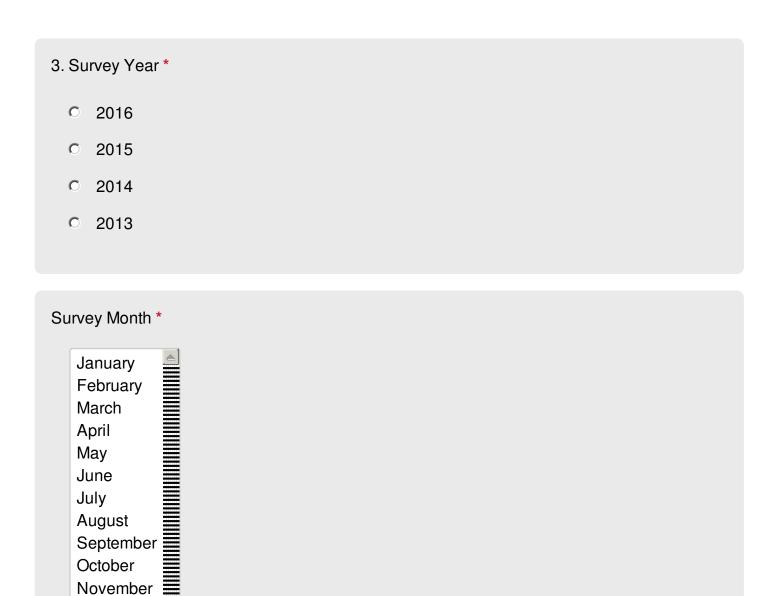
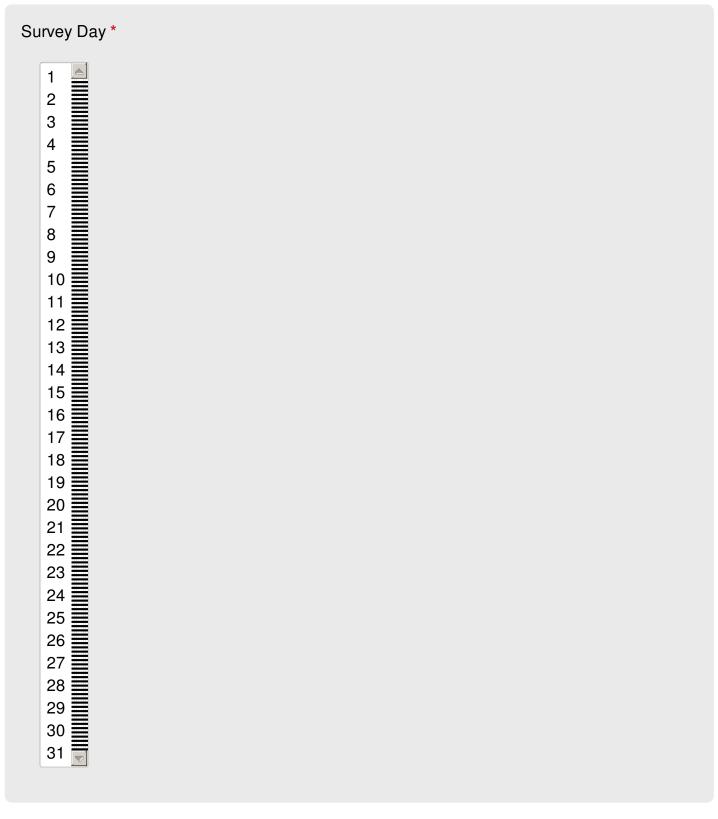
1. Village *
<ul> <li>Mt. Meru</li> <li>Nodonjukin</li> <li>Loroi</li> <li>Meliot</li> </ul>
2. Enumerator *
Participant ID Number *



December



# **Basic Demographics**

4. Gender *
© Male
© Female
5. What is your relationship to the head of the household? *
<ul> <li>Head of household</li> </ul>
C Spouse of head of household
Son of head of household
O In-law
<ul> <li>Hired labor</li> </ul>
C Daughter of head of household
Other Other
6. Ethnic Group *
© Chagga
© Maasai
<ul> <li>Warusha</li> </ul>
© Other
7. How old are you? * Enter a number.

8. Wh	nat is your religion? *
0	Protestant Christian
0	Catholic Christian
0	Muslim
0	Traditional
0	None
0	Other
9. Do	you read? *
0	Yes
0	No
10. H	ighest level of education *
O	No formal education
0	Some primary school
O	Completed primary school
0	Some high school
0	Completed high school
0	Some education beyond high school
O	Finished college
0	Postgraduate or above

Life History/Demographics

<ul> <li>Yes</li> <li>Never</li> <li>Divorced</li> <li>Widow(er)</li> </ul>	
© Divorced	
© Widow(er)	
12. How many times have you been married? *	
O Never	
O 1	
C 2	
C 3	
C 4	
C 5	
© 6	
O 7	
○ 8	
O 9	
O 10+	

13. If married, how old were you when you got married the first time? \* Enter a number. O 10 O 13 O 15 O 16 O 11 O 12 O 14 O 17 O 20 O 21 18 O 19 0 22 C 23 C 24 0 25 26 O 27 O 28 O 29 O 30 0 O 31 O 32 O 33 34 O 35 O 36 O 37 O 38 O 39 O 40 O 41 0 0 O 44 O 45 C 46 O 47 C 48 0 49 42 O 43 C 50 O NEVER MARRIED 14. How many wives do you or your husband have currently? \* 0 0 0 1

0 2

O 3

0 4

0 5

**6** 

0 7

0 8

0 9

O 10+

5. What is	s your birth	ı orde	?*													
© First	t															
© Mide	dle															
C Last	t															
6 Hown	nany siblin	as do	vou k	าวบอ	2 *											
0. 1 low 11	ially sibilli	ys uo	you i	iave	•											
		0	1	2	3	4	5	6	7	8	9	10+				
Brothe	rs living	0	0	0	0	0	0	0	0	0	0	0				
Brothe	rs decease	ed C	0	О	0	0	0	0	O	0	O	0				
Sisters	living	0	0	0	0	0	0	0	0	0	0	0				
Sisters	deceased		O	0	0	0	O	0	0	O	0	0				
													_			
ildren																
	ld were yo	u whe	n yoı	ur fir	st ch	ild w	as b	orn'	? *							
7. How o	ld were yo Children									13	0	14	0	15	O	16
17. How o	Children		0	0	11	0	12	C	) 1					15 24	О	16
C No (	Children	O 1	0	0	11	0	12 21	(	) 1 () 2	22	0		0		O	16
7. How o	Children	0 1	0 19 27	0	11 20 28	0	12 21 29	(		22	0	23	0	24	C	16

C 49 C 50

18. How many children do you have? \*

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16+
Sons living *	О	0	0	O	О	О	О	О	O	О	O	O	O	O	O	O	О
Sons deceased	0	0	0	0	0	O	0	0	0	0	0	0	0	0	0	O	О
Daughters living *	0	О	0	О	0	0	0	0	0	0	0	0	0	0	0	0	О
Daughters deceased *	0	0	0	0	0	0	0	0	0	0	0	0	0	O	O	c	О

19. Did you have any children that didn't survive to one year old? \*

Yes

O No

20. Number of persons in household Enter numbers for all that apply. If none apply, enter 0 in at least one box.

	Number	Number in School
Children less than school age	Number	Number in School
Females : Primary school age	Number	Number in School
Females : Secondary school age	Number	Number in School
Females : Between 19-65	Number	Number in School
Females : Over 65	Number	Number in School
Males : Primary school age	Number	Number in School
Males : Secondary school age	Number	Number in School
Males : Between 19-65	Number	Number in School
Males : Over 65	Number	Number in School

#### **Health/Health Services**

21. What health services do you use for yourself and family? CHECK ALL THAT APPLY *
☐ Government clinic ☐ Private doctor ☐ Government hospital ☐ Private hospital ☐ Local/indigenous practitioners ☐ Dispensary ☐ None
☐ Other (please specify)

22. ľ	f you can't treat yourself, where do you go FIRST for medical treatment? *
O	Government clinic
O	Private doctor
O	Government hospital
0	Private hospital
0	Local/indigenous practitioners
0	Dispensary
O	None
0	Other (please specify)
•	go next for medical treatment? * nis CANNOT be the SAME SELECTION AS 22!  Government clinic  Private doctor
0	Govt hospital
0	Private hospital
0	Local/indigenous practitioners
O	None, I only have ONE option
0	Other (please specify)
24. V	What was the most recent illness for a person in the household? *

25. Wh	nere did you USUALLY get medicine come from? *
0	Government clinic/ hospital
0	Private doctor
0	Private clinic/ hospital
0	Pharmacy
0	Friend or neighbor
0 1	N/A
0	Other (please specify)
00 14/1	
26. Wr	nat was the most recent exotic medicine someone in your household used? *
0	I have not used an exotic medicine recently
0	Yes, but I don't know the name
0	Yes, I have used the name is?
07 Uo	w many times has someone used entibiotics in your household in the last year?
27. 110	w many times has someone used antibiotics in your household in the last year?
0 (	0
0	1-3 times
0 4	4-6 times
0	7-10 times
0 (	Over 10 times

© Government clinic/ hospital	
C Private doctor	
C Private clinic/ hospital	
© Pharmacy	
C Friend or neighbor	
C N/A	
Other (please specify)	
29. Are children less than 5 years old in the household currently vaccinated against one or more diseases? *  C Yes	
<ul><li>No</li><li>No children under 5 years</li></ul>	
O No children under 5 years  30. How much time does it take to travel to the health center or hospital that you use (ONE	
O No children under 5 years	
O No children under 5 years  30. How much time does it take to travel to the health center or hospital that you use (ONE WAY)?	
O No children under 5 years  30. How much time does it take to travel to the health center or hospital that you use (ONE WAY)?  Enter numbers. Only need to fill in one box.	

	. How many visits to t 3 months (sum of e			nic or hospital were made by household members in the house)? *					
	O-1 time								
	C 2-4 times								
	5-10 times								
	○ 11-20 times	11-20 times							
	© 20+ times	20+ times							
Soci	al - Household Info	rmatio	nn -						
<u>500.</u>		, iiiati	<b>711</b>						
	. How many dwellin Enter numbers.	gs?*							
	O 1-3								
	© 3-6								
	· 7-10								
	Over 10								
33	. Animal House								
		Yes	No						
	Cattle	0	0						
	Goats and Sheep	0	0						
	Chicken	0	0						
	Dog	0	0						

34. The house of the respondent is: *
On own land
On communal land
Other Other
35. Toilet location? *
Inside the house
Outside the house
© Both
© None
36. What type of toilet? *
oo. What type of tollet:
☐ Flush toilet ☐ Pit toilet
☐ Trench ☐ Bush in dedicated location
☐ Bush in general
Cother
37. Electricity –Household inventory *
37. Lieumury — Household inventory
None
Grid (this means a power line is connected to house
Off grid (but available via local production such as solar panels)

40. Where do you usually get your water? *
C Communal well
C Private well
C River water
C Lake or impoundment
<ul> <li>Rain water seasonal stream</li> </ul>
<ul> <li>Household Stand pipe</li> </ul>
<ul> <li>Neighbor Standpipe</li> </ul>
C Pay for delivery
Other (please specify)
41. Do livestock or wildlife drink from the same water source? For example, livestock and humans all drink from standpipe *

No, water only for people

C Livestock drink the same water

Wildlife drink the same water

O Both livestock and wildlife drink the same water

42. D	o you treat drinking water? *
0	No treatment
0	Boil every time
0	Boil some of the time
0	Chemical treatment
0	Filter
0	Other
Consu	mption

43. How often do you eat meat in your meals? \*

	Every meal	Once per day	More than once a week	Less than once per week	Less than once per month	Special occasions	Never
Beef *	0	0	О	0	0	0	0
Sheep *	0	О	0	O	O	0	С
Goat *	0	0	О	0	0	0	0
Pig meat *	0	О	O	О	О	0	С
Poultry *	О	О	С	О	О	О	С

# 44. Quantity of cow's milk consumed by household per day

	Quantity
Home produced milk	Quantity
Purchased milk	Quantity
Home produced butter	Quantity
Purchased butter	Quantity
Home produced eggs	Quantity
Purchased eggs	Quantity

**Economic - Crop Enterprise, Land** 

# 45. **FOR THE LAST HARVEST** what types of crops did you grow?

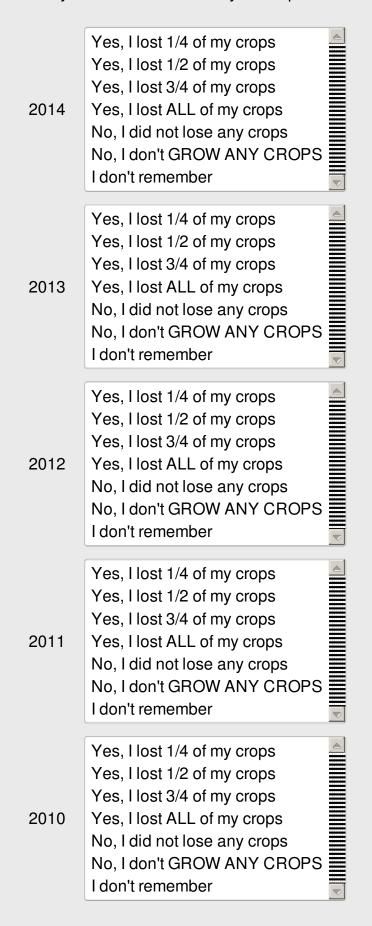
If NO CROPS, enter NA for at least one entry.

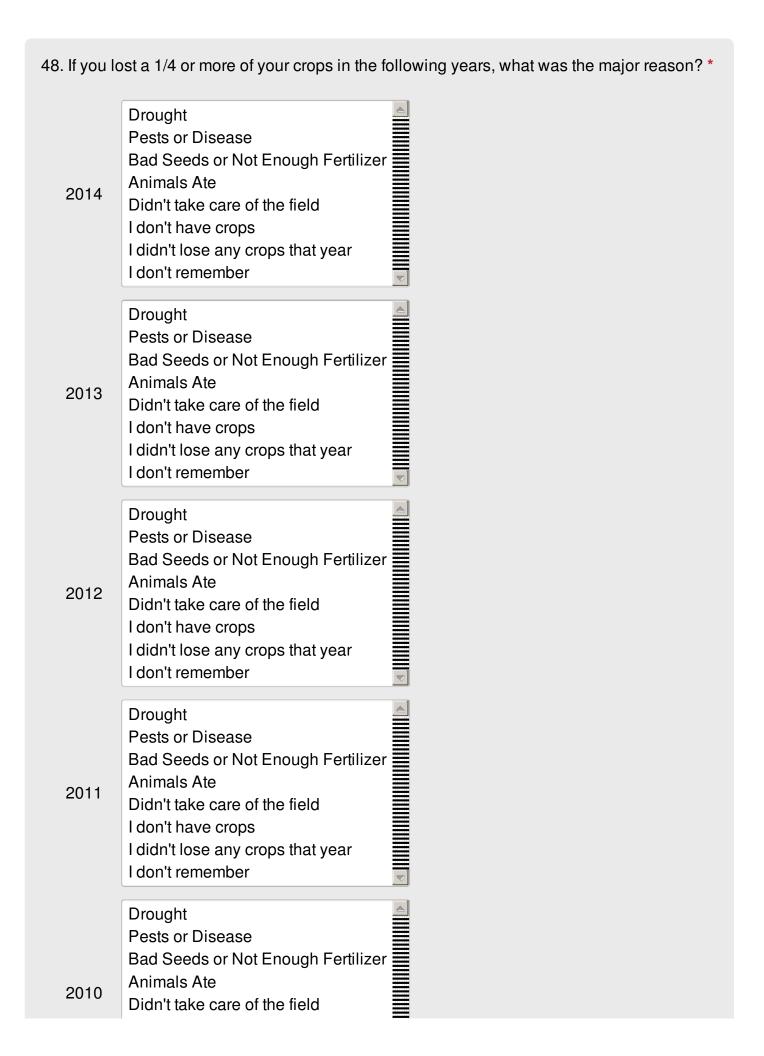
	Crop name	Area planted	Draught power used (Yes/No)	Draught power used (Type)	Fertilizer used (Yes/No)	Fertilizer used (Type)	Crop output use (Home Consumption)
Crop 1	Crop name	Area planted	Draught power used (Yes/No)	Draught power used (Type)	Fertilizer used (Yes/No)	Fertilizer used (Type)	Crop output use (Home Consumption)
Crop 2	Crop name	Area planted	Draught power used (Yes/No)	Draught power used (Type)	Fertilizer used (Yes/No)	Fertilizer used (Type)	Crop output use (Home Consumption)
Crop 3	Crop name	Area planted	Draught power used (Yes/No)	Draught power used (Type)	Fertilizer used (Yes/No)	Fertilizer used (Type)	Crop output use (Home Consumption)
Crop 4	Crop name	Area planted	Draught power used (Yes/No)	Draught power used (Type)	Fertilizer used (Yes/No)	Fertilizer used (Type)	Crop output use (Home Consumption)
Crop 5	Crop name	Area planted	Draught power used (Yes/No)	Draught power used (Type)	Fertilizer used (Yes/No)	Fertilizer used (Type)	Crop output use (Home Consumption)

46. Total crop production expenditures for the most recent complete growing season If NO CROPS, enter 0 for at least one entry.

	Cost (in TZS)
Seed	Cost (in TZS)
Fertilizer	Cost (in TZS)
Herbicide	Cost (in TZS)
Pesticide	Cost (in TZS)
Tractor Rental	Cost (in TZS)
Other 1 (specify below)	Cost (in TZS)
Other 2 (specify below)	Cost (in TZS)
Other 3 (specify below)	Cost (in TZS)

47. Did you lose 1/4 or more of your crops in the following years? \*





I don't have crops I didn't lose any crops that year I don't remember



# **Livestock Enterprise, Assets**

#### 49. Cattle

Enter numbers.

If NO CATTLE, enter 0 for at least one entry.

	Adult (Number)	Young (Number)
Kept in a boma in homestead part of all of the day	Adult (Number)	Young (Number)
Moves in and out of the homestead	Adult (Number)	Young (Number)
Herded away from the homestead	Adult (Number)	Young (Number)

### 50. Sheep & goats

Enter numbers.

If NO GOATS AND SHEEP, enter 0 for at least one entry.

	Adult (Number)	Young (Number)
Kept in a boma in homestead part of all of the day	Adult (Number)	Young (Number)
Moves in and out of the homestead	Adult (Number)	Young (Number)
Herded away from the homestead	Adult (Number)	Young (Number)

# 51. Donkeys

Enter numbers.

If NO DONKEYS, enter 0 for at least one entry.

	Adult (Number)	Young (Number)
Kept in a boma in homestead part of all of the day	Adult (Number)	Young (Number)
Moves in and out of the homestead	Adult (Number)	Young (Number)
Herded away from the homestead	Adult (Number)	Young (Number)

52.	Pigs
E	nter

Enter numbers.

If NO PIGS, enter 0 for at least one entry.

	Animals (Number)	Purchase in last year? If Yes, put number	Source of Purchase
adult	Animals (Number)	Purchase in last year? If Yes, put	Source of Purchase
young	Animals (Number)	Purchase in last year? If Yes, put	Source of Purchase

# 53. Poultry system

	Birds (Number)	Housing?	Purchase in last year, if yes put #
Free range	Birds (Number)	Housing?	Purchase in last year, if yes put #

54. number of eggs produced per flock/day? * Enter a number.	
eggs/flock/day	

55. Average amount of eggs	sold by the household *	
Enter a number.	•	
eggs per day		

56. How many animals	s have you purchased in the last year? *
Cattle	
Sheep/goats	
Donkeys	
57. How many animals	s have you sold in the last year? *
Cattle	
Sheep/goats	
Donkeys	
58. Where do you sell	cattle and small livestock? (Check ALL that apply) *
☐ Local marke ☐ Regional marke ☐ Neighbors ☐ Butcher/aba ☐ I don't sell can't own a	arket attoir attle any cattle

59. When you sell livestock how far do you usually travel? *
C 1 hour or less
More than 1 hour less than 1 day
More than 1 day
More than 2 days
C N/A
60. When you purchase livestock how far do you usually travel? *
C 1 hour or less
More than 1 hour less than 1 day
C More than 1 day
More than 2 days
O N/A
61. Does someone outside your household manage your livestock for you? *
C Yes
C No

62. If someone else manages your livestock outside of your household, why? *		
C Too many to manage alone		
Other person needed livestock for milk		
O N/A		
Other (specify)		
63. How many animals do you currently manage for someone else? * Enter numbers for all that apply.		
If none apply, enter 0 for at least one entry.		
Cattle		
Goats		
Sheep		
Donkeys		
Horses		
Other		
64. Why are you keeping stock for someone else? (SKIP IF NOT KEEPING STOCK FOR SOMEONE ELSE) *		
Owner had too many to manage alone		
Needed livestock for milk		
<ul> <li>Kumharia</li> </ul>		
O N/A		
Other (specify)		

65. How much land does the household graze and not share with other livestock holders for grazing? *  Enter the number and the units.
<ul><li>Yes, write in number and units</li></ul>
None
66. Does your family have access to common grazing land?*
© Yes
O No
67. What factors keep you from increasing your herd size? (CHECK ALL THAT APPLY) *
☐ Lack of money ☐ Lack of land ☐ Lack of water ☐ Lack of labor ☐ Don't want any more ☐ Too expensive to maintain ☐ Disease limitations ☐ N/A ☐ Other (specify)

0	Every day
0	Once or more per week
0	Once or more per month
0	Less than once per month
Cattle I	Management
CO 11	
69. H	low many times in a normal year do you move your livestock? *
O	0
O	1
O	2
O	3
O	4
0	5
0	6+
O	NA, I have no livestock

68. How often do your livestock come into contact with livestock from other

villages/communities when grazing? \*

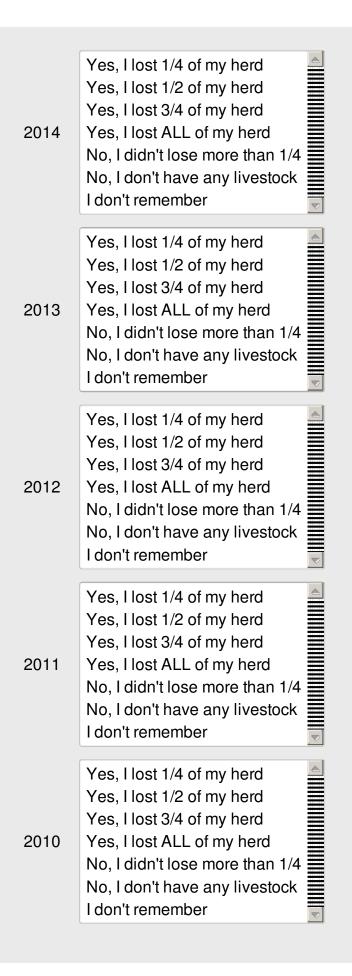
O Never

70. How many times do you move your livestock in a dry year? *
O 0
O 1
O 2
О 3
O 4
O 5
O 6+
NA, I have no livestock
71. How for do you may a your livestack in a narmal year?
71. How far do you move your livestock in a normal year? *
C Less than one day walk
One to two days
C Three to four days
More than four days
O N/A
72. How far do you move your livestock in a dry year? *
C Less than one day walk
One to two days
C Three to four days
More than four days
O N/A

73. Is this year a dry year, normal year, or wet year? \*
Dry year
Normal year
Wet year

### **Economic - Livestock Health and Loss**

74. Did you lose one-quarter or more of your livestock in the following years? * For example, if their herd was 4 and they lost 1 cow or sheep then say "yes"	



75. If you lost 1/4 or more of your herds in the following years, what was the major reason? \* Drought Pests or Disease I did not lose 1/4 of my herd that year 2014 I don't have any livestock I don't remember Drought Pests or Disease 2013 I did not lose 1/4 of my herd that year I don't have any livestock I don't remember Drought Pests or Disease 2012 I did not lose 1/4 of my herd that year I don't have any livestock I don't remember Drought Pests or Disease I did not lose 1/4 of my herd that year 2011 I don't have any livestock I don't remember Drought Pests or Disease I did not lose 1/4 of my herd that year 2010 I don't have any livestock I don't remember

76		Ag extension Governmen Private vet Drug shop Indigenous None Other (spec	n officer t vet healer	do you use fo	r livestock?	CHECK AL	L THAT A	PPLY *
77	'. Describ	e the most	recent illne	ess in your he	erd (SKIP IF N	NO RECEN	T ILLNESS	5)
		Animal	Illness	Symptoms	Treatment	Duration	Number sick	Recovered
	Most recent	Animal	Illness	Symptoms	Treatment	Duration	Number sick	Recovered
	Next most recent	Animal	Illness	Symptoms	Treatment	Duration	Number sick	Recovered
4								Þ

# 78. Are your animals vaccinated against any diseases? (SKIP IF NO ANIMALS ARE VACCINATED)

List for which diseases animals are vaccinated.

	Disease 1	Disease 2	Disease 3	Disease 4	Other diseases
Cattle	Disease 1	Disease 2	Disease 3	Disease 4	Other diseases
Smallstock	Disease 1	Disease 2	Disease 3	Disease 4	Other diseases
Dogs	Disease 1	Disease 2	Disease 3	Disease 4	Other diseases

79.	Where	do you	get vaccines	for livestock?	*
-----	-------	--------	--------------	----------------	---

- Veterinarian
- Animal drug shop
- Agricultural extension
- C Friends
- N/A, the HOUSEHOLD does not purchase vaccines
- O Don't Know
- Other (specify)

80. Number of calves born dead in the last year from sick cows?	*
Enter a number	

84. Has sickness in your herd reduced the time available for other business/work in the last year? *
• Yes
O No
85. Has any family member become sick or died because of eating product from sick animal?  *
© Yes
© No
Exotic Medicines for Livestock
Exotic Medicines for Livestock
Exotic Medicines for Livestock  86. Do you keep exotic medicines FOR LIVESTOCK at home? *
86. Do you keep exotic medicines FOR LIVESTOCK at home? *
86. Do you keep exotic medicines FOR LIVESTOCK at home? *  © Yes
86. Do you keep exotic medicines FOR LIVESTOCK at home? *  © Yes
86. Do you keep exotic medicines FOR LIVESTOCK at home? *  © Yes

## 87. What exotic medicines **FOR LIVESTOCK** do you keep on hand at home?

	Medicine	Brand	Where it was purchased	When it was purchased	Use by date (EXPIRATION)
Medicine 1	Medicine	Brand	Where it was purchased	When it was purchased	Use by date (EXPIRATION)
Medicine 2	Medicine	Brand	Where it was purchased	When it was purchased	Use by date (EXPIRATION)
Medicine 3	Medicine	Brand	Where it was purchased	When it was purchased	Use by date (EXPIRATION)
Medicine 4	Medicine	Brand	Where it was purchased	When it was purchased	Use by date (EXPIRATION)
Medicine 5	Medicine	Brand	Where it was purchased	When it was purchased	Use by date (EXPIRATION)
Medicine 6	Medicine	Brand	Where it was purchased	When it was purchased	Use by date (EXPIRATION)
Medicine 7	Medicine	Brand	Where it was purchased	When it was purchased	Use by date (EXPIRATION)
Medicine 8	Medicine	Brand	Where it was purchased	When it was purchased	Use by date (EXPIRATION)

88. Where do you get exotic medicines for livestock? *	
<ul> <li>Veterinarian</li> </ul>	
<ul> <li>Animal drug shop</li> </ul>	
C Agricultural extension	
C Friends	
N/A, the HOUSEHOLD does not purchase exotic medicines	
C Other (specify)	
Cattle Sickness	
89. What do you do to avoid disease/outbreak in livestock? CHECK ALL THAT APPLY * Select all that apply.  Keep calves separate Make a shed or pen to prevent contact from other domestic and wild animals Keep new cattle separately Graze sick cattle separately Feed supplementation Buy new cattle from local area Vaccination Treatment (Animal Health) Treatment (traditional) Spraying Do nothing Other (specify)	

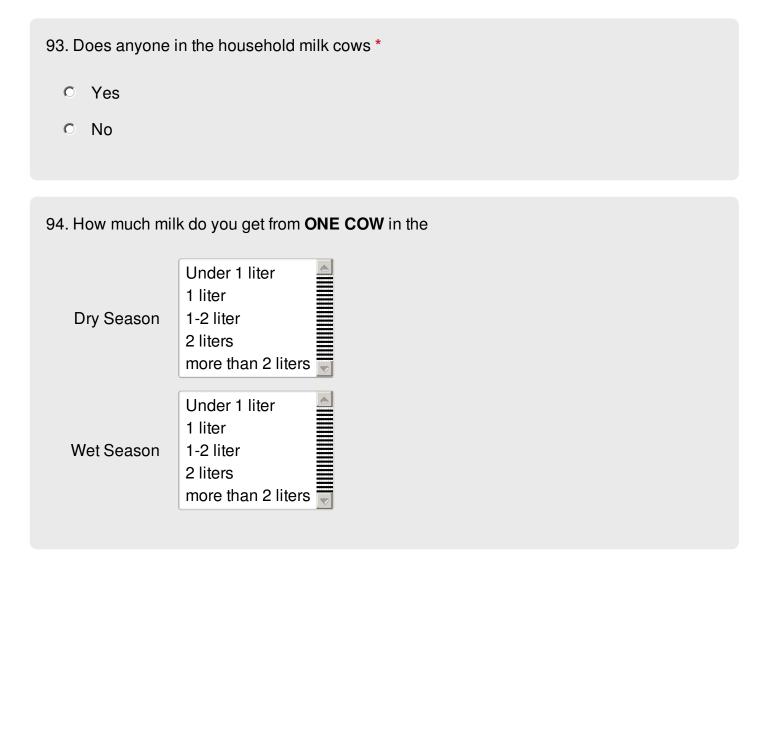
0	No
O	N/A, I don't have any cows
0	N/A, my cows are zero grazing
91. D	o you ever give your livestock medicine? *
O	Yes, I give them exotic and traditional medicine
0	Yes, but I only give them traditional medicine NOT exotic medicine
0	Yes, but I only give them exotic medicine NOT traditional medicine
0	No, I do not give them any medicine.

90. Do you change where you graze when your livestock to avoid sickness? \*

Yes

## 92. How much do you use per dose for a full grown cow?

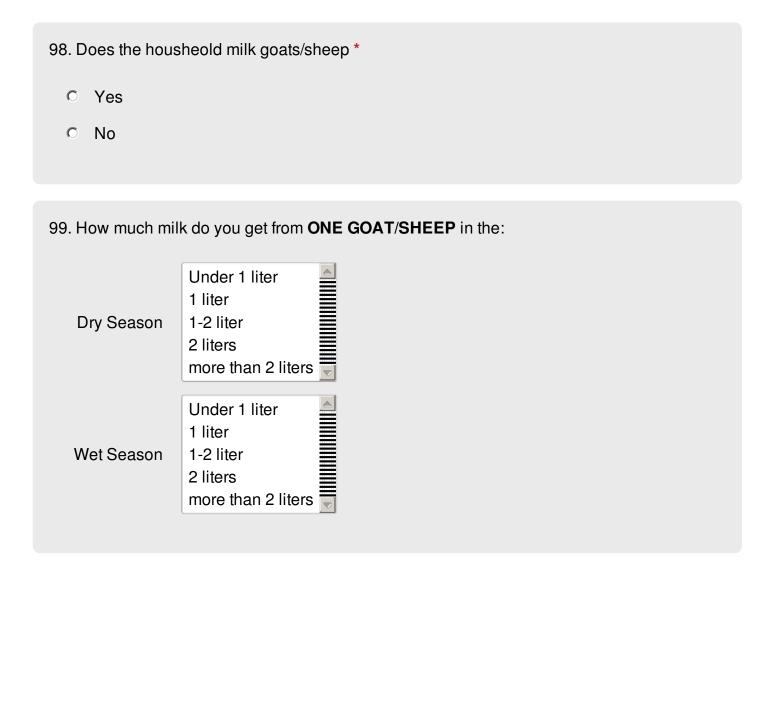
	Length of treatment (days)	dose for adult cow	Don't Know, Vet gives drugs
Pen-strep	Length of treatment (days)	dose for adult cow	Don't Know, Vet gives drugs
Basulfa	Length of treatment (days)	dose for adult cow	Don't Know, Vet gives drugs
Bamisola	Length of treatment (days)	dose for adult cow	Don't Know, Vet gives drugs
Dininabazen	Length of treatment (days)	dose for adult cow	Don't Know, Vet gives drugs
Parvexon	Length of treatment (days)	dose for adult cow	Don't Know, Vet gives drugs
Alfamec	Length of treatment (days)	dose for adult cow	Don't Know, Vet gives drugs
Ivermectine	Length of treatment (days)	dose for adult cow	Don't Know, Vet gives drugs
Inomazene	Length of treatment (days)	dose for adult cow	Don't Know, Vet gives drugs



95. How many co	95. How many cows does THE HOUSEHOLD milk in the		
HOUSEHOLD IN	CLUDES ALL WIVES		
Dry Season	1-2 2-4 5-10 11-20 21-40 41-60 Over 60		
Wet Season	1-2 2-4 5-10 11-20 21-40 41-60 Over 60		
96. Average amou Enter a number	unt of cow milk sold by the household *		
numh	oor of litoro/dov		
Humk	per of liters/day		
97. Average amount of butter sold by the household * Enter a number.  liters/ market day			

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. .



100. How many goats/sheep does THE HOUSEHOLD milk in the		
HOUSEHOLD INCLUDES ALL WIVES		
Dry Season	1-2 2-4 5-10 11-20 21-40 41-60 Over 60	
Wet Season	1-2 2-4 5-10 11-20 21-40 41-60 Over 60	
101. Average amo Enter a number.	ount of goat milk sold by the household *	
liters/	day	
400 14/1		
102. Where do you	u normally sell milk or butter?	
☐ Local m ☐ Regiona ☐ Neighbo ☐ Shop ke ☐ N/A	al market ors eeper	
☐ Other (s	pecify)	
(untitled)		

© Yes	
O No	
104. How many times a day	do you milk cows or goats?
O 1	
O 2	
C 3	
C 4 or more	
105. Do you clean the enyev	va of the cows/sheep/goats before milking?
© Yes	
C No	
106. Do you DRINK/COOK	with MILK from? *
SICK COWS	Yes No N/A, I don't have any milk producing livestock
SICK GOATS/SHEEP	Yes No N/A, I don't have any milk producing livestock

103. Select YES if anyone in the household milk cows OR goats/sheep

107. Do you SELL MILK from	n? *
SICK COWS	Yes No N/A, I don't have any milk producing livestock
SICK GOATS/SHEEP	Yes No N/A, I don't have any milk producing livestock
108. Do you stop selling or o	consuming milk during treatment with exotic medicines *
109. Is there a decrease in notice.  Yes  No  No milking of sick cow  N/A, I don't have any	
110. Referring to the previous MILK PRODUCTION) * Enter a number.  liters/day	is question, If yes, by how much? (SKIP IF NO DECREASE IN

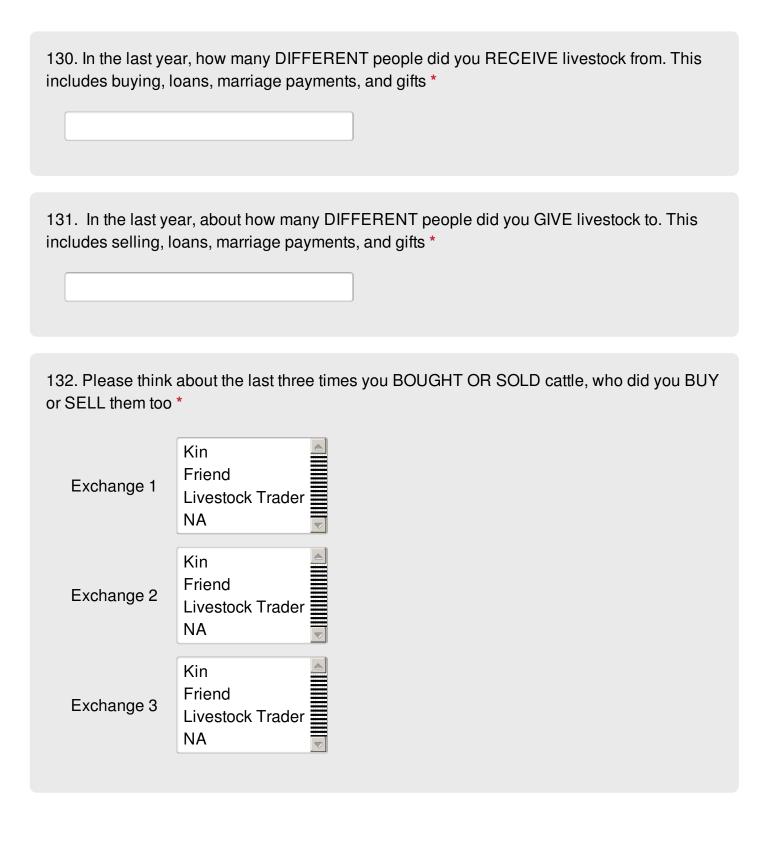
GOATS?
<ul> <li>YES, each animal has a different container</li> </ul>
O NO, I use the same container for many animals
No, I onle have ONE milking animal
112. If one of your milking animals is sick, do you stop milking and clean the collection container BEFORE milking any other animals?
Yes, every time
<ul> <li>Yes, but only some of the times</li> </ul>
O No
113. How often do you clean your calabash/container used for COLLECTING cow and sheep milk
Only in the morning
Only in the evening
<ul><li>Only in the evening</li><li>In the morning and in the evening</li></ul>
O In the morning and in the evening
<ul><li>In the morning and in the evening</li><li>A few times per week</li></ul>
<ul> <li>In the morning and in the evening</li> <li>A few times per week</li> <li>I never clean my collection containers</li> </ul>
<ul><li>In the morning and in the evening</li><li>A few times per week</li></ul>
<ul> <li>In the morning and in the evening</li> <li>A few times per week</li> <li>I never clean my collection containers</li> <li>What do you clean your milk containers with? CHECK ALL THAT APPLY</li> <li>Water Cow Urine</li> </ul>
<ul> <li>In the morning and in the evening</li> <li>A few times per week</li> <li>I never clean my collection containers</li> <li>114. What do you clean your milk containers with? CHECK ALL THAT APPLY</li> </ul>

115. What CONTAINER do you STORE milk in? CHECK ALL THAT APPLY
☐ Calabash ☐ Plastic Container ☐ Metal Pots
Cother (required)
116. How many hours do you USUALLY store milk after morning or evening milking before it is all gone?
O Under 1 hr
O 1-2
O 3-4
C 5-7
© 8-12
O 12-24
More than one day
117. How many times do you bring the milk to boil?
O 1
O 2
O 3
O 4
Over 4

118. Do you boil milk before putting in calabash to make sour milk?
O Yes, always
Yes, but only some of the itme
No, I do not boil the milk
C I do not make sour milk
119. How many days do you keep sour milk before cleaning the calabash?
O Under 1 day
C About 1 day
C 1-2 days
C 3-4 days
○ 5-6 days
C A week or more
C I do not make sour milk
120. If you do not boil all of the milk, why do you not boil all of the milk? CHECK ALL THAT APPLY
<ul> <li>□ Boiled milk tastes bad</li> <li>□ Boiled milk hurts the vitamines in milk</li> <li>□ I do not boil milk</li> </ul>
☐ Other (required) *

12	121. Do you use the SAME CONTAINERS to collect blood milk and urine							
	© Yes							
	○ No, I u	se different co	ntainers					
	○ No, I d	o not collect bl	ood or urine fro	m animals				
DAA	AGS							
12	2. Do you	own any dogs	?					
	C Yes, p	ut how many			*			
	O No							
40	0 11	d <b>f</b>	1					
12	3. How oπ	en do you feed	your dogs?					
	almost	everyday						
C a few times per week								
	a few t	imes per week	ζ					
	C I neve	r feed them, the	ey find food for t	hemselves				
12	4. If vou fe	ed vour doas.	what do vou fee	ed them. Ask S	EPERA	TELY FO	R DRY AND WE <sup>-</sup>	Т
	<u>-</u>	CHECK ALL T	<del>-</del>					
		Porridge	Porridge	Milk Water	Only	Only	Left over	
	Dny	with Milk	with Water	Mixed	Milk	Water	human food	
	Dry Season							
	Wet Season							

125. How long do you cook the porridge for dogs?
O Under 5 minutes
C 5-10 minutes
O over 10 minutes
126. Do you cook your porridge for dogs FOR LESS time than you cook porridge for humans?  O Yes  No
127. If you cook porridge for dogs FOR LESS time, why?
<ul><li>128. If you don't drink milk from sick cows, do you still give it to dogs?</li><li>Yes</li><li>No</li></ul>
129. Have you ever seen dogs EAT the poop of. CHECK ALL THAT APPLY  Humans Other Dogs Cattle Sheep/Goat
Ego Network



133. List up to 3 water sources your livestock use in a year.

	Name of Source
Water A	Name of Source
Water B	Name of Source
Water C	Name of Source

134. How often do your livestock use the sources

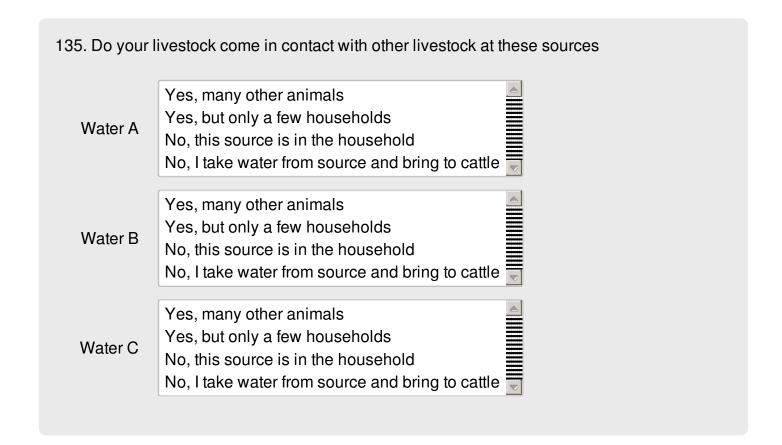
Water A

almost everyday almost once per week about once per month

almost everyday almost once per week about once per month

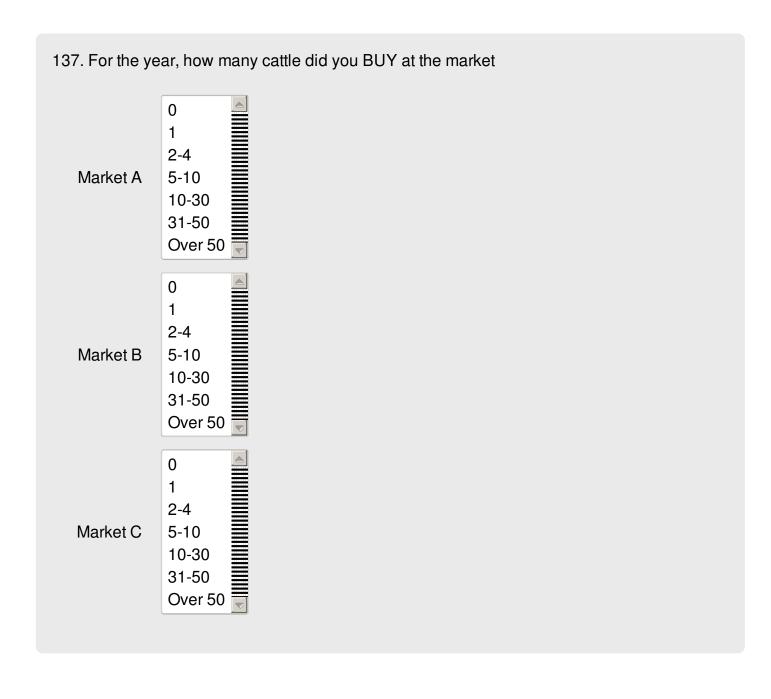
almost everyday almost once per month

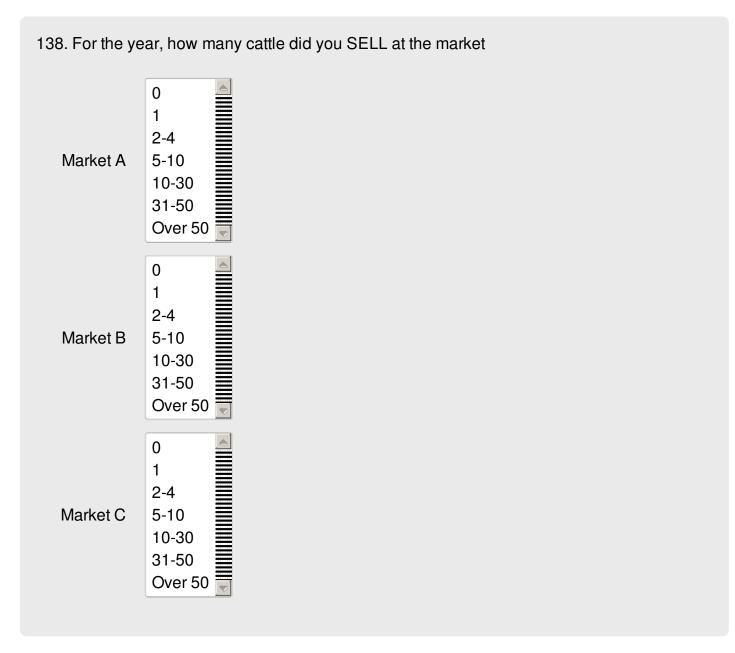
almost everyday almost once per week about once per week about once per month



#### 136. List up to 3 markets you have bought livestock at

	Name of Source
Market A	Name of Source
Market B	Name of Source
Market C	Name of Source



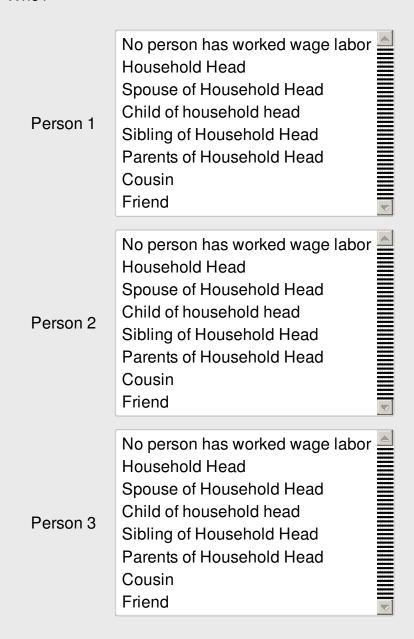


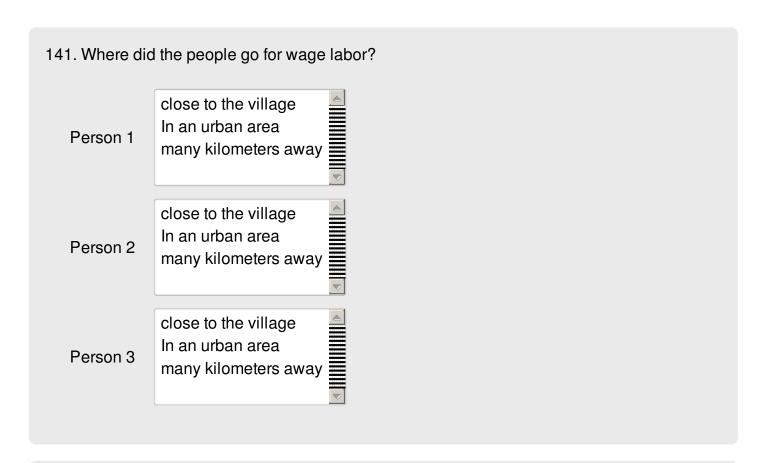
### Information on wage labor

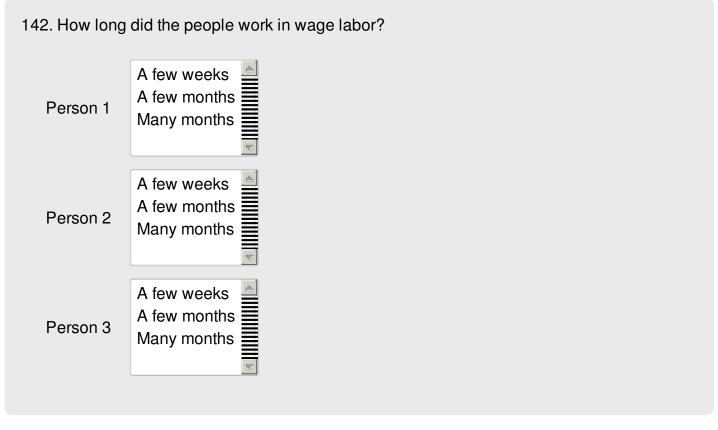
139. In the last three years, has anyone in the household been employed in wage labor? This means the person is paid at an hourly rate \*

- Yes
- O NO

140. Please think of the last three people IN THE HOUSEHOLD who worked wage labor. Who?



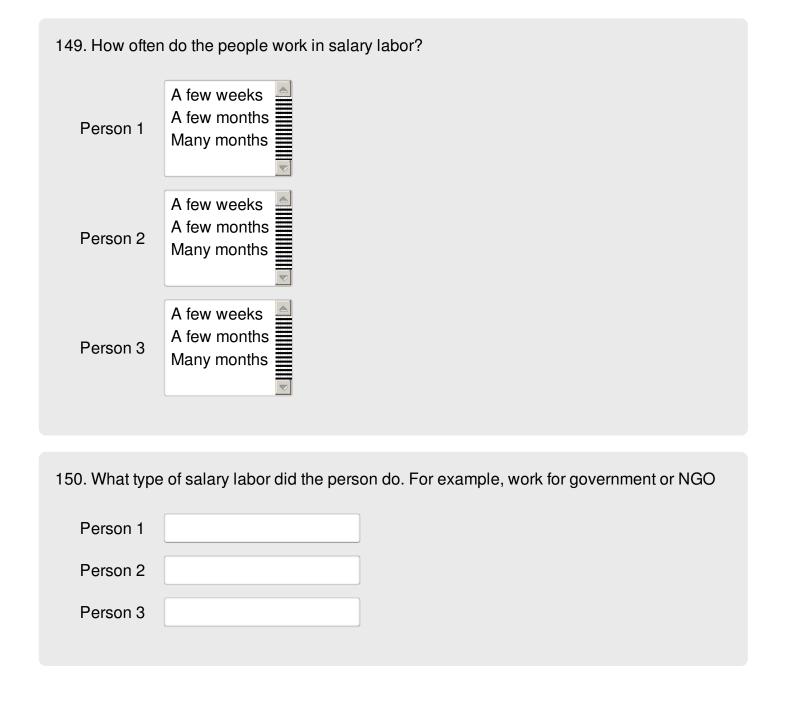




143. What type of wage labor did the person do. For example, security, work for tourist company, get paid to weed field
Person 1
Person 2
Person 3
<ul> <li>144. In the last three years, has anyone in the household made money from self-employment, such as boda-boda, selling charcoal, or selling matunda from garden? *</li> <li>Yes</li> <li>NO</li> </ul>

Household Head Spouse of Household Head Child of household head Sibling of Household Head Parents of Household Head Cousin	
Friend	
Household Head Spouse of Household Head Child of household head Person 2 Sibling of Household Head Parents of Household Head Cousin Friend	
Household Head Spouse of Household Head Child of household head Sibling of Household Head Parents of Household Head Cousin Friend	
146. What type of self-employment did the person do? For example, drive a boda-boda, se charcoal, or or vegetables/eggs from garden	I
Person 1	
Person 2	
Person 3	

147. In the last three years, has anyone IN THE HOUSEHOLD made money from salary labor? Salay Labor means paid per month, for example, working for the government \* Yes O NO 148. Please think of the last three people who worked salary labor IN THE HOUSEHOLD, who were they? No person has worked in salary labor Household Head Spouse of Household Head Child of household head Person 1 Sibling of Household Head Parents of Household Head Cousin Friend No person has worked in salary labor Household Head Spouse of Household Head Child of household head Person 2 Sibling of Household Head Parents of Household Head Cousin Friend No person has worked in salary labor Household Head Spouse of Household Head Child of household head Person 3 Sibling of Household Head Parents of Household Head Cousin Friend



151. Has any person working in SALARY or WAGE LABOR AWAY FROM THE VILLAGE, sent money back to the household? \*

No person has sent back money Household Head Spouse of Household Head Child of household head Person 1 Sibling of Household Head Parents of Household Head Cousin Friend No person has sent back money Household Head Spouse of Household Head Child of household head Person 2 Sibling of Household Head Parents of Household Head Cousin Friend No person has sent back money Household Head Spouse of Household Head Child of household head Person 3 Sibling of Household Head Parents of Household Head Cousin Friend

152. If someone working in wage or salary labor away from household sent money home, how often did they send home?

Person 1

almost every week almost every month only a few times a year

almost every week almost every week almost every month

Person 3 almost every week almost every month only a few times a year

only a few times a year

153. What is the total household wage income per month on average from labor, INCLUDING WAGE, SALARY. SMALL BUSINESS and NOT from livestock or crops? \*

Enter a number.

- 0 0
- O 1-25,000
- C 25,000-100,000
- C 100,000-200,000
- 200,000-400,000
- C 400,000-700,000
- 700,000-1,000,000
- Over 1 million
- Does not want to answer
- Does not know

154. Does any household member maintain a savings account? *
© Bank
© Mpesa
© None
155. What is the current household savings balance? (SKIP IF NO BANKING ACCOUNT) * Enter a number.
O 0
O 1-25,000
© 25,000-100,000
© 100,000-200,000
© 200,000-400,000
© 400,000-700,000
© 700,000-1,000,000
Over 1 million
© Does not want to answer
© Does not know
156. In the LAST YEAR did you receive any support for feeding the household from any NGO/Government? *
Yes, write in name of source (agency, NGO)
O No

157. Has any household member taken a loan or loans in the last 2 years? *
O Yes
O No
O Don't know
158. Why were the loan (s) taken? CHECK ALL THAT APPLY *
☐ Buy food ☐ Housing ☐ Transportation ☐ School fees ☐ Health care ☐ Livestock purchase ☐ Business ☐ N/A ☐ Other
Diversification
159. In the last 3 years, have you changed <b>the size</b> of your herd or <b>species composition</b> because of changes in the environment, such as climate changes. *
© Yes
O No
No, I did not own any livestock in the past three years

160. In the last 3 years, have you increased the amount of livestock you sold? *
© Yes
© No
No, I did not own any livestock in last three years
161. In the last 3 years, have you changed the types of crops you grow because of climate changes or to make more money? *
Yes, because of climate change
Yes, to make more money
Yes, because of climate change AND money
© No
No, I did not have any crops in last 3 years
162. In the last 3 years, have you increased inputs (fertilizer, labor) to increase agricultural output (yield)? *
© Yes
O No
No, I did not have any crops in last 3 years
Diversification

163. In the Last Year What percent of household income was from Livestock and Crops OR Labor/Assistance \*

- 100% Livestock and Crops
- © 90% Livestock and Crops and 10% Labor
- 75% Livestock and Crops and 25% Labor
- 50% Livestock and Crops and 50% Labor
- 25% Livestock and Crops and 75% Labor
- O 10% Livestock and Crops and 90% Labor
- 100% Labor and assistance

164. From the money earned by livestock and crops, what percent is from livestock and from crops \*

- C 100% Livestock
- © 90% Livestock and 10% Crops
- 75% Livestock and 25% Crops
- 50% Livestock and 50% Crops
- C 25% Livestock and 75% Crops
- C 10% Livestock and 90% Crops
- C 100% Crops
- NA, I get ALL income from Labor/Assistance

#### **VERIFY**

165. Did you get a GPS point and label the point the household id number *
C Yes
O NO
166. Did you get a milk sample (fresh, sour, cattle and goat) if they have this milk? If they did have milk, make sure you put ID Number, Date, Time the Milking (morning or evening), Time you collected, and Type of Container used (calabash, plastic container) *
C No
167. Did you get poop samples (human, cattle, sheep, dog, chicken, donkey) and make sure to put ID, DATE, Time of COllection, Species and OPEN/ENCLOSURE? *
C Yes
O No