DRAFT REPORT

ON

RURAL HOUSEHOLD EXPENDITURE AND CONSUMPTION SURVEY

(DECEMBER 1966 - JUNE 1968)

IMPERIAL ETHIOPIAN GOVERNMENT

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INTRODUCTION

FOREWORD

1. A series of Rural Household Expenditure and Consumption Sample Surveys was started at the end of December 1966 when a survey of Shoa Province commenced. The survey was carried out on a provincial basis and as scheduled it was continued throughout the middle of 1968 and covered the entire rural area of the whole Empire of Ethiopia with the exception of some remote Awrajas (sub-provinces) and two provinces.

2. The purpose of this series of surveys was to supplement the data collected by the National Sample Survey (NSS) which, although it had a larger sampling fraction, moved too fast to study individual households in depth. In particular the rural household sample survey was designed to collect information on household expenditure patterns and consumption in a quantified form. The latter information included such items as calorie-intake and details of the principal food items. In addition , information on household composition was also collected in order to provide a basis for estimates of consumption per head. It was however not intended to duplicate the work done by the NSS in the field of demography. This report whilst giving in brief information on the demographic aspects of the rural area does not attempt to cover them in detail as the same are covered in the provincial reports of the NSS published by the Central Statistical Office. The information presented in this report, besides offering for the first time a picture of the level of living of the rural population on an almost countrywide basis, will also be useful for supplementing the statistics on national income and capital formation.

COVERAGE

3. The survey covered the entire rural area of the 12 provinces out of the 14 excluding the provinces of Bale and Eritrea and some inaccessible and nomadic areas (details given in Appendix A). As mentioned above the survey was done province by province. The length of time to be spent in each province, and hence the number of households to be covered was proportional to the size of the population.

4. The two factors which had been taken into account in deciding on the sequence were the climate and the need to reduce the road mileage.

SAMPLE SELECTION

5. The basic sampling frame was the data collected by the first round of the National Sample Survey. A total sample of 1567 households (i.e.about 0.2%) was selected, (Details in Appendix A). The method of selection of sample for Shoa was somewhat different and it is briefly discribed below.

(i) For each awraja (sub-province), the first-rank officials (balabats) were chosen at random.

(ii) The second-rank officials (chikashums) under each selected balabat were then listed with the number of households under each; one chicashum was then selected with probability proportional to the number of households.

(iii) The households under each selected chikashum were then listed and 12 were selected at random.

If the number of households under a particular chicashum selected at the second stage were very large an additional stage was inserted to select a locality under the chikashum with probability proportional to the number of households, and then the households were listed within this chosen locality and twelve selected at random.

6. For the remaining ten provinces a multi-stage random sample was selected as follows:

A number of clusters of households were selected by sampling as

1st. Stage unit: mikitl weredas (sub-districts)

2nd. Stage unit : first rank officials (balabats) one for each 1st SU.

3rd. Stage unit: second rank officials (chikashums) one for each 2nd SU.

4th. Stage unit: 12 households were selected at random.

Sampling at each stage was with probability proportional to the number of households in order to give every household an equal chance of selection. Within each selected mikitl one cluster of 12 households was surveyed . The sampling was done by selecting smaller areas until a practical size was reached. Then the households were listed and 12 selected at random (details for each province given in Appendix 1).

COLLECTION OF DATA

7. The method of collecting the data was basically one of 24 hour recall supplemented by 12 months recall for major expenditure items. Thus each household was visited daily

for seven consecutive days and on each visit detailed information was collected with reference to consumption, income and expenditure for the previous day. At some time during the week considerable amount of background information was also recorded concerning the composition and size of household, some details on housing, annual expenditure on major items such as durable goods (household, agricultural etc.), clothing acquired over the previous 12 months as well as data on rent, medical expenses, school fees and taxes. A set of the forms which were used is attached in Appendix F.

ACCURACY OF THE DATA

8. The accuracy of the data collected obviously relies heavily on two factors; the ability to give information correctly and the willingness of the householders to co-operate. In general the willingness to co-operate was high and there were no refusals. However, the necessity to rely on the householder's memory may have introduced some small bias. In the case of the 24 - hour recall this was probably very small if not negligible. After the first or second visit the householders were quite prepared for the questions and their daily lives were in general sufficiently simple that nothing substantial was likely to be omitted. In the case , however, of the annual recall, memory lapse may have been relatively more important. On the whole however, it is not thought to have been serious for the following reasons; usually purchases of major items on which information was collected in this way, were fairly limited and as most, if not all, of the members of the household were usually present during the interviews major items were not likely to be overlooked. There was a likelihood that some items included were in fact acquired more than 12 months ago, but the farmers memories are strongly linked to the annual crop cycle and again no serious error is likely to have occured. In addition these two factors would be compensatory as also would be the possible factors of minimising (for fear of taxes etc.) and exageration (for prestige purposes) neither of which however, were in evidence to any noticeable degree for the items covered in this way.

LIMITATIONS OF THE ESTIMATES:

9. Apart from the ability of the households to supply accurate information, two other important limitations of the estimates presented in the report require mention at this stage. These arise because of the technique of sampling used in the survey.

10. The first limitation arises, as in the case of any survey conducted on a random sampling basis, on account of the size of the sample in the provinces. The accuracy of an estimate based on a sample of a given size depends upon the variability of the material sample. For the same sample size the greater the variability smaller is the precision obtained in the estimates based on the sample. It will be seen from the appendix A that the sample size varied from province to province and on account of this fact the provincewise estimates of the same household characteristics may have different levels of accuracy or sampling errors. Second, even for the same province, for the period surveyed, some items of information will have greater inter-household variability than others. For example, it is generally expected that the household expenditure on an individual item will show greater variability than the total expenditure on the related group of items, and consequently the estimate of expenditure on a group of related items will be more accurate than those of the expenditure on its constituent items. Similarly the estimates of consumption of items of more frequent occurrence will be more accurate than those of items which are relatively rarely consumed. For this reason the report shows the estimates in respect of the major group of items and the details of the estimates are shown in the appendix.

11. The second limitation arises in the case of estimates of consumption and of expenditure on certain items for which the reference period for the collection of data was that of seven consecutive days. The survey in each province was conducted during a period ranging from one to three successive months. The effect of the period during which a province was surveyed and the period of reference to which the data related was twofold. First the inter-household variability in the weekly information is greater than that of the annual averages for the households. As a result, the provincial averages based on the weekly data, whether expressed in the tables on a daily basis or an annual basis, show greater variability than what actually exists among the provinces. Secondly an estimate based on a reference period of a week during the survey period does not provide an unbiased estimate of the corresponding annual total or an average (expressed either as weekly, daily or an annual figure) in view of the seasonality in the characteristics studied. In the rural areas, where agriculture predominates, the crop cycle introduces a discernible seasonal effect in the expenditure and consumption of the rural households and consequently the estimate based on a week's data during the survey period is very unlikely to reflect the average for a year for a province. The twofold effect is that estimates for a province is affected by the seasonal effect and in turn the variation observed among the provinces is exaggerated because it shows the combined

effect of the true variation and the seasonal effect. This aspect is further amplified in the chapter on consumption.

12. In addition to what is stated above, another feature of the survey needs to be stressd. It had been stated earlier that the survey was conducted during a period of nearly one and a half years. As a result, the estimates of the survey for different provinces pertain to two different agricultural years. On this account also the results of certain provinces are not strictly comparable.

13. The estimates presented in this report have therefore to be interpreted in the light of the limitations mentioned above. Nevertheless there is one aspect of the survey which deserves mention. It needs to be appreciated that, despite its limitations, the survey collected data in an objective manner by actual observations of a sample of households which was chosen in a scientific way. The survey on household expenditure and consumption covering the rural areas of almost the entire country was the first such attempt and it has thus made possible for the first time to throw light in an objective manner on the actual consumption levels and the expenditure patterns of the rual population.

14. A note on the presentation of the results: The results of the survey are shown in this report for each province separately under each table. The results at a level below the province are not shown as, either the sample size at the sub-province level is considered too small for providing estimates of the various characteristics or the sample design does not permit such estimation.

15. In the statistical tables given in the report presenting the provincewise estimates the provinces are listed in a certain order which is kept uniform in all the tables. The order followed is: 1. Tigre, 2. Begemder, 3. Gojam, 4. Wollo, 5. Hararge, 6. Arussi, 7. Shoa, 8. Wollega, 9. Illubabor, 10. Kefa, 11. Gemu Goffa and 12. Sidamo. If the map of Ethiopia and the geographical location of the provinces covered in the survey there in are considered, it will be seen that the above order of provinces is obtained by starting from Tigre in the north and proceeding in geographically contiguous manner southwards in a serpentine manner. One of the advantages of this order is that the neighbouring provinces in the table are necessarily neighbouring provinces geographically (though the converse is not true) and further that it gives a general geographical grouping of provinces. In the order specified above, the first four provinces are described as northern provinces,

similarly the next four provinces as central provinces and the remaining four as southern provinces for facility of expression.

16. The geographically contiguous order mentioned above was preferred to any other order-the simplest alternative being alphabetical order-for another reason. It had been mentioned in the paragraph 2 of the Introduction, that the household expenditure and consumption survey was carried out to supplement the data collected in the NSS. The NSS provided information on a very important aspect of the rural economy namely cultivated land. The table in the appendix C, shows two important statistics emerging from the NSS: the average size of cultivated land per household and per person. The size of cultivated land is one of the important determinants of the economic status of a rural household. From the NSS estimates it will be seen that in the order of magnitude of average size of cultivated land per household, the central provinces are the top four provinces, the southern provinces are at the bottom and the northern provinces are in the middle. The average size of cultivated land per household thus appears to follow some sort of a geographical pattern. As the present survey gives for the household sector estimates of important economic variables which are likely to be related with the size of cultivated land, it was considered advantageous to present the results in the manner chosen as it was likely that any similarities or differences in the provincial averages of these economic variables will be more readily and distinctly brought out than if any other arbitrary order of provinces had been followed in the tables. Though, according to the order of average size of cultivated land the northern provinces should have appeared in the middle, the present order is followed for the sake of easy understanding of the relative geographical position of the provinces.

17. A note on the composition of the report: The report on the survey is subdivided into five chapters. The first chapter provides information on the structure of the sample of households selected in the survey. The second cahpter gives the ethnic and religious composition of households. In the third chapter is covered the aspect of housing. The last two chapters, the main chapters of the report, deal in detail with the aspects of household expenditure and consumption. The report is drafted in the form of notes on the statistical tables. The statistical tables are serially numbered within each chapter by using a decimal system of numbering , the number to the left of the decimal showing the chapter number and that to the right showing the serial number of the table within the chapter. (Where necessary further subscripts are added to number the tables) A similar system of numbering the paragraphs is used : the paragraphs of notes on a particuler table are serially numberd, using the number of the relevant table and using one more decimal followed by the serial number of the paragraph within the notes on that table. (For example paragraph 3. 4. 2. is the second paragraph of notes on the fourth table given in the third chapter of the report). This system will facilitate easy reference to the tables and paragraphs of the report.

CHAPTER 1

Structure of the sample of households.

1.0 Introduction.

1.0.1. In this chapter information is provided on the structure of the sample of households selected in the Household Expenditure and Consumption Surveys (HECS) vis-a-vis the population characteristics as estimated from the National Sample Survey (NSS) 1963-67. The first three tables attempt a comparison of the household size and its composition estimated from the HECS with that estimated from the NSS. The estimates of household size and its composition from the HECS have been used later for bringing the estimates of household expenditure and consumption for the various provinces on a comparable basis. The last table gives comparison of the HECS and the NSS estimates in respect of the important characteristic of possession of land which in rural areas is one of the important determinants of the economic status of the households.

1.0.2 It may be however pointed out that the two surveys were taken during two different periods and a comparison of the two estimates is strictly not valid. The tables are provided to serve as broad checks on the sample of households selected in the HECS so that any major deviations in the sample households selected in the HECS in respect of these characteristics from the corresponding population characteristics as estimated from the NSS would be brought to light.

1.1 Notes on table no . 1-1

1.1.1. The table No. 1.1 shows the number of sample households and the estimated average household size for the different provinces in respect of the HECS and the NSS. It also Shows the Percentage distribution of the households according to the household size as obtained from the HECS.

1.1.2. For the reasons mentioned earlier, the estmated household size for the same Province from the two surveys is not strictly comparable. However, as stated earlier, the table would serve as a broad check on the type of sample that was selected in the survey. Since both the estimates of average household

Table No. 1.1: showing the percentage distribution of households according to household size; the average household size and the number of sample households in the Household Expenditure and Consumption Survey and the average household size and sample number of households in the National Sample Survey.

Sr. No.	Province	HOUSEHOLD EXPEDNITURE & CONSUMPTION SURVEY							NATIONAL SAMPLE SURVEY	
		PERCENTAGE OF HOUSEHOLDS WITH HOUSEHOLD SIZE					Average Household Size	No. Of Sample Households	Average Household Size	No. of Sample Households
		1-2	3-4	5-6	7 & Above	All				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Tigre	8.3	39.5	28.9	23.3	100.0	4.99	180	4.53	1,558
2	Begemder	14.8	29.6	28.7	26.9	100.0	5.10	108	4.41	2,385
3	Gojam	10.0	34.2	35.8	20.0	100.0	4.95	120	4.47	3,024
4	Wollo	12.1	38.7	30.4	18.8	100.0	4.69	240	4.39	2,348
5	Hararge	5.3	31.8	32.6	30.3	100.0	5.59	132	5.05	2,950
6	Arussi	3.8	19.0	30.2	47.0	100.0	6.79	53	5.03	1,372
7	Shoa	9.3	36.1	34.3	20.3	100.0	5.07	324	4.97	6,630
8	Wollega	14.8	31.5	31.5	22.2	100.0	4.82	108	5.03	2,035
9	Illubabor	18.7	56.3	18.7	6.3	100.0	3.70	48	4.14	2,427
10	Kefa	20.8	43.8	22.9	12.5	100.0	4.16	96	3.94	3,315
11	Gemu Goffa	15.0	31.7	30.0	23.3	100.0	5.08	160	4.26	1,370
12	Sidamo	9.2	34.6	35.2	20.9	100.0	5.04	108	4.8	5,368

size are obtained by random sampling of households it is to be expected that in about half the number of provinces the HECS estimate would be larger than the NSS and vice-versa. However, it will be noted that of the twelve pairs of estimates in only two cases, the HECS estimate is smaller than the corresponding NSS estimate. The probability of only two or less of the twelve HECS estimates being smaller than the NSS estimate is very small (0.02) which indicates that the present survey (HECS) gave somewhat consistently larger estimates of the average household size in the provinces than the corresponding NSS estimates. This is perhaps attributable to the difference in the way in which information was collected in the two surveys. While in the NSS the household size was recorded on the date of survey, in the HECS it was recorded after continuous visits to the household for a period of seven days. Thus in the latter survey, a more detailed probe was made before household size of the sampled households was arrived at. Also the possibility of a double count in the HECS, when the departing and arriving members were recorded during the survey period of a week, without proper corrective action being taken at the stage of processing, can not be ruled out. The difference in the two sets of estimates has partly arisen due to sampling (error) and partly due to the differences in investigational and processing procedures. The largest relative difference (% expressed as a percentage of the NSS estimate) is observed in the case of Arussi (35%) and the smallest in the case of Shoa province (2.0%). The relative differences was about 5 percent in the case of Kefa and Sidamo and about 10 percent for Tigre, Gojam, Hararge, and Illubabor. It was about 16 percent for Begemder and 19 percent for Gemu Goffa.

1.1.3 Despite the differences in the estimates, the relative magnitudes of the average household size in the provinces from the two series of estimates broadly agree in one respect. If the provinces are ranked in the descending order of average household size on the basis of the two series of estimates each province will get two ranks. The correlation coefficient between the two series of ranks is quite high (0.63). This indicates that generally the provinces which showed larger average household sizes in the NSS also showed larger average household sizes in the HECS. In the central provinces, on average, the households were larger in size. On the other hand in the provinces of Illubabor, Wollo and Kefa, the household size tended to be smaller.

1.1.4. From the distribution of households according to the household size shown in columns (3) to (7) it is seen that the maximum percentage of households is generally found in the groups of '3-4 memberes' or '5-6 members'. The exception

is the province of Arussi where the maximum percentage is in the group of'7 members and above' leading to a larger average household size (6.79).

1.2. Notes on table no 1.2

1.2.1. The table no. 1.2 shows the percentage distribution of household members according to sex and broad age groups i.e. children (below 15 years) and adults. The table shows for each province the distributions based on the HECS and NSS.

1.2.2 Generally the agreement between the estimates based on the present survey and those based on the NSS is reasonably good considering the smallness of the sample size in some of the provinces in the former survey. If absolute difference (without considering its sign) between the two estimates for each age-sex cell in the table is taken and an average of the four is worked out for each province it provides an approximate measure of the discrepancy between the two sets of estimates for the same province,. The average absolute discrepancy is less than 1 percent for the provinces of Gojam, Wollo, Wollega and Sidamo. It is 1 percent for the provinces of Tigre, Arussi, Shoa and Gemu Goffa. It is 1.15 percent for Begemder , 1.20 percent for Kefa, 1.35 percent for Hararge and 2.85 percent for Illubabor for which the size of the sample in the household expenditure and consumption survey was the least (48 households).

1.2.3. Considering the results of the household expenditure and consumption survey, it is seen that the proportion of adults varies between 50 to 55 percent in the provinces. A much larger proportion of adults is estimated in the provinces of Wollo, Illubabor and Kefa for which the average household size was the least. This is to be expected; as ahoushehold has necessarily at least one adult, the proportion of adults in the households of smaller sizes increases. In the same three provinces the proportion of male adults exceeds 30 percent while for all the remaining provinces it is lower than 30 percent.

1.3 Notes on table no.1.3

1.3.1. The table no.1.3 also attempts a comparison between the HECS and the NSS . as regards the compositon of households. It shows the percentage distribution of household members according to their relationship with the head of the household from the two surveys.

1.3.2. It is to be reiterated here that in view of the smallness of the sample

Table no 1.2: Showing the percentage distribution of household members according to sex and broad age classification estimated from the Household Expenditure and Consumption Survey and the National Sample Survey.

Children: Below age of 15 years . Adults : 15 years and above.

Sr. No.	Province	Survey	Adults			Children			Total	Mean absolute difference Between HECS and NSS estimates
			Male	Female	Total	Male	Female	Total		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Tigre	HECS	28.5	25.6	54.1	24.4	21.5	45.9	100.0	1.00
		NSS	26.5	26.8	53.3	24.8	21.9	46.7	100.0	
2	Begemder	HECS	27.9	24.7	52.6	25.8	21.6	47.4	100.0	1.15
		NSS	28.0	26.9	54.9	24.5	20.6	45.1	100.0	
3	Gojam	HECS	27.6	24.9	52.5	24.2	23.3	47.5	100.0	0.70
		NSS	26.8	26.3	53.1	24.1	22.8	46.9	100.0	
4	Wollo	HECS	30.7	28.2	58.9	22.8	18.3	41.1	100.0	0.90
		NSS	30.2	28.9	59.1	21.5	19.4	40.9	100.0	
5	Hararge	HECS	24.3	25.1	49.4	28.2	22.4	50.6	100.0	1.35
		NSS	24.8	25.0	49.8	25.6	24.6	50.2	100.0	
6	Arussi	HECS	28.3	25.8	54.1	23.9	22.0	45.9	100.0	1.00
		NSS	26.3	27.2	53.5	24.2	23.3	47.5	100.0	
7	Shoa	HECS	28.5	27.8	56.3	22.2	21.5	43.7	100.0	1.00
		NSS	27.9	28.4	56.3	23.6	20.1	43.7	100.0	
8	Wollega	HECS	26.9	30.1	57.0	23.4	19.6	43.0	100.0	0.85
		NSS	26.5	28.8	55.3	23.4	21.3	44.7	100.0	
9	Illubabor	HECS	32.7	32.0	64.7	15.1	20.2	35.3	100.0	2.85
		NSS	28.7	32.7	61.4	20.1	18.5	38.6	100.0	
10	Kefa	HECS	30.1	30.8	60.9	22.0	17.1	39.1	100.0	1.20
		NSS	29.6	29.7	59.3	21.2	19.5	40.7	100.0	
11	Gemu Goffa	HECS	27.2	28.2	55.4	23.0	21.6	44.6	100.0	1.00
		NSS	27.2	26.8	54.0	25.0	21.0	46.0	100.0	
12	Sidamo	HECS	24.3	27.0	51.3	26.7	22.0	48.7	100.0	0.85
		NSS	25.6	27.3	52.9	25.0	22.1	47.1	100.0	

Col (10): Shows the average of the absolute difference between the HECS and the NSS estimates for a province shown in cols. (3),(4),(6) and (7).

TABLE NO.1.1.: Showing the percentage distribution of household members according to relationship with the head of the household for the Household Expenditure and Consumption Survey and the National Sample Survey.

Sr. No.	Province	Survey	Head or Household	Wife or Husband	Son	Daughter	Other Relation	Servants	Visitors	Total	Mean absolute difference between the HECS and NSS estimates
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1	Tigre	HECS	20.0	17.0	26.7	21.9	10.9	3.1	0.4	100	1.2
		NSS	21.1	16.7	28.6	22.1	8.8	1.4	0.3	100	
2	Begemder	HECS	19.6	17.2	31.4	22.5	6.7	2.2	0.4	100	1.57
		NSS	22.7	18.6	28.4	20.2	7.6	2.3	0.2	100	
3	Gojam	HECS	20.2	17.3	26.4	18.9	12.8	2.4	2.0	100	2.17
		NSS	22.5	19.5	26.4	22.0	9.4	-	0.2	100	
4	Wollo	HECS	21.3	18.9	23.9	16.5	13.8	3.6	2.0	100	1.2
		NSS	22.8	19.7	24.1	18.2	12.4	2.5	0.3	100	
5	Hararge	HECS	17.9	17.1	27.5	22.9	12.6	1.6	0.4	100	1.46
		NSS	19.8	19.0	26.5	23.5	10.3	0.8	0.1	100	
6	Arussi	HECS	14.7	16.4	29.4	22.2	10.3	5.3	1.7	100	3.17
		NSS	19.9	20.4	25.6	21.5	12.2	-	0.4	100	
7	Shoa	HECS	19.7	18.1	24.9	20.1	13.1	2.6	1.5	100	1.14
		NSS	20.1	20.1	26.3	19.9	13.3	-	0.3	100	
8	Wollega	HECS	20.7	21.9	25.3	18.6	12.5	0.8	0.2	100	1.11
		NSS	19.9	20.2	25.6	21.3	11.1	1.7	0.2	100	
9	Illubabor	HECS	27.0	25.8	16.3	18.5	9.0	0.6	2.8	100	1.86
		NSS	24.1	26.6	20.9	17.5	9.9	0.8	0.2	100	
10	Kefa	HECS	19.7	17.4	24.3	18.4	17.0	1.3	1.9	100	1.37
		NSS	23.5	19.6	26.7	19.8	8.8	1.3	0.3	100	
11	Gemu Goffa	HECS	24.1	23.6	21.0	14.5	11.8	3.0	2.0	100	2.54
		NSS	25.4	24.4	23.1	19.2	7.0	0.8	0.1	100	
12	Sidamo	HECS	20.8	22.2	27.5	21.3	7.6	0.5	0.1	100	0.71
		NSS	19.9	21.3	27.6	20.6	9.2	1.2	0.2	100	

size in the HECS any classification of the household members into more numerous categories will reveal wider differences between the HECS and the NSS estimates. In the present table, the household members are classified in the previous table (no.1.2). As before, to measure the extent of disparity between the two sets of estimates, the average absolute difference is calculated for each province using the two series of estimates and is shown in the column (12) of the table against the provinces. It will be seen that the average disparity between the two series of estimates varies between 0.71 percent for Sidamo to 3.17 percent for Arussi. For the rest of the provinces it is between one and two percent except for Gojam (2.17 percent) and Gemu Goffa (2.54 percent). Generally it appears that the household compostion as revealsed by the HECS is in good agreement with that emerging from the NSS.

1.3.3. If the percentage of 'other than relations' is considered, it will be seen from the table that except for the provinces of Wollega and Sidamo, the percentage for this group as estimated for the HECS is higher than that estimated from the NSS. There appears to be a consistent overinclusion of vistors and servants in the HECS as compared to the NSS. This perhaps partly accounts for the generally larger average household size as estimated from the HECS than that from the NSS. It will also be seen that this group of household members has contributed in a major way to the average discrepancy between the HECS and NSS results measured in column (12) of the table.

1.4: Notes on table no. 1.4

1.4.1. The table no. 1.4 shows the classification of households by ownership or other wise of land. The households are classified into three main categories: Those who own land, those who do not but rent in land for cultivation and those who have no land either owned orrented. The category of landowners is further subdivided into those who rent in additional aland and those who do not. The category of renters is also divided into two classess: those who did not pay rent during the period of twelve months preceding the date of survey and others. In all, therefore, the table shows the households classified in five catagories in columns (2), (3), (5), (6) and (8) of the table with subtotals shown in columns (4) and (7).

1.4.2. The table also shows wherever available the estimates from the National Sample Survey. In respect of the provinces of Gojam, Arussi, and Shoa the NSS reports do

Table No.1.4: Showing percentage distribution of households by ownership of land.

Sr. No.	Province	Survey	LAND OWNERS			RENTERS			No land	Total
			Owned Land Only	Rent Add. Land	Total	Rent Land	Currently renting paid no rent	Total		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.	Tigre	HECS	56.7	33.9	90.6	5.6	0.6	6.1	3.3	100
		NSS	61	15	76			5	19	100
2.	Begemdar	HECS	59.2	20.4	79.6	15.7	2.8	18.5	1.9	100
		NSS	65	5	70			7	2.3	100
3.	Gojam	HECS	50.8	32.5	83.3	10.0	5.0	15.0	1.7	100
		NSS	N.A.	N.A.	N.A.			N.A.	N.A.	N.A.
4.	Wollo	HECS	55.4	26.7	82.1	12.1	0.8	12.9	5.0	100
		NSS	51	20	71			15.	14	100
5.	Hararge	HECS	39.4	9.1	48.5	43.2	6.0	49.2	2.3	100
		NSS	43	4	47			46	7	100
6.	Arussi	HECS	35.8	17.0	52.8	30.2	13.2	43.4	3.8	100
		NSS	N.A.	N.A.	N.A.			N.A.	N.A.	N.A.
7.	Shoa	HECS	23.0	25.0	48.0	47.0	4.0	51.0	1.0	100
		NSS	N.A.	N.A.	N.A.			N.A.	N.A.	N.A.
8.	Wollega	HECS	16.7	14.8	31.5	63.9	2.8	66.7	1.8	100
		NSS	38	4	42			49	9	100
9.	Illubabor	HECS	25.0	10.4	35.4	43.7	14.6	58.3	6.3	100
		NSS	22	2	24			66	10	100
10	Kefa	HECS	37.5	19.8	57.3	35.4	2.1	37.5	6.2	100
		NSS	34	3	37			54	9	100
11	Gemu Goffa	HECS	41.7	26.6	68.3	30.0	-	30.0	1.7	100
		NSS	44	3	47		-	36	17	100
12	Sidamo	HECS	35.2	17.6	52.8	46.3	-	46.3	0.9	100
		NSS	54	2.	56			36	8	100

N.A. - Not Available

not give the estimates of households by ownership of land ; instead the reports show the classification of holdings according to owned or rented or both types and this classification is not comparable with that shown in the table.

1.4.3. Considering first the estimates from the HECS (column 6) it is clearly seen that in the four northern provinces the proportion of households who owned land is considerably higher than that found in other provinces. In the three central provinces of Hararge, Arussi and Shoa about half the households owned land. The proportion of households who owned land is found to be a little higher: between 50 to 70 percent in the three of the southern provinces namely Kefa, Gamu Goffa and Sidamo. Only in the provinces of Wollega and Illubabor, the land-owning households are found to a relatively smaller extent (30 to 35 percent). It will be further seen that generally the higher the percentage of households who owned land, the higher was the percentage of households who rented on additional land (rank correlation coefficent-0.83)

1.4.4. Very few of the households were observed to be landless in the HECS. The highest percentage was recorded in the province of Illubabor (6.3%). Consequently the provinces which recorded higher percentage of land owners recorded the lower percentages of households which did not own land but rented in land.

1.4.5. The comparison of the HECS estimates with the NSS estimates wherever available reveals an interesting poing about the sample selected in the HECS. It should be however stated at the outset that the two sets are not strictly comparable firstly because the two do not refer to the same point of time and secondly the NSS covered the aspect of land tenureship in much more detail than the HECS. Keeping this in view, one would see that as far as the estimates of renters is concerned the HECS and NSS estimates are reasonably close except in the provinces of Kefa and Wollega. The poing of interest is that the HECS showed consistently much smaller proportion of landless households than the NSS. It appears that the HECS sample included those who possessed land to a larger extent.

CHAPTER II

Ethnic and religious composition of households.

2.0.1. This chapter gives information on the two important social characteristics of the households in the different provinces. Two tables are presented, one giving the distribution of households according to the ethnic groups and the other according to the religions.

2.1. Notes on table no 2.1.

2.1.1. The table no 2.1 shows the classification of the heads of the households by ethnic groups.

2.1.2. The Amhara is the most numerous ethnic group in three of the four northern provinces i.e. Begemder , Gojam and Wollo. The Tigre is an ethnic group mostly confined to the province of Tigre where it accounts for most of the sample households. The important ethnic group next to the Amhara is that of the Galla which is observed to be the most predominant group in all the four central provinces as well as two of the southern provinces of Illubabor and Kefa. The most commonly observed ethnic group in the province of Gemu Goffa is that of Gemu and Goffa and that in Sidamo of the Sidama. The ethnic group Wellamo is observed to account for a signifient proportion of sample households in the provinces of Gemu Goffa (26.7%) and Sidamo (32.4 percent).

2.1.3. The table 2.1 thus reveals a considerebly close geograhical distribution of the ethnic groups in the central provinces with the exception of Wollega, in the province of Wollo and in the southern provinces, in addition to the major ethnic group of the province, another ethnic group accounts for a considerable proportion of households. The northern provinces and Wollega stand out apart from the other provinces in as much as a single ethnic group accounts for more than three fourth of the households. On the other hnad in the provinces of Shoa and Sidamo, no sigle group accounts for 50 percent of the households.

2.2. Notes on table no 2.2.

2.2.1. The table on the facing page shows the classification of the heads of the households by religion based on the sample selected in the HECS.

2.2.2 It will be seen that except for the provinces of Hararge and the two southrn provinces of Kefa and Gemu Goffa the most numerous religious group is the Ethiopian orthodox. The moslems predominate greatly in the two provinces of Hararge and Kefa. The pagans were observed only in two wouthern provinces of Gemu Goffa and Sidamo and in the former they formed the single largest group accounting for 58.3 percent of the households.

2.2.3. In the three northern provinces of Tigre, Begemder and Gojam, Ethiopia orthodox christians account for almost all the households. In Wollo,Arussi and Illubabor a conidérable proportion of Moslems is observed. The other christians were observed in no small proportion in the provinces of Shoa and Gemu Goffa.

Table No. 2.1: Showing Percentage distribution of the sample heads of households by ethnic groups.

	Province	Amhara	Tigre	Agaw	Gurage	Galla	Derassa	Sidama	Hararia	Wollamo etc.	Total	No. of sample Households
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Tigre	-	99.4	-	-	0.6	-	-	-	-	100	180
2.	Begemder	96.2	3.8	-	-	-	-	-	-	-	100	108
3.	Gojam	95.0	-	5.0	-	-	-	-	-	-	100	120
4.	Wollo	77.5	0.4	19.2	-	2.9	-	-	-	-	100	240
5.	Harage	11.4	0.8	-	-	65.9	-	-	21.9	-	100	132
6.	Arussi	37.7	-	-	-	54.7	-	1.9	-	5.7	100	53
7.	Shoa	26.4	0.3	-	16.8	39.2	-	16.8	-	0.5	100	324
8.	Wollega	6.5	-	0.9	-	92.6	-	-	-	-	100	108
9.	Illubabor	31.2	-	-	2.1	64.6	-	2.1	-	-	100	48
10.	Kefa	10.4	-	-	1.0	62.5	-	-	-	26.1	100	96
11.	Gemu Goffa	1.7	-	-	-	20.0	-	3.3	-	75.0	100	60
12.	Sidamo	0.9	-	-	-	11.1	20.4	35.2	-	32.4	100	108

Table No. 2.2: Percentage distribution of the sample heads of households by religion.

	Province	Ethiopian Orthodox	Other Chiristians	Moslems	Pagan	Total	No. of sample Households
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Tigre	100.0	-	-	-	100	180
2	Begemeder	96.2	-	3.8	-	100	108
3	Gojam	100.0	-	-	-	100	120
4	Wollo	58.3	-	41.7	-	100	240
5	Hararge	12.1	-	87.9	-	100	132
6	Arussi	71.7	-	28.3	-	100	53
7	Shoa	81.2	14.1	4.7	-	100	324
8	Wollega	91.7	8.3	-	-	100	108
9	Illubabor	62.5	-	37.5	-	100	48
10	Kefa	38.5	-	61.5	-	100	96
11	Gemu Goffa	30.0	11.7	-	58.3	100	60
12	Sidamo	71.3	5.6	3.7	19.4	100	108

CHAPTER III

HOUSING

3.0 Introduction :

3.0.1. In this chapter information on the houses in which the households live in the different provinces is provided in the six tables 3.1 to 3.6 information is supplied in these tables on the shape of the house, the material used for walls and for roof, the average area and the age of the main house, and the average area of the main and all houses per household.

3.0.2. The number of sample houses on which these tables are based varies from 48 in Illubabor to 324 in Shoa. For all provinces except Wollo and Shoa the number is less than 200. For the provinces of Arussi, Illubabor, Kefa and Gemu Goffa the sample number is less than 100 while for provinces of Begemder , Wollega and Sidamo it is only slightly more than 100. Four aspects of the main house-age, shape, type of wall and type of roof-are to be studied. But the extent to which the inter-relationship between these aspects can be studied is limited in view of the smallness of the sample size . For this reason, the analysis of the data on housing has been done separately according to each aspect of housing and only broad conclusions are attempted in respect of their inter-relationships. The summary tables are shown in the body of thereport; the detailed tables showing multiple classification of the houses are shown in the appendix as tables nos. A.1.1 to A.4.12.

3.1 Notes in table no 3.1

3.1.1 The first table no.3.1 gives information on the classification of the main houses by shape.

3.1.2. It will be seen from this table that except for the provinces of Begemder Wollega and Illubabor, in the remaining provinces more than 70 percent of the houses were circular in shape. In Begemder 28.7 percent of the houses were observed to be oval in shape; this was the only shape other than circular or rectangular that was observed in the twelve provinces and that too in Begemder only. A considerable proportion of rectangular houses was observed in all the central provinces, in Tigre of the northern provinces and in Illubabor and Kefa of the southern provinces.

TABLE NO. 3.1: Showing percentage distribution of main houses by shape.

	PROVINCE	CIRCULAR	RECTANGULAR	OTHERS	TOTAL	NO OF SAMPLE HOUSES
	(1)	(2)	(3)	(4)	(5)	(6)
1.	Tigre	73.3	26.7	-	100	180
2.	Begemeder	67.6	3.7	28.7*	100	108
3.	Gojam	94.2	5.8	-	100	120
4.	Wollo	90.4	9.6	-	100	240
5.	Hararge	78.8	21.2	-	100	132
6.	Arussi	69.8	30.2	-	100	53
7.	Shoa	85.5	14.5	-	100	324
8.	Wollega	42.6	57.4	-	100	108
9.	Illubabor	45.8	54.2	-	100	48
10.	Kefa	80.2	19.8	-	100	96
11.	Gamu Goffa	96.6	3.4	-	100	60
12.	Sidamo	99.1	0.9	-	100	108

*Oval in shape

3.2: Notes on table no 3.2.

3.2.1. The table no. 3.2 gives the classification of the main houses by the type of material used for walls. For the sake of compactness , the table shows the main houses classified by four types of materials for walls: wood & mud, stone and any other material. In order that the compactness of the table does not result in loss of useful information on the type of material used for walls in some provinces, the column (8) of the table shows the composition of the 'others' group for each province and the percentage of houses according to that particular type of wallmaterial.

3.2.2. There appears to be a great variety of material of which walls of houses are built in Ethiopia. In the survey as many as ten different materials or combination of materials were observed. These were 1) wood 2) wood & mud 3) stone 4) stone & mud 5) stone & wood 6) wood & thatch 7) wood, stone & mud 8) mud 9) Bamboo and 10) Bamboo & thatch. Of these the most common appeared to be wood plastered with mud which accounted for the majority of houses in all provinces exept Tigre, Gemu Goffa and Sidamo. In Tigre, walls of houses were built of stone in a majority (57.7 percent) of cases and in most of the remaining cases (35.1 percent of all houses) they were built of stone cemented with mud. In the two southern provinces of Gemu Goffa and Sidamo, especially in the former, bamboo was extensively used as material for walls. In Gemu Goffa bamboo walls and bamboo & thatch walls were found in 25.0 % and 13.3 percent of the cases respectively. Walls of wood only accounted for 36.6 percent of houses in this province, the largest percentage of houses with wooden walls in all provinces. In Sidamo wood & thatch was the most common material for walls accounting for 45.4 percent of the houses. Walls of only bamboos or only wood accounted for 25.0 percent each of the houses in that province. Wood and mud, the combination so commonly observed in other provinces (exept Tigre and Gemu Goffa) was observed very rarely (4.6 percent) in this province.

3.2.3. If the ancillary or subsidiary material like mud or thatch is ignored and only the more substantial or main material (like wood, stone, bamboo) is taken into account, it will be seen that in all the provinces except Tigre, Wollo, Gemu Goffa and Sidamo, three fourth or more of the houses were built of walls made of wood. In Tigre in 92.8 percent of the houses stone , was used.

TABLE NO. 3.2: Showing the percentage distribution of main houses by material used for walls.

	PROVINCE	MATERIAL OF WALLS					NO. OF SAMPLE HOUSES	REMARKS ON COMPOSITION OF THE 'OTHERS' GROUP
		WOOD	WOOD & MUD	STONE	OTHERS	TOTAL		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Tigre	-	7.2	57.7	35.1	100.0	180	Stone and mud: 35.1
2.	Begemder	12.0	67.6	8.4	12.0	100.0	108	Stone and wood: 8.3; thatch and wood: 3.7
3.	Gojam	-	98.3	-	1.7	100.0	120	Wood and thatch: 1.7
4.	Wollo	9.5	53.8	13.8	22.9	100.0	240	Stone & mud: 19.6; wood, stone & mud: 3;3
5.	Hararge	4.5	95.5	-	-	100.0	132	-
6	Arussi	18.9	79.2	-	1.9	100.0	53	Mud: 1.9
7.	Shoa	-	85.2	14.8	-	100.0	324	-
8.	Wollega	29.6	68.5	-	1.9	100.0	108	Mud: 1.9
9.	Illubabor	35.4	62.5	-	2.1	100.0	48	Wood and thatch: 2.1
10	Kefa	16.6	80.3	-	3.1	100.0	96	Wood and thatch: 3.1
11	Gemu Goffa	36.6	18.4	-	45.0	100.0	60	Bamboo and thatch: 25.0; Bamboo: 13.3 wood and thatch 6.7
12	Sidamo	25.0	4.6	-	70.4	100.0	108	Wood and thatch : 45.4; Bamboo: 25.0

In Wollo in a third of the houses stone was used while in Gemu Goffa and Sidamo in about two fifth and one fourth respectively bamboo was used for Walls. The combination of stone and wood was found very infrequently (8.3 percent in Begemder and 3.3 percent in Wollo) Similarly walls of only mud were observed very rarely. (Arussi and Wollega).

3.3 Notes on table no 3.3

3.3.1. The table no 3.3 is prepared similar to the table no 3.2 and gives the classification of main houses by the type of material used for roof.

3.3.2. The most common material used for roofs in all provinces was thatch . It accounted for well over 95 percent of the houses in the provinces of Begemder Wollo, Gojam, Shoa and Gemu Goffa. Excepting Tigre and Illubabor in which provinces six out of ten houses had thatched roofs in the remaining five provinces the percentage of houses with thatched roofs was between 75 and 90%. The use of corrugated iron sheets to an appreciable extent (exceeding 10 percent) was observed in two of the central provinces (Hararge and Wollega) and two of the southern provinces (Illubabor and Kefa) . It appears that there is some association between the extent to which rectangular houses were observed and the extent to which material other than than thatch was used for roofs. The rank correlation co-efficient between the two is 0.67 indicating a fair degree of associanship between the two. It suggests roughly that the greater the proportion rectangular houses greater was the proportion of houses with roofs of material other than thatch.

3.3. In the province of Tigre a variety of combination of materials for roofs accounted for a fairly large proportion (39.4 percent) of houses. Wood & earth accounted for w5.5 percent of houses and wood, stone & earth another 12.2 percent. In the southern province of Sidamo and to a small extent in Gemu Goffa, Bamboo was used for roofs (like walls).

3.4 Notes on table no 3.4

3.4.1. An attempt is made in table no 3.4 to give information on the most common type of house observed in the provinces, the type being determined by the consideration of shape, material for roof and material for wall all taken together.

TABLE NO. 3.3: Showing the percentage distribution of main houses by material used for roof.

	PROVINCE	MATERIAL OF ROOF				NO OF	REMARKS ON COMPOSITION OF 'OTHERS' GROUP
		THATCH	CORRUGATED IRON	OTHERS	TOTAL	SAMPLE HOUSES	
(1)		(2)	(3)	(4)	(5)	(6)	(7)
I.	Tigre	60.0	0.6	39.4	100.0	180	Wood and earth :25.5; wood, stone and earth 12.2; wood, stone and sand: 1.7.
2.	Begemder	99.1	0.9	-	100.0	108	-
3.	Gojam	96.7	3.3	-	100.0	120	-
4.	Wollo	98.3	1.7	-	100.0	240	-
5.	Hararge	79.6	11.4	9.0	100.0	132	Wood and sand: 4.5; wood and mud: 4.5
6.	Arussi	88.6	1.9	9.5	100.0	53	-
7.	Shoa	95.7	4.3	-	100.0	324	
8.	Wollega	75.9	24.1	-	100.0	108	
9.	Illababor	60.4	39.6	-	100.0	48	
10.	Kefa	84.3	15.7	-	100.0	96	
11.	Gemu Goffa	95.0	1.7	3.3	100.0	60	Bamboo : 3.3
12.	Sidamo	87.1	0.9	12.0	100.0	108	Bamboo: 12.0

It gives the description of such a type and the percentage of houses it accounted for. Similar information is given for the type observed second in order of importance (i.e. the second most frequent) for example in the province of Begemder the most commonly observed house was circular in shape, had walls of mud and wood and had thatched roof and this type of house accounted for 62 percent of all houses in that province. The second type, next to this one, was oval in shape with walls of wood and with thatched roof and this type accounted for 12 percent of all houses in that province.

3.4.2 It will be seen from the table that except for the provinces of Tigre, Wollega, Illubabor, Gemu Goffa and Sidamo, in the other seven provinces the most common type of house was circular in shape with walls of mud & wood and with thatched roof and such a type of house accounted for a fairly large (about 50 percent or more) percentage of houses in these provinces . In the provinces of Tigre, Gemu Goffa and Sidamo the most commonly observed house was also circular in shape with thatched roof but the walls were made of stone, wood and wood & thatch respectively. In the province of Wollega, the most common house had walls of mud and wood and thatched roof but it is rectangular in shape while that in the province of Illubabor is rectangular in shape with walls of mud & wood but with roofs of corrugated iron sheets. It is however to be noted that in these five provinces, the most commonly observed type of house accounted for far less percentage of all houses than in the other seven provinces and the second most common type accounted for a fairly large proportion in relation to what was accounted for by the first common type. The province of Wollega shows an interesting feature. The most commonly observed type in this province for only 25.4 percent of the houses; the second most common type accounted for 23.1 percent and the third most common 20.4 percent and the fourth most common 17.6 percent (refer tables in appendix). In fact it is difficult to point out in this province a particular type as most common, as the above small differences in percentages may as well have arisen due to sampling (error) only and the houses in that province did not, it appears, conform to a specific type. The following four types are observed to be equally numerous in that province.

1. Rectangular shape with walls of mud and wood and thatched roof.
2. Circular shape with walls of mud and wood and thatched roof.
3. Rectangular shape with walls of mud and wood and roof of corrugated iron sheets.
4. Circular shape with walls of wood and thatched roof.

TABLE NO. 3.4: Showing the two types of houses most commonly found giving the shape of the house, material of walls and roof and the percentage to the total number of houses.

	PROVINCE	THE FIRST TYPE MOST COMMONLY FOUND			PERCENTAGE TO ALL HOUSES	THE SECOND TYPE MOST COMMONLY FOUND			PERCENTAGE TO ALL HOUSES	NO. SA HO
		SHAPE	MATERIAL FOR WALL	MATERIAL FOR ROOF		SHAPE	MATERIAL FOR WALL	MATERIAL FOR ROOF		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Tigre	Circular	Stone	Thatched	34.4	Circular	Stone & Mud	Thatched	17.8	180
2.	Begemder	"	Mud & wood	"	62.0	Oval	Wood	"	12.0	108
3.	Gojam	"	Mud & wood	"	92.5	-	-	-	-	120
4.	Wollo	"	"	"	48.4	Circular	Stone & Mud	Thatched	19.2	240
5.	Hararge	"	"	"	74.3	Rectangurar	Mud & Wood	Corrugated iron	11.4	132
6.	Arussi	"	"	"	52.8	"	Mud	Thatched	20.7	53
7.	Shoa	"	"	"	71.3	"	Mud & Wood	"	10.2	324
8.	Wollega	Rectangular	"	"	25.4	Circular	Mud & Wood	"	23.1	108
9.	Illubabor	"	"	Corrugated iron	39.6	"	Wood	"	25.0	48
10.	Kefa	Circular	"	Thatched	62.5	Rectangular	Mud & Wood	Corrugated iron	15.7	96
11.	Gemu Goffa	Circular	Wood	Thatched	36.6	Circular	Bamboo & Thatch	Thatched	25.0	60
12	Sidamo	"	Wood & Thatch	"	45.4	"	Wood	"	25.0	108

3.4.3. The second most commonly found type varied from province to province and was common only in two provinces, Tigre and Wollo, where it was the circular house with walls of stone plastered with mud and thtched roof. In a number of provinces the second most commonly found type was rectangular in shape. Also their wall material in five provinces was mud & wood.

3.4.4 Another interesting aspect the above table brings out is that in all the central provinces and two of the adjoining southern provinces, Illubabor and Kefa either of the two most commonly found types of houses was rectangular in shape. Similarly corrugated iron sheets used as roofs were found in these two types in the central province of Hararge and the southern province of Kefa. Use of stone in either of the two most commonly found types of houses for walls is observed in the northern provinces of Tigre and Wollo.

3.4.5 It will be useful to see whether the data shows any interrrelationship between the material for roof, the material for wall and the shape of the house. To this end a number of tables has been prepared and included in the Appendix B to this report. The series of tables B.1.1. to B.1.12 shows for the twelve provinces the percentage distribution of houses according to the type of roof material for each type of wall-material and in aggregate; the series of tables B.2.1 to B.2.12 shows for the twelve provinces the percentage distribution of houses according to the wall-material for each shape of house and in aggregate and the series of tables B.3.1 to B. 3.12 shows similarly the percentage distribution of houses according to the roof -material for each shape of house and in aggregate. The series of tables B.4.1 to B.4.12 shows the percentage distribution of houses in a three way classification by shape roof and wall-material. As stated earlier the smallness of the sample size exercises limitation on the depth of the statistical analysis that the data can support. For this reason the following observations should be taken more as exploratory and indicative than conclusive in their contents.

3.4.6. From the series of tables B.1.1 to B.1.12 it is generally seen that heavier types of roof-corrugated iron sheets, wood & mud or wood & sand -are generally observed on houses with walls made of relatively stronger material. On the other hand there does not appear to be any relationship between the shape of the house and the type of wall material from the tables B.2.1 to B.2.12. An

interesting relationship however appeares to emerge from the tables B.3.1 to B.3.12. It is seen that either the ciruclar houses had all of them thatched roofs or the proportion of houses with thatched roofs was considerably greater among them than among the rectangular houses. Coversly the other type of roof material, mainly the corrugated iron sheets, was used either only on the rectangular houses or in a much larger proportion of rectangular houses than of circular houses. In spite of the smallness of the sample size it is clearly evident that the use of material other than thatch for roofs is closely associated with the rectangular shape of houses. (This supports the observation made in paragraph 3.3.2. based on rank correlation coefficient.)

3.5. Notes on table no 3.5

3.5.1 The next important aspect of the housing condition is the average area of the house. The table no 3.5 shows the average area in sq. metres of the main house and of all the house which the household uses. It will be seen from the table that the average area of the main house varied from 19.6 sq. metres in Tigre to 46.5 sq. metres in Sidamo and the average area of all houses of the household varied from 24.7 sq. meters in Begemder to 56.1 sq. metres in Sidamo. An interesting feature revealed by the table is that, by and large, the average area of the main house, and more so, the average total area of all the houses the household uses increased as we move from the first to the last province in the table. The correlation coefficient between the ranks of the provinces based on the average area of the main house and the order in which the provinces are listed in the table(in a geographically contignous order starting from the north) is 0.67 which is quite high. Similarly the correlation coefficient between the rank based on the average total area and the order of the provinces is 0.90 which is very high. The table thus reveals that to a large extent the average total area of the houses which households used increased from north to south; to a somewhat smaller extent this was also true of the average area of the main house.

3.5.2 The table also shows the area of the main house and percentage of the area of all houses. The main house on an average accounted for nearly half the total housing area in Gemu Goffa, nearly two-thirds in Tigre and Illubabor and more than three fourth in the remaining provinces. No regional pattern in this respect is apparent from the data.

TALBE NO. 3.5: Showing the average size of the main house and of all houses in Sq. meteres.

Sr. NO.	PROVINCE	AVERAGE SIZE OF MAIN HOUSE	AVERAGE SIZE OF ALL HOUSE	PERCENTAGE OF AREA OF MAIN HOUSE TO TOTAL AREA
(1)	(2)	(3)	(4)	(5)
1	Tigre	19.6	29.8	65.8
2	Begemder	22.2	24.7	89.9
3	Gojam	33.8	37.1	91.1
4	Wollo	26.3	30.7	85.7
5	Hararge	29.9	33.7	88.7
6	Arussi	42.4	53.7	79.0
7	Shoa	31.4	40.2	78.1
8	Wollega	35.6	43.5	81.8
9	Illubabor	35.3	52.6	67.1
10	Kefa	38.7	46.3	83.6
11	Gemu Goffa	27.9	56.0	49.8
12	Sidamo	46.5	56.1	82.9

3.6 Notes on table no 3.6.

3.6.1 Information on the age of the main house was collected in the survey and the table no. 3.6 shows the average age of the main house and the percentage distribution of the main houses by age-groups. The table also shows for each age-group the percentage the rectangular houses accounted of all houses in that age-group.

3.6.2. The average age of the main house varied from 4.6 years in Begemder to 15.1 years in Tigre. There is no regional pattern evident in respect of the average age of house. Except for Tigre , the average age of house was less than 10 years for all provinces and varied between 4 to 9 years . The percentage of houses more than ten years old did not exceed 30, except in Tigre.

3.6.3 It was seen earlier that the percentage of rectangular houses among all houses was quite appreciable (10 percent or more) in the provinces of Tigre, Hararge, Arussi, Shoa, Wollega, Illubabor and Kefa. Except for Tigre , in the remaining of these provinces, the table reveals that the percentage of rectangular houses to toal houses was greater among the more recently built houses. In Tigre the percentage of rectangular houses among houses which were built 10 years ago or before, was higher than among the recently built houses. The table thus points out to a tendency to build rectangular houses in recent times in greater numbers in the central provinces and two of the southern provinces of Illubabor and Kefa.

TABLE 3.6: Showing percentage distribution of main houses by age, average age of main house and percentage of rectangular houses to all houses by age groups.

Sr. NO.	PROVINCE	AGE OF HOUSE			TOTAL	AVERAGE AGE OF MAIN HOUSE	PERCENTAGE OF RECTANGULAR HOUSES TO ALL HOUSES IN THE AGE GROUPS		
		UPTO 4 YEARS	5-9 YEARS	10 YEARS AND ABOVE			UPTO 4 YEARS	5-9 YEARS	10 YEARS AND ABOVE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Tigre	31.0	16.7	52.3	100	15.1	10.6	26.3	35.9
2	Begemder	63.0	23.1	13.9	100	4.6	3.0	-	12.9
3	Gojam	59.2	25.0	15.8	100	4.8	5.6	10.0	-
4	Wollo	39.5	30.8	29.7	100	7.5	6.1	7.8	16.2
5	Hararge	47.7	29.6	22.7	100	7.0	24.3	26.0	8.4
6	Arussi	41.5	35.8	22.7	100	5.8	41.4	26.8	15.0
7	Shoa	44.6	26.6	28.8	100	8.4	18.6	19.2	12.2
8	Wollega	54.7	35.2	10.1	100	4.7	67.6	57.4	2.0
9	Illubabor	58.4	20.8	20.8	100	6.3	57.0	60.0	40.4
10	Kefa	62.5	21.9	15.6	100	5.4	18.4	33.3	6.4
11	Gemu Goffa	35.0	33.3	31.7	100	9.1	4.9	5.1	-
12	Sidamo	61.1	22.2	16.7	100	5.4	1.5	-	-

CHAPTER IV

HOUSEHOLD EXPENDITURE

4.0. Introduction

4.0.1. The household sector in a developing economy, is an important sector of production. The household acts both as a unit of consumption as well as that of production. The data on expenditure by the households therefore assumes particular importance in the building up of national accounts of such economies. The household expenditure and consumption survey, made it possible for the first time to estimate the household expenditure and its various components for a large part of Ethiopia. The method used in the survey to record the household expenditure and the limitations of the data so collected are described in this section.

4.0.2. The data on expenditure was collected with two different reference periods: that relating to items of daily use was collected for the reference period of seven days during which the survey was conducted and for the remaining items was collected for the year preceding the survey. The weekly data was recorded after daily visits to the household and preparing some sort of daily accounts of balances, receipts and expenditure. The data relating to the past year was supplied by the household from memory. Data on purchases of food, drink, tobacco, consumable items, services and animals was collected on a daily basis while that on purchases of clothing, durables, rents, taxes etc. was collected as reported from memory by the household for the past year.

4.0.3. The two different reference periods used for recording expenditure have advantages and disadvantages. The weekly record built up from the daily data involves a considerebly smaller memory bias and the average for all households based on it will provide for the week, as accurate an estimate as possible under field conditions but the annual figures based on this data will magnify out of proportion the variability between households. The data based on memory for the past year will not suffer from this defect but it is very likely to involve a memory bias as the households have to remeber the nature and magnitude of expenses over a very long period of time. The two methods were used in a selective manner, as described in para 4.0.2 above, so that the yearly data was collected in respect of items on which purchases are not made uniformly over the years, but as sporadic events, so that it might be possible for the

household to recall such purchases with relatively greater facility than the purchases on other items, so as to reduce the extent of memory bias. Despite this, it may be noted, that the variation observed in the provincial averages of estimates of expenditure on items for which the weekly reference period was used is likely to be exaggerated, while the provincial estimates of average expenditure on items for which the yearly reference period was used are prone to the effect of memory bias. For the same reasons, the provincial estimates of the aggregate expenditure, besides being affected by the memory bias, will also reflect an unduely larger variability.

4.0.4. In addition to the data on cash expenditure, that on expenditure in kind was also collected. This was necessary to complete the picture of transactions of the household sector, as one of the peculiarites of the household sector in a developing economy is considerable size of the subsistence sector and the non-monetory sector. One of the important items in this connection was the payment of rent in kind. Further, a part of the agriculture product produced by the household is consumed by it: an estimate of the consumption out of home-grown stock was obtained by substracting the value of purchase from the value of consumption. Similarly,iitems of fuel, like firewood are collected by the households free of cost and an estimate of the value of such collectins has been included. But the value of services rendered by the household to itself, like stitching of clothes or repairs to its own implements have been excluded in keeping with the definitions used in the calculation of national income.

4.0.5. The estimates of expenditure and its classifications for different provinces are given in a series of tables nos.4.1 to 4.11 and explanatory notes on every table are provided to clarify the classifications made and to state the important emerging observations.

4.1. Notes on table 4.1

4.1.1. The table no.4.1 shows the estimates of total expenditure per household per year for different provinces and its classification in the four major categories: (A) domestic expenditure, (B) Current expenditure on household enterprise, (C) capital formation and (D) transfer payments (definitions of these classifications follow). Where relevant, the expenditure is classified

TABLE NO.4.1: Showing classification of average annual household expenditure per household

Figs of expenditure in E$

ITEMS OF EXPENDITURE	PROVINCES											
	TIGRE	BEGEMDER	GOJAM	WOLLO	HARARGE	ARUSSI	SHOA	WOLLEGA	ILLUBABOR	KEFA	GEMU GOFFA	SIDAMO
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
A: Domestic expenditure												
i) cash	83.70	96.89	45.65	84.94	205.49	530.04	211.00	349.95	220.21	298.95	101.35	115.25
ii) kind	283.94	257.82	184.26	154.79	680.72	316.64	377.00	309.61	157.82	144.36	179.64	238.85
iii) Total	367.64	354.71	229.91	239.73	886.21	846.21	588.00	659.56	378.03	443.31	280.99	354.10
	(86.57)	(92.30)	(83.07)	(82.76)	(92.14)	(56.68)	(77.98)	(73.60)	(79.60)	(78.81)	(80.04)	(85.61)
B: Current expenditure on enterprise												
i) Cash	12.88	9.52	15.47	6.50	16.17	70.92	27.00	23.67	20.77	9.62	15.62	18.39
ii) Kind	10.41	5.20	4.70	5.18	19.64	15.42	57.00	14.61	5.00	10.75	4.40	12.24
iii) Total	23.29	14.72	20.17	11.68	35.81	86.34	84.00	38.28	25.77	20.37	20.02	30.63
	(5.48)	(3.83)	(7.29	(4.03)	(3.72)	(5.78)	(11.15)	(4.27)	(5.43)	(3.62)	(5.70)	(7.40)
C: Capital formation												
i) Real Assets	28.37	12.94	6.55	20.27	33.06	502.76	41.00	56.86	61.10	89.21	24.50	26.15
ii) Deposits etc	-	-	-	0.19	0.83	7.55	12.00	3.18	-	0.54	3.10	1.00
iii) Total	28.37	12.94	6.55	20.46	33.89	510.31	53.00	60.04	61.10	89.75	27.60	27.15
	(6.68)	(3.37)	(2.36)	(7.06)	(3.52)	(34.16)	(7.03)	(6.70)	(12.86)	(15.96)	(7.86)	(6.56)
D: Transfer payments	5.39	1.97	20.15	17.82	5.89	50.44	29.00	138.24	10.02	9.07	22.46	1.76
	(1.27)	(0.50)	(7.28)	(6.15)	(0.62)	(3.38)	(3.84)	(15.43)	(2.11)	(1.61)	(6.40)	(0.43)
E: Total expenditure	424.69	384.34	276.78	289.69	961.80	1493.77	754.00	896.12	474.92	562.50	351.07	413.64
	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)
F: Total Cash expenditure	130.34	121.32	87.82	129.72	261.44	1161.71	320.00	571.90	312.10	407.39	167.03	162.55
G: Total expenditure in kind	294.35	263.02	198.96	159.97	700.36	332.06	434.00	324.22	162.82	155.11	184.04	251.09
H: Percentage F to E	30.70	31.60	31.70	44.80	27.20	77.80	42.40	63.80	65.70	72.40	47.6	39.3
I: Domestic expenditure per person (i) Total	73.68	69.55	46.45	51.12	158.53	124.70	115.98	136.84	102.17	105.56	55.31	70.26
(ii) Cash	16.77	19.00	9.22	18.11	36.76	78.06	41.62	72.60	59.52	71.86	19.95	22.87
(iii) Kind	56.91	50.55	37.23	33.01	121.57	46.64	74.36	64.24	42.65	33.70	35.36	47.39

Note: Figures in brackets show the percentage of total expenditure under each group to total expenditure of all groups.

TABLE NO. 4.1.A: Showing percentage of cash expenditure on different items to total cash expenditure

ITEM	PROVINCES											
	TIGRE	BEGEMDER	GOJAM	WOLLO	HARARGE	ARUSSI	SHOA	WOLLEGA	ILLUBABOR	KEFA	GEMU GOFFA	SIDAMO
A i) Domestic expenditure	64.22	79.86	51.98	65.48	78.60	45.63	65.94	61.20	70.56	73.38	60.68	70.90
B i) Current expenditure of enterprise	9.88	7.85	17.62	5.01	6.18	6.10	8.44	4.14	6.65	2.36	9.35	11.32
C Capital formation	21.77	10.67	7.46	15.77	12.97	43.93	16.56	10.50	19.58	22.03	16.52	16.70
D. Transfer payment	4.13	1.62	22.94	13.74	2.25	4.34	9.06	24.16	3.21	2.03	13.45	1.08
F Total cash expenditure	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Percentage of cash expenditure in domestic expenditure	22.77	27.32	19.86	35.43	23.19	62.60	35.88	53.06	58.25	67.44	36.07	32.55
in current expenditure on enterprise	55.30	64.67	76.70	55.65	45.15	82.14	32.14	61.83	80.60	47.23	78.02	60.04

into 'cash' and 'kind'. The table also shows the total cash expenditure and its percentage to total expenditure. It further shows the estimates of total, cash and kind domestic expenditure per person. The subsidiary table 4.1.A is based on table 4.1 and shows the percentage of cash expenditure on the different groups.

DEFINITIONS

4.1.2. Under domestic expenditure is included expenditure in cash or kind on all items of household consumption. In other words it represents the value of goods and services purchased by the household for its own consumption as a unit of consumption and therefore exclude the value of goods and services bought by it as well as payments in cash or kind for the purposes of its enterprise or for transfer to the outsiders (others households. government etc.). The domestic expenditure includes the value of purchase in cash or kind of items of food, drinks, consumable items, clothing and footwear, household durables and all kinds of services rendered to the house hold consumption unit.

4.1.3. The current expenditure on enterprise includes expenditure in cash or kind connected with household's enterprise i.e. productive activity in which it is engaged as producer of goods and services. This includes, for example, rent for agricultural land, tax on agricultural land, feed for the household cattle , veternary services, payment to labour engaged on land .

4.1.4. Expenditure of capital formation means the expenditure incurred by the household in the purchase of real assests or on construction of real assets or improvements to them as well as the deposits of cash by the household in financial assets including the cash held by it at the end of the accounting period. In the table this item chiefly includes expenditure on purchase of tools and equipment, animals, material for construction and improvement to buildings etc. This part of captial formation is shown against the sub-item real assets. The item deposits shows the amounts deposited in ider (burial insurace fund) or ecoub (a fund in which a certain number of participants contribute regularly the total amount being used by one or some of them). The cash held by the household at the end of the accounting period is not shown in the table.

4.1.5. Transfer payments are payments made by the household to other households or to other sectors in the economy and these payments are not in exchange of

goods or services received by the household. These include loans given by the household to others, the value of gifts given by the household and the fines or payments of similar nature (afelama)

4.1.6 It may be noted that data on only one aspect of the transactions by the household namely, expenditure, was collected and is presented here. In the absence of data on financing of the expenditure, the interpretation of the table will have some limitations.

Discussion of the estimates:

4.1.7. The estimated annual expenditure per household (refer item E of the table) varied from $276.78 in Gojam to $1,493.77 in Arussi. It is further observed that the average household expenditure in the northern provinces (except Tigre to some extent) was smaller than in the other provinces. As mentioned later in this report (in the chapter on consumption) the estimate for Arussi was most probably an over estimate; even then the estimates for central provinces were considerably higher than for other provinces.

4.1.8. Of the total estimated expenditure, expenditure by way of cash transactions (refer item F) varied from $87.82 in Gojam to $1161.71 in Arussi, the same two provinces which showed the lowest and the highest total expenditure estimates respectively. Here again it is observed that the northern provinces had smaller average cash expenditure per household than the other provinces. The Arussi estimate appears to exaggerated (a large amount :$482.95, being on purchase of animals); besides this province, cash expenditure per household was particularly large in the provinces of Wollega and Kefa. It is also seen that the cash expenditure per household per day was less than one Ethiopian dollar in most of the provinces except Arussi, Wollega and Kefa.

4.1.9. The percentage of cash to expenditure forms of the total expenditure of the households provides an idea of the monetised sector of the household economy. In other words it reflects the extent to which money is used by the household sector in its transactions within itself and the the rest of the economy. This percentage (refer item H) varied from 27.2 in Hararge to 72.4 In Kefa and 77.8 in Arussi. Based as this estimate of percentage is on data collected for two different reference periods: a week and a year, and that relating to the former accounting for a large portion of both total and cash expenditure, the

extent of the monetised sector as reflected by this perdentage is subject to the same limitation as the data for a week has as a representative of the annual average. The estimates have therefore to be understood as broad magnitudes only. Leaving aside the estimate for Arussi, for reasons mentioned elesewhere in this report, it appears from the table that the extent of monetization was on the higher side in the three provinces of Wollega, Illubabor and Kefa, (about two thirds), while in the other provinces it was between one third and one half.

4.1.10. The part of total expenditure in kind per household (refer item G) varied from $155.11 in Kefa to $700.36 in Hararge. The estimates for the four Central provinces were higher than the rest. It may be useful to find out whether the data revelaed by this survey is related with the average size of cultivated land in different provinces as estimated from the NSS (refer Appindix C). If the provinces are ranked in descending order of average total expenditure per household as well as of average size of cultivated land, it is found that the rank correlation between these two household characters is 0.64 which is quite high and statistiealy significant. The rank correlation co-efficients between the average size of kind cultivated land on one hand and cash and total expenditure (taken separately) on the other are found to be 0.38 and 0.79 respectively. These correlation co-efficients suggest that generally, for the provinces for which the NSS estimated larger average size of cultivated land per household, the estimates of total expenditure and the expenditure in kind per household from the present survey, were also higher.

4.1.11. Domestic Expenditure

The largest single component of total household expenditure was the expenditure on domestic consumption (refer item A (iii)). The estimate of annual domestic expenditure per household varied from $229.91 in Gojam to $886.21 in Hararge. The domestic expenditure per household does not show a marked regional pattern; that in the four northern provinces and the two southern provinces of Gemu Goffa and Sidamo was lower than in the other six provinces. Gojam and Wollo recorded the smallest expenditure. The domestic expenditure accounted for a very large percentage of total expenditure , the percentage ranging from 73.60 in Wollega to 92.30 in Begemder, the only exception being Arussi (53.68 percent) where it was considerably smaller as the expenditure reported on purchase of animals in that province was exceedingly large.

4.1.12. The part of domestic expenditure per household which was incurred in cash varied from $45.65 in Gojam to $349.95 in Wollega and $530.94 in Arussi (refer item A (i)). All the four northern provinces uniformly recorded a lower averge cash domestic expenditure than the other provinces. The averages for Gemu Goffa and Sidamo, though higher than those for the northern provinces were lower than the average cash expenditure for the remaining six provinces. The percentage of the part incurred in cash of the total domestic expenditure (refer item J of table 4.1.A) varied from 19.86 in Gojam to 62.60 in Arussi. Except in Wollo, this percentage was smaller in the northern provinces than in other provinces. Leaving aside Arussi, the percentage was higher in the three neighbouring provinces of Wollega, Illubabor and Kefa, than in other provinces.

4.1.13. The part of domestic expenditure in kind, represents the value of consumption of food, drink and tobacco produced by the household itself, as well as the dungcake and firewood collected by the household for use. This component of domestic expenditure per household varied from $154.79 in Wollo to $680.72 in Hararge. The average domestic expenditure in kind was higher in the central provinces than in the other provinces. If the estimate for Hararge is excluded, this component showed smaller province wise variation than the cash component.

4.1.14. It may be remebered that the annual estimates of a large part of domestic expenditure (clothing, household durables, medical and school fees excluded) are based on data collected during the period of a week, during the survey period in each province. As mentioned subsequently in the section on 'consumption' there is every likelihood that the annual figures based on the data collected for a specific week exhibit a greater amount of variability among households than the actual annual figures.. Further, since the provinces were surveyed during a specific period in a year, the provincewise estimates will also show greater amount of variation than actually exists. To the extent that seasonability, mostly influenced by the periods of harvesting of cereals of pulses, exists in the consumption and expenditure of the rural household, the observed differences in the provincial estimates will be partly due to this seasonabilty and partly due to the actual differences between the annual provincial averages. The same factor may also play a part in the cash-kind composition of the total domestic expenditure. This limitation of the estimates and the differences among the provinces has to be kept in sight while interpreting the estimates of domestic expenditure.

4.1.15. It may be of interest to compare the variation in the estimates of average domestic expenditure per household with that in the average size of cultivated land per household as revealed by the NSS. It is found that the rank correlation co-efficient between the two household characteristics is 0.66 which is quite high and statistically significaent. Similarly the rank correlation co-efficient of the domestic expenditure in kind per household and the size of cultivated land per household is very high (0.79) but that between the cash domestic expenditure per household and cultivated land per household is quite small (0.34) indicating that the part of domestic expenditure per household in kind is very closely related with the estimates of cultivated land per household but that in cash is not. The total domestic expenditure and that in kind per household estimated from the present survey is thus generaly relatively higher for these provinces for which the average size of cultivated land per household was larger as estimated from the NSS.

4.1.16. Domestic expenditure, other things being equal, depends upon the size of the household also. In addition to what is stated in the preceding paragraph, a part of the differences between the provinces may be due to the different average size of the households in the provinces (refer table no.1.1). The table 5.1 therefore shows the estimates of annual domestic expenditure-total, cash and kind-per person (ref. item I). The per capita domestic expenditure varied from $46.45 in Gojam to $158.53 in Hararge. No regional pattern was evident, except that the capita domestic expenditure was higher in the four central provinces. The per capita domestic expenditure in cash varied from $9.22 in Gojam to $78.06 in Arussi. The four northern provinces and the two southern provinces of Gemu Goffa and Sidamo recorded much lower figures than the remaining six provinces. The per capita domestic expenditure in kind on the other hand showed much less differences; $33.01 in Wollo to $74.36 in Shoa and $121.57 in Hararge. It is thus seen that on an average a rural household spent in cash on domestic consumption less than 5 ¢ per person per day in three provinces, between 5 to 10¢ in three provinces, between 10 to 15 cents in two provinces. between 15 to 20¢ in three provinces and more than 20 but less than 25 cents only in one province.

4.1.17. Current expenditure of enterprise. The estimated annual expenditure per household on the current expenses of the enterprise of the household (refer item B) varied from $11.68 in Wollo to $86.34 in Arussi. It is observed to be higher in the central provinces than in the remaining provinces where it varied from $11.68 to $30.63. A part of this expenditure was incurred in cash on land tax, cattle feed, veterniary items and labour. The cash current expenditure on enterprise varied from $6.50 in Wollo to $27 in Shoa and a relatively high figure of$70.92 in Arussi. The estimates of annual cash expenditurea are based on data for the reference period of a week and are therefore subject to the limitation mentioned earlier. The component of expeniture shown in kind, on the other hand refers to a period of a year and it gives exclusively the value of land-rent paid in kind. It varied from $4.40 in Gemu Goffa to $57 in Shoa. In this case also the average expenditure per household was the highest in the four central provinces. In the northern provinces except Tigre, and in Illubabor and Gemu Goffa the average rent per household paid in kind was of the order of $5 ($4.40 to $5.20).

4.1.18 The total current expenditure on enterprise formed a small percentage of the total household expenditure . Only in Shoa the percentage was a little above 10. In all other provinces it ranged from 3.62 in Kefa to 7.40 in Sidamo. Of the total current expenditure on enterprise, the part paid in cash(refer item K of table 4.1.A) varied from 32.14 percent in Shoa to 82.14 percent in Arussi. No regional pattern in this respect is evident from the data.

4.1.19. Since, as will be seen later, the major components of the total current expenditure on household enterprises are the land tax and the rent , It will be interesting to see whether the variation in the average estimates of total current expenditure on enterprise is to some extent accounted for by the variation in the cultivated land per household in the different provinces. The rank correlation between these two characteristics is found to be 0.60 which is quite high and also statistically significant. In fact, the first four provinces in the order of magnitude of cultivated area per household namely, Arussi, Shoa, Wollega and Hararge (in that order)are also the first four provinces (in that order) in respect of total current expenditure on enterprise per household. This shows that a part of variation observed in the (estimated) annual current expenditure on enterprise is accounted for by the differences in the cultivated land per household. It is further interesting to observe that the rank correlation coefficients between the part of the expenditure on household enterprise

paid in cash (based partly on a week's data) and the land cultivated per household is only 0.43 (not significant) and that between the part paid in kind (based on a year's data) and land cultivated per household is 0.71 (statistically significant).

4.1.20. Capital formation: The estimated annual expenditure per household on capital formation (refer item C) varied from $6.55 in Gojam to $89.75 in Kefa and $510.31 in Arussi. The expenditure under this item is all cash expenditure. Further, except for the purchase of tools and implements for which the reference period was a year, the expenditure on other items included under this group referred to a period of a week. The arussi estimate as stated earlier has shot up because of the exceptionally high expenditure reported on purchase of animals. The estimated total expenditure under this item was lower in the four northern provinces and the two southern provinces of Gamu Goffa and Sidamo than in the remaining six provinces. Most of the expenditure under the item was accounted for by the expenditure on purchase and construction of or improvements to real assets. Expenditure on deposits etc. exceeded $10 in Shoa; only in four provinces it was not reported; in three provinces it was less than one dollar.

4.1.21. Except for Arussi, in all provinces expenditure on capital formation formed a small percentage of total expenditure. In nine provinces it was less than ten percent while in Illubabor it was 12.86 percent and in Kefa 15.96 percent.

4.1.22. The rank correlation coefficient of total expenditure on capital formation and of expenditure on real assets with size of cultivated land per household are both-small (0.31) suggesting that the data does not reveal any relationship between the average size of cultivated land per household on the one hand and annual expenditure on capital formation or on real assets on the other.

4.1.23 Transfer payments:- The annual estimates of expenditure on transfer payments are based on the data for thereference period of a week. Perhaps for this reason the estimates show some sporadic high and low values. The estimated expenditure per household was less than $2 in Begemder and Sidamo, while it was of the order of $138 in Wollega and $50 in Arussi. In the other provinces it varied from A5 to $29. Except in Wollega where formed about 15 percent of the total expenditure, the expenditure on transfer payments formed less than ten percent of total expenditure in other provinces in eight of which it was less than five percent. No regional pattern is evident from the data in respect of the

average expenditure per household on transfer payments.

4.1.24. The percentage compositon of total expenditure in cash (refer table 5.1.A) shows that except in Arussi and Gojam expenditure on domestic consumption accounted for more than 60 percent of total cash expenditure. In three of the southern provinces and in Hararge and Begemder this percentage exceeded 70. Curren expenditure on enterprise accounted for less than 10 percent of total cash expenditure except in Gojam (17.62 percent) and Sidamo (11.32 percent). Expenditure on capital formation was less than 10 percent only in Gojam and in other provinces it was between 10 to 25 percent except in Arussi where it reached nearly 44 percent (on account of purchases of animals as mentioned before). Transfer payments accounted for less than five percent total cash expenditure in seven provinces, about nine percent in Shoa, 14 percent in Wollo and Gemu Goffa and quite a large percentage in Gojam (23%) and Wollega (24%). The percentage composition of cash expenditure does not reveal any regional pattern.

4.1.25. Co-relationship of the components of household expenditure: Generally it is observed that for the provinces which had higher total domestic expenditure per household the estimated expenditure per household on current expenses of household enterprise and on capital formation was also higher (rank correlation coefficients 0.80 and 0.79 respectively.). Expenditure on transfer payments did not reflect any such relationship. Similarly, the provinces with larger total current expenditure on enterprise per household also showed larger expenditure per household on capital formation (rank correlation coefficient 0.68). In respect of cash expenditure also the provinces with higher domestic expenditure generally had higher current expenditure on enterprise and on capital formation (rank correlation coefficents 0.68 and 0.90.respectively). The latter two also reflected certain amount of association (rank correlation coefficient 0.60). Domestic expenditure in kind and current expenditure on enterprise in kind also varied together to some extent (rank correlation coefficient 0.75), but the former showed very little corelationship with its counterpart in cash (rank correlation coefficient 0.23). The cash and kind components of current expenditure on enterprise however showed some covariation (rank correlation coefficient 0.55).

4.2. Notes on table no 4.2: Analysis of expenditure on domestic consumption

4.2.1 The table no 4.2 shows the classification of domestic expenditure in cash and kind-according to major groups of items of consumption, the groups being,food, drinks and tobacco, consumable items; clothing and footwear , household durables and services. The estimates are based on the data collected for a week

except in the case of clothing and footwear, household durables and medical costs and school fees (forming a part of the services), for which data relates to a year, The expenditure on food, drinks and tobacco is shown separately according to cash and kind payments, the former being split up further into food and drinks & tobacco. Similarly expenditure on consumable items is divided , the kind component representing the value of firewood and dungcakes collected free by the household based on the data for the reference week. The total expenditure shown in the table is the same as in line A(iii) of table 4.1.

4.2.2. The main table no 4.2 is followed by three subsidiary tables; table no.4.2 A giving the estimates of expenditure per person, table no. 4.2. B showing the percentage of total domestic expenditure on the major groups and table no.4.2.C showing the percentage of cash domestic expenditure on the major groups. The four tables presented here and the part of table no. 5.1 relating to the domestic expenditure will provide a full picture of domestic expenditure and its details upto the level of major groups. The further details of cash expenditure for each of the major groups are shown in the set of tables 4.6.to 4.11.

4.2.3. <u>The total expenditure on food, drinks & tobacco</u> per household per year is estimated at $149.10 (least) in Gojam and $718.52 (highest) in Hararge. The expenditure in the central provinces was higher than in the other provinces. Gojam and Wollo of the northern provinces and Sidamo and Gemu Goffa of the southern provinces had lower expenditure than other provinces. The rank correlation coefficient between these estimates and the average size of cultivated land is 0.66 which is quite high and statistically significant suggesting some amount of relationship between the two. Food, drinks and tobacco accounted for about two thirds or over of the total domestic expenditure (ref. table 4.2.B), the percentage it accounted for ranging from 64.85 in Gojam to 81.46 in Shoa.

4.2.4. Of the total expenditure on food, drinks and tobacco, that incurred <u>in kind</u> ie. out of the household's own perduction, formed a major part in all provinces except Kefa and Arussi where it accounted for 38 and 49 percent respectively. In Gojam the expenditure in kind accounted for well over 90 percent of the total expenditure on food drinks and tobacco , The estimates of expenditure in kind on food, drinks & tobacco, show a high rank correlation coefficient (0.73) with the average size of cultivated land suggesting that for provinces with higher averages of size of cultivated land, the estimated value of consumption of food drinks & tobacco out of the household's own production is also higher.

TABLE NO. 4.2 : Showing the classification of average expenditure per household on domestic consumption

Figs. in Birr

SR. NO.	PROVINCE	ON FOOD, DRINK & TOBACCO					ON CONSUMABLE ITEMS			ON OTHER ITEMS			
		IN CASH ON			IN KIND ON FOOD, DRINK & TOBACCO	TOTAL	CASH	KIND	TOTAL	CLOTHING & FOOTWEAR	HOUSEHOLD DURABLES	SERVICES	TOTAL
		FOOD	DRINK & TOBACCO	TOTAL									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Tigre	40.67	4.74	45.41	237.96	283.37	0.94	45.98	46.92	26.29	8.09	2.97	367.64
2	Begemder	49.25	10.17	59.42	211.68	271.10	0.57	46.14	46.71	24.35	9.22	3.33	354.71
3	Gojam	6.92	2.16	9.08	140.02	149.10	0.86	44.24	45.10	27.67	4.65	3.39	229.91
4	Wollo	55.67	6.84	62.51	117.92	180.43	1.17	36.87	38.04	17.13	3.12	1.01	239.73
5	Hararge	94.38	19.02	113.40	605.12	718.52	6.93	75.60	82.53	50.50	12.92	21.74	886.21
6	Arussi	264.36	60.69	325.05	312.69	637.74	9.13	3.95	13.08	148.46	19.88	27.52	846.68
7	Shoa	65	37	102	377	479	9	N.A.	9	65	17	18	588
8	Wollega	175.74	44.27	220.01	245.28	465.29	9.44	64.33	73.77	62.08	20.37	38.05	659.56
9	Illubabor	135.03	43.98	179.01	147.69	326.70	7.36	10.13	17.49	23.69	7.21	2.94	378.03
10	Kefa	151.65	27.40	179.05	110.42	289.47	6.21	33.94	40.15	52.52	13.83	47.34	443.31
11	Gemu Goffa	32.96	7.07	40.03	149.52	189.55	4.37	30.12	34.49	36.95	8.06	11.94	280.99
12	Sidamo	56.51	14.34	70.85	185.36	256.21	0.70	53.49	54.19	31.19	7.05	5.46	354.10

Table no. 4.2.A: Showing the classification of average expenditure per person on domestic consumption

Figs. in E$

SR. NO.	PROVINCE	ON FOOD, DRINK & TOBACCO					ON CONSUMABLE ITEMS			ON OTHER ITEMS			
		IN CASH ON			IN KIND ON FOOD, DRINK & TOBACCO	TOTAL	CASH	KIND	TOTAL	CLOTHING & FOOTWEAR	HOUSEHOLD DURABLES	SERVICES	TOTAL
		FOOD	DRINK & TOBACCO	TOTAL									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Tigre	8.15	0.95	9.10	47.69	56.79	0.02	9.21	9.40	5.27	1.62	0.60	73.68
2	Begemder	9.66	2.00	11.65	41.51	53.16	0.01	9.05	9.16	4.77	1.81	0.65	69.55
3	Gojam	1.40	0.44	1.83	28.28	30.12	0.02	8.94	9.11	5.59	0.94	0.68	46.45
4	Wollo	11.87	1.46	13.33	25.14	38.47	0.25	7.86	8.11	3.65	0.67	0.22	51.12
5	Hararge	16.88	3.40	20.29	108.25	128.54	1.23	10.30	14.76	9.03	2.31	3.88	158.53
6	Arussi	38.93	8.94	47.87	46.05	93.92	1.34	0.58	1.93	21.86	2.93	4.05	124.70
7	Shoa	12.82	7.30	20.12	74.36	94.48	1.78	N.A.	1.78	12.82	3.35	3.55	115.98
8	Wollega	36.46	9.18	45.65	50.89	96.53	1.96	13.55	15.30	12.88	4.23	7.89	136.84
9	Illubabor	36.49	11.89	48.38	39.92	88.30	1.99	2.74	4.73	6.40	1.95	0.79	102.17
10	Kefa	37.45	6.59	43.04	26.54	69.58	1.49	8.16	9.65	12.63	3.32	11.38	106.56
11	Gemu Goffa	6.49	1.39	7.88	29.43	37.31	0.86	5.93	6.79	7.27	1.50	2.35	77.66
12	Sidamo	11.21	2.85	14.06	36.78	50.84	0.03	10.61	10.75	6.19	1.40	11.08	70.26

Table No. 4.2.B: Showing the percentage of total expenditure on domestic consumption according to different groups of items of consumption.

SR. NO.	PROVINCE	ON FOOD, DRINK & TOBACCO					ON CONSUMABLE ITEMS			ON OTHER ITEMS			
		IN CASH ON			IN KIND ON								
		FOOD	DRINKS & TOBACCO	TOTAL	FOOD, DRINK & TOBACCO	TOTAL	CASH	KIND	TOTAL	CLOTHING & FOOTWEAR	HOUSEHOLD DURABLES	SERVICES	TOTAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Tigre	11.06	1.29	12.35	64.73	77.08	0.03	12.51	12.76	7.15	2.20	0.81	100.00
2	Begemder	13.88	2.89	16.75	59.68	76.43	0.02	13.01	13.17	6.86	2.60	0.94	100.00
3	Gojam	3.00	0.94	3.95	60.90	64.85	0.04	19.24	19.62	12.04	2.02	1.47	100.00
4	Wollo	23.22	2.85	26.08	49.19	75.26	0.49	15.38	15.87	7.15	1.30	0.42	100.00
5	Hararge	10.65	2.15	12.80	68.28	81.11	7.82	8.53	9.31	5.70	2.25	2.45	100.00
6	Arussi	31.22	7.17	38.39	36.93	75.32	1.08	0.47	1.54	17.53	2.35	3.25	100.00
7	Shoa	11.05	6.29	17.35	64.12	81.46	1.53	N.A.	1.53	11.05	2.89	3.06	100.00
8	Wollega	26.65	6.71	33.36	37.19	70.55	1.43	9.75	14.22	9.41	3.09	5.77	100.00
9	Illubabor	35.72	11.63	47.35	39.07	86.42	1.94	2.68	4.63	6.27	1.91	0.77	100.00
10	Kefa	34.21	6.18	40.39	24.91	65,30	1.40	7.66	9.06	11.85	3.12	10.68	100.00
11	Gemu Goffa	11.73	2.52	14.25	53.21	67.46	1.56	10.72	12.27	13.15	2.87	4.25	100.00
12	Sidamo	15.96	4.05	20.01	52.35	72.36	0.02	15.11	15.30	8.81	2.00	1.54	100.00

Table No. 4.2.C.: Showing the percentage of total cash expenditure on domestic consumption according to different groups of items of consumption

SR. NO.	PROVINCE	FOOD	DRINKS & TOBACCO	CONSUMABLE ITEMS	CLOTHING & FOOTWEAR	HOUSEHOLD DURABLES	SERVICES	TOTAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Tigre	48.59	5.66	1.12	31.41	9.67	3.55	100.00
2	Begemder	50.83	10.50	0.59	25.12	9.52	3.44	100.00
3	Gojam	15.16	4.73	1.88	60.61	10.19	7.43	100.00
4	Wollo	65.54	8.05	1.38	20.17	3.67	1.19	100.00
5	Hararge	45.93	9.26	3.36	24.58	6.29	10.58	100.00
6	Arussi	49.88	11.45	1.72	28.01	3.75	5.19	100.00
7	Shoa	30.81	17.54	4.25	30.81	8.06	8.53	100.00
8	Wellega	50.22	12.65	2.70	17.74	5.82	10.87	100.00
9	Illubabor	61.32	19.97	3.34	10.76	3.27	1.34	100.00
10	Kefa	50.73	9.16	2.07	17.57	4.63	15.84	100.00
11	Gemu Goffa	32.52	6.98	4.31	36.46	7.95	11.78	100.00
12	Sidamo	49.03	12.44	0.61	27.06	6.12	4.74	100.00

4.2.5. The expenditure in cash on food, drinks and tobacco varied from $9 in Gojam to $325 in Arussi, that on food from $6.92 in Gojam to $264.36 in Arussi and on drinks from $2.16 in Gojam to $60.69 in Arussi. The estimates show considerable variation between the provinces. Even if the Arussi estimate is taken as an over estimate part of the variation is due to the element of seasonality which has crept into these estimates, as mentioned earlier. No regional pattern is evident nor do the estimates have any significant relationship with the average size of cultivated land in the provinces. (rank correlation coefficient 0.43).

4.2.6. The cash expenditure on consumable items per household per year was less than a dollar in four provinces (three from the north), the maximum being in Arussi at $9.13. The four central provinces and the provinces of Illubabor and Kefa showed higher expenditures than otherprovinces. The value in kind was much higher than the cash expenditure except in Arussi (where it was 43 percent of cash expenditure) and Illubabor. In other provinces it varied between relatively narrower limits of $30 to $76. The total value of expenditure on consumable items formed from 1.5 to 19.6 percent of the total domestic expenditure the percentage in the northern provinces and the two southern provinces of Gemu Goffa and Sidamo, being generally higher than the rest.

4.2.7. Annual expenditure per household on clothing and footwear varied from $17.13 in Wollo to $48.46 in Arussi, it being generally higher for the central provinces and the province of Kefa, and lower in the northern provinces. The estimates showed some amount of correlationship with the average size of cultivated land in the provinces (rnak correlation coefficient 0.59). Expenditure on clothing formed less than one fifth of the total domestic expenditure, the percentage varying from 5.70 in Hararge to 17.53 in Arussi.

4.2.8. The annual expenditure per household on household durables was the least in Wollo ($3.12) and highest in Wollega ($20.37) with the central provinces and the provinces of Kefa showing higher expenditure. It showed significant correlationship with the average size of cultivated land in the provinces (rnak correlation coefficient 0.71). Household durables accounted for less than five percent of the total domestic expenditure: from 1.30 percent in Wollo to 3.12 percent in Kefa.

4.2.9. The average expenditure per household per year on services was the least

in Wollo ($1.01) and the highest in Kefa ($47.34). It was higher in the central provinces than in other provinces (excluding Kefa) and was generally lower in the northern province than in other provinces (excluding Illubabor). The component of domestic expenditure also showed some correlationship with the average size of cultivated land, the rank correlation coefficient being 0.56. Household services contributed the largest share, 10.68 percent, of total domestic expenditure in Kefa, and in Wollega 5.77 percent. In other provinces their contribution was less than five percent, it being less than one percent in three northern provinces (Gojam excepted) and in Illubabor.

4.2.10. The table no 4.2.A showing the estimates of domestic expenditure per person on major groups of items, brings out roughly a regional pattern in as much as the six provinces of Hararge,Arussi, Shoa, Wollega, Illubabor and Kefa, which form a connected region showed higher per capita total domestic expenditure than the other provinces. The same pattern holds good for total expenditure on food, drinks and tobacco, expenditure on clothing and footwear, expenditure on household durables and (with one exception) in respect of expenditure on services. In respect of expenditure on food, drinks and tobacco, the same six provinces showed higher estimates in respect of cash expenditure on food cash expenditure on drinks and tobacco and total cash expenditure on these two groups. In respect of total expenditure in kind on food, drinks and tobacco, the four central provinces had higher per capita expenditure than other provinces . However , if these estimates are studied in conjunction with the estimates of average size of cultivated land per person for different provinces derived from the NSS (refer Appendix C). It is seens that netiher the total domestic expenditure per person nor any of its (major) constituents shown in the table shows any statistically significant rank correlation coefficients with the estimates of cultivated land per person except the per capita expenditure on household durables. (rank correlation coefficent 0.51).

4.2.11. The table no 4.2.C relates to expenditure in cash only and shows the percentage classification of total cash domestic expenditure by major groups of items. Since the expenditure on clothing and footwear, household durables and services is only cash expenditure , the percentages against them in this table is uniformaly higher than the corresponding percentages in table no. 4 . 2 . B. Food formed the single major group in the case of cash expenditure also, accounting for about 50 percent or more of total cash expenditure save in the case of Gojam Hararge Shoa and Gemu Goffa. In these four provinces, expenditure on clothing

formed a relatively higher percentage than in many others province. Expenditure on drinks and tobacco, formed more than 10 percent of total cash domestic expenditure in six provinces while that on household durables was less than 10 percent in eleven provinces (exception Gojam: 10.19%). Cash expenditure on consumable items was less than five percent in all provinces (less than one percent in two) and that on services showed a comparitively wide variation from 1.19 percent in Wollo to 15.84 percent in Kefa. The table does not reveal any regional pattern nor does it show the expected relationship with the province wise estimates of per capia domestic expenditure in cash.

4.3 Notes on table no. 4.3: Analysis of current expenditure on enterprise.

4.3.1. The classification of average current expenditure on enterprise per household is shown in the table no.4.3. The expenditure reported in the survey was on agricultre and on maintenace of livestock. (Purchase of livestook is classified under capital formation.). The table shows the expenditure classified under these two major categories with suitable sub-classification under each category.

4.3.2. It will be seen from the table that a large part of the total expenditure on enterprise was accounted for by agriculture , the average expenditure on which varied from $9.12 in Wollo to $80 in Shoa. The average expenditure on agriculture in the central provinces was higher than in the others provinces. Most of the total expenditure on agriculture was accounted for by the two items: land tax and rent, data for which was collected for the reference period of a year. Land tax paid per household varied from $3.16 in Wollo to $17.47 in Arussi. The rank correlation between the land tax and average size of cultivated land is 0.31 which is statistically in significant. No regional pattern in this respect is seen from the table. Land rent paid per household varied from $5.63 in Illubabor to $65 in Shoa. The rank correlation coeffieicent between the land rent and average size of cultivated land is quite high: o.62 and is statistically significant. with some exceptions, it is seen that in the central provinces the land rent paid per household was higher than in the other provinces. The rank corrrelation coefficient of the total expenses on agriculture with the size of cultivated land is also of the same order (0.63) showing that the part of the province wise variation observed in the expenditure per household on agriculture is due to the variation in the average size of cultivated land per household in the provinoces.

Table No. 4.3. Showing the classification of average current expenditure on enterprise per household.

Figs: in Birr

SR. NO.	PROVINCE	AGRICULTURE					LIVESTOCK			
		LAND TAX	RENT	CONSUM-ABLE ITEMS	WAGES	TOTAL	FEED	VETERNARY ITEMS	TOTAL	TOTAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Tigre	9.87	13.09	-	-	22.96	0.33	-	0.33	23.29
2	Begemder	7.68	6.87	-	-	14.55	0.17	-	0.17	14.72
3	Gojam	12.52	7.65	-	-	20.17	-	-	-	20.17
4	Wollo	3.16	5.96	-	-	9.12	1.03	1.53	2.56	11.68
5	Hararge	9.11	25.22	-	1.18	35.51	-	0.30	0.30	35.81
6	Arussi	17.47	56.98	-	-	74.45	11.48	0.48	11.89	86.34
7	Shoa	13	65	-	2	80.00	*	*	4.00*	84.00
8	Wollega	7.43	25.67	-	-	33.10	5.18	-	5.18	38.28
9	Illubabor	16.35	5.63	-	-	21.98	-	3.79	3.79	25.77
10	Kefa	4.40	14.02	-	1.08	19.50	0.04	0.83	0.87	20.37
11	Gemu Goffa	11.17	7.29	-	-	18.46	0.09	1.47	1.56	20.02
12	Sidamo	5.03	25.60	-	-	30.63	-	-	-	30.63

* The break up of this estimate into the two components is not available.

4.3.3. Expenditure on maintenance of livestock was not reported in Gojam and Sidamo. In the other provinces it varied from $0.17 in Begemder to $5.18 in Wollega and $11.89 in Arussi. In the central provinces except Hararge and in the province except Hararge and in the province of Illubabor, the estimated expenditure under this item was on the higher side. Expenditure on cattle feed was reported in eight provinces and that on veternary items in seven provinces. It may be noted that the reference period for the expenditure on these items was that of a week.

4.4. Notes on tables no. 4.4: Analysis of expenditure on capital formation

4.4.1. The classification of the total expenditure on capital formation is shown in table no. 4.4. The two major classes: expenditure on real assests and deposits are further sub-divided into suitable categories. The former is divided into purchase of real assets and construction and improvement to them. Purchase of real assests is further classified into pruchase of animals and purchase of tools and implements the latter category being shown in detail as tools and implements for agriculture, transport and others. Expenditure under deposits is shown in the two categories, ecoub and ider, under which it was reported.

4.4.2. No expenditure under deposits was reported in four provinces (the reference period for reporting of this expenditure was one week). The estimate for the provinces where deposits were reported was quite small in absolute terms. Expenditure on deposits formed less than five percent of total expenditure under capital formation except in Wollega (5%), Gemu Goffa (12%) and Shoa (22.6%).

4.4.3 The estimates of annual expenditure on real assets are based on data for the period of one year for tools and implements and for one week for animals and construction & improvements. Under the item expenditure on construction and improvements is included the expenditure on purchase of building materials, material for construction , fencing, thatching etc. The estimated expenditure per household under this item varied from $0.87 for Arussi to $23.01 for Sidamo, the estimates for the four southern provinces and for Wollega being higher than those for the other provinces. As a proportion of total expenditure on real assets, it formed from 0.17 percent in Arussi to 88 percent in Sidamo. In Gemu Goffa and Gojam it accounted for nearly 60 percent of the total expenditure on real assets while in the other provinces it accounted for between about one fifth

Table No. 4.4: Showing the classification of average cash expenditure on capital formation per household..

Figs: In Birr

SR. NO.	PROVINCE	EXPENDITURE ON REAL ASSETS								DEPOSITS			TOTAL
		PURCHASE OF REAL ASSETS						CONSTRUCTION AND IMPROVEMENTS	TOTAL				
		TOOLS AND IMPLEMENTS				ANIMALS	TOTAL			ECOUB	IDER	TOTAL	
		AGRICULTURE	TRANS-PORT	OTHERS*	TOTAL								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Tigre	7.68	0.13	0.06	7.87	18.78	26.65	1.72	28.37	-	-	-	28.37
2	Begemder	3.83	-	1.86	5.69	2.46	8.15	4.79	12.94	-	-	-	12.94
3	Gojam	2.42	-	0.02	2.44	-	2.44	4.11	6.55	-	-	-	6.55
4	Wollo	1.60	0.08	1.43	3.11	12.93	16.04	4.23	20.27	-	0.19	0.19	20.46
5	Hararge	5.52	0.13	0.05	5.70	17.92	23.62	9.44	33.06	0.83	-	0.83	33.89
6	Arussi	10.96	3.39	4.59	18.94	482.95	501.89	0.87	502.76	4.90	2.65	7.55	510.31
7	Shoa	5.7	1.0	2.5	9.2	25	34	7	41	9	3	12	53
8	Wollega	5.13	0.51	1.39	7.03	32.79	39.82	17.04	56.86	3.18	-	3.18	60.04
9	Illubabor	0.58	-	0.04	0.62	40.62	41.24	19.86	61.10	-	-	-	61.10
10	Kefa	4.23	0.18	2.10	6.51	64.86	71.37	17.84	89.21	0.54	-	0.54	89.75
11	Gemu Goffa	1.79	0.06	0.13	1.98	8.23	10.21	14.29	24.50	1.90	1.20	3.10	27.60
12	Sidamo	2.46	0.54	0.14	3.14	-	3.14	23.01	26.15	-	1.00	1.00	27.15

*Includes mainly hunting and defence equipment.

to one third of the total expenditure on real assets (except Tigre:6%)

4.4.4. The total expenditure on purchase of real assets varied from $2.44 in Gojam to $71.37 in Kefa , to a very high figure of 501.89 in Arussi. The expenditure was on the lower side in three of the northern provinces (Tigre excepted) and two of the southern provinces of Gemu Goffa and Sidamo. The estimate for Arussi was inflated because of the large expenditure on purchase of animals. Expenditure on purchase of animals was not reported in two provinces and wherever it was reported, it accounted for a very large proportion of the total expenditure on purchase of real assets, the least being in Tigre (70.5%), with the only exception of Begemder (30.2%). It may be noted that the annual estimate of expenditure on purchase of animals are based on the data for the reference period of a week and the variation observed in this respect among the provinces may be largely due to the shortness of the reference period.

4.4.5. As regards the annual expenditure per household on the purchase of tools and equipment (based on a year's data) the estimate for Gojam ($2.44) was the least and that for Arussi ($18.94) the highest; the second highest being for Shoa ($9.2). With some exception, the estimates for the central provinces were higher than for the other provinces. Since, as the table shows , the major part of this expenditure was on agricultural implements, it will be of interest to see how the province wise estimates of expenditure under this item are related to the estimates of average size of cultivated land as available from the NSS for the different provinces. The rank correlation between those two is very high (0.80) showing that the estimates of expenditure per household on tools and implements were generally higher for those provinces for which the estimated average size of cultivated land per household (NSS) was larger . Similarly rank correlation using only the estimates of expenditure on tools and implements for agricultural use, is also very high (0.78) suggesting similar relationship with the size of cultivated land.

4.4.6. The expenditure per household on tools and implements relating to transport was not reported in three provinces and was less than one dollar in the other except Shoa ($1.0) and Arussi($3.39). The other tools and implements relate mostly to hunting and defence , and expenditure on them was reported in all provinces: less than tone dollar in six of them, between one to two dollars in three and exceeding two but less than five dollars in the rest.

4.5. Notes on table no. 4.5: Analysis of expenditure on transfer payments.

1. The classification of expenditure on transfer payments is shown in table no 4.5 under gifts, loans and other type of transfer payments. The data was collected for the reference period of a week and the estimates of annual expenditure are based on the weekly data.

2. The estimates of annual expenditure per household on gifts varied from $1.50 in Sidamo to $106.41 in Wollega. Besides the latter estimate, the estimated expenditure in Arussi, Shoa and Gojam is on the higher side. Expenditure on loans given or repaid was not reported in four provinces and only in three provinces it exceeded $10 but was less than $20. The other transfer payments included payments of fine in Gemu Goffa and Wollega and afelama in the latter province.

Table No. 4.5.: Showing the classification of average expenditure per household on transfer payments.

Figs: In E$

SR. NO.	PROVINCE	GIFTS	LOANS	OTHERS	TOTAL
(1)	(2)	(3)	(4)	(5)	(6)
1	Tigre	2.50	2.89	-	5.39
2	Begemder	1.97	-	-	1.97
3	Gojam	20.15	-	-	20.15
4	Wollo	3.79	14.03	-	17.82
5	Hararge	4.47	1.42	-	5.89
6	Arussi	50.44	-	-	50.44
7	Shoa	22	7	-	29
8	Wollega	106.41	13.17	18.66*	138.24
9	Illubabor	10.02	-	-	10.02
10	Kefa	5.36	3.71	-	9.07
11	Gemu Goffa	3.98	15.69	27.79@	22.46
12	Sidamo	1.50	0.26	-	1.76

*Consists of fine: E$14.45 and afelama: E$4.21

@ Consits of fine :E$2.79

4.6. Notes on table nos.4.6.to 4.11:Details of cash domestic expenditure.

4.6.1. The tables nos. 4.6.to 4.11 given in Appendix D, provide further classifications of domestic expenditure on food, drinks & tobacco, consumable items, clothing and footwear , household durables and services respectively. The tables show the estimates of annual expenditure per person on the constituent groups of items under each major group mentioned above. Each table is supplemented by two tables with subscripts A and B respectively (for example 4.6A and 4.6.B) which give the percentage expenditure and expenditure per household respectively.

4.6.2. It may be noted that the estimates in the tables are based on a sample of households in each province and the sample size is not large enough to give the estimates of expenditure on a detailed list of items. Further the estimates are based on a week's data in most cases and the variability between the provinces which is accentuated by the shortness of the reference period is further exaggerated in the case of estimates relating to constituent items. For this reason detailed notes are not presented for each individual table. Only the general observations on these tables are given in the following paragraphs.

4.6.3. Tables Nos. 4.6.A. and 4.6.B: - In most of the provinces cereals and 'other' food items (which include sugar and honey, salt, oil, injera, bread, enset etc) accounted for a fairly large percentage of total cash expenditure on food. In some provinces spices, dairy products and pulses recorded a significant percentage. The highest estimated per capita expenditure on cereals barley exceeded $25 per year. The estimated expenditure per capita on all other groups of items individually was less than $10 per year and in many cases less than one dollar. Expenditure on fruits and oilseeds was almost negligible in the provinces where it was reported.

4.7.1. Tables nos. 4.7, 4.7.A and 4.7.B: - Coffee and beer, (in that order, except in Kefa and Gemu Goffa) accounted for the largest percentage of total expenditure on drinks and tobacco in most of the provinces, the exceptions being Hararge, Wollega and Illubabor. In Hararge, chat accounted for the largest percentage, followed by coffee and tobacco. In Wollega spirits (65%) and in Illubabor wines (60%) accounted for a very large portion of the total expenditure drinks & tobacco. The highest estimated expenditure per capita per year obtained in the case of Illubabor (on wines :$7.17) followed by Wollega (on spirits: $5.96). Arussi

(on Coffee : $5.74) and Shoa (on coffee: $3.16). The highest estimated expenditure on tobacco obtained in the case of Hararge ($0.71).

4.8.1. Tables Nos. 4.8.A, 4.8.B:- Fuel and light accounted for the highest proportion of total expenditure on consumable items except in the case of Wollega and Sidamo. Considerable proportion of expenditure was spent on household cleansint material (laundry soap) in Arussi and Wollega and on other household items (incense and myrrh) in Kefa and Sidamo. Medical items and items of personal hygene accounted for more than 10 percent of total expenditure on consumable items in all provinces except Begemder, Gojam and Hararge. The per capita annual cash expenditure on consumable item exceeded one dollar in the four central provinces and the provinces of Illubabor and Kefa (highest expenditure $1.99). Individual groups of items did not account for 50 cents except in the case of household cleansing item (Wollega) and fuel and light (all provinces except the four northern provinces and Sidamo).

4.9.1. Tables nos. 4.9.A., 4.9.B:- National dress and other indoor wear were the two major groups of clothing articles accounting for more than 80 percent of the total expenditure on clothing in all provinces. In the four Central provinces and the provinces of Illubabor and Kefa the latter accounted for larger expenditure than the former. Expenditure on footwear, which did not exceed 10 percent in any province, accounted for a much lower percentage in the four northern provinces and in Sidamo. This also held good for the per capita expenditure on footwear. With the exception of Arussi $8.86, the per capita expenditure on national dress varied between $2 to $4.93 and that on other indoor wear from $1.40 to $7.36.

4.10.1. Tables no. 4.10, 4.10.A, 4.10.B: - The total expenditure per person per year on household durable items was less than $5 in all provinces. The estimates of expenditure on individual groups of items rarely exceeded $1. By and large soft furnishings, earthern were items and straw and wood items accounted for the major share of total expenditure.

4.11.1 Tables no.4.11, 4.11.A, 4.11.B: - Education, medical and personal services generally accounted for the total expenditure on services. Expenditure on transport accounted for a fairly large percentage in Hararge (26%) and in Kefa it accounted for three fourths of the total expenditure. Generally, the estimates of per capita annual expenditure on the individual groups of items was less than $2.50, exceptions being Wollega ($4.35 on personal services) and Kefa ($8.74 on transport). These two provinces also recorded the highest total expenditure on services.

CHAPTER V

HOUSEHOLD CONSUMPTION

5.0. Introduction

5.0.1. The data on consumption of food articles and drinks was collected from the sample households for the reference period of a week. Details of quantities of food and drink consumed were recorded by daily visits to the household for the reference period. Where a batch of food was prepared in advance, the data was recorded by actual weighing of the batch of food before it was consumed. In most cases however the data had to be recorded by asking the housewife to show the quantities of various constituants of food used in the previous day's food preparation for the household and by weighing the quantities thus shown by the housewife. In the case of most of the food items which are not used in very small quantities this procedure is expected to give a fairly accurate estimates of quantities used in view of the simplicity and conformity of the diet and the more or less standard procedures which a housewife has for preparing the food articles of the usual menu of the household's dietary. In addition, the record of food consumption was confirmed by measuring the stock at the beginning and at the end of the reference period and considering the amounts purchased during the reference period. This test gave satisfactory results in the case of the food items used generally in appreciable quantities. In the case of items like salt, sugar, oil and berbere, which are used in small quantities, the above method perhaps did not give very satisfactory records of the quantities of such items consumed, the chief difficulty being in the measurement of small quantities accurately.

5.0.2. The tables included in this chapter give the estimates of consumption in two different ways. One type of tables shows the quantitative estimates either in grammes or litres depending upon the nature of the item and the consumption is expressed quantitatively as an average per person per week. The second type of tables gives the data on consumption in terms of equivalent calories. The conversion of quantities of different items of food consumed into calories not only brings diverse items of food on a comparable scale, but also provides, after aggregation over all food items and drinks, the most important statistic on the nutritional aspect of consumption. Since the consumption of food and drinks as also the nutritional requirements vary, among other things, according to the sex and age of an individual, the total number of persons in the sample households are

converted into the number of adult (male) equivalents by adopting the following scale.

Adult male	1.0
Adult Female	0.9
Male children (under 15 yrs)	0.7
Female children (under 15 yrs)	0.6

The calorific values are then expressed as average per day per adult (male) equivalent.

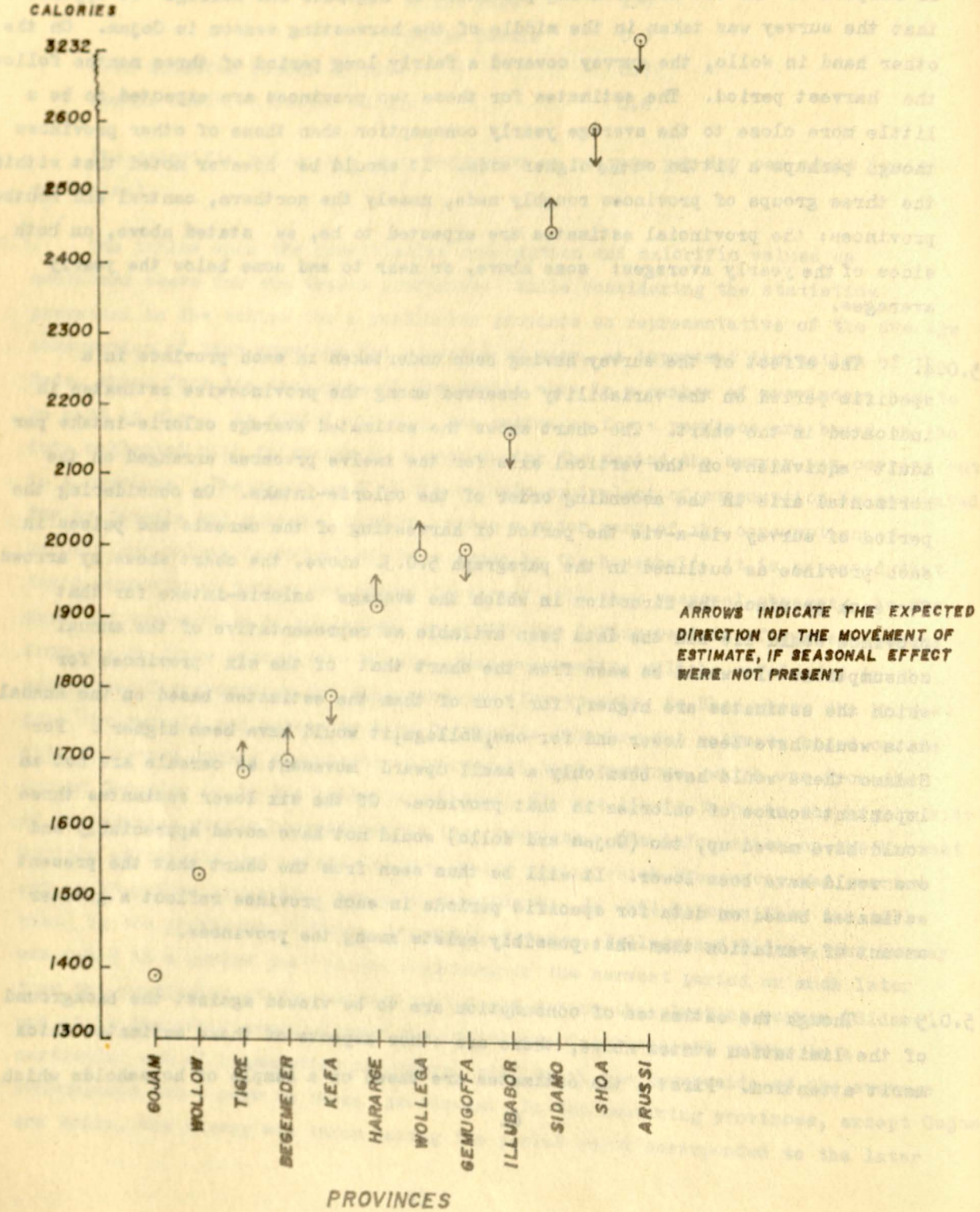
5.0.3. The tables show the quantitative consumption and calorific values as mentioned above for the twelve provinces. While considering the statistics presented in the tables for a particular province as representative of the average consumption of that province for a period of year, an important limitation of the data, apart form the smallness of the sample size in a number of provinces, has to be kept in view. As stated earlier, the estimates for a province are based on the data collected with reference to a week during the period the survey was carried out in a province. The major part of the caloric equivalent of consumption is accounted for by cereals and pulses. Further, since a major part of the consumption of cereals and pulses is out of the crop grown by the household, it is expected that their consumption during the period of a year will show seasonal changes. As the data on consumption is collected in a province during periods of survey ranging from one to three consequtive months, this seasonality will be refelected in the estimates of consumption for that province. For example, in Shoa where the harvest time for cereals and pulses is from October to February the estimate based on the data collected during the period of survey in that province, which was from the end of December 66 to the beginning of April 67, are likely to be on the higher side of the average yearly consumption in that province. The information on the harvest periods of cereals and pulses and the period during which the survey was carried out is therefore given in a table in Appendix E. It will be seen from the table that in the provinces of Tigre, Begemder, Hararge, Wollega and Sidamo, the survey was taken in a period just at the beginning of the harvest period or much later than the conclusion of the harvest period and during the planting season (Sidamo) and it is therefore expected that the estimates of cereals and pulses in a particular and of consumption in general will be on the lower side of the average consumption for a year in these provinces. In the remaining provinces, except Gojam and Wollo, the survey was taken during the period which corresponded to the later

part of harvesting period or to a short period immediately following the harvest period and the estimates are expected to be on the higher side of the yearly average. in Gojam the period of survey was of one month; the data regarding harvesting season is not avilable from the NSS for this province. But from the information available in respect of the two neighbouring provinces of Begemder and Wollega it appears that the survey was taken in the middle of the harvesting season in Gojam. On the other hand in Wollo, the survey covered a fairly long period of three months following the harvest period. The estimates for these two provinces are expected to be a little more close to the average yearly consumption than those of other provinces though perhaps a little on the higher side. It should be however noted that within the three groups of provinces roughly made, namely the northern, central and southern provinces; the provincial estimates are expected to be, as stated above, on both sides of the yearly averages: some above, or near to and some below the yearly averages.

5.0.4. The effect of the survey having been undertaken in each province in a specific period on the variability observed among the provincewise estimates is indicated in the chart. The chart shows the estimated average calorie-intake per adult equivalent on the vertical axis for the twelve prvonces arranged on the horizontal axis in the ascending order of the calorie-intake. On considering the period of survey vis-a-vis the period of harvesting of the cereals and pulses in each province as outlined in the paragraph 5.0.3. above, the chart shows by arrows for each province the direction in which the average calorie-intake for that province would lie had the data been avilable as representative of the annual consumption. It would be seen from the chart that of the six provinces for which the estimates are higher, for four of them the estimates based on the annual data would have been lower and for one, Wollega, it would have been higher . For Sidamo there would have been only a small upward movement as cereals are not an important source of calories in that province. Of the six lower estimates three would have moved up, two (Gojam and Wollo) would not have moved appreciably and one would have been lower. It will be thus seen from the chart that the present estimates based on data for specific periods in each province reflect a greater amount of variation than what possibly exists among the provinces.

5.0.5 Though the estimates of consumption are to be viewed against the background of the limitation stated above, there are other aspects of these estimates which merit attention. First , the estimates are based on a sample of households which

PROVINCEWISE ESTIMATES OF AVERAGE CALORIES PER DAY PER ADULT EQUIVALENT



was chosen by an objective method (ie. by probability sampling method) of selection. Second, they are based on actual quantities observed to be consumed by the sample households or on very close approximations to the actual quantities. Third the information is based on weights taken by the field enumerators of the food constituants. Fourth, those observations were taken for a period of seven days. Though the estimates for a province strictly rerer to the period during which the survey was carried out in it, for that period the survey has thus afforded data in an objective manner, representing the consumption of rural population of that province. It can be stated that with all its limitations the survey was the first ever attempt of collecting data on consumption in an objective manner on an almost nationwide basis in Ethiopia.

COLORIC VALUE OF CONSUMPTION OF FOOD AND DRINKS

5.1. Notes on table no. 5.1. calorific value of consumption of food and drinks.

5.1.1. The table no.5.1.A gives a summary of the data on consumption of food and drinks in the twelve provinces. It shows the average calorific value of food and drinks consumed per day per adult equivalent with classification of food items into suitable groups of food items similar in character. The table no.5.1.B is based on table no. 5.1.A. and shows the percentage of total calories accounted for by food and its sub-groups and drinks. The details of consumption of individual items of food constituting the various sub-groups are given in the later tables.

5.1.2. The average daily intake of calories per adult equivalent varied from 1384 in Gojam to 3323 in Arussi. The estimate for Arussi appears particularly high; the difference between Arussi estimate and the next in order of magnitude (for Shoa) being 749 calories which is nearly 22.5 percent of Arussi estimate. In this connection it is to be pointed out that the sample size for Arussi was small and the reference period was of about 14 days instead of a week. Further the survey was carried out in that province by an entirely different batch of investigators. It is believed that the investigator difference might have contributed mainly to the large difference between the estimates for Arussi and other provinces and that this factor has lead to an appreciable degree of overestimation of consumption for Arussi.

5.1.3. The limitation imposed on the strict comparison of estimated intake of calories for different provinces have been stated earlier. Subject to that limitation, it appears from the table that the daily intake of calories is smaller

in the four northern provinces than that in the remaining provinces. Of these latter provinces, besides Arussi, the estimates for Shoa and Sidamo appear to be larger.

5.1.4. It would be useful to compare the estimates of the calorie intake with the average requirements of calories of the population of the twelve province. However an authoritative statement on the average calorie requirements of the Ethiopian population is not available. Two studies may be referred to in this connection . The first is the 'Ethiopia, Nutrition Survey; A report by the interdepartmental Committee on Nutrition for Nation Defence (September 1959) ' and the second: 'Nutrition and Dieties 'by dr. B.S.Simic, published by the Ministry of Public Health, Addis Ababa (1965). The interdepartmental committee in its report, on page 2, in the course of giving the summary of its findings, has recorded that the average daily dietary per capita intake as calculated from the dietary pattern information was approximately 2500 calories which it considered would appear adequate if judged solely on the caloric needs of persons of Ethiopians' physical stature. However, after taking into account the factors mentioned earlier, it came to a conclusion that there was an average caloric deficit of up to 400 calories per person per day. It would therefore appear that according to this study the average daily requirement of calories for Ethiopia is about 2900 calories per person or 3500 calories per adult equivalent. Dr.Simic in his study has, it appears, adopted the same figures (pp34). However it may be pointed out that the estimate of 2500 calories per capita per day (to which an allownace of 400 calories are added for the specific factors of temperature variations, altitude etc) given by the interdepartmental committee as the average intake does not have a very firm basis. The estimate is based on 'production' data (without adjustment for seed, feed and wastage) and on data collected on 17 samples only, of families and institutions. For this reason, the estimated requirement of 2900 calories per capita or 3500 calories per adult equivalent can be considered only as a starting point, to be reviewed in the light of fresh data which comes up from the surveys of consumption such as the present one, encompassing a much wider section of poulation selected by objective sampling methods and by actual observations in the field.

5.1.5. The limitation of the available information on requirement of calorie-intake having been stated above, it would be useful only as an exploratory exercise to compare the estimated consumption from the survey with the requirment of calories

Table No 5.1. (A): Showing the average daily intake of calories per day per adult equivalent from different food groups and drinks.

Sr. No.	Province	Calories per adult equivalent per day														
		FOOD														
		Cereals	Meat	Dairy product	Pulses	Vegetables	Fruits and oil-seeds	Spices	OTHER FOOD ITEMS				Total	Drinks	Total
									Sugar and Honey	Oil	Enset	Total			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1.	Tigre	1365	10	43	104	31	21	56	-	-	-	-	1630	45	1675
2.	Begemder	1178	6	44	219	122	7	90	-	5	-	5	1671	21	1692
3.	Gojam	1052	4	6	150	41	1	69	-	4	-	4	1327	57	1384
4.	Wollo	1176	4	2	192	1	8	57	-	1	-	1	1441	90	1531
5.	Hararge	1481	64	110	39	139	3	19	5	34	-	39	1894	14	1908
6.	Arussi	2371	56	150	410	17	-	120	6	102	-	108	3232	91	3232
7.	Shoa	1335	38	52	483	19	9	60	6	33	316	355	2334	223	2574
8.	Wollega	1254	22	30	312	3	2	37	4	24	-	28	1688	290	1978
9.	Illubabor	1531	89	94	230	31	7	69	4	34	-	38	2089	65	2154
10.	Kefa	1274	25	36	161	146	-	23	5	38	52	52	1760	27	1787
11.	Gemu Goffa	885	2	44	234	162	1	7	-	2	640	642	1977	12	1989
12.	Sidamo	397	30	141	11	101	-	44	-	-	1702	1702	2426	8	2434

Table No. 5.1.(B): Showing the percentage of calories from different food groups and drinks to total calories.

Sr. No.	Province	Percentage of total calories													
		FOOD											Drinks	Total
		Cereals	Meat	Dairy products	pulses	Vege-tables	Fruits and Oil-seeds	Spices	OTHER FOOD ITEMS				Total		
									Sugar and Honey	Oil	Enset	Total			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1.	Tigre	81.5	0.6	2.6	6.2	1.9	1.3	3.3	-	-	-	-	97.4	2.6	100.0
2.	Begemder	69.6	0.4	2.6	12.9	7.2	0.4	5.3	-	0.3	-	0.3	98.7	1.3	100.0
3.	Gojam	75.9	0.3	0.4	10.8	3.0	0.1	5.0	-	0.3	-	0.3	95.8	4.2	100.0
4.	Wollo	76.8	0.3	0.1	12.5	0.1	0.5	3.7	-	0.1	-	0.1	94.1	5.9	100.0
5.	Hararge	77.6	3.4	5.8	2.0	7.3	0.2	1.0	0.2	1.8	-	2.0	99.3	0.7	100.0
6.	Arussi	71.4	1.7	4.5	12.3	0.5	-	3.6	0.3	3.0	-	3.3	97.3	2.7	100.0
7.	Shoa	51.9	1.5	2.1	18.8	0.7	0.3	2.3	0.2	1.3	12.3	13.8	91.4	8.6	100.0
8.	Wollega	63.4	1.1	1.5	15.8	0.2	0.1	1.8	0.2	1.2	-	1.4	85.3	14.7	100.0
9.	Illubabor	71.1	4.1	4.4	10.7	1.4	0.3	3.2	0.2	1.6	-	1.8	97.0	3.0	100.0
10.	Kefa	71.3	1.4	2.8	9.0	8.2	-	1.3	0.3	2.1	3.0	5.4	98.5	1.5	100.0
11.	Gemu Goffa	44.5	0.1	2.2	11.8	8.1	0.1	0.4	-	0.1	32.1	32.2	99.4	0.6	100.0
12.	Sidamo	16.0	1.2	5.8	0.5	4.4	-	1.8	-	-	70.0	70.0	99.7	0.3	100.0

as indicated by both the studies mentioned above. The table 5.1.A. shows that for all provinces the estimates of intake of calories were far less than the requirement of 3500 calories. The only estimate of calorie-intake which came close to the requirement was in the case of Arussi, but as stated earlier, this estimates appears to be an over estimate. The data collected in the Household Expenditure and consumption survey thus reveals that the actual calorie-intake was much below, the level of 2500 calories per captia (or 3000 calories per adult equivalent) which was estimated by the Interdepartmental Committee as the calorie-intake- not the requirement - of an average Ethiopian. Despite its limitation, the survey has cast a new light on the actual average calorie-intake of the rural population.

5.1.6. The table 5.1.A. shows the breakdown of the total calorie-intake by the two major types of consumption: food and drinks. Drinks contributed very small amount of calories in the two southern provinces of Gemu Goffa and Sidamo. In other province also their contribution was small ranging from 21 calories in Begemder to 91 calories in Arussi and only in Shoa and Wollega their contribution was significantly large. From table 5.1.B. it is observed that in these last two provinces, drinks contributed 8.6 and 14.7 percent of the total calorie-intake and in the other provinces they accounted for about 6 or less percent of the total calories.

5.1.7. From the details of calorie-intake shown in the table (5.1.A.) in respect of the food group it is observed that cereals constituted the single major source of calories in all provinces except Sidamo where enset provided the largest amount of calories. Pulses constituted the next important source of calories except in Hararge, Arussi, Gemu Goffa and Sidamo. In Hararge, it is interesting to note that vegetables were the second most important source contributing more than, not only pulses, but dairy products also. In Arussi , dairy products were the second important source while in Gemu Goffa it was the enset. In Sidamo, cereals constituted the second important source.

5.1.8. Cereals: Except for Gemu Goffa and Sidamo where enset was an important food item in other provinces cereals contributed more than a thousand calories. Leaving aside the estimate for Arussi, the calorie-intake varied between a narrow margin of 1250 to 1550 calories except in the three northern provinces of Begemder, Gojam and Wollo where cereals contribute appreciably smaller amount of calories. The

table 5.1.B shows that cereals contributed about 70 percent or more of toal calories except in Shoa, Gemu Goffa and Sidamo where Enset, to varying extent, was a staple food.

5.1.9. Pulses:- Pulses contributed the least amount of calories in Sidamo (11) and Hararge (39). Their consumption was the highest in Shoa (483 calories), Wollega (312 calories) and Arussi (410 calories). In other provinces, the calories derived from pulses varied between 104 in Tigre to 234 in Gemu Goffa. They contributed the least percentage of total calories in Sidamo and Hararge and the highest is Shoa (18.8percent). In other provinces their contribution accounted for between6 to 16 percent of total calories.

5.1.10. Foods of animal origin: Dairy products (including eggs): Dairy products (including eggs) fish and meat are the source of proteins of high biological value. In Gojam and Wollo the consumption of dairy products per adult equivalent appeared to be almost negligible. In six of the remaining provinces their contribution to total calories ranged from 30 calories in Wollega to 52 calories in Shaa. In Illubabor (94 calories) Hararge (110 calories) Sidamo (141 calories) and Arussi (150 calories) their consumption appeared to be quite apperciable. As a percentage of total calorie-inake, the calories derived from dairy products was negligible in Gojam and Wollo and was less than 6 percent in the other provinces. By and large it appears that the consumption of dairy products was at a relatively lower level in the northern provinces.

5.1.11. Meat:- All the northern provinces and the province of Gemu Goffa showed an almost negligible calorie-intake per adult equivalent per day from meat. The highest consumption in terms of calories was estimated in Illubabor (89 calories). In the other six province, the calories derived from meat varied from 25 to 64 . The percentage of total calories derived from meat followed a similar pattern. Meat contributed less than one percent of total calories in the four northern provinces and the province of Gemu Goffa. The highest percentage it contributed is in Illubabor (4.1.Percent) and in the remaining six provinces it contributed between one and 3.5 percent.

5.1.12. Fish:- Consumption of fish was reported in five provinces, but it was very negligible.

5.1.13. Vegetables:- Vegetables contributed negligible amount of calories in Wollo and Wollega. In the three southern provinces of Kefa, Gemu Goffa and Sidamo, and in the provinces of Begemder and Hararge they contributed relatively a sizable amount of calories (ranging from 101 to 162). In the remaining five provinces their consumption yielded between 17 and 41 calories. Vegetables accounted for more than five percent of total calories in Begemder, Hararge, Kefa and Gemu Goffa. In all other provinces they contributed three percent or less of the total calories, the only exception being Sidamo (4.4percent). It appears that vegetables were an important source of calories only in the three southern provinces mentioned above and in Begemder and Hararge.

5.1.14. Fruits and Oil seeds:- Consumption of fruits and oil seeds was not reported in Arussi, Kefa and Sidamo while its calorific value was negligible in all other provinces (with the exception of Tigre) where they contributed less than 10 calories per day per adult equivalent accounting for less than one percent of total caloric intake. In Tigre they contributed 21 calories per day per adult equivalent which was 3.3 percent of total caloric intake in that province..

5.1.15. Spices:- Spices, in the quantities commonly used do not contribute to the calorific value or nutritive value of the diet. But the characteristic of Ethiopian diet is that spices appear to be a source of calories as they contributed more calories than those supplied by fruits andoilseeds in all provinces, more than meat in nine provinces, more than vegetables in seven provinces and more than dairy products in six provinces. Calories derived from spices were not very large in amount in the provinces of Gemu Goffa, Hararge and Kefa. In the other provinces they ranged between 37 to 90 with estimate for Arussi being 120 per day per adult equivalent. Generally it appears that consumption of spices was at a higher level in the northern provinces where they also accounted for a larger percentage of total calories than in the other provinces, Arussi being the only exception.

5.1.16. Other food items: The group of 'other food items ' includes sugar & honey, oil and enset. Consumption of sugar or honey was not observed in any of the northern provinces and two of the southern provinces of Gemu Goffa and Sidamo during the reference period. In the other provinces it was low enough to provide only about 5 calories accounting for hardly 0.3 percent of the total calorie-intake. Consumption of oil too was either not reported or was negligible in the four northern

provinces and the two southern provinces of Gemu Goffa and Sidamo. The Arussi estimate of calories from oil was singularly high; for the other five provinces it ranged from 24 to 38. Oil contributed between one to two percent of the total calorie-intake in these five provinces, its contribution in Arussi being three percent. Consumption of enset was reported in the three southern provinces of Kefa, Gemu Goffa and Sidamo as well as in Shoa. Calories derived from consumption of enset were significantly large in amount in Sidamo where they accounted for 70 percent of the total calorie-intake . In Gemu Goffa enset contributed 640 calories per day per adult equivalent accounting for roughly a third of the total calorie-intake. In Shoa, consumption of enset yielded 316 calories per day per adult equivalent amounting to about 12 percent of the total calorie-intake. In Kefa , enset yielded about three percent of total calorie-intake.

5.1.17. Pattern of Caloric-intake:- From the nutritional point of view a proper diet should provide not only adequate amount of total calories but also that this total amount be derived from a proper combination of food items so that other nutritional needs in respect of proteins, minerals, vitamins etc. are satisfied. Nutritionists therefore fix up a desirable pattern of calorie-intake specifiying the proportions of total calories which should be derived from various groups of food items. However, if the total calorie-intake is highly inadequate, the pattern of calorie-intake loses much of its significabce as adequency of total calorie-intake is the fore-most nutritional requirement. It has been seen earlier that an authoritative statement on the norm of requirements of total calorie-intake is not available and that if one starts with the figure of 3500 calories per adult equivalent per day, the actual consumption as revealed by the present survey is far below this figure in all provinces (except Arussi). A study of the observed pattern of calorie-intake vis-a-vis the desirable pattern may not therefore yield very useful conclusions. Nevertheless, it may be of interest to the nutritionists to know how the present pattern stands in relation to a pattern corresponding to a balanced diet. Towards this limited end a references is made to Dr. Simio's work (pp 200-201) referred to above. Dr. Simio considers that for a well balanced diet with a good proportion of aliments and nutrients different kinds of food-stuffs should be present in the diet in certain proportions, the percentage of calories that should accure from the various kinds of food-stuffs being:

Cereals:	45	Visible fat :	15
Meat, Fish & eggs:	10	Vigetables:	10
Milk (Dairy Products):	10	Fruit:	5
		Sweets :	5

Some of the groups of food items given above are not identical with those presented in table 5.1.A. and 5.1.B. Eggs are included under dairy products in tables 5.1.A. and 5.1.B. Dr. Simic has included pulses under the group vegetables, while the group of visible fats included, in addition to vegetable oils, butter which is included under dairy products in the tables 5.1.A. and 5.1.B. If therefore a comparison of the aggregate of the two groups, vegetables and pulses, in tables 5.1.A. and 5.1.B. is made with the group of vegetables made by Dr. Simic, it is possible to broadly compare the pattern of consumption as revealed by table 5.1.B. with the desirable pattern given by Dr. Simic, as the other difference in the constitution of groups are only marginal.

5.1.18. In comparison with the desirable pattern of intake given by Dr.Simic, the pattern of intake of calories, the table 5.1.B. shows, is considerably different. In all provinces, there was a considerable overdependence on cereals or enset for supply of calories: the percentage contribution from these two sources together ranging from 63.4 in Wollega to 86.0 in Sidamo as against the desirable level of 45 percent. The contribution from pulses and vegetables was well over the desired proportion of 10 percent in all provinces except Sidamo (4.9 percent), Tigre (8.1 percent) and Hararge (9.3 percent). All other groups of food itmes showed much smaller percentages than the desired proportions in all provinces. The pattern of calorie-intake was thus mostly made up of foods of vegetable origin involving staple items of food like cereals, enset and pulses. When the total calorie-intake is inadequate , as it usually happens, the population is not only undernounished but malnourished also.

5.1.19. Detailed analysis of consumption: The remaining tables in this section give itemwise details of estimates of consumption under various food groups. The tables as stated earlier give quantitative as well as the calorific value of consumption. The subsequent paragraphs are devoted to the discussion of these details of consumption estimates.

5.2. Consumption of cereals: Notes on table No. 5.2.

5.2.1. The detailed analysis of consumption of cereals is shown in table No. 5.2. which is divided into three tables. The table 5.2. A . Shows the calorific value of consumption of different cereals per day per adult equivalent; the table 5.2.B.

Table No. 5.2.A: Showing the average daily intake of calories per adult equivalent from different cereals.

Sr. No.	Province	Calories Per Adult Equivalent Per Day From Cereals							
		Teff	Wheat	Barley	Maize	Sorghum	African Millet	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Tigre	49	82	351	666	141	58	18	1365
2.	Begemder	366	33	200	377	145	57	-	1178
3.	Gojam	310	-	168	340	134	99	1	1052
4.	Wollo	220	57	633	7	258	1	-	1176
5.	Hararge	32	8	24	309	1078	11	19	1481
6.	Arussi	319	462	1101	344	86	6	53	2371
7.	Shoa	333	378	322	128	147	17	10	1335
8.	Wollega	561	46	18	465	103	61	-	1254
9.	Illubabor	745	7	-	537	33	206	3	1531
10.	Kefa	471	32	7	482	279	-	3	1274
11.	Gemu Goffa	38	-	295	316	229	7	-	885
12.	Sidamo	3	3	20	245	-	-	126	397

Table No. 5.2.B: Showing the percentage of calories from different cereals to total calorires from cereals.

SR. No.	Province	Percentage to Total Calories From Cereals							
		Teff	Wheat	Barley	Maize	Sorghum	African Millet	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Tigre	3.6	6.0	25.7	48.8	10.3	4.3	1.3	100.0
2.	Begemder	31.1	2.8	17.0	32.0	12.3	4.8	-	100.0
3.	Gojam	29.5	-	16.0	32.3	12.7	9.4	0.1	100.0
4.	Wollo	18.7	4.8	53.8	0.6	22.0	0.1	-	100.0
5.	Hararge	2.2	0.5	1.6	20.9	72.8	0.7	1.3	100.0
6.	Arussi	13.5	19.5	46.4	14.5	3.6	0.3	2.2	100.0
7.	Shoa	25.0	28.3	24.1	9.6	11.0	1.3	0.7	100.0
8.	Wollega	44.7	3.7	1.4	37.1	8.2	4.9	-	100.0
9.	Illubabor	48.6	0.5	-	35.0	2.2	13.5	0.2	100.0
10.	Kefa	37.0	2.5	0.6	37.8	21.9	-	0.2	100.0
11.	Gemu Goffa	4.3	-	33.3	35.7	25.9	0.8	-	100.0
12.	Sidamo	0.8	0.8	5.0	61.7	-	-	31.7	100.0

shows the calories derived from various cereals as percentage to total calories derived from cereals; the table 5.2.C. shows the consumption of cereals in quantitative terms as grammes per person per week. The last table shows, in addition to the province-wise estimates, a weighted average of the provincewise estimates using the population estimates from NSS for the provinces as weights.

5.2.2. Barley contributed negligible amount of calories in Hararge, Wollega, Kefa and Sidamo while its consumption was not reported in the province of Illubabor. In two provinces, Wollo and Arussi it contributed a large amount of calories. In the remaining provinces it contributed between 168 to 351 calories. In the country's total production of cereals, according to official estimates, barley accounts for the largest share (26%). But as stated above in four of the twelve provinces its consumption was reported to be negligible. Except in Wollo and Arussi where it contributed respectively 46.4 per cent and 53.8 percent of the total calories from cereals, in the remaining six provinces its contribution ranged from 16 per cent in Gojam to 25.7 in Tigre and 33.3per cent in Gemu Goffa. The percentage in Gemu Goffa was large because the total calorie-intake from cereals in that province was considerably small.

5.2.3. Teff is the next important cereal from the point of view of the country's production. The calorific value of its consumption was very small in Tigre, Hararge and Gemu Goffa and negligible in Sidamo. In the remaining provinces it contributed between 145 calories (Illubabor) to 561 calories (Wollega)per day per adult equivalent. It accounted for a sizable percentage of total calories in these eight provinces: from 13.5 percent in Arussi to 48.6 percent in Illubabor. In the three neighbouring provinces of Wollega, Illbuabor and Kefa teff contributed particularly high percentage of total calories from cereals.

5.2.4. Maize was the only cereal which contributed almost uniformly a large amount of calories in all provinces except Wollo. Leaving Shoa where its contribution was only 128 calories, in the remaining ten provinces it contributed between 245 calories in Sidamo to 666 calories in Tigre per day per adult equivalent. In five of these provinces namely Begemder, Gojam, Hararge, Arussi and Gemu Goffa it provided between 300 to 400 calories. It contributed roughly one third of the total calories from cereals in six provinces, one half in Tigre and one fifth in Hararge.

5.2.5. Sorghum consumption like maize appeared to be universal though at a lower level than of maize. Except for a very high level of consumption in Hararge (1078 calories), negligible consumption in Sidamo and to some extent in Illubabor, it provided between 86 calories in Arussi to 279 calories in Kefa. In five of the Provinces, the calorific value of its consumption was between 100 to 200 calories and in three provinces between 200 to 300 calories. Sorghum provinded a little more than 10 per cent of total calories from cereals in the three Northern Provinces of Tigre, Begemder and Gojam and in Shoa and between 20 to 25 per cent in Wollo, Kefa and Gemu Goffa and about 73 percent in Hararge. In the other provinces it contributed less than 10 per cent.

5.2.6. Wheat gave sizable amount of calories only in the two neighbouring provinces of Arussi (462 calories) and Shoa (378 calories) accounting respectively for 19.5 and 28.3 per cent of total calories from cereals in these prvinces. In Tigre it provided 82 calories accounting for 6 per cent of total calories from cereals while in other provinces its contribution was much less both in terms of calories and as percentage to total calories from cereals. All the four southern provinces recorded a very low level of consumption of wheat.

5.2.7. The remaining cereals contributed small amount of calories except in Illubabor where African Millets provided 206 calories accounting for 13.5 percent of total calories from cereals and in Sidamo where unspecified cereals contributed 126 calories equivalent to 31.7 per cent of total calories,(It may be recalled that cereals are not an important source of calories in Sidamo). In other provinces the consumption was either not reported or was not equivalent to more than 100 calories. In Gojam only, where, total calories from cereals were quite small in amount, African millets and other unspecified cereals accounted for 9.5 per cent of total calories from cereals.

5.2.8. It will be further seen from the table 5.2.B. that the cereal which contributed the largest percentage of calories was maize in the three northern provinces of Tigre, Begemder and Gojam and in the three southern provinces of Kefa Gemu Goffa and Sidamo; teff in Wollega and the neighbouring Illubabor, barley in Wollo and Arussi, sorghum in Hararge and wheat in Shoa. Further maize accounted for the second largest percentage of calories from cereals in Hararge, Wollega and Illubabor; teff in the provinces of Begemder, Gojam, Shoa and Kefa; barley in Tigre and Gemu Goffa, sorghum in Wollo and wheat in Arussi. It appears that

Table No. 5.2.C. Showing consumption of different cereals per person per week.

Figs: in gm.

Sr. No.	Province	Teff	Wheat	Barley	Maize	Sorghum	Millet	Other Cereals	Total	Enset
1	2	3	4	5	6	7	8	9	10	11
1.	Tigre	82.7	139.4	603.0	1066.7	235.4	99.4	31.5	2258.1	-
2.	Begemder	615.5	55.8	342.3	602.3	241.4	96.5	-	1953.8	-
3.	Gojam	520.9	0.3	285.7	541.1	220.8	168.0	1.1	1737.9	-
4.	Wollo	378.1	98.1	1107.6	11.7	437.6	-	1.3	2034.4	-
5.	Hararge	52.6	13.0	39.5	187.5	1762.1	19.6	30.6	2404.9	-
6.	Arussi	533.1	787.8	1890.6	551.7	144.0	9.6	88.1	4004.9	-
7.	Shoa	572.0	637.1	563.5	208.1	249.1	28.6	16.6	2275.0	913.6
8.	Wollega	952.1	80.1	32.0	749.2	170.6	106.4	-	2090.4	-
9.	Illubabor	1299.5	12.0	-	891.2	57.3	366.5	3.5	2630.0	-
10.	Kefa	795.5	54.1	12.4	772.4	461.9	-	4.8	2101.1	146.7
11	Gemu Goffa	63.2	-	507.4	506.8	381.9	12.7	-	1472.0	1831.5
12.	Sidamo	3.7	3.3	34.5	387.6	-	-	209.4	638.5	4785.6
13.	Rural Average	399.7	183.4	487.2	483.0	486.5	56.7	30.8	2127.3	562.3

maize was a cereal consumed much more commonly than the production data of different cereals indicated and than teff which was believed to be the commonsnet cereal consumed in Ethiopia.

5.2.9. The table 5.2.C gives the consumption of various cereals and enset in grammes per person per week. Since the calorific value of cereals per unit of weight various in Narrow limits the pattern of cereal consumption revealed by this table and that by table 5.2.A is more or less the same in different provinces. The importance of the table lies in that it makes it possible from the data collected in the survey to estimate the total rural consumption of cereals in the twelve provinces and to a large extent that of the rural part of the country. Towards this end, though not strictly valid, a weighted average of provincewise estimates is given at the bottom of the table, the weights used being proportional to the estimated of rural population emerging from the NSS.

5.2.10. The table 5.2.C. Shows that the consumption of all cereals together in rural areas of the twelve provinces is estimated at 2127 gm. per person per week or 304 gm. per person per day or 110 kg. per person per year. Of this, teff accounts for 20.8 kg. per person per year, wheat 9.5 kg., barley 25.3 kg., maize 25.1 kg, and sorghum 25.3 kg. It is interesting to observe that the average consumption of the rural population of barley, maize and sorghum is almost equal and much more than that of teff, though the production estimates of maize and sorghum are far below those of barley and teff. A large part of production of barely may be used for drinks and its consumption in that form is not reflected in the above table. But the table points out that consumption of teff in rural areas was much lower than that which is commonly supposed and supports the observation made in paragraph 5.2.8 above.

5.3. Consumption of pulses: Notes on table No.5.3.

5.3.1. Pulses contributed approximately the same amount of calories as cereals per unit of weight. However they are rich in proteins and it is considered that they should be used on a large scale as an additional food, particularly among the population lacking meat, eggs and milk. The analysis of consumption of pulses is

Table 5.3.A: Showing the average daily intake of calories per adult equivalent from different pulses

Calories per adult equivalent per day from pulses.

SR. NO.	Provinces	Beans	Chickpeas	Peas	Lentils	Others	Total
1	2	3	4	5	6	7	8
1.	Tigre	29	33	39	12	11	104
2.	Begemder	85	19	103	7	5	219
3.	Gojam	63	1	83	-	3	150
4.	Wollo	119	17	44	2	10	192
5.	Hararge	8	1	26	3	1	39
6.	Arussi	119	2	64	4	221	410
7.	Shoa	154	105	124	23	77	483
8.	Wollega	199	7	98	-	8	312
9.	Illubabor	15	-	209	6	-	-
10.	Kefa	77	4	64	15	1	161
11.	Gemu Gofa	78	-	78	-	78	234
12.	Sidamo	3.7	1.8	3.7	-	1.8	11.0

Table no. 5.3.B showing the percentage of calories from different pulses to total calories from pulses.

Percentage to total calories from pulses

Sr. No.	Province	Beans	Chickpeas	Peas	Lentils	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Tigre	27.9	31.7	18.3	11.5	10.6	100.0
2.	Begemder	38.8	8.7	47.0	3.2	2.3	100.0
3.	Gojam	42.0	0.7	55.3	-	2.0	100.0
4.	Wollo	62.0	8.9	22.9	1.0	5.2	100.0
5.	Hararge	20.5	2.6	66.6	7.7	2.6	100.0
6.	Arussi	29.0	0.5	15.7	1.0	54.0	100.0
7.	Shoa	32.0	21.6	25.6	4.8	16.0	100.0
8.	Wollega	63.8	2.2	31.4	-	2.6	100.0
9.	Illubabor	6.5	-	90.9	2.6	-	100.0
10	Kefa	47.8	2.5	39.8	9.3	0.6	100.0
11.	Gemu Goffa	33.3	-	33.3	-	33.4	100.0
12.	Sidamo	33.6	16.4	33.6	-	16.4	100.0

Table No. 5.3.C. Showing consumption of different pulses per person per week

Figs. in gm.

Sr. No.	Province	Beans	Chickpeas	Peas	Lentils	Fenugreek	Others	Total
1	2	3	4	5	6	7	8	9
1.	Tigre	49.3	53.7	29.2	20.2	0.1	18.8	171.3
2.	Begemder	140.6	30.5	169.7	12.0	0.7	8.9	362.4
3.	Gojam	104.3	0.9	136.5	-	0.3	3.6	245.6
4.	Wollo	200.6	28.0	72.5	4.2	0.2	15.4	320.9
5.	Hararge	12.5	1.7	42.4	4.5	5.1	2.1	68.3
6.	Arussi	196.0	4.7	105.1	6.0	3.8	365.6	681.2
7.	Shoa	260.4	176.1	210.0	38.9	0.6	128.8	814.8
8.	Wollega	330.6	11.4	163.7	0.2	3.3	13.3	522.5
9.	Illubabor	26.1	-	357.0	9.9	1.1	-	394.1
10.	Kefa	128.7	5.7	105.6	24.7	0.1	1.1	265.9
11.	Gemu Goffa	127.2	0.9	130.2	-	1.2	128.7	388.2
12.	Sidamo	6.6	2.8	6.5	-	0.1	2.5	18.5
13.	Rural Average	136.5	41.3	110.6	11.9	1.5	51.1	352.9

given in the three table nos.5.3A, 5.3.B, 5.3.C in a manner similar to the tables for cereals. The table no 5.3.C gives in addition consumption equivalent of fenugreek which is used in drinks.

5.3.2. As seen earlier, in Sidmao, pulses were consumed to a very low extent and they accounted for only 11 calories. Similarly in Hararge the consumption of pulses was very small. In most of the other provinces, beans and peas appeared to be the main pulses. The exceptions were Shoa where chickpeas provided 105 calories or 21.6 percent of total calories from pulses, Tigre where they provided 33 calories and were the largest single source of calories from pulses, and Arussi where unspecified type of pulses accounted for more than half the total calories from pulses. Excluding Arussi and Tigre where they contributed a little less than half the total calories from pulses, in other provinces, beans and peas accounted for between 58 to 97 percent of total calories derived from pulses. Beans appeared to be more common in Wollo, Arussi, Shoa, Wollega, Kefa and Gemu Goffa and peas in Begemder, Gojam, Shoa, Illubabor and Gemu Goffa.

5.3.3. The table No. 5.3.C shows that the consumption of pulses (including fenugreek in drinks) amounted to 353 gm. per person per week or 50 gm per person per day or 18.35 kg. per person per year when averaged (as mentioned before) over the twelve provinces. Of this,beans amounted to 7.10 kg. peas 5.75kg., chickpeas 2.15 kg., lentils 0.62 kg., fenugreek 0.08 kg., and other pulses 2.62 kg.

5.4. Consumption of dairy products: Notes on table no. 5.4.

5.4.1. The analusis of consumption of dairy products (including eggs) is shown in tables 5.4.A, 5.4.B and 5.4C. The first two tables show the calorific value and percentage of total calorific value from dairy products of the items in this group viz, milk and yoghurt, butter cheese, butter milk, eggs and other dairy products and the table 5.4.C. shows the quantitative consumption in gms. per person per week.

5.4.2. Consumption of dairy products was at a low enough level in the provinces of Gojam and Wollo to yield negligible amounts of calories in these two provinces. In the remaining provinces, milk and yoghurt and butter appeared to be the two most common forms of supply of calories from dairy products except in the three southern provinces of Illubabor, Gemu Goffa and Sidamo. In Illubabor butter milk and eggs gave roughly one fifth each of the total calories from dairy products while in Gemu Goffa, butter milk accounts for four fifths. In Sidamo, butter milk was next in importance to milk and supplied tow fifths of the calories.

Table No. 5.4.A: Showing the average daily intake of calories per adult equivalent from different dairy products

Calories per adult equivalent per day from dairy products

Sr. No.	Province	Milk & Yoghurt	Butter	Cheese	Butter Milk	Eggs	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Tigre	26	6.	-	11	-	-	43
2.	Begemder	11.0	18.5	3.0	7.3	4.8	-	44.6
3.	Gojam	1.5	3.3	0.2	0.7	-	-	5.7
4.	Wollo	0.2	0.4	0.5	0.7	-	-	1.8
5.	Hararge	107.0	2.5	-	0.3	0.1	-	109.9
6.	Arussi	68.	82	-	-	-	-	150.0
7.	Shoa	6.3	24.5	4.2	-	0.4	-	35.4
8.	Wollega	21	8	-	1	-	-	30
9.	Illubabor	31.1	21.1	1.3	21.8	18.7	-	94.0
10.	Kefa	9	15	5	1	6	-	36
11.	Gemu Goffa	1.7	6.1	0.9	35.6	-	-	44.3
12.	Sidamo	73	13	-	55	-	-	141.

Table No. 5.4.B: Showing the percentage of calories from different dairy products to total calories from dairy products.

Percentage to total calories from dairy products

Sr. No.	Province	Milk & Yoghurt	Butter	Cheese	Butter Milk	Eggs	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Tigre	60.4	14.0	-	25.6	-	-	100.0
2.	Begemder	24.7	41.5	6.7	16.4	10.7	-	100.0
3.	Gojam	26.3	57.9	3.5	12.3	-	-	100.0
4.	Wollo	11.1	22.2	27.8	38.9	-	-	100.0
5.	Hararge	97.4	2.3	-	0.2	0.1	-	100.0
6.	Arussi	45.3	54.7	-	-	-	-	100.0
7.	Shoa	17.8	69.2	11.9	-	1.1	-	100.0
8.	Wollega	70.0	26.7	-	-	-	-	100.0
9.	Illubabor	33.0	22.4	1.4	23.2	20.0	-	100.0
10.	Kefa	25.0	41.7	13.9	2.7	16.7	-	100.0
11.	Gemu Goffa	3.8	13.8	2.0	80.4	-	-	100.0
12.	Sidamo	5.8	9.2	-	39.0	-	-	100.0

Table No. 5.4.C.: Showing consumption of different kinds of dairy products per person per week

Figs in gm.

Sr. No.	Province	Milk & Yoghurt	Butter	Cheese	Butter milk	Eggs
1	2	3	4	5	6	7
1.	Tigre	213.9	5.0	2.6	160.4	-
2.	Begemder	91.8	14.7	15.1	106.6	19.1
3.	Gojam	12.6	2.6	1.2	10.8	-
4.	Wollo	2.4	0.3	2.6	11.7	-
5.	Hararge	838.1	6.0	-	3.1	0.5
6.	Arussi	568.4	64.3	0.5	-	1.1
7.	Shoa	163.0	19.9	20.7	67.7	1.8
8.	Wollega	177.3	7.1	2.6	0.9	-
9.	Illubabor	269.8	17.4	6.8	330.8	76.9
10.	Kefa	14.3	4.9	3.9	521.8	-
11.	Sidamo	575.8	9.8	0.7	782.1	-
12.	Rural Average	281.5	11.2	6.5	125.0	4.9

The calorific value of consumption of eggs was negligble in almost all provinces except, as mentioned above, in Illubabor. In seven provinces consumption of eggs was not reported in the survey. Similarly cheese consumption was at a very low level in the seven provinces in which it was reported.

5.4.3. The table 5.4.C. Shows that the average consumption of milk and yoghurt was hardly 40 gm. and that of butter milk 18 gm. per person per day. Consumption of butter was very low at 1.6 gm per person per day but in relation to weight butter contributes much more amount of calories than milk. Cheese consumption was almost negligible. Assuming roughly the average weight of an egg to be 40 gm. it is revealing that the average consumption was equivalent to a little more than six eggs per person in a year. Only in Illbuabor it equalled about two eggs per person per week and in Kefa an egg per person per fort night. In other provinces, where egg consumption was reported, it was more an exception, it appears, than a rule.

5.5. Consumption of meat: Notes on table no. 5.5

5.5.1. The tables nos. 5.5.A, 5.5.B and 5.5C. Show the details of meat consumption for the twelve provinces in a manner similar to the earlier tables.

5.5.2. It was seen earlier that consumption of meat provided very small amount of calories in the four northern provinces of Tigre, Begemder, Gojam and Wollo and in Gemu Goffa, In the remaining provinces , beef provided from 17 calories in Wollega to 82 calories in Illubabor and mutton gave from 4 calories in Shoa to 32 in Hararge. Beef consumption was common to all provinces while consumption mutton was not reported in six province, consumption of goat meat to any appreciable extent was reported only in Hararge and that of poultry only in Wollega. Generally beef and mutton accounted for more than three foruths of the total calories derived from meat.

5.5.3. Table no. 5.5.c. Shows the conumption of various kinds of meat in gms. per person per week. The average consumption of beef for the twelve provinces amounted to 6.9. gm per person per day and in eight of the provinces the level of consumption was below this average. The consumption of mutton was 2.3. gm. per person per day and in nine provinces the level of consumption was below the average. Goat meat and poultry was consumed to a very negligible extent and the figures of average consumption were influenced by appreciable consumption in Hararge ahd Wollega

Table No. 5.5.A. : Showing the average daily intake of calories per adult equivalent from different kinds of meat.

Sr. No.	Province	Calories per adult equivalentper day from meat				
		MEAT				
		Beef	Mutton	Goat	Poultry	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Tigre	5	3	2	-	10
2.	Begemder	2.2	3.9	0.3	-	6.4
3.	Gojam	3.2	-	-	0.2	3.4
4.	Wollo	1.6	-	-	0.2	1.8
5.	Hararge	19	32	13	-	64
6.	Arussi	56	-	-	-	56
7.	Shoa	30	4	1		38*
8.	Wollega	17	-	-	5	22
9.	Illubabor	82	7	-	-	89
10.	Kefa	12.3	12.3	-	-	24.6
11.	Gemu Goffa	1.8	-	-	-	1.8
12.	Sidamo	30	-	-	-	30

*Inclusive of other unspecified meat providing 3 calories

Table No. 5.5.B: Showing the percentage of calories from different kinds of meat to total calories from meat.

Sr. No.	Province	Percentage to total calories from meat				
		MEAT				
		Beef	Mutton	Goat	Poultry	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Tigre	50.0	30.0	20.0	-	100.00
2.	Begmder	34.3	61.0	4.7	-	100.0
3.	Gojam	94.1	-	-	5.9	100.0
4.	Wollo	88.9	-	-	11.1	100.0
5.	Hararge	30.0	50.0	20.0	-	100.0
6.	Arussi	100.0	-	-	-	100.0*
7.	Shoa	79.0	10.5	2.5	-	100.0
8.	Wollega	77.3	-	-	22.7	100.0
9.	Illubabor	92.1	7.9	-	-	100.0
10.	Kefa	50.0	50.0	-	-	100.0
11.	Gemu Goffa	100.0	-	-	-	100.0
12.	Sidamo	100.0	-	-	-	100.0

* inclusive of other unspecified meat providing 3 calories (8%)

Table No. 5.5.C. : Showing consumption of different kinds of meat per person per week.

Figs: in gm.

Sr. No.	Province	Beef	Mutton	Goat	Poultry
(1)	(2)	(3)	(4)	(5)	(6)
1.	Tigre	11.4	6.7	4.5	-
2.	Begemder	5.6	9:5	-	1.2
3.	Gojam	8.3	-	-	1.3
4.	Wollo	4.2	-	0.1	1.2
5.	Hararge	46,9	74.6	30.1	-
6.	Arussi	146.7	0.1	-	-
7.	Shoa	86.6	8.7	1.4	2.0
8.	Wollega	44.0	-	-	22.0
9.	Illubabor	218.9	17.2	-	-
10.	Kefa	31:5	28.1	-	-
11.	Gemu Goffa	23.8	-	-	-
12.	Sidamo	75.9	-	-	1.2
13.	Rural Average	48.3	16.1	5.6	2.1

respectively. The level of consumption in the remaining eleven provinces was far below the respective averages. The tables thus reveals that in the rural areas of the twelve provinces meat was consumed on an average in small quantities.

5.6 Consumption of vegetables: Notes on table no. 5.6.

5.6.1. The analysis of data on consumption of vegetables in shown in the three tables 5.6.A, 5.6.B and 5.6.C.

5.6.2. It was seen earlier that the calorific value of consumption of vegetables was small, except in Begemder, Hararge and the three southern provinces of Kefa, Gemu Goffa and Sidamo. Of these five provinces, in three of them: Begemder, Hararge and Gemu Goffa, potatores accounted for the largest share of calories from vegetables while in Kefa, yams and taro and in Sidamo cabbages accounted for the largest share. Other vegetables were eaten in comparitively very small quantities, and potetoes, yams& taro and cabbege accounted a very large percentage of total calories from vegetables.

5.6.3. The table no 5.6.C shows the consumption of vegetables in gm. per week. Since different vegetables yield varying amount of calories for unit of weight, the pattern shown by this table is different from that of table 5.6.A. The average consumption of cabbages was 190 gm. per person per week and in nine provinces the consumption was less than the average which was greatly influenced by the consumption in Sidamo. Potato consumption, on average, amounted to 243 gm. per person per day and it was less than the average in eight of the twelve provinces. It was particularly high in the provinces of Begemder, Gojam, Hararge and Gemu Goffa. Consumption of Yams and taro averaged to 66.7 gm. per person per week chiefly because of the high level of consumption in the three southern provinces of Sidamo, Gemu Goffa and especially Kefa; in all other provinces it was less than the average. Onion consumption , it appears, was mainly restricted to the three central provinces. and the provinces of Illubabor and Kefa, and averaged to 37.1 gm. per person per day.

Consumption of fruits & oilseeds and other food items ; Notes on tables Nos.5.7. and 5.8.

5.7.1. The analysis of consumption of fruits and oilseeds is given in the tables 5.7.A., 5.7.B.

Table No. 5.6.A. Showing the average daily intake of calories per adult equivalent from different vegetables.

Sr. No.	Province	Calories per adult equivalent per day from vegetable										
		Cabbages	Onions	Garlic	Green Peppers	Yams and Taro	Pumpkin	Potatoes	Tomatoes	Carrots	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1.	Tigre	8.1	0.4	0.9	0.3	1.1	19.7	-	-	-	-	30.5
2.	Begemder	-	0.1	0.3	0.1	1.1	-	85.6	0.1	0.6	34.5	122.4
3.	Gojam	-	0.4	0.6	0.2	0.1	-	34.2	-	-	5.2	40.7
4.	Wollo	-	0.1	0.1	-	-	-	-	-	-	1.0	1.2
5.	Hararge	14.8	3.5	-	0.4	15.1	-	105.2	-	-	-	139.0
6.	Arussi	0.2	15.8	-	-	-	-	-	-	-	0.9	16.9
7.	Shoa	1.3	6.9	2.2	0.2	7.5	0.9	0.4	-	-	-	19.4
8.	Wollega	4.3	4.8	2.8	-	-	-	0.4	-	-	0.5	12.8
9.	Illubabor	16.4	5.3	3.1	0.2	-	-	1.9	-	-	3.6	30.5
10.	Kefa	5.0	4.6	2.3	0.4	133.8	-	-	0.1	0.2	0.1	146.5
11.	Gemu Gofa	8.9	0.1	0.3	0.1	17.9	-	115.6	-	-	19.2	162.1
12.	Sidamo	60.4	0.9	0.4	0.5	21.7	-	13.4	-	-	-	97.3

Table No. 5.6.B. Showing the percentage of calories from different vegetables to total calories from vegetables.

Sr. No.	Province	PERCENTAGE TO TOTAL CALORIES FROM VEGETABLES										
		Cabbages	Onions	Garlic	Green Peppers	Yams and Taro	Pumpkin	Potatoes	Tomatoes	Carrots	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1.	Tigre	26.6	1.3	3.0	1.0	3.7	54.4	-	-	-	-	100.0
2.	Begemder	-	0.1	0.2	0.1	0.9	-	70.0	0.1	0.5	28.1	100.0
3.	Gojam	-	1.0	1.5	0.5	0.2	-	84.3	-	-	12.5	100.0
4.	Wollo	-	8.3	8.3	-	-	-	-	-	-	83.4	100.0
5.	Hararge	10.6	2.5	-	0.3	10.9	-	75.7	-	-	-	100.0
6.	Arussi	33.6	37.5	-	-	-	-	-	-	-	5.3	100.0
7.	Shoa	6.7	35.7	11.4	0.8	38.9	4.6	1.9	-	-	-	100.0
8.	Wollega	33,6	37.5	21.9	-	-	-	3.1	-	-	3.9	100.0
9.	Illubabor	53.7	17.4	10.2	0.7	-	-	6.2	-	-	11.8	100.0
10.	Kefa	3.4	3.1	1.6	0.3	91.3	-	-	0.1	0.1	0.1	100.0
11.	Gemu Goffa	5.6	0.1	0.2	0.1	11.0	-	71.3	-	-	11.8	100.0
12.	Sidamo	62.1	1.0	0.4	1.0	22.0	-	13.5	-	-	-	100.0

Table No. 5.6.C.: Showing consumption of different vegetables per person per week:

Figs: in gm.

Sr. No.	Province	Cabbages	Onions	Green Peppers	Yams And Taro	Potatoes	Tomatoes	Other Vegetables
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Tigre	172.3	5.3	9.8	7.4	-	-	255.7
2.	Begemder	-	1.0	3.7	7.3	694.5	4.3	445.3
3.	Gojam	-	5.2	9.2	1.2	275.5	-	69.1
4.	Wollo	-	1.5	1.2	-	-	-	13.5
5.	Hararge	307.7	-	10.6	96.2	844.0	-	0.7
6.	Arussi	4.4	214.7	0.4	-	0.8	0.5	-
7.	Shoa	28.0	95.7	4.9	49.7	3.0	0.2	54.6
8.	Wollega	91.2	65.7	0.7	-	3.1	1.7	25.5
9.	Illubabor	356.8	75.2	6.8	-	16.5	-	67.5
10.	Kefa	103.7	63.4	10.2	866.9	943.5	2.7	20.3
11.	Gemu Goffa	189.3	0.9	2.4	116.4	943.5	-	246.8
12.	Sidamo	1256.0	11.7	16.0	138.0	109.8	-	45.2
13.	Rural Average	190.0	37.1	6.3	66.7	243.3	0.6	89.2

Table no. 5.7.A: Showing the average daily intake of calories per adult equivalent from fruits and oilseeds.

Sr. No.	Province	Calories per adult equivalent per day from fruits and oil seeds				
		Pickly pear	Oilseeds	Oranges	Other	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Tigre	8.7	11.8	-	-	20.5
2.	Begemder	-	7.4	-	-	7.4
3.	Gojam	-	1.5	-	-	1.5
4.	Wollo	-	8	-	-	8
5.	Hararge	-	2.5	0.1	-	2.6
6.	Arussi	-	0.9	-	-	0.9
7.	Shoa	-	7.8	-	0.7	8.5
8.	Wollega	-	1.0	-	1.4	2.4
9.	Illubabor	-	6.5	-	-	6.5
10.	Kefa	-	0.5	-	-	0.5
11.	Gemu Goffa	-	0.5	-	1.2	1.7
12.	Sidamo	-	-	-	-	-

Table No 5.7.B.1 Showing the percentage of calories from fruits and oilseeds to total calories from fruits and oilseeds.

Sr. No.	Province	Percentage to total calories from fruits and oilseeds				
		Pickly pear	Oilseeds	Orages	Other	Total
1	2	3	4	5	6	7
1.	Tigre	42.4	57.6	-	-	100.0
2.	Begemder	-	100.0	-	-	100.0
3.	Gojam	-	100.0	-	-	100.0
4.	Wollo	-	100.0	-	-	100.0
5.	Hararge	-	96.2	3.8	-	100.0
6.	Arussi	-	100.0	-	-	100.0
7.	Shoa	-	91.8	-	8.2	100.0
8.	Wollega	-	41.9	-	58.3	100.0
9.	Illubabor	-	100.0	-	-	100.0
10.	Kefa	-	100.0	-	-	100.0
11.	Gemu Goffa	-	29.4	-	70.6	100.0
12.	Sidamo	-	-	-	-	-

Table No. 5.8. Showing consumption of different kinds of food items.per person per Week

Figs in gm.

Sr. No.	Province	Oilseeds	Fruits	Red Pepper	Other Spices	Sugar	Oil
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Tigre	13.7	227.5	69.3	4.7	0.5	0.3
2.	Begemder	8.5	-	110.4	6.3	0.2	2.8
3.	Gojam	1.7	-	75.1	14.8	-	2.5
4.	Wollo	10.2	-	72.4	1.2	0.1	0.8
5.	Hararge	2.8	2.1	22.2	2.1	6.3	20.9
6.	Arussi	1.1	-	149.2	8.1	9.2	65.7
7.	Shoa	9.3	5.7	96.6	-	8.3	20.9
8.	Wollega	1.4	16.1	38.5	10.7	6.5	16.1
9.	Illubabor	7.8	-	84.9	8.9	4.5	22.6
10.	Kefa	0.6	-	24.6	7.0	6.6	24.5
11.	Gemu Goffa	0.5	10.4	7.2	1.7	0.1	0.4
12.	Sidamo	-	13.0	7.0	54.0	-	-
13.	Rural Average	6.0	28.0	63.8	8.1	3.7	13.3

5.7.2. From the table 5.7.A. and 5.7.B it will be seen that the calories derived from consumption of fruit were negilgible in all provinces except Tigre and that oilseeds accounted for almost the whole amount of calories from fruits and oilseeds except in Wollega and Gemu Goffa where the total amount of calories from this food-group was very small.

5.8.1. From table No. 5.8 it is seen that the average consumption of fruits for the twelve provinces worked out at 28.0 gms.per person per week or 4 gms.per person per day. This avearage was greatly influenced by the consumption of prickly pear in Tigre which was nearly ten times the average and in all other provinces the consumption was far below the average. Oilseeds consumption which averaged to 6 gms. per person per week that is : hardly a gm. per person per day, was observed to be reported in all provinces; in five above the average level, the highest being again in Tigre (twice the average).

Notes on quantitative consumption of other food items.

5.8.2. The table NO. 5.8. also shows the average quantitative consumption of red pepper, other spices, sugar and oil. The average consumption of red pepper estimated at 63.8 gm. per person per week, was relatively high in all the four northern provinces, the provinces of Arussi, Shoa and Illubabor. Red pepper was the major spices in all provinces except Sidamo. Sugar consumption was very small and averaged to about one half gm. per person per day, the average level being exceded in the four central provinces and the provinces of Illubabor and Kefa. The highest provincial average (Arussi) amounted to only 1.3 gm . per person per day. Consumption of oil, which contributed the highest amount of calories per unit of weight, it being almost wholly fat, averaged to a little less than 2 gm. per person per day, the average being exceded again by the provincial average of the four central provinces and the two provinces of Illubabor and Kefa. The consumption of oil in the remaining six provinces-all the northern provinces and the two provinces of Gemu Goffa and Sidamo was almost negligible.

5.9. Consumption of drinks: Notes on table No. 5.9.

5.9.1. The table no. 5.9 shows the quantitative consumption of beer in c.c. per person per week and of tea and coffee in gm. per person per week. It also shows

the consumption of beer in terms of equivalent amounts of barley in gm. It will be seen from the table that the average consumption of beer was of the order of 1504 c.c per person per week or about 215 c.c. person per day. The drinking of beer was reported in all provinces, but the average consumption was relatively very high in the two central provinces of Shoa and Wollega and to some extent in Wollo. It was compartively at a low level in the three southern provinces of Kefa, Gemu Gemu Goffa and Sidamo and in Hararge. In all, in eight provinces the consumption of beer was at a level lower than the average. The average equivalent consumption of cereals, most of which is expected to be barley, worked out at 250 gm. per person per week or 12.73 kg. per person per year. This added to consumption of cereals (refer paragraph 5.2.10) gave total consumption of cereals equal to 123 kg per person per year of which one tenth was in the form of drinks.

5.9.2. Consumption of coffee, like that of beer , was reported in all provinces with average of 44 gm. per person per week for the twelve provinces. The consumption level was much higher than the average in the central provinces exoluding Hararge, and in Illubabor and Kefa. In the northern provinces, in Hararge and the two southern provinces of Gemu Goffa and Sidamo, the level of consumption was much below the average.

5.9.3. Consumption of tea was not reported in the four northern provinces and the two southern provinces of Gemu Goffa and Sidamo. The average for the twelve provinces was 1.4 gm. per person per week which was exceeded in Wollega, Hararge and by a large margin in Kefa. Average consumption in Arussi was almost negligible while that in Shoa and Illubabor was far below the average.

5.9.4. It appears from the table that in the group of three central provinces and the provinces of Gojam and Wollo drinks were consumed in much larger quantities than in other seven provinces.

Table No. 6.9: Showing consumption of different kinds of drinks per person per week

Sr. No.	Province	Beer		Tea (gm)	Coffee (gm)
		Quantity in (cc)	Equivalent Cereals in gm		
(1)	(2)	(3)	(4)	(5)	(6)
1.	Tigre	926.1	148	-	11.2
2.	Begemder	432.9	67	-	16.9
3.	Gojam	1,115.4	177	-	7.8
4.	Wollo	1,880.0	300	-	21.0
5.	Hararge	158.4	29	4.0	12.9
6.	Arussi	1,512.1	242	0.04	115.3
7.	Shoa	3.550.3	567	0.2	60.4
8.	Wollega	4,497.2	718	2.8	137.7
9.	Illubabor	972.0	154	0.5	164.5
10.	Kefa	354.7	58	12.3	122.8
11.	Gemu Goffa	218.2	34	-	8.2
12.	Sidamo	95.8	15	-	28.9
13.	Rural Average	1,504.4	250	1.4	44.1

Appendix A: to the report on Rural Household Expenditure and Consumption Survey showing details of sample design etc.

1. SHOA PROVINCE

1. AREA Shoa Province, excluding Merhabete ; rural areas only.

2. DATES Start: 20 December 1966
Finish: 4 April 1967

3. SAMPLE Strata: awrajas (sub-provinces) each included except Merhabete two small awrajas combined giving 9 strata,.

ISU: Sub-divisions; 3 from each stratum at random
2SU: chikashum areas; one from each 1SU with probability proportional to the number of households (henceforth "P.P.h")
3SU: Households ; 12 selected at random from each 2SU
Total households selected (& completed) : 324
Visits: daily for one week.

2. WOLLEGA PROVINCE

1. AREA Wollega Province; rural areas only

2. DATES Start : 10 April 1967
Finish: 12 May 1967

3. SAMPLE 1SU: mikitil wereda; 9 selected p.p.h.
2SU: 1st rank officials (balabats); one selected for each 1SU with equal probability (no population data at this level available).
3SU: 2nd rank officials (kebele teferi); one selected for each 2SU with p.p.h (estimated).
4SU: Households 12 selected from lists with equal probability.
Total households selected (and completed) 108 (plus 12 special ~~s~~ selected in Assosa awraja).
Visits: daily for one week .

3. HARARGE PROVINCE

1. AREA Hararge province excluding Jijigga and Ogaden (Kebridehar, Kellafo, Degehabout and Welwel & Wardier); rural areas only.

2. DATES Start: 18th May 1967
Finish: 21st June 1967

SAMPLE Strata: awraja; number of 1SU to be selected allocated with p.p.h; all awrajas included except Gara Muletta with less than 2% of Provincial Population.

1SU: mikitil weredas selected with p.p.h. except Cherchar where p.p.to the number of Deminas (1st rank Officials); 11 selected.

2SU: deminas; one from each 1SU with p.p.h. (except one area equal probability because of the lack of data).

3SU: second rank officials (gerada) ; one from each 2SU with p.p.h. where possible otherwise with equal probability.

4SU: Households; 12 from each 3SU from list with equal probability.

Total households selected (& completed): 132

Visits: daily for one week.

4. SIDAMO PROVINCE

1. AREA Sidamo Province, excluding Borena; rural areas only.

2. DATES Start : 29th June 1967
Finish: 3 August 1967

3. SAMPLE 1SU: mikitil wereda; 9 selected with p.p.h.
2SU first rank officials (balabats); one from each 1SU (p.p.h.)
3SU: second rank officials (Korros) " " " 2SU (p.p.h)
4SU: households; 12 selected from list with equal probability.
Total households selected (& completed); 108.
Visits: daily for week.

5. TIGRE PROVINCE

1. AREA Tigre Province; rural areas only

2. DATES Start: 1st September 1967
Finish: 21st October 1967

3. SAMPLE Strata: awrajas; number of 1SU determined with p.p.h. (estimated).

1SU: mikitil weredas; 15 selected with p.p.h where possible.

2SU: first rank officials (chikashums); one from each 1SU with p.p.h. where possible, otherwise with equal probability.

3SU: localities; selected as 2SU.

4SU: households; 12 selected from list with equal probability

Total households selected (and completed): 180
Visits: daily for one week.

6. BEGEMDER AND SEMIEN PROVINCE

1. AREA Begemder & Semien Province; rural areas only.
2. DATES Start: 22nd October 1967
Finish: 20th November 1967
3. SAMPLE Strata: awrajas; number of 1SU allocated with p.p.h.
1SU: mikitil weredas; 9 selected with p.p.h.
2SU: first rank officials; one from each 1SU with p.p.h.
3SU: second rank officials; one from each 2SU with p.p.h
4SU: households; 12 from each 3SU from list with equal probability.
Total households selected (& covered): 108

7. GOJAM PROVINCE

1. AREA Gojam Province; rural areas only.
2. DATES Start: 21st November 1967
Finish: 30 December 1967
3. SAMPLE Strata: awraja; number of 1SU allocated with p.p.h.
1SU. mikitil wereda; 10 selected with p.p.h.wjere possible otherwise with p.p. to the number of balabats and one case with equal probability due to lack of data.
2SU: first rank officals ; one from each 1SU with p.p.h
3SU: locality; one from each 2SU with p.p.h.
4SU: households; 12 from each 3SU from list equal probability.
Total households selected (& completed) : 120.
Visits: daily for one week.

8. GEMU GOFFA PROVINCE

1. AREA Gemu Goffa Province; rural areas only
2. DATES Start: 9 January 1968
Finish: 27 February 1968
3. SAMPLE 1SU: wereda; p.p.h; 5 selected
2SU: second rank officials (chikashums) one from each 1SU with equal probability.
3SU: localities (this stage only where 2SU selected very large); one from each 2SU with p.p.h

4SU: households; 12 selected from list with equal probability.

Total households selected (& completed); 60

Visits: daily for one week.

9. KEFFA PROVINCE

1. AREA Kefa Province; rural areas only
2. DATES Start: 23 January 1968
   Finish: 12 March 1968
3. SAMPLE 1SU: mikitil weredas ; 8 selected with p.p.h.
   2SU: second rank officials; one from each 1SU with equal probability.
   3SU: localities-only when 2SU large - one with p.p.h
   4SU: households; 12 selected from each 3SU with equal probability.
   Total households selected (& completed) : 96
   Visits: daily for one week.

10. ILLUBABOR PROVINCE

1. AREA Illubabor Province; rural areas only
2. DATES Start: 30 December 1967
   Finish: 8 February 1968
3. SAMPLE 1SU: mikitil weredas; 4 selected with p.p.h
   2SU: second rank officials; one from each 1SU with p.p.h.
   3SU: localities; one from each 2SU with p.p.h.
   4SU: households; 12 from each 3SU with equal probability
   Total households selected (& completed): 48
   Visit daily for one week.

11. WOLLO PROVINCE

1. AREA Wollo Province; rural areas only
2. DATES Start: 18 March 1968
   Finish : 10 June 1968
3. SAMPLE ISU : mikitil weredas; 20 selected withpp.p.h.
   2SU: second rank officials; one each 1SU with equal probability.
   3SU: households; 12 selected with equal probability.
   Total households selected (& completed) : 240
   Visits: daily for one week

Appendix B to the report on Rurel Household Expenditure and Consumption Survey, containing detailed tables on housing.

Table No. B.1: Showing the percentage distribution of houses by type of roof material for:

i) all houses and

ii) each type of wall material.

Table No. B.1.1: Tigre

ROOF	WALL			
	Wood & Mud	Stone	Stone & Mud	Total
Thatch	84.6	59.6	55.6	60.0
Corrugated Iron	-	1.0	-	0.6
Wood & Earth	-	35.6	14.3	25.5
Wood, Stone & Earth	15.4	3.8	25.4	12.2
Wood Stone & Sand	-	-	4.8	1.7
Total	100.0	100.0	100.0	100.0

Table No.B.1.2: Begemder

ROOF	WALL					
	Mud & Wood	Wood	Thatch & Wood	Stone & Wood	Stone	Total
Thatch	100.0	100.0	100.0	100.0	88.8	99.1
Corrugated	-	-	-	-	22.2	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table No. B. 1.3: Gojam

ROOF	WALL: Mud & Wood	WALL: Wood & Thatch	Total
Thatch	96.6	100.0	98.3
Corrugated Iron	3.4	-	1.7
Total	100.0	100.0	100.0

Table No.B.1.4: Wollo

ROOF	WALL: Wood	Wood & Mud	Wood Stone & Mud	Stone & Mud	Stone	Total
Thatch	95.7	99.2	87.5	97.9	100.0	98.3
Corrugated	4.3	0.8	12.5	2.1	-	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table No. 1.5.B: Hararge

ROOF	WALL: Wood	Mud & Wood	Total
Thatch	100.0	78.5	79.6
Wood & Thatch	-	4.8	4.5
Wood & Mud	-	4.8	4.5
Corrugated Iron	-	11.9	11.4
Total	100.0	100.0	100.0

Table No. B.1.6: Arussi

ROOF	WALL			
	Mud	Mud & Wood	Wood	Total
Thatch	100.0	92.9	70.0	88.6
Corrugated Iron	-	2.4	-	1.9
Other	-	4.7	30.0	9.5
Total	100.0	100.0	100.0	100.0

Table No. B.1.7.: Shoa

ROOF	WALL		
	Stone	Mud & Wood	Total
Corrugated Iron	4.2	4.3	4.3
Thatch, etc	95.8	95.7	95.7
Total	100.0	100.0	100.0

Table No. B.1.8: Wollega

ROOF	WALL			
	Mud	Wood	Mud & Wood	Total
Thatch	100.0	87.5	70.3	75.9
Corrugated Iron	-	12.5	29.7	24.1
Total	100.0	100.0	100.0	100.0

Table No. B.1.9: Illubabor

ROOF	WALL			
	Mud & Wood	Wood	Wood & Thatch	Total
Thatch	36.7	100.0	100.0	60.4
Corrugated Iron	63.3	-	-	39.4
Total	100.0	100.0	100.0	100.0

Table No B.1.10: Kefa

ROOF	WALL			
	Mud & Wood	Wood	Wood & Thatch	Total
Thatch	80.5	100.0	100.0	84.3
Corrugated Iron	19.5	-	-	15.7
Total	100.0	100.0	100.0	100.0

Table No.B.1.11: Gemu Goffa

ROOF	WALL					
	M &W	W	W&T	B & T	B	Total
Thatch	90.9	100.0	100.0	100.0	75.0	95.0
Corrugated Iron	9.1	-	-	-	-	1.7
Bamboo	-	-	-	-	25.0	3.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table No.B.1.12: Sidamo

ROOF	WALL				
	Wood	Bamboo	Mud & Wood	Wood & Thatch	Total
Thatch	100.0	51.9	80.0	100.0	87.1
Bamboo	-	48.1	-	-	12.0
Corrugated Iron	-	-	20.0	-	0.9
Total	100.0	100.0	100.0	100.0	100.0

Table No. B.2: Showing the percentage distribution of houses by type of wall material for:

i) all houses and

ii) each shape of house

Table No. B.2.1.: Tigre

SHAPE OF HOUSE	WALL			
	WOOD & MUD	STONE	STONE & MUD	TOTAL
Circular	6.8	59.9	33.3	100.0
Rectangular	8.3	52.1	39.6	100.0
Total	7.2	57.7	35.1	100.0

Table No.B.2.2.: Begemder

SHAPE OF HOUSE	WALL					
	Mud & Wood	Wood	Thatch & Wood	Stone & Wood	Stone	Total
Circular	91.8	-	5.5	-	2.7	100.0
Oval	12.9	41.9	-	25.8	19.4	100.0
Rectangular	50.0	-	-	25.0	25.0	100.0
Total	67.6	12.0	3.7	8.3	8.4	100.0

Table No.B.2.3: Gojam

	WALL		
SHAPE OF HOUSE	Mud & Wodd	Wood & Thatch	Total
Circular	98.2	1.8	100.0
Rectangular	100.0	-	100.0
Total	98.3	1.7	100.0

Table No. B.2.4: Wollo

	WALL					
SHAPE OF HOUSE	Wood	Wood & Mud	Wood Stone & Mud	Stone & Mud	Stone	Total
Circular	9.7	53.5	1.4	21.2	14.5	100.0
Rectangular	8.7	56.5	21.7	4.3	8.8	100.0
Total	9.6	53.8	3.3	19.6	13.7	100.0

Table No. B.2.5: Hararge

	WALL		
SHAPE OF HOUSE	Wood	Mud & Wood	Total
Circular	5.8	94.2	100.0
Rectangular	-	100.0	100.0
Total	4.5	95.5	100.0

Table No. B.2.6.: Arussi

	WALL			
SHAPE OF HOUSE	Mud	Mud & Wood	Wood	Total
Circular	2.7	78.4	18.9	100.0
Rectangular	-	81.2	18.8	100.0
Total	1.9	79.2	18.9	100.0

Table No. B.2.7: Shoa

SHAPE OF HOUSE	WALL		
	Stone	Mud & Wood	Total
Circular	16.2	83.8	100.0
Rectangular	6.4	93.6	100.0
Total	14.8	85.2	100.0

Table No.B.2.8: Wollega

SHAPE OF HOUSE	WALL			
	Mud	Wood	Mud & Wood	Total
Circular	4.3	41.3	54.4	100.0
Rectangular	-	21.0	79.0	100.0
Total	1.9	29.6	68.5	100.0

Table No. B.2.9: Illubabor

SHAPE OF HOUSE	WALL			
	Mud & Wood	Wood	Wood & Thatch	Total
Circular	40.9	54.6	4.5	100.0
Rectangular	80.8	19.2	-	100.0
Total	62.5	35.4	2.1	100.0

Table No. B.2.10: Kefa

SHAPE OF HOUSE	WALL			
	Mud & Wood	Wood	Wood & Thatch	Total
Circular	77.9	19.5	2.6	100.0
Rectangular	89.4	5.3	5.3	100.0
Total	80.3	16.6	3.1	100.0

Table No. B.2.11: Gemu Goffa

SHAPE OF HOUSE	WALL					
	Mud & Wood	Wood	Wood & Thatch	Bamboo & Thatch	Bamboo	Total
Circular	15.5	37.9	6.9	25.9	13.8	100.0
Rectangular	100.0	-	-	-	-	100.0
Total	18.4	36.6	6.7	25.0	13.3	100.0

Table No. B.2.12: Sidamo

SHAPE OF HOUSE	WALL				
	Wood	Bamboo	Mud & Wood	Wood & Thatch	Total
Circular	25.2	25.2	3.7	45.9	100.0
Rectangular	-	-	100.0	-	100.0
Total	25.0	25.0	4.6	45.4	100.0

Table No. B.3: Showing percentage distribution of houses by type of roof material for:

i) all houses and

ii) each shape of house.

Table No. B.3.1: Tigre

SHAPE OF HOUSE	ROOF					
	Thatch	Corrugated Iron	Wood & Earth	Wood, Stone & Earth	Wood stone & Sand	Total
Circular	78.0	-	15.2	6.8	-	100.0
Rectangular	10.4	2.1	54.2	27.1	6.2	100.0
Total	60.0	0.6	25.5	12.2	1.7	100.0

Table No. B.3.2: Begemder

SHAPE OF HOUSE	ROOF		
	Thatch	Corrugated Iron	Total
Circular	100.0	-	100.0
Oval	100.0	-	100.0
Rectangular	75.0	25.0	100.0
Total	99.1	0.9	100.0

Table No. B. 3. 3: Gojam

SHAPE OF HOUSE	ROOF		
	Thatch	Corrugated Iron	Total
Circular	100.0	-	100.0
Rectangular	42.9	57.1	100.0
Total	96.7	3.3	100.0

Table No. B. 3.4: Wollo

SHAPE OF HOUSE	ROOF		
	Thatch	Corrugated Iron	Total
Circular	100.0	-	100.0
Rectangular	82.6	17.4	100.0
Total	98.3	1.7	100.0

Table No. B 3.5: Hararge

SHAPE OF HOUSE	ROOF				
	Thatch	Wood & Thatch	Wood & Mud	Corrugated Iron	Total
Circular	100.0	-	-	-	100.0
Rectangular	3.6	21.4	21.4	53.6	100.0
Total	79.6	4.5	4.5	11.4	100.0

Table No. B.3.6: Arussi

SHAPE OF HOUSE	ROOF			
	Thatch	Corrugated Iron	Other	Total
Circular	91.9	-	8.1	100.0
Rectangular	81.2	6.2	12.5	99.9
Total	88.6	1.9	9.5	100.0

Table No. B.3.7: Shoa

SHAPE OF HOUSE	ROOF		
	Corrugated Iron	Thatch, etc.	Total
Circular	0.4	99.6	100.0
Rectangular	27.7	72.3	100.0
Total	4.3	95.7	100.0

Table No. B.3.8: Wollega

SHAPE OF HOUSE	ROOF		
	Thatch	Corrugated Iron	Total
Circular	100.0	-	100.0
Rectangular	58.1	41.9	100.0
Total	75.9	24.1	100.0

Table No. B.3.9: Illubabor

SHAPE OF HOUSE	ROOF		
	Thatch	Corrugated Iron	Total
Circular	100.0	-	100.0
Rectangular	26.9	73.1	100.0
Total	60.4	39.6	100.0

Table No.B.3.10: Kefa

SHAPE OF HOUSE	ROOF		
	Thatch	Corrugated Iron	Total
Circular	100.0	-	100.0
Rectangular	21.1	78.9	100.0
Total	84.3	15.7	100.0

Table No. B.3.11: Gemu Goffa

SHAPE OF HOUSE	ROOF			
	Thatch	Corrugated Iron	Bamboo	Total
Circular	96.6	-	3.4	100.0
Rectangular	50.0	50.0	-	100.0
Total	95.0	1.7	3.3	100.0

Table No. B.3.12: Sidamo

SHAPE OF HOUSE	ROOF			
	Thatch	Bamboo	Corrugated Iron	Total
Circular	87.9	12.1	-	100.0
Rectangular	-	-	100.0	100.0
Total	87.1	12.1	0.9	100.0

Table No.B.4.: Showing the percentage distribution of houses by a three way classification according to :

i) wall material
ii) roof material and
iii) shape

Table No. B.4.1: Tigre

WALLS	WOOD AND MUD			STONE					STONE AND MUD					TOTAL					
SHAPE \ ROOF	Thatch	Wood and Earth	Total	Thatch	Corrugated Iron	Wood and Earth	Wood Stone and Earth	Total	Thatch	Wood and Earth	Wood Stone and Earth	Wood Stone and Sand	Total	Thatch	Corrugated Iron	Wood and Earth	Wood Stone & Earth	Wood Stone and Sand	Total
CIRCULAR	5.0	-	5.0	34.4	-	9.4	-	43.8	17.8	1.7	5.0	-	24.5	57.2	-	11.1	5.0	-	73.3
RECTANGULAR	1.1	1.1	2.2	-	0.6	11.1	2.2	13.9	1.7	3.3	3.9	1.7	10.6	2.8	0.6	14.4	7.2	1.7	26.7
ALL SHAPES	6.1	1.1	7.2	34.4	0.6	20.5	2.2	57.7	19.5	5.0	8.9	1.7	35.1	60.0	0.6	25.5	12.2	1.7	100.0

Table No. B. 4.2.: Begemder

WALLS	MUD AND WOOD		WOOD		THATCH AND WOOD		STONE AND WOOD		STONE			TOTAL		
SHAPE \ ROOF	Thatch	Total	Thatch	Total	Thatch	Total	Thatch	Total	Thatch	Corrugated Iron	Total	Thatch	Corrugated Iron	Total
CIRCULAR	62.0	62.0	-	-	3.7	3.7	-	-	1.9	-	1.9	67.6	-	67.6
OVAL	3.7	3.7	12.0	12.0	-	-	7.4	7.4	5.6	-	5.6	28.7	-	28.7
RECT	1.9	1.9	-	-	-	-	0.9	0.9	-	0.9	0.9	2.8	0.9	3.7
ALL SHAPES	67.6	67.6	12.0	12.0	3.7	3.7	8.3	8.3	7.5	0.9	8.4	99.1	0.9	100.0

Table No B.4.3: Gojam

WALLS / ROOF / SHAPE	WOOD & MUD			WOOD & THATCH		TOTAL		
	Thatch	Corrugated iron	Total	Thatch	Total	Thatch	Corrugated Iron	Total
CIRCULAR	92.5	-	92.5	1.7	1.7	94.2	-	94.2
RECTANGULAR	2.5	3.3	5.8	-	-	2.5	3.3	5.8
ALL SHAPES	95.0	3.3	98.3	1.7	1.7	96.7	3.3	100.0

Table No B.4.4: Wollo

WALLS / ROOF / SHAPE	WOOD			WOOD AMUD			WOOD STONE AND MUD			STONE & MUD			STONE	TOTAL		
	Thatch	Corrugated Iron	Total	Thatch	Corrugated Irgn	Total	Thatch	Corrugated Iron	Total	Thatch	Corrugated Iron	Total	Thatch	Thatch	Corrugated Iron	Total
CIRCULAR	8.7	-	8.7	48.4	-	48.4	1.2	[illegible]	1.2	19.2	[illegible]	19.2	12.9	90.4	-	90.4
RECTANGULAR	0.4	0.4	0.8	5.0	0.4	5.4	1.7	0.4	2.1	-	0.4	0.4	0.8	7.9	1.7	9.6
ALL SHAPES	9.1	0.4	9.5	53.4	0.4	53.8	2.9	0.4	3.3	19.2	0.4	19.6	13.7	98.3	1.7	100.0

Table No. B.4.5.: Hararge

WALLS / ROOF SHAPE	WOOD		MUD AND WOOD					TOTAL				
	Thatch	Total	Thatch	Wood & Sand	Wood & Mud	Corrugated Iron	Total	Thatch	Wood and Sand	Wood and Mud	Corrugated Iron	Total
CIRCULAR	4.5	4.5	74.3	-	-	-	74.3	78.8	-	-	-	78.8
RECTANGULAR	-	-	0.8	4.5	4.5	11.4	21.2	0.8	4.5	4.5	11.4	21.2
ALL SHAPES	4.5	4.5	75.1	4.5	4.5	11.4	95.5	79.6	4.5	4.5	11.4	100.0

Table No. B.4.6: Arussi

WALLS / ROOF SHAPE	MUD		MUD AND WOOD				WOOD			TOTAL			
	Thatch	Total	Thatch	Corrugated Iron	Other	Total	Thatch	Other	Total	Thatch	Corrugated Iron	Other	Total
CIRCULAR	1.9	1.9	52.8	-	1.9	54.7	9.4	3.8	13.2	64.1	-	5.7	69.8
RECTANGULAR	-	-	20.7	1.9	1.9	24.5	3.8	1.9	5.7	24.5	1.9	3.8	30.2
ALL SHAPES	1.9	1.9	53.5	1.9	3.8	79.2	13.2	5.7	18.9	88.6	1.9	9.5	100.0

Table No. B.4.7 : Shoa

WALLS / ROOF SHAPE	STONE			MUD AND WOOD			TOTAL		
	Corrugated Iron	Thatch etc.	Total	Corrugated Iron	Thatch etc	Total	Corrugated Iron	Thatch etc.	Total
CIRCULAR	-	13.9	13.9	0.3	71.3	71.6	0.3	85.2	85.5
RECTANGULAR	0.6	0.3	0.9	3.4	10.2	13.6	4.0	10.5	14.5
ALL SHAPES	0.6	14.2	14.8	3.7	81.4	85.2	4.3	95.7	100.0

Table No. B.4.8: Wollega

WALLS / ROOF SHAPE	MUD			WOOD			MUD & WOOD			TOTAL		
	Thatch	Corrugated Iron	Total	Thatch	Corrugated Iron	Total	Thatch	Corrugated Iron	Total	Thatch	Corrugated Iron	Total
CIRCULAR	1.9	-	1.9	17.6	-	17.6	23.1	-	23.1	42.6	-	42.6
RECTANGULAR	-	-	-	8.3	3.7	12.0	25.0	20.4	45.4	33.3	24.1	57.4
ALL SHAPES	1.9	-	1.9	25.9	3.7	29.4	48.1	20.4	68.5	75.9	24.1	100.0

Table No. B.4.9: Illubabor

WALLS / ROOF / SHAPE	MUD & WOOD			WOOD		WOOD & THATCH		TOTAL		
	Thatch	Corrugated Iron	Total	Thatch	Total	Thatch	Total	Thatch	Corrugated Iron	Total
CIRCULAR	18.7	-	18.7	25.0	25.0	2.1	2.1	45.8	-	45.8
RECTANGULAR	4.2	39.6	43.8	10.4	10.4	-	-	14.6	39.6	54.2
ALL SHAPES	22.9	39.6	62.5	35.4	35.4	2.1	2.1	60.4	39.6	100.0

Table No. B.4.10: Kefa

WALLS / ROOF / SHAPE	MUD & WOOD			WOOD	WOOD & THATCH	TOTAL		
	Thatch	Corrugated Iron	Total	Thatch	Thatch	Thatch	Corrugated Iron	Total
CIRCULAR	62.5	-	62.5	15.6	2.1	80.2	-	80.2
RECTANGULAR	2.1	15.7	17.8	1.0	1.0	4.1	15.7	19.8
ALL SHAPES	64.6	15.7	80.3	16.6	3.1	84.3	15.7	100.0

Table No B.4.11: Gemu Goffa

WALLS	MUD & WOOD			WOOD		WOOD & THATCH		BAMBOO & THATCH		BAMBOO			TOTAL			
ROOF / SHAPE	Thatch	Corrugated Iron	Total	Thatch	Total	Thatch	Total	Thatch	Total	Bamboo	Thatch	Total	Bamboo	Corrugated Iron	Thatch	Total
CIRCULAR	15.0	-	15.0	36.6	36.6	6.7	6.7	25.0	25.0	3.3	10.0	13.3	3.3	-	93.3	96.6
RECTANGULAR	1.7	1.7	3.4	-	-	-	-	-	-	-	-	-	-	1.7	1.7	3.4
ALL SHAPES	16.7	1.7	18.4	36.6	36.6	6.7	6.7	25.0	25.0	3.3	10.0	13.3	3.3	1.7	95.0	100.0

Table No. B.4.12.: Sidamo

WALLS	WOOD			BAMBOO			MUD & WOOD				WOOD & THATCH			TOTAL			
ROOF / SHAPE	Thatch	Bamboo	Total	Thatch	Bamboo	Total	Thatch	Bamboo	Corrugated Iron	Total	Thatch	Bamboo	Total	Thatch	Bamboo	Corrugated Iron	Total
CIRCULAR	25.0	-	25.0	13.0	12.0	25.0	3.7	-	-	3.7	45.4	-	45.4	87.1	12.0	-	99.1
RECTANGULAR	-	-	-	-	-	-	-	-	0.9	0.9	-	-	-	-	-	0.9	0.9
ALL SHAPES	25.0	-	25.0	13.0	12.0	25.0	3.7	-	0.9	4.6	45.4	-	45.4	87.1	12.0	0.9	100.0

Appendix C to the report on Rural Household Expenditure and Consumption Survey. Showing the cultivated area per household and cultivated area per person and the ranks.

Sr. No.	Province	Cultivated area per H.H. (hectare)	Cultivated area per person (hectare)
(1)	(2)	(3)	(4)
1.	Arussi	1.64 (1)	0.3251 (1)
2.	Begemder	1.04 (5)	0.2358 (3)
3.	Gemu Goffa	0.45 (12)	0.1058 (11)
4.	Gojam	0.93 (7)	0.2097 (6)
5.	Hararge	1.05 (4)	0.2081 (8)
6.	Illubabor	0.62 (10)	0.1498 (10)
7.	Kefa	0.82 (9)	0.2082 (7)
8.	Shoa	1.56 (2)	0.3136 (2)
9.	Sidamo	0.47 (11)	0.0989 (12)
10.	Tigre	0.02 (6)	0.2254 (4)
11.	Wollega	0.06 (3)	0.2105 (5)
12.	Wollo	0.84 (8)	0.1903 (9)

SOURCE : Column (3) Provincewise reports of NSS
Column (4) Derived from these reports.

Appendix D to the report on Rural Household Expenditure and Consumption Survey. Containing the tables on household cash expenditure on sub-groups of items of domestic expenditure.

Table No. 4.6. Showing the average annual cash expenditure per household on groups of food items.

Figs, in E$

Sr. No.	Province	Cereals	Meat	Dairy Products	Pulses	Vegetables	Fruits & Oilseeds	Spices	Fish	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Tigre	27.66	2.89	0.32	2.66	0.38	0.46	3.05	-	3.25	40.67
2.	Begemder	9.59	0.31	0.36	2.26	1.40	-	25.34	-	9.99	49.25
3.	Gojam	2.45	0.87	0.06	0.22	0.52	-	0.63	-	2.17	6.92
4.	Wollo	19.70	0.43	0.06	26.84	0.75	0.09	4.07	-	3.73	55.67
5.	Hararge	47.69	5.91	7.76	2.60	5.04	0.88	1.35	-	23.15	94.38
6.	Arussi	68.25	1.44	58.10	17.24	6.03	0.48	48.30	-	64.52	264.36
7.	Shoa	12	3	5	3	7	0	12	-	23	65
8.	Wollega	125.12	3.61	1.81	8.62	7.05	0.26	8.35	0.41	20.51	175.74
9.	Illubabor	47.12	24.92	9.75	6.72	7.85	0.27	5.63	-	32.77	135.03
10.	Kefa	87.02	10.16	4.68	11.14	8.23	0.22	4.31	-	25.89	151.65
11.	Gemu Goffa	13.26	1.20	1.18	5.07	3.89	0.90	1.00	-	6.46	32.96
12.	Sidamo	35.97	2.12	2.12	0.87	4.53	-	0.48	-	10.42	56.51

Table No. 4.6.A: Showing the percentage of cash expenditure on different food groups to total expedniture on food.

Sr. No.	Province	Cereals	Meat	Dairy Products	Pulses	Vegetables	Fruits & Oilseeds	Spices	Fish	Other	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Tigre	68.0	7.1	0.8	6.6	0.9	1.1	7.5	-	8.0	100.0
2.	Begemder	19.6	0.7	0.8	4.6	2.8	-	51.5	-	20.0	100.0
3.	Gojam	35.4	12.6	0.8	3.2	7.5	-	9.1	-	31.4	100.0
4.	Wollo	35.4	0.8	0.1	48.2	1.3	0.2	7.3	-	6.7	100.0
5.	Hararge	50.6	6.3	8.2	2.8	5.3	0.9	1.4	-	24.5	100.0
6.	Arussi	25.8	0.5	22.0	6.5	2.3	0.2	18.3	-	24.4	100.0
7.	Shoa	18.5	4.6	7.7	4.6	10.7	0	18.5	-	35.4	100.0
8.	Wollega	71.2	2.0	1.0	4.9	4.0	0.2	4.8	0.2	11.7	100.0
9.	Illubabor	34.9	18.5	7.2	5.0	5.8	0.2	4.2	-	24.2	100.0
10.	Kefa	57.4	6.7	3.1	7.3	5.4	0.2	2.8	-	17.1	100.0
11.	Gemu Goffa	40.2	3.6	3.7	15.4	11.8	2.7	3.0	-	19.6	100.0
12.	Sidamo	63.6	3.8	3.8	1.5	8.0	-	0.8	-	18.5	100.0

Table No. 4.6.B Showing the average annual cash expenditure per person on groups of food items.

Figs. in E$

Sr. No.	Province	Cereals	Meat	Dairy Products	Pulses	Vegtables	Fruits & Oilseeds	Spices	F ish	Other	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Tigre	5.54	0.58	0.06	0.53	0.08	0.09	0.61	-	0.65	8.15
2.	Begemder	1.88	0.06	0.07	0.44	0.27	-	4.97	-	1.96	9.66
3.	Gojam	0.49	0.18	0.01	0.04	0.11	-	0.13	-	0.44	1.40
4.	Wollo	4.20	0.09	0.01	5.72	0.01	0.02	0.87	-	0.80	11.87
5,	Hararge	8.53	1.06	1.39	0.47	0.90	0.02	0.24	-	4.14	16.88
6.	Arussi	10.05	0.21	8.56	2.24	0.89	0.07	7.11	-	9.50	38.93
7.	Shoa	2.37	0.59	0.99	0.59	1.38	0	2.37	-	4.53	12.82
8.	Wollega	25.96	0.75	0.38	1.79	1.46	0.05	1.73	0.09	4.26	36.46
9.	Illubabor	12.74	6.74	2.64	1.82	2.12	0.07	1.52	-	8.86	36.49
10.	Kefa	20.92	2.44	1.13	2.68	1.98	0.05	1.04	-	6.22	36.45
11.	Gemu Goffa	2.61	0.24	0.23	1.00	0.77	1.18	0.20	-	1.27	6.49
12.	Sidamo	7.14	0.42	0.42	0.17	0.90	-	0.10	-	2.07	11.21

Table No. 4.7: Showing the average annual cash expenditure per household on different drinks and tobacco

Figs. in E$

Sr. No.	Province	Wines	Beers	Tea	Coffee	Fenugreek	Spirits	Chat	Dairy Products	Soft Drinks	Tobacco	Bottled Drinks	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1.	Tigre	0.29	1.16	0.03	2.96	0.30	-	-	-	-	-	-	4.74
2	Begemder	-	4.02	-	6.09	0.06	-	-	-	-	-	-	10.17
3.	Gojam	0.17	0.76	-	1.23	-	-	-	-	-	-	-	2.16
4.	Wollo	-	1.84	-	4.74	0.08	0.11	0.04	-	-	0.03	-	6.84
5.	Hararge	0.30	0.08	0.53	4.75	-	0.89	4.81	3.68	-	3.98	-	19.02
6.	Arussi	3.18	13.49	0.59	39.00	-	4.07	-	0.45	-	-	-	60.69
7.	Shoa	1	12	-	16	-	4	-	3	-	1	-	37
8.	Wollega	5.68	2.70	0.34	6.18	0.34	28.75	-	-	0.14	0.14	-	44.27
9.	Illubabor	26.54	1.84	1.08	8.40	0.49	1.95	2.33	-	-	1.35	-	43.98
10.	Kefa	4.79	6.53	0.43	6.39	0.11	0.14	0.75	0.03	-	2.27	5.96	27.40
11.	Gemu Goffa	0.43	2.51	-	1.73	0.32	-	-	1.34	-	0.74	-	7.07
12.	Sidamo	0.14	3.51	0.65	5.82	-	1.06	-	1.85	-	1.31	-	14.34

Table No.4.7.A Showing the percentage of cash expenditure on different drinks and tobacco to total expenditure on drinks and tobacco.

Sr. No.	Province	Wines	Beers	Tea	Coffee	Fenugreek	Spirits	Chat	Dairy Products	Soft Drinks	Tobacco	Bottled Drinks	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1.	Tigre	6.1	24.5	0.6	62.5	6.3	-	-	-	-	-	-	100.0
2.	Begemder	-	39.4	-	59.8	0.8	-	-	-	-	-	-	100.0
3.	Gojam	-	35.2	-	57.0	-	7.8	-	-	-	-	-	100.0
4.	Wollo	-	26.9	-	69.3	1.2	1.6	0.6	-	-	0.4	-	100.0
5.	Hararge	1.6	0.4	3.9	23.9	-	4.7	25.3	19.3	-	20.9	-	100.0
6.	Arussi	5.2	22.2	0.7	64.4	-	6.7	-	0.8	-	-	-	100.0
7.	Shoa	2.7	32.4	-	43.3	-	10.8	-	8.1	-	2.7	-	100.0
8.	Wollega	12.8	6.1	0.8	13.9	0.8	65.0	-	-	0.3	0.3	-	100.0
9.	Illubabor	60.3	4.2	2.5	19.1	1.1	4.4	5.3	-	-	3.1	-	100.0
10.	Kefa	17.5	23.9	1.6	23.3	0.4	0.5	2.8	0.1	-	8.3	21.6	100.0
11.	Gemu Goffa	6.0	35.5	-	24.5	4.5	-	-	19.1	-	10.4	-	100.0
12.	Sidamo	1.0	24.5	5.0	40.1	-	7.4	-	12.9	-	9.1	-	100.0

Table No.4.7.B. Shows the average annual cash expenditure per person on different drinks and tobacco

Figs. in E$

Sr. No.	Province	Wines	Beers	Tea	Coffee	Fenugreek	Sprite	Chat	Dairy Products	Soft Drinks	Tobacco	Bottled Drinks	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1.	Tigre	0.06	0.23	0	0.59	0.06	-	-	-	-	-	-	0.95
2.	Begemder	-	0.79	-	1.19	0.01	-	-	-	-	-	-	2.00
3.	Gojam	0.03	0.15	-	0.25	-	-	-	-	-	-	-	0.44
4.	Wollo	-	0.39	-	1.01	0.02	0.02	0.01	-	-	0.01	-	1.46
5.	Hararge	0.05	0.01	0.09	0.85	-	0.16	0.86	0.66	-	0.71	-	3.40
6.	Arussi	0.47	1.99	0.07	5.74	-	0.60	-	0.06	-	-	-	8.94
7.	Shoa	0.20	2.37	-	3.16	-	0.79	-	0.59	-	0.20	-	7.30
8.	Wollega	1.18	0.56	1.28	0.07	0.07	5.96	-	-	0.03	0.03	-	9.18
9.	Illubabor	7.17	0.50	0.29	2.27	0.13	0.53	0.63	-	-	0.36	-	11.89
10.	Kefa	1.15	1.57	0.10	1.54	0.03	0.03	0.18	0.01	-	0.55	1.43	6.59
11.	Gemu Goffa	0.08	0.49	-	0.34	0.06	-	-	0.26	-	0.15	-	1.39
12.	Sidamo	0.03	0.70	0.16	1.12	-	0.21	-	0.37	-	-	-	2.59

Table No. 4.5: Showing the average cash expenditure per household on consumable items.

Figs. in E$

Sr. No.	Province	Feul & Light	Household cleansing materials	Medical Item	Personal hygiene and medicine	Other household Items	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Tigre	0.56	0.09	0.29	-	-	0.94
2.	Begemder	0.53	-	-	0.02	0.02	0.57
3.	Gojam	0.69	0.09	-	0.06	0.02	0.86
4.	Wollo	1.02	0.02	-	0.08	0.05	1.17
5.	Hararge	5.82	0.85	-	0.18	0.08	6.93
6.	Arussi	4.28	3.18	-	1.53	0.14	9.13
7.	Shoa	6	2	-	1	0	9
8.	Wollega	2.84	4.29	-	1.56	0.75	9.44
9.	Illubabor	3.79	1.57	-	1.57	0.43	7.36
10.	Kefa	3.39	0.49	-	0.76	1.57	6.21
11.	Gemu Goffa	3.12	0.56	0.69	-	-	4.37
12.	Sidamo	0.05	0.10	-	0.07	0.48	0.70

Table No 4.8.A. Showing the percentage of cash expenditure on different consumable item groups to total expenditure on consumable items.

Sr. No.	Province	Fuel Light	Household cleansing materials	Medical Item	Personal hygiene and medicine	Other household Items	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Tigre	59.6	9.6	30.8	-	-	100.0
2.	Begemder	93.0	-	-	3.5	3.5	100.0
3.	Gojam	80.2	10.5	2.3	7.0	-	100.0
4.	Wello	87.2	1.7	6.8	4.3	-	100.0
5.	Hararge	84.0	12.3	2.5	1.2	-	100.0
6.	Arussi	46.9	34.8	16.8	1.5	-	100.0
7.	Shoa	66.7	22.2	-	11.1	0	100.0
8.	Wollega	30.1	45.4	-	16.5	8.0	100.0
9.	Illubabor	51.6	21.3	-	21.3	5.8	100.0
10.	Kefa	54.6	7.9	-	12.2	25.3	100.0
11.	Gemu Goffa	71.4	12.8	15.8	-	-	100.0
12.	Sidamo	7.1	14.3	-	10.0	68.6	100.0

Table No.4.8.B. Showing the average annual cash expenditure per person on consumable items

Figs in E$

Sr. No.	Province &	Fuel & Light	Household Cleansing nat	Medical Item	Personal Hygien and medicine	Other Household Item	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Tigre	0.11	0.02	0.06	-	-	0.19
2.	Begemder	0.10	-	-	0	0	0.11
3.	Gojam	0.14	0.02	-	0.01	0	0.17
4.	Wollo	0.22	0	-	0.02	0.01	0.25
5.	Hararge	1.04	0.15	-	0.03	0.01	1.24
6.	Arussi	0.63	0.47	-	0.23	0.02	1.34
7.	Shoa	1.18	0.39	-	0.20	0	1.78
8.	Wellega	0.59	0.89	-	0.32	0.16	1.96
9.	Illubabor	1.02	0.42	-	0.42	0.13	1.99
10.	Kefa	0.81	0.11	-	0.18	0.38	1.49
11.	Gemu Goffa	0.61	0.11	0.14	-	-	0.86
12.	Sidamo	0.01	0.02	-	0.01	0.10	0.14

Table No. 4.9: Showing the average cash expenditure per household on different items of clothing and footwear

Figs in E$

Sr. No.	Province	National Dress	Other indoor wear	Other outdoor wear	Headgear	Footwear	Personal Jewellery	Clothing materials	Items of personal use	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.	Tigre	14.23	10.00	0.24	0.14	0.71	0.90	0.06	0.01	26.29
2.	Begemder	15.12	7.78	0.27	0.06	0.58	0.35	0.18	0.01	24.35
3.	Gojam	16.55	10.08	0.20	0.09	0.46	0.26	-	0.03	27.67
4.	Wollo	9.44	6.57	0.22	0.13	0.58	0.05	0.14	-	17.13
5.	Hararge	13.35	32.02	0.23	0.96	2.74	0.76	0.39	0.05	50.50
6.	Arussi	60.16	67.26	2.61	1.17	13.68	2.98	0.37	0.23	148.46
7.	Shoa	24	32	2	1	5	-	1	-	65
8.	Wollega	23.75	29.44	0.63	0.52	4.34	3.40	-	-	62.08
9.	Illubabor	7.40	12.11	0.60	0.31	1.90	1.29	0.06	0.02	23.69
10.	Kefa	15.52	30.62	0.56	0.77	4.60	0.37	0.08	-	52.52
11.	Gemu Goffa	17.99	15.12	0.92	0.20	2.04	0.67	0.01	-	36.95
12.	Sidamo	17.06	12.12	0.31	0.15	0.89	0.60	0.06	-	31.19

Table No.4.9.A. Showing the percentage cash expenditure on different items of clothing and foot wear groups to total expenditure on clothing and footwear .

Sr. No.	Province	National Dress	Other Indoor wear	Other outdoor	Headgear	Footwear	personal Jewellery	clothing materials	Items of personal	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.	Tigre	54.1	38.0	0.9	0.6	2.7	3.4	0.3	-	100.0
2.	Begemder	62.2	32.0	1.1	0.2	2.4	1.4	0.7	-	100.0
3.	Gojam	59.8	36.4	0.7	0.3	1.7	1.0	0.1	-	100.0
4.	Wollo	55.1	38.4	1.3	0.7	3.4	0.3	0.8	-	100.0
5.	Hararge	26.4	63.4	0.5	1.9	5.4	1.5	0.8	0.1	100.0
6.	Arussi	40.5	45.3	1.8	0.8	9.2	2.0	0.2	0.2	100.0
7.	Shoa	37.0	49.3	3.1	1.5	7.6	-	1.5	-	100.0
8.	Wollega	38.3	47.4	1.0	0.8	7.0	5.5	-	-	100.0
9.	Illubaobor	31.2	51.1	2.6	1.3	8.0	5.4	0.3	0.1	100.0
10.	Kefa	29.6	58.3	1.0	1.5	8,7	0.7	-	0.2	100.0
11.	Gemu Goffa	48.7	40.9	2.5	0.6	5.5	1.8	-	-	100.0
12.	Sidamo	54.7	38.8	1.0	0.5	2.9	1.9	0.2	-	100.0

Table No.4.9.B. Showing the average annual cash expenditure per person on different items of clothing and footwear.

Figs. in E$

Sr. No.	Province	National Dress	Other indoor wear	Other outdoor wear	Headgear	Footwear	Personal Jewellery	Clothing materials	Items of personal use	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.	Tigre	2.85	2.00	0.05	0.03	0.14	0.18	0.01	0	5.27
2.	Begemder	2.96	1.53	0.05	0.01	0.11	0.07	0.04	0	4.77
3.	Gojam	3.34	2.04	0.04	0.02	0.09	0.05	-	0.01	5.59
4.	Wollo	2.01	1.40	0.05	0.03	0.12	0.01	0.03	-	3.65
5.	Hararge	2.38	5.73	0.04	0.17	0.49	0.14	0.07	0.01	9.03
6.	Arussi	8.86	9.91	0.38	0.17	2.01	0.44	0.05	0.03	21.86
7.	Shoa	4.73	6.31	0.39	0.20	0.99	-	0.20	-	12.82
8.	Wollega	4.93	6.11	0.13	0.11	0.90	0.71	-	-	12.88
9.	Illubabor	2.00	3.27	0.17	0.09	0.51	0.35	0.02	0.01	6.40
10.	Kefa	3.73	7.36	0.14	0.19	1.11	0.09	0.02	-	12.63
11.	Gemu Goffa	3.35	2.98	0.18	0.05	0.40	0.13	0	-	7.27
12.	Sidamo	3.38	2.40	0.06	0.03	0.18	0.12	0.01	-	6.19

Table no. 4.10: Showing the average cash expenditure per household on different kinds of household durables.

Figs. in Birr

Sr. No.	Province	Soft furnishings	Hard furnishings	Earthen ware items	Straw & Wood items	Other cooking & serving items	Other household items	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Tigre	2.78	0;69	1.16	2.43	0.89	0.14	8.09
2.	Begemder	5.39	0.41	0.88	1.49	0.90	0.15	9.22
3.	Gojam	1.27	0.21	1.00	1.42	0.54	0.21	4.65
4.	Wollo	1.37	0.38	0.59	0.43	0.21	0.14	3.12
5.	Hararge	4.30	0.34	1.22	3.18	2.83	1.05	12.92
6.	Arussi	3.48	1.16	6.87	2.99	5.22	0.16	19.88
7.	Shoa	5	2	4	2	3	1	17
8.	Wellega	6.89	3.62	2.73	1.34	3.08	2.71	20.37
9.	Illubabor	2.67	1.56	0.92	0.28	1.61	0.17	7.21
10.	Kefa	6.25	1.41	1.43	0.75	3.03	0.96	13.83
11.	Gemu Goffa	4.57	0.40	1.00	0.72	1.04	0.33	8.06
12.	Sidamo	1.75	1.26	1.37	1.04	0.96	0.67	7.05

Table No. 4.10.A Showing the percentage of cash expenditure on different kinds of household durable group to total expenditure on household durables.

Sr. No.	Province	Soft furnishing	Hard furnishing	Earthware items	Straw & Wood items	Other Cooking & serveing items	Other household items	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Tigre	34.4	8.5	14.3	30.0	11.0	1.8	100.0
2.	Begemder	58.5	4.5	9.5	16.2	9.8	1.5	100.0
3.	Gojam	27.3	4.5	21.5	30.6	11.6	4.5	100.0
4.	Wollo	43.9	12.2	18.9	13.8	6.7	4.5	100.0
5.	Hararge	33.3	2.6	9.5	24.6	21.9	8.1	100.0
6.	Arussi	17.5	5.8	34.6	15.0	26.3	0.8	100.0
7.	Shoa	29.5	11.8	23.5	11.8	17.6	5.8	100.0
8.	Wollega	33.8	17.8	13.4	6.6	15.1	13.3	100.0
9.	Illubabor	37.0	21.6	12.8	3.9	22.3	2.4	100.0
10.	Kefa	45.2	10.2	10.3	5.4	21.9	7.0	100.0
11.	Gemu Goffa	56.7	5.0	12.4	8.9	12.9	4.1	100.0
12.	Sidamo	24.8	17.9	19.4	14.8	13.6	9.5	100.0

Table No. 4.10.B: Showing the average cash expenditure per person on different kinds of household durables.

Figs in E$

Sr. No.	Province	Soft furnishings	Hard furnishings	Earthware items	Straw & Wood items	Other Cooking & serving items	Other Household items	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Tigre	0.56	0.14	0.23	0.49	0.18	0.03	1.63
2.	Begemder	1.06	0.08	0.17	0.29	0.17	0.03	1.80
3.	Gojam	0.26	0.04	0.20	0.29	0.11	0.04	0.94
4.	Wollo	0.29	0.08	0.13	0.09	0.04	0.03	0.66
5.	Hararge	0.77	0.06	0.22	0.57	0.51	0.19	2.31
6.	Arussi	0.51	0.17	1.01	0.44	0.77	0.02	2.93
7.	Shoa	0.99	0.39	0.78	0.39	0.59	0.20	3.35
8.	Wollega	1.43	0.75	0.56	0.28	0.63	0.56	4.23
9.	Illubabor	0.72	0.42	0.25	0.08	0.43	0.05	1.95
10.	Kefa	1.50	0.34	0.34	0.18	0.73	0.23	3.32
11.	Gemu Goffa	0.90	0.08	0.19	0.14	0.20	0.06	1.59
12.	Sidamo	0.35	0.25	0.27	0.21	0.19	0.13	1.40

Table No.4:11: Showing the average cash expenditure per household on items of services.

Figs.in E$

Sr. No.	Province	Transport	Education	Medical	Personal services	Recreational services	Repairs	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Tigre	-	0.62	1.77	0.58	-	-	2.97
2.	Begemder	-	0.07	1.34	1.92	-	-	3.33
3.	Gojam	0.43	0.89	1.31	0.76	-	-	3.39
4.	Wollo	-	0.32	0.57	0.12	-	-	1.01
5.	Hararge	5.63	1.23	3.10	11.78	-	-	21.74
6.	Arussi	4.90	2.42	6.98	12.98	-	0.24	27.52
7.	Shoa	3	1	6	6	2	-	18
8.	Wollega	1.81	4.40	10.87	20.97	-	-	38.05
9.	Illubabor	-	-	2.02	0.92	-	-	2.94
10.	Kefa	36.37	-	4.82	5.93	-	0.22	47.34
11.	Gemu Goffa	1.73	3.24	3.55	3.42	-	-	11.94
12.	Sidamo	0.36	0.50	3.64	0.96	-	-	5.46

Table No. 4.11.A: Showing the percentage of cash expenditure on items of services to total expenditure on services.

Sr. No.	Province	Transport	Education	Medical	Personal services	Recreations services	Repairs	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Tigre	-	20.9	59.6	19.5	-	-	100.0
2.	Begemder	-	2.1	40.2	57.7	-	-	100.0
3.	Gojam	12.7	26.3	38.6	22.4	-	-	100.0
4.	Wollo	-	31.7	56.4	11.9	-	-	100.0
5.	Hararge	25.9	5.6	14.3	54.2	-	-	100.0
6.	Arussi	17.8	8.8	25.4	47.2	-	0.8	100.0
7.	Shoa	16.7	5.6	33.3	33.3	11.1	-	100.0
8.	Wollega	4.8	11.5	28.6	55.1	-	-	100.0
9.	Illubabor	-	-	68.7	31.3	-	-	100.0
10.	Kefa	76.8	-	10.2	12.5	-	0.5	100.0
11.	Gemu Goffa	14.5	27.2	29.7	28.6	-	-	100.0
12.	Sidamo	6.6	9.2	66.7	17.5	-	-	100.0

Table No. 4.11.B: Showing the average cash expenditure per person on items of services.

Figs. in Rs

Sr. No.	Province	Transport	Education	Medical	Personal services	Recreational services	Repairs	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Tigre	-	0.12	0.35	0.12	-	-	0.60
2.	Begemder	-	0.01	0.27	0.38	-	-	0.66
3.	Gojam	0.09	0.18	0.26	0.15	-	-	0.68
4.	Wollo	-	0.07	0.12	0.03	-	-	0.22
5.	Hararge	1.01	0.22	0.55	2.11	-	-	3.89
6.	Arussi	0.72	0.36	1.03	1.91	-	0.04	4.05
7.	Shoa	0.59	0.20	1.18	1.18	0.39	-	3.55
8.	Wollega	0.38	0.91	2.26	4.35	-	-	7.89
9.	Illubabor	-	-	0.55	0.25	-	-	0.79
10.	Kefa	8.74	-	1.16	1.43	-	0.05	11.38
11.	Gemu Goffa	0.34	6.38	0.70	0.67	-	-	2.35
12.	Sidamo	0.07	0.10	0.72	0.19	-	-	1.08

Appenix E to the report on Rural Household Expenditure and Consumption Survey Showing the harvesting season for main cereals and pulses.

Sr. No.	Province (with dates of survey)	CEREALS					PULSES				
		Teff	Wheat	Maize	Barely	Sorghum	Chick-peas	Peas	Beans	Lentils	Fenugreek
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Tigre (1-9-67 to 21-10-67)	Sep.-Dec.	Sep.-Jan.	Aug.-Dec.	Sep.-Dec.	Sep.-March	Sep.-Feb.	Sep.-Jan.	Sep.-Dec.	Oct.-Nov.	Dec.
2.	Begemder (22-10-67 to 20-11-67)	Oct.-Feb.	Oct.-March	Sep.-Dec.	Sep.-Feb.	Oct.-March	Oct.-March	Oct.-Feb.	Sep.-March	Oct.-Apr.	Nov.-Feb.
3.	Gojam (21-11-67 to 30-12-67)										
4.	Wollo (18-3-68 to 10-6-68)	Sep.-Feb.	Oct.-Feb.	Sep.-Jan	Sep.-Dec.	Nov.-Jan	Nov.-Feb.	Sep.-Jan.	Sep.-Jan.	Sep.-Jan.	Dec.-Jan
5.	Hararge (18-5-67 to 21-6-67)	Nov.-Jan.	Oct.-Jan.	Aug.-Dec.	Aug.-Sept.	Oct.-Feb	Jan.	Oct.-Jan	Sep.-Jan.	Oct.-Jan.	Nov.-Dec.
6.	Arussi (Dec.66 to Feb. 67)	Nov.-Feb.	Nov.-Feb.	Aug.-Dec.	Oct.-Dec.	Oct.-Jan	Jan.-Feb.	Oct.-Feb.	Oct.-Feb.	Nov.Dec.	N.-S.
7.	Shoa (20-12-66 to 4-4-67)	Oct.-Feb	Oct.-Feb.	Sep.-Jan	Oct.-Feb.	Oct.-Feb.	Oct.-Mar.	Oct.-Jan	Oct.-Dec.	Oct.-Jan.	Oct.-Jan
8.	Wollega (10-4.67 to 12-5-67)	Nov.-Jan	Sept.-Jan	June.-Sept.	Sept.-Jan	Oct.-Feb.	Jan-Feb.	Oct.-Jan	Oct.-Jan.	Nov.-Jan.	N.S
9.	Illubabor (30-12-67 to 8-2.68)	Oct.-Dec.	Nov.-Jan.	Aug.-Oct.	Aug.-Nov.	Aug.-Jan.	N.-S	Oct.-Jan.	Sep.-Jan.	N.S.	N.S
10.	Kefa (23-1-68 to 12-3-68)	Oct.-Jan.	Sep.-March	July-Sept.	Sep.-Jan.	Dec.-June	Jan.	Oct.-Feb.	Oct.-Feb.	N.S.	N.S.
11.	Gemu Goffa (9-1-68 to 27-2-68)	Oct.-Dec.	Oct-Feb.	June.-Sept	Sep.-Jan	June.-Dec.	Jan.	Oct.-Dec.	Oct.-Feb.	Nov.-Jan	N.S.
12.	Sidamo (29-6-67 to 3-8-67)	Sep.-Feb.	Nov.-Jan.	July-Sept.	July-Oct.	Nov.-Jan.	N.S.	Oct.-Feb.	Sep.-Feb.	N.S.	N.S

Sources ESS Test 1 round.