

PN-AAK-422

# Tanzanian Livestock-Meat Subsector

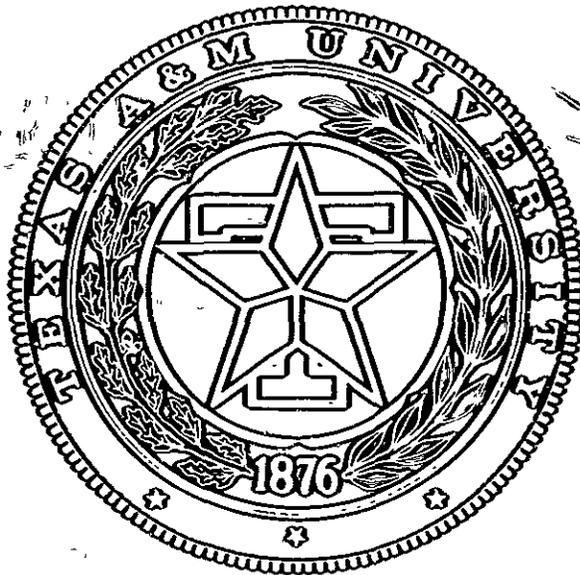
Volume III: Regional and District Survey Data

Mara Region

Mwanza Region

Shinyanga Region

Tabora Region



Texas A&M University  
and the  
United States Agency for International Development  
October, 1976

TANZANIAN LIVESTOCK-MEAT SUBSECTOR

Volume III: Regional Livestock Survey Data

Mara Region

Mwanza Region

Shinyanga Region

Tabora Region

International Programs

College of Agriculture, Texas A&M University

College Station, Texas 77843

AID Contract No. AFR-C-1095 (Tanzania)

TAMU/USAID

## PREFACE

This study of the Livestock-Meat Subsector is a part of a larger project of Livestock Development in Tanzania. The field work was conducted in 1975 and preliminary drafts were made available to TAMU/USAID and Tanzanian officials of LIDA in July, 1976. The study is designed to assist in planning the development of the Livestock-Meat Subsector. It is assumed that specific projects will have their own detailed plans. This study was designed to examine the industry and document detailed information concerning the traditional herd and make recommendations for an improved subsector.

The study is reported as follows:

- Volume I Consultants' Report
- Volume II Livestock Survey Data and Marketing Model
- Volume III Regional Survey Data for Mara, Mwanza, Shinyanga, and Tabora Regions.
- Volume IV Regional Survey Data for Singida, Dodoma, and Arusha Regions.

D. E. Farris, Subsector Study Coordinator

### Acknowledgements

The success of the livestock survey is due in part to the cooperation and goodwill received from many individuals who gave their assistance either directly through their physical help or indirectly by advice or encouragement.

Mr. K. W. Stokes and Dr. J. M. Sprott provided valuable assistance in planning the survey. In development of the questionnaire, Drs. John Moris and Colby Hatfield of the Masai Range Project and Dr. Mascrenius, BRALUP, University of Dar es Salaam, gave valuable advice in construction of questionnaire and survey techniques gained from their experience in previous surveys in Tanzania. Field testing and preparation for main survey team was carried out diligently by Mr. Masaba of the Bureau of Census and Mr. B. Rwanshane from LIDA.

Administrative support and suggestions for the study were provided by General Director Dr. Madalali, LIDA and Dr. Maeda, Director of Livestock Development Ministry of Agriculture. A special mention of gratitude to Mr. Mpogolo, director, and Mr. J. Prasad, F.A.O. statistician of the Bureau of Statistics for providing data for the sample and releasing five field enumerators from their staff. M. B. Inman, Chief of Party, provided essential administration.

Full cooperation was received at all levels of government in implementing the survey. Government and parastatal livestock personnel made advance preparations before main survey teams arrival so interviewing would be successful. District Development Directors, Divisional and Ward Secretaries and village chairmen jointly cooperated through their offices to locate and educate respondents of the government's support for this survey. Personnel from one of their offices traveled with the survey team at all times while in the district.

A great deal of gratitude and appreciation go to the enumerators (Mr. Lyakulwa, Mwenda, Rubea, Swedi, Tegamischio of the Bureau of Statistics and Mr. Ole Ngulay, Ealeiya, Benjamin, Ephraem, and Yesaya from Arusha) who interviewed long hours and counted many cattle in making this survey a success. Marcia Lightsey and Bernadine Tripp tabulated and typed the report.

Finally, to the respondents who frankly and honestly related their practices and problems in expectation that solutions will be found — to them the survey is dedicated.

## CONTENTS

Preface.....	iii
Acknowledgements.....	v
Interpretation of District Data.....	ix
List of Tables.....	xi
Mara Region.....	1
Mwanza Region.....	71
Shinyanga Region.....	141
Tabora Region.....	212

## Interpretation of District Data

The sample survey of livestock herds was taken in the Dry Season, 1975. It was a stratified proportional random sample and estimates for districts should be used recognizing the possibility of considerable sampling error due to small numbers sampled in some districts. Where district means are similar within a region this indicates the margin of error of district estimates is relatively low; however, where a wide variation among Districts exists, the mean for the region will likely be a more reliable estimate. For clarification of responses refer to discussion and sample questionnaire in Volume II.

District and regional appendix tables are divided into two volumes based on general level of rainfall. Annual rainfall for most areas in regions in this volume is between 20 to 50 inches due to their proximity to Lake Victoria; and the density of human population is higher creating greater competition between crops and livestock for available land.

For convenience in comparison, tables for each region are grouped in the following order:

Herd Characteristics and Management Practices	(Tables 1-10)
Health and Disease Prevention	(Tables 11 - 18)
Marketing Practices for Cattle	(Tables 19 - 39)
Description of Sheep and Goat Herd	(Tables 40 - 54)
Sociological Factors	(Tables 55 - 65)
Ownership Patterns - Only Tabora Region	(Tables 66 - 78)

G. M. Sullivan

LIST OF TABLES

Table No.	Title	Page Number for			
		Mara	Mwanza	Shinyanga	Tabora
1	Characteristic of Cattle Herd	1	71	141	212
2	Cow/Calf Statistics	2	72	142	213
3	Herd Percentages	3	73	143	214
4	Cattle Disposals	4	74	144	215
5	Months to Wean Calves	5	75	145	216
6	Feeding Grains to Calves	6	76	146	217
7	Source of Water in Dry Season	7	77	147	218
8	Time to Trek to Water	8	78	148	219
9	Time to Trek to Grazing Dry Season	9	79	149	220
10	Time to Trek to Grazing Wet Season	10	80	150	221
11	Regularly Dipping Cattle	11	81	151	222
12	Time Elapsed Since Last Dipping	12	82	152	223
13	Reasons for Not Dipping Cattle	13	83	153	224
14	Treatment of Cattle for Diseases	14	84	154	225
15a	Vaccinations within the Region	15	85	155	226
15b	Vaccinations in District	16	86	156	227
15c	Vaccinations in District	17	87	157	228
15d	Vaccinations in District	18	88	158	229
15e	Vaccinations in District		89	159	
16	Time to Trek to Veterinary Center	19	90	160	230
17	Drenching Cattle for Internal Parasites	20	91	161	231
18	Cattle Having Miscarriages	21	92	162	232
19	Respondents Selling Cattle	22	93	163	233
20	Cattle Sold in Marketplace	23	94	164	234
21	Method Cattle Sold at Marketplace	24	95	165	235
22	Cattle Trekked But Not Sold at Market	25	96	166	236
23	Frequency Cattle Market is Operating	26	97	167	237
24	Time to Trek Cattle to Primary Market	27	98	168	238
25	Water Available on Trek to Market	28	99	169	239
26	Source of Water on Trek to Market	29	100	170	240

Table No.	Title	Page Number for			
		Mara	Mwanza	Shinyanga	Tabora
27	Cattle Sold During Trek to Market	30	101	171	241
28	Cattle Died or Stolen on Trek to Market	31	102	172	242
29	Water Available at Primary Marketplace	32	103	173	243
30	Source of Water at Primary Market	33	104	174	244
31	Available Grazing at Primary Market	34	105	175	245
32	Returning Cattle from Market without Selling	35	106	176	246
33	Reason for Returning Cattle from Market	36	107	177	247
34	Cattle Sold at Boma	37	108	178	248
35	Reasons for not Selling Cattle at Market	38	109	179	249
36	Selling Steers in Last 12 Months	39	110	180	250
37	Average Age of Steer Sold	40	111	181	251
38	Reason in Choosing Cows for Sale	41	112	182	252
39	Sell More Cattle if Price TSH 100/- higher	42	113	183	253
40	Respondents Keeping Sheep and Goats	43	114	184	254
41	Reasons for Keeping Sheep and Goats	44	115	185	255
42	Production Coefficients for Goats and Sheep	45	116	186	256
43	Goat Disposals	46	117	187	257
44	Sheep Disposals	48	119	189	259
45	Dipping Sheep or Goats	50	120	191	260
46	Vaccinations of Sheep and Goats	51	121	192	261
47	Treatment of Sheep or Goats for Parasites	52	122	193	262
48	Number of Miscarriages for Sheep and Goats	53	123	194	263
49	Respondents Who Sell Goats	54	124	195	264
50	Where Goats are Sold	55	125	196	265
51	Respondents Who Sell Sheep	56	126	197	266
52	Where Sheep are Sold	57	127	198	267
53	Sheep and Goats Traded for Other Goats	58	128	199	268
54	Items Received in Exchange for Sheep and Goats	59	129	200	269
55	Reasons for Keeping Cattle	60	130	201	270

<u>Table No.</u>	<u>Title</u>	<u>Mara</u>	<u>Mwanza</u>	<u>Shinyanga</u>	<u>Tabora</u>
56	Sources of Cash Income	61	131	202	271
57	Source of Original Herd	62	132	203	272
58	Ownership of Cattle Being Kept	63	133	204	273
59	Responsibility to Sell or Dispose of Cattle	64	134	205	274
60	Number of Cattle Given for Dowry	65	135	206	275
61	Types of Cattle Given in Dowry	66	136	207	276
62	Paying Dowry in Other Forms Except Cattle	67	137	208	277
63	Cattle Given to Son as Customary Gift	68	138	209	278
64	Types of Cattle Given as Customary Gift	69	139	210	279
65	Money Kept in Bank	70	140	211	280
66	Respondents Keeping Somebody's Cattle	--	---	---	281
67	Number of Individuals Whose Cattle Are Kept	--	---	---	282
68	Period of Time Cattle Have Been Kept	--	---	---	283
69	Individuals whose Cattle Kept Living in Village	--	---	---	284
70	Reason for Keeping Someone's Cattle	--	---	---	285
71	Cattle Kept in Other Bomas for Herding	--	---	---	286
72	Number of Bomas in Which Cattle are Kept	--	---	---	287
73	Boma in Which Cattle Kept in Same Village	--	---	---	288
74	Number of Cattle Kept in Other Bomas	--	---	---	289
75	Cattle in Other Bomas Given as Customary Gift	--	---	---	290
76	Sold, Traded or Paid Dowry Cattle in Other Bomas	--	---	---	291
77	Cattle Kept in Other Bomas When Shifting into Village	--	---	---	292
78	Reason for Keeping Cattle in Other Bomas	--	---	---	293

# Mara Region

Appendix Table. 1 Characteristics of Herd in Mara Region September 1974 - August 1975.

	Total Cattle			Total Bulls			Steers			Cows		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mara Region	81	31.89	35.08	81	4.20	3.96	81	4.09	7.60	81	13.52	16.49
Tarime District	31	21.03	16.51	31	2.90	2.47	31	2.61	1.78	31	9.94	12.39
Musoma District	30	20.13	11.89	30	3.83	3.13	30	1.73	2.68	30	7.63	5.85
Serengeti District	20	66.35	53.62	20	6.75	5.63	20	9.90	13.39	20	27.90	23.61

	Total Heifers			Weaned Calves			Unweaned Calves		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mara Region	81	4.42	5.32	81	1.81	3.63	81	3.89	5.43
Tarime District	31	3.00	2.14	31	1.19	1.40	31	2.48	2.10
Musoma District	30	3.53	3.06	30	.90	1.63	30	2.60	1.81
Serengeti District	20	7.95	8.95	20	4.15	6.37	20	8.00	9.40

n = sample size (number in sample)

$\bar{x}$  = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Appendix Table. 2 Cow/Calf Statistics for Mara Region, September 1974 - August 1975.

	Cows			Calves Born			Calves Weaned			Calves Not Weaned		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mara Region	81	13.52	16.49	81	7.77	9.69	81	1.81	3.63	81	3.89	5.43
Tarime District	31	9.94	12.39	31	4.97	3.62	31	1.19	1.40	31	2.48	2.10
Musoma District	30	7.63	5.85	30	4.47	3.08	30	.90	1.63	30	2.60	1.81
Serengeti District	20	27.30	23.61	20	17.05	15.47	20	4.15	6.37	20	8.00	9.40

	Calves Died			Calves/ Cow's Life <sup>a)</sup>			Months to Wean		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mara Region	81	2.06	3.29	80	8.95	2.73	79	10.66	3.43
Tarime District	31	1.29	2.15	31	8.42	2.08	29	10.44	2.84
Musoma District	30	.97	1.63	30	8.53	2.86	30	10.33	3.48
Serengeti District	20	4.90	4.79	19	10.47	3.03	20	11.45	4.14

a) Respondent's expected number of calves produced in a cow's lifetime.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.3 Herd percentages in Mara Region, September 1974 to August 1975.

	<u>Mara Region</u> %	<u>Tarime District</u> %	<u>Musoma District</u> %	<u>Serengeti District</u> %
Total Bulls/Total Cattle	13 "	13	19	10 ,
Immature Bulls/Total Cattle <sup>a</sup>				
Mature Bulls/Total Cattle <sup>a</sup>				
Steers/Total Cattle	13	12	9	15
Cows/Total Cattle	42	46 \	38	43
Heifers/Total Cattle	14	14	18	12
Heifers (over three) /Total Cattle <sup>a</sup>				
Calves/Total Cattle	18	17 .	17	18
Immature Bulls/Total Bulls <sup>a</sup>				
Mature Bulls/Total Bulls <sup>a</sup>				
Cows/Total Females	75.	77	68 .	79
Heifers/Total Females	25	23	32	21
Heifers (over three) /Total Females <sup>a</sup>				
Calves Born/Cows <sup>b</sup>	57	50	59	61
Calves Weaned/Calves Born	23	24	20	24
Calves Sucking/Calves Born	50	50	58	47
Calves Died/Calves Born	27	26	22	29

<sup>a</sup> Questions were not asked of respondents in this region to determine these percentages.

<sup>b</sup> This is not an exact estimate of calving rate. It is calves born in past 12 months ÷ cows on hand today. This could give an upward bias to this figure.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 4 Cattle Disposals in Mara Region, September 1974 - August 1975.

	Cattle Sold(b)			Herders Selling Cattle (a)			Cattle Traded			Cattle Traded (a)		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mara Region	74	2.28	4.26	38	4.29	5.14	81	.44	1.52	9	4.00	2.65
Tarime District	26	1.31	1.72	13	2.62	1.56	31	.52	1.23	5	3.20	.84
Musoma District	30	.90	1.45	12	2.25	1.48	30	.00	.00	0		
Serengeti District	18	6.0	7.12	13	7.85	7.49	20	1.00	2.58	4	5.00	3.92

	Cattle Dowry			Cattle Dowry (a)			Total Cattle Died			Slaughter Cattle Eaten		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mara Region	81	5.58	13.91	20	22.60	20.24	81	5.88	9.36	81	.78	2.44
Tarime District	31	5.45	11.14	10	16.90	14.11	31	4.29	6.67	31	.84	1.44
Musoma District	30	1.20	4.74	4	9.0	11.11	30	2.33	2.78	30	.20	.55
Serengeti District	20	12.35	20.49	6	41.17		20	13.65	14.12	20	1.55	4.49

	Slaughter Cattle Sold			Cattle Stolen			Cattle Gifts		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mara Region	81	.27	1.01	81	.58	2.77	81	.22	.67
Tarime District	31	.65	1.54	31	.29	.97	31	.39	.88
Musoma District	30	.00		30	.03	.18	30	.00	
Serengeti District	20	.10	.45	20	1.85	5.34	20	.30	.73

- a) Average number for herds involved in specified practice.  
b) Seven questionnaires missing information for this response.

Appendix Table.5 Months to Wean Calves in Mara Region, August 1975

	Months to Wean Calves		
	n	$\bar{x}$	s
Mara Region	79	10.66	3.43
Tarime District	29	10.45	2.84
Musoma District	30	10.33	3.48
Serengeti District	20	11.45	4.14

n = sample size (number in sample)

x = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 6 Respondents Feeding Grains to Calves in Mara Region,  
September, 1974 to August, 1975.

	Yes		No		Total
	n	%	n	%	Respondents
Mara Region	1	1	80	99	81
Tarime District			31	100	31
Musoma District	1	3	29	97	30
Serengeti District			20	100	20

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 7 Source of Water During Dry Season in Mara Region, August, 1975.

	River /		Dam		Wells		Lake		Total
	Stream								Respondents
	n	%	n	%	n	%	n	%	n
Mara Region	46	59	9	12	5	6	18	23	78
Tarime District	19	68	6	21	3	11			28
Musoma District	10	33	1	3	1	3	18	60	30
Serengeti District	17	85	2	10	1	5			20

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.8 Time Required to Trek Cattle to Water Yesterday in Mara Region,  
August 1975<sup>a</sup>

	Less than 2 hours		2 hours to half day		Don't Know		Total Respondents
	n	%	n	%	n	%	
Mara Region	70	87	10	12	1	1	81
Tarime District	26	84	5	16			31
Musoma District	28	93	2	7			30
Serengeti District	16	80	3	15	1	5	20

<sup>a</sup> All interviews conducted in dry season.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 9 Time Required to Trek Cattle to Grazing During Dry Season in Mara Region, August, 1975.

	Less Than 2 Hours		2 Hours to Half Day		Total Responses
	n	%	n	%	n
Mara Region	27	33	54	67	81
Tarime District	7	23	24	77	31
Musoma District	14	47	16	53	30
Serengeti District	6	30	14	70	20

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.10 Time Required to Trek Cattle to Grazing in Wet Season in Mara Region, August 1975.

	Less than 2 hours		2 hours to half day		Total Respondents
	n	%	n	%	n
Mara Region	71	88	10	12	81
Tarime District	26	84	5	16	31
Musoma District	27	90	3	10	30
Serengeti District	18	90	2	10	20

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 11 Cattle Recently Dipped by Respondents in Mara Region in August, 1975.

	Last Seven Days				Total Respondents	Last Seven to Fourteen Days				Total Respondents
	Yes		No			Yes		No		
	n	%	n	%		n	%	n	%	
Mara Region	17	21	64	79	81	23	28	58	72	81
Tarime District	3	10	28	90	31	7	23	24	77	31
Musoma District	11	37	19	63	30	13	43	17	57	30
Serengeti District	3	15	17	85	20	3	15	17	85	20

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 12 Average Time Elapsed Since Last Dipping <sup>a</sup>  
Cattle in Mara Region, August 1975

	MONTHS		Total
	$\bar{x}$	s	Respondents n
Mara Region	1.35	2.61	52
Tarime District	1.30	2.83	20
Musoma District	1.06	1.69	16
Serengeti District	1.69	3.16	16

<sup>a</sup> Respondents are those who had not dipped their cattle in the previous two weeks before the interview.

x = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 13 Reasons why cattle have not been dipped in Mara Region, August 1975

	No dipping facilities		dip too far		dip broken		no water in dip	
	n	%	n	%	n	%	n	%
Mara Region	36	82	1	2	2	5	2	5
Tarime District	13	87						
Musoma District	11	79			2	14	1	7
Serengeti District	12	80	1	7			1	7

	no medicine		Other		Total Respondents
	n	%	n	%	n
Mara Region	1	2	2	4	44
Tarime District	1	7	1	7	15
Musoma District					14
Serengeti District			1	7	15

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.14 Respondents who treat their cattle for diseases in Mara Region, August 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mara Region	51	63	30	37	81
Tarime District	20	65	11	35	31
Musoma District	15	50	15	50	30
Serengeti District	16	80	4	20	20

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 15a Livestock Vaccinations in Mara Region, September 1974 - August 1975.

	Mature Cattle		Immature Cattle		Goats		Sheep		Donkeys		Total Respondents	
	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>a</sup>
Foot and Mouth	25	100	23	92	9	36	7	28	0		25	49
Anthrax	11	100	9	82	2	18	1	9	0		11	22
Blackquarter	9	100	7	78	3	33	1	11	0		9	18
Anaplasmosis	17	100	17	100	11	65	8	47	1	6	17	33
Nagana	6	100	4	67	1	17	1	17	0		6	12
Rinderpest	27	75	34	94	13	36	11	31	0		36	71
Heartwater	5	100	4	80	3	60	3	60	0		5	10
Other	1	100	1	100	0		0		0		1	2

<sup>a</sup> respondents vaccinating their livestock with specified drug as a percentage of the respondents who vaccinated their cattle in the last 12 months

<sup>b</sup> types of livestock vaccinated by respondent with specified drug as a percentage of the respondents using that vaccine in the last 12 months

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 15b Livestock Vaccinations in Serengeti District, Mara Region,  
September, 1974 to August, 1975.

	Mature Cattle		Immature Cattle		Goats		Sheep		Donkeys		Total Respondents	
	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>a</sup>
	Foot & Mouth	7	100	7	100	1	14	1	14	0		7
Anthrax	3	100	2	67	0		0		0		3	19
Blackquarter	2	100	1	50	0		0		0		2	13
Anaplasmosis	4	100	4	100	2	50	2	50	0		4	25
Nagana	2	100	1	50	0		0		0		2	13
Rinderpest	6	55	10	91	3	27	3	27	0		11	69
Heartwater	1	100	1	100	0		0		0		1	6
Other											0	

<sup>a</sup> respondents vaccinating their livestock with specified drug as a percentage of the respondents who vaccinated their cattle in the last 12 months

<sup>b</sup> types of livestock vaccinated by respondent with specified drug as a percentage of the respondents using that vaccine in the last 12 months

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 15c Livestock Vaccinations in Tarime District, Mara Region,  
September, 1974 to August, 1975.

	Mature Cattle		Immature Cattle		Goats		Sheep		Donkeys		Total Respondents	
	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>a</sup>
	Foot & Mouth	9	100	8	89	4	44	4	44	0		9
Anthrax	6	100	5	83	1	17	1	17	0		6	30
Blackquarter	4	100	3	75	1	25	1	25	0		4	20
Anaplasmosis	9	100	9	100	7	78	6	67	0		9	45
Nagana	3	100	2	67	1	33	1	33	0		3	15
Rinderpest	13	87	14	93	6	40	7	47	0		15	75
Heartwater	4	100	3	75	3	75	3	75	0		4	20
Other											0	

<sup>a</sup> respondents vaccinating their livestock with specified drug as a percentage of the respondents who vaccinated their cattle in the last 12 months

<sup>b</sup> types of livestock vaccinated by respondent with specified drug as a percentage of the respondents using that vaccine in the last 12 months

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 15d Livestock Vaccinations in Musoma District, Mara Region,  
September, 1974 to August, 1975.

	Mature Cattle		Immature Cattle		Goats		Sheep		Donkeys		Total Respondents	
	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>a</sup>
	Foot & Mouth	9	100	8	89	4	44	2	22	0		9
Anthrax	2	100	2	100	1	50	0		0		2	13
Blackquarter	3	100	3	100	2	67	0		0		3	20
Anaplasmosis	4	100	4	100	2	50	0		1	25	4	27
Nagana	1	100	1	100	0		0		0		1	7
Rinderpest	8	80	10	100	4	40	1	10			10	67
Heartwater											0	
Other	1	100	1	100	0		0		0		1	7

<sup>a</sup> respondents vaccinating their livestock with specified drug as a percentage of the respondents who vaccinated their cattle in the last 12 months

<sup>b</sup> types of livestock vaccinated by respondent with specified drug as a percentage of the respondents using that vaccine in the last 12 months

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 16 Time to trek cattle to the nearest veterinary center, Mara Region, August, 1975;

	Less than half day		Half day to one day		One day to two days		More than two days		Don't Know		No vet center		Total Respondents
	n	%	n	%	n	%	n	%	n	%	n	%	n
Mara Region	43	58	10	14	4	5	8	11	6	8	3	4	74
Tarime District	17	65	3	12	2	8			4	15			26
Musoma District	15	54					8	29	2	7	3	11	28
Serengeti District	11	55	7	35	2	10							20

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 17 Cattle Drenched for Internal Parasites in Mara Region, September 1974-August 1975.

	<u>Yes</u>		<u>No</u>		<u>Total Respondents</u>
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Mara Region	15	19	66	81	81
Tarime District	7	23	24	77	31
Musoma District	5	17	25	83	30
Serengeti District	3	15	17	85	20

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 18 Number of Cattle having Miscarriages in Mara Region, September 1974-August 1975.

	n	x	s.
Mara Region	27	2.41	1.99
Tarime District	9	2.00	1.80
Musoma District	5	2.00	2.24
Serengeti District	13	2.85	2.08

n = sample size (number in sample)

x = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 19. Respondents Who Sold Cattle in Mara Region, September 1974 to August 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mara Region	40	49	41	51	81
Tarime District	17	55	14	45	31
Musoma District	10	33	20	67	30
Serengeti District	13	65	7	35	20

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 20 Cattle Sold at Marketplace in Mara Region, September 1974 to August 1975.

	Yes		No		Total
	n	%	n	%	Respondents
Mara Region	22	55	18	45	40
Tarime District	12	71	5	29	17
Musoma District			10	100	10
Serengeti District	10	77	3	23	13

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 21 How Cattle Were Sold at Marketplace in Mara Region, September 1974-August 1975.

	<u>Auction Ring</u>				<u>Outside Market</u>				<u>Weighbridge</u>				<u>Total Respondents</u>
	<u>Yes</u>		<u>No</u>		<u>Yes</u>		<u>No</u>		<u>Yes</u>		<u>No</u>		
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Mara Region	16	73	6	27	4	18	18	82	3	14	19	86	22
Tarime District	9	75	3	25	2	17	10	83	1	8	11	92	12
Musoma District													
Serengeti District	7	70	3	30	2	20	8	80	2	20	8	80	10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 22 Cattle Trekked to Marketplace but Not Sold in Mara Region, September, 1974 to August, 1975.

	Yes		No		Total Respondents
	n	%	n	%	n
Mara Region	6	27	16	73	22
Tarime District	2	17	10	83	12
Musoma District*					0
Serengeti District	4	40	6	60	10

\*Respondents did not sell at marketplace.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 23 Frequency in which Respondent's Primary Cattle Market is Open in Mara Region, September 1974-August 1975.

	<u>Once per Week</u>		<u>Twice per Month</u>		<u>Once per Month</u>		<u>Total Respondents</u>
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>
Mara Region	1	5	12	55	9	41	22
Tarime District			12	100			12
Musoma District*							0
Serengeti District	1	10			9	90	10

\* Respondents did not sell at marketplace.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.24 Time Required to Trek Cattle to Marketplace in Mara Region, August 1975.

	Two Hours to Half Day		Total Respondents
	n	%	n
Mara Region	7	100	7
Tarime District*			0
Musoma District*			0
Serengeti District	7	100	7

\*Respondents in this district were not asked this question.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 25 Available Water on Trek to Primary Marketplace in Mara Region, September, 1974 to August, 1975.

	Yes		No		Total Respondents
	n	%	n	%	n
Mara Region	11	50	11	50	22
Tarime District	8	67	4	33	12
Musoma District*					0
Serengeti District	3	30	7	70	10

\*Respondents did not sell at marketplace.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.26 Source of Water on Trek to Marketplace During Dry Season in Mara Region, August 1975.

	River or Stream		Borehole		Total Respondents
	n	%	n	%	
Mara Region	7	78	2	22	9
Tarime District	5	83	1	17	6
Musoma District*					0
Serengetic District	2	67	1	33	3

\*Respondents did not sell at marketplace.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 27 Cattle Sold During Trek to Marketplace in Mara Region, September, 1974 to August, 1975.

	Yes		No		Total Respondents
	n	%	n	%	n
Mara Region	2	9	20	91	22
Tarime District			12	100	12
Musoma District*					0
Serengeti District	2	20	8	80	10

\*Respondents did not sell at marketplace.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.28 Number of Cattle Died or Stolen on Trek to Market in Mara Region, September, 1974 to August, 1975.

	Number Cattle Died	Number Cattle Stolen	Total Respondents
Mara Region	0	0	22
Tarime District	0	0	12
Musoma District*			0
Serengeti District	0	0	10

\*Respondents did not sell at marketplace.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.29 Water Available at Primary Markets in Mara Region, August, 1975.

	Yes		No		Total Respondents
	n	%	n	%	n
Mara Region	7	35	13	65	20
Tarime District	5	42	7	58	12
Musoma District*					0
Serengeti District	2	25	6	75	8

\*Respondents did not sell at marketplace.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 30 Source of Water at Primary Markets in Mara Region,  
August, 1975.

	River / Stream		Total
	n	%	Respondents
Mara Region	7	100	7
Tarime District	5	100	5
Musoma District*			0
Serengeti District	2	100	2

\*Respondents did not sell at marketplace.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.31 Available Grazing at Primary Markets in Mara Region,  
August, 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mara Region	13	59	9	41	22
Tarime District	9	75	3	25	12
Musoma District*					0
Serengeti District	4	40	6	60	10

\*Respondents did not sell at marketplace.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 32 Frequency in Returning Cattle from Market Without Selling in Mara Region, September, 1974 to August, 1975.

	Never		Sometimes		Total Respondents
	n	%	n	%	
Mara Region	16	76	5	24	21
Tarime District	10	91	1	9	11
Musoma District*					0
Serengeti District	6	60	4	40	10

\*Respondents did not sell at marketplace.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 33 Reason for Returning Cattle from Marketplace  
Without Selling in Mara Region, September 1974  
to August 1975

	Price too low		Poor Animals		Total Respondents
	n	%	n	%	
Mara Region	2	50	2	50	4
Tarime District	1	100			1
Musoma District*					0
Serengeti District	1	33	2	67	3

\* Respondents did not sell at marketplace.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 34 Cattle Sold at Boma in Mara Region, September 1974 to August 1975

	Yes		No		Total Respondents
	n	%	n	%	
Mara Region	24	60	16	40	40
Tarime District	7	41	10	59	17
Musoma District	10	100			10
Serengeti District	7	54	6	46	13

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 35 Reasons for Preferring to Sell Cattle at Other Places Than at Market in Mara Region, August 1975 \*

	Save Time		Better Price		Immediate Problem		Save Time/ Better Price	
	n	%	n	%	n	%	n	%
Mara Region	9	39	1	4	8	35	2	9
Tarim District	4	57			3	43		
Musoma District	5	50					2	20
Serengeti District			1	17	5	83		

	Save Time Market too far		Other		Total Respondents n
	n	%	n	%	
Mara Region	1	4	2	9	23
Tarima District					7
Musoma District	1	10	2	20	10
Serengeti District					6

\* Respondents selling cattle at their boma or on trek to market in last twelve months were asked this question.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 36 Percentage of Respondents Selling Steers in  
Mara Region, September 1974 to August 1975

	n	Percent
Mara Region	21	53
Tarime District	9	53
Musoma District	3	30
Serengeti District	9	69

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.37 Average Age of Steers Sold in Mara Region,  
September, 1974 to August, 1975.

	Age of Youngest Steer			Age of Oldest Steer		
	n	$\bar{x}$	s	n	$\bar{x}$	s
Mara Region	21	5.29	3.24	21	6.43	3.16
Tarime District	9	5.22	3.73	9	6.33	3.53
Musoma District	3	4.00	3.61	3	6.33	4.73
Serengeti District	9	5.78	2.86	9	6.56	2.60

n = sample size (number in sample)

$\bar{x}$  = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 38 Specified Major Reason in Choosing Cows for Sale in Mara Region, August 1975.

	Bring Highest Price		No calf After 3 yrs.		Cow has Miscarriage		Cow Has No Milk		Don't Sell Cows	
	n	%	n	%	n	%	n	%	n	%
Mara Region	13	34	2	5	1	3	2	5	1	3
Tarime District	6	38	2	13						
Musoma District	4	44			1	11	1	11		
Serengeti District	3	23					1	8	1	8

	No Specified Reason		Total Respondents
	n	%	
Mara Region	19	50	38
Tarime District	8	50	8
Musoma District	3	33	6
Serengeti District	8	62	13

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 39 Respondents Who Would Trek More Cattle if Cattle Prices Were TSH. 100/- Higher at Marketplace in Mara Region, August 1975.\*

	Yes		No		Don't Know		Don't Sell at Market		Total Respondents
	n	%	n	%	n	%	n	%	
Mara Region	13	36	21	58	1	3	1	3	36
Tarime District	5	31	11	69					16
Musoma District	2	29	4	57			1	14	7
Serengeti District	6	46	6	46	1	8			13

\*Respondents who sold cattle in previous twelve-month period were asked this question.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 41 Respondents Keeping Sheep or Goats in Mara Region,  
September, 1974 to August, 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mara Region	78	96	3	4	81
Tarime District	31	100			31
Musoma District	28	93	2	7	30
Serengeti District	19	95	1	5	20

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 41 Rank of Importance Reasons for Keeping Sheep or Goats in Mara Region, August 1975

	First						Second							
	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Mara Region	63	12		1				76						
Tarime District	26	5						31						
Musoma District	21	5						26						
Serengeti District	16	2		1				19						

	Third						Total Respondents
	0	1	2	3	4	5	
Mara Region	76						76
Tarime District	31						31
Musoma District	26						26
Serengeti District	19						19

CODES:

- 0 = No reason identified or multiple reasons given but not ranked
- 1 = For meat
- 2 = For milk
- 3 = For sale
- 4 = For dowry
- 5 = Trading
- 6 = Other

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 42 Production Coefficients, Goats and Sheep, in Mara Region, September 1974 to August 1975.

	Total Goats			Female Goats over two years			Females over 2 years died			Female Goats Kidding		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mara Region	77	8.04	7.51	75	3.92	3.42	75	3.45	8.26	75	2.95	2.66
Tarime District	31	8.29	8.54	31	4.61	4.33	31	3.71	9.12	31	3.35	3.31
Musoma District	28	7.14	6.41	28	3.32	2.72	28	1.57	2.59	28	2.32	1.96
Serengeti District	18	9.00	7.48	16	3.63	2.22	16	6.25	11.95	16	3.25	2.21

	Total Sheep			Female Sheep Over 2 years			Females Over 2 Years Died			Female Sheep Lambing		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mara Region	77	5.75	9.66	45	5.04	5.72	45	7.22	14.34	45	4.11	4.74
Tarime District	31	7.29	11.54	23	4.65	5.54	23	5.65	12.83	23	3.70	4.62
Musoma District	28		2.58	7		1.83	7	.43	1.13	7	1.57	.98
Serengeti District	18	10.22	10.57	15	7.07	6.62	15	12.80	18.08	15	5.93	5.44

n = sample size (number in sample)

$\bar{x}$  = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 43 Goats Disposals in Mara Region, October 1974 to September 1975

	Goats Sold <sup>a</sup>			Goats Sold <sup>b</sup>			Goats Sold <sup>c</sup>			Goats Traded <sup>a</sup>		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mara Region	81	.42	1.14	76	.45	1.17	13	2.62	1.56	81	.19	1.67
Tarime District	31	.71	1.44	31	.71	1.44	8	2.75	1.58	31	0.00	0.00
Musoma District	30	.40	1.10	28	.43	1.14	5	2.40	1.67	30	.50	2.74
Serengeti District	20	0.00	0.00	17	0.00	0.00	0			20	0.00	0.00

	Goats Traded <sup>b</sup>			Goats Traded <sup>c</sup>			Goats Dowry <sup>a</sup>			Goats Dowry <sup>b</sup>		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mara Region	76	.20	1.72	1	15.00	0.00	81	.33	1.84	76	.36	1.90
Tarime District	31	0.00	0.00	0			31	.87	2.93	31	.87	2.93
Musoma District	28	.54	2.83	1	15.00	0.00	30	0.00	0.00	28	0.00	0.00
Serengeti District	17	0.00	0.00	0			20	0.00	0.00	17	0.00	0.00

	Goats Dowry <sup>c</sup>			Goats Died			Goats Died-Buried			Goats Died-Eaten		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mara Region	7	3.86	5.43	76	5.86	18.07	35	0.00	0.00	35	0.00	0.00
Tarime District	7	3.86	5.43	31	8.32	26.38	14	0.00	0.00	14	0.00	0.00
Musoma District	0			28	1.79	2.79	15	0.00	0.00	15	0.00	0.00
Serengeti District	0			17	18.06	12.88	6	0.00	0.00	6	0.00	0.00

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 43 Goats Disposals in Mara Region (Cont')

	Goats Slaughter Eaten			Goats Slaughter Sold			Goats Stolen			Goats Gifts		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mara Region	76	2.47	6.74	76	.12	.92	76	.74	2.40	76	.36	1.29
Tarime District	31	2.13	2.55	31	.03	.18	31	.68	1.47	31	.23	.67
Musoma District	28	1.00	1.56	28	0.00	0.00	28	.07	.26	28	0.00	0.00
Serengeti District	17	5.53	13.52	17	.47	1.94	17	1.94	4.52	17	1.18	2.46

<sup>a</sup> Includes all respondents interviewed

<sup>b</sup> Respondents claiming to own goats at time of interview

<sup>c</sup> Respondents who actually performed activity in last 12 months

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 44 Sheep Disposals in Mara Region, September 1974 - August 1975.

	Sheep Sold <sup>a</sup>			Sheep Sold <sup>b</sup>			Sheep Sold <sup>c</sup>			Sheep Traded <sup>a</sup>		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mara Region	81	.74	4.52	48	1.25	5.84	8	7.50	13.24	81	.01	.11
Tarime District	31	.61	1.48	25	.76		6	3.17	1.83	31	0.0	0.0
Musoma District	30	0.0	0.0	7	0.0	0.0	0			30	0.0	0.0
Serengeti District	20	2.05	8.94	16	2.56		2	20.50	27.57	20	.05	.22

	Sheep Traded <sup>b</sup>			Sheep Traded <sup>c</sup>			Sheep Dowry <sup>a</sup>			Sheep Dowry <sup>b</sup>		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mara Region	48	.02	.14	1	1.00	0.0	81	.09	.55	48	.15	.71
Tarime District	25	0.0	0.0	0	0.0		31	.23	.88	25	.28	
Musoma District	7	0.0	0.0	0			30	0.0	0.0	7	0.0	0.0
Serengeti District	16	.06		1	1.00	0.0	20	0.0	0.0	16	0.0	0.0

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 44 (Cont.)

	Sheep Dowry <sup>c</sup>			Total Sheep		
				Died		
	n	$\bar{x}$	s	n	$\bar{x}$	s
Mara Region	2	3.50	.7	48	8.42	14.64
Tarime District	2	3.50	.70	25	5.56	10.89
Musoma District	0			7	.57	1.13
Serengeti District	0			16	16.31	19.29

	Sheep Slaughtered			Sheep Slaughtered			Sheep Stolen			Sheep Gifts		
	Eaten			Sold								
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mara Region	48	3.96	9.34	48	0.0	0.0	48	.88	1.93	48	.63	1.99
Tarime District	25	2.88	4.24	25	0.0	0.0	25	.68	1.14	25	.48	1.29
Musoma District	7	1.29	1.80	7	0.0	0.0	7	0.0	0.0	7	.14	.38
Serengeti District	16	6.81	15.15	16	0.0	0.0	16	1.56	2.94	16	1.06	3.04

a. Includes all respondents interviewed.

b. Respondents claiming to own sheep at time of interview.

c. Respondents who actually performed activity in last 12 months.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.45 Respondents Dipping Sheep or Goats in Mara Region for the period of September, 1974 to August, 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mara Region	36	47	41	53	77
Tarime District	11	37	19	63	30
Musoma District	18	64	10	36	28
Serengeti District	7	37	12	63	19

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.46 Vaccinations of Sheep and Goats in Mara Region,  
September, 1974 to August, 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mara Region	5	6	72	94	77
Tarime District	3	10	27	90	30
Musoma District	2	7	26	93	28
Serengeti District			19	100	19

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.47 Treatment of Sheep or Goats for Parasites in Mara Region, September, 1974 to August, 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mara Region	7	9	70	91	77
Tarime District	4	13	26	87	30
Musoma District	3	11	25	89	28
Serengeti District			19	100	19

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.48 Number of Miscarriages for Sheep and Goats in Mara Region, September, 1974 to August, 1975.

	Goat			Sheep		
	Miscarriages			Miscarriages		
	n	$\bar{x}$	s	n	$\bar{x}$	s
Mara Region	75	.71	1.65	48	.77	1.88
Tarime District	31	.87	2.22	23	.96	2.03
Musoma District	28	.50	1.17	10	0.0	0.0
Serengeti District	16	.75	1.00	15	1.00	2.20

n = sample size (number in sample)

x = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.49 Respondents who Sell Goats in Mara Region, August 1975.

	Yes		No		No Goats		Total Respondents
	n	%	n	%	n	%	
Mara Region	38	49	37	47	3	4	78
Tarime District	22	71	9	29			31
Musoma District	11	39	17	61			28
Serengeti District	5	26	11	58	3	16	19

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.50 Where Respondents Sell Goats in Mara Region, August 1975.

	At Market				To Traders				To Friends				Total Respondents
	Yes		No		Yes		No		Yes		No		
	n	%	n	%	n	%	n	%	n	%	n	%	
Mara Region	25	66	13	34	3	8	35	92	22	58	16	42	38
Tarime District	17	77	5	23	0		22	100	9	41	13	59	22
Musoma District	4	36	7	64	1	9	10	91	9	82	2	18	11
Serengeti District	4	80	1	20	2	40	3	60	4	80	1	20	5

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 51 Respondents Who Sell Sheep, Mara Region, August 1975

	Yes		No		No Sheep		Total Respondents
	n	%	n	%	n	%	
Mara Region	22	28	24	31	32	41	78
Tarime District	15	48	9	29	7	23	31
Musoma District	1	4	6	21	21	75	28
Serengeti District	6	32	9	47	4	21	19

Source: TAMU/USAID Livestock Survey by Personal Interview.

	AT MARKET				TO TRADERS				TO FRIENDS				Total Respondents
	Yes		No		Yes		No		Yes		No		
	n	%	n	%	n	%	n	%	n	%	n	%	
Mara Region	16	73	6	27	1	5	21	95	11	50	11	50	22
Tarime District	12	80	3	20			15	100	6	40	9	60	15
Musoma District			1	100	1	100					1	100	1
Serengeti District	4	67	2	33			6	100	5	83	1	17	6

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 53 Respondents Trading Sheep and Goats for Other Goods in Mara Region, August 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mara Region	26	33	52	67	78
Tarime District	14	45	17	55	31
Musoma District	7	25	21	75	28
Serengeti District	5	26	14	74	19

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 54 Goods Received in Exchange for Sheep and Goats in Mara Region,  
August 1975

	For Food				For Clothes				For Animals			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Mara Region	18	69	8	31	4	15	22	85	14	54	12	46
Tarime District	13	93	1	7	3	21	11	79	6	43	8	57
Musoma District	2	29	5	71	0		7	100	5	71	2	29
Serengeti District	3	60	2	40	1	20	4	80	3	60	2	40

	For Other Goods				Total Respondents
	Yes		No		
	n	%	n	%	
Mara Region	0		26	100	26
Tarime District	0		14	100	14
Musoma District	0		7	100	7
Serengeti District	0		5	100	5

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.55 Rank in Importance Reasons Given for Keeping Cattle in Mara Region, August 1975.

Code	First							Second							Total Respondents		
	0	1	2	3	4	5	6	7	0	1	2	3	4	5		6	7
Mara Region	76			3		1	1		80	1							81
Tarime District	31								31								31
Musoma District	30								30								30
Serengeti District	15			3		1	1		19	1							20

Codes:

- 0 No reason identified or multiple reasons given but not ranked
- 1 Kept for milk
- 2 Kept for meat
- 3 Kept for selling in difficulties
- 4 Custom
- 5 Dowry
- 6 Farming
- 7 Other

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 56 Respondents' Sources of Cash Income in Mara Region, September 1974 to August 1975

	Crops				Livestock				Trade			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Mara Region	77	95	4	5	78	90	8	10	4	5	77	95
Tarime District	29	94	2	6	29	94	2	6	1	3	30	97
Musoma District	30	100			25	83	5	17	3	10	27	90
Serengeti District	18	90	2	10	19	95	1	5			20	100

	Wages				Other				Total Respondents
	Yes		No		Yes		No		
	n	%	n	%	n	%	n	%	
Mara Region	2	2	79	98	4	5	77	95	81
Tarime District			31	100			31	100	31
Musoma District	2	7	28	93	3	10	27	90	30
Serengeti District			20	100	1	5	19	95	20

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 57 Source of Original Herd for Respondents in Mara Region, August 1975.

	Purchase				Received From Relative				Labor				Dowry			
	Yes		No		Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Mara Region	41	51	40	49	31	38	50	62	2	2	79	98	24	30	57	70
Tarime District	14	45	17	55	13	42	18	58	0		31	100	8	26	23	74
Musoma District	22	73	8	27	6	20	24	80	1	3	29	97	7	23	23	77
Serengeti District	5	25	15	75	12	60	8	40	1	5	19	95	9	45	11	55
	Trade				Other				Total Respondents							
	Yes		No		Yes		No									
	n	%	n	%	n	%	n	%								
Mara Region	4	5	77	95	0		81	100	81							
Tarime District	3	10	28	90	0		31	100	31							
Musoma District	1	3	29	97	0		30	100	30							
Serengeti District	0		20	100	0		20	100	20							

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 58 Ownership of the Cattle Kept by Respondents in Mara Region, August 1975.

	All		Most		Some		None		Total Respondents
	n	%	n	%	n	%	n	%	
Mara Region	35	43	39	48	7	9			81
Tarime District	10	32	15	48	6	19			31
Musoma District	15	50	14	47	1	3			30
Serengeti District	10	50	10	50					20

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 59 Responsibility to Sell or Dispose of Cattle in Mara Region, August, 1975.

	Husband		Wife		Family		Total Respondents
	n	%	n	%	n	%	
Mara Region	16	20	1	1	64	79	81
Tarime District	10	32			21	68	31
Musoma District	2	7	1	3	27	90	30
Serengeti District	4	20			16	80	20

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 60 Number of Cattle Given for Dowry in Mara Region,  
September, 1974 to August, 1975.

	$\bar{x}$	s	Total Respondents
Mara Region	21.86	10.63	81
Tarime District	21.06	7.87	31
Musoma District	15.20	9.23	30
Serengeti District	33.10	6.65	20

$\bar{x}$  = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 61 Types of Cattle Most Frequently Given in Dowry in Mara Region, August 1975

	COWS				CALVES				HEIFERS			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Mara Region	52	65	28	35	45	56	35	44	68	85	12	15
Tarime District	25	83	5	17	21	70	9	30	22	73	8	27
Musoma District	17	57	13	43	16	53	14	47	28	93	2	7
Serengeti District	10	50	10	50	8	40	12	60	18	90	2	10

	BULLS				STEERS				TOTAL RESPONDENTS
	Yes		No		Yes		No		
	n	%	n	%	n	%	n	%	
Mara Region	68	85	12	15	50	63	30	38	80
Tarime District	22	73	8	27	16	53	14	47	30
Musoma District	29	97	1	3	19	63	11	37	30
Serengeti District	17	85	3	15	15	75	5	25	20

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 62 Payment of Dowry in Other Forms Except Cattle in Mara Region, September 1974 to August 1975

	Yes		No		TOTAL RESPONDENTS
	n	%	n	%	
Mara Region	44	54	37	46	81
Tarime District	13	42	18	58	31
Musoma District	21	70	9	30	30
Serengeti District	10	50	10	50	20

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 63 Cattle Given to Son as Customary Gift in Mara Region  
in last Two Years, September 1973 to August 1975

	Yes		No		TOTAL RESPONDENTS
	n	%	n	%	
Mara Region	14	17	67	83	81
Tarime District	8	26	23	74	31
Musoma District	1	3	29	97	30
Serengeti District	5	25	15	75	20

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 64 Types of Cattle Given to Son as Customary Gift in Mara Region, September 1973 to August 1975

	COWS				HEIFERS				CALVES			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Mara Region	7	50	7	50	8	57	6	43	8	57	6	43
Tarime District	4	50	4	50	3	38	5	63	5	63	3	38
Musoma District			1	100	1	100					1	100
Serengeti District	3	60	2	40	4	80	1	20	3	60	2	40

	BULLS				STEERS				TOTAL RESPONDENTS
	Yes		No		Yes		No		
	n	%	n	%	n	%	n	%	
Mara Region	9	64	5	36	5	36	9	64	14
Tarime District	6	75	2	25	2	25	6	75	8
Musoma District	1	100					1	100	1
Serengeti District	2	40	3	60	3	60	2	40	5

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 65 Money Kept in Bank after Selling Cattle in Mara Region,  
August 1975

	Yes		No		Never Sells Cattle		Total Respondents
	n	%	n	%	n	%	
Mara Region	7	9	71	90	1	1	79
Tarime District			31	100			31
Musoma District	4	14	23	82	1	4	28
Serengeti District	3	15	17	85			20

Source: TAMU/USAID Livestock Survey by Personal Interview.

# Mwanza Region

Appendix Table. 1 Characteristics of Herd in Mwanza Region, October 1974 - September 1975.

	Total Cattle			Total Bulls			Immature Bulls <sup>a</sup>			Mature Bulls <sup>a</sup>		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mwanza Region	100	21.38	16.27	100	3.69	2.90	70	2.03	2.04	70	1.11	1.15
Kwimba District	40	26.73	20.82	40	4.40	3.40	12	1.25	2.09	12	1.41	1.44
Magu District	40	16.73	10.19	40	3.13	2.28	38	2.13	1.79	38	1.03	1.15
Sengerema District	10	16.50	10.23	10	3.00	2.36	10	1.70	2.21	10	1.30	.95
Geita District	10	23.50	15.04	10	3.80	3.19	10	2.90	2.56	10	.90	.99
	Improved Bulls			Steers			Cows			Improved Cows		
Mwanza Region	0			100	.84	1.76	100	8.49	6.31	0		
Kwimba District	0			40	1.85	2.41	40	10.18	8.17	0		
Magu District	0			40	.20	.51	40	6.93	3.86	0		
Sengerema District	0			10	.10	.31	10	7.10	4.15	0		
Geita District	0			10	.10	.32	10	9.40	6.33	0		
	Total Heifers			Heifers Over 3 yrs. <sup>a</sup>			Weaned Calves <sub>b</sub>			Unweaned Calves <sub>b</sub>		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mwanza Region	100	3.88	4.04				100	.83	1.48	100	3.72	3.36
Kwimba District	40	4.58	5.08				40	1.33	1.99	40	4.53	4.36
Magu District	40	3.35	3.05				40	.43	.90	40	2.78	2.18
Sengerema District	10	2.30	3.09				10	.80	.79	10	3.4	2.01
Geita District	10	4.80	3.33				10	.50	.85	10	4.60	3.10

-71-

a) question not asked in this region.

b) calves born during period of October 1974 to September 1975.

n = sample size (number in sample)

x = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 2 Cow/Calf Statistics for Mwanza Region, October, 1974 to September, 1975.

	Cows			Calves Born			Calves Weaned			Calves Not Weaned		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mwanza Region	100	8.49	6.31	100	6.81	5.64	100	.83	1.48	100	3.72	3.36
Ngudu District	40	10.18	8.17	40	8.75	7.65	40	1.33	1.99	40	4.53	4.36
Magu District	40	6.93	3.86	40	5.33	3.19	40	.43	.90	40	2.77	2.18
Sengerema District	10	7.10	4.15	10	5.40	2.22	10	.80	.79	10	3.40	2.01
Geita District	10	9.40	6.33	10	6.40	4.35	10	.50	.85	10	4.60	3.10

	Calves Died			Calves/ Cow's Life			Months to Wean		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mwanza Region	100	2.26	2.82	99	10.03	2.33	98	11.32	2.19
Ngudu District	40	2.90	3.44	40	10.00	2.56	38	11.16	1.79
Magu District	40	2.13	2.48	39	9.69	2.00	40	11.40	2.31
Sengerema District	10	1.20	1.75	10	10.00	2.74	10	11.70	3.40
Geita District	10	1.30	1.57	10	11.50	1.78	10	11.20	1.87

n = sample size (number in sample)

x = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 3 Herd Percentages in Mwanza Region, October 1974 - September 1975.

	MWANZA Region	KWIMBA	MAGU	SENGEREMA	GEITA
Total Bulls/Total Cattle	17%	16%	19%	18%	16%
Immature Bulls/Total Cattle	9%	5%	12%	10%	12%
Mature Bulls/Total Cattle	5%	5%	6%	8%	4%
Steers/Total Cattle	4%	7%	1%		.4%
Cows/Total Cattle	40%	38%	41%	43%	40%
Heifer/Total Cattle	18%	17%	20%	14%	20%
Heifer(over three)/Total Cattle <sup>a</sup>					
Calves/Total Cattle	21%	22%	19%	25%	22%
% of Total Cattle.	100%	100%	100%	100%	100%
Immature Bulls/Total Bulls	55%	28%	65%	57%	76%
Mature Bulls/Total Bulls	30%	32%	35%	43%	24%
Cows/Total Females	69%	69%	67%	76%	66%
Heifers/Total Females	31%	31%	33%	24%	34%
Heifer(over three)/Total Females					
Calves Born/Cows	80%	85%	77%	76%	68%
Calves Weaned/Calves Born	12%	15%	8%	15%	8%
Calves Sucking/Cows Born	55%	52%	52%	63%	72%
Calves Died/Calves Born	33%	33%	40%	22%	20%

<sup>a</sup>Question not asked respondents

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 4 Cattle Disposals in Mwanza Region, October 1974 - September 1975.

	Cattle Sold			Cattle Sold *			Cattle Traded			Cattle Dowry		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mwanza Region	100	1.86	2.92	56	3.32	3.22	100	.13	.54	100	1.22	3.27
Kwimba District	40	2.88	3.70	26	4.42	3.78	40	.10	.44	40	1.40	3.82
Magu District	41	1.32	2.27	19	2.73	2.70	41	.05	.22	41	1.29	3.19
Sengerema District	9	.89	.93	7	1.43	.79	9	0.00		9	.78	2.33
Geita District	10	.90	1.60	4	2.25		10	.70	1.34	10	.60	1.90

	Cattle Dowry*			Total Cattle Died			Cattle Died Buried			Cattle Died Eaten		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mwanza Region	14	8.71	1.07	100	4.12	4.69	100	.34	1.58	100	3.78	4.56
Kwimba District	6	9.33	5.01	40	5.28	5.33	40	.45	2.18	40	4.83	5.09
Magu District	6	9.83	1.17	41	3.17	2.90	41	.34	1.20	41	2.83	2.78
Sengerema District	1	7.00	0.0	9	2.89	3.02	9	.11	.33	9	2.78	3.11
Geita District	1	6.00	0.0	10	4.50	7.88	10	.10	.32	10	4.40	7.92

	Slaughter Cattle Eaten			Slaughter Cattle Sold			Cattle Stolen			Cattle Gifts		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mwanza Region	100	.24	.67	100	.02	.14	100	.07	.33	100	.20	1.07
Kwimba District	40	.33	.86	40	.00		40	.03	.16	40	.38	1.61
Magu District	41	.20	.51	41	.00		41	.02	.16	41	.10	.49
Sengerema District	9	.11	.33	9	.11	.33	9	.22	.67	9	.11	.33
Geita District	10	.20	.63	10	.10	.32	10	.30	.67	10	.0	

Cattle Traded\*

Note \*respondents who actually performed activity in last 12 months.

n = sample size (number in sample)

x = mean (average) of the sample

s = standard deviation (measure of variability)

Mwanza Region	7	1.86	1.07
Kwimba District	2	2.00	0.0
Magu District	2	1.00	0.0
Sengerema District	0		
Geita District	3	2.33	1.53

Appendix Table. 5 Months to Wean Calves in Mwanza Region, September, 1975.

	Months to Wean Calves		
	n	$\bar{x}$	s
Mwanza Region	98	11.32	2.19
Ngudu District	38	11.16	1.79
Magu District	40	11.40	2.31
Sengerema District	10	11.70	3.40
Geita District	10	11.20	1.87

x = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 6 Respondents feeding grains to Calves in Mwanza Region, October 1974 to September 1975.

	Yes		No		Total Respondents
	n	%	n	%	n
Mwanza Region			100	100	100
Kwimba District			40	100	40
Magu District			40	100	40
Sengerema District			10	100	10
Geita District			10	100	10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 7 Source of Water During Dry Season in Mwanza Region, September, 1975.

	River/ Stream		Dam		Wells		Lake		Total Respondents
	n	%	n	%	n	%	n	%	n
	Mwanza Region	49	49	36	36	9	9	5	5
Kwimba	22	55	14	35	4	10			40
Magu District	18	45	16	40	3	8	2	5	40
Sengerema District	2	20	4	40	1	10	3	30	10
Geita District	7	70	2	20	1	10			10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 8 Time Required to Trek Cattle to Water Yesterday <sup>a</sup>  
in Mwanza Region, September, 1975.

	Less Than Two hours		2 hours to half day		Total Respondents
	n	%	n	%	
Mwanza Region	93	93	7	7	100
Ngudu District	36	90	4	10	40
Magu District	39	98	1	3	40
Sengerema District	10	100			10
Geita District	8	80	2	20	10

<sup>a</sup> All interviews conducted in dry season.

Appendix Table. 9 Time Required to Trek Cattle to Grazing During Dry Season, in Mwanza Region, September, 1975.

	Less Than		Two Hours to		Total
	Two Hours		Half Day		Respondents
	n	%	n	%	n
Mwanza Region	70	70	30	30	100
Ngudu District	28	70	12	30	40
Magu District	26	65	14	35	40
Sengerema District	9	90	1	10	10
Geita District	7	70	3	30	10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 10 Time Required to Trek Cattle to Grazing in Wet Season  
in Mwanza Region, September, 1975.

	Less than two hours		Total Respondents
	n	%	n
Mwanza Region	100	100	100
Ngudu District	40	100	40
Magu District	40	100	40
Sengerema District	10	100	10
Geita District	10	100	10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 11 Cattle Recently Dipped by Respondents in Mwanza Region in September, 1975.

	Last Seven Days				Total Respondents n	Last Seven to Fourteen Days				Total Respondents n
	Yes		No			Yes		No		
	n	%	n	%		n	%	n	%	
Mwanza Region	22	22	78	78	100	28	28	72	72	100
Ngudu District	11	28	29	73	40	13	33	27	68	40
Magu District	7	18	33	83	40	10	25	30	75	40
Sengerema District	1	10	9	90	10	1	10	9	90	10
Geita District	3	30	7	70	10	4	40	6	60	10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 12 Average Time Elapsed Since Last Dipping Cattle in Mwanza Region, September, 1975.

	Months	s	Total Respondents
Mwanza Region	7.75	13.02	68
Ngudu District	8.19	12.85	26
Magu District	4.75	6.40	28
Sengerema District	18.75	25.94	8
Geita District	5.17	5.34	6

\* Respondents are those who have not dipped their cattle in the previous two weeks before the interview.

Source: TAMU/USAID Livestock Survey by Personal Interview.

- Appendix Table. 13 Reasons why Cattle Have Not Been Dipped in Mwanza Region in September 1975.

	No Dipping Facilities		Some Cattle Died Because of Dip		Dip too Far		Dip Broken		No Water in Dip	
	n	%	n	%	n	%	n	%	n	%
Mwanza Region	10	15	1	1	18	26	13	19	11	16
Kwimba District	3	12	1	4	9	35	2	8	5	19
Magu District	6	21			4	14	7	25	6	21
Sengerema District	1	13			4	50	3	38		
Geita District					1	17	1	17		

	Cattle too Weak		Not able to trek cattle		No Medicine		Not Accustomed to Dipping		Total Respondents
	n	%	n	%	n	%	n	%	n
Mwanza Region	1	1	10	15	2	3	2	3	68
Kwimba District	1	4	5	19					26
Magu District			3	11	2	7			28
Sengerema District									8
Geita District			2	33			2	33	6

-83-

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 14 Respondents Who Treat Their Cattle for Diseases  
in Mwanza Region, September, 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mwanza Region	19	19	81	81	100
Ngudu District	5	13	35	88	40
Magu District	5	13	35	88	40
Sengerema District	2	20	8	80	10
Geita District	7	70	3	30	10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 15a Livestock Vaccinations in Mwanza Region, October, 1974 to September, 1975.

	Mature Cattle		Immature Cattle		Goats		Sheep		Donkeys		Total Respondents	
	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>a</sup>
	Foot & Mouth	9	100	9	100	2	22	1	11	0		9
Anthrax	6	100	5	83	2	33	1	17	0		6	32
Blackquarter	8	100	7	88	1	13	0		0		8	42
Anaplasmosis	0		2	100	0		0		0		2	11
Nagana											0	
Rinderpest	3	100	2	67	1	33	1	33	0		3	16
Heartwater	4	100	4	100	0		0		0		4	21
Other	0		1	100	0		0		0		1	5

<sup>a</sup> respondents vaccinating their livestock with specified drug as a percentage of the respondents who vaccinated their cattle in the last 12 months

<sup>b</sup> types of livestock vaccinated by respondent with specified drug as a percentage of the respondents using that vaccine in the last 12 months

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 15b Livestock Vaccinations in Geita District, Mwanza Region,  
October, 1974 to September, 1975.

	Mature Cattle		Immature Cattle		Goats		Sheep		Donkeys		Total Respondents	
	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>a</sup>
Foot & Mouth	2	100	2	100	0		0		0		2	29
Anthrax	3	100	2	67	1	33	1	33	0		3	43
Blackquarter	2	100	1	50	0		0		0		2	29
Anaplasmosis	0		1	100	0		0		0		1	14
Nagana											0	
Rinderpest	2	100	1	50	0		0		0		2	29
Heartwater	2	100	2	100	0		0		0		2	29
Other	0		0		1	100	0		0		1	14

<sup>a</sup> respondents vaccinating their livestock with specified drug as a percentage of the respondent who vaccinated their cattle in the last 12 months

<sup>b</sup> types of livestock vaccinated by respondent with specified drug as a percentage of the respondents using that vaccine in the last 12 months

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 15c Livestock Vaccinations in Magu District, Mwanza Region,  
October, 1974 to September, 1975.

	Mature Cattle		Immature Cattle		Goats		Sheep		Donkeys		Total Respondents	
	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>a</sup>
Foot & Mouth	2	100	2	100	0		0		0		2	40
Anthrax	2	100	2	100	1	50	0		0		2	40
Blackquarter	3	100	3	100	1	33	0		0		3	60
Anaplasmosis											0	
Nagana											0	
Rinderpest											0	
Heartwater	1	100	1	100	0		0		0		1	20
Other											0	

<sup>a</sup> respondents vaccinating their livestock with specified drug as a percentage of the respondents who vaccinated their cattle in the last 12 months

<sup>b</sup> types of livestock vaccinated by respondent with specified drug as a percentage of the respondents using that vaccine in the last 12 months

Appendix Table. 15d Livestock Vaccinations in Sengerema District, Mwanza Region,  
October, 1974 to September, 1975.

	Mature Cattle		Immature Cattle		Goats		Sheep		Donkeys		Total Respondents	
	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>a</sup>
	Foot & Mouth	2	100	2	100	1	50	0		0		2
Anthrax											0	
Blackquarter											0	
Anaplasmosis											0	
Nagana											0	
Rinderpest											0	
Heartwater	1	100	1	100	0		0		0		1	50
Other											0	

<sup>a</sup> respondents vaccinating their livestock with specified drug as a percentage of the respondents who vaccinated their cattle in the last 12 months

<sup>b</sup> types of livestock vaccinated by respondent with specified drug as a percentage of the respondents using that vaccine in the last 12 months

Appendix Table. 15e Livestock Vaccinations in Ngudu District, Mwanza Region,  
October, 1974 to September, 1975.

	Mature Cattle		Immature Cattle		Goats		Sheep		Donkeys		Total Respondents	
	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>a</sup>
Foot & Mouth	3	100	3	100	1	33	1	33	0		3	60
Anthrax	1	100	1	100	0		0		0		1	20
Blackquarter	3	100	3	100	0		0		0		3	60
Anaplasmosis	0		1	100	0		0		0		1	20
Nagana											0	
Rinderpest	1	100	1	100	1	100	1	100	0		1	20
Heartwater											0	
Other											0	

<sup>a</sup> respondents vaccinating their livestock with specified drug as a percentage of the respondents who vaccinated their cattle in the last 12 months

<sup>b</sup> types of livestock vaccinated by respondent with specified drug as a percentage of the respondents using that vaccine in the last 12 months

Appendix Table. 16 Time to Trek Cattle to the Nearest Veterinarian Center in Mwanza Region, to September 1975.

	Less Than		Half Day		More than		Total Respondents
	Half Day		to One Day		Two Days		
	n	%	n	%	n	%	
Mwanza Region	80	80	19	19	1	1	100
Ngudu District	36	90	4	10			40
Magu District	32	80	8	20			40
Sengerema District	4	40	6	60			10
Geita District	8	80	1	10	1	10	10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 17 Cattle Drenched for Internal Parasites in Mwanza Region, October 1974- September 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mwanza Region	6	6	94	94	100
Kwimba District	1	3	39	98	40
Magu District	4	10	36	90	40
Sengerema District			10	100	10
Geita District	1	10	9	0	10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 18 Number of Miscarriages for Cattle in Mwanza Region, October 1974 to September 1975.

	Cattle Miscarriages		
	n	$\bar{x}$	s
Mwanza Region	20	1.35	.59
Kwimba District	8	1.25	.46
Magu District	7	1.29	.49
Sengerema District	1	1.00	0.0
Geita District	4	1.75	.96

n = sample size (number in sample)

x = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 19 Respondents who sold cattle in Mwanza Region, October 1974 - September 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mwanza Region	56	57	44	44	100
Kwimba District	26	65	14	35	40
Magu District	19	48	21	53	40
Sengerema District	7	70	3	30	10
Geita District	4	40	6	60	10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 20 Cattle sold at market place in Mwanza Region October 1974 - September 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mwanza Region	31	55	25	45	56
Kwimba District	22	85	4	15	26
Magu District	6	32	13	68	19
Sengerema District	2	29	5	71	7
Geita District	1	25	3	75	4

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 21 How cattle were sold at market place in Mwanza Region October 1974 - September 1975.

	Auction Ring				Outside Market				Weighbridge				Total Respondents
	Yes		No		Yes		No		Yes		No		n
	n	%	n	%	n	%	n	%	n	%	n	%	n
Mwanza Region	22	71	9	29	9	29	22	71	1	3	30	97	31
Kwimba District	15	68	7	32	7	32	15	68	1	5	21	95	22
Magu District	4	67	2	33	2	33	4	67			6	100	6
Sergerema District	2	100					2	100			2	100	2
Geita District	1	100					1	100			1	100	1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 22 Cattle trekked to marketplace but not sold in Mwanza Region, October 1974 - September 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mwanza Region	7	23	24	77	31
Kwimba District	5	23	17	77	22
Magu District	2	33	4	67	6
Sengerema District			2	100	2
Geita District			1	100	1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 23 Frequency in which respondent's primary cattle market is open in Mwanza Region, October 1974 - September 1975.

	Once/ Week		Twice/ Month		Once/ Month		Total Respondents
	n	%	n	%	n	%	
Mwanza Region	28	90	1	3	2	6	31
Kwimba District	22	100					22
Magu District	6	100					6
Sengerema District					2	100	2
Geita District			1	100			1

Appendix Table. 24 Time required to trek cattle to market place in Mwanza Region, October 1974 - September 1975.

	Less than		Two hrs. to		Half day		More than		Total Respondents
	two hours		half day		to one day		two days		
	n	%	n	%	n	%	n	%	
Mwanza Region	3	10	21	70	5	17	1	3	30
Kwimba District	1	5	16	76	4	19			21
Magu District	2	33	3	50			1	17	6
Sengerema District			2	100					2
Geita District					1	100			1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 25 Available water on trek to primary market place in Mwanza Region, October 1974 - September 1975.

	Yes		No		Total
	n	%	n	%	Respondents n
Mwanza Region	22	71	9	29	31
Kwimba District	18	82	4	18	22
Magu District	2	33	4	67	6
Sengerema District	1	50	1	50	2
Geita District	1	100			1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 26 Source of Water on trek to market place in Mwanza Region, October 1974 - September 1975.

	River or Stream		Wells		Dams		Borehole		Total Respondents
	n	%	n	%	n	%	n	%	
Mwanza Region	10	45	1	5	10	45	1	5	22
Kwimba District	9	50	1	6	7	39	1	6	18
Magu District					2	100			2
Sengerema District					1	100			1
Geita District	1	100							1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 27 Cattle Sold During Trek to Marketplace in Mwanza Region October 1974 - September 1975.

	Yes		No		Total
	n	%	n	%	Respondents n
Mwanza Region	3	10	28	90.	31
Kwimba District	3	14	19	86	22
Magu District			6	100.	6
Sengerema District			2	100.	2
Geita District			1	100.	1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 28 Number of cattle died or stolen on trek to market in Mwanza Region, October 1974 - September 1975.

	Number Cattle		Total Respondents
	Died	Stolen	
Mwanza Region	0	0	31
Kwimba District	0	0	22
Magu District	0	0	6
Sengerema District	0	0	2
Geita District	0	0	1

Appendix Table. 29 Water available at primary markets in Mwanza Region, September 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mwanza Region	25	81	6	19	31
Kwimba District	21	95	1	5	22
Magu District	3	50	3	50	6
Sengerema District			2	100	2
Geita District	1	100			1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 30 Source of water at primary markets in Mwanza Region, September, 1975.

	River/Stream		Well		Dam		Lake		Total Respondents
	n	%	n	%	n	%	n	%	n
Mwanza Region	3	13	17	71	3	13	1	4	24
Kwimba District	2	10	16	76	3	14			21
Magu District			1	50			1	50	2
Sengerema District									0
Geita District	1	100							1

Appendix Table. 31 Available grazing at primary market in Mwanza Region, September, 1975.

	Yes		No		Total Respondents
	n.	%	n	%	
Mwanza Region	20	65	11	35	31
Kwimba District	15	68	7	32	22
Magu District	3	50	3	50	6
Sengerema District	1	50	1	50	2
Geita District	1	100			1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 32 Frequency in returning cattle from market without selling in Mwanza Region, October 1974 - September 1975.

	Never		Sometimes		Regularly		Total Respondents
	n	%	n	%	n	%	
Mwanza Region	21	68	8	26	2	6	31
Kwimba District	14	64	7	32	1	5	22
Magu District	4	67	1	17	1	17	6
Sengerema District	2	100					2
Geita District	1	100					1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 33 Reason for returning cattle from marketplace without selling in Mwanza Region  
October 1974 - September 1975.

	Price too low	Not enough buyers	Disorderly market	Poor animals	Total Respondents
Mwanza Region	10 100%				10
Kwimba District	.8 100%				8
Magu District	2 100%				2
Sengerema District					0
Geita District					0

Appendix Table. 34 Cattle sold at boma in Mwanza Region, October 1974 - September 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mwanza Region	32	57	24	43	56
Kwimba District	7	27	19	73	26
Magu District	15	79	4	21	19
Sengerema District	6	86	1	14	7
Geita District	4	100			4

Appendix Table. 35 Reasons for Preferring to Sell Cattle at Other Places Than at Market in Mwanza Region, September 1975.

	Save Time		Better Price		Immediate Problem		Save Time/ Better Price		Save Time/ Market too Far		Other		Total Respondents
	n	%	n	%	n	%	n	%	n	%	n	%	n
Mwanza Region	16	50	11	34	2	6	1	3	1	3	1	3	32
Kwimba District	3	43	3	43			1	14					7
Magu District	7	47	6	40	1	7					1	7	15
Sengerema District	4	67	1	17					1	17			6
Geita District	2	50	1	25	1	25							4

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 36 Percentage of Respondents Selling Steers in Mwanza Region,  
October, 1974 to September, 1975.

	n	Percent
Mwanza Region	11	20
Ngudu District	8	31
Magu District	3	15
Sengerema District	0	
Geita District	0	

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 37 Average Age of Steer Sold in Mwanza Region, October 1974 - September 1975

	Age of Youngest Steer			Age of Oldest Steer		
	n	x	s	n	x	s
Mwanza Region	11	3.91	.78	11	4.45	1.63
Kwimba District	8	4.12	1.25	8	4.75	1.83
Magu District	3	3.33	.58	3	3.67	.58
Sengerema District	0			0		
Geita District	0			0		

n = sample size (number in sample)

x = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 38 Specified Major Reason in Choosing Cows for Sale in Mwanza Region, September 1975.

	Bring Highest Price		No calf After 3 yrs.		Cow has Miscarriage		Cow has no Milk		No Specified Reason		Total Respondents
	n	%	n	%	n	%	n	%	n	%	n
Mwanza Region	28	50	16	29	3	5	6	11	3	5	56
Kwimba District	15	58	5	19	1	4	3	12	2	8	26
Magu District	8	40	9	45	1	5	1	5	1	5	20
Sengerema District	2	33	2	33			2	33			4
Geita District	3	75			1	25					4

Appendix Table. 39 Respondent who would sell more cattle if cattle prices were Tsh. 100/- higher at market place in Mwanza Region, September, 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mwanza Region	5	9	51	91	56
Kwimba District	4	15	22	85	26
Magu District	1	5	18	95	19
Sengerema District			7	100	7
Geita District			4	100	4

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 40 Respondents keeping sheep or goats in Mwanza Region, October 1974 to September, 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mwanza Region	77	77	23	23	100
Kwimba District	34	85	6	15	40
Magu District	29	73	11	28	40
Sengerema District	6	60	4	40	10
Geita District	8	80	2	20	10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 41 Rank of importance reasons for keeping sheep or goats in Mwanza Region, October, 1974 to September, 1975.

	FIRST							SECOND						SECOND								
	0	1	2	3	4	5	6	0	1	2	3	4	5	6	0	1	2	3	4	5	6	
Mwanza Region	46	30						74			2											
Kwimba District	19	15						32			2											
Magu District	20	8						28														
Sengerema District	3	3						6														
Geita District	4	4						8														

	THIRD							Total Respondents
	0	1	2	3	4	5	6	
Mwanza Region	76							76
Kwimba District	34							34
Magu District	28							28
Sengerema District	6							6
Geita District	8							8

Codes:

- 0 No reason identified or multiple reasons given
- 1 For meat
- 2 For milk
- 3 For sale
- 4 For dowry
- 5 For Trade
- 6 Other

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 42 Production Coefficients, Goats and Sheep, in Mwanza Region, October 1974 to September 1975.

	Total Goats			Female Goats over 2 years			Female over 2 years died			Female Goats Kidding		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mwanza Region	68	9.22	7.09	68	4.51	4.06	68	.97	2.71	68	2.51	2.52
Kwimba District	34	9.00	6.98	32	5.00	4.83	32	1.09	2.81	32	2.66	2.71
Magu District	23	9.52	6.00	23	4.17	3.30	13	1.26	3.26	13	2.57	2.81
Sengerema District	5	4.00	2.00	5	2.20	1.10	5	.40	.55	5	1.60	1.14
Geita District	8	10.25	5.18	8	5.00	3.82	8	0.00	0.00	8	2.38	1.51

	Total Sheep			Female Sheep over 2 years			Females Over 2 years died			Female Sheep Lambing		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mwanza Region	77	8.68	8.73	64	5.58	5.12	64	1.38	2.10	64	3.05	2.79
Kwimba District	34	10.21	8.84	33	5.85	5.38	33	1.67	2.50	33	3.33	3.02
Magu District	22	11.55	9.00	23	5.78	5.49	23	1.35	1.70	23	2.91	2.91
Sengerema District	2	6.48	3.00	1	6.00	0.0	1	0.00	0.00	1	3.00	0.00
Geita District	8	6.75	4.59	7	3.57	2.15	7	.29	.76	7	2.14	.90

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table 43. Goat Disposals in Mwanza Region, October 1974 to September 1975

	Goats Sold <sup>a</sup>			Goats Sold <sup>b</sup>			Goats Sold <sup>c</sup>			Goats Traded <sup>a</sup>		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mwanza Region	100	.58	2.53	70	.83	3.00	9	6.44	6.06	100	.14	1.23
Kwimba District	40	1.08	3.60	32	1.34	3.99	6	7.16	6.97	40	.25	1.58
Magu District	40	.35	1.69	25	.56	2.12	2	7.00	4.24	40	.05	.32
Sengerema District	10	0.0		5	0.0		0			10	.20	0.0
Geita District	10	.10	.32	8	.13	.35	1	1.00	0.0	10	0.0	

	Goats Traded <sup>b</sup>			Goats Traded <sup>c</sup>			Goats Dowry <sup>a</sup>			Goats Dowry <sup>b</sup>		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mwanza Region	70	.20	1.23	3	4.67	4.62	100	0.0	0.0	70	0.0	0.0
Kwimba District	32	.31	1.77	1	10.00	0.0	40	0.0		32	0.0	
Magu District	25	.08	.40	1	2.00	0.0	40	0.0		25	0.0	
Sengerema District	5	0.4	.89	1	2.00	0.0	10	0.0		5	0.0	
Geita District	8	0.0		0			10	0.0		8	0.0	

n = sample size (number in sample)

$\bar{x}$  = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table 43. Goat Disposals in Mwanza Region, October 1974 to September 1975 (cont.)

	Goats Dowry <sup>c</sup>			Goats Died			Goats Died-Buried			Goats Died-Eaten		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mwanza Region	0			70	1.93	4.96	70	.10	.39	70	1.83	4.96
Kwimba District	0			32	1.97	5.28	32	.13	.42	32	1.84	5.30
Magu District	0			25	2.64	5.70	25	.12	.44	25	2.52	5.69
Sengerema District	0			5	1.20	1.30	5	0.0		5	1.20	1.30
Geita District	0			8	0.0		8	0.0		8	0.0	

	Goats Slaughtered-Eaten			Goats Slaughtered-Sold			Goats Stolen			Goats Gifts		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mwanza Region	70	.71	1.14	70	0.0	0.0	70	.21	1.08	70	.24	1.80
Kwimba District	32	.66	.97	32	0.0	0.0	32	.09	.53	32	.03	.18
Magu District	25	.92	1.41	25	0.0		25	.36	1.60	25	.64	3.00
Sengerema District	5	0.0		5	0.0		5	0.0		5	0.0	
Geita District	8	.75	1.16	8	0.0		8	.38	1.06	8	0.0	

a. Included all respondents interviewed.

b. Respondents claiming to own goats at time of interview.

c. Respondents who actually performed activity in last 12 months.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 44 Sheep Disposals in Mwanza Region, October 1974 - September 1975.

	Sheep Sold <sup>a</sup>			Sheep Sold <sup>b</sup>			Sheep Sold <sup>c</sup>			Sheep Traded <sup>a</sup>			Sheep Traded <sup>b</sup>		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mwanza Region	100	.23	2.11	68	.56	2.54	6	6.33	6.53	100	.14	.71	68	.21	.86
Kwimba District	40	.85	3.26	33	1.03		4	8.50	7.19	40	.18	.96	33	.21	
Magu District	40	.07	.47	26	.12	.59	1	3.0	0.0	40	.17	.59	26	.23	.71
Sengerema District	10	.0		2	.0		0			10	.10	.31	2	.50	.71
Geita District	10	.10	.32	7	.14		1	1.0		10	.0		7		

	Sheep Traded <sup>c</sup>			Sheep Dowry <sup>a</sup>			Sheep Dowry <sup>b</sup>			Sheep Dowry <sup>c</sup>			Total Sheep Died			Sheep Died Buried		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mwanza Region	6	2.33	1.97	100	.01	.10	68	.01	.12	1	1	0.0	68	2.18	3.74	68	.18	.79
Kwimba District	2	3.50	2.53	40	.00		33	.00		0			33	2.91	4.67	33	.03	.17
Magu District	3	2.00	1.00	40	.02	.16	26	.04	.20	1	1	0.0	26	1.76	2.68	26	.30	1.12
Sengerema District	1	1.00	0.0	10	0.0		2	0.0		0	0		2	1.50	2.12	2	0.0	
Geita District	0			10			7			0			7	.43	1.13	7	.43	1.13

	Sheep Died Eaten			Sheep Slaughtered Eaten			Sheep Slaughtered Sold			Sheep Stolen			Sheep Gifts		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Mwanza Region	68	2.00	3.75	68	.75	1.18	68	0.0		68	.09	.45	68	.10	.46
Kwimba District	33	2.88	4.69	33	1.12	1.36	33	0.0		33	.0		33	.09	.38
Magu District	26	1.46	2.63	26	.50	.95	26	0.0		26	.23	.71	26	.15	.60
Sengerema District	2	1.50	2.12	2	0.0		2	0.0		2	0.0		2	0.0	
Geita District	7	.43	1.13	7	.43	1.13	7	.0	.0	7	.00	.00	7	.00	.00

a. Included all respondents interviewed.

b. Respondents claiming to own goats at time of interview.

c. Respondents who actually performed activity in last 12 months.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 45 Respondents dipping sheep or goats in Mwanza Region for the period of October, 1974 to September 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mwanza Region	49	64	28	36	77
Kwimba District	25	74	9	26	34
Magu District	17	59	12	41	29
Sengerema District	1	17	5	83	6
Geita District	6	75	2	25	8

Appendix Table. 46 Vaccinations of sheep and goats in Mwanza Region, October, 1974 to September, 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mwanza Region	77	100			77
Kwimba District	34	100			34
Magu District	29	100			29
Sengerema District	6	100			6
Geita District	8	100			8

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 47 Treatment of sheep or goats for parasites in Mwanza Region, October, 1974 to September, 1975.

	Yes		No		Respondents
	n	%	n	%	
Mwanza Region	3	4	74	96	77
Kwimba District			34	100	34
Magu District	2	7	27	93	29
Sengerema District			6	100	6
Geita District	1	13	7	88	8

Appendix Table. 48 Number of miscarriages for sheep and goats in Mwanza Region, October, 1974 to September, 1975.

	Goat			Sheep		
	n	$\bar{x}$	s	n	$\bar{x}$	s
Mwanza Region	68	.40	.79	64	.42	.99
Kwimba District	32	.38	.83	33	.55	1.12
Magu District	23	.52	.90	22	.41	.95
Sengerema District	5	.20	.45	2	.0	.0
Geita District	8	.25	.46	7	.0	.0

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 49 Respondents who sell goats in Mwanza Region, September 1975.

	Yes		No		No. Goats		Total Respondents
	n	%	n	%	n	%	
Mwanza Region	9	12	59	77	9	12	77
Kwimba District	6	18	26	76	2	6	34
Magu District	2	7	21	72	6	21	29
Sengerema District			5	83	1	17	6
Geita District	1	13	7	88			8

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 50 Where respondents sell goats in Mwanza Region, September 1975.

	At Market				To Traders				To Friends				Total Respondents
	Yes		No		Yes		No		Yes		No		n
	n	%	n	%	n	%	n	%	n	%	n	%	n
Mwanza Region	7	78	2	22			9	100	3	33	6	67	9
Kwimba District	6	100					6	100	1	17	5	83	6
Magu District	1	50	1	50			2	100	1	50	1	50	2
Sengerema District													0
Geita District			1	100			1	100	1	100			1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 51 Respondents who sell sheep in Mwanza Region, September 1975.

	Yes		No		No Sheep		Total Respondents
	n	%	n	%	n	%	
Mwanza Region	6	8	59	77	12	16	77
Kwimba District	4	12	29	85	1	3	34
Magu District	1	3	21	72	7	24	29
Sengerema District			3	50	3	50	6
Geita District	1	13	6	75	1	13	8

Appendix Table, 52 Where respondents sell sheep in Mwanza Region, September 1975.

	At Market				To Traders				To Friends				Total Respondents
	Yes		No		Yes		No		Yes		No		
	n	%	n	%	n	%	n	%	n	%	n	%	
Mwanza Region	4	67	2	33			6	100	3	50	3	50	6
Kwimba District	4	100					4	100	1	25	3	75	4
Magu District			1	100			1	100	1	100			1
Sengerema District													0
Geita District			1	100			1	100	1	100			1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 53 Respondents trading sheep and goats for other goods in Mwanza Region, September, 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mwanza Region	12	16	65	84	77
Kwimba District	5	15	29	85	34
Magu District	6	21	23	79	29
Sengerema District	1	17	5	83	6
Geita District			8	100	8

Table. 54 Goods Received in Exchange for Sheep and Goats in Mwanza Region, September 1975.

	For Food				For Clothes				For Animals				For Other Goods				Total Respondents
	Yes		No		Yes		No		Yes		No		Yes		No		
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	
Mwanza Region	8	67	4	33			12	100	4	33	8	67			12	100	12
Kwimba District	3	60	2	40			5	100	2	40	3	60			5	100	5
Magu District	4	67	2	33			6	100	2	33	4	67			6	100	6
Sengerema District	1	100					1	100			1	100			1	100	1
Geita District																	0

Appendix Table. 55 Rank in importance reasons given for keeping cattle in Mwanza Region, October 1974 - September 1975.

	FIRST							SECOND							Total Respondents		
	0	1	2	3	4	5	6	7	0	1	2	3	4	5		6	7
Mwanza Region	1	22		67	8	1			76	14	1	2		6			99
Kwimba District	1	9		28	2				30	6	1	2		1			40
Magu District		10		24	4	1			32	7				1			39
Sengerema District		3		7					8					2			10
Geita District				8	2				7	1				2			10
	THIRD							FOURTH							Total Respondents		
	0	1	2	3	4	5	6	7	0	1	2	3	4	5		6	7
Mwanza Region	87	7	3		2				99								99
Kwimba District	36	2	2						40								40
Magu District	36	1			2				39								39
Sengerema District	8	2							10								10
Geita District	7	2	1						10								10

Codes:

- 0 No reason identified or multiple reasons given but not ranked
- 1 Kept for Milk
- 2 Kept for Meat
- 3 Kept for selling in Difficulties
- 4 Custom
- 5 Dowry
- 6 Farming
- 7 Other

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 56 Respondents' sources of cash income in Mwanza Region, September, 1975.

	Crops				Livestock				Trade				Wages			
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Mwanza Region	77	77	23	23	94	94	6	6	3	3	97	97	2	2	98	98
Kwimba District	39	98	1	3	38	95	2	5	2	5	38	95	2	5	38	95
Magu District	29	73	11	28	38	95	2	5	1	2	39	98			40	100
Sengerema District	5	50	5	50	9	90	1	10			10	100			10	100
Geita District	4	40	6	60	9	90	1	10			10	100			10	100

	Other			
	n	%	n	%
Mwanza Region			100	100
Kwimba District			40	100
Magu District			40	100
Sengerema District			10	100
Geita District			10	100

Appendix Table. 57 Source of original herd for respondents in Mwanza Region, September 1975.

	Dowry				Purchase				Received from Relative				Labor			
	Yes		No		Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Mwanza Region	29	30	68	70	56	58	41	42	32	33	65	67			97	100
Kwimba District	11	29	27	71	22	58	16	42	11	29	27	71			38	100
Magu District	13	33	26	67	25	64	14	36	12	31	27	69			39	100
Sengerema District	3	30	7	70	3	30	7	70	5	50	5	50			10	100
Geita District	2	20	8	80	6	60	4	40	4	40	6	60			10	100

	Trade				Other				Total Respondents n
	Yes		No		Yes		No		
	n	%	n	%	n	%	n	%	
Mwanza Region	5	5	92	95			97	100	97
Kwimba District	2	5	36	95			38	100	38
Magu District	2	5	37	95			39	100	39
Sengerema District	1	10	9	90			10	100	10
Geita District			10	100			10	100	10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 58 Ownership of the cattle kept by respondents in Mwanza Region, September 1975.

	All		Most		Some		None		Total Respondents
	n	%	n	%	n	%	n	%	
Mwanza Region	67	67	24	24	6	6	3	3	100
Kwimba District	25	63	12	30	1	3	2	5	40
Magu District	31	78	7	18	1	2	1	2	40
Sengerema District	5	50	4	40	1	10			10
Geita District	6	60	1	10	3	30			10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 59 Responsibility to Sell or Dispose of Cattle in Mwanza Region,  
September 1975.

	Husband		Family		Owner		Total Respondents
	n	%	n	%	n	%	
Mwanza Region	8	8	90	90	2	2	100
Kwimba District	6	15	32	80	2	5	40
Magu District	1	3	39	98			40
Sengerema District	1	10	9	90			10
Geita District			10	100			10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 60 Number of cattle given for dowry in Mwanza Region, October 1974 - September 1975.

	n	$\bar{x}$	s
Mwanza Region	99	12.99	3.42
Kwimba District	40	14.45	3.50
Magu District	39	12.33	3.32
Sengerema District	10	10.90	.99
Geita District	10	11.80	2.97

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 61 Types of cattle most frequently given in Dowry in Mwanza Region, September, 1975.

	Cows				Calves				Heifers			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Mwanza Region	99	99	1	1	62	62	38	38	99	99	1	1
Kwimba District	39	98	1	3	21	53	19	48	39	98	1	3
Magu District	40	100			26	65	14	35	40	100		
Sengerema District	10	100			7	70	3	30	10	100		
Geita District	10	100			8	80	2	20	10	100		

	Bulls				Steers				Total Respondents
	Yes		No		Yes		No		
	n	%	n	%	n	%	n	%	
Mwanza Region	97	97	3	3	14	14	86	86	100
Kwimba District	37	93	3	8	13	33	27	68	40
Magu District	40	100			1		39	98	40
Sengerema District	10	100					10	100	10
Geita District	10	100					10	100	10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 62 Payment of Dowry in Other Forms Except Cattle in Mwanza Region, September 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mwanza Region	96	96	4	4	100
Kwimba District	38	95	2	5	40
Magu District	38	95	2	5	40
Sengerema District	10	100			10
Geita District	10	100			10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 63-Cattle Given to Son as Customary Gift in Mwanza Region in Last Two Years,  
October 1973 to September 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mwanza Region	9	9	91	91	100
Kwimba District	5	13	35	88	40
Magu District	3	8	37	93	40
Sengerema District			10	100	10
Geita District	1	10	9	90	10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 64 Types of Cattle Given to Son as Customary Gift in Mwanza Region, October 1974 to September 1975.

	Cows				Heifers				Calves			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Mwanza Region	8	89	1	11	5	56	4	44			9	100
Kwimba District	4	80	1	20	2	40	3	60			5	100
Magu District	3	100			2	67	1	33			3	100
Sengerema District												
Geita District	1	100			1	100					1	100

	Bulls				Steers				Total Respondents
	Yes		No		Yes		No		
	n	%	n	%	n	%	n	%	
Mwanza Region	4	44	5	56			9	100	9
Kwimba District	1	20	4	80			5	100	5
Magu District	2	67	1	33			3	100	3
Sengerema District									0
Geita District	1	100					1	100	1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 65 Money Kept in Bank After Selling Cattle in Mwanza Region,  
September 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Mwanza Region	1	1	97	99	98
Kwimba District	1	3	38	97	39
Magu District			39	100	39
Sengerema District			10	100	10
Geita District			10	100	10

Source: TAMU/USAID Livestock Survey by Personal Interview.

# Shinyanga Region

Appendix Table. 1 Characteristics of Herd in Shinyanga Region, October 1974 to September 1975.

	Total Cattle			Total Bulls			Immature Bulls			Mature Bulls		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Shinyanga Region	127	26.35	34.72	127	3.63	3.82	80	1.70	2.14	80	1.35	1.74
Bariadi District	27	18.26	22.18	27	3.11	4.61		N. A.			N. A.	
Maswa District	29	44.62	56.82	29	4.59	3.71		N. A.			N. A.	
Shinyanga District	60	22.80	23.69	60	3.48	3.63	60	1.88	2.20	60	1.60	1.86
Kahama District	11	17.45	15.88	11	3.18	2.93	11	2.09	2.17	11	1.09	1.14
	Improved Bulls			Steers			Cows			Improved Cows		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Shinyanga Region	0			126	3.40	8.75	127	9.15	13.38	1	2	0.0
Bariadi District	0			26	3.08	3.33	27	5.85	8.75	1	2	0.0
Maswa District	0			29	5.86	17.23	29	16.10	21.07	0		
Shinyanga District	0			60	2.95	3.37	60	8.05	10.06	0		
Kahama District	0			11	.09	.30	11	4.91	4.53	0		
	Total Heifers			Heifers over 3 Years			Calves					
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s			
Shinyanga Region	127	4.61	6.85	78	1.44	2.51	127	5.21				
Bariadi District	27	3.11	5.12		N. A.		27	3.30				
Maswa District	29	6.86	9.24		N. A.		29	11.07				
Shinyanga District	60	4.37	6.50	57	1.79	2.76	60	3.72				
Kahama District	11	3.64	3.64	10	1.10	1.79	11	2.64				

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 2 Cow/Calf Statistics for Shinyanga Region, October, 1974 to September, 1975.

	Cows			Calves Born			Calves Weaned			Calves Not Weaned		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Shinyanga Region	127	9.15	13.38	127	6.94	11.24	127	1.46	2.55	127	3.75	6.30
Bariadi District	27	5.85	8.75	27	4.11	4.89	27	.81	1.42	27	2.48	3.67
Maswa District	29	16.10	21.07	29	15.31	20.33	29	3.07	3.95	29	8.00	11.17
Shinyanga District	60	8.05	10.06	60	4.67	4.05	60	1.08	1.91	60	2.63	2.72
Kahama District	11	4.91	4.53	11	4.18	3.25	11	.91	1.30	11	1.73	1.79

	Calves Died			Calves/Cow's Life			Months to Wean		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Shinyanga Region	127	1.74	4.95	121	8.28	2.32	125	11.66	3.40
Bariadi District	27	.93	1.44	26	8.54	2.18	27	11.96	4.82
Maswa District	29	4.17	9.68	28	8.18	2.13	27	11.48	2.99
Shinyanga District	60	.97	1.65	56	8.13	2.57	60	11.73	3.01
Kahama District	11	1.55	1.69	11	8.73	1.95	11	10.91	2.21

n = sample size (number in sample)

x = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 3 Herd Percentages in Shinyanga Region, October 1974 to September 1975.

	Shinyanga Region %	Bariadi District %	Maswa District %	Shinyanga District %	Kahama District %
Total Bulls/Total Cattle	14	17	10	15	19
Immature Bulls/Total Cattle	6	N.A.	N.A.	8	13
Mature Bulls/Total Cattle	5	N.A.	N.A.	7	7
Steers/Total Cattle	13	17	13	13	1
Cows/Total Cattle	35	32	36	35	35
Heifers/Total Cattle	17	17	15	19	24
Heifers (over 3)/Total Cattle	05	N.A.	N.A.	8	7
Calves/Total Cattle	20	18	25	16	19
Immature Bulls/Total Bulls	47	N.A.	N.A.	54	65
Mature Bulls/Total Bulls	37	N.A.	N.A.	46	35
Cows/Total Females	66	65	70	65	59
Heifers/Total Females	34	35	30	35	41
Heifers (over 3)/Total Females	10 <sup>a</sup>	N.A.	N.A.	14	12
Calves Born/Cows <sup>c</sup>	76	70	95 <sup>b</sup>	58	81
Calves Weaned/Calves Born	21	20	20	23	24
Calves Died/Calves Born	25	23	27	21	31

<sup>a</sup>Not complete statistic since heifers over three years were not recorded in Maswa and Bariadi District.

<sup>b</sup>When eight respondents who reported more calves born than cows in herd are removed from sample, percentage reduces to 76%.

<sup>c</sup>Calves born during year ÷ cows on hand September, 1975.

Appendix Table. 4 Cattle Disposals in Shinyanga District, October 1974 - September 1975.

	Cattle Sold			Cattle Sold <u>a</u>			Cattle Traded			Cattle Traded <u>a</u>			Cattle Dowry			Cattle Dowry <u>a</u>		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Shinyanga Region	127	2.79	4.87	69	5.13	5.64	127	.19	.81	10	2.40	1.84	127	1.55	5.65	16	12.38	11.19
Bariadi District	27	1.40	2.29	9	4.22	1.92	27	.15	.53	2	2.00	0.0	27	2.59		3	23.33	17.01
Maswa District	29	6.41	8.29	21	8.85	8.57	29	.10	.41	2	1.50	.71	29	.72	2.71	2	10.50	.71
Shanyanga District	60	2.02	2.55	36	3.36	2.5	60	.28	1.09	6	2.83	2.32	60	1.78	5.37	11	9.73	9.24
Kahama District	11	.81	1.83	3	3.0	2.65	11	-0-		0			11	-0-		0		

	Total Cattle Died			Cattle Died Buried			Cattle Died Eaten			Slaughter Cattle Eaten			Slaughter Cattle Sold			Cattle Stolen			Cattle Gifts		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Shinyanga Region	127	6.91	16.56	123	1.36	11.75	124	5.60	12.54	127	.58	1.70	127	.05	.33	127	.11	.51	127	.24	1.52
Bariadi District	27	1.37	2.63	23	.86	1.96	24	-0-		27	.89	2.67	27	-0-		27	.19	.79	27	-0-	
Maswa District	29	19.27	30.8	29	4.55	24.12	29	14.72	22.5	29	.97	2.21	29	.03	.19	29	.14	.44	29	.83	3.04
Shanyanga District	60	3.18	4.06	60	.25	1.0	60	2.93	3.71	60	.33	.68	60	.03	.26	60	.07	.41	60	.10	.57
Kahama District	11	8.27	7.87	11	-0-		11	8.27	7.87	11	.18	.40	11	.27	.90	11	.09	.30	11	-0-	

a Respondents who actually performed activity in last 12 months.

n = sample size (number in sample)

x = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 5 Months to Wean Calves in Shinyanga Region, September 1975.

	<u>Months to Wean Calves</u>		
	n	$\bar{x}$	s
Shinyanga Region	125	11.66	3.40
Bariadi District	27	11.96	4.82
Maswa District	27	11.48	2.99
Shinyanga District	60	11.73	3.01
Kahama District	11	10.91	2.21

n = sample size (number in sample)

$\bar{x}$  = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 6 Respondents Feeding Grains to Calves in Shinyanga Region,  
October, 1974 to September, 1975.

	No	Total Respondents
Shinyanga Region	126	126
Bariada District	27	27
Maswa District	29	29
Shinyanga District	59	59
Kahama District	11	11

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 7 Source of Water During Dry Season in Shinyanga Region, September, 1975.

	River/						Total Respondents
	Stream		Dam		Wells		
	n	%	n	%	n	%	
Shinyanga Region	66	52	43	34	18	14	127
Bariadi District	27	100					27
Maswa District	9	31	15	52	5	17	29
Shinyanga District	28	47	21	35	11	18	60
Kahama District	2	18	7	64	2	18	11

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 8 Time Required to Trek Cattle to Water Yesterday <sup>a</sup> in Shinyanga Region, September, 1975.

	Less Than		Two Hours		Total
	Two Hours		to Half Day		Respondents
	n	%	n	%	n
Shinyanga Region	98	77	29	23	127
Bariadi District	26	96	1	4	27
Maswa District	18	62	11	38	29
Shinyanga District	44	73	16	27	60
Kahama District	10	91	1	9	11

<sup>a</sup> All interviews were conducted during dry season.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 9 Time Required to Trek Cattle to Grazing During Dry Season in Shinyanga Region, October, 1974 to September, 1975.

	Less Than		Two Hours		One Day to		Total Respondents
	Two Hours		to Half Day		Two Days		
	n	%	n	%	n	%	
Shinyanga Region	69	54	57	45	1	1	127
Bariada District	19	70	8	30			27
Maswa District	13	45	16	55			29
Shinyanga District	27	45	32	53	1	2	60
Kahama District	10	91	1	9			11

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 10 Time Required to Trek Cattle to Grazing During Wet Season in Shinyanga Region, September, 1975.

	Less Than		Two Hours		Total Respondents
	Two Hours		to Half Day		
	n	%	n	%	
Shinyanga Region	123	97	4	3	127
Bariadi District	26	96	1	4	27
Maswa District	28	97	1	3	29
Shinyanga District	58	97	2	3	60
Kahama District	11	100			11

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 11 Cattle Recently Dipped by Respondents in Shinyanga Region in September, 1975.

	Last Seven Days				Total Respondents	Last Seven to Fourteen Days				Total Respondents
	Yes		No			Yes		No		
	n	%	n	%		n	%	n	%	
Shinyanga Region	13	10	113	90	126	16	13	110	87	126
Bariadi District	4	15	22	85	26	2	8	24	93	26
Maswa District	4	14	25	86	29	5	17	24	83	29
Shinyanga District			60	100	60	4	7	56	93	60
Kahama District	5	45	6	55	11	5	45	6	55	11

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 12 Average Time Elapsed since Last Dipping Cattle in Shinyanga Region, September, 1975.\*

	Months		Total Respondents
	$\bar{x}$	s	
Shinyanga Region	5.14	10.74	105
Bariadi District	3.10	4.76	21
Maswa District	6.09	7.99	23
Shinyanga District	5.32	12.75	56
Kahama District	7.40	15.99	5

\* Respondents are those who had not dipped their cattle in the previous two weeks before the interview.

x = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 13 Reasons Why Cattle Have Not Been Dipped in Shinyanga Region During September 1975.

	No dipping facilities		Felt there was no need		Some cattle died because of dip		Dip too far		Dip broken		No water in dip	
	n	%	n	%	n	%	n	%	n	%	n	%
Shinyanga Region	45	44	2	2	3	3	27	26	8	8	11	11
Bariadi District	7	33	2	10			8	38				
Maswa District	4	17			1	4	6	26	1	4	11	48
Shinyanga District	32	58			1	2	13	24	7	13		
Kahama District	2	40			1	20						

	Not able to trek cattle		No Medicine		Not accustomed to dipping		Total Respondents
	n	%	n	%	n	%	n
Shinyanga Region	4	4	2	2	1	1	103
Bariadi District	2	10	2	10			21
Maswa District							23
Shinyangd District	1	2					54
Kahama District	1	20			1	20	5

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 14 Respondents Who Treat Their Cattle for Diseases in Shinyanga Region, September 1975.

	YES		NO		TOTAL Respondents
	n	%	n	%	
Shinyanga Region	30	24	97	76	127
Bariadi District	17	63	10	37	27
Maswa District	5	17	24	83	29
Shinyanga District	7	12	53	88	60
Kahama District	1	9	10	91	11

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.15a Livestock Vaccinations in Shinyanga Region, October, 1974 to September, 1975.

	Mature Cattle		Immature Cattle		Goats		Sheep		Donkeys		Total Respondents	
	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>a</sup>
	Foot & Mouth	7	100	7	100	0		0		0		7
* Anthrax	1	50	2	100	1	50	1	50	0		2	7
Blackquarter	2	67	2	67	1	33	1	33	0		3	10
Anaplasmosis	8	80	6	60	0		0		0		10	33
Nagana	2	100	2	100	1	50	1	50	0		2	7
Rinderpest	10	63	16	100	4	25	4	25	0		16	53
Heartwater	1	100	1	100	0		0		0		1	3
Other:	1	100	1	100	0		0		0		1	3

<sup>a</sup> respondents vaccinating their livestock with specified drug as a percentage of the respondents who vaccinated their cattle in the last 12 months

<sup>b</sup> types of livestock vaccinated by respondent with specified drug as a percentage of the respondents using that vaccine in the last 12 months

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.15b Livestock Vaccinations by respondents in Shinyanga District,  
Shinyanga Region, October, 1974 to September, 1975.

	Mature Cattle		Immature Cattle		Goats		Sheep		Donkeys		Total Respondents	
	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>a</sup>
Foot & Mouth	2	100	2	100	0		0		0		2	28
Anthrax	1	100	1	100	1	100	1	100	0		1	14
Blackquarter	2	100	1	50	1	50	1	50	0		2	28
Anaplasmosis	1	100	1	100	0		0		0		1	14
Nagana											0	
Rinderpest											0	
Heartwater	1	100	1	100	0		0		0		1	14
Other:	1	100	1	100	0		0		0		1	14

<sup>a</sup> respondents vaccinating their livestock with specified drug as a percentage of the respondents who vaccinated their cattle in the last 12 months

<sup>b</sup> types of livestock vaccinated by respondent with specified drug as a percentage of the respondents using that vaccine in the last 12 months

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.15c Livestock Vaccinations in Bariadi District, Shinyanga Region,  
October, 1974 to September, 1975.

	Mature Cattle		Immature Cattle		Goats		Sheep		Donkeys		Total Respondents	
	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>a</sup>
Foot & Mouth	5	100	5	100	0		0		0		5	29
Anthrax											0	
Blackquarter											0	
Anaplasmosis	5	71	4	57	0		0		0		7	41
Nagana	2	100	2	100	1	50	1	50	0		2	12
Rinderpest	9	82	11	100	4	36	4	36	0		11	64
Heartwater											0	
Other:											0	

<sup>a</sup> respondents vaccinating their livestock with specified drug as a percentage of the respondents who vaccinated their cattle in the last 12 months

<sup>b</sup> types of livestock vaccinated by respondent with specified drug as a percentage of the respondents using that vaccine in the last 12 months

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 15d Livestock Vaccinations in Kahama District, Shinyanga Region,  
October 1974 to September 1975.

	Mature Cattle <sup>b</sup>		Immature Cattle <sup>b</sup>		Goats <sup>b</sup>		Sheep <sup>b</sup>		Donkeys		Total Respondents <sup>a</sup>	
	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	%
Foot & Mouth											0	
Anthrax											0	
Blackquarter											0	
Anaplasmosis	1	100	0		0		0		0		1	20
Nagana											0	
Rinderpest											0	
Heartwater											0	
Other											0	

<sup>a</sup> Respondents vaccinating their livestock with specified drug as a percentage of the respondents who vaccinated their cattle in the last 12 months.

<sup>b</sup> Types of livestock vaccinated by respondent with specified drug as a percentage of the respondents using that vaccine in the last 12 months.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 15e Livestock Vaccinations in Maswa District, Shinyanga Region,  
October, 1974 to September, 1975.

	Mature Cattle		Immature Cattle		Goats		Sheep		Donkeys		Total Respondents <sup>a</sup>	
	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	%
Foot & Mouth											0	
Anthrax	0		1	100	0		0		0		1	20
Blackquarter	0		1	100	0		0		0		1	20
Anaplasmosis	1	100	1	100	0		0		0		1	20
Nagana											0	
Rinderpest	1	20	5	100	0		0		0		5	100
Heartwater											0	
Other:											0	

<sup>a</sup>respondents vaccinating their livestock with specified drug as a percentage of the respondents who vaccinated their cattle in the last 12 months

<sup>b</sup>types of livestock vaccinated by respondent with specified drug as a percentage of the respondents using that vaccine in the last 12 months

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 16 Time to Trek Cattle to the Nearest Veterinarian Center in Shinyanga Region, October, 1974 to September, 1975.

	Less than		Half Day		One Day to		More than		No Vet		Total Respondents
	Half Day		to One Day		Two Days		Two Days		Center		
	n	%	n	%	n	%	n	%	n	%	
Shinyanga Region	82	65	37	29	3	2	1	3	2	2	127
Bariadi District	21	78	4	15					2	7	27
Maswa District	24	83	4	14			1	3			29
Shinyanga District	28	47	28	47	2	3	2	3			60
Kahama District	9	82	1	9	1	9					11

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 17 Cattle Drenched for Internal Parasites in Shinyanga Region  
October 1974 to September 1975.

	Yes		No		Don't Know		TOTAL
	n	%	n	%	n	%	Respondents
Shinyanga Region	4	3	120	96	1	1	125
Bariadi District	4	15	22	81	1	4	27
Maswa District			29	100			29
Shinyanga District			58	100			59
Kahama District			11	100			11

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 18 Number of Cattle having Miscarriages in Shinyanga Region, October 1974-September 1975.

	<u>n</u>	<u>x</u>	<u>s</u>
Shinyanga Region	25	2.40	5.78
Bariadi District	4	1.50	1.00
Maswa District	7	5.14	10.96
Shinyanga District	12	1.25	.62
Kahama District	2	1.50	.71

n = sample size (number in sample)

x = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 19 Respondents who Sold Cattle in Shinyanga Region, October, 1974 to September, 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Shinyanga Region	66	52	61	48	127
Bariadi District	6	22	21	78	27
Maswa District	21	72	8	27	29
Shinyanga District	36	60	24	40	60
Kahama District	3	27	8	73	11

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 20 Cattle Sold at Marketplace in Shinyanga Region,  
October, 1974 to September, 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Shinyanga Region	22	33	44	67	66
Bariadi District	4	67	2	33	6
Maswa District	12	57	9	43	21
Shinyanga District	5	14	31	86	36
Kahama District	1	33	2	67	3

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 21 How Cattle Were Sold at Marketplace in Shinyanga Region, October, 1974 to September, 1975.

	Auction Ring				Outside Market				Weigh Bridge				Respondents
	Yes		No		Yes		No		Yes		No		Total
	n	%	n	%	n	%	n	%	n	%	n	%	n
Shinyanga Region	15	68	7	32	5	23	17	77	3	14	19	98	22
Bariadi District	3	75	1	25	1	25	3	75			4	100	4
Maswa District	9	75	3	25	1	8	11	92	3	25			12
Shinyanga District	2	40	3	60	3	60	2	40			5	100	5
Kahama District	1	100					1	100			1		1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 22 Cattle Trekged to Marketplace but not Sold in Shinyanga Region,  
October, 1974 to September, 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Shinyanga Region	5	23	17	77	22
Bariadi District	1	25	3	75	4
Maswa District	4	33	8	67	12
Shinyanga District			5	100	5
Kahama District			1	100	1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 23 Frequency in which Respondent's Primary Cattle Market Is Open in Shinyanga Region, October, 1974 to September, 1975.

	Once per		Twice per		Once per		Other		Total
	Week		Month		Month				Respondents
	n	%	n	%	n	%	n	%	n
Shinyanga Region	17	77	2	9	2	9	1	5	22
Bariadi District	3	75			1	25			4
Maswa District	11	92			1	8			12
Shinyanga District	3	60	2	40					5
Kahama District							1	100	1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 24 Time Required to Trek Cattle to Marketplace in Shinyanga Region, October, 1974 to September, 1975.

	Less Than		Two Hours		Half Day		One Day to		Total
	Two Hours		to Half Day		to One Day		Two Days		
	n	%	n	%	n	%	n	%	
Shinyanga Region	3	14	14	64	4	18	1	5	22
Bariadi District			4	100					4
Maswa District	3	25	5	42	3	25	1	8	12
Shinyanga District			4	80	1	20			5
Kahama District			1	100					1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.25 Available Water on Trek to Primary Marketplace in Shinyanga Region, October, 1974 to September, 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Shinyanga Region	17	77	5	23	22
Bariadi District	4	100			4
Maswa District	9	75	3	25	12
Shinyanga District	3	60	2	40	5
Kahama District	1	100			1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 26 Source of Water on Trek to Market Place in Shinyanga Region, October, 1974, to September, 1975.

	River/ Stream		Wells		Dams		Bore- hole		Total Respondents
	n	%	n	%	n	%	n	%	
Shinyanga Region	9	53	3	18	4	24	1	6	17
Bariadi District	4	100							4
Maswa District	3	33	2	22	3	33	1	11	9
Shinyanga District	2	67			1	33			3
Kahama District			1	100					1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 27 Cattle Sold During Trek to Marketplace in Shinyanga Region, October, 1974 to September, 1975.

	Yes		No		Total
	n	%	n	%	Respondents
Shinyanga Region	1	5	21	95	22
Bariadi District			4	100	4
Maswa District	1	8	11	92	12
Shinyanga District			5	100	5
Kahama District			1	100	1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 28 Number of Cattle Died or Stolen on trek  
to market in Shinyanga Region, October 1974 to September 1975.

	Cattle Died	Cattle Stolen	TOTAL Respondents
Shinyanga Region	0	0	22
Bariadi District	0	0	4
Maswa District	0	0	12
Shinyanga District	0	0	5
Kahama District	0	0	1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 29 Water Available at Primary markets in Shinyanga Region, September 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Shinyanga Region	13	59	9	41	22
Bariadi District	3	75	1	25	4
Maswa District	6	50	6	50	12
Shinyanga District	3	60	2	40	5
Kahama District	1	100			1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 30 Source of Water at Primary Market in Shinyanga Region, September 1975.

	River/ Stream		Dams		Wells		Total Respondents
	n	%	n	%	n	%	
Shinyanga	7	54	5	38	1	8	13
Bariadi District	3	100					3
Maswa District	2	33	3	50	1	17	6
Shinyanga District	2	67	1	33	1	33	3
Kahama District			1	100	1		1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 31 Available grazing at primary markets in Shinyanga Region, September 1975.

	YES		NO		TOTAL
	n	%	n	%	RESPONDENTS n
Shinyanga Region	9	41	13	59	22
Bariadi District	3	75	1	25	4
Maswa District	3	25	9	75	12
Shinyanga District	2	40	3	60	5
Kahama District	1	100			1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 32 Frequency in returning cattle from market place without selling in Shinyanga Region, October 1974 to September 1975.

	Never		Sometimes		Total
	n	%	n	%	n
Shinyanga Region	17	77	5	23	22
Bariadi District	3	75	1	25	4
Maswa District	8	67	4	33	12
Shinyanga District	5	100			5
Kahama District	1	100			1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 33 Reasons for Returning Cattle from Market Place Without Selling in Shinyanga Region, October 1974 to September 1975.

		Price too low %	Total Respondents
Shinyanga Region	4	100	4
Bariadi District			0
Maswa District	4	100	4
Shinyanga District			0
Kahama District			0

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 34 Cattle Sold at Boma in Shinyanga Region, October 1974 to September 1975

	Yes		No		Total Respondents
	n	%	n	%	
Shinyanga Region	49	74	17	26	66
Bariadi District	4	67	2	33	6
Maswa District	11	52	10	48	21
Shinyanga District	32	89	4	11	36
Kahama District	2	67	1	33	3

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.35 Reasons for Preferring to Sell Cattle at Places Other Than the Market in Shinyanga Region, September 1975.

	Save Time		Better Price		Immediate Problem		Save Time/ Better Price		Save Time/ Market too far		Other		Total Respondents
	n	%	n	%	n	%	n	%	n	%	n	%	n
Shinyanga Region	31	63	6	12	7	14	1	2	1	2	3	6	49
Bariadi District	3	75									1	25	4
Maswa District	5	46	2	18	4	36							11
Shinyanga District	21	66	4	13	3	9	1	3	1	3	2	6	32
Kahama District	2	100											2

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 36 Percentage of Respondents Selling Steers in Shinyanga Region,  
October 1974 to September 1975.

	n	%
Shinyanga Region	17	26
Bariadi District	2	33
Maswa District	6	30
Shinyanga District	9	25
Kahama District	0	

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 37 Average Age of Steer Sold in Shinyanga Region, October, 1974 to September, 1975.

	Age of			Age of		
	Youngest Steer			Oldest Steer		
	n	$\bar{x}$	s	n	$\bar{x}$	s
Shinyanga Region	18	4.50	2.52	18	6.11	2.89
Bariadi District	2	3.50	.71	2	8.50	2.12
Maswa District	7	3.29	1.38	7	5.00	2.71
Shinyanga District	9	5.67	3.0	9	6.44	3.0
Kahama District	0			0		

n = sample size (number in sample)

$\bar{x}$  = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 38 Specified Major Reason in Choosing Cows for Sale in Shinyanga Region, September, 1975.

	Bring Highest Price		No Calf After 3 Years		Cow Has Mis-Carriage		Cow is Sick		Cow Has No Milk		Don't Sell Cows		Other Reasons		Has No Preference		Total Respondents	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Shinyanga Region	21	32	15	23	6	9	2	3	6	9	8	12	1	2	1	2	60	91
Bariadi District	2	33									1	17					3	50
Maswa District	10	48	3	14	2	10			3	14							18	86
Shinyanga District	9	25	11	31	3	8	1	3	3	8	7	19	1	3	1	3	36	100
Kahama District			1	33	1	33	1	33									3	100

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 39 Respondents Who Would Trek More Cattle if Cattle Prices were TSH. 100/-Higher at Market Place in Shinyanga Region, September, 1975.

	Yes		No		Don't Know		Total Respondents
	n	%	n	%	n	%	
Shinyanga Region	24	38	38	60	1	2	63
Bariadi District	2	40	3	60			5
Maswa District	11	58	7	37	1	5	19
Shinyanga District	11	31	25	69			36
Kahama District			3	100			3

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 40 Respondents Keeping Sheep or Goats in Shinyanga Region, October 1974 to September 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Shinyanga Region	103	81	24	19	127
Barotzi District	21	78	6	22	27
Maswa District	26	90	3	10	29
Shinyanga District	46	77	14	23	60
Kahama District	10	91	1	9	11

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 41 Rank of Importance, Reasons for Keeping Sheep or Goats in Shinyanga Region, October 1974 to September 1975.

	First										Second									
	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9
Shinyanga Region	52	42		3				1	2		93			7						
Bariadi District	14	6									20									
Maswa District	17	7		1							25									
Shinyanga District	16	26		2				1			39			6						
Kahama District	5	3							2		9			1						

	Third										Codes:
	0	1	2	3	4	5	6	7	8	9	
Shinyanga Region	99									1	0.
Bariadi District	20										1. for meat
Maswa District	25										2. for milk
Shinyanga District	44									1	3. for sale
Kahama District	10										4. for dowry
											5. other
											6. custom
											7. exchange for trading livestock
											8. store of wealth
											9. manure

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 42 Production Coefficients: Goats and Sheep in Shinyanga Region, October, 1974 to September, 1975.

	Total Goats			Female Goats Over 2 Years			Females Over 2 Years Died			Female Goats Having Kids		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Shinyanga Region <sup>a</sup>	91	11.30	9.56	92	5.57	5.63	92	1.49	3.45	92	3.07	2.88
Bariadi District <sup>a</sup>	17	11.94	10.87	18	6.89	8.19	18	2.11	3.34	18	3.06	3.10
Maswa District	26	13.73	11.83	23	8.00	5.85	23	1.52	2.66	23	4.61	3.56
Shinyanga District	46	8.11	7.37	41	4.00	4.02	41	1.54	4.21	41	2.34	2.73
Kahama District	10	9.50	6.98	10	4.00	2.49	10	.10	.32	10	2.5	1.96

	Total Sheep			Female Sheep Over 2 Years			Females Over 2 Years Died			Female Sheep Lambing		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Shinyanga Region	91	12.69	13.76	92	6.90	9.18	92	2.13	4.66	92	3.84	3.43
Bariadi District	18	13.44	15.32	17	7.37	8.58	19	4.58	5.95	19	4.53	4.11
Maswa District	26	15.92	20.22	22	11.18	15.10	22	2.68	6.42	22	5.00	3.30
Shinyanga District	46	9.33	8.50	42	5.12	4.67	42	1.07	2.55	42	3.24	3.30
Kahama District	10	7.00	4.92	9	3.78	1.92	9	.56	1.34	9	2.33	1.42

<sup>a</sup>One respondent owned goats and sheep but the total numbers were not given.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 43 Goat Disposals in Shinyanga Region, October 1974 to September 1975.

	Goats Sold <sup>a</sup>			Goats Sold <sup>b</sup>			Goats Sold <sup>c</sup>			Goats Traded <sup>a</sup>		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Shinyanga Region	127	.74	3.05	95	.99	3.49	18	5.22	6.66	127	.41	2.04
Bariadi District	27	1.81	5.95	19	2.58	7.00	5	9.80	11.50	27	.93	3.93
Maswa District	29	.45	1.38	24	.54	1.50	3	4.33	1.15	29	.07	.37
Shinyanga District	60	.52	1.64	42	.74	1.93	9	3.44	2.92	60	.40	1.36
Kahama District	11	.09	.30	10	.10	.32	1	1.00	0.0	11	.09	.30

	Goats Traded <sup>b</sup>			Goats Traded <sup>c</sup>			Goats Dowry <sup>a</sup>			Goats Dowry <sup>b</sup>		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Shinyanga Region	95	.55	2.35	9	5.78	5.56	127	.12	1.24	95	.16	1.44
Bariadi District	19	1.32	4.67	2	12.50	10.61	27	-0-		19	-0-	
Maswa District	24	.08	.41	1	2	0.0	29	-0-		24	-0-	
Shinyanga District	42	.57	1.59	5	4.8	.84	60	.25	1.81	42	.36	2.16
Kahama District	10	.10	.32	1	1.0	0.0	11	-0-		10	-0-	

	Goats Dowry <sup>c</sup>			Total Goats Died			Goats Died-Buried			Goats Died-Eaten		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Shinyanga Region	2	7.50	9.19	95	2.89	6.39	89	.63	2.50	89	1.61	3.74
Bariadi District	0			19	5.16	8.75	13	1.62	2.96	13	.08	.28
Maswa District	0			24	1.88	3.85	24	-0-		24	1.88	3.85
Shinyanga District	2	7.5	9.19	42	2.98	6.87	42	.74	3.17	42	2.24	4.47
Kahama District	0			10	.70	1.06	10	.40	.97	10	.30	.67

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 43 (Cont.) Goat Disposals in Shinyanga Region, October 1974 to September 1975.

	Slaughter Goats Eaten			Slaughter Goats Sold			Goats Stolen			Goats Gifts		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Shinyanga Region	95	1.97	3.80	95	.06	.52	95	.33	1.24	95	.07	.44
Bariadi District	19	4.11	6.16	19	-0-		19	-0-		19	-0-	
Maswa District	24	2.50	3.86	24	.21	1.02	24	.67	1.86	24	.21	.83
Shinyanga District	42	.98	1.84	42	.02	.15	42	.33	1.20	42	.05	.22
Kahama District	10	.80	2.20	10	-0-		10	.10	.32	10	-0-	

- a. Included all respondents interviewed
- b. Respondents claiming to own goats or sheep at time of interview.
- c. Respondents who performed activity in last 12 months.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.44 Sheep Disposals in Shinyanga Region, October, 1974 to September, 1975.

	Sheep Sold <sup>a</sup>			Sheep Sold <sup>b</sup>			Sheep Sold <sup>c</sup>			Sheep Traded <sup>a</sup>		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Shinyanga Region	127	.85	2.55	97	1.11	2.88	24	4.50		127	.19	1.11
Bariadi District	27	1.93	4.59	21	2.48		7	7.43		27	.22	.97
Maswa District	29	.79	1.68	23	1.00		7	3.29		29	-0-	
Shinyanga District	60	.53	1.60	44	.73		9	3.56		60	.30	1.48
Kahama District	11	.09	.30	9	.11		1	1.0		11	-0-	
	Sheep Traded <sup>b</sup>			Sheep Traded <sup>c</sup>			Sheep Dowry <sup>a</sup>			Sheep Dowry <sup>b</sup>		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Shinyanga Region	97	.25	1.27	5	4.80		127	.03	.35	97	.04	.41
Bariadi District	21	.29		2	3.00		27	-0-		21	-0-	
Maswa District	23	-0-		0	-0-		29	-0-		23	-0-	
Shinyanga District	44	.41		3	6.0		60	.07	.52	44	.09	
Kahama District	9	-0-		0	-0-		11	-0-		9	-0-	
	Sheep Dowry <sup>c</sup>			Total Sheep Died			Sheep Died-Buried			Sheep Died-Eaten		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Shinyanga Region	1	4		97	3.70	7.39	92	.77	2.26	92	2.32	6.14
Bariadi District	0			21	4.90	9.32	16	1.75	2.95	16	-0-	
Maswa District	0	-0-		23	3.91	7.60	23	.70	2.75	23	3.21	7.40
Shinyanga District	1	4		44	3.59	7.0	44	.50	1.76	44	3.09	6.92
Kahama District	0			9	.89	1.36	9	.56	1.33	9	.33	.71

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 44 (Cont.) Sheep Disposals in Shinyanga Region, October 1974 to September 1975.

	Slaughter Sheep Eaten			Slaughter Sheep Sold			Sheep Stolen			Sheep Gifts		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Shinyanga Region	97	2.34	6.70	97	-0-		97	.61	1.80	97	.07	.46
Bariadi District	21	6.43	13.3	21	-0-		21	.43	1.25	21	.19	.87
Maswa District	23	1.70	2.53	23	-0-		23	.74	1.76	23	.04	.21
Shinyanga District	44	1.20	1.98	44	-0-		44	.75	2.19	44	.05	.30
Kahama District	9	-0-		9	-0-		9	-0-		9	-0-	

a. Included all respondents interviewed

b. Respondents claiming to own goats or sheep at time of interview.

c. Respondents who performed activity in last 12 months.

n = sample size (number in sample)

x = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 45 Respondents Dipping Sheep or Goats in Shinyanga Region for the Period of October, 1974 to September, 1975.

	Yes		No		Total Respondent
	n	%	n	%	
Shinyanga Region	28	27	75	73	103
Bariadi District	8	38	13	62	21
Maswa District	9	35	17	65	26
Shinyanga District	4	9	42	91	46
Kahama District	7	70	3	30	10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 46 Vaccinations of Sheep and Goats in Shinyanga Region,  
October, 1974 to September, 1975.

	Yes		No.		Total Respondents
	n	%	n	%	
Shinyanga Region	1	1	102	99	103
Bariadi District	1	5	20	95	21
Maswa District			26	100	26
Shinyanga District			46	100	46
Kahama District			10	100	10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 47 Treatment of Sheep or Goats for Parasites in Shinyanga Region, October 1974 to September, 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Shinyanga Region			103	100	103
Bariadi District			21	100	21
Maswa District			26	100	26
Shinyanga District			46	100	46
Kahama District			10	100	10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 48 Number of Miscarriages for Sheep and Goats in Shinyanga Region, October, 1974 to September, 1975.

	Goat Miscarriages			Sheep Miscarriages		
	n	$\bar{x}$	s	n	$\bar{x}$	s
Shinyanga Region	92	.55	1.39	92	.52	1.39
Bariadi District	18	1.05	2.41	19	1.16	2.52
Maswa District	23	.65	1.23	22	.36	.90
Shinyanga District	41	.29	.81	42	.33	.82
Kahama District	10	.50	.97	9	.44	.88

n = sample size (number in sample)

$\bar{x}$  = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.49 Respondents Who Sell Goats in Shinyanga Region, September 1975.

	Yes		No		No Goats		Total Respondents
	n	%	n	%	n	%	
Shinyanga Region	20	19	72	70	11	11	103
Bariadi District	6	29	12	57	3	14	21
Maswa District	4	15	19	73	3	12	26
Shinyanga District	9	20	32	70	5	10	46
Kahama District	1	10	9	90			10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 50 Where Respondents Sell Goats in Shinyanga Region, September 1975.

	At Market				To Traders				To Friends				Total Respondents
	Yes		No		Yes		No		Yes		No		
	n	%	n	%	n	%	n	%	n	%	n	%	
Shinyanga Region	6	30	14	70	2	10	18	90	14	70	6	30	20
Bariadi District	4	67	2	33			6	100	4	67	2	33	6
Maswa District	2	50	2	50			4	100	2	50	2	50	4
Shinyanga District			9	100	2	22	7	78	7	78	2	22	9
Kahama District			1	100			1	100	1	100			1

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 51 Respondents who Sell Sheep in Shinyanga Region, September 1975.

	Yes		No		Have No Sheep		Total Respondents
	n	%	n	%	n	%	n
Shinyanga Region	23	22	70	68	10	10	103
Bariadi District	8	38	11	52	2	10	21
Maswa District	8	31	15	58	3	12	26
Shinyanga District	6	13	36	78	4	9	46
Kahama District	1	10	8	80	1	10	10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 52 Where Respondents Sell Sheep in Shinyanga Region, September 1975.

	At Market		To Traders		To Friends		Total Respondents	
	Yes	No	Yes	No	Yes	No	n	
	n %	n %	n %	n %	n %	n %		
Shinyanga Region	10 43	13 57	1 4	22 96	14 61	9 39	23	
Bariadi Disttict	6 75	2 25		8 100	4 50	4 50	8	
Maswa District	4 50	4 50	1 13	7 88	3 38	5 63	8	
Shinyanga District		6 100		6 100	6 100		6	
Kahama District		1 100		1 100	1 100		1	

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 53 Respondents Trading Sheep and Goats for Other Goods in Shinyanga Region, September 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Shinyanga Region	22	21	81	79	103
Bariadi District	7	33	14	67	21
Maswa District	7	27	19	73	26
Shinyanga District	7	15	39	85	46
Kahama District	1	10	9	90	10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 54 Goods Received in Exchange for Sheep and Goats in Shinyanga Region, September 1975.

	For Food				For Clothes				For Animals			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Shinyanga Region	11	50	11	50	1	5	21	95	14	64	8	36
Bariadi District	2	29	5	71			7	100	6	86	1	14
Maswa District	7	100					7	100	3	43	4	57
Shinyanga District	1	14	6	86	1	14	6	86	5	71	2	29
Kahama District	1	100					1	100			1	100

	For Other Goods				Total Respondents
	Yes		No		
	n	%	n	%	
Shinyanga Region			22	100	22
Bariadi District			7	100	7
Maswa District			7	100	7
Shinyanga District			7	100	7
Kahama District			1	100	1

Appendix Table. 55 Rank in Importance Reasons Given for Keeping Cattle in Shinyanga Region, October 1974 to September 1975.

	FIRST							SECOND							Total Respondents		
	0	1	2	3	4	5	6	7	0	1	2	3	4	5		6	7
Shinyanga Region	18	22	1	77	6			3	79	23	5	7	5		4	4	127
Bariadi District	16	4	1	6					20	5	2						27
Maswa District	1	6		18	3			1	24	3	1	1					29
Shinyanga District	1	9		45	3			2	29	13	2	4	5		3	4	60
Kahama District		3		8					6	2		2			1		11
	THIRD							FOURTH							Total Respondents		
	0	1	2	3	4	5	6	7	0	1	2	3	4	5		6	7
Shinyanga Region	96	8	17		2		1	2	125		2						127
Bariadi District	22		5						27								27
Maswa District	25	1	3						29								29
Shinyanga District	42	6	8		2			1	58		2						60
Kahama District	7	1	1				1	1	11		2		1				11

- Codes: 0. No reason identified or multiple reasons given not ranked.  
 1. Kept for Milk.  
 2. Kept for Meat.  
 3. Kept for Selling in Difficulties.  
 4. Custom.  
 5. Dowry  
 6. Farming  
 7. Other

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 56 Respondents' Sources of Cash Income in Shinyanga Region, October 1974 to September 1975.

	Crops				Livestock				Trade				Wages			
	Yes		No		Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Shinyanga Region	87	69	40	31	104	82	23	18	2	2	125	98	4	3	123	97
Bariadi District	25	93	2	7	24	89	3	11	1	4	26	96	2	7	25	93
Maswa District	26	90	3	10	28	97	1	3			29	100			29	100
Shinyanga District	29	48	31	52	44	73	16	27	1	2	59	98	2	3	58	97
Kahama District	7	64	4	36	8	73	3	27			11	100			11	100
	Other				Total Respondents											
	Yes		No		n											
	n	%	n	%												
Shinyanga Region			127	100	127											
Bariadi District			27	100	27											
Maswa District			29	100	29											
Shinyanga District			60	100	60											
Kahama District			11	100	11											

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 57 Source of Original Herd for Respondents in Shinyanga Region, September 1975.

	Dowry				Purchase				Received from Relative				Labor			
	Yes		No		Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Shinyanga Region	37	29	89	71	68	54	58	46	28	22	98	78			126	100
Bariadi District	11	41	16	59	20	74	7	26	3	11	24	89			27	100
Maswa District	7	24	22	76	14	48	15	52	8	28	21	72			29	100
Shinyanga District	18	31	41	69	27	46	32	54	14	24	45	76			59	100
Kahama District	1	9	10	91	7	64	4	36	3	27	8	73			11	100

	Trade				Other				Total Respondents	
	Yes		No		Yes		No		n	
	n	%	n	%	n	%	n	%		
Shinyanga Region	17	13	109	87			126	100	126	
Bariadi District			27	100			27	100	27	
Maswa District	6	21	23	79			29	100	29	
Shinyanga District	10	17	49	83			59	100	59	
Kahama District	1	9	10	91			11	100	11	

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.58 Ownership of the Cattle Kept by Respondents in Shinyanga Region, September, 1975.

	All		Most		Some		None		Total Respondents
	n	%	n	%	n	%	n	%	
Shinyanga Region	105	83	15	12	6	5	1	1	127
Bariadi District	20	74	5	19	2	7			27
Maswa District	23	79	4	14	2	7			29
Shinyanga District	55	92	3	5	1	2	1	2	60
Kahama District	7	63	3	27	1	9			11

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 59 Responsibility to Sell or Dispose of Cattle in Shinyanga Region, September, 1975.

	Husband		Wife		Family		You & Owner		You		Total Respondents
	n	%	n	%	n	%	n	%	n	%	
Shinyanga Region	12	9			114	90	1	8			127
Bariadi District	5	19			22	81					27
Maswa District	3	10			26	90					29
Shinyanga District	3	5			56	93	1	2			60
Kahama District	1	9			10	91					11

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 60 Number of Cattle Given for Dowry in Shinyanga Region, October, 1974 to September, 1975.

	$\bar{x}$	s	Total Respondents
Shinyanga Region	22.93	8.64	126
Bariadi District	25.00	8.62	26
Maswa District	28.21	8.52	29
Shinyanga District	21.67	6.89	60
Kahama District	11.00	2.68	11

$\bar{x}$  = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 61 Types of Cattle Most Frequently Given in Dowry in Shinyanga Region, September 1975.

	Cows				Calves				Heifers			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Shinyanga Region	119	94	8	6	82	65	45	35	120	94	7	6
Bariadi District	22	81	5	19	11	41	16	59	25	93	2	7
Maswa District	26	90	3	10	18	62	11	38	25	86	4	14
Shinyanga District	60	100			45	75	15	25	59	98	1	2
Kahama District	11	100			8	73	2	27	11	100		

	Bulls				Steers				Total Respondents
	Yes		No		Yes		No		n
	n	%	n	%	n	%	n	%	n
Shinyanga Region	121	95	6	5	26	20	101	80	127
Bariadi District	26	96	1	4	19	70	8	30	27
Maswa District	27	93	2	7	7	24	22	76	29
Shinyanga District	57	95	3	5			60	100	60
Kahama District	11	100					11	100	11

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 62 Payment of Dowry in Other Forms Except Cattle in Shinyanga Region, October, 1974 to September, 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Shinyanga Region	90	71	37	29	127
Bariadi District	24	89	3	11	27
Maswa District	27	93	2	7	29
Shinyanga District	28	47	32	53	60
Kahama District	11	100			11

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 63 Cattle Given to Son as Customary Gift in Shinyanga Region, in last two years, October, 1973 to September, 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Shinyanga Region	8	6	118	94	126
Bariadi District	3	11	24	89	27
Maswa District	4	14	25	86	29
Shinyanga District	1	2	58	98	59
Kahama District			11	100	11

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 64 Types of Cattle Give to Son as Customary Gift in Shinyanga Region, October 1973 to September 1975.

	Cows				Heifers				Calves				Bulls			
	Yes		No		Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Shinyanga Region	7	88	1	13	6	75	2	25	2	25	6	75	8	100		
Bariadi District	2	67	1	33	3	100			1	33	2	67	3	100		
Maswa District	4	100			3	75	1	25			4	100	4	100		
Shinyanga District	1	100					1	100	1	100			1	100		
Kahama District																

	Steers				Total Respondents n
	Yes		No		
	n	%	n	%	
Shinyanga Region	1	13	7	87	8
Bariadi District	1	33	2	67	3
Maswa District			4	100	4
Shinyanga District					1
Kahama District					0

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 65 Money Kept in Bank After Selling Cattle in Shinyanga Region, September, 1975.

	Yes		No		Do Not Sell Cattle		Total Respondents
	n	%	n	%	n	%	n
Shinyanga Region	3	2	118	96	2	2	123
Bariadi District	2	8	22	85	2	8	26
Maswa District	1	4	25	96			26
Shinyanga District			60	100			60
Kahama District			11	100			11

Source: TAMU/USAID Livestock Survey by Personal Interview.

# Tabora Region

Appendix Table. 1 Characteristics of Herd in Tabora Region, November 1974 to October 1975

	Total Cattle			Total Bulls			Immature Bulls			Mature Bulls		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Tabora Region	94	36.56	38.00	94	4.74	4.46	94	2.67	3.08	94	2.07	2.05
Tabora District	9	42.33	44.42	9	5.22	5.02	9	3.56	3.94	9	1.67	1.22
Nzega District	40	27.40	22.68	40	4.10	3.76	40	2.25	2.53	40	1.85	2.02
Igunga District	45	43.56	45.88	45	5.22	4.93	45	2.87	3.35	45	2.36	2.20

	Improved Bulls			Steers			Cows			Improved Cows		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Tabora Region	1	3.00	0.0	94	2.87	3.65	94	14.45	18.41	1	6.00	0.0
Tabora District	0			9	2.44	4.82	9	16.22	17.74	0		
Nzega District	0			40	2.05	2.67	40	10.38	10.39	0		
Igunga District	1	3.00	0.0	45	3.69	4.03	45	17.71	23.17	1	6.00	0.0

	Total Heifers			Heifers Over 3 years			Weaned Calves			Unweaned Calves		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Tabora Region	94	6.96	7.74	92	3.87	4.49	94	2.12	5.21	94	5.31	5.79
Tabora District	9	12.22	13.02	9	4.89	6.37	9	.56	1.33	9	5.67	7.31
Nzega District	40	5.28	4.35	40	3.43	3.43	40	1.25	2.00	40	4.40	4.67
Igunga District	45	7.40	8.39	43	4.07	4.95	45	3.20	7.15	45	6.04	6.37

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 2 Cow/Calf Statistics for Tabora Region, November 1974 to October 1975

	Cows			Calves Born			Calves Weaned			Calves Not Weaned		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Tabora Region	94	14.45	18.41	94	9.01	12.75	94	2.12	5.21	94	1.55	4.93
Tabora District	9	16.22	17.74	9	7.44	8.88	9	.56	1.33	9	5.67	7.31
Nzega District	40	10.38	10.39	40	6.70	7.05	40	1.25	2.00	40	4.40	4.67
Igunga District	45	17.71	23.17	45	11.38	16.56	45	3.20	7.15	45	6.04	6.37

	Calves Died			Calves/ Cow's Life			Months to Wean		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Tabora Region	94	1.55	4.93	93	7.23	2.10	94	11.24	2.31
Tabora District	9	1.22	1.79	9	6.44	1.67	9	10.44	3.05
Nzega District	40	.98	2.33	40	7.43	2.29	40	12.08	2.10
Igunga District	45	2.13	6.73	44	7.20	2.00	45	10.67	2.13

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Tables. 3 Herd Percentages in Tabora Region, October, 1974 to September, 1975.

	Tabora Region	Tabora District	Nzega District	Igunga District
Total Bulls/Total Cattle	13%	12%	15%	12%
Immature Bulls/Total Cattle	7%	8%	8%	7%
Mature Bulls/Total Cattle	6%	4%	7%	5%
Steers/Total Cattle	8%	6%	7%	8%
Cows/Total Cattle	40%	38%	38%	41%
Heifer/Total Cattle	19%	29%	19%	17%
Heifer (over three)/Total Cattle	11%	12%	13%	9%
Calves/Total Cattle	20%	15%	21%	21%
Immature Bulls/Total Bulls	56%	68%	55%	55%
Mature Bulls/Total Bulls	44%	32%	45%	45%
Cows/Total Females	67%	57%	66%	71%
Heifers/Total Females	33%	43%	34%	29%
Heifer (over three)/Total Females	18%	17%	22%	16%
Calves Born/Cows	62%	46%	65%	64%
Calves Weaned/Calves Born	24%	8%	19%	28%
Calves Sucking/Calves Born	59%	76%	66%	53%
Calves Died/Calves Born	17%	16%	15%	19%

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 4 Cattle Disposals in Tabora Region, November 1974 to October 1975.

	Cattle Sold			Cattle Sold (a)			Cattle Traded			Cattle Traded (a)		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Tabora Region	94	3.14	7.14	52	5.67	8.84	94	.62	1.57	22	2.64	2.30
Tabora District	9	1.67	3.32	2	7.50	.71	9	0.00		0		
Nzega District	40	2.00	3.02	20	4.00	3.21	40	.45	1.15	8	2.25	1.67
Igunga District	45	4.44	9.71	30	6.67	11.30	45	.89	1.96	14	2.86	2.63

	Cattle Dowry			Cattle Dowry (a)			Total Cattle Died			Cattle Died Buried		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Tabora Region	94	1.72	5.19	18	9.00	8.82	94	3.65	9.62	94	.77	3.42
Tabora District	9	0.00		0			9	2.67	2.69	9	.11	.33
Nzega District	40	2.18	4.79	10	8.70	6.04	40	2.13	3.84	40	.28	1.58
Igunga District	45	1.67	5.97	8	9.38	11.90	45	5.20	13.29	45	1.33	4.68

	Cattle Died Eaten			Slaughter Cattle Eaten			Slaughter Cattle Sold			Cattle Stolen		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Tabora Region	94	2.88	7.52	94	.55	1.03	94	.02	.15	94	.23	.75
Tabora District	9	2.56	2.65	9	.56	.73	9	0.00		9	.11	.33
Nzega District	40	1.85	3.42	40	.58	1.26	40	.03	.16	40	.13	.40
Igunga District	45	3.87	10.30	45	.53	.87	45	.02	.15	45	.36	1.00

	Cattle Gifts		
	n	$\bar{x}$	s
Tabora Region	94	.09	.38
Tabora District	9	.11	.33
Nzega District	40	.08	.27
Igunga District	45	.09	.47

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 5 Months to Wean Calves in Tabora Region, December 1975

	Months to wean calves		
	n	x	s
Tabora Region	94	11.24	2.31
Tabora District	9	10.44	3.05
Nzega District	40	12.08	2.10
Igunga District	45	10.67	2.13

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 6 Respondents Feeding Grains to Calves in Tabora Region,  
November, 1974 to October, 1975.

	Yes		No		Total Respondents
	n	%	n	%	n
Tabora Region			94	100	94
Tabora District			9	100	9
Nzega District			40	100	40
Igunga District			45	100	45

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 7 Source of Water During Dry Season in Tabora Region, October, 1975.

	River/ Stream		Dam		Wells		Pipeline		Total Respondents
	n	%	n	%	n	%	n	%	n
	Tabora Region	29	32	35	38	25	27	2	2
Tabora District	2	29	3	43	2	29			7
Nzega District	16	41	11	28	12	31			39
Igunga District	11	24	21	47	11	24	2	4	45

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 8 Time Required to Trek Cattle to Water Yesterday in Tabora Region, October, 1975.

	Less Than 2 Hours		2 Hours to Half Day		Total Respondents
	n	%	n	%	n
Tabora Region	79	86	13	14	92
Tabora District	9	100			9
Nzega District	39	98	1	3	40
Igunga District	34	79	9	21	43

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 9 Time Required to Trek Cattle to Grazing During Dry Season in Tabora Region, November, 1974 to October, 1975.

	Less Than 2 Hours		2 Hours to Half Day		Total Respondents
	n	%	n	%	n
Tabora Region	53	56	41	46	94
Tabora District	2	22	7	78	9
Nzega District	27	68	13	33	40
Igunga District	24	53	21	47	45

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 10 Time Required to Trek Cattle to Grazing During Wet Season in Tabora Region, October, 1975.

	Less Than 2 Hours		2 Hours to Half Day		Total Respondents
	n	%	n	%	n
Tabora Region	89	95	5	5	94
Tabora District	9	100			9
Nzega District	38	95	2	5	40
Igunga District	42	93	3	7	45

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 11 Cattle Recently Dipped by Respondents in Tabora Region in October, 1975.

	Last Seven Days				Total Respondents n	Last Seven to Fourteen Days				Total Respondents n
	Yes		No			Yes		No		
	n	%	n	%		n	%	n	%	
Tabora Region	4	4	90	96	94	7	7	87	93	94
Tabora District	3	33	6	67	9	5	56	4	44	9
Nzega District			40	100	40	1	3	39	98	40
Igunga District	1	2	44	98	45	1	2	44	98	45

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 12 Average Time Elapsed since Last Dipping Cattle in Tabora Region, October, 1975.

	Months	s	Total Respondents
Tabora Region	2.73	6.09	85
Tabora District	4.33	1.53	3
Nzega District	4.72	7.82	39
Igunga District	.81	3.33	43

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 13 Reasons why cattle had not been dipped in Tabora Region, October 1975

	No dipping facilities		Felt there was no need		Some cattle died because of dip		dip too far		dip broken		no water in dip	
	n	%	n	%	n	%	n	%	n	%	n	%
Tabora Region	45	52	1	1	3	3	15	17	7	8	4	5
Tabora District							2	50			2	50
Nzega District	17	45			3	8	8	21	3	8	1	3
Igunga District	28	64	1	2			5	11	4	9	1	2
	cattle too weak		no medicine		not accustomed to dipping		Other		Total Respondents			
	n	%	n	%	n	%	n	%				
	1	1	6	7	1	1	3	3	86			
									4			
	1	3	2	5			3	9	38			
			4	9	1	2			44			

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 14 Respondents Who Treat Their Cattle for Diseases  
in Tabora Region, October, 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Tabora Region	19	20	75	80	94
Tabora District	6	67	3	33	9
Nzega District	1	3	39	97	40
Iguna District	12	27	33	73	45

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 15a Livestock Vaccinations in Tabora Region, November, 1974 to October, 1975.

	Cattle								Total Respondents		
	Mature		Immature		Goats		Sheep		Donkeys		
	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>a</sup>	
Foot & Mouth	9	100	9	100	0		0		0	9	47
Anthrax	12	100	11	92	1	8	1	8	0	12	63
Blackquarter	13	93	14	100	0		0		0	14	74
Anaplasmosis	4	100	3	75	0		0		0	4	21
Nagana	2	100	2	100	0		0		0	2	11
Rinderpest	1	100	1	100	0		0		0	1	5
Heartwater										0	
Other										0	

<sup>a</sup> respondents vaccinating their livestock with specified drug as a percentage of the respondents who vaccinated their cattle in the last 12 months

<sup>b</sup> types of livestock vaccinated by respondent with specified drug as a percentage of the respondents using that vaccine in the last 12 months

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 15b Livestock Vaccinations in Tabora District, Tabora Region,  
November, 1974 to October, 1975.

	Cattle								Total Respondents		
	Mature		Immature		Goats		Sheep		Donkeys		
	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>a</sup>	
Foot & Mouth	4	100	4	100	0		0		0	4	67
Anthrax	1	100	1	100	0		0		0	1	17
Blackquarter	3	100	3	100	0		0		0	3	50
Anaplasmosis	3	100	2	67	0		0		0	3	50
Nagana	2	100	2	100	0		0		0	2	33
Rinderpest	1	100	1	100	0		0		0	1	17
Heartwater										0	
Other										0	

<sup>a</sup> respondents vaccinating their livestock with specified drug as a percentage of the respondents who vaccinated their cattle in the last 12 months

<sup>b</sup> types of livestock vaccinated by respondent with specified drug as a percentage of the respondents using that vaccine in the last 12 months

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 15c Livestock Vaccinations in Nzega District, Tabora Region,  
November, 1974 to October, 1975.

	Cattle								Total Respondents			
	Mature		Immature		Goats		Sheep		Donkeys			
	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>a</sup>		
Foot & Mouth	1	100	1	100	0		0		0		1	100
Anthrax											0	
Blackquarter											0	
Anaplasmosis											0	
Nagana											0	
Rinderpest											0	
Heartwater											0	
Other											0	

<sup>a</sup> respondents vaccinating their livestock with specified drug as a percentage of the respondents who vaccinated their cattle in the last 12 months

<sup>b</sup> types of livestock vaccinated by respondent with specified drug as a percentage of the respondents using that vaccine in the last 12 months

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 15d Livestock Vaccinations in Igunga District, Tabora Region,  
November, 1974 to October, 1975.

	Cattle								Total Respondents		
	Mature		Immature		Goats		Sheep		Donkeys		
	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>b</sup>	n	% <sup>a</sup>	
Foot & Mouth	4	100	4	100	0		0		0	4	33
Anthrax	11	100	10	91	1	9	1	9	0	11	92
Blackquarter	10	91	11	100	0		0		0	11	92
Anaplasmosis	1	100	1	100	0		0		0	1	8
Nagana										0	
Rinderpest										0	
Heartwater										0	
Other										0	

<sup>a</sup> respondents vaccinating their livestock with specified drug as a percentage of the respondents who vaccinated their cattle in the last 12 months

<sup>b</sup> types of livestock vaccinated by respondent with specified drug as a percentage of the respondents using that vaccine in the last 12 months

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 16 Time to trek cattle to the nearest veterinary center in Tabora Region, October 1975

	Less than half day		Half day to 1 day		1 day to 2 days		Total Respondents
	n	%	n	%	n	%	n
Tabora Region	78	83	13	14	3	3	94
Tabora District	9	100					9
Nzega District	30	75	8	20	2	5	40
Igunga District	39	87	5	11	1	2	45

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 17 Cattle Drenched for Internal Parasites in Tabora Region, November 1974-October 1975.

	<u>Yes</u>		<u>No</u>		<u>Total Respondents</u>
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Tabora Region	93	100			93
Tabora District	9	100			9
Nzega District	40	100			40
Igunga District	43	100			43

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 18 Number of Cattle having Miscarriages in Tabora Region, November 1974-October 1975.

	<u>n</u>	<u>x</u>	<u>s</u>
Tabora Region	33	2.15	2.15
Tabora District	4	2.00	.82
Nzega District	8	1.63	1.06
Igunga District	21	2.39	2.60

n = sample size (number in sample)

x = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 19 Respondents who Sold Cattle in Tabora Region,  
November, 1974 to October, 1975.

	Yes		No		Total Respondents
	n	%	n	%	n
Tabora Region	52	55	42	45	94
Tabora District	2	22	7	78	9
Nzega District	20	50	20	50	40
Igunga District	30	67	15	33	45

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 20 Cattle Sold at Marketplace in Tabora Region,  
November, 1974 to October, 1975.

	Yes		No		Total Respondents
	n	%	n	%	n
Tabora Region	27	52	25	48	52
Tabora District	2	100			2
Nzega District	7	35	13	65	20
Igunga District	18	60	12	40	30

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 21 How Cattle Were Sold at Marketplace in Tabora Region, November 1974-October 1975.

	<u>Auction Ring</u>				<u>Outside Market</u>				<u>Weighbridge</u>				<u>Total Respondents</u>
	<u>Yes</u>		<u>No</u>		<u>Yes</u>		<u>No</u>		<u>Yes</u>		<u>No</u>		<u>n</u>
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>
Tabora Region	25	93	2	7	2	7	25	93			27	100	27
Tabora District	2	100					2	100			2	100	2
Nzega District	6	86	1	14	1	14	6	86			7	100	7
Igunga District	17	94	1	6	1	6	17	94			18	100	18

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 22 Cattle Trekged to Marketplace but not Sold in Tabora Region,  
November, 1974 to October, 1975.

	Yes		No		Total Respondents
	n	%	n	%	n
Tabora Region	8	30	19	70	27
Tabora District	1	50	1	50	2
Nzega District	0		7	100	7
Igunga District	5	28	13	72	18

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 23 Frequency in which Respondent's Primary Cattle Market is Open in Tabora Region, October 1975.

	<u>Once per Week</u>		<u>Once per Month</u>		<u>Total Respondents</u>
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>
Tabora Region	9	33	18	67	27
Tabora District	2	100			2
Nzega District	5	71	2	29	7
Igunga District	2	11	16	89	18

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 24 Time Required to Trek Cattle to Marketplace in Tabora Region, October, 1975.

	Less Than Two Hours		Two Hours to Half Day		Half Day to One Day		Total Respondents
	n	%	n	%	n	%	n
Tabora Region	4	15	21	78	2	7	27
Tabora District			2	100			2
Nzega District			7	100			7
Igunga District	4	22	12	67	2	11	18

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 25 Available Water on Trek to Primary Marketplace in Tabora Region,  
November, 1974 to October, 1975.

	Yes		No		Total Respondents
	n	%	n	%	n
Tabora Region	15	56	12	44	27
Tabora District	1	50	1	50	2
Nzega District	5	71	2	29	7
Igunga District	9	50	9	50	18

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 26 Source of Water on Trek to Marketplace During Dry Season in Tabora Region, October 1975.

	River or Stream		Wells		Dams		Pipeline		Total Respondents
	n	%	n	%	n	%	n	%	
Tabora Region	3	23	2	15	7	54	1	8	13
Tabora District									0
Nzega District			1	25	3	75			4
Igunga District	3	33	1	11	4	44	1	11	9

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 27 Cattle Sold During Trek to Marketplace in Tabora Region,  
November, 1974 to October, 1975.

	Yes		No		Total Respondents
	n	%	n	%	n
Tabora Region	1	4	26	96	27
Tabora District	0		2	100	2
Nzega District	1	14	6	86	7
Igunga District	0		18	100	18

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 28 Number of Cattle Died or Stolen on Trek to Market in Tabora Region, November 1974 to October 1975.

	Number Cattle Died	Number Cattle Stolen	Total Respondents
Tabora Region	0	0	27
Tabora District	0	0	2
Nzega District	0	0	7
Igunga District	0	0	18

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 29 Water Available at Primary Markets in Tabora Region,  
October, 1975.

	Yes		No		Total Respondents
	n	%	n	%	n
Tabora Region	12	44	15	56	27
Tabora District	1	50	1	50	2
Nzega District	2	29	5	71	7
Igunga District	9	50	9	50	18

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 30 Source of Water at Primary Market in Tabora, Region October, 1975

	River/Stream		Well		Dam		Pool		Pipeline		Total Respondents
	n	%	n	%	n	%	n	%	n	%	n
Tabora Region			4	33	3	25	1	8	4	33	12
Tabora District			1	100							1
Nzega District			1	50	1	50					2
Lgunga District			2	22	2	22	1	11	4	44	9

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 31 Available Grazing at Primary Markets in Tabora Region,  
October, 1975.

	Yes		No		Total Respondents
	n	%	n	%	n
Tabora Region	4	15	23	85	27
Tabora District	1	50	1	50	2
Nzega District	1	14	6	87	7
Igunga District	2	11	16	89	18

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 32 Frequency in Returning Cattle from Market  
Without Selling in Tabora Region, November  
1974 to October 1975

	Never		Sometimes		Total Respondents
	n	%	n	%	
Tabora Region	19	70	8	30	27
Tabora District	1	50	1	50	2
Nzega District	5	71	2	29	7
Igunga District	13	72	5	28	18

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 33 Reason for Returning Cattle from Marketplace  
Without Selling in Tabora Region, November 1974  
to October 1975

	Price too low		Total Respondents
	n	%	
Tabora Region	8	100	8
Tabora District	1	100	1
Nzega District	2	100	2
Lgunga District	5	100	5

Appendix Table. 34 Cattle Sold at Boma in Tabora Region, November 1974 to October 1975

	Yes		No		Total Respondents
	n	%	n	%	
Tabora Region	30	57	23	43	53
Tabora District	1	50	1	50	2
Nzega District	15	71	6	29	21
Igunga District	14	47	16	53	30

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table . 35 Reasons for Preferring to Sell Cattle at Other Places Than at Market in Tabora Region, October 1975 \*

	Save Time		Better Price		Save Time/ Better Price		Save Time/ Market Too Far		Other		Total Respondents
	n	%	n	%	n	%	n	%	n	%	n
Tabora Region	18	62	6	21	3	10	1	3	1	3	29
Tabora District							1	100			1
Nzega District	9	64	3	21	1	7			1	7	14
Igunga District	9	64	3	21	2	14					14

\* Respondents selling cattle at their boma or on trek to market in last twelve months were asked this question.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 36 Percentage of Respondents Selling Steers in  
Tabora Region, November 1974 to October 1975

	n	Percent
Tabora Region	17	33
Tabora District	2	100
Nzega District	4	20
Igunga District	11	37

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 37 Average Age of Steer Sold in Tabora Region,  
November 1974 to October 1975

	Age of Youngest Steer			Age of Oldest Steer		
	n	$\bar{x}$	s	n	$\bar{x}$	s
Tabora Region	17	4.82	1.70	17	5.59	1.58
Tabora District	2	4.00	1.41	2	5.00	0.00
Nzega District	4	5.75	.96	4	6.00	.82
Igunga District	11	4.64	1.91	11	5.55	1.92

n = sample size (number in sample)

$\bar{x}$  = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 38 Specified Major Reason in Choosing Cows for Sale in Tabora Region, October 1975.

	Bring Highest Price		No Calf After 3 Years		Cow Has Miscarriage		Cow Has No Milk		Don't Sell Cows		Total Respondents
	n	%	n	%	n	%	n	%	n	%	
Tabora Region	13	25	16	31	2	4	3	6	18	35	52
Tabora District			1	50					1	50	2
Nzega District	7	35	4	20	1	5	2	10	6	30	20
Igunga District	6	20	11	37	1	3	1	3	11	37	30

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 39 Respondents Who Would Trek More Cattle if Cattle Prices Were TSH. 100/- Higher at Marketplace in Tabora Region, October 1975.\*

	Yes		No		Total Respondents
	n	%	n	%	
Tabora Region	20	39	31	61	51
Tabora District	1	50	1	50	2
Nzega District	9	45	11	55	20
Igunga District	10	34	19	66	29

\*Respondents who sold cattle in previous twelve-month period were asked this question.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 40 Respondents Keeping Sheep or Goats in Tabora Region,  
November 1974 to October 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Tabora Region	78	83	16	17	94
Tabora District	5	56	4	44	9
Nzega District	31	78	9	23	40
Igunga District	42	93	3	7	45

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 41 Rank of Importance Reasons for Keeping Sheep or Goats in Tabora Region, October 1975

	FIRST						SECOND							
	0	1	2	3	4	5	6	0	1	2	3	4	5	6
Tabora Region	5	67		4		1	1	39	3	1	35			
Tabora District	1	4						3			2			
Nzega District	1	27		2			1	15	2	1	13			
Igunga District	3	36		2		1		21	1		20			
	THIRD						Total Respondents							
	0	1	2	3	4	5	6							
	70	1					7	78						
	5							5						
	26	1					4	31						
	39						3	42						

CODES:

- 0 = No reason identified or multiple reasons given but not ranked
- 1 = For meat
- 2 = For milk
- 3 = For sale
- 4 = For dowry
- 5 = Trading
- 6 = Other

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 42 Production Coefficients, Goats and Sheep, in Tabora Region, November 1974 to October 1975

	Total Goats			Female Goats over 2 years			Females Over 2 years Died			Female Goats Kidding		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Tabora Region	79	13.51	9.77	72	5.71	4.09	72	.82	1.95	72	3.74	3.17
Tabora District	5	9.80	6.61	5	4.40	2.88	5	1.20	1.79	5	2.40	3.29
Nzega District	28	13.93	12.54	28	5.57	4.84	28	.50	1.29	28	4.11	3.81
Igunga District	39	13.69	7.75	39	5.97	3.66	39	1.00	2.33	39	3.64	2.64

	Total Sheep			Female Sheep over 2 years			Females Over 2 years Died			Female Sheep Lambing		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Tabora Region	56	12.41	11.06	57	5.88	4.81	57	1.05	2.49	57	3.30	2.87
Tabora District	1	11.00	0.00	1	4.00	0.00	1	2.00	0.00	1	3.00	0.00
Nzega District	20	8.15	5.73	20	3.75	2.55	20	.45	1.00	20	2.25	1.41
Igunga District	35	14.89	12.75	36	7.11	5.54	36	1.36	3.01	36	3.89	3.33

n = sample size (number in sample)

$\bar{x}$  = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Appendix Table. 43 Goats Disposals in Tabora Region, November 1974 to October 1975

	Goats Sold			Goats Sold *			Goats Sold **			Goats Traded		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Tabora Region	94	.40	1.09	73	.52	1.21	18	2.11	1.64	94	.59	2.61
Tabora District	9	.33	.71	5	.60	.89	2	1.50	.71	9	0.00	
Nzega District	40	.50	1.45	29	.69	1.67	7	2.86	2.41	40	.68	3.24
Igunga District	45	.33	.74	39	.38	.78	9	1.67	.71	45	.62	2.25

	Goats Traded *			Goats Traded **			Goats Dowry			Goats Dowry *		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Tabora Region	73	.75	2.95	10	5.50	6.36	94	0.00		73	0.00	
Tabora District	5	0.00		0			9	0.00		5	0.00	
Nzega District	29	.93	3.79	4	6.75	9.03	40	0.00		29	0.00	
Igunga District	39	.72	2.41	6	4.67	4.68	45	0.00		39	0.00	

	Goats Dowry **			Goats Died			Goats Died-Buried			Goats Died-Eaten		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Tabora Region	0			73	2.14	4.68	73	.93	2.93	73	1.21	2.84
Tabora District	0			5	2.80	2.28	5	2.20	2.49	5	.60	.89
Nzega District	0			29	1.00	2.17	29	.07	.37	29	.93	2.17
Igunga District	0			39	2.90	5.98	39	1.41	3.81	39	1.49	3.40

-257-

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 43 Goats Disposals in Tabora Region (cont')

	Goats Slaughter Eaten			Goats Slaughter Sold			Goats Stolen			Goats Gifts		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Tabora Region	73	.77	1.20	73	0.00		73	.12	.47	73	.03	.23
Tabora District	5	.60	1.34	5	0.00		5	.40	.89	5	.40	.89
Nzega District	29	1.14	1.53	29	0.00		29	.03	.19	29	0.00	
Igunga District	39	.51	.79	39	0.00		39	.15	.54	39	0.00	

NOTE: \* Respondents claiming to own goats at time of interview

\*\* Respondents who actually performed activity in last 12 months

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 44 Sheep Disposals in Tabora Region, November 1974 to October 1975.

	Sheep Sold			Sheep Sold*			Sheep Sold**			Sheep Traded			Sheep Traded*		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Tabora Region	94	.22	.73	58	.36	.91	10	2.10	1.10	94	.07	.53	58	.12	.68
Tabora District	9	0.0		1	0.0		0			9	0.0		1	0.0	
Nzega District	40	.15	.66	22	.27	.88	2	3.00	0.0	40	0.0		22	0.0	
Igunga District	45	.33	.85	35	.43	.95	8	1.88	1.23	45	.16	.77	35	2.00	.87

	Sheep Traded**			Sheep Dowry			Sheep Dowry*			Sheep Dowry**			Total Sheep Died		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Tabora Region	3	2.33	2.31	94	0.0		58	0.0		0			58	3.05	6.82
Tabora District	0			9	0.0		1	0.0		0			1	0.0	
Nzega District	0			40	0.0		22	0.0		0			22	.77	1.60
Igunga District	3	2.33	2.31	45	0.0		35	0.0		0			35	4.58	8.39

	Sheep Died Buried			Sheep Died Eaten			Sheep Slaughtered Eaten			Sheep Slaughtered Sold			Sheep Stolen			Sheep Gifts		
	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s	n	$\bar{x}$	s
Tabora Region	58	2.02	6.19	58	1.03	2.03	58	.79	1.35	58	0.0		58	.33	1.13	58	.02	.1
Tabora District	1	0.0		1	0.0		1	0.0		1	0.0		1	0.0		1	0.0	
Nzega District	22	.23	.87	22	.55	.96	22	.95	1.56	22	0.0		22	.14	.47	22	0.0	
Igunga District	35	3.20	7.76	35	1.37	2.45	35	.71	1.23	35	0.0		35	.46	1.40	35	.03	.1

\*Respondents claiming to own sheep at time of interview.

\*\*Respondents who actually performed activity in last 12 months.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 45 Respondents Dipping Sheep or Goats in Tabora Region,  
November, 1974 to October, 1975.

	Yes		No		Total Respondents
	n	%	n	%	n
Tabora Region	13	17	65	83	78
Tabora District	4	80	1	20	5
Nzega District	7	23	24	77	31
Igunga District	2	5	40	95	42

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 46 Vaccinations of Sheep and Goats in Tabora Region,  
November, 1974 to October, 1975.

	Yes		No		Total Respondents
	n	%	n	%	n
Tabora Region	3	4	75	96	78
Tabora District	1	20	4	80	5
Nzega District	2	6	29	94	31
Igúnga District			42	100	42

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 47 Treatment of Sheep or Goats for Parasites in Tabora Region,  
November, 1974 to October, 1975.

	Yes		No		Total Respondents
	n	%	n	%	n
Tabora Region			78	100	78
Tabora District			5	100	5
Nzega District			31	100	31
Igunga District			42	100	42

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 48 Number of Miscarriages for Sheep and Goats in Tabora Region; November 1974 to October 1975

	Goat Miscarriages			Sheep Miscarriages		
	n	$\bar{x}$	s	n	$\bar{x}$	s
Tabora Region	71	.21	.67	56	.34	1.39
Tabora District	5	0.00	0.00	1	0.00	0.00
Nzega District	28	.29	.90	20	.10	.31
Igunga District	38	.18	.51	35	.49	1.74

n = sample size (number in sample)

$\bar{x}$  = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 49 Respondents Who Sell Goats in Tabora Region,  
October 1975

	Yes		No		No Goats		Total Respondents
	n	%	n	%	n	%	
Tabora Region	17	22	55	71	6	8	78
Tabora District	2	40	3	60			5
Nzega District	6	19	22	71	3	10	31
Igunga District	9	21	30	71	3	7	42

n = sample size (number in sample)

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 50 Where Respondents Sell Goats in Tabora Region, October 1975

	AT MARKET				TO TRADERS				TO FRIENDS				Total Respondents
	Yes		No		Yes		No		Yes		No		
	n	%	n	%	n	%	n	%	n	%	n	%	
Tabora Region	4	24	13	76	3	18	14	82	11	65	6	35	17
Tabora District			2	100			2	100	2	100			2
Nzega District	2	33	4	67	2	33	4	67	3	50	3	50	6
Igunda District	2	22	7	78	1	11	8	89	6	67	3	33	9

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 51 Respondents Who Sell Sheep, Tabora Region, October 1975

	Yes		No		No Sheep		Total Respondents
	n	%	n	%	n	%	
Tabora Region	12	15	45	58	21	27	78
Tabora District			1	20	4	80	5
Nzèga District	2	6	18	58	11	35	31
Igunga District	10	24	26	62	6	14	42

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 52 Where Respondents Sell Sheep in Tabora Region, October 1975

	AT MARKET				TO TRADERS				TO FRIENDS				Total Respondents
	Yes		No		Yes		No		Yes		No		
	n	%	n	%	n	%	n	%	n	%	n	%	
Tabora Region	5	42	7	58			12	100	8	67	4	33	12
Tabora District													0
Nzéga District	1	50	1	50			2	100	2	100			2
Igunga District	4	40	6	60			10	100	6	60	4	40	10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 53 Respondents Trading Sheep and Goats for Other Goods in Tabora Region.

	Yes		No		Total Respondents
	n	%	n	%	n
Tabora Region	11	14	67	86	78
Tabora District			5	100	5
Nzega District	3	10	28	90	31
Igunga District	8	19	34	81	42

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 54 Goods Received in Exchange for Sheep and Goats in Tabora Region, October 1975

	For Food				For Clothes				For Animals			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Tabora Region	7	64	4	36			11	100	4	36	7	64
Tabora District												
Nzega District	2	67	1	33			3	100	1	33	2	67
Igunga District	5	63	3	38			8	100	3	38	5	63

	For Other Goods				Total Respondents
	Yes		No		
	n	%	n	%	
Tabora Region			11	100	11
Tabora District					0
Nzega District			3	100	3
Igunga District			8	100	8

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 55 Rank in importance reasons given for keeping cattle in Tabora Region, October 1975

	FIRST							/	SECOND							Total Respondents	
	0	1	2	3	4	5	6		7	0	1	2	3	4	5		6
Tabora Region	5	22		64	3				40	26	6	11	3	2	5	1	
Tabora District		2		7					5	2		1				1	
Nzega District	1	11		26	2				17	9	3	5	2	2	1	1	
Igunga District	4	9		31	1				18	15	3	5	1			3	
	THIRD							/	FOURTH							Total Respondents	
0	1	2	3	4	5	6	7		0	1	2	3	4	5	6		7
	54	10	14	2	6	1	7		86		1					7	94
	5	1			1		2		9								9
	24	6	7		2		1		36		1					3	40
	25	3	7	2	3	1	4		41							4	45

CODES:

- 0 = No reason identified or multiple reasons given but not ranked
- 1 = Kept for Milk
- 2 = Kept for Meat
- 3 = Kept for selling in difficulties
- 4 = Custom
- 5 = Dowry
- 6 = Farming
- 7 = Other

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 56 Respondents' Sources of Cash Income in Tabora Region, November 1974 to October 1975

	Crops				Livestock				Trade			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Tabora Region	34	36	60	64	78	83	16	17	2	2	92	98
Tabora District	3	33	6	67	7	78	2	22			9	100
Nzega District	12	30	28	70	32	80	8	20	1	3	39	98
Igunga District	19	42	26	58	39	87	6	13	1	2	44	98

	Wages				Other				Total Respondents
	Yes		No		Yes		No		
	n	%	n	%	n	%	n	%	
Tabora Region			94	100	1	1	93	99	94
Tabora District			9	100			9	100	9
Nzega District			40	100	1	3	39	97	40
Igunda District			45	100			45	100	45

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 57 Source of Original Herd for Respondents in Tabora Region, October 1975.

	Dowry				Purchase				Received From Relative				Labor	
	Yes		No		Yes		No		Yes		No		Yes	No
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Tabora Region	14	15	80	85	48	51	46	49	29	31	65	69	94	100
Tabora District	2	22	7	78	5	56	4	44	2	22	7	78	9	100
Nzega District	5	13	35	88	24	60	16	40	8	20	32	80	40	100
Igunga District	7	16	38	84	19	42	26	58	19	42	26	58	45	100

	Trade				Other				Total Respondents
	Yes		No		Yes		No		
	n	%	n	%	n	%	n	%	
Tabora Region	25	27	69	73			94	100	94
Tabora District	2	22	7	78			9	100	9
Nzega District	13	33	27	68			40	100	40
Igunga District	10	22	35	78			45	100	45

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 58 Ownership of the Cattle Kept by Respondents in Tabora Region, August 1975.

	All		Most		Some		Total Respondents
	n	%	n	%	n	%	n
Tabora Region	60	64	21	22	12	13	93 <sup>a</sup>
Tabora District	7	78			1	11	8 <sup>a</sup>
Nzega District	27	68	8	20	5	13	40
Igunga District	26	58	13	29	6	13	45

<sup>a</sup> One respondent had recently given his cattle to a neighbor to herd so he is not included in the table.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 59 Responsibility to Sell or Dispose of Cattle in Tabora Region, October 1975.

	Husband		Wife		Family		Total
	n	%	n	%	n	%	Respondents
Tabora Region	4	4	1	1	89	95	94
Tabora District	1	11	1	11	7	78	9
Nzega District	1	3			39	98	40
Igunga District	2	4			43	96	45

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 60 Number of cattle given for Dowry in Tabora Region, October 1975.

	$\bar{x}$	s	Total Respondents
Tabora Region	15.87	9.59	92
Tabora District	6.23	4.21	8
Nzega District	15.50	5.50	40
Igunga District	17.89	12.00	44

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 61 Types of Cattle Most Frequently Given in Dowry in Tabora Region, October 1975

	COWS				CALVES				HEIFERS			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Tabora Region	91	99	1	1	78	85	14	15	88	96	4	4
Tabora District	8	89	1	11	6	67	3	33	9	100		
Nzega District	40	100			34	85	6	15	39	98	1	3
Igunga District	43	100			38	88	5	12	40	93	3	7

	BULLS				STEERS				TOTAL RESPONDENTS
	Yes		No		Yes		No		
	n	%	n	%	n	%	n	%	
Tabora Region	88	96	4	4	4	4	88	96	92
Tabora District	9	100			1	11	8	89	9
Nzega District	39	98	1	3			40	100	40
Igunga District	40	93	3	7	3	7	40	93	43

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 62 Payment of Dowry in Other Forms Except Cattle in Tabora Region,  
November, 1974 to October, 1975.

	Yes		No		Total Respondents
	n	%	n	%	n
Tabora Region	24	26	70	74	94
Tabora District	6	67	3	33	9
Nzega District	11	28	29	73	40
Igunga District	7	16	38	84	45

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 63 Cattle Given to Son as Customary Gift in Tabora Region,  
November, 1974 to October, 1975.

	Yes		No		Total Respondents
	n	%	n	%	n
Tabora Region	2	2	92	98	94
Tabora District			9	100	9
Nzega District	2	5	38	95	40
Igunga District			45	100	45

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 64 . Types of Cattle Given to Son as Customary Gift in Tabora Region, November 1973 to October 1975

	COWS				HEIFERS				CALVES			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Tabora Region	1	50	1	50	2	100			1	50	1	50
Tabora District												
Nzega District	1	50	1	50	2	100			1	50	1	50
Igunga District												

	BULLS				STEERS				TOTAL RESPONDENTS
	Yes		No		Yes		No		
	n	%	n	%	n	%	n	%	
Tabora Region			2	100			2	100	2
Tabora District									0
Nzega District			2	100			2	100	2
Igunga District									0

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 65 Money Kept in Bank after Selling Cattle in Tabora Region,  
October, 1975.

	Yes		No		Total Respondents
	n	%	n	%	n
Tabora Region	1	1	93	99	94
Tabora District	1	11	8	89	9
Nzèga District			40	100	40
Igunga District			45	100	45

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 66 Respondents Keeping Someone's Cattle in Tabora Region,  
October 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Tabora Region	17	49	18	51	35
Tabora District <sup>a</sup>					0
Nzega District <sup>a</sup>					0
Igunga District	17	49	18	51	35

<sup>a</sup>This question was not asked of respondents in this district.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 67 Number of Individuals Whose Cattle are Being Kept in Respondent's Boma in Tabora Region, October 1975.

	One		Two		Three		Total Respondents
	n	%	n	%	n	%	
Tabora Region	11	65	4	24	2	12	17
Tabora District <sup>a</sup>							0
Nzega District <sup>a</sup>							0
Igunga District	11	65	4	24	2	12	17

<sup>a</sup>This question was not asked of respondents in this district.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 68 Period of Time Respondent Has Been Keeping Someone's Cattle in Tabora Region, October 1975.

	Less than 6 months		6 months to 1 year		1 year to 2 years		Total Respondents
	n	%	n	%	n	%	
Tabora Region	2	12	4	24	11	65	17
Tabora District <sup>a</sup>							0
Nzega District <sup>a</sup>							0
Igunda District	2	12	4	24	11	65	17

<sup>a</sup>This question was not asked of respondents in this district.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 69 Individual Whose Cattle are Being Kept by Respondent Living in the Same Village in Tabora Region, October 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Tabora Region	9	53	8	47	17
Tabora District <sup>a</sup>					0
Nzega District <sup>a</sup>					0
Igunga District	9	53	8	47	17

<sup>a</sup>This question was not asked of respondents in this district.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 70 Respondent's Reason For Keeping Someone's Cattle in Tabora Region, October, 1975.

	To Receive Milk		To Farm		Requested By Neighbor Or Relative		Breeding & Increasing Herd For Status		Sharing Same Boma		Shortage of Grass In Owners Area		Total Respondents
	n	%	n	%	n	%	n	%	n	%	n	%	n
Tabora Region	3	18	1	6	8	47	1	6	3	18	1	6	17
Tabora District <sup>a</sup>													0
Nzega District <sup>a</sup>													0
Igunga District	3	18	1	6	8	47	1	6	3	18	1	6	17

<sup>a</sup> This question was not asked of respondents in this district.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 71 Cattle Kept. in Other Bomas for Herding in Tabora Region, October, 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Tabora Region	10	29	24	71	34
Tabora District <sup>a</sup>					0
Nzega District <sup>a</sup>					0
Igunga District	10	29	24	71	34

<sup>a</sup>This question was not asked of respondents in this district.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 72 Number of Bomas in Which Other Cattle are Kept in Tabora Region, November 1975.

	One		Three		Total Respondents
	n	%	n	%	
Tabora Region	9	90	1	10	10
Tabora District <sup>a</sup>					0
Nzega District <sup>a</sup>					0
Igunga District	9	90	1	10	10

<sup>a</sup>This question was not asked of respondents in this district.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 73 Cattle being Kept in Other Bomas and are in the Respondent's Village in Tabora Region, November 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Tabora Region	3	30	7	70	10
Tabora District <sup>a</sup>					0
Nzega District <sup>a</sup>					0
Igunga District	3	30	7	70	10

<sup>a</sup>This question was not asked of respondents in this district.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 74 Number of Cattle Given to Others for Herding in Tabora Region, October 1975.

	n	$\bar{x}$	s
Tabora Region	1	1.00	0.0
Tabora District <sup>a</sup>	0		
Nzega District <sup>a</sup>	0		
Igunga District	1	1.00	0.0

<sup>a</sup> This question was not asked of respondents in this district.

n = sample size (number in sample)

$\bar{x}$  = mean (average) of the sample

s = standard deviation (measure of variability about the mean - includes 2/3 of observations).

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 75 Cattle being kept by others given as customary gift in Tabora Region, October 1975.

	n	No %	Total Respondents
Tabora Region	10	100	10
Tabora District			0
Nzega District			0
Igunga District	10	100	10

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table.76 Sold, Traded, or Paid Dowry Cattle Kept in Other Bomas in Tabora Region, October 1975.

	Yes		No		Total Respondents
	n	%	n	%	
Tabora Region	2	20	8	80	10
Tabora District <sup>a</sup>					0
Nzega District <sup>a</sup>					0
Igunga District	2	20	8	80	10

<sup>a</sup>This question was not asked of respondents in this district.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 77 When Shifting into Village, Cattle Kept in Other Bomas for Herding in Tabora Region, October 1975.

	Yes		No		Total Respondents.
	n	%	n	%	
Tabora Region	1	10	9	90	10
Tabora District <sup>a</sup>					0
Nzega District <sup>a</sup>					0
Igunga District	1	10	9	90	10

<sup>a</sup>This question was not asked of respondents in this district.

Source: TAMU/USAID Livestock Survey by Personal Interview.

Appendix Table. 78 Reasons for Keeping Cattle in Other Bomas in Tabora Region, October 1975.

	For Farming		Customary Practice		Unable to Herd		Scarcity of Grass and Water		Other		Total Respondents
	n	%	n	%	n	%	n	%	n	%	
Tabora Region	3	30	1	10	2	20	2	20	2	20	10
Tabora District <sup>a</sup>											0
Nzega District <sup>a</sup>											0
Igunga District	3	30	1	10	2	20	2	20	2	20	10

<sup>a</sup>This question was not asked of respondents in this district.

Source: TAMU/USAID Livestock Survey by Personal Interview.