

# Camel Herd Health Survey Questionnaire

Record ID

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Interviewer ID:

- ☐ MC10 (Mutembei)
  - ☐ MC11 (Denge)
  - ☐ MC12 (Minayo)
  - ☐ MC13 (Akoko)
  - ☐ MC14 (Omollo)
  - ☐ MC15 (Ngere)
- 

Date of Interview

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## PART 1 - HOUSEHOLD IDENTIFICATION.

101. Name of County:

- ☐ Marsabit
  - ☐ Other county
- 

102. Name of Sub-county

- ☐ Marsabit Central (Saku)
  - ☐ Marsabit North (Chalbi)
  - ☐ Marsabit South (Laisamis)
  - ☐ Loiyangalani
  - ☐ Moyale
  - ☐ Sololo
- 

103. Name of ward

- ☐ Sagante/Jaldesa
  - ☐ Karare
  - ☐ Marsabit Central
- 

104. Name of village

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105. Household number

- ☐ M01
- ☐ M02
- ☐ M03
- ☐ M04
- ☐ M05
- ☐ M06
- ☐ M07
- ☐ M08
- ☐ M09
- ☐ M10
- ☐ M11
- ☐ M12
- ☐ M13
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- ☐ M94
- ☐ M95
- ☐ M96
- ☐ M97
- ☐ M98
- ☐ M99

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106. GPS coordinates (Latitude)

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GPS coordinates (Longitude)

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## PART 2 - RESPONDENT'S BACKGROUND

201. Name of respondent:

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202. What is the sex of the respondent?

- ☐ Male
- ☐ Female

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203. Position in the household

- ☐ Household Head
- ☐ Spouse
- ☐ Farm worker
- ☐ Son/Daughter
- ☐ Other (Specify)

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Please specify other position

\_\_\_\_\_

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204. Age of respondent

\_\_\_\_\_

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205. What is the highest level of education/school completed?

- ☐ Primary
- ☐ Secondary
- ☐ Tertiary
- ☐ No formal education

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206. What is your religion?

- ☐ Christian  
☐ Muslim  
☐ Traditional  
☐ No religion  
☐ Other (specify)

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Please specify other religion

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207. Community of origin

- ☐ Borana  
☐ Gabra  
☐ Rendille  
☐ Samburu  
☐ Somali  
☐ Turkana  
☐ Other (Specify)

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Please specify other community of origin

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### PART 3 - SOCIO-ECONOMIC STATUS

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301. How many people live in this household?

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302. How many people are under 15 years old in this household?

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303. What is the main occupation of HH head? (tick where applicable)

- ☐ Formal employment  
☐ Informal employment  
☐ Self-employed formal  
☐ Self-employed informal  
☐ Unemployed  
☐ Others (Please specify)

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Specify the other occupation

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304. What is the household's average monthly income?

- ☐ Ksh. 0 - 9,999  
☐ Ksh. 10,000 - 29,000  
☐ Ksh. 30,000 - 49,000  
☐ Ksh. 50,000 - 99,999  
☐ >Ksh. 100,000  
☐ Refuse to answer  
☐ Don't Know

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### PART 4: INFORMATION ON LIVESTOCK

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401. How many camel(s) do you own?

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(Give total number eg. 15)

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402. Do you have camels in any of these age groups?

- ☐ 0-6 months  
☐ 7- 12months  
☐ 13+ months

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0-6 months camels in HOME HERD?

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0-6 months camels in OTHER HERD (Fora)?

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7-12 months camels in HOME HERD?

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7-12 months camels in OTHER HERD (Fora)?

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13+ months camels in HOME HERD?

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13+ months male camels in OTHER HERD (Fora)?

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403. Apart from camels, do You have other livestock in this farm/herd?

☐ Yes  
☐ No

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404. If Yes, indicate the which of the following?  
(Indicate the number below)

☐ Cattle  
☐ Sheep  
☐ Goats  
☐ Donkeys  
☐ Poultry  
☐ Other (specify)

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Please indicate the number of cattle 0-12 months

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Please indicate the number of cattle 13+ months

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Please indicate the number of goats 0-12 months

---

---

Please indicate the number of goats 13+ months

---

---

Please indicate the number of sheep 0-12 months

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---

Please indicate the number of sheep 13+ months

---

---

Please indicate the number of donkeys 0-12 months

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Please indicate the number of donkeys 13+ months

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Please indicate the number of poultry

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Please specify other animals owned

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Please indicate the number of other animals

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405. Do you prefer camels over other livestock yes/no

- ☐ Yes  
☐ No

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If yes why?

- ☐ More drought resistant  
☐ More profitable  
☐ Easier to manage  
☐ Habit  
☐ Other (Specify)

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Specify

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### PART 5: CAMEL REPRODUCTION QUESTIONS

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501. At what age do your camels start breeding?

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501a. Male (Age in years when they start mounting females/rutting?)

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501b. Females (Age in years at 1st calving)

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502. At what age do the camels stop breeding?

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502a. Females (age in years when they stop calving)

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503. What is the number of breeding camels?

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503a. Male

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503b. Female

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504. Which month is the breeding season for your herd?

- ☐ Bon Hagaya/Nabhay gaban/Short dry spell(January-March)  
☐ Gan/Guh/Long rain(April-May)  
☐ Bon/Nabhay Kider/Long dry spell(June -September)  
☐ Hagay/Yer/Short rain(October-December)

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505a. What is the average number of years between one calving and the next?

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505b. How many camels have calved in the last one year?

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505c. At what age (in months) do calves start grazing/browsing?

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(Enter age in Months eg 18)

505d. At what age (In months) do calves separate from the mother (stop suckling)? (Joining the fora)

(Give range in Months eg 7-8)

506. What mainly happens to the calves after separation from the mother?

506a. Males (after weaning)

- ☐ Retained in the herd
- ☐ Sold
- ☐ Slaughtered
- ☐ Other

Specify

506b. Females (after weaning)

- ☐ Retained in the herd
- ☐ Sold
- ☐ Slaughtered
- ☐ Other

Specify

507. Select 4 mature females that the herder/farmer is most familiar with (include the lead female camel) and ask the following questions for each camel

How many females have you selected?

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4

### Female Camel #1

Camel Name

Age in years

(Enter number only rg if 4 years, enter 4)

Reproduction status

- ☐ Pregnant
- ☐ Dry
- ☐ Lactating

Has this camel ever given birth before?

- ☐ Yes
- ☐ No

Date of last calving?

Sex of last calf

- ☐ Male
- ☐ Female

Common Calving Month(s) ☐ Bon Hagaya/Nabhay gaban/Short dry spell(January-March)  
☐ Gan/Guh/Long rain(April-May)  
☐ Bon/Nabhay Kider/Long dry spell(June -September)  
☐ Hagay/Yer/Short rain(October-December)  
(Check All that Apply)

Last Calf Weaning age (in Months)

\_\_\_\_\_  
(Just the number eg. 24)

Lifetime calves

\_\_\_\_\_  
(Just the number eg. 2)

Dead calves

\_\_\_\_\_

Lifetime abortions

\_\_\_\_\_  
(Just the number eg. 2)

## Female Camel #2

Camel Name

\_\_\_\_\_

Age

\_\_\_\_\_  
(Enter number only rg if 4 years, enter 4)

Reproduction status

- ☐ Pregnant  
☐ Dry  
☐ Lactating

Has this camel ever given birth before?

- ☐ Yes  
☐ No

Date of last calving?

\_\_\_\_\_

Sex of last calf

- ☐ Male  
☐ Female

Common Calving Month(s)

- ☐ Bon Hagaya/Nabhay gaban/Short dry spell(January-March)  
☐ Gan/Guh/Long rain(April-May)  
☐ Bon/Nabhay Kider/Long dry spell(June -September)  
☐ Hagay/Yer/Short rain(October-December)  
(Check All that Apply)

Last Calf Weaning age (in Months)

\_\_\_\_\_  
(Just the number eg. 24)



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Lifetime calves

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(Just the number eg. 2)

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Dead calves

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Lifetime abortions

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(Just the number eg. 2)

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**Female Camel #3**

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Camel Name

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Age

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(Enter number only eg if 4 years, enter 4)

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Reproduction status

- ☐ Pregnant  
☐ Dry  
☐ Lactating

---

Has this camel ever given birth before?

- ☐ Yes  
☐ No

---

Date of last calving?

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Sex of last calf

- ☐ Male  
☐ Female

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Common Calving Month(s)

- ☐ Bon Hagaya/Nabhay gaban/Short dry spell(January-March)  
☐ Gan/Guh/Long rain(April-May)  
☐ Bon/Nabhay Kider/Long dry spell(June -September)  
☐ Hagay/Yer/Short rain(October-December)  
(Check All that Apply)

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Last Calf Weaning age (in Months)

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(Just the number eg. 24)

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Lifetime calves

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(Just the number eg. 2)

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Dead calves

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Lifetime abortions

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(Just the number eg. 2)

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**Female Camel #4**

Camel Name

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Age

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(Enter number only rg if 4 years, enter 4)

Reproduction status

- ☐ Pregnant  
☐ Dry  
☐ Lactating

Has this camel ever given birth before?

- ☐ Yes  
☐ No

Date of last calving?

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Sex of last calf

- ☐ Male  
☐ Female

Common calving month(s)

- ☐ Bon Hagaya/Nabhay gaban/Short dry spell(January-March)  
☐ Gan/Guh/Long rain(April-May)  
☐ Bon/Nabhay Kider/Long dry spell(June -September)  
☐ Hagay/Yer/Short rain(October-December)  
(Check All that Apply)

Last Calf Weaning age (in Months)

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(Just the number eg. 24)

Lifetime calves

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(Just the number eg. 2)

Dead calves

---

Lifetime abortions

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(Just the number eg. 2)**PART 6: CAMEL PRODUCTION QUESTIONS**

601. Where did you get your camels from?

- ☐ Inherited  
☐ Bought  
☐ Came with family member  
☐ Dowry (paid as bride price)  
☐ Found  
☐ Gifted to you  
☐ Other (Specify)

Specify other place you got your camels

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If inherited, how many?

\_\_\_\_\_  
(Just the number eg. 2)

---

If bought, how many?

\_\_\_\_\_  
(Just the number eg. 2)

---

If came with family member, how many?

\_\_\_\_\_  
(Just the number eg. 2)

---

If received from dowry/bride price, how many?

\_\_\_\_\_  
(Just the number eg. 2)

---

If found, how many?

\_\_\_\_\_  
(Just the number eg. 2)

---

If gifted to you, how many?

\_\_\_\_\_  
(Just the number eg. 2)

---

How many did you acquire through other sources?

\_\_\_\_\_  
(Just the number eg. 2)

---

602. Where did your camels originate from?

- ☐ In the village
- ☐ In the same sub-County
- ☐ In another County
- ☐ In another country
- ☐ Other

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Other camel origin

\_\_\_\_\_

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603. For how long have you kept camels? (years)

\_\_\_\_\_  
(Enter number only eg. 3)

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604. What are two primary reasons for keeping camels

- ☐ For Meat
- ☐ For milk
- ☐ For sale and business
- ☐ Prestige/social status
- ☐ Family tradition
- ☐ Part time activity
- ☐ For sport
- ☐ Other (specify)

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Other reason for keeping camels

\_\_\_\_\_

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605. How do you dispose your camels? Tick all that apply

- ☐ Sell
- ☐ Slaughter
- ☐ Give as gifts
- ☐ Bride price
- ☐ Other (Specify)

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Other method of disposing camels

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For selling, How many camels in the last year?

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For slaughtering, How many camels in the last year?

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For gifts, How many camels in the last year?

---

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For bride price, How many camels in the last year?

---

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For "other" disposal methods, How many camels in the last year?

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606. How many breeds of camel do you have (enter the numbers below)?

- ☐ Somali  
☐ Turkana  
☐ Gabra/Rendile  
☐ Other
- 

Number of Somali Breed

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Number of Turkana Breed

---

Number of Gabra/Rendile Breed

---

Other Breed (Specify here and write the total number below)

---

Number for other camel species

---

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607. Of these camel breeds, which one do you prefer?

- ☐ Somali  
☐ Turkana  
☐ Rendile/Gabra  
☐ None
- 

Why do you prefer the above breeds/camel(s)?

- ☐ It is hardy  
☐ Higher milk production  
☐ Fast growth  
☐ Mild temperament  
☐ Great load bearer  
☐ The only breed available  
☐ Family reasons  
☐ Other reason (Specify)
- 

Please state other reason for preference

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608a. Did you slaughter any camel in the past one year?

- ☐ Yes  
☐ No

608b. If yes, how many?

608c. Please list the age of the first four camels you slaughtered below.

Camel 1 age slaughtered

Camel 2 age slaughtered

Camel 3 age slaughtered

Camel 4 age slaughtered

609. Whose role is it to milk the camels in your farm?

- ☐ Household Head
- ☐ Spouse
- ☐ Farm worker/Herder
- ☐ Son/Daughter
- ☐ Other (Specify)

Specify other persons milking camels

610. Whose role is it to milk?

- ☐ Specific person
- ☐ Any person

611. What is the main use of the milk from camels?

- ☐ Domestic Consumption
- ☐ For sale
- ☐ Other (Specify)

Other milk use?

## PART 7: CAMEL HEALTH QUESTIONS

701. Have you ever sought veterinary services for your herd?

- ☐ Yes
- ☐ No

702. If yes, how many times in a year do you usually seek veterinary services for your camel herd?

- ☐ Once
- ☐ Twice
- ☐ Thrice
- ☐ If more than 3 (specify)

Please specify if more than 3 times

703. Who provides the veterinary services to your camel herd?

- ☐ Private
- ☐ Gov.
- ☐ Community Animal Health Workers
- ☐ Other (specify)

Specify other veterinary service provider

704. How much do you pay on average per visit from the veterinarian / animal health technician?

- ☐ < Ksh. 500  
☐ Ksh. 501 - Ksh. 5000  
☐ >Ksh. 5001

705. How much did you spend in treatment of camels in the last 3 months?

- ☐ < Ksh. 500  
☐ Ksh. 501 - Ksh. 5000  
☐ >Ksh. 5001

706. If no, why have you never sought veterinary services for your camel(s)?

- ☐ Too expensive  
☐ I don't see the need  
☐ I treat them myself  
☐ No veterinarians in my area  
☐ Cultural beliefs  
☐ Other

Specify

\_\_\_\_\_

707. Have you vaccinated your camel(s) in the past one year?

- ☐ Yes  
☐ No

708. Against what diseases do you often vaccinate your camels?

\_\_\_\_\_

709. Did you pay for the vaccination?

- ☐ Yes  
☐ No

710. How much do you pay on average for the vaccination?

(Ksh.)

\_\_\_\_\_

711. What prompts you to vaccinate your camels?

- ☐ Threat of a disease/disease outbreak  
☐ Advice from veterinarian/health officers  
☐ Required by law  
☐ When vaccine is offered free  
☐ I vaccinate when I can afford  
☐ Other (Specify)

Specify

\_\_\_\_\_

712. Ectoparasites

712a..Are ectoparasites a problem for your camels?

- ☐ Yes  
☐ No

712b.If yes, which ectoparasites?

- ☐ Biting flies  
☐ Ticks  
☐ Mange  
☐ Fleas

712c.If ticks, which control methods do you use?

- ☐ Pull off ticks  
☐ Use chemical  
☐ Move calf paddocks  
☐ Other(specify)

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Specify

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712d. If yes to use of Chemicals, which method?

- ☐ Dips  
☐ Spot on  
☐ Other(specify)
- 

Specify

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713. How often do you deworm your camels in a year?

- ☐ None  
☐ Once  
☐ Twice  
☐ Thrice  
☐ More than 3 times (Specify)
- 

Please specify for more than 3 times deworming.

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714. What are the three commonest camel health problems in your herd?

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715. Has any of your camels died in the last one year?

- ☐ Yes  
☐ No
- 

If yes above, choose the age category and state the number below.

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Age category

- ☐ 0-6 months  
☐ 7-12 months  
☐ Above 1 year
- 

Number of male dead between 0-6 months

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Number of female dead between 0-6 months

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Number dead male between 7-12 months

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Number dead female between 7-12 months

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Number dead male above 1 year

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Number dead female above 1 year

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716. What is the main cause of Death?

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0-6 months

- ☐ Got sick
- ☐ Natural disaster (e.g. drought)
- ☐ Predation
- ☐ Injury
- ☐ Don't know
- ☐ Other

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Specify

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What were the main clinical syndromes observed in the animals that got sick?

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7-12 months

- ☐ Got sick
- ☐ Natural disaster (e.g. drought)
- ☐ Predation
- ☐ Injury
- ☐ Don't know
- ☐ Other

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Specify

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---

What were the main clinical signs observed in the animals that got sick?

---

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13+ months

- ☐ Got sick
- ☐ Natural disaster (e.g. drought)
- ☐ Predation
- ☐ Injury
- ☐ Don't know
- ☐ Other

---

Specify

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---

What were the main clinical signs observed in the animals that got sick?

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717.Has any of your camels experienced the following in the last three months?

- ☐ Abortion
- ☐ Retained placenta
- ☐ Hygroma
- ☐ Swollen testicles
- ☐ Any other fertility problem
- ☐ None of the above



**PART 8: HERDING STRATEGIES/PASTORALIST LIFE**

801. What is the average distance covered in hours from the Boma to foraging area on a daily basis? (estimate)

- ☐ Less than 1 hour walk  
☐ 1-2 hr walk)  
☐ >2hr walk)

802. Who does the herding?

- ☐ Household Head  
☐ Spouse  
☐ Farm worker/Herder  
☐ Son/Daughter  
☐ Other (Specify)

Please specify the other persons doing herding.

\_\_\_\_\_

803. Whose role is it to herd?

- ☐ Specific person  
☐ Any person

804. Where does your camel(s) source water from?

- ☐ Private Well/watering point  
☐ Communal well/watering point  
☐ River/stream  
☐ Other (Specify)

Please specify other source of water

\_\_\_\_\_

805. Do you move with your camels from one place to another?

- ☐ Yes  
☐ No

806. If yes above, how many times have you moved in the last one month?

- ☐ Once  
☐ Twice  
☐ Thrice  
☐ More than 3 times (Specify below)

Moved more than 3 times

\_\_\_\_\_

807. Why do you move with your camels?

- ☐ To look for pasture  
☐ To look for water  
☐ To escape disease/insect infestation  
☐ Security reasons  
☐ Its our way of life  
☐ Other (Specify)

Specify other reason for moving

\_\_\_\_\_

808. Who makes the decision to move the camels

- ☐ Herd owner/Self  
☐ Elder(s)/Communal  
☐ Other (Specify)

Specify other person/group who makes decision to move.

\_\_\_\_\_

809. If NO, why? Please specify the reason(s)

\_\_\_\_\_

# Camel Sampling

Interviewer ID

- ☐ MC10 (Mutembei)  
☐ MC11 (Denge)  
☐ MC12 (Minayo)  
☐ MC13 (Akoko)  
☐ MC14 (Omollo)  
☐ MC15 (Ngere)

## Camel Details

1.0 Animal Name

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2.0 Sex

- ☐ Male  
☐ Female

3.0 Unit of Age

- ☐ Months  
☐ Years

3.1 Age (in Months)

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3.2 Age (in years)

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4.0 Date of sampling (dd/mm/yyyy)

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5.0 Herd Type

- ☐ Mother/Home Herd  
☐ Main Herd

## Sample Collection

6.0 Please select all the specimens collected

- ☐ Milk  
☐ Nasal swab  
☐ Blood  
☐ Vaginal swab

6.1 Milk Sample barcode

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6.2 Nasal Swab specimen barcode

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6.3 Blood specimen barcode

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6.4 Vaginal swab specimen barcode

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