						
Literate	10,400	6.8	300	0.2	10,700	3.5
Read only	2,400	1.6	200	0.1	2,600	0.9
Illiterate	140,200	91.6	154,200	99.7	294,400	95.7
Total	153,000	100.0	154,700	100.0	307,700	100.0
<u>JEMJEM</u>						
Literate	3,000	3.5	400	0.5	3,400	1.9
Read only	300	0.3	-	-	300	0.2
Illiterate	83,400	96.2	88,100	99.5	171,500	97.9
Total	86,700	100.0	88,500	100.0	175,200	100.0
<u>SIDAMA</u>						
Literate	11,625	5.7	450	0.2	12,075	3.0
Read only	1,275	0.7	150	0.1	1,425	0.4
Illiterate	189,150	93.6	191,325	99.7	380,475	96.6
Total	202,050	100.0	191,925	100.0	393,975	100.0
<u>WELLAMO</u>						
Literate	7,100	4.6	840	0.5	7,940	2.5
Read only	840	0.5	180	0.1	1,020	0.3
Illiterate	148,060	94.9	160,800	99.4	308,860	97.2
Total	156,000	100.0	161,820	100.0	317,820	100.0

ECONOMIC CHARACTERISTICS

Economically Active and Non-Active Population

Although it is a common practice to take 15 years as the lower age limit for the economically active population, in developing and agricultural countries like Ethiopia, children whose ages are substantially below 15 years form part of the economically useful labour force. In fact, in this province, a number of children under 10 years of age (a total of 52,300, all of them aged 5-9 years) have been reported as economically active, almost all of them working as unpaid family workers. It, therefore, does not sound unreasonable to take 10 years as the lower age limit for economic activity.

Table 11 below shows the classification of the population 10 years of age and over by sex and broad age groups into active and non-active categories.

Table 11

ECONOMICALLY ACTIVE AND NONACTIVE POPULATION BY AGE GROUP AND SEX							
(10 years of age and over)							
Age Group	Active			Non Active			Total in Age-Group
	Male	Female	Total	Male	Female	Total	
10 - 14	93,750	8,985	102,735	12,770	57,745	70,515	173,250
%	54.1	5.2	59.3	7.4	33.3	40.7	100.0
15 - 24	115,920	3,345	119,265	7,735	131,695	139,430	258,695
%	45.8	1.3	46.1	3.0	50.9	53.9	100.0
25 - 44	231,535	8,835	240,370	2,020	294,550	296,570	536,940
%	43.1	1.6	44.7	0.4	54.9	55.3	100.0
45 & over	143,560	8,825	152,385	7,060	97,215	104,275	256,660
%	55.9	3.4	59.3	2.8	37.9	40.7	100.0
Total	584,765	29,990	614,755	29,585	581,205	610,790	1,225,545
%	47.7	2.4	50.1	2.5	47.4	49.9	100.0

Hardly over half (50.1%) of the total population aged 10 years and over are economically active; and of the economically active population women form only 4.9%. Of the females aged 10 years and over active women also account for about the same fraction (4.9%). Active men, on the other hand, form some 95.2% of the male population 10 years of age and over.

Breaking the economically active population by broad age groups, 16.7% of them fall in the youngest age group of 10-14 years, 19.4% in the age groups of 15-24 years, 39.1% in the age groups of 25-44 years and 24.8% of them are above 44 years of age.

It should be interesting to note that according to the survey the most active part of the population, aged 10 years and over, should be the oldest (aged 45 years and over) and the youngest group (10-14 years). In each case, some 59.3% of the populations in the corresponding broad age groups are active. Some 46% of those aged 15-24 are active and the corresponding percentage for those in the ages of 25-44 is 44.7%.

Status (as Employer, Employee, etc.)

The following table shows the classification of the economically active population by status into either own account worker, Employer, Employee or unpaid family worker.

Table 12
ECONOMICALLY ACTIVE POPULATION BY STATUS AND SEX
(10 years of age and over)

Status	Males		Females		Total	
	Number	%	Number	%	Number	%
Own-account	383,235	65.5	14,190	47.3	397,425	64.6
Employer	420	0.1	-	-	420	0.1
Employee	5,710	0.9	2,060	6.9	7,770	1.3
Unpaid family worker	195,400	33.5	13,740	45.8	209,140	34.0
Total	584,765	100.0	29,990	100.0	614,755	100.0

Typical of the situation in the provinces so far covered, well over half (nearly 65%) of the active population are own account workers. Unpaid family workers come second in number accounting for 34% of the active population. Employers are very few forming only 0.1% of the active population. By sex also, own account workers come first in number and unpaid family workers second among both the male and female populations. But unpaid family workers are very close in number to the own account workers in the case of females while in the case of males unpaid family workers are hardly over half of the own account workers. No female employer has been reported in the surveyed rural areas of the province.

The economically active population is further classified by broad age groups as well as by sex and status in Table 13 below. Almost all (some 99%) of the economically active population in the age group of 10-14 years are unpaid family workers. Conversely, most of the unpaid family workers are young some 91% of them being under 20 years of age.

The number of female unpaid family workers declines sharply after the age of 14 years while in the case of males it falls less sharply with advancing age and starts to decline fast only after the age of 24 years. The relative numbers of own account workers and employers generally grow with advancing age; however no female employers were reported. Employees tend to concentrate in the young adult ages.

Table 13
ECONOMICALLY ACTIVE POPULATION BY STATUS, AGE GROUP AND SEX
(10 years of age and over)

Age-Group	Employer		Own Account Worker		Employee		Unpaid Family Worker	
	Male	Female	Male	Female	Male	Female	Male	Female
10 - 14	60	-	300	-	1,130	560	92,260	8,425
15 - 24	-	-	27,210	410	1,800	300	86,910	2,635
25 - 44	-	-	214,345	6,675	2,010	500	15,180	1,660
45 & over	360	-	141,380	7,105	770	700	1,050	1,020
Total	420	-	383,235	14,190	5,710	2,060	195,400	13,740

Occupation

The economically active population has again been classified by occupation and by sex in Table 14 below.

Table 14
ECONOMICALLY ACTIVE POPULATION BY OCCUPATION AND SEX
(10 years of age and over)

Occupation	Males	Females	Total	
			Number	%
Farmer	2,685	3,350	6,035	1.0
Cultivator	251,490	2,085	253,575	41.3
Share Cropper	135,120	2,320	137,440	22.4
Nomad	4,950	100	5,050	0.8
Agricultural Labourer	86,665	1,155	87,820	14.3
Non Agricultural Labourer	7,985	9,315	17,300	2.7
Herder	91,305	10,445	101,750	16.6
Merchant	4,365	1,220	5,585	0.9
Weaver	200	-	200	-
Total	584,765	29,990	614,755	100.0

Like in all other provinces so far covered, agriculture is the main stay of the rural population with over 96% of the economically active population engaged in occupations pertaining to agriculture. These are divided into 41% of the economically active population, cultivators, 22.4% share croppers, nearly 17% herders, over 14% agricultural labourers, some 1% farmers, and 0.8% nomads. The remaining consist of 2.7% non-agricultural labourers, almost 1% merchants and a negligible percentage (200 in number) weavers.

Most of the herders are young people, over 90% of them being under the age of 20 years. The most important occupation group among the males is that of cultivators, accounting for some 43% all active males. Second come the share croppers with 23% of all active males. Among the females herders are the most numerous followed by non-agricultural labourers accounting for 35.4% and some 29.6% of all active females respectively.

SIZE AND COMPOSITION OF HOUSEHOLD

The total number of reported households in the surveyed rural areas of the province was 414,105. The following table shows the classification of the rural population by relationship and by sex while Table 16 sets out the average size of household by awraja.

Table 15

COMPOSITION OF HOUSEHOLDS BY RELATIONSHIP TO HEAD

	Male	Female	Total
Head of Household	387,940	26,165	414,105
Husband	505	-	505
Wife	-	440,235	440,235
Son	547,655	-	547,655
Daughter	-	423,145	423,145
Step children	3,855	4,585	8,440
Other Relatives	57,660	84,435	142,095
Visitor	200	100	300
Servant	5,800	3,590	9,390
Others	1,020	700	1,720
Total	1,004,635	982,955	1,987,590

Comparison of the above table with Table 6 (civil status by sex) reveals that the number of male heads of households is more than the number of married males. This number of male heads of households is only a little less than the total number of married, widowed and divorced males together and certainly means that not all ever married men are heads of households. In fact not all husbands (505) have been reported to be heads of households.

Also the fact that the reported number of female heads of households is less than the number of widowed and divorced females taken together (in fact less than widowed females alone) clearly shows that not all widowed and divorced women are heads of households. Further details about the composition of household in the surveyed rural areas are entered in the above table.

As regards size of household, the average for the province is some 4.80 persons (or individuals) to a household and variations between the awrajas range from as low as 4.39 for Derasa to as high as 5.56 for Jemjem. Further details are shown in the following table.

Table 16

NUMBER AND AVERAGE SIZE OF HOUSEHOLDS BY AWRAJA			
Awraja	Number of Household	Population	Average Size of Household
Arero	9,000	47,600	5.22
Wellamo	112,180	521,640	4.65
Derasa	110,900	487,200	4.39
Jemjem	51,300	285,100	5.56
Sidama	130,725	646,050	4.94
Total	414,105	1,987,590	4.80

AVERAGE AGE AT FIRST MARRIAGE

Information regarding age at first marriage was sought from all ever married women in the rural areas. Out of a total of 523,835 ever married women, 25,725 (some 5%) were not able to state their ages at first marriage and 890 (or 0.2%) were reported to have first married at ages of under 10 years. Further details are given in the following table.

Table 17

EVER MARRIED WOMEN BY AGE AT FIRST MARRIAGE						
Age	Under 10 Years old	10-19	20-29	30 & Over	Not Stated	Total
Number	890	442,770	53,700	750	25,725	523,835
%	0.2	84.5	10.2	0.2	4.9	100.0

The ages of first marriage for women seem to be somewhat higher than in many of the provinces so far covered, except Gemu Gofa and Wellega which have slightly higher ages of first marriage of women even than in this province (Sidamo). First marriages at early ages have been reported, but big numbers of marriages do not start before the ages of 13 to 15 years. There is no one single age where the number of first marriages for women is concentrated. Instead most first marriages are spread, roughly evenly, over the ages of 15-20 years with almost 86% of all ever married women being reported to have been first married at the ages of 14-20 years. The calculated average age of first marriage for those ever married women who gave ages of their first marriages is about 16 years (or 16 years and some 5 months).

The number of first marriages falls sharply after the age of 20 years and generally continues to fall, with some ups and downs in between until the age of 34 years after which no first marriage was reported.

NUMBER OF TIMES MARRIED FOR EVER MARRIED WOMEN

In the following table the ever married women have been classified according to the number of times they have been married.

Table 18

NUMBER OF TIMES MARRIED FOR EVER MARRIED WOMEN

	Number of times married					Total
	1	2	3	4 & Over	Not Stated	
Number of women	368,165	125,825	21,805	7,840	200	523,835
%	70.0	24.2	4.2	1.6	-	100.0

Well over two-thirds (70%) of the ever married women have reportedly been married only once and over 24% of them twice. Those who have been married three times account for over 4% of ever married women and some 1.6% have had four or more marriages. A negligible per centage (200 women) have not indicated how many times they have been married.

VITAL RATES

To determine vital rates, the numbers of births and deaths (by age at death) that occurred during the twelve months preceding the date of the survey were sought. Variations of calculated vital rates between the awrajas were considerable, but only the overall figures for the province are shown in the following table.

Table 19

VITAL RATES

	Number Per 1000 persons
Births	39.8
Deaths	16.8
Natural Increase	23.0
Infant Mortality	45.4

The crude birth rate of nearly 40 per 1000 persons is probably not far from the average crude birth rates of the provinces so far covered. But the death rate of 16.8 per 1000 persons is the lowest among the provinces so far covered and because of this the rate of natural increase (23 per 1000 persons) is one of the highest. The infant mortality rate of 45.4 per 1000 is the lowest so far.

The recording of vital events from memory spreading back over a long period (12 months) is a difficult problem and generally, under-reporting of such events should be suspected. Apart from sampling errors, these estimates may suffer because of the difficulty of obtaining a record for an exact twelve months period so that, for example, some women may tell of births during the previous thirteen months and others during the previous eleven or ten months only, with no assurance that the average period reported is exactly twelve months. Some mothers may also be reluctant to tell strangers about infant (and possibly others) deaths, especially when the child dies within a short period after birth. It is almost certain that infant mortality has been under-reported.

FERTILITY

The numbers of females and of ever married women aged 10 years and over by five year age groups and by total live births and total number of children alive at the time of the survey is set out in the following table.

Table 20

FEMALE POPULATION 10 YEARS OF AGE AND OVER BY AGE GROUP
NUMBER OF CHILDREN BORN AND NOW ALIVE

Age-Group of women	Females in age-group	Ever Married women	Children born	Children now alive
10 - 14	66,730	1,690	450	450
15 - 19	53,205	34,185	23,080	19,460
20 - 24	81,835	79,520	123,250	100,270
25 - 29	101,430	101,060	286,570	225,900
30 - 34	86,165	85,750	321,580	249,880
35 - 39	58,875	58,875	259,555	193,115
40 - 44	56,915	56,915	267,275	191,625
45 - 49	27,110	27,110	131,590	94,000
50 - 54	31,760	31,760	147,325	98,625
55 - 59	11,620	11,620	50,075	34,110
60 & Over	35,550	35,350	150,910	93,825
Total	611,195	523,835	1,761,660	1,301,260

The total number of children born alive to a total of 523,835 ever married women in the surveyed rural areas is 1,761,660 and this gives an average of some 3.4 live births per ever married woman. Of these children 1,301,260 (i.e. 73.9%) were reported to be alive at the time of the survey.

The age group with the highest number of live births per ever married woman is the 45-49 years with 4.9 live births per woman. The average number of live births per ever married woman in every one of the age groups of 35 years and over is above 4. The average for all ever married women aged 35 years and above is some 4.5 live births per woman and only some 30% of the children born to these women have died.

The following table gives the numbers of children born alive during the 12 months preceding the survey date and those of these reported alive at the time of the investigation by age of ever married women.

Table 21

BIRTHS IN LAST 12 MONTHS

Age Group of Mothers	Ever Married Women	Children born In last 12 months	Children now alive of those born in last 12 months
10 - 14	1,690	210	210
15 - 19	33,185	7,220	6,940
20 - 24	79,520	16,300	15,790
25 - 29	101,060	24,130	23,095
30 - 34	85,750	14,295	13,935
35 - 39	58,875	9,040	8,865
40 - 44	56,915	4,955	4,835
45 - 49	27,110	1,670	1,520
50 - 54	31,760	195	195
55 - 59	11,620	160	160
60 & Over	35,350	60	-
Total	523,835	78,235	75,545

The reported number of children born alive to the 523,835 ever married women in the 12 months preceding the date of the survey is 78,235 and some 96.6% of these infants were reported alive at the time of the survey. This gives an average of 1 live birth, during the 12 months, to every 6.7 ever married women. It is equivalent to saying that on the average every ever married women gives birth to one child in every 6.7 (or roughly 7) years. Considering only those ever married women in the ages of 20-39 years, the average rate of birth during these 12 months is 1 live birth to every 5.1 women. The age group with the highest reported births in the 12 months is the 25-29 years, with 1 live birth to every 4.2 ever married women. It is seconded by the 20-24 years age group with 1 live birth to every 4.9 ever married women.

MAIN RESULTS ON AGRICULTURE, LIVESTOCK AND RURAL CREDIT

1. General: In this section the analysis on some important characteristics on agriculture, livestock loans, credit land ownership and tenancy systems and agricultural storage systems is presented for the province of Sidamo. The reader is referred to Appendix I for the sample design used, Appendix II and III for the estimation of sampling errors for selected characteristics and Appendix IV for the definition of terms adopted for the survey.

2. Coverage and Time Reference: The survey covered five out of six sub-provinces (awrajas). The awraja of Borena was left out of the survey at the time due mainly to transport problems. But it is hoped that it will be possible to work in that awraja as soon as possible on the account of the fact that it is an important cattle raising region. Basic information on population and livestock numbers for the three nomadic weredas (districts) of Yabello, Arero and Teltale of Arero awraja were included in this report. For the awrajas covered all rural areas and household had equal probabilities of being in the sample. However all municipal towns were excluded from the sample frame, but all were covered separately by what is known as the urban surveys.

The survey was done in the months of May and June 1966 for the other awrajas except Wollamo where, it was done a little earlier, April 1966 at the request of the International Bank for Reconstruction and Development. The reference period for most of the agricultural questions was the last completed agricultural year.

3. The sample: Appendix I shows the probability sample of all households. The sampling fraction used was 1/60 for the awraja of Wollamo, and 1/100 for the rest of the awrajas covered. In Wollamo awraja there were 1869 households in the sample, and 3418 households in the rest of the awrajas surveyed making a total of 5287 households for the five awrajas. At the time of the survey all mikitil Weredas (sub districts) were removed, and the wereda (districts) administration was underway. In this province the sampling unit used as a subdivision was the "korro" area.

4. Units of Land Measurement: The units of land measurement reported in Sidamo province were the "Timad", "boy", "ken", "digging", "tinto" and "mintaro". The variation in some of the units was so great that one would suspect its reliability. The Tinto for example varied from 461 sq. meters in Derassa Awraja to 8189 sq. meters in Sidama Awraja.

* For nomadic areas was 1/50.

Actually a tinto is nothing more than a holding and as such is not really a unit of land measure. What is more in this province the number of fields whose units were not recorded were so large that a different way of determining total cultivated area and area under crops was to be used.

This was done by getting the average size of a field from the measured fields and multiplying by the total numbers of fields both measured and unmeasured.

5. Pattern of Cultivation: The sum total of the area of fields under different crops gave an estimate of total area devoted to each crop in each of the awrajas. According to this finding maize was the single most important crop area wise occupying 18% of total area under crops. The combination of coffee and enset in the same field was 15% of total area under crops and it was particularly significant in the awrajas of Sidama and Derassa being 23% and 32% respectively. Enset as a pure stand crop, occupied 13% of area under crops while coffee by itself made another 8 percent. Twenty percent of the area under crops was lumped together and the "other" category. This figure is high because of the many combination of crops prevalent in this province. None of these were important enough areawise, but due to their number they added up to 20% of total area. For the five awrajas 194,625 hectares of land were estimated to have been under crops the last agricultural year. (Table A1)

As shown in Table A2 teff is not the important crop in Sidamo province. Maize is the most important crop as was true for Wollega and Gemu Goffa provinces. This table also shows that barely is also important in Sidamo province.

6. Total Cultivated Area: Total cultivated area for each Awraja is obtained by adding to the area under crops the sum of the areas under pastures woods and fallow land. A careful analysis showed that in this province as well as in others these figures were greatly under estimated. According to this estimated 28% of the total cultivated area was in Wollamo Awraja and 27% each in Derassa and Sidama Awrajas only 2% is in Arerro Awraja. (Table A3) However the under estimation the order seems to be sound judging from the agricultural practices in each of the awrajas.

Table A3

CULTIVATED AREA

- in hectares

Awraja	Cultivated area		Total	%	Cultivated area outside as % of the total cultivated area
	Inside the sub-divisions	Outside the sub-divisions			
Arerro	3,258	224	3,482	2	6
Derassa	45,963	6,413	52,376	27	12
Jemjem	26,202	4,652	30,854	16	15
Sidama	50,382	3,900	54,283	27	7
Wallamo	54,281	1,207	55,488	28	2
Total	180,086	16,396	196,483	100	8

In Jemjem Awraja 15% of the total cultivated area was outside the sub-divisions. This figure was 12% and 2% respectively for Derassa and Arerro Awrajas. On the average 8% of the total cultivated area was outside the sub-divisions.

7. Average Size of Fields: In the five Awrajas there were an estimated 804,550 distinct fields 51% of which were in the awraja of Wollamo, 21% in Derassa, 18% in Sidama, 9% in Jemjem and only 1% in Arerro.

The highest average cultivated area per field was from the awraja of Jemjem (0.44 hectares) and the lowest average was from Wollamo with 0.14 hectares. The overall figure for the average cultivated area per field came out to be 0.24 hectares.

Table A4

AVERAGE SIZE OF FIELD

Awraja	Fields		Cultivated area		Average Cultivated area per field (hectars)
	Number	%	Hectars	%	
Arerro	10,900	1	3,482	2	0.32
Derassa	165,800	21	52,376	27	0.32
Jemjem	70,300	9	30,854	16	0.44
Sidama	149,250	18	54,283	27	0.36
Wallamo	408,300	51	55,488	28	0.14
Total	804,550	100	196,483	100	0.24

Table A1

AREA UNDER CROPS

A w r a j a C r o p	Arrero		Derassa		Jemjea		Sidamo		Wollamo		Total	
	Hect.	%	Hect.	%	Hect.	%	Hect.	%	Hect.	%	Hect.	%
Coffee and Enset	-	-	16,806	32	176	1	12,248	23	-	-	29,230	15
Maize	894	25	8,561	16	7,374	24	4,910	9	12,867	24	34,606	18
Barley	767	22	3,443	7	8,295	27	7,802	14	1,655	3	21,962	11
Enset	96	3	3,980	8	1,887	6	11,348	21	8,056	15	25,367	13
Teff	830	24	2,464	5	6,145	20	1,200	2	3,531	6	14,170	7
Coffee	96	3	2,843	5	263	1	3,083	6	8,529	16	14,814	8
Mashilla (white sorghum)	-	3	253	-	44	-	27	-	6,075	11	6,399	3
Potatoes	-	-	32	-	44	-	573	1	5,504	10	6,153	3
Haricot beans	-	-	32	-	-	-	55	-	2,560	5	2,647	2
Other	798	23	13,898	27	6,452	21	12,628	24	5,501	10	39,277	20
Total	3,481	100	52,312	100	30,680	100	53,874	100	54,278	100	194,625	100

Table A2

AREA UNDER SELECTED CROPS (HECTARES)

C r o p	P r o v i n c e																	
	Wollo		Arussi		Gojam		Shoa		Tigre		Wollega		Gemu Goffa		Begmedir		Sidamo	
	Hect.	%	Hect.	%	Hect.	%	Hect.	%	Hect.	%	Hect.	%	Hect.	%	Hect.	%	Hect.	%
Teff	103,036	27	13,470	6	109,983	39	258,607	23	68,496	24	61,884	28	6,895	12	82,573	33	14,170	7
Barley	65,672	17	98,784	44	59,222	21	224,876	20	46,035	16	12,008	6	9,299	16	30,115	12	21,962	11
Maize	-	-	13,470	6	8,460	3	123,682	11	8,712	3	62,910	29	17,226	30	-	-	34,606	18
Sorghum (White+red)	57,301	15	-	-	14,100	5	101,194	9	32,739	12	22,091	10	11,761	20	26,185	10	6,399	3
Field Peas	27,958	8	11,225	5	11,280	4	44,975	4	-	-	5,432	2	-	-	9,061	4	-	-

8. Cultivated Area Per Holding and Per Household: There were an estimated 414,065 households and 375,945 holdings. (See Appendix IV for a definition of a holding). Thirty two percent of the households and 33% of the holding were from Sidama Awraja, twenty seven percent each of the households were in Wollamo and Derassa Awrajas and the distribution of the holdings followed the same pattern as that of the households.

The average cultivated area per household came to 0.47 hectares with a variation 0.39 hectares in Arero Awraja up to 0.60 hectares each in Jemjem Awraja. The average per holding was naturally a little higher with 0.52 hectares and a variation of 0.43 in Sidama Awraja to 0.76 hectares in Arero and Jemjem Awrajas. The big jump in area per household and per holding in Arero awraja could be explained by the addition of nomadic households of the three weredas who do not have any holding as such.

Table A5

AVERAGE CULTIVATED AREA PER HOLDING AND PER HOUSEHOLD

	Households		Holdings		% of households reporting land	Cultivated area (in hect.)	
	Number	%	Number	%		per household	per holding
Arerro	9,000	2	4,600	1	51	0.39	0.76
Derassa	110,900	27	99,800	27	90	0.47	0.52
Jemjem	51,300	12	40,800	11	80	0.60	0.76
Sidama	130,725	32	125,625	33	96	0.42	0.43
Wallamo	112,140	27	105,120	28	94	0.49	0.53
Total	414,065	100	375,945	100	92	0.47	0.52

Table A6

COMPARISON OF SOME CHARACTERISTICS BY PROVINCE

Province	Average Size of field (hectares)	Average Cultivated per household	Area (in hectares) per holding
Wollo	0.30	0.84	0.97
Arussi	0.54	1.64	1.94
Gojam	0.30	0.93	1.15
Shoa	0.48	1.58	1.67
Tigre	0.33	1.02	1.27
Wollega	0.29	1.02	1.27
Gemu Goffa	0.18	0.45	0.54
Begemdir	0.41	1.00	1.40
Sidamo	0.24	0.47	0.52

In Table A6 a comparison of the average size of fields, average cultivated area per household and per holding for nine provinces showed that Arussi province had the highest average size of field of 0.54 hectares. Sidamo, with 0.24 hectares was the second lowest so far. The average cultivated area per holding came out to be the least in Sidamo province with 0.52 of a hectare, whereas the average cultivated area per household was the least in Gemu Goffa with 0.45 hectares.

9. Size and Distribution of Holdings: The percentage distribution of holdings according to size is given in size groups. This takes into account all the operation of a holding irrespective of the type of landownership or tenancy of land present.

It is very important to note that these figures are based only on measured fields of the one-third of the households in the sample selected for land measurements. Another aspect to the same problem is that in many cases not all fields of the selected households were measured mainly due to in accessibility. This will indicate that the average size of a holding was underestimated. However according to Table A7, 73% of the holdings were half or less than half of a hectare and only 2% were two or over two hectares.

Table A7
PERCENTAGE DISTRIBUTION OF HOLDINGS BY SIZE
-Total holdings = 100%

Awraja	Size group in 000 sq. meters							
	0-5	5-10	10-15	15-20	20-30	30-40	40-50	50+
Arrero	64	22	-	7	7	-	-	-
Derassa	62	17	7	4	2	1	-	7
Jemjem	47	37	10	4	1	1	1	-
Sidama	63	24	7	3	2	-	-	1
Wallamo	82	15	2	1	-	-	-	-
Total	73	18	5	2	1	-	-	1

Table A8

PERCENTAGE DISTRIBUTION OF HOLDINGS BY SIZE AND PROVINCES

-Total holdings = 100%

Province	Size group in 000 sq. metres					
	0-5	5-10	10-15	15-20	20-30	30+
Arussi	8	23	15	14	20	20
Gojam	27	27	18	12	10	6
Shoa	23	22	16	11	13	15
Tigre	45	23	16	5	6	5
Wollo	55	25	11	3	4	2
Wollega	29	36	14	10	7	4
Gemu Goffa	73	19	4	2	2	-
Begemdir	40	30	13	9	5	3
Sidamo	73	18	5	2	1	1

Table A8 sets out the percentage distribution of holdings by size for the nine provinces. As mentioned in the preceding section the figures for all the provinces were based on measured fields only.

10. Fragmentation of Holdings: The fragmentation of holdings was calculated from the number of district parcels. (See Appendix IV for a definition of a parcel).

According to this finding 65% of the holdings had only one parcel of land, 23% two parcels and 1% had five parcels.

Table A9

PERCENTAGE DISTRIBUTION OF HOLDINGS BY NUMBER OF PARCELS

-Total holdings = 100%

Awraja	Number of parcels						
	1	2	3	4	5	6	7+
Arrero	44	26	28	2	-	-	-
Derassa	54	31	9	3	1	1	1
Jemjem	77	18	5	-	-	-	-
Sidama	51	30	13	4	1	1	1
Wollamo	89	8	2	1	-	-	-
Total	65	23	8	3	1	-	-

Table A10

DISTRIBUTION OF HOLDINGS BY NUMBER OF PARCELS AND PROVINCES

-Total holdings = 100%

Province	Number of Parcels					
	1	2	3	4	5	6+
Wollo	19	24	23	14	9	11
Arussi	26	20	23	15	8	8
Gojam	26	27	24	12	6	5
Shoa	32	23	17	12	6	10
Tigre	16	25	20	16	7	16
Wollega	26	21	20	13	10	10
Gemu Goffa	47	32	14	5	2	-
Begemdir	19	25	27	16	8	5
Sidamo	65	23	8	3	1	-

These seem to be less fragmentation of holdings in Sidamo and Gemu Goffa provinces than in any of the other seven provinces. This may perhaps be attributed to the enset culture of the majority of the provinces.

11. Summary on Holdings: In the areas of Sidamo covered by the survey there were 414,065 households, 375,945 holdings comprising of 804,550 distinct fields. On the average 92% of the households operated some land. The average size of a field was 0.24 hectares and average holding had the size of 0.52 hectares.

12. Land Tenure: Out of the totality of holdings estimated 61% were entirely owned 37% entirely rented and 2% partly owned and partly rented from others, within the individual awrajas individual ownership of all land belonging to a holding is least in the awraja of Jemjem followed by Arerro. The highest rate of pure tenancy (80%) was correspondingly from Jemjem (Table A 11).

A tabulation of the households by type of tenure and number of parcels operated (Table A12) showed that 54% owned land while 36% rented and 2% partly owned and partly rented. Eight percent of the households were engaged in no farming. Apparently relatively fewer non-farming households had livestock compared to the farming households. Most of the non-farming households would be from the small urban centres which were in the sample frame and had the chance of being in the sample.

13. Mode of Payment of Rent: The mode of paying rent reported (Table A13) was in kind, cash or a combination of these. However, more rented holdings reported payment in cash than in kind. No payment in services to speak of was reported. In the great majority of the cases the tenant households were not provided with oxen by the landlord.

Table A 11

PERCENTAGE OF HOLDINGS BY TENURE

Awraja	Owned	Rented	Partly owned Partly rented	Total	Number of holdings reporting
Arerero	28	61	11	100	46
Derassa	38	60	2	100	998
Jemjem	20	80	-	100	408
Sidama	81	17	2	100	1,256
Wallamo	68	29	3	100	1,752
Total	61	37	2	100	4,460

Table A12

HOUSEHOLDS BY LAND TENURE AND NUMBER OF PARCELS

Tenure Group	% of households	Percent of Households with Number of parcels										% of households owning Livestock	
		0	1	2	3	4	5	6	7	8	9+		Total
Own land	54	-	64	22	10	3	1	-	-	-	-	100	82
Rent land	36	-	69	20	8	2	1	-	-	-	-	100	74
Partly own & partly rent	2	-	11	56	20	5	6	2	-	-	-	100	77
No land	8	100	-	-	-	-	-	-	-	-	-	100	48
Total	100	8	59	21	9	2	1	-	-	-	-	100	76

Table A13

RENTED HOLDINGS BY MODE OF PAYMENT OF RENT

Awraja	Supplied With	Mode of Payment of Rent			
		Crop	Cash	Crop & cash	Total
Arerero	Oxen	-	300	-	300
	No oxen	200	2,400	100	2,700
Derassa	Oxen	-	400	100	500
	No oxen	1,100	43,700	2,500	47,300
Jemjem	Oxen	100	-	-	100
	No oxen	200	26,600	-	26,800
Sidama	Oxen	150	75	-	225
	No oxen	825	10,050	600	11,475
Wallamo	Oxen	5,280	2,280	-	7,560
	No oxen	7,140	17,640	420	25,200
Total	Oxen	5,530	3,055	100	8,685
	No oxen	9,465	100,390	3,620	113,475

14. Loans: The major source of loans is from individuals who were money lenders at high interest rates or for friends where interest charges do not occur. As indicated in table A14 some 44% of the loans were for the purchase of food, while 14% and 13% respectively were for the payment of taxes and the purchase of clothes. Loans for ceremonies amounted to 7% of the total loans.

In spite of the fact that loans for trading purposes was found only to be 7 percent, the average size of a loan for this category was the highest with 138 dollars. The average size of the loan for all types of loans came out to be \$42.00.

The distribution of loans according to size (Table A15) showed that 11% of the indebted households had loans between one and five dollars; 20% between six and ten; 15% between eleven and fifteen and 19% over fifty-one dollars.

In table A16 the number & distribution of loans for all indebted households is given. It showed that 95% of these households had only one loan at the time. Five percent had two loans and none reported as having three loans.

The mode of repayment of rent (Table A17) indicated that 93% of the loans were in cash and paid back in cash and only 1% was in crop and paid back in cash, and 2% was in crop and paid back in crop.

Table A14
PURPOSE AND AVERAGE AMOUNT OF LOAN

Purpose of Loan	Loans		Average amount of loan (Eth.\$)
	Number	%	
Purchase of food	459	44	27.68
Payment of taxes	148	14	32.27
Purchase of clothes	140	13	35.31
For ceremonies	75	7	36.44
For trading	77	7	137.97
Others*	161	15	54.27
Total	1,060	100	42.00

*Others include loans for the purchase of livestock, medicine etc.

Table A15

PERCENTAGE DISTRIBUTION OF HOUSEHOLD BY AMOUNT OF LOANS

-Total households = 100%

Awraja	Amount of Loans (Eth.\$)										Number of loans in the sample
	1-5	6-10	11-15	16-20	21-25	26-30	31-40	41-50	51+	Total	
Arerero	100	-	-	-	-	-	-	-	-	100	2
Derassa	8	22	15	6	2	7	5	10	25	100	99
Jemjem	7	29	14	16	-	7	4	12	11	100	70
Sidama	12	22	14	6	2	14	6	9	15	100	260
Wollamo	11	18	17	8	5	10	5	7	19	100	697
Total	11	20	15	8	4	10	5	8	19	100	1,128

Table A16

PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY AMOUNT AND NUMBER OF LOANS (ETH.\$)

Number of loans	Amount of loans (Eth.\$)										Number of households in the sample
	1-10	11-20	21-30	31-40	41-50	51-60	61-80	81-100	101+	Total	
One loan	27	23	13	5	8	3	4	5	7	95	930
Two loans	1	1	1	-	-	-	1	-	1	5	57
Three loans	-	-	-	-	-	-	-	-	-	-	6
Total	28	24	14	5	8	3	5	5	8	100	993

Table A17

LOANS BY TYPE AND MODE OF REPAYMENT

Type of loan	Mode of Repayment							
	Cash		Crop		Other		Total	
	Number	%	Number	%	Number	%	Number	%
Cash	982	93	20	2	14	1	1,016	96
Crop	12	1	23	2	-	-	35	3
Other	12	1	-	-	-	-	12	1
Total	1,006	94	43	4	14	1	1,063	-

15. Livestock Numbers: Out of the five provinces surveyed in the Province of Sidama the awraja of Arerero reported the least number of cattle of 70,550 (Table A18). This was just 4% of the total cattle population of the five awrajas. Sidama came out to about 790,650 heads making 43% of the total. Totally there were 1,835,500 head of cattle estimated. The awraja of Jemjem was second in cattle numbers with 491,400 heads.

There were 384,095 sheep (Table 19) estimated for the five provinces 38% of which were in Sidama, 27% in Derassa 20% and 14% respectively in the Awrajas of Jemjem and Wollamo. Again Sidama Awraja came out highest in the number of goats making 35 percent of the total. Arerero came out least only with 6 percent.

There were an estimated 47,385 donkeys, 91,345 horses, and 29,810 mules.

16. Livestock Numbers per Household (Table A22): The average cattle ownership per household varied 1.1 heads in Derassa to 9.6 heads in Jemjem. The average total was 4.4 heads of cattle per household. On the average a household owned 0.9 sheep, 0.7 goats, 0.12 donkeys, 0.2 horses and 0.07 mules.

17. Livestock Distribution (Table A24): The distribution of different kinds of livestock showed that 40% of the households did not own cattle. In Derassa Awraja 75% of the households did not have cattle. On the average 75% did not own sheep and 83% no goats.

Table A18
NUMBER OF CATTLE BY KIND

Awraja	Cow (Lam)	Heifer (Gidder)	Ox (Bere)	Young Bull (woifen)	Calf (Tijja)	T o t a l	
						Number	%
Arerero	32,300	8,700	7,050	5,300	17,200	70,550	4
Derassa	54,500	13,200	14,600	13,800	27,100	123,200	7
Jemjem	236,000	81,200	25,900	52,400	95,900	491,400	27
Sidama	410,850	145,350	21,975	43,950	168,525	790,650	43
Wallamo	136,080	69,000	62,220	37,500	54,900	359,700	19
Total	869,730	317,450	131,745	152,950	363,625	1,835,500	100

Table A19
NUMBER OF SHEEP BY KIND

Awraja	Ewe (Set)	Young Stock (Tebot)	Ram (Mukut)	Lamb (Gelgel)	T o t a l	
					Number	%
Arerero	1,450	300	-	900	2,650	-1
Derassa	59,500	7,300	4,100	33,900	104,800	27
Jemjem	42,000	10,300	3,000	22,100	77,400	20
Sidama	94,050	10,875	3,600	38,400	146,925	38
Wallamo	35,760	5,700	2,160	8,700	52,320	14
Total	232,760	34,475	12,860	104,000	384,095	100

Table A20

NUMBER OF GOATS BY KIND

Awraja	Female (Set)	Young Stock (Tebot)	Buck (Wetete)	Kid (Gilgel)	Total	
					Number	%
Arrero	8,600	1,050	1,550	3,900	15,100	6
Derassa	20,100	2,900	2,300	10,600	35,900	13
Jemjem	42,600	6,200	9,800	16,900	75,500	27
Sidama	54,150	8,925	10,125	25,200	98,400	35
Wollamo	32,460	6,540	5,100	10,140	54,240	19
Total	157,910	25,615	28,875	66,740	279,140	100

Table A21

OTHER LIVESTOCK BY KIND AND PERCENT WORKING

Awraja	Donkey (Ahya)		Horse (Feres)		Mule (Beklo)		Camel (Gemel)		Poultry
	Owned	% Working	Owned	% Working	Owned	% Working	Owned	% Working	
Arrero	2,200	90.9	-	-	600	100.0	-	-	3,500
Derassa	4,900	89.8	12,500	79.2	8,100	98.7	-	-	91,400
Jemjem	22,300	84.8	35,300	73.3	9,500	96.8	-	-	35,800
Sidama	9,825	93.9	37,125	78.9	4,350	93.1	150	100.0	181,950
Wollamo	8,160	89.0	6,420	95.3	7,260	93.4	300	80.0	4,525
Total	47,385	88.3	91,345	77.8	29,810	96.0	450	96.7	317,175

Table A22

NUMBER OF LIVESTOCK PER HOUSEHOLD

		Arrero	Derassa	Jemjem	Sidama	Wollamo	Total
Lam	(Cow)	3.6	0.5	4.6	3.1	1.2	2.1
Gidder	(Heifer)	1.0	0.1	1.6	1.1	0.6	0.8
Bere	(Ox)	0.8	0.1	0.5	0.2	0.6	0.3
Weifen	(Other Males)	0.6	0.1	1.0	0.3	0.3	0.4
Tijja	(Calf)	1.9	0.2	1.9	1.3	0.5	0.9
Total Cattle		7.8	1.1	9.6	6.0	3.2	4.4
Beg	(Sheep)	0.3	0.9	1.5	1.1	0.4	0.9
Feyel	(Goat)	1.7	0.3	1.5	0.8	0.5	0.7
Ahya	(Donkey)	0.5	0.04	0.4	0.07	0.5	0.12
Feres	(Horse)	-	0.1	0.7	0.3	0.1	0.2
Beklo	(Mule)	0.1	0.07	0.2	0.03	0.06	0.07

Table A23

NUMBER OF LIVESTOCK PER HOUSEHOLD BY PROVINCES

Province	Type of Livestock					
	Cattle	Sheep	Goats	Donkeys	Horses	Mules
Arussi	7.3	3.1	1.0	0.5	0.6	0.2
Begemedir	4.3	0.6	1.2	0.4	0.1	0.05
Gemu Goffa	2.3	0.4	0.3	0.1	0.1	0.1
Gojam	3.7	0.8	0.4	0.3	0.2	0.1
Wollo	2.6	1.7	1.3	0.5	0.1	0.1
Wollega	5.2	0.9	0.5	0.2	0.08	0.08
Tigre	3.6	1.2	2.8	0.5	-	0.1
Shoa	5.5	1.6	1.1	0.5	0.3	0.1
Sidamo	4.4	0.9	0.7	0.12	0.2	0.07

Table A24

PERCENTAGE OF HOUSEHOLDS REPORTING DIFFERENT NUMBER OF CATTLE

-Total households = 100%

Awraja	Number of Cattle							
	0	1-2	3-4	5-8	9-12	13-18	19-30	31+
Arrero	12	10	21	18	15	13	-7	4
Derassa	75	11	7	5	1	1	-	-
Jemjem	18	8	11	22	18	11	8	4
Sidama	2	25	28	27	9	5	3	1
Wollamo	21	31	23	19	4	2	-	-
Total	40	14	15	16	8	4	2	1

Table A25

PERCENTAGE OF HOUSEHOLDS REPORTING DIFFERENT NUMBER OF SHEEP

-Total households = 100%

Awraja	Number of Sheep							
	0	1-2	3-4	5-8	9-12	13-18	19-30	31+
Arrero	98	-	-	1	-	1	-	-
Derassa	69	16	10	4	1	-	-	-
Jemjem	71	9	8	7	3	1	1	-
Sidama	69	16	8	4	1	1	1	-
Wollamo	75	20	4	1	-	-	-	-
Total	75	12	7	4	2	-	-	-

Table A26

PERCENTAGE OF HOUSEHOLDS REPORTING DIFFERENT NUMBER OF GOATS

Total households = 100%

Awraja	Number of goats							
	0	1-2	3-4	5-8	9-12	13-18	19-30	30+
Arrero	73	10	7	6	2	2	-	-
Derassa	90	5	4	2	1	-	-	-
Jemjem	66	12	12	7	3	-	-	-
Sidama	78	12	6	3	1	-	-	-
Wollamo	81	12	4	2	1	-	-	-
Total	83	8	5	3	1	-	-	-

18. Storage*: In this province gottera, dibignet, gudguad stacks and other types of storage were used for storing crops. Gottera was fairly commonly used.

The analysis on the seasons for storing different kinds of crops showed that an estimated total of 169,075 holdings stored their crops for a variety of seasons. Among these 24% stored for food (household consumption) 14% for future sale, 3% for seeds and 59% for a combination of these reasons (Table A28). Forty-five percent of the entire holdings had stored some crop for what-ever seasons. This could be a fairly well indicator of the level of subsistence farming.

The major causes of loss of crops in storage (Table A29) were given as insects such as weevils, rat and mice, damp and others. Some holdings indicated losses but did not state causes explicitly.

Out of the total holdings which reported loss of crops (Table A30) 53% and 30% of them respectively reported loss of maize and barley. Of the total holdings which had crop damage 39% had damage of 20% of the crop or over.

Table A27

NUMBER OF HOLDINGS BY TYPE OF STORAGE

Awraja	Type of storage					Other Storage
	Gottera	Dibignet	Gudguad	Stacks	Combination	
Arrero	2,600	1,200	-	-	100	100
Derassa	8,900	2,000	-	19,700	600	29,300
Jemjem	13,200	400	1,300	500	-	13,400
Sidama	20,925	1,725	23,625	8,175	4,725	46,275
Total	45,625	5,325	24,925	28,375	5,425	89,075

*Information on storage was not obtained for the awraja of Wollamo because a slightly different questionnaire was used for that Awraja.

Table A28

NUMBER OF HOLDINGS BY TYPE OF CROP AND REASON FOR STORAGE

Name of Crop	Food	Sale	Seed	Combination
Teff	1,450	200	150	6,125
Wheat	100	-	350	675
Barley	3,350	825	2,750	32,650
White Sorghum	100	-	-	-
Maize	6,125	300	1,350	42,075
Horse beans	-	-	-	250
Peas	-	-	500	450
Coffee	1,775	21,025	650	8,225
Gesho	-	150	-	-
Enset	28,275	300	-	8,900
Total	41,175	22,800	5,750	99,350

Table A29

NUMBER OF HOLDINGS BY TYPE OF CROP AND CAUSES OF LOSS

Name of Crop	Causes of Loss					Not Stated
	Insects	Rats	Damp	Combination	Others	
Teff	100	1,075	-	975	100	-
Wheat	300	150	-	200	-	-
Barley	250	12,350	150	1,850	1,050	2,825
Maize	5,750	7,400	100	16,800	400	2,600
Horse beans	-	150	-	-	-	-
Peas	-	450	-	-	-	300
Coffee	800	2,300	100	400	-	250
Enset	150	150	75	-	3,225	225
Total	7,350	24,025	425	20,025	4,775	6,200

Table A30

NUMBER OF HOLDINGS REPORTING LOSS OF CROPS

Name of Crop	Percent Loss				Holdings which had Loss	
	-5	5-9	10-19	20+	Number	Total loss in %
Teff	1,150	575	275	75	2,075	3
Wheat	-	-	150	300	450	1
Barley	6,100	2,900	4,025	5,350	18,375	30
Maize	950	4,650	13,725	13,550	32,875	53
Horse beans	-	-	150	-	150	-
Peas	150	150	-	450	750	1
Coffee	650	500	300	2,400	3,850	6
Enset	675	75	600	2,325	3,675	6
Total	9,675	8,850	19,225	24,450	62,200	100

19. Credit: In this part is presented information on rural credit types and origins of land ownership and tenancy, labour migration, contractual arrangements for rented lands.

19.1 Land Ownership and operation: The number and percent of households by types of resident showed that 52% of the households were resident owners 36% were pure tenants, 3% part tenants and part owners and 9% were non farming households.

This breakdown is also shown for each of the awrajas.

Table A31
HOUSEHOLDS BY TYPE OF LANDOWNERSHIP

Awraja	Resident owner		Tenant		Part owner & part tenant		Non-Agri-culturalist		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Arrero	1,300	14	2,900	32	400	5	4,400	49	9,000	100
Derassa	37,600	34	59,800	54	2,400	2	11,100	10	110,900	100
Jemjem	8,300	16	32,500	63	-	-	10,500	21	51,300	100
Sidama	101,425	78	21,125	16	3,075	2	5,100	4	130,725	100
Wollamo	67,260	60	31,500	28	6,360	6	7,020	6	112,140	100
Total	215,885	52	147,825	36	12,235	3	38,120	9	414,065	100

On the average there were 39,245 holdings which had some unused land on the their holdings. Fifty-seven percent of these were from Sidamo Awraja and the lowest, 5 percent in Arrero. This made about 10% of the entire holdings in the five Awrajas.

Table A32
NUMBER OF HOLDINGS REPORTING UNUSED LAND BY TYPE OF OPERATOR

Awraja	Resident owner		Tenant		Part owner part tenant		Total	
	Number	%	Number	%	Number	%	Number	%
Arrero	600	2	1,500	13	-	-	2,100	5
Derassa	2,600	10	4,700	41	300	14	7,600	19
Jemjem	1,400	5	2,000	18	-	-	3,400	9
Sidama	18,750	73	3,000	26	675	33	22,425	57
Wallamo	2,460	10	180	2	1,080	53	3,720	10
Total	25,810	100	11,380	100	1,055	100	39,245	100

The analysis on the origin and personal ownership of land showed that 85% of this type of ownership was owned by single individuals, and the balance, 15% was jointly owned. This type of land ownership excludes those lands owned by the government or by the church.

Table A 33

OWNED HOLDINGS BY ORIGIN AND TYPE OF OWNERSHIP						
Origin of ownership	Holdings by type of ownership					
	Single		Communal (joint)		Total	
	Number	%	Number	%	Number	%
Purchase	7,245	93	505	7	7,750	100
Inheritance	152,205	84	29,010	16	181,215	100
Service	1,820	95	100	5	1,920	100
Combination	3,890	100	-	-	3,890	100
Others	2,900	100	-	-	2,900	100
Not stated	1,045	100	-	-	1,045	100
Total	169,105	85	29,615	15	198,720	100

The classification of the above mentioned type of land ownership in each Awraja revealed that 4% of the owned holdings were through direct purchase, 91% through inheritance, 1% through service comparison, 2% through a combination of these sources, and another 2% through other means.

Table A34

NUMBER OF OWNED HOLDINGS BY ORIGIN OF OWNERSHIP OF LAND

Awraja	Purchase		Inheritance		Service Compensation		Combination		Other		Not stated		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Arrero	100	6	1,400	82	200	12	-	-	-	-	-	-	-	1,700 100
Derassa	2,000	5	33,800	86	400	1	2,300	6	300	1	400	1	39,200	100
Jemjem	700	8	6,800	82	300	4	-	-	500	6	-	-	8,300	100
Sidama	1,350	2	98,775	95	900	1	450	-	2,100	2	225	-	103,800	100
Wollamo	3,600	8	40,440	88	120	-	1,140	3	-	-	420	1	45,720	100
Total	7,750	4	181,215	91	1,920	1	3,890	2	2,900	2	1,045	-	198,720	100

19.2. Farm Labour: Some farmers employed some labour (temporary or permanent) on their holdings. In table A 33 the number of holdings by the type of operators and the origin of the hired labour showed that about 8,825 persons were hired from the awraja where the employer was resident. Some 2,800 persons were hired from outside the awrajas of residence. On the average a labour hiring farm operator hired 5.3 persons from within the awraja and those which hired from outside their awraja employed 11.3 persons.

Only 1% of the total holdings (Table 34) reported as having had agricultural advice from other sources.

Table A35

HOLDINGS EMPLOYING LABOUR BY TYPE OF OPERATOR AND ORIGIN OF LABOUR

Type of operator	From within Awraja			From outside Awraja		
	Number of Operators	Number of Employees	Average Number of Employees per operator	Number of operators	Number of Employees	Average Number of Employees per operators
Residen owner	900	4,350	5.0	150	1,800	12
Tenant	575	2,475	4.3	100	1,000	10
Part owner and part tenant	200	2,000	10.0	-	-	-
Total	1,675	8,825	5.3	250	2,800	11.3

Table A36

HOLDINGS SEEKING AGRICULTURAL ADVICE BY TYPE OF OPERATOR

Type of Operator	Agricultural Advice Sought					
	Yes		No		Total	
	Number	%	Number	%	Number	%
Resident owner	1,303	1	201,882	99	203,185	100
Tenant	1,403	1	147,222	99	148,625	100
Part owner and part tenant	353	2	23,782	98	24,135	100
Total	3,059	1	372,886	99	375,945	100

19.3 Contracts and right on land: The type of contract, verbal or written, between tenants and landlords, the presence or absence of a fixed number of years of operation and a classification of the duration of operation of the lands by the tenants is presented in Table A38. It showed that less than one percent of tenants with verbal contracts had a fixed time the majority, 99% of the rented holdings with verbal contracts had no time limit.

There were less number of holdings with written contract than there were with verbal contracts. Again the majority of the written contracts, 96% were not of fixed duration. There were an estimated 12, 690 land renting households which did not say whether their contracts were verbal or written.

Table A37

RENTED HOLDINGS BY DURATION OF OPERATION & TYPE OF CONTRACT

	V E R B A L								
	None	Fixed	%	No fixed	%	Not Stated	%	Total	%
1- 5 Years	3,629	280	1	37,280	99	200	-	37,760	100
6-10 "	2,699	180	1	26,660	98	220	1	27,060	100
11-20 "	4,010	60	-	26,420	99	200	1	26,680	100
Over 20 years	3,444	60	-	28,710	100	60	-	28,830	100
Not stated	849	-	-	2,250	100	-	-	2,250	100
Total	14,635	580	-	121,320	99	680	1	122,580	100

	W R I T T E N								
	None	Fixed	%	No fixed	%	Not Stated	%	Total	%
1- 5 Years	-	100	3	3,670	95	75	2	3,845	100
6-10 "	-	100	11	790	89	-	-	890	100
11-20 "	-	-	-	1,410	100	-	-	1,410	100
Over 20 years	-	-	-	800	100	-	-	800	100
Not stated	-	-	-	-	-	-	-	-	-
Total	-	200	3	6,670	96	75	1	6,945	100

A look into the right of individual land owners showed that on the average 81% of the owned holdings could be bequeathed and 80% could be mortgaged. At the time of the survey only 1% of the land in the holdings were actually mortgaged. This low figure would perhaps show that credit institutions which require property usually land-as a collateral for loans to rural households was lacking.

Table A38

NUMBER OF OWNER HOUSEHOLDS BY TYPE OF RIGHTS TO LAND

Awraja	Right to						Total owned Holdings
	Bequeath		Mortgage		Mortgage at the time		
	Number	%	Number	%	Number	%	
Arrero	1,400	82	1,400	82	-	-	1,700
Derassa	33,500	85	33,000	84	700	2	39,200
Jemjem	5,700	69	5,800	70	-	-	8,300
Sidama	77,775	75	77,325	74	150	-	103,800
Wollamo	42,720	93	42,420	93	420	1	45,720
Total	161,095	81	159,945	80	1,270	1	198,720

The right of individual tenant holdings for the improvements made on the land showed that 13% of the tenants were compensated for improvements they had made. There were some 3,145 tenants who had the right to sublet the land. Fifty-five percent of these were from the Awraja of Sidama.

Table A39

NUMBER OF HOLDINGS BY RIGHTS TO IMPROVEMENT

Awraja	Compansated		Not Compansated		Total Tenant Households		Right to Sublet	
	Number	%	Number	%	Households	%	Number	%
Arrero	-	-	3,200	100	3,200	100	-	-
Derassa	9,000	15	52,000	85	61,000	100	400	13
Jemjem	4,000	12	28,500	88	32,500	100	900	28
Sidama	3,150	13	20,850	87	24,000	100	1,725	55
Wollamo	240	1	23,220	99	23,460	100	120	4
Total	16,390	13	127,770	87	144,160	100	3,145	100

APPENDIX I
Sample Design

There were six awrajas (sub-provinces) in the province of Sidamo. All of these with the exception of Borena awraja were covered by the National Sample Survey.

Since there were no mikitils (sub districts) in Sidamo province, each of the awrajas surveyed was stratified into weredas (districts), and in each wereda an uptodate list of subdivisions (Korro-areas) was compiled. Usually two korro-areas were selected with equal probability in a wereda at the first stage.

All the households in each of the selected subdivisions were listed completely, and a systematic sample of these were taken for detailed investigation in the second stage. In most of the weredas consisting of nomadic population, four rather than two korro-areas were sampled at the first stage, and information on the second stage sample of selected nomadic households were obtained from the nomadic chiefs. The sampling intervals for the selection of households at the second stage were so determined that the overall sampling fraction was 1/60 in the case of Wallamo awraja, 1/50 for the three nomadic weredas, 1/75 for Sidama awraja, and 1/100 for the rest of the awrajas.

Land measurements were carried out in roughly one - third of the households in the sample. The sample list is given below.

Table 1
SAMPLE LIST FOR SIDAMO PROVINCE

Awraja	Number of Weredas or Strata	Number of sample sub-divisions	Number of Households in the sample
Arerro (settled population)	2	4	47
Arerro (nomadic population)	3	10	86
Derassa	5	10	1,109
Jemjem	6	12	514
Sidama	7	14	1,743
Wollamo	7	62	1,869
Total	30	112	5,368

Estimation Procedure: Let n be the number of strata or weredas in an awraja, and let t_{ij} be the sample total for a characteristic y as obtained in the j th sample subdivision in the i th wereda. Then an estimate of the total Y for the characteristic y for the awraja will be given by

$$\hat{Y} = R \sum_{i=1}^n \sum_{j=1}^{m_i} t_{ij}$$

m_i being the number of sample subdivisions selected at the first stage in the i th wereda, and I/R being the overall sampling fraction for the awraja.

An approximate expression for the estimate of the variance of \hat{Y} is given by

$$\hat{V}(\hat{Y}) = R^2 \sum_{i=1}^n \frac{1}{(m_i-1)} \left[m_i \sum_{j=1}^{m_i} t_{ij}^2 - \left(\sum_{j=1}^{m_i} t_{ij} \right)^2 \right]$$

APPENDIX II

Sampling Errors of Important Characteristics

Awraja	HOUSEHOLDS			PERSONS		
	Number	Standard error	Relative standard error %	Number	Standard error	Relative standard error %
Arerro	9,000	1,258	14.0	47,600	4,731	9.9
Derassa	110,900	41,150	37.1	487,200	189,400	38.9
Jemjem	51,300	11,250	21.9	285,100	74,750	26.2
Sidama	130,725	39,548	30.3	646,050	205,875	31.9
Wollamo	112,140	10,123	9.0	521,640	46,270	8.9
Total	414,065	59,055	14.3	1,987,590	293,269	14.8

Awraja	Cultivated Area (Hectares)			P a r c e l s		
	Total	Standard error	Relative standard error %	Number	Standard error	Relative standard error %
Arerro	3,482	1,024	29.4	8,500	2,640	31.1
Derassa	52,376	8,328	15.9	171,800	51,770	30.1
Jemjem	30,854	4,227	13.7	54,800	12,340	22.5
Sidama	54,283	24,156	44.5	227,325	55,365	24.4
Wollamo	55,488	3,440	6.2	124,800	10,560	8.5
Total	196,483	26,146	13.3	587,225	77,601	13.2

Appendix III

DEFINITIONS USED.

HOUSEHOLD. A group of persons (related or not) who usually pass nights under the same roof and ordinarily take food from the same kitchens.

HOLDING. All land used wholly or partly for agricultural production and operated by members of one household.

HOLDER. The person who has the responsibility for the operation of the agricultural holding.

PARCEL. All land entirely surrounded by land of other holdings or by land not forming part of any holding.

AREA OWNED. Land owned by members of a household over which they possess title of ownership plus land operated by the household in an ownerlike way without possessing title of ownership.

CULTIVATED AREA. Land under temporary or permanent crops, under temporary meadows and temporarily fallow.

NATIONAL SURVEY OF ETHIOPIA

FORM 4/5B

1. PROVINCE	2. AWRAJA	3. MIKITIL	4. SUB DIVISION	5. HOUSEHOLD REF.	CODE										
					2	3	4	5	6	7	8	9	10	11	

HOUSEHOLD MEMBERS AND THEIR PERSONAL PARTICULARS															EVER MARRIED WOMEN					
6 ORDER NO.	7 NAME	8 SEX	9 RELATIONSHIP	10 PRESENT	11 AGE		12 MARITAL STATUS	13 LITERACY	14 INDUSTRIAL STATUS	15 OCCUPATION	16 NUMBER TIMES MARRIED	17 AGE AT FIRST MARRIAGE	18 CHILDREN BORN ALIVE		19 LAST 12 MT.					
					17	18							TOTAL	ALIVE NOW		TOTAL	ALIVE			
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
0	1																			
0	2																			
0	3																			
0	4																			
0	5																			
0	6																			
0	7																			
0	8																			
0	9																			
1	0																			
1	1																			
1	2																			

PARTICULARS OF LAND OPERATED						DEATHS IN LAST 12 MONTHS																											
20 NUMBER PARCELS LAND OPERATED	21 LAND TENURE	22 DO YOU OWN LIVESTOCK		23 SELECTED FOR LAND TO BE MEASURED	24 SQUARE METERS IF LAND MEASURED	25 SIZE OF HOUSE HOLD	26 NUMBER DEATHS	27 1st		28 2nd		29 3rd		30 4th		31 5th		32 6th															
		OWN	RENT					YES	NO	YES	NO	SEX	AGE	SEX	AGE	SEX	AGE	SEX	AGE	SEX	AGE	SEX	AGE										
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	62	63	64

SIGNATURES

INVESTIGATOR _____

FIELD SCRUTINEER _____

FIELD SUPERVISOR _____

NATIONAL SURVEY OF ETHIOPIA

FORM 6/5R

CODE	2	3	4	5	6	7	8	9	10	11
------	---	---	---	---	---	---	---	---	----	----

CATTLE	TOTAL OWNED NOW		IN THE PAST 12 MONTHS NUMBER						BORN
	CARD NO.	1 3	PURCHASED	SOLD OR CONSUMED	DIED				
LAM	12	13	14	15	16	17	18	19	
GIDDER	20	21	22	23	24	25	26	27	
BERE	28	29	30	31	32	33	34	35	
WOIFEN	36	37	38	39	40	41	42	43	
TIJJA	44	45	46	47	48	49	50	51	52 53
TOTAL	54	55	56	57	58	59	60	61	62 63 64

BEG.	TOTAL OWNED NOW		IN THE PAST 12 MONTHS NUMBER						BORN
	CARD NO.	1 4	PURCHASED	SOLD OR CONSUMED	DIED				
SET	12	13	14	15	16	17	18	19	
TEBOT	20	21	22	23	24	25	26	27	
MUKUT	28	29	30	31	32	33	34	35	
GILGEL	36	37	38	39	40	41	42	43	44 45
TOTAL	46	47	48	49	50	51	52	53	54 55 56

FEYEL	TOTAL OWNED NOW		IN THE PAST 12 MONTHS NUMBER						BORN
	CARD NO.	1 5	PURCHASED	SOLD OR CONSUMED	DIED				
SET	12	13	14	15	16	17	18	19	
TEBOT	20	21	22	23	24	25	26	27	
WETETE	28	29	30	31	32	33	34	35	
GILGEL	36	37	38	39	40	41	42	43	44 45
TOTAL	46	47	48	49	50	51	52	53	54 55 56

OTHER LIVESTOCK	TOTAL OWNED NOW		WORKING	NOT WORKING		
	CARD NO.	1 6				
AHYA	12	13	14	15	16	17
FERES	18	19	20	21	22	23
BEKLO	24	25	26	27	28	29
GEMEL	30	31	32	33	34	35
TOTAL	36	37	38	39	40	41
DORRO	42	43	44			

NO. OF BEEHIVES

AMOUNT OF HONEY TAKEN LAST YEAR

NO. _____

UNIT _____

