

## **CHAPTER VII**

### **SIZE, CHARACTERISTICS AND PURPOSE OF LIVESTOCK AND USE OF LIVESTOCK PRODUCTS**

#### **1 INTRODUCTION**

Ethiopia is one of the most populous countries in Africa, having an estimated population of about 67.2 million in July 2002 with annual growth rate of 2.9%. This growing population demands much better economic performance than in the past, at least to ensure food security and other basic needs. The dominant economic feature of the country is the agriculture sector of which livestock is a very important and essential component. The highlanders raise livestock together with crop cultivation for their livelihood whereas the lowlanders or the ‘pastoralists’ subsistence is based mainly on livestock and livestock products. Consequently, the government should give due attention to this sector in order to take advantage of its contribution to the economic growth and as a result to meet the needs of the expanding population.

The livestock sector has been contributing significant portion to the economy of Ethiopia, but still has great potential to assist the economic development of this country. It is well known that livestock products and byproducts in the form of meat, milk, honey, eggs, cheese, and butter supply the needed animal protein that contribute to the improvement of the nutritional status of the people. Livestock also plays an important role in providing export commodities, such as live animals, hides and skins to earn foreign exchanges to the country. On the other hand, draught animals provide power for the cultivation of the small holdings and for crop threshing virtually all over the country and are also essential modes of transport to take holders and their families long-distances, to convey their agricultural products to the market places and bring back their domestic necessities. Livestock as well confer a certain degree of security in times of crop failure, as they are a “near-cash” capital stock. Furthermore, livestock

provides farmyard manure that is commonly applied to improve soil fertility and also used as a source of energy.

By virtue of the important role that the livestock sector plays in the economy of the country, formulation of development plan regarding the sector is vital. It is therefore imperative that livestock development plans should be formulated on the basis of reliable statistical data, and hence, timely and accurate livestock data are required for the formulation, implementation, monitoring, and evaluation of development plan and program in the sector. These livestock data can be generated more often than not using surveys and censuses. The Central Statistical Authority (CSA) has been generating livestock data through sample surveys since 1981 (1973 E.C.). However, based on the results of these surveys, CSA was not able to satisfy the growing demand of the data users regarding the sector. Realizing this fact, CSA proposed and conducted the first agricultural census in the year 2001/02.

As mentioned earlier in Chapter II, agricultural censuses are classified into two categories: censuses conducted by complete enumeration or conducted by sample enumeration. In agricultural censuses conducted by complete enumeration, data are collected from all holders and the result for each variable is obtained by totaling the values of the respective variable from all holders. On the other hand, agricultural censuses conducted based on sample enumeration are probability sample surveys for which a sample is selected and the method of estimation for each census variable permits establishing its statistical precision. Therefore, conducting complete enumeration is more expensive, time consuming and requires large number of personnel. Likewise, quantity of data to be processed is very large (FAO, 1996). By considering these realities and the economic condition of the country, the sample enumeration was favored.

The livestock census was carried-out as part of the agricultural census. The general objective of the livestock census is to establish benchmark data that could be used for development planning and policy formulation regarding the sector, and the specific

objectives are to purvey quantitative information on the size and characteristics of the livestock in rural and urban areas at wereda level, and to provide estimates on size and characteristics of livestock for pastoral areas and commercial farms. In order to meet these objectives, data on: livestock number by type, age, sex, purpose and breed; livestock products particularly milk, egg, and honey; livestock diseases and vaccination; livestock product utilization; and animal feed were collected from sampled agricultural households in rural and urban areas as well as from all commercial farms. In addition, these same data will be collected from pastoral areas in the near future.

The expected users of these data are government organizations involved in planning purposes, individuals or firms raising livestock, non-governmental organizations that provide technical and financial assistance, international organizations which are interested in livestock, and research organizations.

In this chapter of the report: estimates of livestock that include cattle, sheep, goats, draught animals (horses, mules, asses and camels), poultry and bees were made based on the information obtained from the holders within the selected agricultural households both in rural and urban areas as to the reference date (February 8,2002) and reference period (February 9,2001 to February 8, 2002). Thus, the results obtained from the livestock census for the rural and urban areas of the region as well as brief discussions made on the results are presented. Also the census results at regional level are provided in Statistical Tables 7.1–7.36. Moreover, the estimates, standard errors and coefficients of variation are given in Annex Tables 7.1-7.10 for some relevant variables.

## **2. LIVESTOCK NUMBER BY BREED, AGE, SEX, AND PURPOSE**

The livestock census is the first of its kind in the nation to supply data on the size and characteristics of livestock for rural and urban areas and commercial farms at wereda level, and also for pastoral areas though the census not yet conducted. The livestock

census that was carried-out in Gambela Region was part of the national census and covered both rural and urban areas of the region on sample basis. Commercial farms that are found in the region were also covered on complete enumeration basis though the results are not presented here.

The total number of each type of livestock as well as the numbers disaggregated by breed, age, sex, and purpose possessed by holders on the reference date (February 8, 2002), irrespective of ownership, were recorded by interviewing each holder in the sampled agricultural households both in rural and urban areas of the region. The numbers also include the livestock belonging to the holding but temporarily away or in transit at the time of the enumeration.

## **2.1 Cattle**

The estimates of cattle for rural and urban areas in Gambela Region are presented in Summary Table VII.1. As shown on the table, the total cattle population for the region is estimated to be 126,198. Out of this total cattle population, the female cattle constitute about 70.9 percent (89,458) and the remaining 29.1 percent (36,741) are male cattle. The majority (92 percent) of the cattle population is found in rural areas, while small proportion is accounted for urban areas (8 percent).

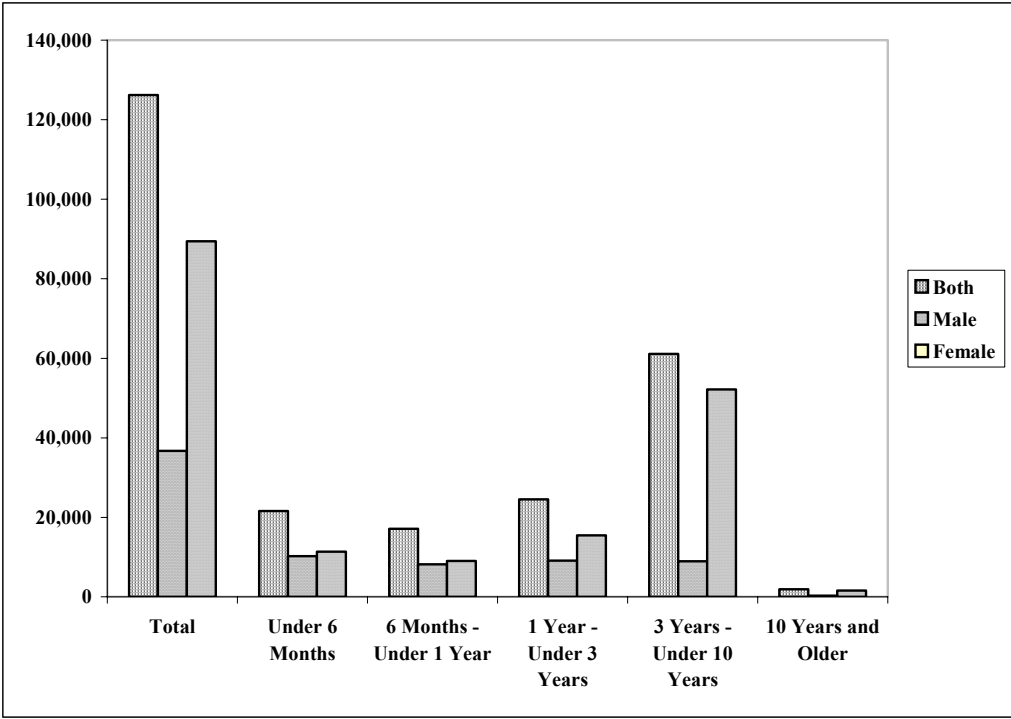
Regarding age groups, the majority of the cattle population (that is about 48.4 percent) is in the 3 years and under 10 years age category, with about 7 percent male and about 41.3 percent female. Moreover, about 50.1 percent are under three years and small portion, which is 1.5 percent, is in 10 years and older category. (also see Fig VII.1). On the other hand, according to the results obtained, almost all the cattle reported in the region are indigenous breed.

The distribution of cattle by purpose is indicated in the same table. Among cattle aged three years and under ten years, those used for milk purposes accounted for 67 percent and the percentage share of cattle used for draught purposes is the lowest that is about

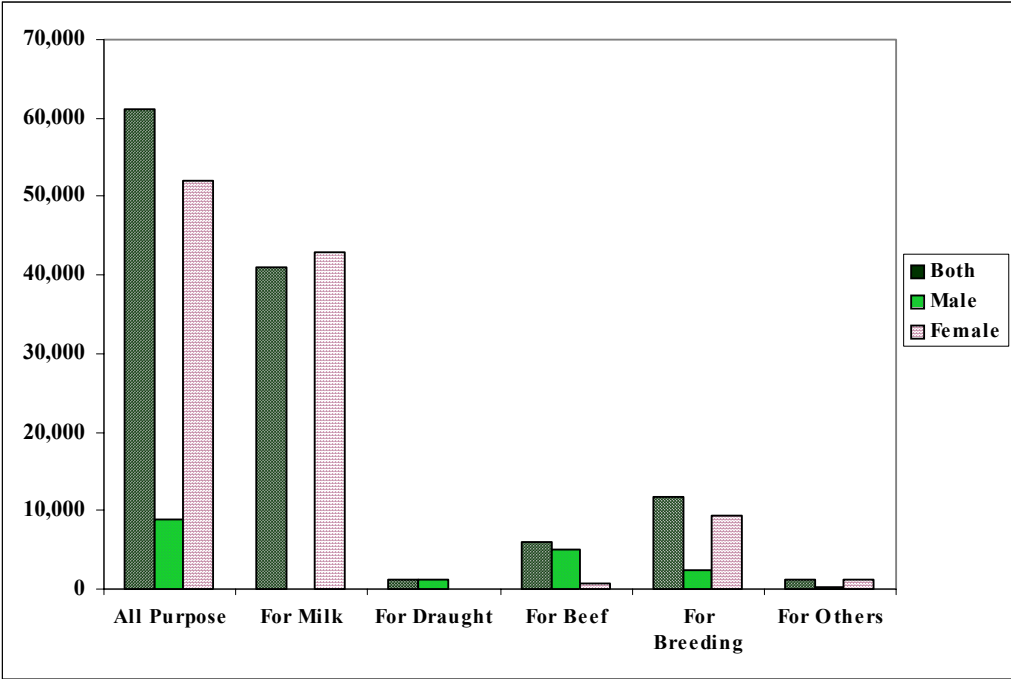
SUMMARY TABLE VII.1: Estimated Number of Cattle by Sex, Age, Breed, and Purpose for Rural and Urban Holdings

Age, Breed and Purpose	Cattle on Both Rural and Urban Holdings						Cattle on Rural Holdings						Cattle on Urban Holdings					
	Total		Male		Female		Total		Male		Female		Total		Male		Female	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total .....	126,198	100	36,741	29.11	89,458	70.89	116,074	91.98	33,626	26.65	82,448	65.33	10,124	8.02	3,115	2.47	7,009	5.55
Under 6 months .....	21,597	17.11	10,236	8.11	11,361	9.00	19,526	15.47	9,348	7.41	10,178	8.07	2,071	1.64	888	0.70	1,184	0.94
6 months-under 1 year ....	17,137	13.58	8,161	6.47	8,976	7.11	15,834	12.55	7,553	5.99	8,280	6.56	1,303	1.03	608	0.48	695	0.55
1 year-under 3 years .....	24,517	19.43	9,105	7.21	15,413	12.21	23,185	18.37	8,547	6.77	14,638	11.60	1,333	1.06	558	0.44	774	0.61
3 years-under 10 years .....	61,074	48.40	8,936	7.08	52,138	41.31	55,731	44.16	7,906	6.26	47,825	37.90	5,343	4.23	1,030	0.82	4,313	3.42
10 years and older .....	1,873	1.48	303	0.24	1,570	1.24	1,798	1.42	272	0.22	1,527	1.21	75	0.06	*	*	43	0.03
Cattle by Breed																		
Total .....	126,198	100	36,741	29.11	89,458	70.89	116,074	91.98	33,626	26.65	82,448	65.33	10,124	8.02	3115	2.47	7,009	5.55
Indigenous .....	126,196	100	36,741	29.11	89,456	70.89	116,072	91.98	33,626	26.65	82,446	65.33	10,124	8.02	3115	2.47	7,009	5.55
Hybrid .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exotic .....	*	*	-	-	*	*	*	*	-	-	*	*	-	-	-	-	-	-
Aged 3-10 Years by Purpose																		
Total .....	61,074	100	8,936	14.63	52,138	85.37	55,731	91.25	7,906	12.94	47,825	78.31	5,343	8.75	1030	1.69	4,313	7.06
Used for Milk .....	40,905	66.98			40,905	66.98	37,401	61.24			37,401	61.24	3,504	5.74			3,504	5.74
Used for Draught .....	1,220	2.00	1,198	1.96	*	*	998	1.63	982	1.61	*	*	222	0.36	216	0.35	*	*
Used for Beef .....	5,880	9.63	5,070	8.30	809	1.32	5,686	9.31	4,885	8.00	801	1.31	194	0.32	*	*	*	*
Used for Breeding .....	11,776	19.28	2,470	4.04	9,306	15.24	10,798	17.68	1,852	3.03	8,946	14.65	978	1.60	618	1.01	361	0.59
Used for Other .....	1,293	2.12	199	0.33	1,095	1.79	849	1.39	187	0.31	662	1.08	444	0.73	*	*	433	0.71
Dairy Animals																		
Dairy Cows .....	40,905	100			40,905	100	37,401	91.43			37,401	91.43	3,504	8.57			3,504	8.57
Milking Cows .....	33,934	100			33,934	100	30,496	89.87			30,496	89.87	3,438	10.13			3,438	10.13

**FIGURE VII.1 DISTRIBUTION OF CATTLE BY AGE AND SEX**



**FIGURE VII.2 DISTRIBUTION OF CATTLE AGED 3 AND UNDER 10 YEARS BY PURPOSE AND SEX**



2 percent. Beef cattle here refer to all cattle reared exclusively for meat that is used either for home consumption or for sale. Further, the number of dairy-cows<sup>a</sup> is estimated to be about 40,905 and milking-cows<sup>b</sup> are about 33,934 (See Fig. VII.2).

As to zonal level cattle distribution, zone 1 contributes the largest share, that is 84.2 percent, and the remaining 15.8 percent is accounted for zone 2. Moreover, cattle population by sex, age, breed, and purpose are estimated for each wereda in each zone and presented in the Statistical Tables given at the end of this chapter.

## 2.2 Sheep and Goats

The estimated numbers and percentage distributions of sheep and goats for rural and urban areas are given in Summary Table VII.2. As pointed out in this table, about 43,746 sheep are estimated to be found in the region, out of which about 79.2 percent are females, and about 20.8 percent are males. Moreover, according to the census result, large number of goats is reported in the region, and it is estimated to be about 49,076. Out of these total goats, 78.6 percent are females and 21.4 percent are males. (See Fig. VII.3).

Among these totals reported in the region, 97.7 percent of the sheep and 95.2 percent of the goats are found in the rural areas. Urban areas accounted for only 2.3 percent and 4.8 percent of the sheep and goats, respectively.

Pertaining to the age distribution of both the sheep and the goats, the largest portions are in the age group of two years and older (41.4 percent and 36 percent, in that order), followed by the young stock under six months for both sheep and goats, that is 28.7 percent and 29.3 percent, respectively. (See Figures VII.3)

With respect to breed, 99.9 percent of the sheep, (43,728) and all the goats, (49,076) are indigenous. The share of male sheep and male goats are 20.8 percent (9,095) and

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<sup>a</sup> A Dairy Cow refers to a cow that primarily kept for milk and has milked previously and/or milking at the time of enumeration or has never been milked before but expected to be milked in the future or pregnant at the time of enumeration.

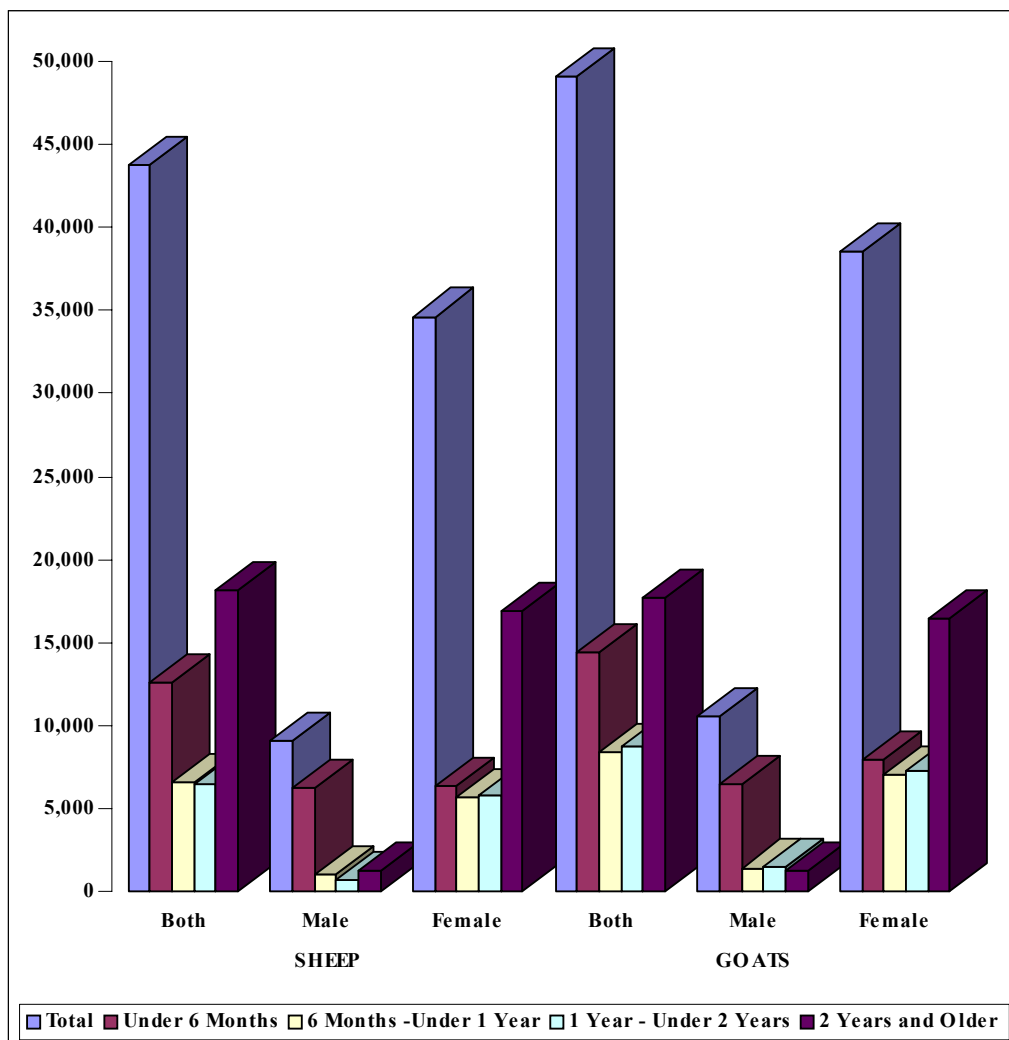
<sup>b</sup> A Milking Cow refers to any type of cow that actually milked during the reference period (February 9, 2001 to February 8, 2002).

SUMMARY TABLE VII.2: Estimated Number of Sheep and Goats by Sex, Age, Breed, and Purpose for Rural and Urban Holdings

Age, Breed and Purpose	Both Rural and Urban Holdings						Rural Holdings						Urban Holdings					
	Total		Male		Female		Total		Male		Female		Total		Male		Female	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Sheep .....	43,746	100	9,095	20.79	34,650	79.21	42,753	97.73	8,767	20.04	33,986	77.69	993	2.27	328	0.75	664	1.52
Under 6 months .....	12,572	28.74	6,208	14.19	6,364	14.55	12,397	28.34	6,109	13.96	6,288	14.37	175	0.40	*	*	*	*
6 months-under 1 year .....	6,568	15.01	944	2.16	5,624	12.86	6,437	14.71	919	2.10	5,517	12.61	131	0.30	*	*	107	0.24
1 year-under 2 years .....	6,492	14.84	699	1.60	5,792	13.24	6,367	14.55	653	1.49	5,714	13.06	124	0.28	46	0.11	78	0.18
2 years and older .....	18,114	41.41	1,245	2.85	16,869	38.56	17,552	40.12	1,085	2.48	16,467	37.64	562	1.28	160	0.37	403	0.92
Sheep by Breed																		
Total .....	43,746	100	9,095	20.79	34,650	79.21	42,753	97.73	8,767	20.04	33,986	77.69	993	2.27	328	0.75	664	1.52
Indigenous .....	43,728	99.96	9,078	20.75	34,650	79.21	42,735	97.69	8,749	20.00	33,986	77.69	993	2.27	328	0.75	664	1.52
Hybrid .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exotic .....	*	*	*	*	-	-	*	*	*	*	-	-	-	-	-	-	-	-
Sheep Aged 2 Years and Older by Purpose																		
Total .....	18,114	100	1,245	6.87	16,869	93.13	17,552	96.90	1,085	5.99	16,467	90.91	562	3.10	160	0.88	403	2.22
Used for Mutton .....	423	2.34	275	1.52	148	0.82	362	2.00	241	1.33	121	0.67	*	*	*	*	*	*
Used for Wool .....	*	*	-	*	*	*	*	*	-	-	*	*	*	*	-	-	*	*
Used for Breeding .....	17,463	96.41	927	5.12	16,537	91.29	16,967	93.67	801	4.42	16,166	89.25	497	2.74	*	*	371	2.05
Used for Other .....	211	1.16	*	*	168	0.93	211	1.16	*	*	168	0.93	-	-	-	-	-	-
Total Goats .....	49,076	100	10,494	21.38	38,582	78.62	46,735	95.23	9,858	20.09	36,877	75.14	2,341	4.77	637	1.30	1,705	3.47
Under 6 months .....	14,388	29.32	6,464	13.17	7,923	16.14	13,744	28.01	6,171	12.57	7,573	15.43	644	1.31	294	0.60	350	0.71
6 months-under 1 year .....	8,363	17.04	1,385	2.82	6,978	14.22	8,066	16.44	1,290	2.63	6,776	13.81	297	0.61	95	0.19	202	0.41
1 year-under 2 years .....	8,671	17.67	1,396	2.84	7,274	14.82	8,427	17.17	1,327	2.70	7,100	14.47	243	0.50	69	0.14	174	0.35
2 years and older .....	17,655	35.97	1,249	2.55	16,406	33.43	16,498	33.62	1,070	2.18	15,428	31.44	1,157	2.36	179	0.36	978	1.99
Goats by Breed																		
Total .....	49,076	100	10,494	21.38	38,582	78.62	46,735	95.23	9,858	20.09	36,877	75.14	2,341	4.77	637	1.30	1,705	3.47
Indigenous .....	49,076	100	10,494	21.38	38,582	78.62	46,735	95.23	9,858	20.09	36,877	75.14	2,341	4.77	637	1.30	1,705	3.47
Hybrid .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exotic .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Goats Aged 2 Years and Older by Purpose																		
Total .....	17,655	100	1,249	7.07	16,406	92.93	16,498	93.45	1,070	6.06	15,428	87.39	1,157	6.55	179	1.01	978	5.54
Used for Milk .....	5,783	32.76	-	-	5,783	32.76	5,505	31.18	-	-	5,505	31.18	278	1.57	-	-	278	1.57
Used for Meat .....	467	2.65	352	1.99	115	0.65	419	2.37	309	1.75	110	0.62	48	0.27	*	*	*	*
Used for Breeding .....	11,302	64.02	855	4.84	10,447	59.17	10,472	59.31	719	4.07	9,753	55.24	831	4.71	136	0.77	695	3.94
Used for Other .....	102	0.58	*	*	61	0.35	102	0.58	*	*	61	0.35	-	-	-	-	-	-



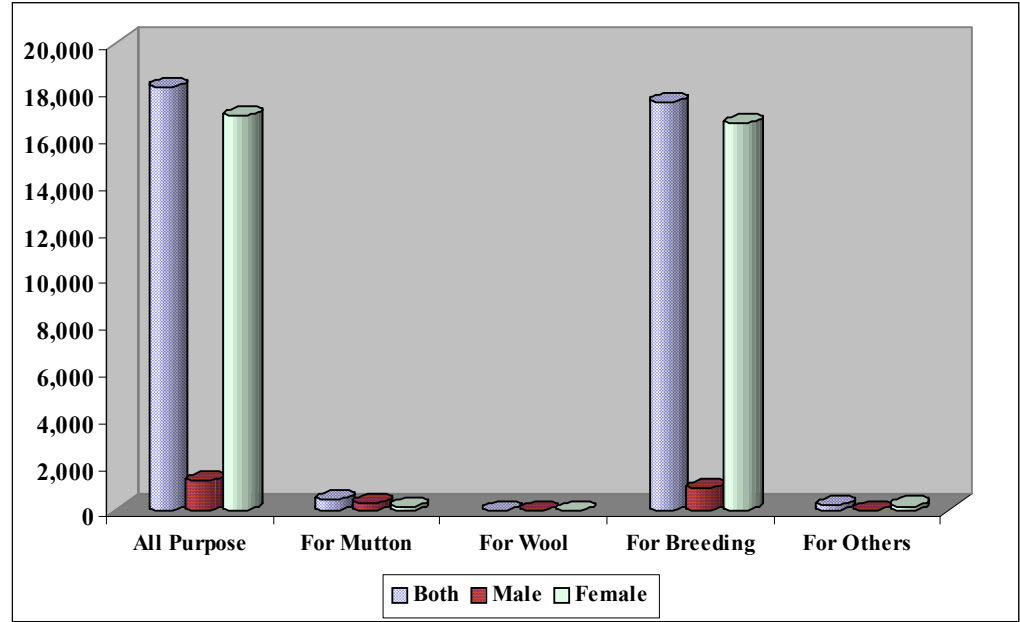
**FIGURE VII.3 DISTRIBUTION OF SHEEP AND GOATS BY AGE AND SEX**



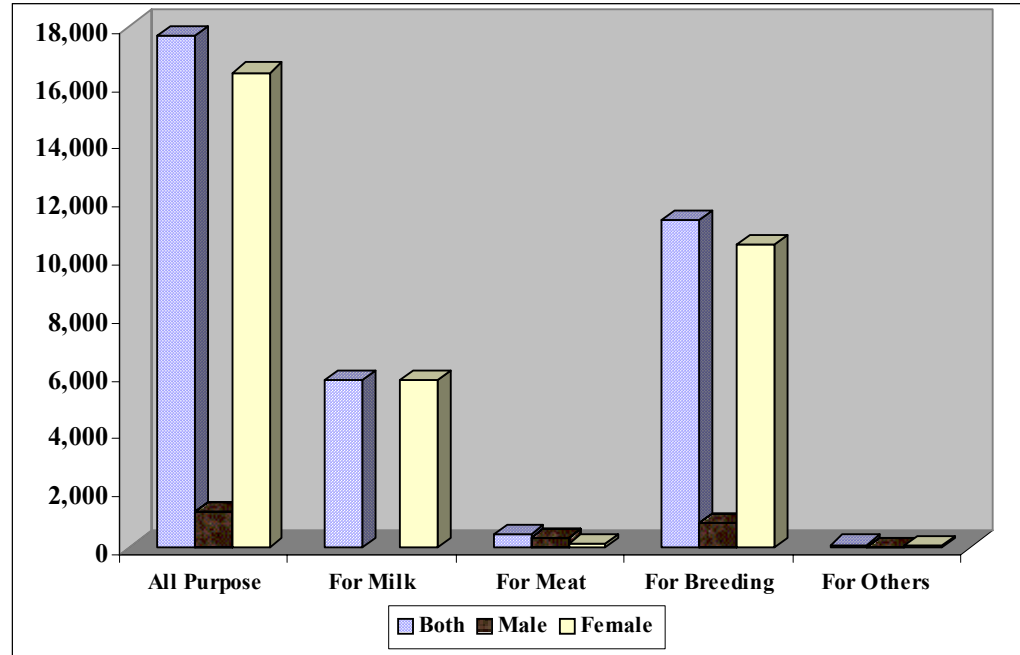
21.4 percent (10,494) while the female sheep and female goats accounted for 79.2 percent (34,650) and 78.6 percent (38,582 ), respectively.

Summary Table VII.2 also discloses the numbers and percentages of sheep and goats raised for different purposes in the region. The percentages of both sheep and goats kept for breeding are significantly higher. Moreover, the data reveals that 32.8 percent of the female goats are kept for milk purposes.

**FIGURE VII.4 DISTRIBUTION OF SHEEP BY PURPOSE AND SEX  
AGED 2 AND OLDER**



**FIGURE VII.5 DISTRIBUTION OF GOATS BY PURPOSE AND SEX  
AGED 2 AND OLDER**



Among the sheep flock two years and older, 17,463 (96.4 percent) were kept for breeding; about 2 percent for mutton and 1.2 percent for other purposes. Likewise, amid the goats population aged two years and older, goats kept for breeding account for about 64 percent (11,302) while goats kept for meat account for about 2.7 percent only.

The numbers and percentage distributions of sheep and goats by age group at zonal and wereda levels are given in the Statistical Tables. Accordingly, of the total sheep, 80.9 percent is found in zone 1. Regarding goat population, Zone 1 is the greater contributor to the 49,076 goat population of the region that is 76.5 percent. The remaining 23.5 percent is reported by zone 2.

### **2.3. Horses, Asses, Mules And Camels**

Summary Table VII.3 shows the estimates of horses, asses, mules and camels for the rural and urban areas of the region for private holdings. According to the census result, the number of mules and camels reported are insignificant and not reliable. On the other hand, 338 horses and 264 asses are reported in Gambela Region. The table as well shows that 199 asses (75.4 percent) and 333 horses (99 percent) are found in the rural areas.

As indicated in the same table, out of the total asses population in the region, 205 (77.7 percent) are males and 59 ( 22.3 percent) are females. With respect to age distribution, about 97 percent of the asses and all the horses are in the age group of 3 years and older category.

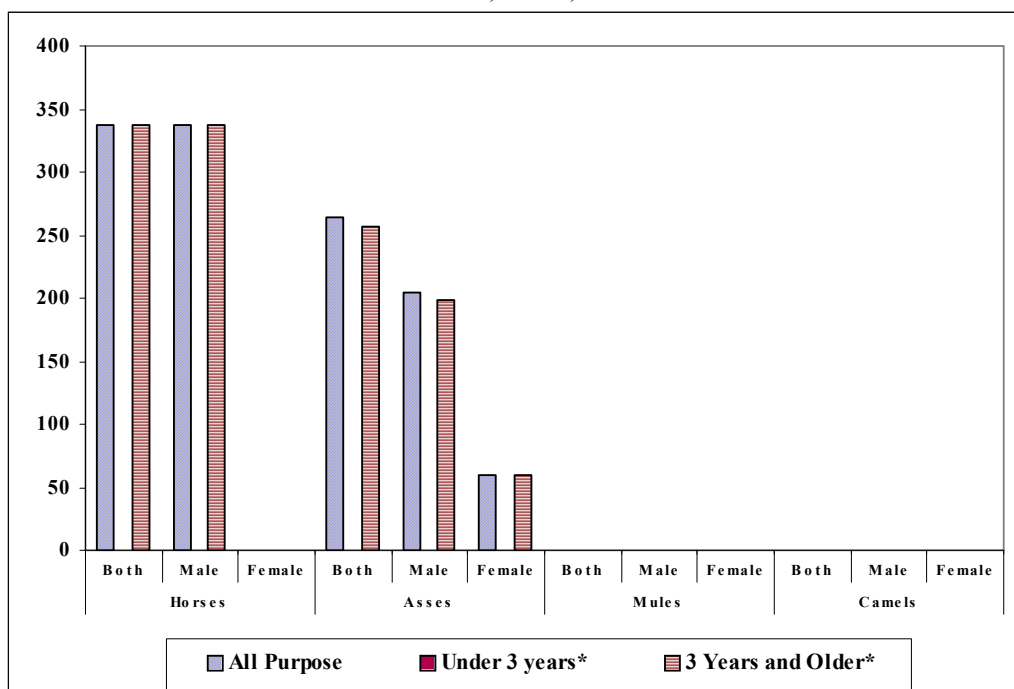
The estimates of these animals (aged 3 years and older) by sex and purpose are also given in Summary Table VII.3. As indicated in the table, among the horses and asses aged three years and older, 338 (100 percent) and 251 (98 percent) were used for transportation, respectively. ( See also Figures VII.6 and VII.7)



SUMMARY TABLE VII.3: Estimated Number of Horses, Asses, Mules and Camels by Sex, Age, Breed, and Purpose for Rural and Urban Holdings

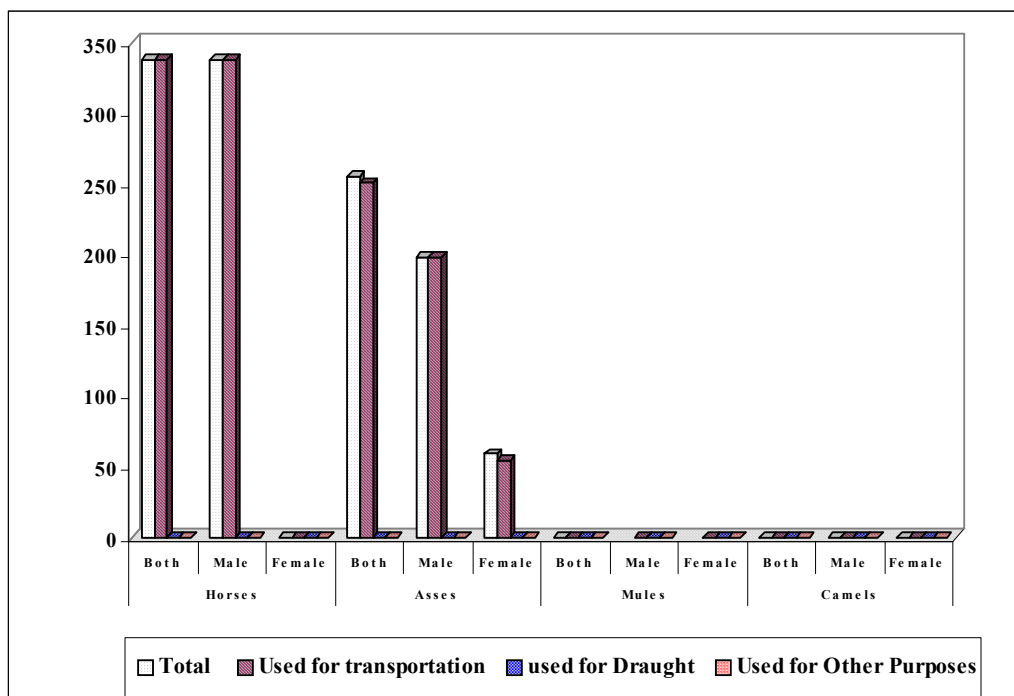
Age, Breed and Purpose	Both Rural and Urban Holdings								Rural Holdings				Urban Holdings					
	Total		Male		Female		Total		Male		Female		Total		Male		Female	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Horses.....	338	100	338	100	-	-	333	99	333	99	-	-	*	*	*	*	-	-
Under 3 Years .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3 years and older .....	338	100	338	100	-	-	333	99	333	99	-	-	*	*	*	*	-	-
Horses Aged 3 years and Older by Purpose																		
All Uses .....	338	100	338	100	-	-	333	99	333	99	-	-	*	*	*	*	-	-
Transportation .....	338	100	338	100	-	-	333	99	333	99	-	-	*	*	*	*	-	-
Draught .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Uses .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Asses .....	264	100	205	77.65	59	22.35	199	75.38	146	55.30	54	20.45	65	24.62	60	22.73	*	*
Under 3 Years .....	*	*	*	*	-	-	-	-	-	-	-	-	*	*	*	*	-	-
3 years and older .....	256	96.97	198	75.00	59	22.35	199	75.38	146	55.30	54	20.45	57	21.59	52	19.70	*	*
Asses Aged 3 Years and older by Purpose																		
All Uses .....	256	100	198	77.34	59	23.05	199	77.73	146	57.03	54	21.09	57	22.27	52	20.31	*	*
Transportation .....	251	98.05	198	77.34	54	21.09	199	77.73	146	57.03	54	21.09	52	20.31	52	20.31	-	-
Draught .....	*	*	-	-	*	*	-	-	-	-	-	-	*	*	-	-	*	*
Other Uses .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Mules .....	*	*	*	*	*	*	-	-	-	-	-	-	*	*	*	*	*	*
Under 3 Years .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3 Years and older .....	*	*	*	*	*	*	-	-	-	-	-	-	*	*	*	*	*	*
Mules Aged 3 Years and Older by Purpose																		
All Uses .....	*	*	*	*	*	*	-	-	-	-	-	-	*	*	*	*	*	*
Transportation.....	*	*	*	*	*	*	-	-	-	-	-	-	*	*	*	*	*	*
Draught .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Uses .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Camels.....	*	*	*	*	-	-	-	-	-	-	-	-	*	*	*	*	-	-
Under 4 Years .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4 years and older .....	*	*	*	*	-	-	-	-	-	-	-	-	*	*	*	*	-	-
Camels Aged 4 Years and Older by Purpose																		
All Uses .....	*	*	*	*	-	-	-	-	-	-	-	-	*	*	*	*	-	-
Transportation.....	*	*	*	*	-	-	-	-	-	-	-	-	*	*	*	*	-	-
Draught .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Meat .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Milk .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Uses .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**FIGURE VII.6 DISTRIBUTION OF HORSES, ASSES, MULES AND CAMELS BY AGE AND SEX**



\* Note :- for camels the age Categories are under 4 years and 4 years & older.

**FIGURE VII.7 DISTRIBUTION OF HORSES, ASSES, MULES AND CAMELS BY PURPOSE AND SEX**



Pertaining to zonal distribution, about 55.7 percent of the total ass population is found in zone 2 and the remaining 44.3 percent is accounted for zone 1. Likewise, all the horses reported in the region are found in zone 2. (See Fig. VII.8).

## **2.4 Poultry**

Data on poultry population are collected as part of the livestock census, and the total poultry population in Gambela Region is estimated to be about 237,930. In this report, poultry includes cocks, cockerels, pullets, laying hens, non-laying hens and chicks. Consequently, as shown in Summary Table VII.4 and Figure VII.9, most of the poultry are chicks (74,123), followed by laying hens (56,787). Non-laying hens are estimated to be 17,058 in the region. Pullets, cocks and cockerels are also estimated separately, and are 32,763, 32,230 and 24,970, respectively. Rural areas constitute 92.6 percent of the total poultry and Urban areas share was 7.4 percent.

Moreover, average egg-laying period per hen and average number of eggs laid per hen during this period are estimated based on the data collected. Consequently, average egg-laying period per hen is estimated to be about 16 days while average number of eggs laid per hen per egg-laying period is about 12 eggs in the region. Egg laying period and number of eggs laid per period are higher in rural than in urban areas.

Pertaining to zonal distribution, 50.5 percent and 49.5 percent of the total poultry population are found in zone1 and zone 2, respectively.

## **2.5 Beehives**

Information on beehives was also collected during the livestock census. A beehive is enumerated if and only if it produced honey at least once in the reference period (February 9, 2001 to February 8, 2002). As stated by the Ministry of Agriculture, there are three types of beehives, and these are traditional, intermediate and modern.

SUMMARY TABLE VII.4: Estimated number of Poultry by Type for Rural and Urban Holdings

Type of Poultry	Rural and Urban Holdings		Rural Holdings		Urban Holdings	
	Number	%	Number	%	Number	%
All Poultry .....	237,930	100	220,430	92.64	17,501	7.36
Cocks .....	32,230	13.55	29,381	12.35	2,849	1.20
Cockerels .....	24,970	10.49	23,324	9.80	1,646	0.69
Pullets .....	32,763	13.77	30,193	12.69	2,570	1.08
Non-Laying Hens .....	17,058	7.17	16,258	6.83	800	0.34
Chicks .....	74,123	31.15	68,998	29.00	5,126	2.15
Laying Hens	56,787	23.87	52,276	21.97	4,510	1.90
Average Number Days/Clutch	16		16		14	
Average Eggs/Hen/Clutch.....	12		12		11	

SUMMARY TABLE VII.5: Estimated number of Beehives by Type for Rural and Urban Holdings

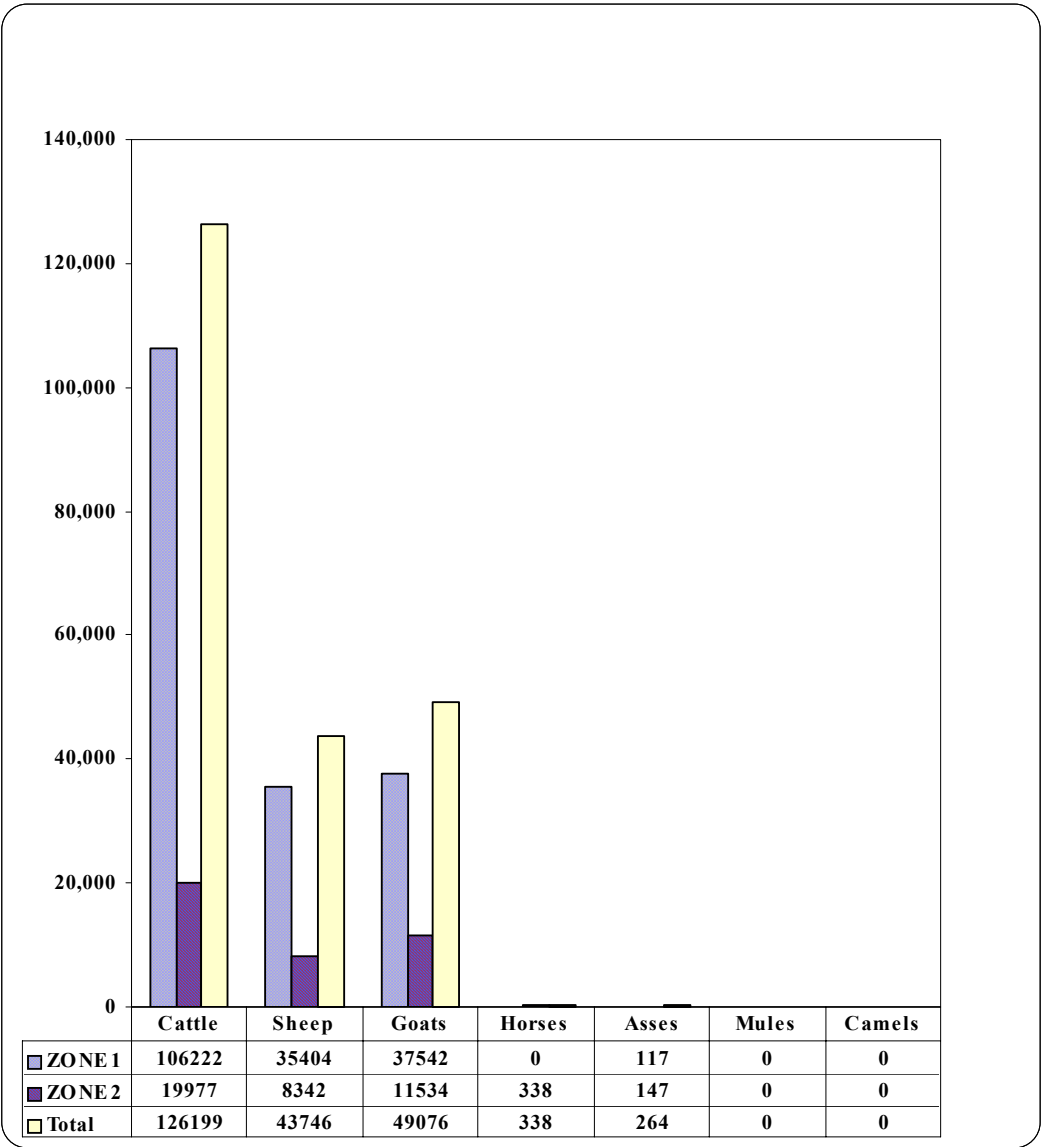
Type of Beehive	Rural and Urban Holdings		Rural Holdings		Urban Holdings	
	Number	%	Number	%	Number	%
All Beehives .....	59,222	100	58625	98.99	*	*
Traditional Beehives ...	58625	98.99	58625	98.99	-	-
Intermediate Beehives ...	*	*	-	-	*	*
Modern Beehives .....	-	-	-	-	-	-

SUMMARY TABLE VII.6 : Milk and Honey Production for Rural and Urban Holdings

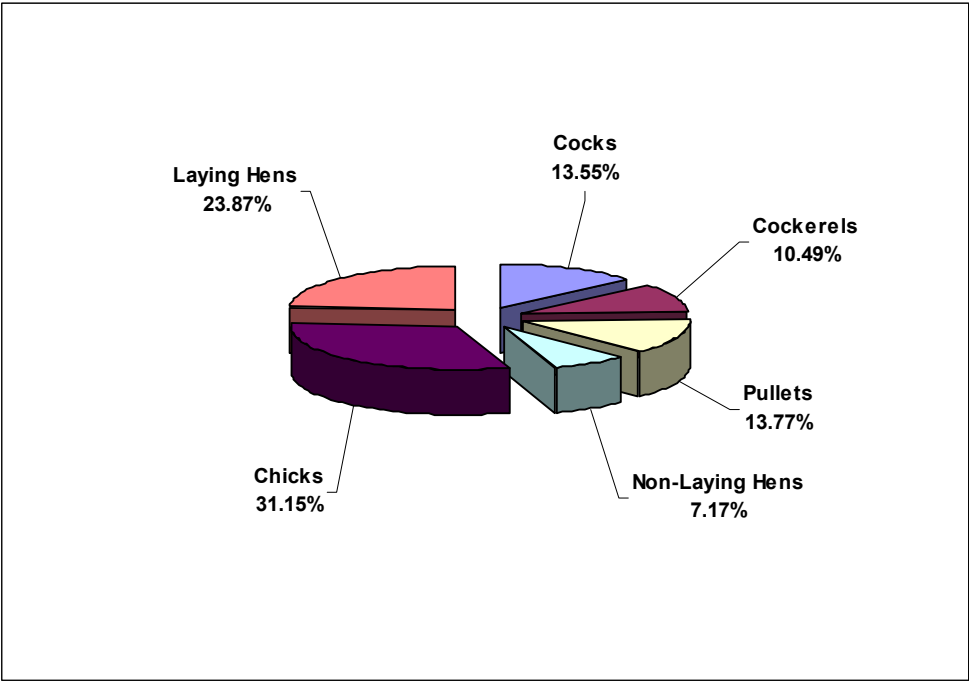
Item	Quantity Produced and Frequency		
	Rural and Urban Holdings	Rural Holdings	Urban Holdings
Cow Milk			
Average Daily Milk Production(Liters/Cow)	1.94	1.908	2.293
Average Lactation Period (Months ) .....	7	7	7
Total Milk Production(Liters) ...	13,133,285	11,574,174	1,559,111
Camel Milk			
Average Daily Milk Production(Liters/Camel)	-	-	-
Average Lactation Period (Months ) .....	-	-	-
Total Milk Production(Liters) .....	-	-	-
Honey Production			
All Types of Beehives			
Production (Kilograms).....	1,388,326	1,388,326	-
Average Frequency (Harvest/Year) .....		3	-
Traditional Beehives			
Production (Kilograms).....	1,388,326	1,388,326	-
Average Frequency(Harvest./Year).....		3	-
Intermediate Beehives			
Production (Kilograms).....	-	-	-
Average Frequency(Harvest/Year)		-	3
Modern Beehives			
Production (Kilograms).....	-	-	-
Average Frequency(Harvest/Year)		-	-



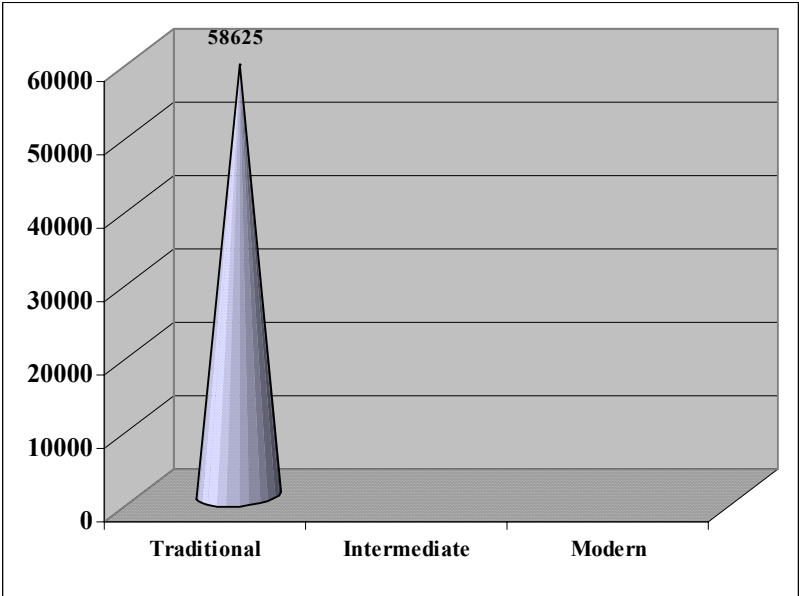
**FIGURE VII.8 DISTRIBUTION OF LIVESTOCK BY ZONE**



**FIGURE VII. 9 DISTRIBUTION OF POULTRY BY TYPE**



**FIGURE VII. 10 DISTRIBUTION OF BEEHIVES BY TYPE**



*Traditional [Fixed comb] Hive* is a hollow structure made of cheap materials like clay, straw, bamboo, false banana leaves, barks of tree, logs and animal dung. The bees fill all the available space with honeycombs from the top to down wards. The honeycombs cannot be removed since they are attached to the top and the sides of the hive. The honey can be removed only by removing one wall of the hive and breaking or cutting out the honeycomb (Reihard Fichtl and Admasu, 1994; Gezahegn Taddesse, 1993 E.C.).

*Intermediate [Transitional] Hive* is a long trough-shaped box with sloping sidewalls covered with bars of a fixed width. The hive consists of a bottom board, two sidewalls and front and back walls. One opening is made in the front wall to serve as flight entrance. The cover of the hive can be made from any material, which gives adequate protection against light, sun, and rain (Gezahegn Taddesse, 1993 E.C.; P.Seegeren et al, 1996).

*Modern Hive [Hive with Frames]* is a brood (offspring) chamber (box) with a fixed bottom board and flight board. In the bottom board there is a ventilation hole of size (15cmx30cm), which can be covered with fine wire mesh or other suitable material. The brood chamber holds ten frames, which are kept separately at the right distance by means of side bar, or nails. Queen excluder (not necessary) placed horizontally on top of the brood chamber (Gezahegn Taddesse, 1993 E.C.; P.Seegeren et al, 1996).

Any type of these beehives that produced honey at least once during the reference period (February 9, 2001 to February 8, 2002) was enumerated. Accordingly, the result of the census revealed that a total of 59,222 beehives is estimated to be found in rural and urban areas of Gambela Region. From the total beehives, 58,625 (99 percent) are traditional beehives.

As indicated in Summary Table VII.5 and Figure VII.10, very significant portion of the beehives are reported in rural areas (99 percent). Although very little, urban areas as well contributed to the beehives population of the region.

With regard to zonal distribution of hives, zone 2 has the largest share (92 percent), and the remaining 8 percent of the hives are found in zone 1.

### **3. LIVESTOCK PRODUCTS**

This section summarizes results on livestock products. The various animal products include milk and milk products, eggs, wool, meat, hides and skins. Although data on such livestock products are not easily obtainable in the Ethiopian traditional agricultural sector, an endeavor was made to collect data on milk and honey productions. The data were collected subjectively from the holders in the sampled households and the results obtained are briefly discussed below.

#### **3.1 Milk Production**

Estimation of milk production entails three components, namely number of milking cows, number of months milking cows actually milked within the reference period and average milk production per cow per day. Hence, data on these components have been collected and the total milk production in the region is estimated by multiplying these three components. However, two basic concepts about milk production should be mentioned here. “Gross production”, which includes whole fresh milk actually milked and milk sucked by young animals and also milk fed to other animals. “Net production” consists of whole milk actually milked and milk fed to other animals but excludes milk sucked by young animals. Therefore, in our case, milk production is estimated based on the concept “net production”, and as indicated in Summary Table VII.6, the estimate of total milk production for rural and urban areas in Gambela Region during the reference period, is about 13.1 million liters of which 11.6 million liters (88.1 percent) is attributed to rural areas. A total of about 1.6million liters of milk was as well estimated in urban areas.

SUMMARY TABLE VII.7: Livestock Product Utilization - Percentage of Uses for Rural and Urban Holdings

Type of Product	Rural and Urban Holdings					Rural Holdings					Urban Holdings				
	Total%	Percent of Product Utilized for:				Total%	Percent of Product Utilized for:				Total%	Percent of Product Utilized for:			
		Household Consumption	Sale	Wages in Kind	Other		Household Consumption	Sale	Wages in Kind	Other		Household Consumption	Sale	Wages in Kind	Other
Milk	100	61.87	10.03	0.16	27.94	100	62.32	8.16	0.15	29.36	100	58.26	25.02	0.21	16.52
Butter	100	66.16	29.43	0.05	4.37	100	66.36	29.24	0.05	4.36	100	63.68	31.85	0.03	4.44
Cheese	100	90.94	5.01	0.13	3.92	100	91.93	4.72	0.14	3.22	100	77.04	9.18	-	13.77
Beef	100	36.64	49.47	0.19	13.7	100	36.54	49.5	0.14	13.82	100	39.37	48.69	1.39	10.55
Mutton/Goat Meat	100	52.87	36.49	0.29	10.36	100	52.27	37.58	0.33	9.82	100	57.15	28.65	-	14.2
Eggs	100	25.82	28.59	0.12	45.46	100	24.36	28.97	0.13	46.54	100	44.16	23.88	-	31.97
Honey	100	18.9	76.74	0.13	4.24	100	18.83	76.81	0.12	4.24	100	35.15	59.91	1.11	3.83
Bees Wax	100	21.53	37.31	1.12	40.05	100	21.59	37.05	1.12	40.24	100	10	90	-	-
Wool	100	100	-	-	-	100	100	-	-	-	-	-	-	-	-
Hide	100	51.04	46.39	1.01	1.55	100	50.92	46.26	1.11	1.71	100	52.32	47.68	-	-
Skin	100	61.33	32.86	2.07	3.74	100	60.39	32.87	2.36	4.38	100	66.35	32.8	0.51	0.34

Data on lactation period and average milk yield per cow per day were also collected. As a result, the average lactation period per cow in the region is estimated to be about seven months, and average milk yield per cow per day is about 1.94 liters.

### **3.2. Honey Production**

To estimate honey production, number of beehives, frequency of honey production and honey production per harvest are required. Therefore, these data were collected from the holders within sampled households both in rural and urban areas. As a result, the estimate of total honey production is about 1,388,326 kilograms of which all were harvested from traditional beehives. (See Summary Table VII.6). According to the results, honey was only harvested from rural areas in the region. In addition, as can be seen from the census data, honey was harvested three times in a year from traditional beehives in rural areas during the reference period.

## **4. UTILIZATION OF LIVESTOCK PRODUCTS**

Data on the utilization of animal products were also collected during the census to assess product usage experience of holders. The products for which utilization data intended to be collected were milk, egg, honey, meat, hides and skins, wool and byproducts such as butter, cheese, and wax. It is commonly accepted that these products are often used for household consumption and/or sold to finance the purchase of basic household commodities such as coffee, salt, cooking oil, sugar, etc. The products are sometimes used as payments and gifts to others. The census data on the utilization of animal products in the rural and urban areas are presented in Summary Table VII.7. However, data for Dima wereda in the rural areas was not collected due to various reasons. The census result reveals that out of the total annual milk production, 61.9 percent was used for household consumption, 10.03 percent was sold and about 28 percent was used for other purposes. With respect to the utilization of butter 66.2 percent was used for household consumption and 29.4 percent was sold.

Most of the total cheese produced was used for household consumption that is about 91 percent, and about 5 percent was sold.

Of the total honey produced, about 76.7 percent was sold , and 18.9 percent was used for household consumption. All the wool produced in the region was used for household consumption.

Concerning utilization of egg products, 28.6 percent of the total egg produced was sold and 25.8 percent was used for household consumption. Moreover, 45.5 percent of the total egg produced in the region was used for other purposes and that could be for hatching. Holders' utilization practices on hides, and skins were also assessed and the results showed that about 51 percent and 61 percent was used for household consumption , respectively.

## **5. LIVESTOCK VACCINATION, DISEASE, TREATMENT AND DEATH**

Diseases have numerous negative impacts on productivity of herds i.e. death of animals, loss of weights, slow down growth, poor fertility performance, decrease in physical power and the likes. There have been many ways of fighting against diseases and among these, vaccinations (preventive measures) and treatments (curative measures) are the major ones. However, no efficient fight against disease or disease prevention is possible if descriptive data on prevalence of diseases, deaths, vaccinations, and treatments are not available. The availability of these data is also very important to set-up strategies that can assist in preventing and controlling

diseases, by and large in improving veterinary services of the country. Hence, it was considered desirable to collect information on vaccinations, treatments, diseases, and deaths of animals during the census.

SUMMARY TABLE VII.8: Estimated number of Livestock Vaccinated, Afflicted,

## Treated and Died for Rural and Urban Holdings

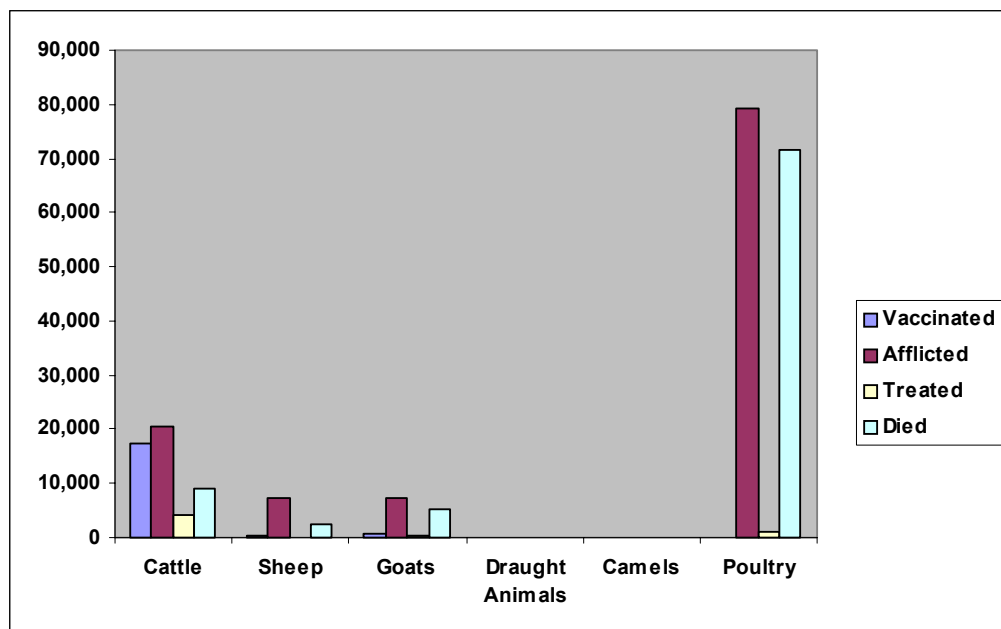
Item	Rural and Urban Holdings		Rural Holdings		Urban Holdings	
	Number	%	Number	%	Number	%
Total Vaccinated	19,126	100	12,842	67.14	6,284	32.86
Cattle .....	17,518	91.59	12,120	63.37	5,398	28.22
Sheep .....	374	1.96	*	*	*	*
Goats .....	698	3.65	397	2.08	301	1.57
Horses,Asses, and Mules .....	20	0.10	-	-	20	0.10
Camels .....	-	-	-	-	-	-
Poultry .....	*	*	*	*	*	*
Total Afflicted .....	114,525	100	107,032	93.46	7,493	6.54
Cattle .....	20,660	18.04	18,365	16.04	2,296	2.00
Sheep .....	7,369	6.43	7,245	6.33	*	*
Goats .....	7,147	6.24	6,876	6.00	*	*
Horses,Asses, and Mules .....	101	0.09	*	*	32	0.03
Camels .....	*	*	*	*	-	-
Poultry .....	79,240	69.19	74,470	65.03	4,770	4.17
Total Treated .....	5,609	100	3,528	62.90	2,082	37.12
Cattle .....	4,223	75.29	2,477	44.16	1,746	31.13
Sheep .....	*	*	*	*	*	*
Goats .....	286	5.10	*	*	*	*
Horses,Asses, and Mules .....	15	0.27	-	-	15	0.27
Camels .....	-	-	-	-	-	-
Poultry .....	891	15.89	642	11.45	249	4.44
Total Died	88,182	100	82,749	93.84	5,433	6.16
Cattle .....	8,873	10.06	8,117	9.20	756	0.86
Sheep .....	2,498	2.83	2,402	2.72	*	*
Goats .....	5,272	5.98	5,051	5.73	*	*
Horses,Asses, and Mules .....	*	*	*	*	*	*
Camels .....	*	*	*	*	-	-
Poultry .....	71,476	81.06	67,127	76.12	4,349	4.93

SUMMARY TABLE VII.9: Animal Feed Practices for Rural and Urban Holdings

Item	Rural and Urban Holdings		Rural Holdings		Urban Holdings	
	Number Reporting	Percentage That Use:	Number Reporting	Percentage That Use:	Number Reporting	Percentage That Use:
Total		100		100		100
Green Fodder/Grazing .....	13,026	68.86	11,709	71.65	1,316	43.89
Crops Residue .....	2,732	4.09	2,652	4.47	80	0.72
Improved Feed .....	*	0.02	*	0.02	*	0.03
Hay .....	106	0.09	86	0.08	20	0.2
By-products .....	2,638	4.1	2,172	3.95	466	5.37
Others .....	9,173	22.84	7,573	19.82	1,600	49.8

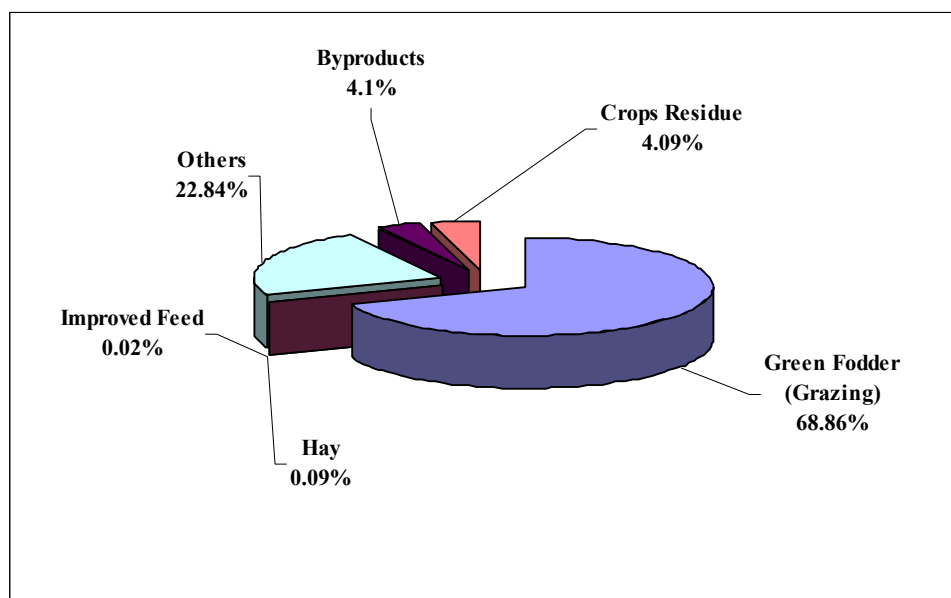


**FIGURE VII.11 DISTRIBUTION OF ANIMALS VACCINATED, AFFLICTED, TREATED AND DIED**



Note :- Draught Animals refer to horses , asses and mules.

**FIGURE VII.12 ANIMAL FEED PRACTICES OF HOLDERS**



Data on these parameters specifically on number of vaccinated, afflicted, treated and dead animals were therefore collected and the results are shown in Summary Table VII.8. The estimated number of vaccinated animals within the reference period in rural and urban areas of Gambela Region is about 19,126. Out of these animals, about 91.6 percent were cattle followed by goats, which took only 3.7 percent share.

In the same table, it is indicated that about 114,525 animals were diseased/afflicted by different types of diseases during the reference period and only 5,609 of them were treated. Cattle constituted about 75.3 percent of the total treated animals.

According to the census data, animals were dead in the region due to diseases of which 81 percent was poultry. In addition, the estimated numbers of dead cattle and dead goats in the region are about 8,873 and 5,272 respectively. (See Summary Table VII.8).

If we take a look at the zonal results to see the distributions among the zones, 54.3 percent of the total vaccinated-animals are reported in zone 1. The rest 45.7 percent are found in zone 2. Regarding diseased animals, the majorities are accounted for zone 2. Similar distribution patterns are also observed for treated and dead animals.

## **6. ANIMAL FEED**

Data on animal feed practices of holders in both the rural and urban areas of the region were gathered to assess feed utilization experience. For the purpose of this report, animal feeds are classified as green fodder (grazing), crop residue, improved feed, hay, industrial byproducts, and other feeds. *Green fodder* is simply pasture grasses; *crop residue* includes harvested byproducts (straw and chaff of cereals and pulses, etc.); *improved feed* is like alfalfa; *hay* includes any type of grass, clover etc. cut and dried as fodder; and finally industrial *byproducts* are like oil cake (rapeseed cake, nueg cake, sunflower cake, etc.), bran, and brewery residue.

According to the information collected on feed usage experience of holders in rural and urban areas of the region, green fodder or grazing is the major type of feed about 68.9 percent. Moreover, 22.8 percent of other types of feed, small amount of byproducts 4.1 percent, crops residue about 4 percent, and hay about 0.1 percent were used as animal feed.

Summary Table VII.9 also highlights the number of holders reported each type of feed. According to the data, about 13,026 holders have used green fodder or grazing to feed their animals. Moreover, about 9,173, 2,732 and 2,638 holders both in rural and urban areas of the region reported that they used others type of feed, crops residue and byproducts for their animals, respectively.

## **STATISTICAL TABLES**

**TABLE 7.1 - TABLE 7.36**

TABLE 7-1: NUMBER OF LIVESTOCK BY TYPE OF ANIMAL, REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	ALL LIVESTOCK								
	CATTLE	SHEEP	GOATS	HORSES	ASSES	MULES	CAMELS	POULTRY	BEEHIVES
Gambela	126,198	43,746	49,076	338	264	*	*	237,930	59,222
Zone 1	106,222	35,404	37,542	-	117	-	-	120,154	*
Jikawo	79,024	30,740	30,594	-	-	-	-	55,188	*
Itang	19,887	4,362	5,461	-	54	-	-	39,398	*
Gambela	7,311	302	1,487	-	64	-	-	25,568	*
Zone 2	19,977	8,342	11,534	338	147	*	*	117,776	54,558
Abobo	1,845	197	2,686	-	-	-	-	29,218	1,614
Jor	3,072	1,842	3,309	-	-	-	-	8,533	*
Gog	2,077	1,063	4,121	-	-	-	-	31,140	1,315
Godare	12,840	5,239	1,384	338	146	-	-	45,728	50,463
Dima	141	-	35	-	*	*	*	3,157	1,166

b) Rural Holdings

Geographic Areas	ALL LIVESTOCK								
	CATTLE	SHEEP	GOATS	HORSES	ASSES	MULES	CAMELS	POULTRY	BEEHIVES
Gambela	116,074	42,753	46,735	333	199	-	-	220,430	58,625
Zone 1	97,590	34,602	35,598	-	54	-	-	106,622	*
Jikawo	79,024	30,740	30,594	-	-	-	-	55,188	*
Itang	15,055	3,679	4,115	-	54	-	-	33,979	*
Gambela	3,512	*	889	-	-	-	-	17,454	*
Zone 2	18,484	8,151	11,137	333	146	-	-	113,808	53,996
Abobo	1,845	197	2,686	-	-	-	-	29,218	1,614
Jor	3,072	1,842	3,309	-	-	-	-	8,533	*
Gog	1,632	1,003	4,086	-	-	-	-	29,445	1,315
Godare	11,915	5,110	1,033	333	146	-	-	43,802	49,931
Dima	*	-	23	-	-	-	-	2,810	1,136

c) Urban Holdings

Geographic Areas	ALL LIVESTOCK								
	CATTLE	SHEEP	GOATS	HORSES	ASSES	MULES	CAMELS	POULTRY	BEEHIVES
Gambela	10,124	993	2,341	*	65	*	*	17,501	*
Zone 1	8,632	802	1,944	-	64	-	-	13,533	*
Itang	4,832	683	1,346	-	-	-	-	5,419	*
Gambela	3,799	119	598	-	64	-	-	8,114	*
Zone 2	1,493	190	397	*	*	*	*	3,968	*
Gog	*	*	*	-	-	-	-	1,695	*
Godare	925	129	351	*	-	-	-	1,926	*
Dima	122	-	12	-	*	*	*	347	*

TABLE 7-2: NUMBER OF CATTLE BY AGE AND SEX OF ANIMAL, REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	CATTLE										
	ALL CATTLE	MALE					FEMALE				
		< 6 Months	6 Mo < 1yr	1 - <3 yrs	3yrs - <10 yrs	10 yrs &Over	< 6 Months	6 Mo < 1yr	1 - <3 yrs	3yrs - <10 yrs	10 yrs &Over
Gambela	126,198	10,236	8,161	9,105	8,936	303	11,361	8,976	15,413	52,138	1,570
Zone 1	106,222	8,183	6,910	7,479	7,565	278	9,453	7,743	13,050	44,139	1,422
Jikawo	79,024	5,957	5,209	5,913	5,400	*	6,523	5,491	10,443	33,434	*
Itang	19,887	1,650	1,216	1,053	1,497	128	2,237	1,703	2,061	7,522	822
Gambela	7,311	577	486	513	667	*	693	548	547	3,183	*
Zone 2	19,977	2,052	1,251	1,626	1,372	*	1,908	1,233	2,362	7,999	148
Abobo	1,845	59	78	368	674	-	108	*	126	382	*
Jor	3,072	378	140	106	156	-	295	*	405	1,369	*
Gog	2,077	164	161	197	154	*	210	122	202	855	*
Godare	12,840	1,435	864	947	371	*	1,285	853	1,612	5,331	123
Dima	141	15	*	9	*	-	11	*	17	63	-

b) Rural Holdings

Geographic Areas	CATTLE										
	ALL CATTLE	MALE					FEMALE				
		< 6 Months	6 Mo < 1yr	1 - <3 yrs	3yrs - <10 yrs	10 yrs &Over	< 6 Months	6 Mo < 1yr	1 - <3 yrs	3yrs - <10 yrs	10 yrs &Over
Gambela	116,074	9,348	7,553	8,547	7,906	272	10,17	8,280	14,638	47,825	1,527
Zone 1	97,590	7,467	6,401	7,011	6,588	246	8,438	7,132	12,523	40,391	1,392
Jikawo	79,024	5,957	5,209	5,913	5,400	*	6,523	5,491	10,443	33,434	*
Itang	15,055	1,248	943	873	904	101	1,590	1,371	1,761	5,443	822
Gambela	3,512	262	250	225	283	*	326	269	319	1,514	*
Zone 2	18,484	1,881	1,152	1,536	1,318	*	1,739	1,149	2,115	7,434	134
Abobo	1,845	59	78	368	674	-	108	*	126	382	*
Jor	3,072	378	140	106	156	-	295	*	405	1,369	*
Gog	1,632	116	121	163	136	*	168	96	142	677	*
Godare	11,915	1,325	813	897	349	*	1,169	798	1,438	4,998	110
Dima	*	*	-	*	*	-	-	-	*	*	-

c) Urban Holdings

Geographic Areas	CATTLE										
	ALL CATTLE	MALE					FEMALE				
		< 6 Months	6 Mo < 1yr	1 - <3 yrs	3yrs - <10 yrs	10 yrs &Over	< 6 Months	6 Mo < 1yr	1 - <3 yrs	3yrs - <10 yrs	10 yrs &Over
Gambela	10,124	888	608	558	1,030	*	1,184	695	774	4,313	43
Zone 1	8,632	716	509	468	977	*	1,015	611	527	3,747	30
Itang	4,832	401	273	180	593	*	647	332	300	2,079	-
Gambela	3,799	315	236	288	384	*	367	279	227	1,669	30
Zone 2	1,493	172	98	90	53	-	169	84	247	565	*
Gog	*	*	*	*	*	-	*	*	*	*	-
Godare	925	110	51	50	*	-	116	55	174	333	*
Dima	122	13	*	*	*	-	11	*	14	55	-

a) Both Rural and Urban Holdings

[illegible]

## b) Rural Holdings

[illegible]

### c) Urban Holdings

[illegible]

TABLE 7-4: NUMBER OF GOATS BY AGE AND SEX OF ANIMAL, REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	GOATS								
	ALL Goats	MALE				FEMALE			
		< 6 Months	6 Mo < 1yr	1 - <2 yrs	2 yrs &Over	< 6 Months	6 Mo < 1yr	1 - <2 yrs	2 yrs &Over
Gambela	49,076	6,464	1,385	1,396	1,249	7,923	6,978	7,274	16,406
Zone 1	37,542	5,407	775	891	800	6,095	5,354	5,722	12,498
Jikawo	30,594	4,489	507	563	439	5,077	4,645	4,839	10,035
Itang	5,461	689	213	236	276	781	550	678	2,039
Gambela	1,487	229	55	93	86	238	159	205	424
Zone 2	11,534	1,058	611	505	448	1,828	1,624	1,553	3,909
Abobo	2,686	244	176	103	*	331	546	543	661
Jor	3,309	288	*	106	*	434	396	318	1,571
Gog	4,121	382	195	244	198	683	610	567	1,241
Godare	1,384	143	151	*	*	375	66	123	426
Dima	35	*	*	-	*	*	*	*	10

b) Rural Holdings

Geographic Areas	GOATS								
	ALL Goats	MALE				FEMALE			
		< 6 Months	6 Mo < 1yr	1 - <2 yrs	2 yrs &Over	< 6 Months	6 Mo < 1yr	1 - <2 yrs	2 yrs &Over
Gambela	46,735	6,171	1,290	1,327	1,070	7,573	6,776	7,100	15,428
Zone 1	35,598	5,157	713	833	627	5,830	5,218	5,582	11,638
Jikawo	30,594	4,489	507	563	439	5,077	4,645	4,839	10,035
Itang	4,115	516	176	209	154	607	472	614	1,367
Gambela	889	151	*	*	*	147	101	*	235
Zone 2	11,137	1,014	577	494	443	1,743	1,557	1,518	3,791
Abobo	2,686	244	176	103	*	331	546	543	661
Jor	3,309	288	*	106	*	434	396	318	1,571
Gog	4,086	382	186	244	198	678	602	567	1,228
Godare	1,033	*	128	*	*	299	*	*	324
Dima	23	*	*	-	*	-	*	*	*

c) Urban Holdings

Geographic Areas	GOATS								
	ALL Goats	MALE				FEMALES			
		< 6 Months	6 Mo < 1yr	1 - <2 yrs	2 yrs &Over	< 6 Months	6 Mo < 1yr	1 - <2 yrs	2 yrs &Over
Gambela	2,341	294	95	69	179	350	202	174	978
Zone 1	1,944	250	*	*	174	265	136	140	860
Itang	1,346	173	*	*	*	174	*	*	*
Gambela	598	77	24	31	52	91	*	76	188
Zone 2	397	*	33	*	*	85	66	34	118
Gog	*	-	*	-	-	*	*	-	*
Godare	351	*	23	*	*	76	56	34	102
Dima	12	-	*	-	-	*	*	-	*



TABLE 7-5: NUMBER OF HORSES AND ASSES BY AGE AND SEX OF ANIMAL, REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

HORSES AND ASSES										
Geographic Areas	ALL HORSES	HORSES				ALL ASSES	ASSES			
		MALE		FEMALE			MALE		FEMALE	
		< 3 Years	3 Yrs & more	< 3 Years	3 Yrs & more		< 3 Years	3 Yrs & more	< 3 Years	3 Yrs & more
Gambela	338		338			264	*	198	-	59
Zone 1						117	*	51		59
Jikawo										-
Itang						54				54
Gambela						64	*	51		*
Zone 2	338		338			147		147		-
Abobo										-
Jor										-
Gog										-
Godare	338		338			146		146		-
Dima						*		*		-

b) Rural Holdings

7) Rural Holdings

Geographic Areas	HORSES AND ASSES									
	ALL HORSES	HORSES				ALL ASSES	ASSES			
		MALE		FEMALE			MALE		FEMALE	
		< 3 Years	3 Yrs & more	< 3 Years	3 Yrs & more		< 3 Years	3 Yrs & more	< 3 Years	3 Yrs & more
Gambela	333		333			199		146		54
Zone 1						54				54
Jikawo										
Itang						54				54
Gambela										
Zone 2	333		333			146		146		
Abobo										
Jor										
Gog										
Godare	333		333			146		146		
Dima										

c) Urban Holdings

Geographic Areas	HORSES AND ASSES									
		HORSES				ALL ASSES	ASSES			
		MALE		FEMALE			MALE		FEMALE	
		< 3 Years	3 Yrs & more	< 3 Years	3 Yrs & more		< 3 Years	3 Yrs & more	< 3 Years	3 Yrs & more
Gambela	*	-	*	-	-	65	*	52	-	*
Zone 1	-	-	-	-	-	64	*	51	-	*
Itang	-	-	-	-	-	-	-	-	-	-
Gambela	-	-	-	-	-	64	*	51	-	*
Zone 2	*	-	*	-	-	*	-	*	-	-
Gog	-	-	-	-	-	-	-	-	-	-
Godare	*	-	*	-	-	-	-	-	-	-
Dima	-	-	-	-	-	*	-	*	-	-

TABLE 7-6: NUMBER OF MULES AND CAMELS BY AGE AND SEX OF ANIMAL BY REGION, ZONE, AND WEREDA

a) Both rural and Urban Holdings

Geographic Areas	MULES					CAMELS				
	All Mules	MALE		FEMALE		All Camels	MALE		FEMALE	
		< 3 Years	3 Years and Older	< 3 Years	3 Years and Older		< 4 Years	4 Years and Older	< 4 Years	4 Years and Older
Gambela	*		*		*	*		*		
Zone 1										
Jikawo										
Itang										
Gambela										
Zone 2	*		*		*	*		*		
Abobo										
Jor										
Gog										
Godare										
Dima	*		*		*	*		*		

b) Rural Holdings

Geographic Areas	MULES					CAMELS				
	All Mules	MALE		FEMALE		All Camels	MALE		FEMALE	
		< 3 Years	3 Years and Older	< 3 Years	3 Years and Older		< 4 Years	4Years and Older	< 4 Years	4 Years and Older
Gambela										
Zone 1										
Jikawo										
Itang										
Gambela										
Zone 2										
Abobo										
Jor										
Gog										
Godare										
Dima										

c) Urban Holdings

Geographic Areas	MULES					CAMELS				
	All Mules	MALE		FEMALE		All Camels	MALE		FEMALE	
		< 3 Years	3 Years and Older	< 3 Years	3 Years and Older		< 4 Years	4 Years and Older	< 4 Years	4 Years and Older
Gambela	*		*		*	*		*		
Zone 1										
Itang										
Gambela										
Zone 2	*		*		*	*		*		
Gog										
Godare										
Dima	*		*		*	*		*		

TABLE 7-7: CATTLE AGED 3 – 10 YEARS BY SEX AND PURPOSE, REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	CATTLE AGED 3 – 10 YEARS									
	Total	MALE				FEMALE				
		Draught	Beef	Breeding	Other	Milk	Draught	Beef	Breeding	Other
Gambela	61,074	1,198	5,070	2,470	199	40,905	*	809	9,306	1,095
Zone 1	51,703	236	4,987	2,172	169	34,137	*	756	8,201	1,028
Jikawo	38,835	-	4,400	854	146	26,245	-	578	6,024	588
Itang	9,018	-	456	1,024	*	5,692	*	145	1,261	413
Gambela	3,850	236	131	294	*	2,200	*	*	916	*
Zone 2	9,371	962	*	297	*	6,768	*	*	1,105	*
Abobo	1,056	627	*	*	*	239	-	-	142	-
Jor	1,525	-	-	156	-	774	-	*	583	-
Gog	1,008	*	*	63	*	691	-	*	*	*
Godare	5,702	297	*	*	*	5,016	*	*	225	*
Dima	79	*	*	*	-	47	-	-	15	-

b) Rural Holdings

Geographic Areas	CATTLE AGED 3 – 10 YEARS									
	Total	MALE				FEMALE				
		Draught	Beef	Breeding	Other	Milk	Draught	Beef	Breeding	Other
Gambela	55,731	982	4,885	1,852	187	37,401	*	801	8,946	662
Zone 1	46,979	*	4,813	1,584	163	31,131	*	756	7,898	595
Jikawo	38,835	-	4,400	854	146	26,245	-	578	6,024	588
Itang	6,347	-	335	552	*	4,032	*	145	1,248	*
Gambela	1,797	*	*	177	-	854	-	*	627	-
Zone 2	8,752	954	*	268	*	6,270	*	*	1,047	*
Abobo	1,056	627	*	*	*	239	-	-	142	-
Jor	1,525	-	-	156	-	774	-	*	583	-
Gog	814	*	*	45	*	535	-	*	*	*
Godare	5,347	292	*	*	-	4,719	*	*	195	*
Dima	*	*	-	-	-	*	-	-	*	-

c) Urban Holdings

Geographic Areas	CATTLE AGED 3 – 10 YEARS									
	Total	MALE				FEMALE				
		Draught	Beef	Breeding	Other	Milk	Draught	Beef	Breeding	Other
Gambela	5,343	216	*	618	*	3,504	*	*	361	433
Zone 1	4,724	208	*	589	*	3,006	*	-	302	433
Itang	2,672	-	*	471	-	1,660	-	-	*	405
Gambela	2,053	208	53	117	*	1,346	*	-	289	*
Zone 2	618	*	*	29	*	499	-	*	58	-
Gog	*	-	-	*	-	156	-	*	*	-
Godare	356	*	*	*	*	298	-	*	31	-
Dima	68	*	*	*	-	45	-	-	*	-

a) Both Rural and Urban Holdings

[illegible]

## b) Rural Holdings

[illegible]

### c) Urban Holdings

[illegible]

TABLE 7-9: GOATS AGED 2 AND OLDER BY SEX AND PURPOSE, REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	GOATS AGED 2 AND OLDER							
	Total	MALES			FEMALES			
		Meat	Breeding	Other	Meat	Milk	Breeding	Other
Gambela	17,655	352	855	*	115	5,783	10,447	61
Zone 1	13,298	312	485	*	*	5,418	6,963	*
Jikawo	10,474	206	233	-	*	4,568	5,365	*
Itang	2,315	75	197	*	*	724	1,300	*
Gambela	509	*	54	-	-	126	298	-
Zone 2	4,357	*	371	*	*	365	3,485	*
Abobo	743	-	*	*	-	*	615	-
Jor	1,689	-	*	-	-	*	1,361	*
Gog	1,439	*	192	-	*	129	1,093	-
Godare	474	*	-	*	*	-	407	-
Dima	11	-	*	-	-	-	10	-

b) Rural Holdings

Geographic Areas	GOATS AGED 2 AND OLDER							
	Total	MALES			FEMALES			
		Meat	Breeding	Other	Meat	Milk	Breeding	Other
Gambela	16,498	309	719	*	110	5,505	9,753	61
Zone 1	12,264	275	348	*	*	5,140	6,380	*
Jikawo	10,474	206	233	-	*	4,568	5,365	*
Itang	1,521	58	92	*	*	509	843	*
Gambela	269	*	*	-	-	*	172	-
Zone 2	4,233	*	371	*	*	365	3,372	*
Abobo	743	-	*	*	-	*	615	-
Jor	1,689	-	*	-	-	*	1,361	*
Gog	1,426	*	192	-	*	129	1,080	-
Godare	367	*	-	*	*	-	310	-
Dima	*	-	*	-	-	-	*	-

c) Urban Holdings

Geographic Areas	GOATS AGED 2 AND OLDER							
	Total	MALES			FEMALES			
		Meat	Breeding	Other	Meat	Milk	Breeding	Other
Gambela	1,157	*	136	-	*	278	695	-
Zone 1	1,034	*	136	-	-	278	*	-
Itang	794	*	*	-	-	216	*	-
Gambela	240	*	*	-	-	*	126	-
Zone 2	124	*	-	-	*	-	112	-
Gog	*	-	-	-	-	-	*	-
Godare	108	*	-	-	*	-	96	-
Dima	*	-	-	-	-	-	*	-

TABLE 7-10: HORSES BY SEX AND PURPOSE, REGION, ZONE, AND WEREDA

## a) Both Rural and Urban Holdings

Geographic Areas	HORSES AGED 3 AND OLDER						
	Total	MALES			FEMALES		
		Transportation	Draught	Other	Transportation	Draught	Other
Gambela	338	338	-	-	-	-	-
Zone 1	-	-	-	-	-	-	-
Jikawo	-	-	-	-	-	-	-
Itang	-	-	-	-	-	-	-
Gambela	-	-	-	-	-	-	-
Zone 2	338	338	-	-	-	-	-
Abobo	-	-	-	-	-	-	-
Jor	-	-	-	-	-	-	-
Gog	-	-	-	-	-	-	-
Godare	338	338	-	-	-	-	-
Dima	-	-	-	-	-	-	-

## b) Rural Holdings

Geographic Areas	HORSES AGED 3 AND OLDER						
	TOTAL	MALES			FEMALES		
		Transportation	Draught	Other	Transportation	Draught	Other
Gambela	333	333	-	-	-	-	-
Zone 1	-	-	-	-	-	-	-
Jikawo	-	-	-	-	-	-	-
Itang	-	-	-	-	-	-	-
Gambela	-	-	-	-	-	-	-
Zone 2	333	333	-	-	-	-	-
Abobo	-	-	-	-	-	-	-
Jor	-	-	-	-	-	-	-
Gog	-	-	-	-	-	-	-
Godare	333	333	-	-	-	-	-
Dima	-	-	-	-	-	-	-

## c) Urban Holdings

Geographic Areas	HORSES AGED 3 AND OLDER						
	TOTAL	MALES			FEMALES		
		Transportation	Draught	Other	Transportation	Draught	Other
Gambela	*	*	-	-	-	-	-
Zone 1	-	-	-	-	-	-	-
Itang	-	-	-	-	-	-	-
Gambela	-	-	-	-	-	-	-
Zone 2	*	*	-	-	-	-	-
Gog	-	-	-	-	-	-	-
Godare	*	*	-	-	-	-	-
Dima	-	-	-	-	-	-	-

TABLE 7-11: ASSES AGED 3 YEARS AND OVER BY SEX AND PURPOSE, REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	ASSES AGED 3 YEARS AND OLDER						
	TOTAL	MALES			FEMALES		
		Transportation	Draught	Other	Transportation	Draught	Other
Gambela	256	198	-	-	54	*	-
Zone 1	109	51	-	-	54	*	-
Jikawo	-	-	-	-	-	-	-
Itang	54	-	-	-	54	-	-
Gambela	56	51	-	-	-	*	-
Zone 2	147	147	-	-	-	-	-
Abobo	-	-	-	-	-	-	-
Jor	-	-	-	-	-	-	-
Gog	-	-	-	-	-	-	-
Godare	146	146	-	-	-	-	-
Dima	*	*	-	-	-	-	-

b) Rural Holdings

Geographic Areas	ASSES AGED 3 YEARS AND OLDER						
	TOTAL	MALES			FEMALES		
		Transportation	Draught	Other	Transportation	Draught	Other
Gambela	199	146	-	-	54	-	-
Zone 1	54	-	-	-	54	-	-
Jikawo	-	-	-	-	-	-	-
Itang	54	-	-	-	54	-	-
Gambela	-	-	-	-	-	-	-
Zone 2	146	146	-	-	-	-	-
Abobo	-	-	-	-	-	-	-
Jor	-	-	-	-	-	-	-
Gog	-	-	-	-	-	-	-
Godare	146	146	-	-	-	-	-
Dima	-	-	-	-	-	-	-

c) Urban Holdings

Geographic Areas	ASSES AGED 3 YEARS AND OLDER						
	TOTAL	MALES			FEMALES		
		Transportation	Draught	Other	Transportation	Draught	Other
Gambela	57	52	-	-	-	*	-
Zone 1	56	51	-	-	-	*	-
Itang	-	-	-	-	-	-	-
Gambela	56	51	-	-	-	*	-
Zone 2	*	*	-	-	-	-	-
Gog	-	-	-	-	-	-	-
Godare	-	-	-	-	-	-	-
Dima	*	*	-	-	-	-	-

TABLE 7-12: MULES AGED 3 YEARS AND ABOVE BY SEX AND PURPOSE, REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	MULES AGED 3 YEARS AND OLDER						
	TOTAL	MALES			FEMALES		
		Transportation	Draught	Other	Transportation	Draught	Other
Gambela	*	*			*		
Zone 1	-	-	-	-	-	-	-
Jikawo	-	-	-	-	-	-	-
Itang	-	-	-	-	-	-	-
Gambela	-	-	-	-	-	-	-
Zone 2	*	*			*		
Abobo	-	-	-	-	-	-	-
Jor	-	-	-	-	-	-	-
Gog	-	-	-	-	-	-	-
Godare	-	-	-	-	-	-	-
Dima	*	*			*		

b) Rural Holdings

Geographic Areas	MULES AGED 3 YEARS AND OLDER						
	TOTAL	MALES			FEMALES		
		Transportation	Draught	Other	Transportation	Draught	Other
Gambela	-	-	-	-	-	-	-
Zone 1	-	-	-	-	-	-	-
Jikawo	-	-	-	-	-	-	-
Itang	-	-	-	-	-	-	-
Gambela	-	-	-	-	-	-	-
Zone 2	-	-	-	-	-	-	-
Abobo	-	-	-	-	-	-	-
Jor	-	-	-	-	-	-	-
Gog	-	-	-	-	-	-	-
Godare	-	-	-	-	-	-	-
Dima	-	-	-	-	-	-	-

c) Urban Holdings

Geographic Areas	MULES AGED 3 YEARS AND OLDER						
	TOTAL	MALES			FEMALES		
		Transportation	Draught	Other	Transportation	Draught	Other
Gambela	*	*			*		
Zone 1	-	-	-	-	-	-	-
Itang	-	-	-	-	-	-	-
Gambela	-	-	-	-	-	-	-
Zone 2	*	*			*		
Gog	-	-	-	-	-	-	-
Godare	-	-	-	-	-	-	-
Dima	*	*			*		



TABLE 7-13: CAMELS BY SEX AND PURPOSE, REGION, ZONE, AND WEREDA

## a) Both Rural and Urban Holdings

Geographic Areas	CAMELS AGED 4 YEARS AND OLDER									
	TOTAL	MALES				FEMALES				
		Meat	Draught	Transportation	Other	Meat	Draught	Milk	Transportation	Other
Gambela	*	-	-	-	*	-	-	-	-	-
Zone 1	-	-	-	-	-	-	-	-	-	-
Jikawo	-	-	-	-	-	-	-	-	-	-
Itang	-	-	-	-	-	-	-	-	-	-
Gambela	-	-	-	-	-	-	-	-	-	-
Zone 2	*	-	-	-	*	-	-	-	-	-
Abobo	-	-	-	-	-	-	-	-	-	-
Jor	-	-	-	-	-	-	-	-	-	-
Gog	-	-	-	-	-	-	-	-	-	-
Godare	-	-	-	-	-	-	-	-	-	-
Dima	*	-	-	-	*	-	-	-	-	-

## b) Rural Holdings

Geographic Areas	CAMELS AGED 4 YEARS AND OLDER									
	TOTAL	MALES				FEMALES				
		Meat	Draught	Transportation	Other	Meat	Draught	Milk	Transportation	Other
Gambela	-	-	-	-	-	-	-	-	-	-
Zone 1	-	-	-	-	-	-	-	-	-	-
Jikawo	-	-	-	-	-	-	-	-	-	-
Itang	-	-	-	-	-	-	-	-	-	-
Gambela	-	-	-	-	-	-	-	-	-	-
Zone 2	-	-	-	-	-	-	-	-	-	-
Abobo	-	-	-	-	-	-	-	-	-	-
Jor	-	-	-	-	-	-	-	-	-	-
Gog	-	-	-	-	-	-	-	-	-	-
Godare	-	-	-	-	-	-	-	-	-	-
Dima	-	-	-	-	-	-	-	-	-	-

## c) Urban Holdings

Geographic Areas	CAMELS AGED 4 YEARS AND OLDER									
	TOTAL	MALES				FEMALES				
		Meat	Draught	Transportation	Other	Meat	Draught	Milk	Transportation	Other
Gambela	*	-	-	-	*	-	-	-	-	-
Zone 1	-	-	-	-	-	-	-	-	-	-
Itang	-	-	-	-	-	-	-	-	-	-
Gambela	-	-	-	-	-	-	-	-	-	-
Zone 2	*	-	-	-	*	-	-	-	-	-
Gog	-	-	-	-	-	-	-	-	-	-
Godare	-	-	-	-	-	-	-	-	-	-
Dima	*	-	-	-	*	-	-	-	-	-

TABLE 7-14: POULTRY INVENTORY BY REGION, ZONE, AND WEREDA

## a) Both Rural and Urban Holdings

Geographic Areas	Total Poultry	Cocks	Cockerels	Pullets	Non-Laying Hens	Chicks	Laying Hens	Avg. Number of Clutches	Avg. Egg Production/Hen/Clutch
Gambela	237,930	32,230	24,970	32,763	17,058	74,123	56,787	16	12
Zone 1	120,154	19,880	13,472	16,508	10,118	28,389	31,787	17	13
Jikawo	55,188	10,416	6,122	6,733	4,744	10,547	16,628	20	13
Itang	39,398	6,089	4,202	5,259	3,229	10,910	9,709	14	12
Gambela	25,568	3,376	3,149	4,517	2,145	6,932	5,450	15	12
Zone 2	117,776	12,349	11,498	16,254	6,940	45,735	24,999	15	12
Abobo	29,218	3,110	3,152	4,428	1,061	11,487	5,979	17	13
Jor	8,533	1,059	1,083	1,434	520	2,589	1,848	12	10
Gog	31,140	3,479	3,419	4,596	2,406	10,966	6,275	13	12
Godare	45,728	4,185	3,512	5,370	2,610	19,941	10,108	16	12
Dima	3,157	516	332	426	342	752	790	14	11

## b) Rural Holdings

Geographic Areas	Total Poultry	Cocks	Cockerels	Pullets	Non-Laying Hens	Chicks	Laying Hens	Avg. Number of Clutches	Avg. Egg Production/Hen/Clutch
Gambela	220,430	29,381	23,324	30,193	16,258	68,998	52,276	16	12
Zone 1	106,622	17,546	12,071	14,417	9,462	24,761	28,365	18	13
Jikawo	55,188	10,416	6,122	6,733	4,744	10,547	16,628	20	13
Itang	33,979	4,994	3,657	4,561	2,998	9,526	8,243	14	13
Gambela	17,454	2,137	2,292	3,123	1,720	4,689	3,494	15	12
Zone 2	113,808	11,835	11,254	15,775	6,796	44,236	23,912	15	12
Abobo	29,218	3,110	3,152	4,428	1,061	11,487	5,979	17	13
Jor	8,533	1,059	1,083	1,434	520	2,589	1,848	12	10
Gog	29,445	3,199	3,304	4,415	2,330	10,392	5,805	13	12
Godare	43,802	4,009	3,413	5,112	2,544	19,113	9,611	16	12
Dima	2,810	458	302	386	340	656	669	14	11

## c) Urban Holdings

Geographic Areas	Total Poultry	Cocks	Cockerels	Pullets	Non-Laying Hens	Chicks	Laying Hens	Avg. Number of Clutches	Avg. Egg Production/Hen/Clutch
Gambela	17,501	2,849	1,646	2,570	800	5,126	4,510	14	11
Zone 1	13,533	2,334	1,401	2,091	656	3,627	3,423	14	11
Itang	5,419	1,095	545	698	232	1,384	1,466	13	12
Gambela	8,114	1,239	857	1,394	425	2,243	1,957	14	11
Zone 2	3,968	515	245	479	144	1,499	1,088	16	11
Gog	1,695	280	115	180	76	574	470	14	9
Godare	1,926	176	100	259	66	829	497	17	12
Dima	347	58	30	40	*	96	121	16	11

TABLE 7-15: BEEHIVE INVENTORY AND PRODUCTION OF HONEY BY REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	All Beehives		Traditional Beehives			Intermediate Beehives			Modern Beehives		
	Number of hives	Total annual honey production	Number of hives	Avg. frequency of production	Total annual honey production	Number of hives	Avg. frequency of production	Total annual honey production	Number of hives	Avg. frequency of production	Total annual honey production
Gambela	59,222	1,388,326	58,625	3	1,388,326	-	-	-	-	-	-
Zone 1	*	*	*	3	*	-	-	-	-	-	-
Jikawo	-	-	-	-	-	-	-	-	-	-	-
Itang	*	*	*	2	*	-	-	-	-	-	-
Gambela	*	*	*	3	*	-	-	-	-	-	-
Zone 2	54,558	1,310,763	53,996	3	1,310,763	-	-	-	-	-	-
Abobo	1,614	30,984	1,614	2	30,984	-	-	-	-	-	-
Jor	-	-	-	-	-	-	-	-	-	-	-
Gog	1,315	31,315	1,315	2	31,315	-	-	-	-	-	-
Godare	50,463	1,224,475	49,931	3	1,224,475	-	-	-	-	-	-
Dima	1,166	23,990	1,136	3	23,990	-	-	-	-	-	-

b) Rural Holdings

Geographic Areas	All Beehives		Traditional Beehives			Intermediate Beehives			Modern Beehives		
	Number of hives	Total annual honey production	Number of hives	Avg. frequency of production	Total annual honey production	Number of hives	Avg. frequency of production	Total annual honey production	Number of hives	Avg. frequency of production	Total annual honey production
Gambela	58,625	1,388,326	58,625	3	1,388,326	-	-	-	-	-	-
Zone 1	*	*	*	3	*	-	-	-	-	-	-
Jikawo	-	-	-	-	-	-	-	-	-	-	-
Itang	*	*	*	2	*	-	-	-	-	-	-
Gambela	*	*	*	3	*	-	-	-	-	-	-
Zone 2	53,996	1,310,763	53,996	3	1,310,763	-	-	-	-	-	-
Abobo	1,614	30,984	1,614	2	30,984	-	-	-	-	-	-
Jor	-	-	-	-	-	-	-	-	-	-	-
Gog	1,315	31,315	1,315	2	31,315	-	-	-	-	-	-
Godare	49,931	1,224,475	49,931	3	1,224,475	-	-	-	-	-	-
Dima	1,136	23,990	1,136	3	23,990	-	-	-	-	-	-

c) Urban Holdings

Geographic Areas	All Beehives		Traditional Beehives			Intermediate Beehives			Modern Beehives		
	Number of hives	Total annual honey production	Number of hives	Avg. frequency of production	Total annual honey production	Number of hives	Avg. frequency of production	Total annual honey production	Number of hives	Avg. frequency of production	Total annual honey production
Gambela	*	-	-	-	-	*	3	-	-	-	-
Zone 1	*	-	-	-	-	*	-	-	-	-	-
Itang	-	-	-	-	-	-	-	-	-	-	-
Gambela	*	-	-	-	-	*	-	-	-	-	-
Zone 2	*	-	-	-	-	*	3	-	-	-	-
Gog	-	-	-	-	-	-	-	-	-	-	-
Godare	*	-	-	-	-	*	3	-	-	-	-
Dima	*	-	-	-	-	*	-	-	-	-	-

TABLE 7-16: NUMBER OF DAIRY ANIMALS, MILK PRODUCTION AND LACTATION PERIOD BY REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	Number Of Dairy Cows	Number Of Milking Cows	Average Daily Milk Prod.	Average Lactation Period (Mn)	Total Milk Production(Lt)	Number Of Dairy Camels	Number Of Milking Camels	Average Daily Milk Prod.	Average Lactation Period(Mn)	Total Milk Production (Lt)
Gambela	40,905	33,934	1.94	7	13,133,285	-	*	-	-	-
Zone 1	34,137	27,047	1.989	7	10,378,105	-	-	-	-	-
Jikawo	26,245	19,206	1.795	7	6,453,010	-	-	-	-	-
Itang	5,692	5,559	2.297	8	2,695,960	-	-	-	-	-
Gambela	2,200	2,282	2.659	7	1,229,135	-	-	-	-	-
Zone 2	6,768	6,888	1.861	7	2,755,179	-	*	-	-	-
Abobo	239	390	1.468	7	137,739	-	-	-	-	-
Jor	774	932	2.513	7	461,971	-	-	-	-	-
Gog	691	584	3.201	7	373,691	-	*	-	-	-
Godare	5,016	4,913	1.779	7	1,766,432	-	-	-	-	-
Dima	47	68	1.819	7	15,347	-	-	-	-	-

b) Rural Holdings

Geographic Areas	Number Of Dairy Cows	Number Of Milking Cows	Average Daily Milk Prod.	Average Lactation Period(Mn)	Total Milk Production(Lt)	Number Of Dairy Camels	Number Of Milking Camels	Average Daily Milk Producton	Average Lactation Period (Mn)	Total Milk Production (Lt)
Gambela	37,401	30,496	1.908	7	11,574,174	-	*	-	-	-
Zone 1	31,131	24,168	1.951	7	9,066,499	-	-	-	-	-
Jikawo	26,245	19,206	1.795	7	6,453,010	-	-	-	-	-
Itang	4,032	3,998	2.238	8	1,971,809	-	-	-	-	-
Gambela	854	964	3.124	8	641,679	-	-	-	-	-
Zone 2	6,270	6,328	1.841	7	2,507,675	-	*	-	-	-
Abobo	239	390	1.468	7	137,739	-	-	-	-	-
Jor	774	932	2.513	7	461,971	-	-	-	-	-
Gog	535	446	3.164	7	263,636	-	*	-	-	-
Godare	4,719	4,533	1.759	7	1,643,233	-	-	-	-	-
Dima	*	*	3.055	6	*	-	-	-	-	-

c) Urban Holdings

Geographic Areas	Number Of Dairy Cows	Number Of Milking Cows	Average Daily Milk Prod.	Average Lactation Period(Mn)	Total Milk Production(Lt)	Number Of Dairy Camels	Number Of Milking Camels	Average Daily Milk Prod.	Average Lactation Period (Mn)	Total Milk Production (Lt)
Gambela	3,504	3,438	2.293	7	1,559,111	-	-	-	-	-
Zone 1	3,006	2,878	2.329	7	1,311,607	-	-	-	-	-
Itang	1,660	1,560	2.476	6	724,151	-	-	-	-	-
Gambela	1,346	1,318	2.144	7	587,456	-	-	-	-	-
Zone 2	499	560	2.184	7	247,504	-	-	-	-	-
Gog	156	*	3.299	7	*	-	-	-	-	-
Godare	298	380	2.093	7	123,199	-	-	-	-	-
Dima	45	41	1.643	7	14,250	-	-	-	-	-

TABLE 7-17: NUMBER OF CATTLE BY SEX AND BREED, REGION, ZONE, AND WEREDA

## a) Both Rural and Urban Holdings

Geographic Areas	Total	MALE			FEMALE		
		Indigenous	Hybrid	Exotic	Indigenous	Hybrid	Exotic
Gambela	126,198	36,741	-	-	89,456	-	*
Zone 1	106,222	30,415	-	-	75,807	-	-
Jikawo	79,024	22,607	-	-	56,416	-	-
Itang	19,887	5,543	-	-	14,344	-	-
Gambela	7,311	2,265	-	-	5,047	-	-
Zone 2	19,977	6,326	-	-	13,649	-	*
Abobo	1,845	1,179	-	-	666	-	-
Jor	3,072	780	-	-	2,292	-	-
Gog	2,077	683	-	-	1,394	-	-
Godare	12,840	3,637	-	-	9,204	-	-
Dima	141	47	-	-	92	-	*

## b) Rural Holdings

Geographic Areas	Total	MALE			FEMALE		
		Indigenous	Hybrid	Exotic	Indigenous	Hybrid	Exotic
Gambela	116,074	33,626	-	-	82,446	-	*
Zone 1	97,590	27,714	-	-	69,877	-	-
Jikawo	79,024	22,607	-	-	56,416	-	-
Itang	15,055	4,068	-	-	10,986	-	-
Gambela	3,512	1,038	-	-	2,474	-	-
Zone 2	18,484	5,912	-	-	12,570	-	*
Abobo	1,845	1,179	-	-	666	-	-
Jor	3,072	780	-	-	2,292	-	-
Gog	1,632	542	-	-	1,090	-	-
Godare	11,915	3,403	-	-	8,513	-	-
Dima	*	*	-	-	*	-	*

## c) Urban Holdings

Geographic Areas	Total	MALE			FEMALE		
		Indigenous	Hybrid	Exotic	Indigenous	Hybrid	Exotic
Gambela	10,124	3,115	-	-	7,009	-	-
Zone 1	8,632	2,701	-	-	5,930	-	-
Itang	4,832	1,474	-	-	3,358	-	-
Gambela	3,799	1,227	-	-	2,573	-	-
Zone 2	1,493	414	-	-	1,079	-	-
Gog	*	*	-	-	*	-	-
Godare	925	234	-	-	691	-	-
Dima	122	39	-	-	83	-	-

TABLE 7-18: NUMBER OF SHEEP BY SEX AND BREED, REGION, ZONE, AND WEREDA

## a) Both Rural and Urban Holdings

Geographic Areas	Total	MALE			FEMALE		
		Indigenous	Hybrid	Exotic	Indigenous	Hybrid	Exotic
Gambela	43,746	9,078	-	*	34,650	-	-
Zone 1	35,404	6,626	-	-	28,778	-	-
Jikawo	30,740	5,219	-	-	25,521	-	-
Itang	4,362	1,301	-	-	3,061	-	-
Gambela	302	106	-	-	196	-	-
Zone 2	8,342	2,451	-	*	5,872	-	-
Abobo	197	93	-	*	87	-	-
Jor	1,842	473	-	-	1,369	-	-
Gog	1,063	254	-	-	810	-	-
Godare	5,239	1,632	-	-	3,607	-	-
Dima	-	-	-	-	-	-	-

## b) Rural Holdings

Geographic Areas	Total	MALE			FEMALE		
		Indigenous	Hybrid	Exotic	Indigenous	Hybrid	Exotic
Gambela	42,753	8,749	-	*	33,986	-	-
Zone 1	34,602	6,350	-	-	28,251	-	-
Jikawo	30,740	5,219	-	-	25,521	-	-
Itang	3,679	1,064	-	-	2,615	-	-
Gambela	*	*	-	-	*	-	-
Zone 2	8,151	2,399	-	*	5,735	-	-
Abobo	197	93	-	*	87	-	-
Jor	1,842	473	-	-	1,369	-	-
Gog	1,003	239	-	-	764	-	-
Godare	5,110	1,595	-	-	3,515	-	-
Dima	-	-	-	-	-	-	-

## c) Urban Holdings

Geographic Areas	Total	MALE			FEMALE		
		Indigenous	Hybrid	Exotic	Indigenous	Hybrid	Exotic
Gambela	993	328	-	-	664	-	-
Zone 1	802	276	-	-	526	-	-
Itang	683	237	-	-	446	-	-
Gambela	119	39	-	-	80	-	-
Zone 2	190	52	-	-	138	-	-
Gog	*	*	-	-	*	-	-
Godare	129	37	-	-	92	-	-
Dima	-	-	-	-	-	-	-

TABLE 7-19: NUMBER OF GOATS BY SEX AND BREED, REGION, ZONW, AND WEREDA

## a) Both Rural and Urban Holdings

Geographic Areas	Total	MALE			FEMALE		
		Indigenous	Hybrid	Exotic	Indigenous	Hybrid	Exotic
Gambela	49,076	10,494	-	-	38,582	-	-
Zone 1	37,542	7,873	-	-	29,669	-	-
Jikawo	30,594	5,998	-	-	24,596	-	-
Itang	5,461	1,414	-	-	4,047	-	-
Gambela	1,487	462	-	-	1,026	-	-
Zone 2	11,534	2,621	-	-	8,913	-	-
Abobo	2,686	605	-	-	2,081	-	-
Jor	3,309	590	-	-	2,719	-	-
Gog	4,121	1,019	-	-	3,102	-	-
Godare	1,384	394	-	-	990	-	-
Dima	35	*	-	-	22	-	-

## b) Rural Holdings

Geographic Areas	Total	MALE			FEMALE		
		Indigenous	Hybrid	Exotic	Indigenous	Hybrid	Exotic
Gambela	46,735	9,858	-	-	36,877	-	-
Zone 1	35,598	7,330	-	-	28,268	-	-
Jikawo	30,594	5,998	-	-	24,596	-	-
Itang	4,115	1,055	-	-	3,060	-	-
Gambela	889	277	-	-	613	-	-
Zone 2	11,137	2,528	-	-	8,609	-	-
Abobo	2,686	605	-	-	2,081	-	-
Jor	3,309	590	-	-	2,719	-	-
Gog	4,086	1,010	-	-	3,076	-	-
Godare	1,033	311	-	-	722	-	-
Dima	23	*	-	-	12	-	-

## c) Urban Holdings

Geographic Areas	Total	MALE			FEMALE		
		Indigenous	Hybrid	Exotic	Indigenous	Hybrid	Exotic
Gambela	2,341	637	-	-	1,705	-	-
Zone 1	1,944	543	-	-	1,401	-	-
Itang	1,346	359	-	-	987	-	-
Gambela	598	185	-	-	413	-	-
Zone 2	397	93	-	-	304	-	-
Gog	*	*	-	-	*	-	-
Godare	351	83	-	-	268	-	-
Dima	12	*	-	-	10	-	-

TABLE 7-20: ESTIMATED NUMBER OF LIVESTOCK VACCINATED BY REGION, ZONE, AND WEREDA

a) Both Urban Rural Holdings

Geographic Areas	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Gambela	17,518	374	698	20	-	*
Zone 1	9,327	*	395	20	-	*
Jikawo	*	-	-	-	-	*
Itang	5,166	*	70	-	-	*
Gambela	3,835	*	325	20	-	*
Zone 2	8,191	*	303	-	-	*
Abobo	1,209	*	*	-	-	-
Jor	*	-	-	-	-	*
Gog	1,711	*	*	-	-	-
Godare	4,357	*	*	-	-	*
Dima	*	-	-	-	-	-

b) Rural Holdings

Geographic Areas	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Gambela	12,120	*	397	-	-	*
Zone 1	4,855	*	*	-	-	*
Jikawo	*	-	-	-	-	*
Itang	3,436	*	*	-	-	*
Gambela	1,093	-	*	-	-	-
Zone 2	7,265	*	*	-	-	*
Abobo	1,209	*	*	-	-	-
Jor	*	-	-	-	-	*
Gog	1,364	*	*	-	-	-
Godare	3,792	*	-	-	-	*
Dima	-	-	-	-	-	-

c) Urban Holdings

Geographic Areas	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Gambela	5,398	*	301	20	-	*
Zone 1	4,472	*	265	20	-	*
Itang	1,730	*	*	-	-	*
Gambela	2,742	*	255	20	-	*
Zone 2	926	*	*	-	-	*
Gog	*	*	*	-	-	-
Godare	566	-	*	-	-	*
Dima	*	-	-	-	-	-



TABLE 7-21: ESTIMATED NUMBER OF LIVESTOCK AFFLICTED/DISEASED BY REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Gambela	20,660	7,369	7,147	101	*	79,240
Zone 1	16,571	6,325	5,001	36	*	23,061
Jikawo	12,707	5,935	3,449	*	-	7,416
Itang	2,277	314	1,261	*	*	8,582
Gambela	1,586	*	291	*	-	7,062
Zone 2	4,090	1,044	2,146	*	-	56,179
Abobo	1,418	*	*	-	-	11,624
Jor	590	258	366	-	-	1,668
Gog	794	463	1,018	*	-	2,649
Godare	1,236	317	*	*	-	39,737
Dima	51	-	*	*	-	502

b) Rural Holdings

Geographic Areas	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Gambela	18,365	7,245	6,876	*	*	74,470
Zone 1	14,756	6,215	4,754	*	*	20,006
Jikawo	12,707	5,935	3,449	*	-	7,416
Itang	1,731	247	1,099	*	*	8,299
Gambela	317	*	*	-	-	4,291
Zone 2	3,609	1,030	2,122	*	-	54,464
Abobo	1,418	*	*	-	-	11,624
Jor	590	258	366	-	-	1,668
Gog	521	463	1,018	*	-	2,639
Godare	1,080	303	*	*	-	38,143
Dima	-	-	-	-	-	390

c) Urban Holdings

Geographic Areas	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Gambela	2,296	*	*	32	-	4,770
Zone 1	1,815	*	*	*	-	3,055
Itang	546	*	*	-	-	284
Gambela	1,269	*	*	*	-	2,771
Zone 2	481	*	*	*	-	1,715
Gog	*	-	-	-	-	*
Godare	157	*	*	*	-	1,594
Dima	51	-	*	*	-	112

TABLE 7-22: ESTIMATED NUMBER OF LIVESTOCK TREATED BY REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Gambela	4,223	*	286	15	-	891
Zone 1	2,119	*	57	*	-	330
Jikawo	*	-	-	-	-	-
Itang	445	*	*	-	-	*
Gambela	1,277	*	*	*	-	*
Zone 2	2,104	*	*	*	-	561
Abobo	1,112	-	*	-	-	*
Jor	*	-	-	-	-	*
Gog	437	*	*	-	-	-
Godare	513	*	*	-	-	*
Dima	32	-	-	*	-	*

b) Rural Holdings

Geographic Areas	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Gambela	2,477	*	*	-	-	642
Zone 1	783	*	*	-	-	*
Jikawo	*	-	-	-	-	-
Itang	210	*	*	-	-	*
Gambela	*	*	-	-	-	-
Zone 2	1,694	*	*	-	-	496
Abobo	1,112	-	*	-	-	*
Jor	*	-	-	-	-	*
Gog	*	*	*	-	-	-
Godare	409	*	-	-	-	*
Dima	-	-	-	-	-	*

c) Urban Holdings

Geographic Areas	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Gambela	1,746	*	*	15	-	249
Zone 1	1,336	*	*	*	-	*
Itang	235	-	-	-	-	-
Gambela	1,101	*	*	*	-	*
Zone 2	410	*	*	*	-	*
Gog	*	-	-	-	-	-
Godare	105	*	*	-	-	*
Dima	32	-	-	*	-	-

TABLE 7-23: ESTIMATED NUMBER OF LIVESTOCK DIED BY REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Gambela	8,873	2,498	5,272	*	*	71,476
Zone 1	7,479	1,823	3,802	-	*	19,985
Jikawo	6,154	1,558	2,491	-	-	6,568
Itang	871	234	1,149	-	*	7,215
Gambela	454	*	*	-	-	6,203
Zone 2	1,394	675	1,470	*	-	51,490
Abobo	440	-	*	-	-	10,403
Jor	*	*	303	-	-	*
Gog	163	247	523	*	-	2,382
Godare	469	230	*	*	-	36,721
Dima	*	-	*	*	-	454

b) Rural Holdings

Geographic Areas	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Gambela	8,117	2,402	5,051	*	*	67,127
Zone 1	6,851	1,736	3,588	-	*	17,260
Jikawo	6,154	1,558	2,491	-	-	6,568
Itang	586	167	987	-	*	6,931
Gambela	*	*	*	-	-	3,761
Zone 2	1,266	666	1,463	*	-	49,867
Abobo	440	-	*	-	-	10,403
Jor	*	*	303	-	-	*
Gog	149	247	523	*	-	2,377
Godare	376	221	*	*	-	35,198
Dima	-	-	-	-	-	358

c) Urban Holders

Geographic Areas	Cattle	Sheep	Goats	Draught Animals	Camels	Poultry
Gambela	756	*	*	*	-	4,349
Zone 1	628	*	*	-	-	2,726
Itang	285	*	*	-	-	284
Gambela	343	*	*	-	-	2,442
Zone 2	128	*	*	*	-	1,623
Gog	*	-	-	-	-	*
Godare	93	*	*	-	-	1,523
Dima	*	-	*	*	-	96

TABLE 7-24: ANIMAL FEED PRACTICES OF PEASNT HOLDERS – PERCENTAGE USED BY TYPE OF FEED, REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	Total (%)	Green Fodder	Crop Residue	Improved Feed	Hay	By-Product	Others
Gambela	100	68.86	4.09	0.02	0.09	4.1	22.84
Zone 1	100	74.36	0.6	0.01	-	4.11	20.93
Jikawo	100	82.12	0.11	-	-	-	17.77
Itang	100	68.81	1.19	-	-	12.73	17.27
Gambela	100	52.67	1.56	0.04	-	6.2	39.54
Zone 2	100	63.35	7.59	0.03	0.19	4.09	24.74
Abobo	100	72.93	5.79	0.06	0.13	5.68	15.42
Jor	100	89.89	-	-	-	0.13	9.99
Gog	100	37.07	25.07	-	0.14	8.77	28.96
Godare	100	66.11	3.81	0.04	0.24	2.82	26.98
Dima	100	28.42	26.27	-	0.08	10.73	34.49

b) Rural Holdings

Geographic Areas	Total (%)	Green Fodder	Crop Residue	Improved Feed	Hay	By-Product	Others
Gambela	100	71.65	4.47	0.02	0.08	3.95	19.82
Zone 1	100	79.02	0.67	-	-	4.22	16.09
Jikawo	100	82.12	0.11	-	-	-	17.77
Itang	100	73.38	1.51	-	-	16.18	8.93
Gambela	100	68.23	3.16	-	-	6.94	21.67
Zone 2	100	64.82	7.99	0.04	0.16	3.71	23.28
Abobo	100	72.93	5.79	0.06	0.13	5.68	15.42
Jor	100	89.89	-	-	-	0.13	9.99
Gog	100	40.16	28.85	-	0.16	9.43	21.41
Godare	100	66.78	3.86	0.05	0.19	2.16	26.97
Dima	100	21.16	38.07	-	-	12.72	28.05

c) Urban Holdings

Geographic Areas	Total (%)	Green Fodder	Crop Residue	Improved Feed	Hay	By-Product	Others
Gambela	100	43.89	0.72	0.03	0.2	5.37	49.8
Zone 1	100	44.44	0.1	0.04	-	3.42	52
Itang	100	52.28	-	-	-	0.21	47.51
Gambela	100	39.21	0.17	0.07	-	5.55	55
Zone 2	100	42.76	1.97	-	0.6	9.35	45.32
Gog	100	16.63	-	-	-	4.38	78.99
Godare	100	56.54	3.06	-	0.95	12.24	27.21
Dima	100	43.72	1.41	-	0.26	6.54	48.08

TABLE 7-25: ANIMAL FEED PRACTICES OF PEASNT HOLDERS – NUMBER OF HOLDERS REPORTING BY TYPE OF FEED, REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	Green Fodder	Crop Residue	Improved Feed	Hay	By-Product	Others
Gambela	13,026	2,732	*	106	2,638	9,173
Zone 1	5,167	370	*	*	641	3,688
Jikawo	2,294	*	-	-	-	2,175
Itang	1,893	192	-	-	377	580
Gambela	980	96	*	*	264	933
Zone 2	7,859	2,362	*	103	1,997	5,485
Abobo	1,141	336	*	*	312	506
Jor	656	-	-	-	*	209
Gog	759	751	-	*	461	926
Godare	5,248	1,239	*	78	1,186	3,785
Dima	55	36	-	*	35	59

b) Rural Holdings

Geographic Areas	Green Fodder	Crop Residue	Improved Feed	Hay	By-Product	Others
Gambela	11,709	2,652	*	86	2,172	7,573
Zone 1	4,300	360	-	*	468	2,594
Jikawo	2,294	*	-	-	-	2,175
Itang	1,485	192	-	-	369	196
Gambela	522	86	-	*	98	224
Zone 2	7,409	2,292	*	83	1,704	4,978
Abobo	1,141	336	*	*	312	506
Jor	656	-	-	-	*	209
Gog	714	751	-	*	419	738
Godare	4,879	1,172	*	*	948	3,497
Dima	20	33	-	-	22	29

c) Urban Holdings

Geographic Areas	Green Fodder	Crop Residue	Improved Feed	Hay	By-Product	Others
Gambela	1,316	80	*	20	466	1,600
Zone 1	867	*	*	-	173	1,094
Itang	408	-	-	-	7	384
Gambela	458	*	*	-	166	710
Zone 2	450	70	-	20	293	506
Gog	45	-	-	-	42	188
Godare	369	67	-	*	238	289
Dima	35	*	-	*	13	30

TABLE 7-26: LIVESTOCK PRODUCT UTILIZATION - PERCENTAGE OF USES BY REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	Total (%)	PERCENT OF MILK UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	61.87	10.03	0.16	27.94
Zone 1	100	66.64	17.37	0.03	15.96
Jikawo	100	69.05	16.68	0.03	14.24
Itang	100	67.92	11.99	0.02	20.08
Gambela	100	56.54	31.96	0.03	11.47
Zone 2	100	57.54	3.36	0.28	38.81
Abobo	100	64.05	11.35	0.13	24.48
Jor	100	62.18	3.66	1.11	33.04
Gog	100	69.52	13.2	1.52	15.76
Godare	100	55.56	1.81	0.1	42.53
Dima	100	58	33.33	-	8.67

b) Rural Holdings

Geographic Areas	Total (%)	PERCENT OF MILK UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	62.32	8.16	0.15	29.36
Zone 1	100	68.51	15.18	0.03	16.29
Jikawo	100	69.05	16.68	0.03	14.24
Itang	100	69.82	9.57	0.02	20.58
Gambela	100	60.53	26.38	-	13.1
Zone 2	100	57.36	2.52	0.25	39.86
Abobo	100	64.05	11.35	0.13	24.48
Jor	100	62.18	3.66	1.11	33.04
Gog	100	72.6	11.01	1.65	14.74
Godare	100	55.03	1	0.05	43.93
Dima	-	-	-	-	-

c) Urban Holdings

Geographic Areas	Total (%)	PERCENT OF MILK UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	58.26	25.02	0.21	16.52
Zone 1	100	57.38	28.27	0.03	14.33
Itang	100	61.73	19.83	-	18.44
Gambela	100	52.69	37.37	0.05	9.89
Zone 2	100	60.51	16.68	0.67	22.14
Gog	100	35.57	37.37	-	27.06
Godare	100	63.22	13.59	0.77	22.42
Dima	100	58	33.33	-	8.67

TABLE 7-27: LIVESTOCK PRODUCT UTILIZATION - PERCENTAGE OF USES BY REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	Total (%)	PERCENT OF BUTTER UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	66.16	29.43	0.05	4.37
Zone 1	100	56.48	41.95	0.01	1.55
Jikawo	100	51.17	48.54	-	0.3
Itang	100	67.11	30.43	0.02	2.44
Gambela	100	48.35	47.11	0.04	4.49
Zone 2	100	75.12	17.83	0.07	6.97
Abobo	100	64.1	24.73	-	11.16
Jor	100	66.79	22.74	0.69	9.78
Gog	100	46.82	45.97	-	7.2
Godare	100	77.97	15.75	-	6.27
Dima	-	-	-	-	-

b) Rural Holdings

Geographic Areas	Total (%)	PERCENT OF BUTTER UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	66.36	29.24	0.05	4.36
Zone 1	100	55.92	42.7	0.01	1.37
Jikawo	100	51.17	48.54	-	0.3
Itang	100	71.47	25.31	0.03	3.19
Gambela	100	34.75	62.96	-	2.28
Zone 2	100	75.1	17.95	0.08	6.87
Abobo	100	64.1	24.73	-	11.16
Jor	100	66.79	22.74	0.69	9.78
Gog	100	43.71	48.85	-	7.44
Godare	100	77.97	15.92	-	6.11
Dima	-	-	-	-	-

c) Urban Holdings

Geographic Areas	Total (%)	PERCENT OF BUTTER UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	63.68	31.85	0.03	4.44
Zone 1	100	60.57	36.52	0.04	2.87
Itang	100	53.01	46.99	-	-
Gambela	100	77.3	13.36	0.13	9.2
Zone 2	100	75.81	13.63	-	10.56
Gog	100	62.63	31.37	-	6.01
Godare	100	78.07	10.59	-	11.34
Dima	-	-	-	-	-

TABLE 7-28: LIVESTOCK PRODUCT UTILIZATION - PERCENTAGE OF USES  
BY REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	Total (%)	PERCENT OF CHEESE UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	90.94	5.01	0.13	3.92
Zone 1	100	79.05	12.36	-	8.59
Jikawo	-	-	-	-	-
Itang	100	82.28	1.63	-	16.1
Gambela	100	78.59	13.88	-	7.53
Zone 2	100	92.19	4.24	0.15	3.43
Abobo	100	75.77	20.47	0.22	3.53
Jor	-	-	-	-	-
Gog	100	61.79	22.6	-	15.61
Godare	100	93.7	2.94	0.14	3.21
Dima	-	-	-	-	-

b) Rural Holdings

Geographic Areas	Total (%)	PERCENT OF CHEESE UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	91.93	4.72	0.14	3.22
Zone 1	100	77.34	16.52	-	6.14
Jikawo	-	-	-	-	-
Itang	100	92.52	2.15	-	5.33
Gambela	100	74.64	19.08	-	6.28
Zone 2	100	92.92	3.91	0.15	3.02
Abobo	100	75.77	20.47	0.22	3.53
Jor	-	-	-	-	-
Gog	100	66.09	13.78	-	20.13
Godare	100	94.29	2.77	0.15	2.79
Dima	-	-	-	-	-

c) Urban Holdings

Geographic Areas	Total (%)	PERCENT OF CHEESE UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	77.04	9.18	-	13.77
Zone 1	100	81.85	5.52	-	12.63
Itang	100	50	-	-	50
Gambela	100	84.58	5.99	-	9.43
Zone 2	100	71.39	13.49	-	15.12
Gog	100	53.7	39.12	-	7.18
Godare	100	74.9	8.41	-	16.69
Dima	-	-	-	-	-



TABLE 7-29: LIVESTOCK PRODUCT UTILIZATION - PERCENTAGE OF USES  
BY REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	Total (%)	PERCENT OF BEEF UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	36.64	49.47	0.19	13.7
Zone 1	100	52.18	25.46	-	22.36
Jikawo	100	45.84	-	-	54.16
Itang	100	55.31	38.01	-	6.69
Gambela	-	-	-	-	-
Zone 2	100	20.9	73.81	0.38	4.92
Abobo	100	10.85	89.15	-	-
Jor	100	5.06	89.89	-	5.06
Gog	100	22.41	61.39	3.82	12.37
Godare	100	22.66	71.51	0.34	5.49
Dima	-	-	-	-	-

b) Rural Holdings

Geographic Areas	Total (%)	PERCENT OF BEEF UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	36.54	49.5	0.14	13.82
Zone 1	100	52.68	24.44	-	22.88
Jikawo	100	45.84	-	-	54.16
Itang	100	56.27	37.25	-	6.48
Gambela	-	-	-	-	-
Zone 2	100	20.29	74.72	0.29	4.7
Abobo	100	10.85	89.15	-	-
Jor	100	5.06	89.89	-	5.06
Gog	100	29.99	50.06	-	19.95
Godare	100	21.84	72.62	0.35	5.19
Dima	-	-	-	-	-

c) Urban Holdings

Geographic Areas	Total (%)	PERCENT OF BEEF UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	39.37	48.69	1.39	10.55
Zone 1	100	40.01	50	-	9.99
Itang	100	40.01	50	-	9.99
Gambela	-	-	-	-	-
Zone 2	100	38.59	47.09	3.09	11.23
Gog	100	10.04	79.92	10.04	-
Godare	100	51.32	32.46	-	16.23
Dima	-	-	-	-	-

TABLE 7-30: LIVESTOCK PRODUCT UTILIZATION - PERCENTAGE OF USES  
BY REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	Total (%)	PERCENT OF GOAT MEAT/MUTTON UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	52.87	36.49	0.29	10.36
Zone 1	100	60.92	20.87	-	18.22
Jikawo	100	62.64	4.43	-	32.93
Itang	100	61.62	34.18	-	4.2
Gambela	100	37.11	18.89	-	44
Zone 2	100	46.92	48.04	0.5	4.55
Abobo	100	41.36	51.96	2.67	4.01
Jor	100	21.29	76.31	-	2.4
Gog	100	30.11	53.98	-	15.91
Godare	100	53.24	44.94	-	1.82
Dima	100	50	30	-	20

b) Rural Holdings

Geographic Areas	Total (%)	PERCENT OF GOAT MEAT/MUTTON UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	52.27	37.58	0.33	9.82
Zone 1	100	63.03	18.72	-	18.25
Jikawo	100	62.64	4.43	-	32.93
Itang	100	63.9	33.08	-	3.02
Gambela	100	9.97	39.87	-	50.17
Zone 2	100	44.84	50.6	0.55	4.01
Abobo	100	41.36	51.96	2.67	4.01
Jor	100	21.29	76.31	-	2.4
Gog	100	31.45	53.3	-	15.26
Godare	100	49.79	48.88	-	1.34
Dima	-	-	-	-	-

c) Urban Holdings

Geographic Areas	Total (%)	PERCENT OF GOAT MEAT/MUTTON UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	57.15	28.65	-	14.2
Zone 1	100	49.51	32.45	-	18.04
Itang	100	53.27	38.22	-	8.51
Gambela	100	39.46	17.06	-	43.48
Zone 2	100	66.31	24.09	-	9.6
Gog	100	21.71	58.29	-	19.99
Godare	100	81.12	13.17	-	5.71
Dima	100	50	30	-	20

TABLE 7-31: LIVESTOCK PRODUCT UTILIZATION - PERCENTAGE OF USES BY REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	Total (%)	PERCENT OF EGGS UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	25.82	28.59	0.12	45.46
Zone 1	100	25.4	39.55	0.04	35.01
Jikawo	100	23.33	59.51	0.02	17.13
Itang	100	20.05	29.46	0.08	50.4
Gambela	100	35.43	31.35	-	33.23
Zone 2	100	26.11	21.17	0.18	52.55
Abobo	100	30.39	25.78	0.13	43.7
Jor	100	3.59	3.98	0.05	92.38
Gog	100	19.95	30.87	0.82	48.36
Godare	100	29.26	18.43	-	52.31
Dima	100	48.97	7.07	-	43.97

b) Rural Holdings

Geographic Areas	Total (%)	PERCENT OF EGGS UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	24.36	28.97	0.13	46.54
Zone 1	100	22.4	42.13	0.05	35.43
Jikawo	100	23.33	59.51	0.02	17.13
Itang	100	16.81	29.46	0.09	53.63
Gambela	100	31.04	36.9	-	32.06
Zone 2	100	25.56	20.93	0.18	53.32
Abobo	100	30.39	25.78	0.13	43.7
Jor	100	3.59	3.98	0.05	92.38
Gog	100	20.3	29.9	0.89	48.9
Godare	100	28.19	18.39	-	53.42
Dima	-	-	-	-	-

c) Urban Holdings

Geographic Areas	Total (%)	PERCENT OF EGGS UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	44.16	23.88	-	31.97
Zone 1	100	45.44	22.33	-	32.23
Itang	100	45.11	29.45	-	25.44
Gambela	100	45.62	18.44	-	35.94
Zone 2	100	40.95	27.75	-	31.3
Gog	100	16.05	41.64	-	42.32
Godare	100	59.6	19.5	-	20.89
Dima	100	48.97	7.07	-	43.97
Dima	-	-	-	-	-

TABLE 7-32: LIVESTOCK PRODUCT UTILIZATION - PERCENTAGE OF USES BY REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	Total (%)	PERCENT OF HONEY UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	18.9	76.74	0.13	4.24
Zone 1	100	25.19	68.95	-	5.85
Jikawo	100	100	-	-	-
Itang	100	-	50	-	50
Gambela	100	22.78	72.02	-	5.2
Zone 2	100	18.35	77.42	0.14	4.1
Abobo	100	32.42	64.28	-	3.3
Jor	-	-	-	-	-
Gog	100	20.59	74.11	1.11	4.2
Godare	100	17.02	78.78	0.05	4.15
Dima	100	40	30	15	15

b) Rural Holdings

Geographic Areas	Total (%)	PERCENT OF HONEY UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	18.83	76.81	0.12	4.24
Zone 1	100	25.31	68.82	-	5.88
Jikawo	100	100	-	-	-
Itang	100	-	50	-	50
Gambela	100	22.88	71.89	-	5.23
Zone 2	100	18.27	77.5	0.13	4.1
Abobo	100	32.42	64.28	-	3.3
Jor	-	-	-	-	-
Gog	100	20.59	74.11	1.11	4.2
Godare	100	16.92	78.87	0.05	4.15
Dima	-	-	-	-	-

c) Urban Holdings

Geographic Areas	Total (%)	PERCENT OF HONEY UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	35.15	59.91	1.11	3.83
Zone 1	100	-	100	-	-
Itang	-	-	-	-	-
Gambela	100	-	100	-	-
Zone 2	100	38.47	56.13	1.21	4.19
Gog	-	-	-	-	-
Godare	100	38.33	58.42	-	3.25
Dima	100	40	30	15	15

TABLE 7-33: LIVESTOCK PRODUCT UTILIZATION - PERCENTAGE OF USES BY REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	Total (%)	PERCENT OF WAX UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	21.53	37.31	1.12	40.05
Zone 1	-	-	-	-	-
Jikawo	-	-	-	-	-
Itang	-	-	-	-	-
Gambela	-	-	-	-	-
Zone 2	100	21.53	37.31	1.12	40.05
Abobo	-	-	-	-	-
Jor	-	-	-	-	-
Gog	-	-	-	-	-
Godare	100	21.53	37.31	1.12	40.05
Dima	-	-	-	-	-

b) Rural Holdings

Geographic Areas	Total (%)	PERCENT OF WAX UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	21.59	37.05	1.12	40.24
Zone 1	-	-	-	-	-
Jikawo	-	-	-	-	-
Itang	-	-	-	-	-
Gambela	-	-	-	-	-
Zone 2	100	21.59	37.05	1.12	40.24
Abobo	-	-	-	-	-
Jor	-	-	-	-	-
Gog	-	-	-	-	-
Godare	100	21.59	37.05	1.12	40.24
Dima	-	-	-	-	-

c) Urban Holdings

Geographic Areas	Total (%)	PERCENT OF WAX UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	10	90	-	-
Zone 1	-	-	-	-	-
Itang	-	-	-	-	-
Gambela	-	-	-	-	-
Zone 2	100	10	90	-	-
Gog	-	-	-	-	-
Godare	100	10	90	-	-
Dima	-	-	-	-	-

TABLE 7-34: LIVESTOCK PRODUCT UTILIZATION - PERCENTAGE OF USES BY REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	Total (%)	PERCENT OF WOOL UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	100	-	-	-
Zone 1	100	100	-	-	-
Jikawo	-	-	-	-	-
Itang	100	100	-	-	-
Gambela	-	-	-	-	-
Zone 2	-	-	-	-	-
Abobo	-	-	-	-	-
Jor	-	-	-	-	-
Gog	-	-	-	-	-
Godare	-	-	-	-	-
Dima	-	-	-	-	-

b) Rural Holdings

Geographic Areas	Total (%)	PERCENT OF WOOL UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	100	-	-	-
Zone 1	100	100	-	-	-
Jikawo	-	-	-	-	-
Itang	100	100	-	-	-
Gambela	-	-	-	-	-
Zone 2	-	-	-	-	-
Abobo	-	-	-	-	-
Jor	-	-	-	-	-
Gog	-	-	-	-	-
Godare	-	-	-	-	-
Dima	-	-	-	-	-

c) Urban Holdings

Geographic Areas	Total (%)	PERCENT OF WOOL UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	-	-	-	-	-
Zone 1	-	-	-	-	-
Itang	-	-	-	-	-
Gambela	-	-	-	-	-
Zone 2	-	-	-	-	-
Gog	-	-	-	-	-
Godare	-	-	-	-	-
Dima	-	-	-	-	-

TABLE 7-35: LIVESTOCK PRODUCT UTILIZATION - PERCENTAGE OF USES BY REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	Total (%)	PERCENT OF HIDES UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	51.04	46.39	1.01	1.55
Zone 1	100	82.21	16.36	-	1.44
Jikawo	-	-	-	-	-
Itang	100	82.21	16.36	-	1.44
Gambela	-	-	-	-	-
Zone 2	100	39.34	57.67	1.39	1.6
Abobo	100	60.88	24.99	-	14.13
Jor	100	100	-	-	-
Gog	100	100	-	-	-
Godare	100	35.42	62.21	1.54	0.83
Dima	-	-	-	-	-

b) Rural Holdings

Geographic Areas	Total (%)	PERCENT OF HIDES UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	50.92	46.26	1.11	1.71
Zone 1	100	79.86	18.51	-	1.63
Jikawo	-	-	-	-	-
Itang	100	79.86	18.51	-	1.63
Gambela	-	-	-	-	-
Zone 2	100	40.45	56.29	1.51	1.74
Abobo	100	60.88	24.99	-	14.13
Jor	100	100	-	-	-
Gog	100	100	-	-	-
Godare	100	36.27	61.12	1.69	0.92
Dima	-	-	-	-	-

c) Urban Holdings

Geographic Areas	Total (%)	PERCENT OF HIDES UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	52.32	47.68	-	-
Zone 1	100	100	-	-	-
Itang	100	100	-	-	-
Gambela	-	-	-	-	-
Zone 2	100	26.79	73.21	-	-
Gog	-	-	-	-	-
Godare	100	26.79	73.21	-	-
Dima	-	-	-	-	-

TABLE 7-36: LIVESTOCK PRODUCT UTILIZATION - PERCENTAGE OF USES BY REGION, ZONE, AND WEREDA

a) Both Rural and Urban Holdings

Geographic Areas	Total (%)	PERCENT OF SKIN UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	61.33	32.86	2.07	3.74
Zone 1	100	83.64	16.36	-	-
Jikawo	100	100	-	-	-
Itang	100	81.08	18.92	-	-
Gambela	100	-	100	-	-
Zone 2	100	35.57	51.91	4.46	8.06
Abobo	100	56.83	27.38	-	15.8
Jor	100	100	-	-	-
Gog	100	35.67	62.18	-	2.15
Godare	100	14.05	69.92	10.69	5.35
Dima	100	-	58.33	25	16.67

b) Rural Holdings

Geographic Areas	Total (%)	PERCENT OF SKIN UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	60.39	32.87	2.36	4.38
Zone 1	100	86.52	13.48	-	-
Jikawo	100	100	-	-	-
Itang	100	82.63	17.37	-	-
Gambela	-	-	-	-	-
Zone 2	100	36.37	50.7	4.53	8.4
Abobo	100	56.83	27.38	-	15.8
Jor	100	100	-	-	-
Gog	100	33.75	63.88	-	2.37
Godare	100	15	67.87	11.42	5.71
Dima	-	-	-	-	-

c) Urban Holdings

Geographic Areas	Total (%)	PERCENT OF SKIN UTILIZED FOR:			
		Household Consumption	Sale	Wages in Kind	Other
Gambela	100	66.35	32.8	0.51	0.34
Zone 1	100	74.84	25.16	-	-
Itang	100	77.29	22.71	-	-
Gambela	100	-	100	-	-
Zone 2	100	21.6	73.07	3.2	2.13
Gog	100	54.11	45.89	-	-
Godare	100	-	100	-	-
Dima	100	-	58.33	25	16.67



**Annex Tables 7.1 - 7.10**

**ESTIMATES, STANDARD ERRORS, AND COEFFICIENT OF  
VARIATIONS FOR SELECTED LIVESTOCK VARIABLES  
RURAL+ URBAN**

Annex Table 7.1- Estimates of Livestock, Standard Error and Coefficient of Variation by Type, Zone, and Wereda

GEOGRAPHIC AREA	CATTLE			SHEEP			GOATS		
	Number	SE	CV	Number	SE	CV	Number	SE	CV
Gambela	126,198	6,958	6	43,746	3,319	8	49,076	2,925	6
Zone 1	106,222	6,656	6	35,404	3,079	9	37,542	2,556	7
Jikawo	79,024	6,451	8	30,740	3,019	10	30,594	2,451	8
Itang	19,887	1,199	6	4,362	591	14	5,461	642	12
Gambela	7,311	1,114	15	302	125	41	1,487	340	23
Zone 2	19,977	2,031	10	8,342	1,240	15	11,534	1,422	12
Abobo	1,845	326	18	197	70	35	2,686	757	28
Jor	3,072	1,035	34	1,842	676	37	3,309	959	29
Gog	2,077	572	28	1,063	266	25	4,121	680	17
Godare	12,840	1,618	13	5,239	1,003	19	1,384	255	18
Dima	141	35	25	-	-	-	35	11	33

cont'd

GEOGRAPHIC AREA	HORSES			ASSES			MULES			CAMELS		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Gambela	338	105	31	264	53	20	12	8	70	5	5	100
Zone 1	-	-	-	117	23	19	-	-	-	-	-	-
Itang	-	-	-	54	14	26	-	-	-	-	-	-
Gambela	-	-	-	64	18	28	-	-	-	-	-	-
Zone 2	338	105	31	147	48	33	12	8	70	5	5	100
Godare	338	105	31	146	48	33	-	-	-	-	-	-
Dima	-	-	-	1	1	100	12	8	70	5	5	100

Annex Table 7.2- Estimates of Cattle, Standard Error and Coefficient of Variation by Age group, Zone, and Wereda  
Male Cattle

GEOGRAPHIC AREA	<6MONTHS			6MONTHS -<1YEAR			1-<3YEARS			3-<10YEARS			10YAERS & OLDER		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Gambela	10,236	596	6	8,161	555	7	9,105	664	7	8,936	556	6	303	91	30
Zone 1	8,183	533	7	6,910	520	8	7,479	626	8	7,565	504	7	278	89	32
Jikawo	5,957	506	9	5,209	490	9	5,913	609	10	5,400	452	8	129	79	61
Itang	1,650	138	8	1,216	143	12	1,053	103	10	1,497	187	13	128	38	30
Gambela	577	95	16	486	100	21	513	101	20	667	121	18	21	16	76
Zone 2	2,052	267	13	1,251	194	15	1,626	223	14	1,372	236	17	25	21	84
Abobo	59	22	38	78	28	36	368	88	24	674	150	22	-	-	-
Jor	378	124	33	140	65	47	106	50	47	156	66	42	-	-	-
Gog	164	56	34	161	54	34	197	71	36	154	59	39	6	6	100
Godare	1,435	228	16	864	172	20	947	185	20	371	158	43	19	20	108
Dima	15	4	28	7	4	61	9	4	47	16	8	52	-	-	-

## Female Cattle

GEOGRAPHIC AREA	<6MONTHS			6MONTHS -<1YEAR			1-<3YEARS			3-<10YAERS			10YAERS & OLDER		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Gambela	11,361	728	6	8,976	612	7	15,413	1,031	7	52,138	2,799	5	1,570	345	22
Zone 1	9,453	684	7	7,743	577	7	13,050	986	8	44,139	2,676	6	1,422	341	24
Jikawo	6,523	649	10	5,491	546	10	10,443	958	9	33,434	2,572	8	525	322	61
Itang	2,237	183	8	1,703	153	9	2,061	198	10	7,522	529	7	822	106	13
Gambela	693	113	16	548	106	19	547	120	22	3,183	517	16	76	41	54
Zone 2	1,908	249	13	1,233	205	17	2,362	301	13	7,999	820	10	148	53	36
Abobo	108	38	35	35	18	50	126	42	33	382	99	26	15	10	71
Jor	295	92	31	220	127	58	405	200	49	1,369	415	30	4	4	100
Gog	210	59	28	122	39	32	202	60	30	855	264	31	6	6	100
Godare	1,285	220	17	853	156	18	1,612	214	13	5,331	649	12	123	52	42
Dima	11	4	33	3	2	56	17	6	37	63	16	25	-	-	-

Annex Table 7.3- Estimates of Sheep, Standard Error and Coefficient of Variation by Age group, Zone, and Wereda  
Male Sheep

GEOGRAPHIC AREA	<6MONTHS			6MONTHS - <1YEAR			1- <2YEARS			2 YEARS & OLDER		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Gambela	6,208	564	9	944	160	17	699	116	17	1,245	190	15
Zone 1	4,581	436	10	660	137	21	481	99	20	904	175	19
Jikawo	4,131	428	10	406	127	31	280	86	31	402	141	35
Itang	400	76	19	246	50	20	177	46	26	477	103	22
Gambela	50	33	67	8	6	79	24	14	60	25	15	59
Zone 2	1,627	357	22	284	83	29	218	61	28	341	72	21
Abobo	-	-	-	-	-	-	18	19	110	93	32	35
Jor	203	85	42	113	57	50	49	30	60	108	45	42
Gog	89	32	36	11	10	90	71	29	41	83	31	37
Godare	1,334	345	26	160	60	38	81	40	50	57	35	61

## Female Sheep

GEOGRAPHIC AREA	<6MONTHS			6MONTHS - <1YEAR			1- <2YEARS			2 YEARS & OLDER		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Gambela	6,364	508	8	5,624	499	9	5,792	506	9	16,869	1,378	8
Zone 1	4,995	443	9	4,866	464	10	4,920	466	9	13,997	1,319	9
Jikawo	4,350	432	10	4,340	452	10	4,333	454	10	12,497	1,302	10
Itang	635	98	15	468	95	20	553	105	19	1,405	208	15
Gambela	9	7	81	58	38	65	34	21	62	95	35	37
Zone 2	1,370	250	18	758	184	24	872	196	23	2,873	399	14
Abobo	-	-	-	-	-	-	-	-	-	87	31	35
Jor	158	68	43	290	145	50	235	132	56	686	189	28
Gog	162	53	33	120	38	31	125	38	30	402	103	26
Godare	1,049	234	22	347	107	31	512	141	27	1,698	335	20

Annex Table 7.4- Estimates of Goats, Standard Error and Coefficient of Variation by Age group, Zone, and Wereda  
Male Goats

GEOGRAPHIC AREA	<6MONTHS			6MONTHS - <1YEAR			1- < 2YEARS			2 YEARS & OLDER		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Gambela Region	6,463	470	7	1,377	180	13	1,396	200	14	1,247	186	15
Zone 1	5,407	432	8	775	146	19	891	175	20	800	149	19
Jikawo	4,489	416	9	507	135	27	563	164	29	439	126	29
Itang	689	94	14	213	52	24	236	46	20	276	70	26
Gambela	229	69	30	55	22	41	93	38	41	86	36	42
Zone 2	1,056	184	17	602	105	18	505	97	19	447	112	25
Abobo	244	97	40	176	62	35	103	38	37	82	50	60
Jor	288	108	38	79	44	56	106	38	36	118	73	62
Gog	382	96	25	195	52	27	244	74	30	198	60	31
Godare	143	59	41	151	51	34	53	31	59	48	32	67
Dima	-	-	-	2	2	100	-	-	-	-	-	-

Female Goats

GEOGRAPHIC AREA	<6MONTHS			6MONTHS - <1YEAR			1- < 2 YEARS			2 YEARS & OLDER		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Gambela Region	7,923	511	6	6,974	556	8	7,273	535	7	16,400	1,010	6
Zone 1	6,095	456	7	5,354	475	9	5,722	472	8	12,498	842	7
Jikawo	5,077	438	9	4,645	463	10	4,839	453	9	10,035	749	7
Itang	781	103	13	550	91	16	678	112	17	2,039	370	18
Gambela	238	77	33	159	53	33	205	72	35	424	107	25
Zone 2	1,828	230	13	1,620	288	18	1,552	251	16	3,902	557	14
Abobo	331	86	26	546	186	34	543	189	35	661	227	34
Jor	434	152	35	396	179	45	318	112	35	1,571	457	29
Gog	683	117	17	610	126	21	567	108	19	1,241	209	17
Godare	375	93	25	66	23	34	123	51	41	426	79	19
Dima	5	3	57	2	2	100	-	-	-	3	2	73

Annex Table 7.5- Estimates of Horses, Standard Error and Coefficient of Variation by Age group, Zone, and Wereda

GEOGRAPHIC AREA	MALE						FEMALE					
	<3YEARS			3YEARS & OLDER			<3YEARS			3YEARS & OLDER		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Gambela Region	-	-	-	338	105	31	-	-	-	-	-	-
Zone 2	-	-	-	338	105	31	-	-	-	-	-	-
Godare	-	-	-	338	105	31	-	-	-	-	-	-

Annex Table 7.6- Estimates of Asses, Standard Error and Coefficient of Variation by Age group, Zone, and Wereda

GEOGRAPHIC AREA	MALE						FEMALE					
	<3YEARS			3YEARS & OLDER			<3YEARS			3YEARS & OLDER		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Gambela	8	5	69	198	50	25	-	-	-	59	15	25
Zone 1	8	5	69	51	13	26	-	-	-	59	15	25
Itang	-	-	-	-	-	-	-	-	-	54	14	26
Gambela	8	5	69	51	13	26	-	-	-	5	5	100
Zone 2	-	-	-	147	48	33	-	-	-	-	-	-
Godare	-	-	-	146	48	33	-	-	-	-	-	-
Dima	-	-	-	1	1	100	-	-	-	-	-	-

Annex Table 7.7- Estimates of Mules, Standard Error and Coefficient of Variation by Age group, Zone, and Wereda

GEOGRAPHIC AREA	MALE						FEMALE					
	<3YEARS			3YEARS & OLDER			<3YEARS			3YEARS & OLDER		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Gambela	-	-	-	4	3	77	-	-	-	8	7	88
Zone 2	-	-	-	4	3	77	-	-	-	8	7	88
Dima	-	-	-	4	3	77	-	-	-	8	7	88

Annex Table 7.8- Estimates of Camels, Standard Error and Coefficient of Variation by Age group, Zone, and Wereda

GEOGRAPHIC AREA	MALE						FEMALE					
	<4YEARS			4YEARS & OLDER			<4YEARS			4YEARS & OLDER		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Gambela	-	-	-	5	5	100	-	-	-	-	-	-
Zone 2	-	-	-	5	5	100	-	-	-	-	-	-
Dima	-	-	-	5	5	100	-	-	-	-	-	-



Annex Table 7.9- Estimates of Poultry, Standard Error and Coefficient of Variation By Type, Zone, and Wereda

GEOGRAPHIC AREA	Total Poultry			Cocks			Cockerels			Pullets			Non-laying Hens			Chicks			Laying Hens		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Gambela	237,930	9,564	4	32,230	1,311	4	24,970	1,314	5	32,763	1,638	5	17,058	1,070	6	74,123	4,013	5	56,787	2,094	4
Zone 1	120,154	5,138	4	19,880	873	4	13,472	837	6	16,508	893	5	10,118	799	8	28,389	1,404	5	31,787	1,281	4
Jikawo	55,188	3,805	7	10,416	726	7	6,122	559	9	6,733	568	8	4,744	497	10	10,547	878	8	16,628	1,104	7
Itang	39,398	1,593	4	6,089	302	5	4,202	282	7	5,259	323	6	3,229	257	8	10,910	651	6	9,709	392	4
Gambela	25,568	3,062	12	3,376	380	11	3,149	556	18	4,517	609	13	2,145	571	27	6,932	881	13	5,450	519	10
Zone 2	117,776	8,067	7	12,349	978	8	11,498	1,012	9	16,254	1,373	8	6,940	712	10	45,735	3,759	8	24,999	1,656	7
Abobo	29,218	6,655	23	3,110	736	24	3,152	820	26	4,428	1,121	25	1,061	272	26	11,487	3,053	27	5,979	1,249	21
Jor	8,533	1,354	16	1,059	348	33	1,083	216	20	1,434	293	20	520	216	41	2,589	346	13	1,848	364	20
Gog	31,140	2,386	8	3,479	269	8	3,419	345	10	4,596	404	9	2,406	335	14	10,966	1,056	10	6,275	421	7
Godare	45,728	3,631	8	4,185	467	11	3,512	430	12	5,370	613	11	2,610	521	20	19,941	1,887	9	10,108	932	9
Dima	3,157	299	9	516	53	10	332	44	13	426	50	12	342	49	14	752	143	19	790	61	8

Annex Table 7.10- Estimates of Beehives, Standard Error and Coefficient of variation by Type, Zone, and Wereda

GEOGRAPHIC AREA	ALL BEEHIVES			TRADITIONAL			INTERMEDIATE			MODERN		
	Number	SE	CV	Number	SE	CV	Number	SE	CV	Number	SE	CV
Gambela	59,222	10,232	17	58,625	10,227	17	597	302	51	-	-	-
Zone 1	4,664	2,943	63	4,629	2,943	64	35	35	100	-	-	-
Itang	10	7	63	10	7	63	-	-	-	-	-	-
Gambela	4,653	2,943	63	4,618	2,943	64	35	35	100	-	-	-
Zone 2	54,558	9,799	18	53,996	9,795	18	562	300	53	-	-	-
Abobo	1,614	551	34	1,614	551	34	-	-	-	-	-	-
Gog	1,315	274	21	1,315	274	21	-	-	-	-	-	-
Godare	50,463	9,779	19	49,931	9,774	20	532	298	56	-	-	-
Dima	1,166	146	13	1,136	143	13	30	30	100	-	-	-

