11 ANNEXES

Annex 1 Questionnaire

Name of the enumerator ..... Date.....

I. Farmer identity and location
Name of the respondent
Age……..Sex.....District……..Location.....Village……

II. Family structure
(a) Who is the head of the family with regards to gender ? (male or female) .....
(b) What is the family size ? .....
(c) What is the level of education attained by the head of the family ? .....

What is the land legislation in the area (land tenure) ?
a) Privately owned (b) Group ownership (c) Government owned (d) Others (specify)

3. What is the common source of labour?
a) Family labour (b) Hired labour (c) Family and hired labour d) thers (specify)

III. Herd structure and management
1. What are the different livestock kept ?
a) Cattle (b) Sheep (c) goats (d) Poultry (e) Donkeys (f) Pigs (g) Others

2. Who owns livestock with regards to gender (male or female).....

3. What is the production system practiced?
a) Pastoralism (b) Agropastoralism (b) Mixed crop/livestock farming (c) Dairy farming (d) Others

4. Mode of animal husbandry ?
a) Free grazing (b) Tethering (c) Stall feeding (d) Paddock/improved grazing (d) Others (specify)

5. Number of livestock by species

	Grade cattle	Zebu	Sheep	Goats	pigs	donkeys	poultry	rabbits	bee hives
Number									

6. Reasons for keeping livestock:

	Livestock use						
Livestock	meat	milk	sale	traction	eggs	manure	others (specify
Zebu							
Grade cattle							
Oxen							
Sheep							
Goats							
Pigs							
Rabbits							
Chicken							

Milk production
What is the average milk production/cow/day?.....litres

Milk utilisation and disposal (%)
a) Household consumption (b) Sold locally c) Sold to dairy co-orperatives
(d) Sold to hawkers (e) Consumption by calves (f) Others (specify)

What is the cost of milk/litre.....KShs.

Marketing of livestock and their products
Do you experience problems in the sale of milk? (Yes/No) .....
If Yes, explain.....
Do you experience problems in the sale of livestock? (Yes/No) .....
If Yes, explain…….....

Marketing outlets

Livestock	Outlets
Zebu	
Grade cattle	
Oxen	
Sheep	
Goats	
Pigs	
Rabbits	
Chicken	
Donkeys	

Animals brought in over the last 12 months

Category	Cattle	sheep	goats	pigs	poultry
Young males/growers					
young females/growers					
adult males/cocks					
adult females/hens					
Old/sick animals					
Gifts					
Dowry					
Barter trade					

V. Livestock disease and disease management
List the top 6 diseases affecting cattle and shoats
a).....(b).....
c).....(d).....
e).....(f).....

2. What veterinary personnel are available?
a) Veterinary officers (VO) (b) Animal health assistants (AHA) (c) Quarks (d) none

3. If available, what is the distance to the nearest personnel?.....
Trypanosomosis
5. How many cases of trypanosomosis were detected in your herd within the last one year?.....

6. How many deaths in cattle and shoats due to trypanosomosis were recorded?.....

Drug use
7. What were the trypanocidal drugs used for treatment?
a)..... (b).....

c)..... (d).....

9. Who suplied the drugs ? .....

10. Who applied the treatments?
a) A VO (b) An AHA (c) Quark (d) Yourself

13. What was the cost of treatment of an adult animal? .....

14. How many time was each animal treated for trypanosomosis within the last one year**?**
a) Once only (b) Twice (c) Thrice (d) More than thrice

15. What was the interval between the different treatments?.....
16. Was there cure after these treatments? (Yes or No?) .....

17. What was the total cost incurred on treatment of bovine trypanosomosis within the last one year?.....

18. Do you think that these trypanocidal drugs are able to attain cure for the treated cases**?**.....

19. If not, what do you think is the reason? .....
Acaricide use
Do you use acaricides? (Yes or No?).....

If yes, which type(s)?.....

What is the frequency of use?...../month

What is the source of your acaricides?
(a) Agro-vet (b) Private practitioner (c) Government vet services (d) Others (specify)

Other drugs/compounds
Have you used any of the following categories of drugs in the last 12 months?
Have you used any of the following categories of drugs in the last 12 months?

Category	Vaccines		Antihelmintics	Antibiotics	Anti-diarrheal	Others(specify)
Yes/No	.....	.....	.....	.....	.....	
Frequency	.....	.....	.....	.....	.....	
Source*	.....	.....	.....	.....	.....	

*(Mark 1-4: 1 = Agro-vet 2 = Private practitioner 3 = Government vet services 4 = Others (specify)

Who applied the treatments?
a) A VO (b) An AHA (c) Quark (d) Yourself
How many animals died of any other disease other than trypanosomosis?

Livestock	Disease(s)	Number lost
Cattle	.....	.....
Sheep	.....	.....
Goats	.....	.....
Poultry	.....	.....
Donkeys	.....	.....
Pigs	.....	

Calf mortality
How many calves were born in your herd within the year?.....
What was the method of delivery?.....

Were the calves born normal? Yes/No .....
How many died before 3 months?....., 6 months,.....9 months,.....12 months,.....
How many are still alive?.....

Annex 2. Mean hazard rate and number of trypanosome infections per 100 animals kept under 52 animal-weeks at risk in Budalang'i Division, during the 9 months follow-up period.

Treatment Group	Age	Breed	No. of subjects	No. of failures	Censored subjects	Weeks at risk	Mean hazard (weeks)	Cases per 100 animal years at risk
G I	Adults	Local	15	34	3	442	0.072	376
		Exotic	5	11	0	158	0.063	329
	Heifers	Local	10	23	2	294	0.071	371
		Exotic	5	12	0	156	0.077	400
	Calves	Local	10	17	3	302	0.053	275
		Exotic	5	9	2	158	0.057	296
G II	Adults	Local	15	9	0	502	0.016	83
		Exotic	5	5	0	176	0.023	118
	Heifers	Local	10	7	0	354	0.014	73
		Exotic	5	4	0	168	0.024	123
	Calves	Local	10	4	3	344	0.012	60
		Exotic	5	4	1	172	0.017	91
G III	Adults	Local	15	24	1	468	0.041	211
		Exotic	5	8	0	172	0.047	242
	Heifers	Local	10	14	0	336	0.042	217
		Exotic	5	9	0	170	0.047	244
	Calves	Local	10	11	3	310	0.029	151
		Exotic	5	5	1	164	0.030	159
G IV	Adults	Local	15	8	1	490	0.012	64
		Exotic	5	4	0	178	0.022	117
	Heifers	Local	10	5	1	344	0.012	60
		Exotic	5	3	0	180	0.011	58
	Calves	Local	10	2	1	346	0.003	15
		Exotic	5	2	1	176	0.011	59

G I: Control group; G II: ISMM; G III: ALB; G IV: ALB/ISMM.

Annex 3.. Mean hazard rate and number of trypanosome infections per 100 animals kept under 52 animal-weeks at risk in Funyula Division, during the 9 months follow-up period.

Treatment Group	Age	Breed	No. of subjects	No. of failures	Censored subjects	Weeks at risk	Mean hazard (weeks)	Cases per 100 animal years at risk
G I	Adults	Local	15	30	1	463	0.063	326
		Exotic	5	7	0	166	0.042	219
	Heifers	Local	10	19	0	328	0.055	285
		Exotic	5	9	0	173	0.046	240
	Calves	Local	10	13	4	270	0.048	250
		Exotic	5	6	2	152	0.039	205
G II	Adults	Local	15	8	0	510	0.014	71
		Exotic	5	3	0	170	0.018	92
	Heifers	Local	10	5	0	334	0.012	62
		Exotic	5	3	0	186	0.011	56
	Calves	Local	10	5	2	324	0.012	64
		Exotic	5	1	0	202	0.005	26
G III	Adults	Local	15	18	2	460	0.037	192
		Exotic	5	7	0	196	0.026	133
	Heifers	Local	10	14	0	350	0.037	193
		Exotic	5	2	0	166	0.012	63
	Calves	Local	10	8	3	294	0.027	141
		Exotic	5	4	0	194	0.021	107
G IV	Adults	Local	15	5	0	508	0.008	41
		Exotic	5	3	0	190	0.016	82
	Heifers	Local	10	4	0	336	0.009	46
		Exotic	5	2	0	192	0.010	54
	Calves	Local	10	3	2	328	0.009	48
		Exotic	5	2	1	196	0.005	27

G I: Control group; G II: ISMM; G III: ALB; G IV: ALB/ISMM.