

## **CHAPTER VIII**

### **FARM IMPLEMENTS, DRAUGHT ANIMALS AND STORAGE FACILITIES**

#### **1. INTRODUCTION**

Agriculture is the single largest sector in the Ethiopian economy. The position of the agricultural sector for the past few decades does not only concern the peasants, but on account of the extent of its inputs, outputs and its function as a largest employer of labour has a profound impact on the entire economy. It is worth to point-out that Ethiopia has large resources in terms of land, agricultural labour, draught animals... etc.

Despite all these facts, the average yield of the main food crops and livestock products attained by private peasant holders is very low and it is not adequate to feed the ever-growing population. Because of such prevailing conditions in the agricultural sector, the economy remained at subsistence level. Among the factors that hampered the country not to prosper is the use of primitive farm implements and tools by the peasants to operate their land and to raise livestock.

The role of improved agricultural implements and tools in raising the standard of farming efficiency and increasing average yield of production has been recognized for many years. Land preparation requires modern power source that results in considerable farm efficiency and expansion of production. Sowing and fertilization are among the few agricultural operations where animal and tractor drawn machines appear to be capable of greater efficiency than only hand method. Power-driven line sowing and fertilization are more efficient than hand spreading and this is usually expected to result in higher yield for the same amount of fertilizers and seeds.

The traditional unimproved farm implements used by the peasants and the poor conditions of the draught animals are considered to be among the main factors that retarded the agricultural productivity in the country. On the other hand, the development of farm implements and machineries can also be crippled by small land

size holdings, abundant labour in rural area and non-availability of adequate access to modern farm implements and machineries, which the private peasant holders can afford to rent or buy. In general, effective development of farm implements and machineries takes place when land is abundant and labour is being rapidly absorbed by non-agricultural sector, (WB, 1984).

Since development programmes are in progress in Ethiopia, data generated from censuses and sample surveys on different types of agricultural outputs and inputs are necessary for the formulation of programmes and policies in the sector and thereby for monitoring and evaluation of the impact of the programmes. One of the objectives of this census was to provide benchmark data that can help to assess the growth, quantity, quality and value of farm implements and other farm equipment used by the private peasant holders so as to easily identify the implements that are abundant and those that are in short supply. The structural characteristics of these farm implements and other farm equipment do not change much from year to year and such data are usually obtained from a census of agriculture, which is conducted every 5 or 10 years.

Data on farm implements and other farm equipment have not been collected in Ethiopia and as a result only very little is known about the status and growth of these implements. Thus, in the Ethiopian agricultural census conducted in 2001/2002, data was collected on farm implements and other farm equipment. These farm implements include, implements used for clearing land, cultivation, harvesting, threshing and others. In this census draught animals comprises animals engaged specifically in ploughing, threshing and farm transport facilities. Replacement value was one of the variables covered by this census and it is defined as the amount it would cost to replace the farm implement, equipment, draught animal and storage with the kind of similar origin, age, quality or condition.

In this chapter the classification of farm implements, farm equipment, draught animals and storage facilities are presented in Section 2. Brief discussions of data on Summary Tables VIII.1 to VIII.4 are also provided in section 3. Statistical Tables presenting the census results at zonal and wereda levels are also given as Table series 8.1A - 8.23A and

8.1B-8.23B. Finally, the estimates, Standard Errors (S.E.) and Coefficients of Variation (C.V.) on number of holders reporting, number of farm implements reported and total value are presented in the Annex Table.

## **2. CLASSIFICATION OF FARM IMPLEMENTS, OTHER FARM EQUIPMENT AND DRAUGHT ANIMALS**

The farm implements and draught animals reported were classified into the following eight groups: -

- Implements used for clearing land,
- Implements used for cultivation,
- Parts for traditional plough,
- Implements used for harvesting,
- Implements used for threshing,
- Other farm equipment,
- Draught animals for farm activity, and
- Storage facilities.

These eight groups further broken down to include the following implements and other farm equipment:-

### **2.1 Implements used for clearing land:-**

- a) Axes,
- b) 'Gejera '(Chopper), and
- c) Shovel.

### **2.2 Implements used for cultivation:-**

- a) Hoe,
- b) 'Mekeskesha',
- c) Pick-Axe, and
- d) Tractor.

### **2.3 Parts for traditional plough:-**

- a) 'Deger',
- b) 'Erfe',
- c) Plough-Beam,
- d) Plough-Tip, and
- e) 'Wegel'-Tip.

### **2.4 Implement used for harvesting:-**

- a) Sickle.

### **2.5 Implements used for threshing:-**

- a) Hay- Fork (metal or wood),
- b) Threshing Stick, and
- c) Winnowing (metal or wood).

### **2.6 Other farm equipment:-**

- a) Cart (hauling),
- b) Sprayer (hand operated),
- c) Sprayer (power operated),
- d) Tying Tool, and
- e) Wheelbarrow.

### **2.7 Draught animals:-**

- a) Animals deployed specifically in ploughing:-
  - Ass/Donkey,
  - Camel,
  - Horse,
  - Mule, and
  - Ox.

b) Animals deployed in threshing or transportation:-

- Ass/Donkey,
- Camel,
- Cattle (Working Age),
- Horse, and
- Mule.

## **2.8 Storage facilities:-**

- a) 'Debignit'(Local storage),
- b) 'Gottera' (Local storage),
- c) 'Gudguad'(Local storage), and
- d) Modern storage.

### **Definitions of storage facilities**

'Debignit': - is a round vessel of earthenware storage attached with the wall of a house. The shape of 'Debignit' is similar to the shape of a barrel. Debignit is usually around 1 metre high and 0.5-1metres wide.

'Gottera': - is storage made of bamboo plant. The bamboo is split and then crisscrossed and woven like a giant basket. Finally, it is laminated with a mixture of animal dung and dry grass (straw). 'Gottera' is usually about 1-3 metres high and about 1 metre wide

'Gudguad': - is an underground storage, which is formed by digging the ground with certain depth and radius. The wall of 'Gudguad' is usually laminated with animal dung.

Modern storage: - is a storage that has a better quality in protecting grains from humidity and pests than the above mentioned storages.

### **3. ESTIMATES OF FARM IMPLEMENTS, DRAUGHT ANIMALS AND STORAGE FACILITIES.**

The type, quality and quantity of tools and implements in use usually indicate the level of farming practice and agricultural development of a country. Hence, the results of this census can give us some highlights to evaluate the farming system in Gambela region. In this report farm implements are grouped in terms of their operation and this can help to make appropriate comparisons.

#### **3.1 Farm Implements and Tools**

The data in Summary Table VIII.1 indicates that the number of holders reporting 'Gejera'(Chopper) was the highest followed by axe while shovel was the lowest. In Gambella Region it is estimated that there were about 25,774 crop holders in rural areas of which about 23,406 (87.42%) reporting to own 'Gejeras' (choppers), about 66.97% reporting axes, and 10.67% reporting shovels. Among the farm implements used for clearing land the number of observation for 'Gejera' was highest and the total value for 'Gejera' was also the highest followed by axe and shovels. The expected duration of service of an axe was estimated to be 11 years, while for shovel and 'Gejera' it was estimated to be 8 and 6 years, respectively.

One of the labour and power intensive farm activities is cultivation. It comprises digging, ploughing, sowing and weeding. In order to accomplish such operations, the Ethiopian peasants use hoe, 'Mekeskesha', pick-axe, and traditional plough. Among these farm implements and tools hoe was the highest in terms of number of holders reporting, total number of implements reported and total value. The second highest was pick-axe while 'Mekeskesha' was the lowest. The data in Summary Table VIII.4 revealed that the percentage distribution of the number of crop holders that owned one, two, three, four and five and above hoes was 43.94%, 15.63%, 4.93%, 2.14% and 0.63% respectively. For details, see the Summary Table.

### **3.2 Draught Animals**

Peasants in Ethiopia use domestic animals for draught purpose. In several parts of the country where holdings are far from residence as a result asses, horses, mules and camels are used to transport various types of goods and agricultural products from holding to residence and vice-versa. As it is indicated in Summary Table VIII.2 ox was the single draught animal used for ploughing. About 1,132 holders (4.23% of the total crop holders in the region) reported 1,860 cattle (working age cattle) used for threshing and these cattle had a value of 710,988 Birr. It was also indicated that horses were used by the holders for threshing and transportation. The estimated number and percentage distribution of crop holders in rural areas that owned implements, equipment and draught animals are shown in Summary Table VIII.4. In Gambella region the agricultural census result shows that there were about 26,775 crop holders in rural areas. Among these 2.51%, 1.78%, 0.09%, .11% and 0.04% holders owned one, two, three, four, and five and above oxen. On the other hand about 95.47% of the holders did not own ox. For details, see Summary Table VIII.4.

### **3.3 Storage Facilities**

One of the methods that minimize post harvest production losses is the usage of modern storages facilities. During the census data was collected on modern storages facilities and the unimproved local storage facilities such as 'Debignit', 'Gottera' and 'Gudguad'. In this census, buildings or any structure used as storage facilities and other containers that have better storage quality to protect agricultural products from humidity and pests are considered as modern storage facilities.

The data in Summary Table VIII.3 shows the number of holders reporting storage facilities and number of such facilities. Thus, the data in the table reveals that 'Gottera' was reported by the highest number of holders, followed by 'Debignit' and modern storage facilities. On the other hand, 'Gudguad' was reported by insignificant number of holders. The total value of all reported storage facilities was assessed to be 529,798 Birr, of which 98.8% comprises of Gottera. The percentage distribution of the number of crop holders that owned 'Gottera' and 'Debignit' is also presented in Summary Table VIII.4.

**SUMMARY TABLE VIII.1:-Number and Percentage of Holders Reporting Implements and Other Farm Equipment by type, Quantity Reported, Replacement Value, and Duration of Implement, for Private Holdings.**

Implements and Equipment	Number of Holders Reporting	Percent of Total Holders	Number of Implements and Equipment		Total Value of Imp. and Eq. (Birr)	Average Replacement Value Per Imp. and Eq. (Birr)	Average Duration of Service of Imp. and Eq. (Years)
			Total Reported	# Average Per Holder			
Used for Clearing Land							
Axes .....	17,932	66.97	21,575	0.81	346,336	13.80	11
'Gejeras' (Choppers).....	23,406	87.42	32,632	1.22	629,730	14.09	6
Shovels.....	2,856	10.67	3,029	0.11	38,939	12.25	8
Used for Cultivation							
Hoes .....	17,999	67.22	27,316	1.02	189,871	4.75	7
'Mekeskeshas'.....	182	0.68	226	0.01	1,047	4.08	7
Pick-Axes.....	1,640	6.13	1,907	0.07	27,540	12.23	12
Tractor .....	-	-	-	-	-	-	-
Parts for traditional Plough							
' Degers'.....	1,217	4.55	1,537	0.06	5,406	2.90	2
' Erfes'.....	1,197	4.47	1,449	0.05	2,530	1.52	2
Plough-Beams.....	1,260	4.71	1,656	0.06	13,744	6.85	3
Plough- Tips.....	1,211	4.52	1,324	0.05	23,998	15.96	7
'Wegel' – Tips .....	1,205	4.50	1,327	0.05	7,944	5.46	6
Yokes .....	1,234	4.61	1,359	0.05	8,193	5.43	3
Used for Harvesting							
Sickles .....	12,291	45.90	16,369	0.61	140,517	6.48	6
Used for Threshing							
Hay-Forks (metal).....	*	-	*	-	*	*	*
Hay-Forks (wood).....	55	0.21	95	0.00	*	*	*
Threshing Sticks .....	3,132	11.70	4,376	0.16	4,331	0.77	2
Winnowers (metal) .....	-	-	-	-	-	-	-
Winnowers (wood) .....	*	-	*	-	*	*	*
Other farm Equipment							
Carts .....	*	-	*	-	*	-	-
Sprayers (Hand operated) .....	162	0.61	211	0.01	1,503	5.67	6
Sprayers (Power operated) ..	-	-	-	-	-	-	-
Tying Tools.....	-	-	-	-	-	-	-
Wheelbarrows .....	94	0.35	94	0.00	*	*	*

# Average per holder is the ratio of total number of each implement reported to total number of crop holders in rural areas in the region.  
- Total number of crop holders comprises, holders participated in crop production only and both crop production and livestock rearing.



SUMMARY TABLE VIII.2:-Number and Percentage of Holders Reporting Draught Animals, Quantity Reported, Replacement Value, and Average Age of Animal, for Private Holdings.

Animals	Number of Holders Reporting	Percent of Total Holders	Number of Animals		Total Value of Animals (Birr)	Average Replacement Value Per Animal (Birr)	Average Age of Animal (Years)
			Total Reported	#Average Per Holder			
Used for Ploughing							
Asses .....	-	-	-	-	-	-	-
Camels.....	-	-	-	-	-	-	-
Horses .....	-	-	-	-	-	-	-
Mules.....	-	-	-	-	-	-	-
Oxen .....	1,215	4.54	1,878		756,855	257.41	3
Used for Threshing or Transportation							
Asses .....	*		*	-	*	*	*
Camels.....	-	-	-	-	-	-	-
Cattle .....	1,132	4.23	1,849	0.07	710,988	*	*
Horses .....	312	1.17	312	0.01	158,822	509.04	6
Mules.....	-	-	-	-	-	-	-

# Average per holder is the ratio of total number of each draught animal reported to total number of crop holders in rural areas in the region.

- Total number of crop holders comprises, holders participated in crop production only and both crop production and livestock rearing.

SUMMARY TABLE VIII.3: - Number and Percentage of Holders Reporting Storage facilities, Quantity Reported, Replacement Value, and Storage Capacity, for Private Holdings.

Storage Structure	Number of Holders Reporting	Percent of Total Storage Holders	Number of Storages		Total Value of Storages (Birr)	Average Replacement Value Per Storage (Birr)	Average Storage Capacity Per Storage (Quintal)
			Total Reported	# Average Per Holder			
'Debignits' .....	189	0.71	246	0.01	3,579	11.66	3
'Gotteras' .....	18,233	68.10	25,848	0.97	523,634	15.01	8
'Gudguads' .....	*	-	*	-	*	*	*
Modern Storage Structures .....	89	0.33	89	0.00	2,585	29.04	15

# Average per holder is the ratio of total number of each storage facility reported to total number of crop holders in rural areas in the region.

- Total number of crop holders comprises, holders participated in crop production only and both crop production and livestock rearing.

SUMMARY TABLE VIII.4: -Number of Crop Holders that Owned Farm Implements, Equipment and Draught Animals.

Name of Implement, Equipment, and Draught Animal	Number of Crop holders that owned											
	No Implement, Equipment, or Draught Animal		One Implement, Equipment, and Draught Animal		Two Implements, Equipment, and Draught Animals		Three Implements, Equipment, and Draught Animals		Four Implements, Equipment, and Draught Animals		Five and above Implements, Equipment, and Draught Animals	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Used for Clearing Land												
Axes .....	8,844	33.03	15,126	56.49	2,305	8.61	362	1.35	110	0.41	28	0.10
'Gejera' .....	3,370	12.59	16,181	60.43	5,616	20.97	1,257	4.69	309	1.15	42	0.16
Shovel .....	23,908	89.29	2,714	10.14	139	0.52	11	0.04	-	-	3	0.01
Used for Cultivation												
Hoes .....	8,768	32.75	11,764	43.94	4,184	15.63	1,319	4.93	572	2.14	168	0.63
'Mekeskeshas' .....	26,593	99.32	153	0.57	19	0.07	5	0.02	5	0.02	-	-
Pick Axes .....	25,134	93.87	1,469	5.49	106	0.40	37	0.14	29	0.11	-	-
Tractors .....	26,755	100.00	-	-	-	-	-	-	-	-	-	-
Parts for traditional Plough												
'Degers' .....	25,557	95.45	1,003	3.75	153	0.57	18	0.07	44	0.16	-	-
'Erfes' (Handle) .....	25,573	95.51	997	3.72	179	0.67	8	0.03	14	0.05	4	0.01
Plough-Beam .....	25,516	95.30	1,074	4.01	135	0.50	24	0.09	-	-	26	0.10
Plough -Tips .....	25,564	95.48	1,127	4.21	65	0.24	8	0.03	11	0.04	-	-
'Wegel' -Tips .....	25,570	95.50	1,130	4.22	60	0.22	4	0.01	-	-	11	0.04
Yokes .....	25,541	95.39	1,112	4.15	118	0.44	4	0.01	-	-	-	-
Used for Harvesting												
Sickles .....	14,484	54.10	9,080	33.91	2,572	9.61	449	1.68	161	0.60	29	0.11
Used for Threshing												
Hay-Forks (Metal) .....	*	-	*	-	*	-	*	-	*	-	*	-
Hay-Forks (Wood) .....	26,720	99.79	19	0.07	32	0.12	4	0.01	-	-	-	-
Threshing Sticks .....	23,644	88.31	2,130	7.96	840	3.14	141	0.53	-	-	20	0.07
Winnowers (Metal) .....	*	-	*	-	-	-	-	-	-	-	-	-
Winnowers (Wood) .....	26,770	99.98	5	0.02	-	-	-	-	-	-	-	-
Other Farm Equipment												
Carts .....	*	-	*	-	-	-	-	-	-	-	-	-
Sprayers (Hand Operated)	26,612	99.39	140	0.52	14	0.05	-	-	-	-	9	0.03
Sprayers (Power Operated)	26,755	100.00	-	-	-	-	-	-	-	-	-	-
Tying Tools .....	26,755	100.00	-	-	-	-	-	-	-	-	-	-
Wheelbarrows .....	26,681	99.65	94	0.35	-	-	-	-	-	-	-	-
Animals Used for Ploughing												
Asses .....	26,755	100.00	-	-	-	-	-	-	-	-	-	-
Camels .....	26,755	100.00	-	-	-	-	-	-	-	-	-	-
Horses .....	26,755	100.00	-	-	-	-	-	-	-	-	-	-
Mules .....	26,755	100.00	-	-	-	-	-	-	-	-	-	-
Oxen .....	25,561	95.47	673	2.51	476	1.78	24	0.09	29	0.11	12	0.04
Animals Used for Threshing or Transportation												
Asses .....	26,721	99.80	54	0.20	-	-	-	-	-	-	-	-
Camels .....	26,755	100.00	-	-	-	-	-	-	-	-	-	-
Cattle .....	25,643	95.77	615	2.30	443	1.65	29	0.11	29	0.11	16	0.06
Horses .....	26,463	98.83	312	1.17	-	-	-	-	-	-	-	-
Mules .....	26,755	100.00	-	-	-	-	-	-	-	-	-	-
Storage Structure												
'Debignits' .....	26,586	99.29	132	0.49	57	0.21	-	-	-	-	-	-
'Gotteras' .....	8,542	31.90	12,568	46.94	4,199	15.68	1,062	3.97	358	1.34	46	0.17
'Gudguads' .....	26,650	99.53	125	0.47	-	-	-	-	-	-	-	-
Modern Storages .....	26,686	99.67	89	0.33	-	-	-	-	-	-	-	-

STATISTICAL TABLES PRESENTING THE CENSUS  
RESULTS AT  
ZONAL AND WOREDA LEVELS

Tables 8.1A- 8.23A

TABLE 8.1A: - Number of Holders Reporting Axe Owned, Quantity Reported, Replacement Value, and Duration of Service of Axe, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Axes Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per Axe (Birr)	Average Duration of Service of Axe (Years)
Gambella Region.....	26,775	17,932	21,575	0.81	346,336	13.80	11
Zone 1.....	8,962	5,719	7,873	0.88	86,436	8.39	8
Jikawo.....	2,780	2,284	3,661	1.32	34,067	6.06	8
Itang.....	3,816	2,053	2,563	0.67	30,045	9.62	9
Gambella .....	2,366	1,383	1,649	0.70	22,324	11.64	6
Zone 2.....	17,814	12,212	13,702	0.77	259,900	16.90	12
Abobo.....	3,656	2,647	3,005	0.82	38,366	11.34	10
Jor.....	1,182	913	1,013	0.86	12,306	11.14	13
Gog.....	2,674	1,346	1,501	0.56	20,207	12.04	8
Godare.....	10,302	7,307	8,183	0.79	189,019	20.55	13

TABLE 8.2A: - Number of Holders Reporting 'Gejera' Owned, Quantity Reported, Replacement Value, and Duration of Service of 'Gejera', for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of 'Gejeras' Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per 'Gejera' (Birr)	Average Duration of Service of 'Gejera' (Years)
Gambella Region.....	26,775	23,406	32,632	1.22	629,730	14.09	6
Zone 1.....	8,962	8,098	12,317	1.37	109,327	5.84	6
Jikawo.....	2,780	2,642	4,762	1.71	38,901	4.45	6
Itang.....	3,816	3,529	4,953	1.30	41,155	5.84	7
Gambella .....	2,366	1,927	2,601	1.10	29,271	8.40	5
Zone 2.....	17,814	15,308	20,316	1.14	520,403	19.09	5
Abobo.....	3,656	2,614	3,048	0.83	45,942	12.75	8
Jor.....	1,182	1,020	1,556	1.32	13,092	5.61	10
Gog.....	2,674	1,964	2,354	0.88	25,196	8.77	6
Godare.....	10,302	9,710	13,357	1.30	436,174	23.93	4

TABLE 8.3A:- Number of Holders Reporting Shovel Owned, Quantity Reported, Replacement Value, and Duration of Service of Shovel, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Shovels Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per Shovel (Birr)	Average Duration of Service of Shovel (Years)
Gambella Region.....	26,775	2,856	3,029	0.11	38,939	12.25	8
Zone 1.....	8,962	576	714	0.08	7,490	8.39	8
Jikawo.....	2,780	*	*	-	*	*	*
Itang.....	3,816	249	310	0.08	3,176	8.06	11
Gambella .....	2,366	269	307	0.13	3,251	9.03	5
Zone 2.....	17,814	2,280	2,315	0.13	31,449	13.45	8
Abobo.....	3,656	431	435	0.12	5,604	12.81	8
Jor.....	1,182	*	*	-	*	*	*
Gog.....	2,674	207	216	0.08	2,166	9.73	7
Godare.....	10,302	1,575	1,584	0.15	22,892	14.38	8

TABLE 8.4A: - Number of Holders Reporting Hoe Owned, Quantity Reported, Replacement Value, and Duration of Service of Hoe, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Hoes Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per Hoe (Birr)	Average Duration of Service of Hoe (Years)
Gambella Region.....	26,775	17,999	27,316	1.02	189,871	4.75	7
Zone 1.....	8,962	8,397	14,704	1.64	97,175	3.80	6
Jikawo.....	2,780	2,735	5,855	2.11	33,137	2.66	5
Itang.....	3,816	3,647	5,731	1.50	39,298	4.27	7
Gambella.....	2,366	2,014	3,117	1.32	24,740	5.07	5
Zone 2.....	17,814	9,602	12,613	0.71	92,696	5.87	7
Abobo.....	3,656	2,354	3,100	0.85	24,613	6.19	7
Jor.....	1,182	1,152	2,192	1.85	11,567	2.82	6
Gog.....	2,674	2,436	3,495	1.31	19,658	3.91	6
Godare.....	10,302	3,661	3,826	0.37	36,859	9.14	9

TABLE 8.5A: - Number of Holders Reporting 'Mekeskesha' Owned, Quantity Reported, Replacement Value, and Duration of Service of 'Mekeskesha', for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of 'Mekeskeshas' Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per 'Mekeskesha' (Birr)	Average Duration of Service of 'Mekeskesha' (Years)
Gambella Region.....	26,775	182	226	0.01	1,047	4.08	7
Zone 1.....	8,962	*	*	-	*	*	*
Jikawo.....	2,780	-	-	-	-	-	-
Itang.....	3,816	*	*	-	*	*	*
Gambella.....	2,366	*	*	-	*	*	*
Zone 2.....	17,814	160	197	0.01	698	3.38	7
Abobo.....	3,656	160	197	0.05	698	3.38	7
Jor.....	1,182	-	-	-	-	-	-
Gog.....	2,674	-	-	-	-	-	-
Godare.....	10,302	-	-	-	-	-	-

TABLE 8.6A:- Number of Holders Reporting Pick-Axe Owned, Quantity Reported, Replacement Value, and Duration of Service of Pick-Axe, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Pick-Axes Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per Pick-Axe (Birr)	Average Duration of Service of Pick-Axe (Years)
Gambella Region.....	26,775	1,640	1,907	0.07	27,540	12.23	12
Zone 1.....	8,962	320	*	-	5,066	*	7
Jikawo.....	2,780	*	*	-	*	*	*
Itang.....	3,816	52	72	0.02	701	7.58	13
Gambella.....	2,366	93	101	0.04	1,095	10.07	5
Zone 2.....	17,814	1,321	1,386	0.08	22,474	14.56	13
Abobo.....	3,656	150	150	0.04	1,561	10.41	9
Jor.....	1,182	*	*	-	*	*	*
Gog.....	2,674	111	111	0.04	1,563	14.08	10
Godare.....	10,302	1,022	1,087	0.11	19,108	15.46	14

TABLE 8.7A: - Number of Holders Reporting 'Deger' Owned, Quantity Reported, Replacement Value, and Duration of Service of 'Deger', for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of 'Degers' Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per 'Deger' (Birr)	Average Duration of Service of 'Deger' (Years)
Gambella Region.....	26,775	1,217	1,537	0.06	5,406	2.90	2
Zone 1.....	8,962	*	*	-	*	*	*
Jikawo.....	2,780	-	-	-	-	-	-
Itang.....	3,816	-	-	-	-	-	-
Gambella.....	2,366	*	*	-	*	*	*
Zone 2.....	17,814	1,210	1,509	0.08	5,350	2.94	2
Abobo.....	3,656	829	1,088	0.30	4,043	2.96	3
Jor.....	1,182	-	-	-	-	-	-
Gog.....	2,674	*	*	-	*	*	*
Godare.....	10,302	371	410	0.04	1,199	2.71	1

TABLE 8.8A:- Number of Holders Reporting 'Erfe'(Handle) Owned, Quantity Reported, Replacement Value, and Duration of Service of 'Erfe', for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of 'Erfe's' Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per 'Erfe' (Birr)	Average Duration of Service of 'Erfe' (Years)
Gambella Region.....	26,775	1,197	1,449	0.05	2,530	1.52	2
Zone 1.....	8,962	*	*	-	*	*	*
Jikawo.....	2,780	-	-	-	-	-	-
Itang.....	3,816	-	-	-	-	-	-
Gambella.....	2,366	*	*	-	*	*	*
Zone 2.....	17,814	1,190	1,435	0.08	2,460	1.51	2
Abobo.....	3,656	808	958	0.26	1,963	1.84	2
Jor.....	1,182	-	-	-	-	-	-
Gog.....	2,674	*	*	-	*	*	*
Godare.....	10,302	371	456	0.04	455	0.83	1

TABLE 8. 9A:- Number of Holders Reporting Plough-Beam Owned, Quantity Reported, Replacement Value, and Duration of Service of Plough-Beam, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Plough-Beams Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per Plough-Beam (Birr)	Average Duration of Service of Plough-Beam (Years)
Gambella Region.....	26,775	1,260	1,656	0.06	13,744	6.85	3
Zone 1.....	8,962	*	*	-	*	*	*
Jikawo.....	2,780	-	-	-	-	-	-
Itang.....	3,816	-	-	-	-	-	-
Gambella.....	2,366	*	*	-	*	*	*
Zone 2.....	17,814	1,253	1,642	0.09	13,576	6.86	3
Abobo.....	3,656	834	973	0.27	10,153	9.03	4
Jor.....	1,182	-	-	-	-	-	-
Gog.....	2,674	*	*	-	*	*	*
Godare.....	10,302	408	637	0.06	2,454	3.38	3

TABLE 8.10A: - Number of Holders Reporting Plough-Tip (Metal) Owned, Quantity Reported, Replacement Value, and Duration of Service of Plough-Tip, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Plough-Tips Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per Plough-Tip (Birr)	Average Duration of Service of Plough-Tip (Years)
Gambella Region.....	26,775	1,211	1,324	0.05	23,998	15.96	7
Zone 1.....	8,962	*	*	-	*	*	*
Jikawo.....	2,780	-	-	-	-	-	-
Itang.....	3,816	-	-	-	-	-	-
Gambella.....	2,366	*	*	-	*	*	*
Zone 2.....	17,814	1,204	1,310	0.07	23,858	16.08	7
Abobo.....	3,656	822	896	0.25	18,364	18.45	6
Jor.....	1,182	-	-	-	-	-	-
Gog.....	2,674	*	*	-	*	*	*
Godare.....	10,302	371	371	0.04	4,203	11.33	8

TABLE 8.11A: - Number of Holders Reporting 'Wegel' -Tip Owned, Quantity Reported, Replacement Value, and Duration of Service of 'Wegel' -Tip, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of 'Wegel' -Tips Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per 'Wegel' -Tip (Birr)	Average Duration of Service of 'Wegel' -Tip (Years)
Gambella Region.....	26,775	1,205	1,327	0.05	7,944	5.46	6
Zone 1.....	8,962	*	*	-	*	*	*
Jikawo.....	2,780	-	-	-	-	-	-
Itang.....	3,816	-	-	-	-	-	-
Gambella.....	2,366	*	*	-	*	*	*
Zone 2.....	17,814	1,198	1,313	0.07	7,846	5.48	6
Abobo.....	3,656	828	889	0.24	5,581	5.85	5
Jor.....	1,182	-	-	-	-	-	-
Gog.....	2,674	*	*	-	*	*	*
Godare.....	10,302	359	359	0.03	1,943	5.41	7

TABLE 8.12A: - Number of Holders Reporting Yoke Owned, Quantity Reported, Replacement Value, and Duration of Service of Yoke, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Yokes Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per Yoke (Birr)	Average Duration of Service of Yoke (Years)
Gambella Region.....	26,775	1,234	1,359	0.05	8,193	5.43	3
Zone 1.....	8,962	*	*	-	*	*	*
Jikawo.....	2,780	-	-	-	-	-	-
Itang.....	3,816	-	-	-	-	-	-
Gambella.....	2,366	*	*	-	*	*	*
Zone 2.....	17,814	1,227	1,345	0.08	8,053	5.44	3
Abobo.....	3,656	857	951	0.26	6,568	6.26	4
Jor.....	1,182	-	-	-	-	-	-
Gog.....	2,674	*	*	-	*	*	*
Godare.....	10,302	359	373	0.04	1,377	3.51	2

TABLE 8.13A: -Number of Holders Reporting Sickle Owned, Quantity Reported, Replacement Value, and Duration of Service of Sickle, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Sickles Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per Sickle (Birr)	Average Duration of Service of Sickle (Years)
Gambella Region.....	26,775	12,291	16,369	0.61	140,517	6.48	6
Zone 1 .....	8,962	5,879	8,286	0.92	66,351	5.58	5
Jikawo.....	2,780	2,148	3,605	1.30	29,830	4.80	5
Itang .....	3,816	2,231	2,782	0.73	22,799	6.49	7
Gambella .....	2,366	1,500	1,899	0.80	13,722	5.70	4
Zone 2 .....	17,814	6,412	8,083	0.45	74,166	7.41	7
Abobo .....	3,656	2,066	2,678	0.73	31,820	9.54	6
Jor .....	1,182	465	580	0.49	3,276	4.78	8
Gog .....	2,674	1,055	1,224	0.46	9,380	6.78	6
Godare .....	10,302	2,826	3,601	0.35	29,691	6.47	7

TABLE 8.14A: - Number of Holders Reporting Hay-Fork (Wood) Owned, Quantity Reported, Replacement Value, and Duration of Service of Hay-Fork,for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Hay-Forks Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per Hay-Fork (Birr)	Average Duration of Service of Hay-Fork (Years)
Gambella Region.....	26,775	55	95	0.00	*	*	*
Zone 1 .....	8,962	-	-	-	-	-	-
Jikawo.....	2,780	-	-	-	-	-	-
Itang .....	3,816	-	-	-	-	-	-
Gambella .....	2,366	-	-	-	-	-	-
Zone 2 .....	17,814	55	95	0.01	*	*	*
Abobo .....	3,656	*	*	-	*	*	*
Jor .....	1,182	-	-	-	-	-	-
Gog .....	2,674	-	-	-	-	-	-
Godare .....	10,302	*	*	-	*	*	*

TABLE 8.15A: - Number of Holders Reporting Threshing Stick Owned, Quantity Reported, Replacement Value, and Duration of Service of Threshing Stick, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Threshing Sticks Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per Threshing Stick (Birr)	Average Duration of Service of Threshing Stick (Years)
Gambella Region.....	26,775	3,132	4,376	0.16	4,331	0.77	2
Zone 1 .....	8,962	*	*	-	*	*	*
Jikawo.....	2,780	-	-	-	-	-	-
Itang .....	3,816	-	-	-	-	-	-
Gambella .....	2,366	*	*	-	*	*	*
Zone 2 .....	17,814	3,048	4,250	0.24	4,205	0.77	2
Abobo .....	3,656	355	482	0.13	1,212	2.28	4
Jor .....	1,182	733	757	0.64	263	0.34	4
Gog .....	2,674	-	-	-	-	-	-
Godare .....	10,302	1,960	3,011	0.29	2,730	0.64	1



TABLE 8. 16A: - Number of Holders Reporting Sprayer (Hand operated) Owned, Quantity Reported, Replacement Value, Duration of Service of Sprayer, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Sprayers Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per Sprayer (Birr)	Average Duration of Service of Sprayer (Years)
Gambella Region.....	26,775	162	211	0.01	1,503	5.67	6
Zone 1 .....	8,962	61	61	0.01	587	9.62	*
Jikawo.....	2,780	-	-	-	-	-	-
Itang .....	3,816	12	12	0.00	*	*	4
Gambella .....	2,366	*	*	-	489	*	*
Zone 2 .....	17,814	101	150	0.01	916	4.07	6
Abobo .....	3,656	*	*	-	*	*	*
Jor .....	1,182	*	*	-	*	*	*
Gog .....	2,674	*	*	-	*	*	*
Godare .....	10,302	*	*	-	*	*	*

TABLE 8.17A: - Number of Holders Reporting Wheelbarrow Owned, Quantity Reported, Replacement Value and Duration of Service of Wheelbarrow, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Wheelbarrows Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per Wheelbarrow (Birr)	Average Duration of Service of Wheelbarrow (Years)
Gambella Region.....	26,775	94	94	0.00	*	*	*
Zone 1 .....	8,962	-	-	-	-	-	-
Jikawo.....	2,780	-	-	-	-	-	-
Itang .....	3,816	-	-	-	-	-	-
Gambella .....	2,366	-	-	-	-	-	-
Zone 2 .....	17,814	94	94	0.01	*	*	*
Abobo .....	3,656	*	*	-	*	*	*
Jor .....	1,182	-	-	-	-	-	-
Gog .....	2,674	-	-	-	-	-	-
Godare .....	10,302	*	*	-	*	*	*

TABLE 8.18A: -Number of Holders Reporting Ox (Specifically for ploughing) Owned, Quantity Reported, Replacement Value and Average age of Ox, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Oxen Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per Ox (Birr)	Average Age of Ox (Years)
Gambella Region.....	26,775	1,215	1,878	0.07	756,855	257.41	3
Zone 1 .....	8,962	*	*	-	*	*	*
Jikawo.....	2,780	-	-	-	-	-	-
Itang .....	3,816	-	-	-	-	-	-
Gambella .....	2,366	*	*	-	*	*	*
Zone 2 .....	17,814	1,208	1,850	0.10	742,835	259.41	3
Abobo .....	3,656	854	1,374	0.38	533,553	233.25	2
Jor .....	1,182	-	-	-	-	-	-
Gog .....	2,674	*	*	-	*	*	*
Godare .....	10,302	343	454	0.04	202,719	343.91	5

TABLE 8.19A: - Number of Holders Reporting Cattle (Working Age for Threshing and Transportation) Owned, Quantity Reported, Replacement Value and Average age of Cattle, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Cattle Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per Cattle (Birr)	Average Age of Cattle (Years)
Gambella Region.....	26,775	1,132	1,849	0.07	710,988	242.02	3
Zone 1 .....	8,962	*	*	-	*	*	*
Jikawo.....	2,780	-	-	-	-	-	-
Itang.....	3,816	-	-	-	-	-	-
Gambella .....	2,366	*	*	-	*	*	*
Zone 2 .....	17,814	1,125	1,821	0.10	696,968	243.81	3
Abobo .....	3,656	796	1,395	0.38	510,905	212.31	2
Jor .....	1,182	-	-	-	-	-	-
Gog .....	2,674	-	-	-	-	-	-
Godare .....	10,302	329	426	0.04	186,063	346.97	5

TABLE 8.20A:- Number of Holders Reporting Horse (For transportation) Owned, Quantity Reported, Replacement Value and Average age of Horse, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Horses Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per Horse (Birr)	Average Age of Horse (Years)
Gambella Region.....	26,775	312	312	0.01	158,822	509.04	6
Zone 1 .....	8,962	-	-	-	-	-	-
Jikawo.....	2,780	-	-	-	-	-	-
Itang.....	3,816	-	-	-	-	-	-
Gambella .....	2,366	-	-	-	-	-	-
Zone 2 .....	17,814	312	312	0.02	158,822	509.04	6
Abobo .....	3,656	-	-	-	-	-	-
Jor .....	1,182	-	-	-	-	-	-
Gog .....	2,674	-	-	-	-	-	-
Godare .....	10,302	312	312	0.03	158,822	509.04	6

TABLE 8.21A:- Number of Holders Reporting 'Debignit' Owned, Quantity Reported, Replacement Value and Storage Capacity of 'Debignit', for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of 'Debignits' Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per 'Debignit' (Birr)	Average Storage Capacity of 'Debignit' (Quintal)
Gambella Region.....	26,775	189	246	0.01	3,579	11.66	3
Zone 1 .....	8,962	*	*	-	*	*	*
Jikawo.....	2,780	*	*	-	*	*	*
Itang.....	3,816	4	4	0.00	75	18.75	10
Gambella .....	2,366	-	-	-	-	-	-
Zone 2 .....	17,814	171	215	0.01	3,233	12.36	3
Abobo .....	3,656	-	-	-	-	-	-
Jor .....	1,182	*	*	-	*	*	*
Gog .....	2,674	*	*	-	*	*	*
Godare .....	10,302	*	*	-	*	*	*

TABLE 8.22A: - Number of Holders Reporting 'Gottera' Owned, Quantity Reported, Replacement Value and Storage Capacity of 'Gottera', for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of 'Gotteras' Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per 'Gottera' (Birr)	Average Storage Capacity of 'Gottera' (Quintal)
Gambella Region.....	26,775	18,233	25,848	0.97	523,634	15.01	8
Zone 1 .....	8,962	7,377	10,658	1.19	192,507	12.90	7
Jikawo.....	2,780	2,655	4,735	1.70	84,124	9.93	7
Itang.....	3,816	3,297	4,401	1.15	66,142	11.54	7
Gambella .....	2,366	1,425	1,522	0.64	42,240	26.10	8
Zone 2 .....	17,814	10,856	15,190	0.85	331,127	16.48	9
Abobo.....	3,656	2,408	2,707	0.74	94,105	30.18	14
Jor.....	1,182	1,001	1,223	1.03	42,353	28.62	8
Gog.....	2,674	1,740	2,232	0.83	76,741	26.90	13
Godare .....	10,302	5,707	9,028	0.88	117,929	8.16	6

TABLE 8. 23A - Number of Holders Reporting Modern Storage Facilities Owned, Quantity Reported, Replacement Value and Storage Capacity of Modern Storage, for Private Holdings.

Geographic Area	Total Number of Crop Holders	Number of Holders Reporting	Number of Modern Storages Reported	Average Number Per Holder	Total Value (Birr)	Average Replacement Value Per Modern Storage (Birr)	Average Storage Capacity of Modern Storage (Quintal)
Gambella Region.....	26,775	89	89	0.00	2,585	29.04	15
Zone 1 .....	8,962	27	27	0.00	*	*	*
Jikawo.....	2,780	*	*	-	*	*	*
Itang.....	3,816	*	*	-	*	*	*
Gambella .....	2,366	*	*	-	*	*	*
Zone 2 .....	17,814	62	62	0.00	1,766	28.48	*
Abobo.....	3,656	*	*	-	*	*	*
Jor.....	1,182	-	-	-	-	-	-
Gog.....	2,674	26	26	0.01	843	32.43	*
Godare .....	10,302	*	*	-	*	*	*

STATISTICAL TABLES PRESENTING THE CENSUS  
RESULTS AT  
ZONAL AND WOREDA LEVELS

Tables 8.1B- 8.23B

Table 8.1B:- Number of Crop Holders that Owned Axe by Geographic area.

Geographic Area	Number of Crop holders that owned											
	No Axe		One Axe		Two Axes		Three Axes		Four Axes		Five and above Axes	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region .....	8,844	33.03	15,126	56.49	2,305	8.61	362	1.35	110	0.41	28	0.10
Zone 1 .....	3,243	36.19	4,188	46.73	1,202	13.41	230	2.57	75	0.84	24	0.27
Jikawo .....	497	17.88	1,406	50.58	630	22.66	159	5.72	69	2.48	19	0.68
Itang .....	1,763	46.20	1,641	43.00	349	9.15	58	1.52	-	-	5	0.13
Gambella.....	982	41.50	1,141	48.22	224	9.47	13	0.55	6	0.25	-	-
Zone 2 .....	5,601	31.44	10,939	61.41	1,102	6.19	132	0.74	36	0.20	4	0.02
Abobo.....	1,009	27.60	2,344	64.11	256	7.00	43	1.18	-	-	4	0.11
Jor.....	269	22.76	813	68.78	100	8.46	-	-	-	-	-	-
Gog.....	1,329	49.70	1,199	44.84	137	5.12	9	0.34	-	-	-	-
Godare.....	2,995	29.07	6,582	63.89	609	5.91	80	0.78	36	0.35	-	-

Table 8.2B:- Number of Crop Holders that Owned 'Gejera' by Geographic area.

Geographic area	Number of Crop holders that owned											
	No 'Gejera'		One 'Gejera'		Two 'Gejeras'		Three 'Gejeras'		Four 'Gejeras'		Five and above 'Gejeras'	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region .....	3,370	12.59	16,181	60.43	5,616	20.97	1,257	4.69	309	1.15	42	0.16
Zone 1 .....	863	9.63	4,919	54.89	2,345	26.17	660	7.36	146	1.63	29	0.32
Jikawo .....	138	4.96	1,165	41.91	956	34.39	426	15.32	69	2.48	26	0.94
Itang .....	287	7.52	2,361	61.87	967	25.34	148	3.88	50	1.31	3	0.08
Gambella.....	438	18.51	1,393	58.88	422	17.84	86	3.63	27	1.14	-	-
Zone 2 .....	2,506	14.07	11,262	63.22	3,272	18.37	598	3.36	164	0.92	12	0.07
Abobo.....	1,042	28.50	2,284	62.47	255	6.97	45	1.23	30	0.82	-	-
Jor.....	162	13.71	580	49.07	354	29.95	77	6.51	9	0.76	-	-
Gog.....	710	26.55	1,629	60.92	295	11.03	25	0.93	15	0.56	-	-
Godare.....	593	5.76	6,769	65.71	2,368	22.99	451	4.38	109	1.06	12	0.12

Table 8.3B:- Number of Crop Holders that Owned Shovel by Geographic area

Geographic area	Number of Crop holders that owned											
	No Shovel		One Shovel		Two Shovels		Three Shovels		Four Shovels		Five and above Shovels	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region .....	23,908	89.29	2,714	10.14	139	0.52	11	0.04	-	-	3	0.01
Zone 1 .....	8,376	93.46	468	5.22	104	1.16	11	0.12	-	-	3	0.03
Jikawo .....	2,711	97.52	30	1.08	39	1.40	-	-	-	-	-	-
Itang .....	3,567	93.47	202	5.29	39	1.02	5	0.13	-	-	3	0.08
Gambella.....	2,098	88.67	236	9.97	26	1.10	6	0.25	-	-	-	-
Zone 2 .....	15,534	87.20	2,246	12.61	34	0.19	-	-	-	-	-	-
Abobo.....	3,225	88.21	427	11.68	4	0.11	-	-	-	-	-	-
Jor.....	1,114	94.25	57	4.82	11	0.93	-	-	-	-	-	-
Gog.....	2,468	92.30	197	7.37	9	0.34	-	-	-	-	-	-
Godare.....	8,727	84.71	1,565	15.19	10	0.10	-	-	-	-	-	-

Table 8.4B:- Number of Crop Holders that Owned Hoe by Geographic area

Geographic area	Number of Crop holders that owned											
	No Hoe		One Hoe		Two Hoes		Three Hoes		Four Hoes		Five and above Hoes	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region .....	8,768	32.75	11,764	43.94	4,184	15.63	1,319	4.93	572	2.14	168	0.63
Zone 1 .....	561	6.26	4,367	48.73	2,544	28.39	915	10.21	444	4.95	131	1.46
Jikawo .....	45	1.62	944	33.96	964	34.68	458	16.47	303	10.90	66	2.37
Itang .....	169	4.43	2,200	57.65	980	25.68	345	9.04	84	2.20	38	1.00
Gambella .....	346	14.62	1,223	51.69	600	25.36	113	4.78	57	2.41	27	1.14
Zone 2 .....	8,208	46.08	7,397	41.52	1,640	9.21	404	2.27	128	0.72	37	0.21
Abobo .....	1,303	35.64	1,816	49.67	376	10.28	128	3.50	27	0.74	6	0.16
Jor .....	28	2.37	422	35.70	505	42.72	160	13.54	56	4.74	11	0.93
Gog .....	238	8.90	1,648	61.63	625	23.37	100	3.74	44	1.65	19	0.71
Godare .....	6,640	64.45	3,512	34.09	134	1.30	16	0.16	-	-	-	-

Table 8.5B: - Number of Crop Holders that Owned 'Mekeskesha' by Geographic area

Geographic area	Number of Crop holders that owned											
	No 'Mekeskesha'		One 'Mekeskesha'		Two 'Mekeskeshas'		Three 'Mekeskeshas'		Four 'Mekeskeshas'		Five and above 'Mekeskeshas'	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region .....	26,593	99.32	153	0.57	19	0.07	5	0.02	5	0.02	-	-
Zone 1 .....	8,940	99.75	14	0.16	8	0.09	-	-	-	-	-	-
Jikawo .....	2,780	100.00	-	-	-	-	-	-	-	-	-	-
Itang .....	3,813	99.92	3	0.08	-	-	-	-	-	-	-	-
Gambella .....	2,347	99.20	11	0.46	8	0.34	-	-	-	-	-	-
Zone 2 .....	17,654	99.10	139	0.78	11	0.06	5	0.03	5	0.03	-	-
Abobo .....	3,496	95.62	139	3.80	11	0.30	5	0.14	5	0.14	-	-
Jor .....	1,182	100.00	-	-	-	-	-	-	-	-	-	-
Gog .....	2,674	100.00	-	-	-	-	-	-	-	-	-	-
Godare .....	10,302	100.00	-	-	-	-	-	-	-	-	-	-

Table 8.6B:- Number of Crop Holders that Owned Pick-Axe by Geographic area

Geographic area	Number of Crop holders that owned											
	No Pick-Axe		One Pick-Axe		Two Pick-Axes		Three Pick-Axes		Four Pick-Axes		Five and above Pick-Axes	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region .....	25,134	93.87	1,469	5.49	106	0.40	37	0.14	29	0.11	-	-
Zone 1 .....	8,643	96.44	199	2.22	68	0.76	23	0.26	29	0.32	-	-
Jikawo .....	2,606	93.74	78	2.81	48	1.73	19	0.68	29	1.04	-	-
Itang .....	3,764	98.64	32	0.84	20	0.52	-	-	-	-	-	-
Gambella .....	2,273	96.07	89	3.76	-	-	4	0.17	-	-	-	-
Zone 2 .....	16,494	92.59	1,269	7.12	37	0.21	14	0.08	-	-	-	-
Abobo .....	3,506	95.90	150	4.10	-	-	-	-	-	-	-	-
Jor .....	1,144	96.79	38	3.21	-	-	-	-	-	-	-	-
Gog .....	2,563	95.85	111	4.15	-	-	-	-	-	-	-	-
Godare .....	9,281	90.09	970	9.42	37	0.36	14	0.14	-	-	-	-

Table 8.7B: - Number of Crop Holders that Owned 'Deger' by Geographic area

Geographic area	Number of Crop holders that owned											
	No 'Deger'		One 'Deger'		Two 'Degers'		Three 'Degers'		Four 'Degers'		Five and above 'Degers'	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region .....	25,557	95.45	1,003	3.75	153	0.57	18	0.07	44	0.16	-	-
Zone 1 .....	8,955	99.92	-	-	-	-	-	-	7	0.08	-	-
Jikawo .....	2,780	100.00	-	-	-	-	-	-	-	-	-	-
Itang .....	3,816	100.00	-	-	-	-	-	-	-	-	-	-
Gambella .....	2,359	99.70	-	-	-	-	-	-	7	0.30	-	-
Zone 2 .....	16,603	93.20	1,003	5.63	153	0.86	18	0.10	37	0.21	-	-
Abobo .....	2,827	77.32	647	17.70	141	3.86	4	0.11	37	1.01	-	-
Jor .....	1,182	100.00	-	-	-	-	-	-	-	-	-	-
Gog .....	2,663	99.59	11	0.41	-	-	-	-	-	-	-	-
Godare .....	9,931	96.40	345	3.35	12	0.12	14	0.14	-	-	-	-

Table 8.8B:- Number of Crop Holders that Owned 'Erfe' by Geographic area.

Geographic area	Number of Crop holders that owned											
	No 'Erfe'		One 'Erfe'		Two 'Erfes'		Three 'Erfes'		Four 'Erfes'		Five and above 'Erfes'	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region .....	25,573	95.51	997	3.72	179	0.67	8	0.03	14	0.05	4	0.01
Zone 1 .....	8,955	99.92	-	-	7	0.08	-	-	-	-	-	-
Jikawo .....	2,780	100.00	-	-	-	-	-	-	-	-	-	-
Itang .....	3,816	100.00	-	-	-	-	-	-	-	-	-	-
Gambella .....	2,359	99.70	-	-	7	0.30	-	-	-	-	-	-
Zone 2 .....	16,619	93.29	997	5.60	172	0.97	8	0.04	14	0.08	4	0.02
Abobo .....	2,843	77.76	684	18.71	117	3.20	8	0.22	-	-	4	0.11
Jor .....	1,182	100.00	-	-	-	-	-	-	-	-	-	-
Gog .....	2,663	99.59	-	-	11	0.41	-	-	-	-	-	-
Godare .....	9,931	96.40	313	3.04	44	0.43	-	-	14	0.14	-	-

Table 8.9B:- Number of Crop Holders that Owned Plough-Beam by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Plough-Beam		One Plough-Beam		Two Plough-Beams		Three Plough-Beams		Four Plough-Beams		Five and above Plough-Beams	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region .....	25,516	95.30	1,074	4.01	135	0.50	24	0.09	-	-	26	0.10
Zone 1 .....	8,955	99.92	-	-	7	0.08	-	-	-	-	-	-
Jikawo .....	2,780	100.00	-	-	-	-	-	-	-	-	-	-
Itang .....	3,816	100.00	-	-	-	-	-	-	-	-	-	-
Gambella .....	2,359	99.70	-	-	7	0.30	-	-	-	-	-	-
Zone 2 .....	16,562	92.97	1,074	6.03	128	0.72	24	0.13	-	-	26	0.15
Abobo .....	2,822	77.19	721	19.72	96	2.63	13	0.36	-	-	4	0.11
Jor .....	1,182	100.00	-	-	-	-	-	-	-	-	-	-
Gog .....	2,663	99.59	-	-	-	-	11	0.41	-	-	-	-
Godare .....	9,894	96.04	354	3.44	32	0.31	-	-	-	-	22	0.21

Table 8.10B:- Number of Crop Holders that Owned Plough-Tip by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Plough-Tip		One Plough-Tip		Two Plough-Tips		Three Plough-Tips		Four Plough-Tips		Five and above Plough-Tips	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region .....	25,564	95.48	1,127	4.21	65	0.24	8	0.03	11	0.04	-	-
Zone 1 .....	8,955	99.92	-	-	7	0.08	-	-	-	-	-	-
Jikawo .....	2,780	100.00	-	-	-	-	-	-	-	-	-	-
Itang .....	3,816	100.00	-	-	-	-	-	-	-	-	-	-
Gambella .....	2,359	99.70	-	-	7	0.30	-	-	-	-	-	-
Zone 2 .....	16,610	93.24	1,127	6.33	58	0.33	8	0.04	11	0.06	-	-
Abobo .....	2,834	77.52	756	20.68	58	1.59	8	0.22	-	-	-	-
Jor .....	1,182	100.00	-	-	-	-	-	-	-	-	-	-
Gog .....	2,663	99.59	-	-	-	-	-	-	11	0.41	-	-
Godare .....	9,931	96.40	371	3.60	-	-	-	-	-	-	-	-

Table 8.11B:- Number of Crop Holders that Owned 'wegel'-Tip by Geographic area.

Geographic area	Number of Crop holders that owned											
	No 'wegel'-Tip		One 'wegel'-Tip		Two 'wegel'-Tips		Three 'wegel'-Tips		Four 'wegel'-Tips		Five and above 'wegel'-Tips	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region .....	25,570	95.50	1,130	4.22	60	0.22	4	0.01	-	-	11	0.04
Zone 1 .....	8,955	99.92	-	-	7	0.08	-	-	-	-	-	-
Jikawo .....	2,780	100.00	-	-	-	-	-	-	-	-	-	-
Itang .....	3,816	100.00	-	-	-	-	-	-	-	-	-	-
Gambella .....	2,359	99.70	-	-	7	0.30	-	-	-	-	-	-
Zone 2 .....	16,616	93.27	1,130	6.34	53	0.30	4	0.02	-	-	11	0.06
Abobo .....	2,829	77.38	770	21.06	53	1.45	4	0.11	-	-	-	-
Jor .....	1,182	100.00	-	-	-	-	-	-	-	-	-	-
Gog .....	2,663	99.59	-	-	-	-	-	-	-	-	11	0.41
Godare .....	9,943	96.52	359	3.48	-	-	-	-	-	-	-	-

Table 8.12B:- Number of Crop Holders that Owned Yoke by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Yoke		One Yoke		Two Yokes		Three Yokes		Four Yokes		Five and above Yokes	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region .....	25,541	95.39	1,112	4.15	118	0.44	4	0.01	-	-	-	-
Zone 1 .....	8,955	99.92	-	-	7	0.08	-	-	-	-	-	-
Jikawo .....	2,780	100.00	-	-	-	-	-	-	-	-	-	-
Itang .....	3,816	100.00	-	-	-	-	-	-	-	-	-	-
Gambella .....	2,359	99.70	-	-	7	0.30	-	-	-	-	-	-
Zone 2 .....	16,587	93.11	1,112	6.24	111	0.62	4	0.02	-	-	-	-
Abobo .....	2,800	76.59	766	20.95	86	2.35	4	0.11	-	-	-	-
Jor .....	1,182	100.00	-	-	-	-	-	-	-	-	-	-
Gog .....	2,663	99.59	-	-	11	0.41	-	-	-	-	-	-
Godare .....	9,943	96.52	345	3.35	14	0.14	-	-	-	-	-	-



Table 8.13B:- Number of Crop Holders that Owned Sickle by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Sickle		One Sickle		Two Sickles		Three Sickles		Four Sickles		Five and above Sickles	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region .....	14,484	54.10	9,080	33.91	2,572	9.61	449	1.68	161	0.60	29	0.11
Zone 1 .....	3,083	34.40	4,113	45.89	1,318	14.71	293	3.27	126	1.41	29	0.32
Jikawo.....	631	22.70	1,186	42.66	615	22.12	227	8.17	103	3.71	18	0.65
Itang .....	1,585	41.54	1,753	45.94	420	11.01	45	1.18	10	0.26	3	0.08
Gambella.....	866	36.60	1,174	49.62	283	11.96	22	0.93	12	0.51	9	0.38
Zone 2 .....	11,401	64.00	4,968	27.89	1,253	7.03	157	0.88	35	0.20	-	-
Abobo.....	1,589	43.46	1,575	43.08	394	10.78	75	2.05	23	0.63	-	-
Jor.....	717	60.66	362	30.63	92	7.78	11	0.93	-	-	-	-
Gog.....	1,619	60.55	901	33.69	139	5.20	15	0.56	-	-	-	-
Godare.....	7,475	72.56	2,131	20.69	629	6.11	55	0.53	12	0.12	-	-

Table 8.14B:- Number of Crop Holders that Owned Hay-Fork (wood) by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Hay-Fork (wood)		One Hay-Fork (wood)		Two Hay-Forks (wood)		Three Hay-Forks (wood)		Four Hay-Forks (wood)		Five and above Hay-Forks (wood)	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region .....	26,720	99.79	19	0.07	32	0.12	4	0.01	-	-	-	-
Zone 1 .....	8,962	100.00	-	-	-	-	-	-	-	-	-	-
Jikawo.....	2,780	100.00	-	-	-	-	-	-	-	-	-	-
Itang .....	3,816	100.00	-	-	-	-	-	-	-	-	-	-
Gambella.....	2,366	100.00	-	-	-	-	-	-	-	-	-	-
Zone 2 .....	17,759	99.69	19	0.11	32	0.18	4	0.02	-	-	-	-
Abobo.....	3,643	99.64	5	0.14	4	0.11	4	0.11	-	-	-	-
Jor.....	1,182	100.00	-	-	-	-	-	-	-	-	-	-
Gog.....	2,674	100.00	-	-	-	-	-	-	-	-	-	-
Godare.....	10,260	99.59	14	0.14	28	0.27	-	-	-	-	-	-

Table 8.15B:- Number of Crop Holders that Owned Threshing Stick by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Threshing Stick		One Threshing Stick		Two Threshing Sticks		Three Threshing Sticks		Four Threshing Sticks		Five and above Threshing Sticks	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region .....	23,644	88.31	2,130	7.96	840	3.14	141	0.53	-	-	20	0.07
Zone 1 .....	8,878	99.06	42	0.47	42	0.47	-	-	-	-	-	-
Jikawo.....	2,780	100.00	-	-	-	-	-	-	-	-	-	-
Itang .....	3,816	100.00	-	-	-	-	-	-	-	-	-	-
Gambella.....	2,282	96.45	42	1.78	42	1.78	-	-	-	-	-	-
Zone 2 .....	14,767	82.90	2,088	11.72	798	4.48	141	0.79	-	-	20	0.11
Abobo.....	3,302	90.32	290	7.93	54	1.48	5	0.14	-	-	5	0.14
Jor.....	450	38.07	708	59.90	24	2.03	-	-	-	-	-	-
Gog.....	2,674	100.00	-	-	-	-	-	-	-	-	-	-
Godare.....	8,341	80.96	1,090	10.58	720	6.99	136	1.32	-	-	15	0.15

Table 8.16B:- Number of Crop Holders that Owned Sprayer (hand operated) by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Sprayer		One Sprayer		Two Sprayers		Three Sprayers		Four Sprayers		Five and above Sprayers	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region .....	26,612	99.39	140	0.52	14	0.05	-	-	-	-	9	0.03
Zone 1 .....	8,901	99.32	61	0.68	-	-	-	-	-	-	-	-
Jikawo .....	2,780	100.00	-	-	-	-	-	-	-	-	-	-
Itang .....	3,804	99.69	12	0.31	-	-	-	-	-	-	-	-
Gambella .....	2,317	97.93	49	2.07	-	-	-	-	-	-	-	-
Zone 2 .....	17,713	99.43	78	0.44	14	0.08	-	-	-	-	9	0.05
Abobo .....	3,632	99.34	19	0.52	5	0.14	-	-	-	-	-	-
Jor .....	1,166	98.65	16	1.35	-	-	-	-	-	-	-	-
Gog .....	2,647	98.99	9	0.34	9	0.34	-	-	-	-	9	0.34
Godare .....	10,269	99.68	33	0.32	-	-	-	-	-	-	-	-

Table 8.17B:- Number of Crop Holders that Owned Wheelbarrow by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Wheelbarrow		One Wheelbarrow		Two Wheelbarrows		Three Wheelbarrows		Four Wheelbarrows		Five and above Wheelbarrows	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region .....	26,681	99.65	94	0.35	-	-	-	-	-	-	-	-
Zone 1 .....	8,962	100.00	-	-	-	-	-	-	-	-	-	-
Jikawo .....	2,780	100.00	-	-	-	-	-	-	-	-	-	-
Itang .....	3,816	100.00	-	-	-	-	-	-	-	-	-	-
Gambella .....	2,366	100.00	-	-	-	-	-	-	-	-	-	-
Zone 2 .....	17,720	99.47	94	0.53	-	-	-	-	-	-	-	-
Abobo .....	3,590	98.19	66	1.81	-	-	-	-	-	-	-	-
Jor .....	1,182	100.00	-	-	-	-	-	-	-	-	-	-
Gog .....	2,674	100.00	-	-	-	-	-	-	-	-	-	-
Godare .....	10,275	99.74	27	0.26	-	-	-	-	-	-	-	-

Table 8.18B:- Number of Crop Holders that Owned Ox (Specifically for ploughing) by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Ox		One Ox		Two Oxen		Three Oxen		Four Oxen		Five and above Oxen	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region .....	25,561	95.47	673	2.51	476	1.78	24	0.09	29	0.11	12	0.04
Zone 1 .....	8,955	99.92	-	-	-	-	-	-	7	0.08	-	-
Jikawo .....	2,780	100.00	-	-	-	-	-	-	-	-	-	-
Itang .....	3,816	100.00	-	-	-	-	-	-	-	-	-	-
Gambella .....	2,359	99.70	-	-	-	-	-	-	7	0.30	-	-
Zone 2 .....	16,607	93.22	673	3.78	476	2.67	24	0.13	22	0.12	12	0.07
Abobo .....	2,802	76.64	442	12.09	354	9.68	24	0.66	22	0.60	12	0.33
Jor .....	1,182	100.00	-	-	-	-	-	-	-	-	-	-
Gog .....	2,663	99.59	-	-	11	0.41	-	-	-	-	-	-
Godare .....	9,960	96.68	231	2.24	111	1.08	-	-	-	-	-	-

Table 8.19B:- Number of Crop Holders that Owned Cattle (For threshing or transportation) by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Cattle		One Cattle		Two Cattle		Three Cattle		Four Cattle		Five and above Cattle	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region.....	25,643	95.77	615	2.30	443	1.65	29	0.11	29	0.11	16	0.06
Zone 1.....	8,955	99.92	-	-	-	-	-	-	7	0.08	-	-
Jikawo.....	2,780	100.00	-	-	-	-	-	-	-	-	-	-
Itang.....	3,816	100.00	-	-	-	-	-	-	-	-	-	-
Gambella.....	2,359	99.70	-	-	-	-	-	-	7	0.30	-	-
Zone 2.....	16,689	93.68	615	3.45	443	2.49	29	0.16	22	0.12	16	0.09
Abobo.....	2,860	78.23	383	10.48	346	9.46	29	0.79	22	0.60	16	0.44
Jor.....	1,182	100.00	-	-	-	-	-	-	-	-	-	-
Gog.....	2,674	100.00	-	-	-	-	-	-	-	-	-	-
Godare.....	9,974	96.82	231	2.24	97	0.94	-	-	-	-	-	-

Table 8.20B:- Number of Crop Holders that Owned Horse (For threshing or transportation) by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Horse		One Horse		Two Horses		Three Horses		Four Horses		Five and above Horses	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region.....	26,463	98.83	312	1.17	-	-	-	-	-	-	-	-
Zone 1.....	8,962	100.00	-	-	-	-	-	-	-	-	-	-
Jikawo.....	2,780	100.00	-	-	-	-	-	-	-	-	-	-
Itang.....	3,816	100.00	-	-	-	-	-	-	-	-	-	-
Gambella.....	2,366	100.00	-	-	-	-	-	-	-	-	-	-
Zone 2.....	17,502	98.25	312	1.75	-	-	-	-	-	-	-	-
Abobo.....	3,656	100.00	-	-	-	-	-	-	-	-	-	-
Jor.....	1,182	100.00	-	-	-	-	-	-	-	-	-	-
Gog.....	2,674	100.00	-	-	-	-	-	-	-	-	-	-
Godare.....	9,990	96.97	312	3.03	-	-	-	-	-	-	-	-

Table 8.21B:- Number of Crop Holders that Owned Local Storage 'Debignit' by Geographic area.

Geographic area	Number of Crop holders that owned											
	No 'Debignit'		One 'Debignit'		Two 'Debignits'		Three 'Debignits'		Four 'Debignits'		Five and above 'Debignits'	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region.....	26,586	99.29	132	0.49	57	0.21	-	-	-	-	-	-
Zone 1.....	8,944	99.80	4	0.04	14	0.16	-	-	-	-	-	-
Jikawo.....	2,766	99.50	-	-	14	0.50	-	-	-	-	-	-
Itang.....	3,812	99.90	4	0.10	-	-	-	-	-	-	-	-
Gambella.....	2,366	100.00	-	-	-	-	-	-	-	-	-	-
Zone 2.....	17,643	99.04	128	0.72	43	0.24	-	-	-	-	-	-
Abobo.....	3,656	100.00	-	-	-	-	-	-	-	-	-	-
Jor.....	1,103	93.32	50	4.23	29	2.45	-	-	-	-	-	-
Gog.....	2,667	99.74	7	0.26	-	-	-	-	-	-	-	-
Godare.....	10,217	99.17	71	0.69	14	0.14	-	-	-	-	-	-

Table 8.22B:- Number of Crop Holders that Owned Local Storage 'Gottera' by Geographic area.

Geographic area	Number of Crop holders that owned											
	No 'Gottera'		One 'Gottera'		Two 'Gudguads'		Three 'Gudguads'		Four 'Gudguads'		Five and above 'Gudguads'	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region .....	8,542	31.90	12,568	46.94	4,199	15.68	1,062	3.97	358	1.34	46	0.17
Zone 1 .....	1,586	17.70	4,906	54.74	1,874	20.91	444	4.95	122	1.36	30	0.33
Jikawo.....	125	4.50	1,164	41.87	1,050	37.77	321	11.55	101	3.63	19	0.68
Itang .....	520	13.63	2,408	63.10	739	19.37	118	3.09	21	0.55	10	0.26
Gambella.....	941	39.77	1,334	56.38	85	3.59	6	0.25	-	-	-	-
Zone 2 .....	6,959	39.06	7,661	43.01	2,325	13.05	617	3.46	236	1.32	16	0.09
Abobo.....	1,248	34.14	2,135	58.40	247	6.76	26	0.71	-	-	-	-
Jor.....	182	15.40	783	66.24	213	18.02	4	0.34	-	-	-	-
Gog.....	934	34.93	1,333	49.85	348	13.01	32	1.20	27	1.01	-	-
Godare.....	4,595	44.60	3,409	33.09	1,517	14.73	555	5.39	210	2.04	16	0.16

Table 8.23B:- Number of Crop Holders that Owned Modern Storage by Geographic area.

Geographic area	Number of Crop holders that owned											
	No Modern Storage		One Modern Storage		Two Modern Storages		Three Modern Storages		Four Modern Storages		Five and above Modern Storages	
	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%	Holders	%
Gambella Region .....	26,686	99.67	89	0.33	-	-	-	-	-	-	-	-
Zone 1 .....	8,935	99.70	27	0.30	-	-	-	-	-	-	-	-
Jikawo.....	2,769	99.60	11	0.40	-	-	-	-	-	-	-	-
Itang .....	3,805	99.71	11	0.29	-	-	-	-	-	-	-	-
Gambella.....	2,361	99.79	5	0.21	-	-	-	-	-	-	-	-
Zone 2 .....	17,752	99.65	62	0.35	-	-	-	-	-	-	-	-
Abobo.....	3,633	99.37	23	0.63	-	-	-	-	-	-	-	-
Jor.....	1,182	100.00	-	-	-	-	-	-	-	-	-	-
Gog.....	2,648	99.03	26	0.97	-	-	-	-	-	-	-	-
Godare.....	10,288	99.86	14	0.14	-	-	-	-	-	-	-	-

ANNEX TABLES PRESENTING  
ESTIMATES, STANDARD ERRORS AND  
COEFFICIENT OF VARIATION  
FOR SELECTED FARM IMPLEMENT VARIABLES

Annex Tables 8.1-8.3

**ANNEX TABLE 8.1: - Standard Errors and Coefficient of Variation For the Number of Holders Reporting, Quantity Reported and Total Value, for Private Holdings, Regional**

Implements, Equipment, Farm animals and Storage facilities	Number of Holders			Number of Implements, Equipment, Farm animals and Storages			Total Value		
	Reporting	S.E	C.V	Reported	S.E	C.V	(Birr)	S.E	C.V
Used for Clearing Land									
Axes .....	17,932	617.94	3.45	21,575	905.63	4.20	346,336	1,436,437.15	4.15
'Gejeras' .....	23,406	685.11	2.93	32,632	1,113.68	3.41	629,730	3,113,437.52	4.94
Shovels .....	2,856	245.07	8.58	3,029	256.33	8.46	38,939	371,343.32	9.54
Used for Cultivation									
Hoes .....	17,999	658.79	3.66	27,316	1,216.87	4.45	189,871	922,828.54	4.86
'Mekeskeshas' .....	182	51.15	28.07	226	63.24	27.92	1,047	32,775.05	31.31
Pick Axes.....	1,640	267.54	16.31	1,907	363.09	19.04	27,540	604,891.76	21.96
Tractors.....	-	-	-	-	-	-	-	-	-
Parts for traditional Plough									
'Degers' .....	1,217	203.43	16.71	1,537	259.68	16.89	5,406	87,392.08	16.16
'Erfes' (Handle) .....	1,197	201.20	16.81	1,449	250.52	17.28	2,530	39,962.75	15.79
Plough-Beams. ....	1,260	216.32	17.17	1,656	341.38	20.61	13,744	229,298.26	16.68
Plough -Tips (Metal) .....	1,211	201.64	16.65	1,324	218.85	16.53	23,998	412,358.73	17.18
'Wegel' -Tips.....	1,205	205.05	17.02	1,327	222.69	16.78	7,944	132,831.77	16.72
Yokes .....	1,234	205.29	16.64	1,359	225.48	16.59	8,193	132,603.65	16.18
Used for Harvesting									
Sickles.....	12,291	591.54	4.81	16,369	975.93	5.96	140,517	897,898.43	6.39
Used for Threshing									
Hay-Forks (Metal) .....	*	*	*	*	*	*	*	*	*
Hay-Forks (Wood) .....	55	23.31	42.35	95	42.63	44.70	*	*	*
Threshing Sticks .....	3,132	459.41	14.67	4,376	661.97	15.13	4,331	84,964.20	19.62
Winnowers (Metal) .....	-	-	-	-	-	-	-	-	-
Winnowers (Wood) .....	*	*	*	*	*	*	*	*	*
Other Farm Equipment									
Carts (Hauling) .....	*	*	*	*	*	*	*	*	*
Sprayers (Hand Operated) ..	162	43.79	27.00	211	64.33	30.48	1,503	42,431.10	28.24
Sprayers (Power Operated)	-	-	-	-	-	-	-	-	-
Tying Tools .....	-	-	-	-	-	-	-	-	-
Wheelbarrows.....	94	45.00	48.05	94	45.00	48.05	*	*	*
Animals Used for Ploughing									
Asses.....	-	-	-	-	-	-	-	-	-
Camels .....	-	-	-	-	-	-	-	-	-
Horses .....	-	-	-	-	-	-	-	-	-
Mules .....	-	-	-	-	-	-	-	-	-
Oxen .....	1,215	204.77	16.86	1,878	315.19	16.78	756,855	13,408,510.32	17.72
AnimalsUsed for Threshing or Transportation									
Asses.....	*	*	*	*	*	*	*	*	*
Camels .....	-	-	-	-	-	-	-	-	-
Cattle.....	1,132	195.41	17.26	1,849	307.53	16.63	710,988	12,619,191.42	17.75
Horses .....	312	109.93	35.21	312	109.93	35.21	158,822	5,288,131.76	33.30
Mules .....	-	-	-	-	-	-	-	-	-
Storage Structure									
'Debignits' .....	189	68.98	36.56	246	89.10	36.28	3,579	155,845.83	43.54
'Gotteras' .....	18,233	770.10	4.22	25,848	1,368.72	5.30	523,634	2,682,207.70	5.12
'Gudguads' .....	*	*	*	*	*	*	*	*	*
Modern Storages .....	89	26.00	29.15	89	26.00	29.15	2,585	78,279.49	30.29

ANNEX TABLE 8.2:- Standard Errors and Coefficient of Variation For the Number of Holders Reporting, Quantity Reported and Total Value, for Private Holdings, Zone 1.

Implements, Equipment, Farm animals and Storage facilities	Number of Holders			Number of Implements, Equipment, Farm animals and Storages			Total Value		
	Reporting	S.E	C.V	Reported	S.E	C.V	(Birr)	S.E	C.V
Used for Clearing Land									
Axes .....	5,719	326.11	5.70	7,873	658.13	8.36	86,436	722,527.31	8.36
'Gejeras' .....	8,098	348.12	4.30	12,317	714.37	5.80	109,327	745,581.74	6.82
Shovels .....	576	88.63	15.39	714	111.47	15.62	7,490	123,431.68	16.48
Used for Cultivation									
Hoes .....	8,397	342.45	4.08	14,704	965.47	6.57	97,175	610,557.04	6.28
'Mekeskeshas' .....	*	*	*	*	*	*	*	*	*
Pick Axes.....	320	131.43	41.09	*	*	*	5,066	251,170.07	49.58
Tractors.....	-	-	-	-	-	-	-	-	-
Parts for traditional Plough									
'Degers' .....	*	*	*	*	*	*	*	*	*
'Erfes' (Handle) .....	*	*	*	*	*	*	*	*	*
Plough-Beams. ....	*	*	*	*	*	*	*	*	*
Plough -Tips (Metal) .....	*	*	*	*	*	*	*	*	*
'Wegel' - Tips.....	*	*	*	*	*	*	*	*	*
Yokes .....	*	*	*	*	*	*	*	*	*
Used for Harvesting									
Sickles.....	5,879	329.97	5.61	8,286	713.29	8.61	66,351	606,306.49	9.14
Used for Threshing									
Hay-Forks (Metal) .....	*	*	*	*	*	*	*	*	*
Hay-Forks (Wood) .....	-	-	-	-	-	-	-	-	-
Threshing Sticks .....	*	*	*	*	*	*	*	*	*
Winnowers (Metal) .....	-	-	-	-	-	-	-	-	-
Winnowers (Wood) .....	-	-	-	-	-	-	-	-	-
Other Farm Equipment									
Carts (Hauling) .....	-	-	-	-	-	-	-	-	-
Sprayers (Hand Operated)...	61	26.67	43.39	61	26.67	43.39	587	24,459.82	41.67
Sprayers (Power Operated) .	-	-	-	-	-	-	-	-	-
Tying Tools .....	-	-	-	-	-	-	-	-	-
Wheelbarrows.....	-	-	-	-	-	-	-	-	-
Animals Used for Ploughing									
Asses.....	-	-	-	-	-	-	-	-	-
Camels .....	-	-	-	-	-	-	-	-	-
Horses .....	-	-	-	-	-	-	-	-	-
Mules .....	-	-	-	-	-	-	-	-	-
Oxen .....	*	*	*	*	*	*	*	*	*
AnimalsUsed for Threshing or Transportation									
Asses.....	-	-	-	-	-	-	-	-	-
Camels .....	-	-	-	-	-	-	-	-	-
Cattle.....	*	*	*	*	*	*	*	*	*
Horses .....	-	-	-	-	-	-	-	-	-
Mules .....	-	-	-	-	-	-	-	-	-
Storage Structure									
'Debignits' .....	*	*	*	*	*	*	*	*	*
'Gotteras' .....	7,377	363.55	4.93	10,658	696.74	6.54	192,507	1,552,172.28	8.06
'Gudguads' .....	*	*	*	*	*	*	*	*	*
Modern Storages .....	27	12.90	48.30	27	12.90	48.30	*	*	*

ANNEX TABLE 8.3:- Standard Errors and Coefficient of Variation For the Number of Holders Reporting, Quantity Reported and Total Value, for Private Holdings, Zone 2.

Implements, Equipment, Farm animals and Storage facilities	Number of Holders			Number of Implements, Equipment, Farm animals and Storages			Total Value		
	Reporting	S.E	C.V	Reported	S.E	C.V	(Birr)	S.E	C.V
Used for Clearing Land									
Axes .....	12,212	524.88	4.30	13,702	622.12	4.54	259,900	1,241,493.44	4.78
'Gejeras' .....	15,308	590.08	3.85	20,316	854.38	4.21	520,403	3,022,846.51	5.81
Shovels .....	2,280	228.48	10.02	2,315	230.83	9.97	31,449	350,229.18	11.14
Used for Cultivation									
Hoes .....	9,602	562.79	5.86	12,613	740.71	5.87	92,696	691,977.32	7.46
'Mekeskeshas' .....	160	49.31	30.75	197	59.90	30.44	698	22,936.09	32.85
Pick Axes .....	1,321	233.03	17.65	1,386	252.64	18.23	22,474	550,279.60	24.48
Tractors .....	-	-	-	-	-	-	-	-	-
Parts for traditional Plough									
'Degers' .....	1,210	203.28	16.80	1,509	257.82	17.08	5,350	87,171.38	16.29
'Erfes' (Handle) .....	1,190	201.06	16.90	1,435	250.04	17.42	2,460	39,202.34	15.93
Plough-Beams. ....	1,253	216.18	17.26	1,642	341.03	20.77	13,576	228,540.93	16.83
Plough -Tips (Metal) .....	1,204	201.49	16.74	1,310	218.30	16.66	23,858	412,066.66	17.27
'Wegel' -Tips .....	1,198	204.91	17.11	1,313	222.15	16.92	7,846	132,386.90	16.87
Yokes .....	1,227	205.14	16.73	1,345	224.94	16.72	8,053	131,692.58	16.35
Used for Harvesting									
Sickles .....	6,412	490.95	7.66	8,083	666.08	8.24	74,166	662,279.43	8.93
Used for Threshing									
Hay-Forks (Metal) .....	*	*	*	*	*	*	*	*	*
Hay-Forks (Wood) .....	55	23.31	42.35	95	42.63	44.70	*	*	*
Threshing Sticks .....	3,048	454.73	14.92	4,250	654.64	15.40	4,205	84,393.83	20.07
Winnowers (Metal) .....	-	-	-	-	-	-	-	-	-
Winnowers (Wood) .....	*	*	*	*	*	*	*	*	*
Other Farm Equipment									
Carts (Hauling) .....	*	*	*	*	*	*	*	*	*
Sprayers (Hand Operated)...	101	34.73	34.48	150	58.54	39.13	916	34,671.53	37.87
Sprayers (Power Operated) .	-	-	-	-	-	-	-	-	-
Tying Tools .....	-	-	-	-	-	-	-	-	-
Wheelbarrows .....	94	45.00	48.05	94	45.00	48.05	*	*	*
Animals Used for Ploughing									
Asses .....	-	-	-	-	-	-	-	-	-
Camels .....	-	-	-	-	-	-	-	-	-
Horses .....	-	-	-	-	-	-	-	-	-
Mules .....	-	-	-	-	-	-	-	-	-
Oxen .....	1,208	204.63	16.95	1,850	313.65	16.95	742,835	13,318,417.25	17.93
AnimalsUsed for Threshing									
Asses .....	*	*	*	*	*	*	*	*	*
Camels .....	-	-	-	-	-	-	-	-	-
Cattle .....	1,125	195.25	17.36	1,821	305.96	16.80	696,968	12,523,421.30	17.97
Horses .....	312	109.93	35.21	312	109.93	35.21	158,822	5,288,131.76	33.30
Mules .....	-	-	-	-	-	-	-	-	-
Storage Structure									
'Debignits' .....	171	67.52	39.40	215	84.52	39.36	3,233	153,260.84	47.41
'Gotteras' .....	10,856	678.89	6.25	15,190	1,178.11	7.76	331,127	2,187,464.13	6.61
'Gudguads' .....	*	*	*	*	*	*	*	*	*
Modern Storages .....	62	22.57	36.12	62	22.57	36.12	1,766	60,140.51	34.06