

Appendix 2: The semi-structured questionnaire



Department of Plant Science and Crop Protection SEMIs-Cassava project

Project Title: RU/2018/CARP+/04:

Capacity building for micro propagation and certification of cassava planting materials to enhance productivity, incomes and food and nutrition security for small holder farmers in Coastal Kenya

Introduction:

The goal of the project is to increase cassava productivity and reduce the effect of major cassava diseases caused by viruses and bacteria. The current practice is that farmers acquire planting materials from each other or KALRO centers and in the process this has been a very effective method of distributing infected or diseased planting materials. In addition, many cassava producing countries in Africa including Kenya have no protocol to produce and certify healthy cassava planting materials. Thus, the integration of greenhouse technology as a protected environment will allow KEPHIS to certify cassava planting materials emanating from these greenhouses to ensure that the multiplication and distribution of these materials are disease free.

CASSAVA BASELINE SURVEY QUESTIONNAIRES

KILIFI AND TAITA TAVETA COUNTY.

Introduction and verbal consent taking

My name isundertaking this research on behalf of the University of Nairobi and RUFORUM on Capacity building for micro propagation and certification of cassava planting materials to enhance productivity, incomes and food and nutrition security for small holder farmers in Coastal Kenya. I would like to invite you on behalf of the University of Nairobi to take part in the study that is aimed at increasing productivity of cassava in this region. I am requesting you to help us learn more about cassava production, marketing and utilization. All that you will say will be confidential for purposes of this study and participation is voluntary. If you agree, I will ask you some questions.

Yes ()

No ()

Questionnaire No.	Interview Date
Enumerator's name	

SECTION 1

Data Collection Guidelines

1	<p>County</p> <p>Sub-county</p> <p>Location</p> <p>Village</p>	<p>Ward</p> <p><u>GPS Coordinates</u></p> <p>Longitude (E).....</p> <p>Latitude (S)</p> <p>Altitude</p>																		
2	<p>Name of Farmer</p> <p>.....</p> <p>Sex: Female [0] Male [1]</p>	<p>Age of farmer: Years</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Youth</td><td style="width: 20%; text-align: center;">< 35</td><td style="width: 20%; text-align: center;">[1]</td></tr> <tr> <td>Middle aged</td><td style="text-align: center;">36 - 50</td><td style="text-align: center;">[2]</td></tr> <tr> <td>Upper middle aged</td><td style="text-align: center;">51 - 60</td><td style="text-align: center;">[3]</td></tr> <tr> <td>Retiree</td><td style="text-align: center;">> 60</td><td style="text-align: center;">[4]</td></tr> </table>	Youth	< 35	[1]	Middle aged	36 - 50	[2]	Upper middle aged	51 - 60	[3]	Retiree	> 60	[4]						
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Upper middle aged	51 - 60	[3]																		
Retiree	> 60	[4]																		
3	<p>Head of household (sex)</p> <p>Female [0] Male [1]</p> <p>Household size (Number of members).....</p>	<p>Own Farm size acres</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; text-align: center;">< 2</td><td style="width: 40%; text-align: center;">[1]</td></tr> <tr> <td style="text-align: center;">2 - 5</td><td style="text-align: center;">[2]</td></tr> <tr> <td style="text-align: center;">6 – 15</td><td style="text-align: center;">[3]</td></tr> <tr> <td style="text-align: center;">> 15</td><td style="text-align: center;">[4]</td></tr> </table> <p>Rented farm size (if any)..... acres</p>	< 2	[1]	2 - 5	[2]	6 – 15	[3]	> 15	[4]										
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	Full Farmer	[4]																		
	Other	[5]																		
	(Specify).....																			
5	<p>Academic Qualification</p>	<p>Years of schooling</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; text-align: center; vertical-align: top;">Level of education attained</td><td style="width: 20%;">None</td><td style="width: 20%; text-align: center;">[1]</td></tr> <tr> <td></td><td>Primary</td><td style="text-align: center;">[2]</td></tr> <tr> <td></td><td>Secondary</td><td style="text-align: center;">[3]</td></tr> <tr> <td></td><td>Tertiary</td><td style="text-align: center;">[4]</td></tr> </table>	Level of education attained	None	[1]		Primary	[2]		Secondary	[3]		Tertiary	[4]						
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	Tertiary	[4]																		

1 SECTION 2

Land preparation

1. When do you expect your rain and when do they end?

TYPE /TIME	START(month)	END (month)
Long rains		
Short rains		

2. In which months do you prepare land?

a) Long rains

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
1	2	3	4	5	6	7	8	9	10	11	12

b) Short rains

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
1	2	3	4	5	6	7	8	9	10	11	12

3. How do you prepare your land for crop production?

Tractor [1]

Ox-plough [2]

Hand hoe [3]

Minimum tillage [4]

Other [5]

(Specify).....

4. a) Do you practice any soil conservation management?

Yes [1]

No [2]

- b) If yes, which soil conservation measures do you practice?

Cover crops [1]

Terraces [2]

Gabions [3]

Mulching [4]

Contour planting [5]
 Minimum tillage [6]
 Other [7]

Specify.....

5. What is the total current area under crops in acres?Acres

< 0.5 [1]

>0.5 to 1 [2]

>1-2 [3]

> 2 [4]

6. Do you grow cassava on your farm? Yes [1] No [2]

7. How many years of experience do you have in cassava farming? Years

8. In which months do you plant cassava?

Long rains

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
1	2	3	4	5	6	7	8	9	10	11	12

Short rains

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
1	2	3	4	5	6	7	8	9	10	11	12

9. a) What is the total current area under cassava?Acres

< 0.5 [1]

>0.5 to 1 [2]

>1-2 [3]

> 2 [4]

b) Clarify on the cassava spacing in the farm in either of the measurements

Measurement	Spacing (length by width)
Metres	
Feet	
Steps	

10. a) What quantity do you harvest from the farm in one season?Kg

b) What is the quantity harvested per plant?Kg

11. On the farm where you have cassava, which was the previous crops?

.....

.....

12. a) Why do you grow cassava? (you may choose more than one)

Food [1]

Income [2]

Soil conservation [3]

Others [4]

Specify.....

13. a) Which varieties have you grown for the last two years?

Varieties grown		Rank best 2
Tajirika	[1]	
Shibe	[2]	
Kibandameno	[3]	
Nzalauka	[4]	
Karibuni	[5]	
Karembo	[6]	
Girikacha	[7]	
Others	[8]	
(specify).....		

b) Why do prefer that variety (list)

Properties	Variety 1	Variety 2
High yield	[1]	[1]
Drought resistant	[2]	[2]
Disease and pest resistant	[3]	[3]
Low cyanide level	[4]	[4]
Taste	[5]	[5]
Others	[6]	[6]
Specify.....		

14. When did you start growing the improved cassava variety? (code in terms of years) recall for the past 10 year

Variety	Year
Tajirika	
Shibe	
Kibandameno	
Nzalauka	
Karibuni	
Karembo	
Girikacha	
Others (specify).....	

15. a) Do you intercrop cassava?

Yes [1] No [2]

b) If Yes, which crops do you usually intercrop with cassava? (list)

Crop	
Maize	[1]
Cowpea	[2]
Green gram	[3]
Pigeon pea	[4]
Beans	[5]
Okra	[6]
Other (specify).....	[7]

c) Why do you intercrop? (list reasons)

Reasons	
Small land size	[1]
Reduce cost of production	[2]
Food security	[3]
Soil conservation	[4]
Other (specify).....	[5]

16. Which variety do you intercrop and in which season?

Variety		Intercrop	Season
		Yes [1]	Long rains [1]
		No [2]	Short rains [2]
			Both [3]
Tajirika	[1]		
Shibe	[2]		
Kibandameno	[3]		

Nzalauka	[4]		
Karibuni	[5]		
Karembo	[6]		
Girikacha	[7]		
Others (specify).....	[8]		

17. a) Do you use fertilizer or manure on cassava?

Yes [1] No [2]

b) If yes, which one and when do you apply the fertilizer and/or manure?

Which one?		When?
		During land preparation [1]
		During planting [2]
		After planting [3]
Fertilizer	[1]	
Manure	[2]	
Both	[3]	

18. a). Do you ever receive any information on cassava production?

Yes [1] No [2]

b) If yes, what is/are the source(s) of the information, what kind of technical information do you receive? and how often?

information	Source of information	Frequency
	Extension staff [1]	
	Media - Radio/T.V/Newspaper [2]	Weekly [1]
	Agro input dealer [3]	Monthly [2]
	From other farmers [4]	Quarterly [3]
	Research [5]	Semiannually [4]
		Annually [5]
Sources of Planting materials		
New varieties		

Crop husbandry		
Pest and disease management		
marketing		
Utilization/processing		
Others		

19. a) Are you a member of any cassava related organization? (group or co-operative)

Yes [1] No [2]

b) If yes, which one?

20. a) Do you have access to credit to support your farming activities?

Yes [1] No [2]

b) If yes, which source?

Formal credit [1] informal credit [2]

c) Specify the source.....

friends [1] family [2] Group [3] Cooperative [4] micro-finance [5] bank [6] other (specify)

.....

21. a) Do other members of the family work on the family farm? Yes [1] No [2]

b) If Yes, How many members of your family are involved in the farm activities?

22. Production costs for cassava

TYPE OF OPERATION	COST PER UNIT	TOTAL UNITS	TOTAL COSTS
Labour/ mechanical costs:			
Land clearing			
Ploughing			
Furrowing			
Harrowing			
Planting			
Weeding			
Fertilizer application			
Irrigation			
Harvesting			
Other (specify).....			

Input costs:			
Seed/ cuttings			
Seed transportation			
Fertilizer/ Manure			
Fertilizer transportation			
Herbicides/ Pesticides			
Pesticides transportation			
Other (specify).....			
TOTAL COSTS			

23. What challenges do you face in cassava farming?

Challenge	
Drought	[1]
Floods	[2]
Inadequate planting materials	[3]
Pest and diseases	[4]
Low market prices	[5]
No standardized measure of produce when selling	[6]
Perishability	[7]
Others Specify.....	[8]

SECTION 3 (KIDASI)

Planting Materials

1. Where do you source your cassava planting material and how reliable is the source?

Source	(you may tick more than one)	Reliability :
		Extremely reliable [1]
		Moderately reliable [2]
		Low [3]

1. Local market	[1]	
2. Own seed	[2]	
3. Neighbors	[3]	
4. KALROs	[4]	
5. Other, Specify.....	[5]	

2. How frequently do you source your cassava planting materials from KALRO?

Every planting season	[1]
After more than one planting season	[2]
Never	[3]

3. How many cassava cutting do you plant during a normal season?

..... stems.

4. a) Do you buy cassava cuttings?

Yes [1] No [2]

- b) What is the cost of cassava cutting in Kshs per stem (7 inch)?

Kshs

5. How do you transport your cassava cuttings to your farm?

Source		Delivery means:
		Pick them with my own transport [1]
		Used hired transport [2]
		Delivered by KALRO [3]
		Others [4]
		(Specify).....
	
Local market	[1]	
Own seed	[2]	
Neighbors	[3]	
KALROs	[4]	
Other	[5]	
(Specify)		

6. a) Once the cassava stem cuttings are in your farm, do you store them?

Yes [1] No [2]

b) If yes, how do you store them and for how long?

Storage method		Time:
		< 2days [1]
		3-5 days [2]
		5-7 days [3]
		>7 days [4]
Upright under a shade	[1]	
Horizontal under a shade	[2]	
Leave the on open field either horizontal or upright	[3]	
Others,	[4]	
Specify		

7. a) Is there any treatment done on the cassava cuttings before planting?

Yes [1] No [2]

b) If yes, which treatment do you do before planting the cassava cuttings?

Treatment	(you may tick more than one)
Soaking in water	[1]
Others,	[2]
Specify	

8. a) What is the time taken for the cassava cuttings to sprout after planting and what is the uniformity?

Time		Uniformity:
		Uniform [1]
		Not uniform [2]
1 week	[1]	
2 weeks	[2]	
3 weeks	[3]	
> 3 weeks	[4]	

b) For the sprouting cassava, what is the source of water?

Rains [1] Irrigation [2] Both [3]

9. Are you aware of tissue culture technology e.g in banana?

Yes [1] No [2]

SECTION 4 (ROSE)

Intercrop, Vector-Host Relation questionnaire

1. a) Do you experience pest infestation?

Yes [1] No [2]

If No, go to Disease section

- b) If yes, which pests do you experience, in which season and what is the prevalent rate?

Pest		Season Most Prevalent	Prevalence
		Long rains [1]	High [1]
		Short rains [2]	Moderate [2]
		Both [3]	Low [3]
		Dry season [4]	
Whiteflies	[1]		
Mealybugs	[2]		
Mites	[3]		
Others,	[4]		
Specify			

2. a) Among the varieties grown do you notice any difference in whiteflies infestation?

Yes [1] No [2]

- b) If yes, what is the level of infestation in each variety?

Variety		Infestation level
		High [1]
		Moderate [2]
		Low [3]
Tajirika	[1]	
Shibe	[2]	
Kibandameno	[3]	
Nzalauka	[4]	
Karibuni	[5]	
Karembo	[6]	
Girikacha	[7]	
Others	[8]	
(specify).....		

3. (a) Do you notice any difference in whiteflies infestation in different intercrops?

Yes [1] No [2]

- (b) If yes, what is the level of infestation in each intercrop?

Intercrop		Infestation level
		High [1]
		Moderate [2]
		Low [3]
Maize	[1]	
Cowpea	[2]	
Green gram	[3]	
Pigeon pea	[4]	
Beans	[5]	
Okra	[6]	
Other	[7]	
(specify).....		

4. (a) Do you scout for pest infestation?

Yes [1] No [2]

- (b) If yes, how often do you scout?

Weekly [1] Fortnightly [2] Monthly [3] Other [4]

Specify

5. (a) Do you manage whiteflies?

Yes [1] No [2]

If No, go Disease section

- (b) If yes, how do you manage whiteflies?

management	
Cultural	[1]
Physical	[2]
Botanicals	[3]
Biological	[4]
chemical	[5]
Other	[6]
Specify.....	

c) If chemicals, which chemicals do you use? **If chemical not mentioned go to Disease section**

.....

6. (a) Do you own a sprayer?

Yes [1] No [2]

(b) If no, where do you get the sprayer from?

Borrow [1] Hire [2]

(c) How often do you spray?

Weekly [1] monthly [2] quarterly [3]

Semi-annually [4] annually [5]

DISEASE SECTION

1. a) Do you usually experience diseases in cassava?

Yes [1] No [2]

b) If yes which disease(s) do you experience? And in which months is the disease most prevalent? (Show pictures)

Disease (you can tick more than 1)		Month			
		Jan [1]	May [5]	Sept [9]	
		Feb [2]	June [6]	Oct [10]	
		Mar [3]	July [7]	Nov [11]	
		April [4]	Aug [8]	Dec [12]	
Cassava bacterial blight	[1]				
Bacterial angular leaf spot	[2]				
Bacterial stem gall	[3]				
Bacterial stem rot	[4]				
Cassava brown streak disease	[5]				
African cassava mosaic virus	[6]				
Cassava common mosaic virus	[7]				
Cassava green mottle virus	[8]				
Anthracnose	[9]				
Armillaria root rot	[10]				

2. a) Do you practice disease scouting?

Yes [1] No [2]

- b) If yes how often do you scout?

Weekly (1) fortnightly (2) monthly (3) other(4)

Specify

3. Which disease management practices do you use?

Rogueing and destroying	[1]
Chemical control	[2]
Fallowing	[3]
Crop rotation	[4]
None	[5]
Others	[6]
Specify.....	

SECTION 5 (LIVOD)

1. a) Do you know cassava bacterial blight?

Yes [1] No [2]

If No move to section 6

- b) If yes, when was the first time you saw cassava bacterial blight in your farm?

This year	[1]
Last year	[2]
2 years ago	[3]
More than 2 years ago	[4]

2. Do you usually experience CBB every season you plant cassava in your farm?

Yes [1] No [2]

3. On which cassava varieties have you seen the cassava bacterial blight?

Tajirika	[1]
Shibe	[2]
Kibandameno	[3]
Nzalauka	[4]
Karibuni	[5]
Karembo	[6]

Girikacha	[7]
Others	[8]
Specify	

4. When do most cassava plants show the symptoms of CBB infection?

Young crops <3 months	[1]
Mid aged crops 3-6 months	[2]
Older crops > 6 months	[3]

5. How do you manage cassava bacterial blight? (May tick more than one)

None	[1]
Roughing	[2]
Biological	[3]
Chemical	[4]
Crop rotation	[5]
Others	[6]
Specify	

SECTION 6 (FLORENCE)

1. a) Are you aware of Cassava Brown streak (CBSD) [Show pictures for familiarity]

Yes [1] No [2]

- b) If yes, does the CBSD disease infestation appear in your farm every year?

Yes [1] No [2]

- c) If yes, what parts of the cassava plant are the symptoms mostly seen, when did you first notice this disease in your cassava farm and in which season is the disease severe? ,

	Which part	When	Season Most Prevalent
	Leaves [1]	This year [1]	Long rains [1]
	Stem [2]	Last year [2]	Short rains [2]
	Roots [3]	Two years ago [3]	Both [3]
		More than 2 years ago [4]	Dry season [4]
		Other (5) specify	
CBSD			

2. List the 2 most likely causes of the CBSD.

Planting material	[1]
Soil	[2]
Poor weather	[3]
Insect vectors	[4]
Gods vengeance	[5]
Others	[6]
Specify.....	

3. List the three most effective method you use to manage cassava brown streak disease? Please rank them in order of effectiveness to you **[1st is most effective, 3rd is least effective]**

Method (you can tick more than one)		Rank
Resistant varieties	[1]	
Chemical control	[2]	
Rogueing and destroying	[3]	
Clean planting material	[4]	
Vector management	[5]	
Crop rotation	[6]	
Early planting	[8]	
Fallowing	[9]	
Others	[10]	
Specify.....		

4. a) Are some varieties more severely affected by the disease than others?

Yes [1] No[2]

b) If yes, tick the three varieties mostly affected

Tajirika	[1]
Shibe	[2]
Kibandameno	[3]
Nzalauka	[4]
Karibuni	[5]
Karembo	[6]
Girikacha	[7]
Other	[8]
(Specify)	

5. a) Do you have any resistant varieties to the CBSD disease?

Yes [1] No[2]

b) If Yes, List the varieties

Tajirika	[1]
Shibe	[2]
Kibandameno	[3]
Nzalauka	[4]
Karibuni	[5]
Karembo	[6]
Girikacha	[7]
Other	[8]
(Specify)	

SECTION 7 (SAMWEL)

Part A: CASSAVA HARVESTING AND HANDLING

1. How and What time of the day do you normally harvest cassava roots/leaves?

Harvested part	Method of harvesting: piecemeal (1) whole(everything)(2)	Tools used in harvesting: hand/uprooting (1), Jembe (2) Panga (3)	Time of harvesting Early morning (1) Late morning(2) Afternoon(3) Evening(4) Others.....	Reason for harvesting at this time: market requirements (1), labor availability (2), temperatures (3), other (4) Specify.....
Roots				
Leaves				

2. At what age do you harvest your cassava roots?

		Age at harvest (months)	Reason for harvesting at this age Money [1] Food [2] Maturity [3] Others [4]	How do you know when it is mature for harvesting?(indicators of maturity)
Tajirika	[1]			
Shibe	[2]			
Kibandameno	[3]			
Nzalauka	[4]			
Karibuni	[5]			
Karembo	[6]			
Girikacha	[7]			
Others	[8]			
specify.....				

3. Do you sort and grade cassava roots after harvesting and what is the criteria for sorting or grading?

Yes (1) No (2) (If **yes fill the table**)

Criteria for grading/ sorting (1=size, 2= color, 3=shape, 4=damage, 5=others (specify))	Reason for grading/sorting(1= specific markets, 2= price considerations, 3= storage ,4=others(specify))

4. What are the types of damage(s) to roots during harvesting and what do you do with the damaged roots?

Type of damage		Use of roots immediate boiling, [1] immediate processing, [2] livestock feed, [3] other(specify) [4]
Mechanical damage	[1]	
Pest damage	[2]	
Rot	[3]	

5. a. Do you preserve cassava roots?

Yes (1)

No (2)

b) If yes, how do you preserve the cassava roots after harvesting and for how long (hours/days) after harvesting do you store the root before consumption?

Preservation methods for fresh cassava		Where did you learn about the preservation method?	Length of preservation time (days)
		farmer (1)	1-2 days (1)
		kalro (2)	3-5 days (2)
		media (3)	5-7 days (3)
		extension officer (4) others (5)	Other (4)
		specify	specify.....
crop in garden,	[1]		
under shed,	[2]		
Underground(in soil) ,	[3]		
Soaked in water,	[4]		
Saw dust,	[5]		
waxing,	[6]		
Others	[7]		
(specify))			

Part B: Cassava Processing

1. Do you process cassava roots and leaves on-farm?

		Yes [1] No [2]	Reason for processing Subsistence [1] income [2]
Roots	[1]		
Leaves	[2]		

1 b. If yes, what products do you process? From which varieties do you process them and why from that variety?

Product(s),		Cassava variety (you may tick more than one) Tajirika (1) Shibe (2) Kibandameno (3) Nzalauka(4) Karibuni (5) Karembo (6) Girikacha (7) Other (8)	Reason for using variety to process the product if specific. Availability (1) Less fibrous (2) Better product quality (3) Affordable (4) Less toxic (5) Other (6) specify
Chips	[1]		
Flour	[2]		
Grates,	[3]		
Gari	[4]		
Crisps	[5]		
Alcobeverage	[6]		
Animal Feed	[7]		
Other	[8]		
Specify			

2. How and why do you process them?

Product(s),		Equipment/tools used during processing		Treatment during processing		Reasons for processing		Where it takes place	
		chippers,	[1]	washing	[1]	Cleaning	[1]	Designated room	[1]
		graters,	[2]	fermenting	[2]	Detoxify	[2]	Open yard	[2]
		solar dryers,	[3]	Peeling	[3]	Reduce bulkiness	[3]		
		Pounding mortar	[4]	Chipping	[4]	Ease of further processing	[4]		
		Pangas,	[5]	Chopping	[5]	Better taste	[5]		
		Knives,	[6]	Scraping,	[6]	Others (specify)	[6]		
		Grinding mill,	[7]	Others (specify)	[7]				
		other (name)_	[8]						
Chips	[1]								
Flour	[2]								

Grates,	[3]				
Gari	[4]				
Crisps	[5]				
Alcobeverage	[6]				
Animal Feed	[7]				
Other	[8]				
Specify					

3. For the three most important products you make, when and how do you process and why?

Product(s),		When is processing done?		Duration daily (1) 1-2 times a week(2) Once month (3) Other (4) specify	Why that duration	Factors for good quality color (1) texture (2) taste (3) other (4) specify.....	How do you ensure quality code	Why do you prefer that product? Easy to process (2) High prices (3) Other (4) specify
		Daily						
		Weekly						
		Monthly						
		seasonal						
		On demand						
Dried Chips	[1]							
Flour	[2]							
Grates,	[3]							
Gari	[4]							
Crisps	[5]							
Alcobeverage	[6]							
Animal Feed	[7]							
Other	[8]							
Specifv								

Part D: Storage

1. Do you store cassava products?

1. Yes 2. No

b. If yes, where do you store, how do you store and for how long?

Product Stored		Where is the product stored? On floor in house (1) On a raised platform in house (2) In a Granary (3) Others (4) (specify)	Storage Container propylene bags (1) Baskets (2) Canvas bags (3) Jute Bags (4) Drums (5) Others (6) Specify.....	Length (in days, weeks, months) of storage? 1-7 days (1) >1-<2 weeks Other (3) specify	Reason for storage Food security (1) Income (2) Other (3) specify
Chips	[1]				
Flour	[2]				
Grates,	[3]				
Gari	[4]				
Crisps	[5]				
Alcobeverage	[6]				
Animal Feed	[7]				
Other	[8]				
Specify					

c) If no, why don't you store cassava products? _____

2. Do you store cassava in the same store with other crops?

Yes (1) No (2)

b) If yes, name the crops cassava is stored with?

Beans	(1)
Cowpeas	(2)
Pigeon pea	(3)
Green grams	(4)
Maize	(5)

Other	(6)
Specify	

3. .what are the cause(s) of loss of during storage and what do you do with the damaged/spoilt cassava products?

Product	Main causes of loss	What you do you with the damaged/ spoilt cassava products
	Pests (1) Caked (2) Thieves (3) broken (4) rots (5) Others (6) (specify)	Cook (1) Sell (2) Throw (3) Other (4) Specify
Chips		
Flour		
Grates,		
Gari		
Crisps		
Alcobeverage		
Animal Feed		
Other		
Specify		

PART C: CONSUMPTION AND LIFE STYLE PATTERNS

- 1 a) What part of cassava do you consume, and in what form?

Part		Form	Frequency of consumption.
		Raw [1] Cooked [2] Boiled [3] Fried [4] Roasted [5] Others [6] Specify	Daily (1) weekly (2) monthly (3) other (4)
Root	[1]		
Leaves	[2]		

Other	(3)		
-------	-----	--	--

1b) Do you incorporate any other type of food during preparation? If yes, how and how frequently?

Part		Yes [1] No [2]	Incorporated With other food Cowpeas seeds [1] Cowpeas leaves [2] Pigeon peas seeds [3] Others [4] Specify	How do incorporate? Boiled [1] Fried [2] Both [3] Others [4] Specify	Frequency of consumption. Daily (1) weekly (2) monthly (3) other (4)
Root	[1]				
Leaves	[2]				

1. Which varieties do you frequently consume and is the variety bitter or sweet?

variety	Frequently consumed	Bitter (1) sweet (2)
Tajirika	(1)	
Shibe	(2)	
Kibandameno	(3)	
Nzalauka	(4)	
Karibuni	(5)	
Karembo	(6)	
Girikacha	(7)	
Either	(8)	

1. a) Which cassava processed products do you frequently consume? And what is the source of the processed product?

Product		Source Supermarket/retail (1) Wholesale (2) Cooperative (3) Others (4) specify	buying Frequency : Daily (1) weekly (2) monthly (3) other (4) specify	Consumption Frequency : Daily (1) weekly (2) monthly (3) other (4) Specify	Preference Reason Cheap (1) Reliable (2) Safe (3) Other (4) Specify.....
Chips	[1]				
Flour	[2]				
Grates,	[3]				
Gari	[4]				
Crisps	[5]				
Alcobeverage	[6]				
Animal Feed	[7]				
Other	[8]				
Specify					

1c. if flour is mentioned, what else do you incorporate with the flour and which are the common meals you prepare from flour or flour incorporate?

Products		Meal, (may tick more than one). Ugali [1] Porridge [2] Chapati [3] Bread [4] Cake [5]
Cassava flour alone	[1]	
Cassava flour + maize flour	[2]	
Cassava flour + Wheat flour	[3]	
Other specify.....	[4]	

2. When does your household consume cassava/ cassava based products most? Specify.

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
1	2	3	4	5	6	7	8	9	10	11	12

3. a) In your households are there family members exempted from cassava based meals?

1-Yes [] 2-No []

c) If yes, kindly list them

elderly	[1]
expectant women	[2]
Children	[3]
Other	[4]
specify	

c) Have you or anyone you know experienced negative reactions after consuming cassava roots/products?

1-Yes [] 2- NO []

d) If YES, kindly list the reactions exhibited by these members and how they were managed?

Reaction		Management Sought medical attention The symptoms dissipated
Constipation	[1]	
Skin rashes	[2]	
Diarrhea	[3]	
Vomiting	[4]	
Dizziness	[5]	
Faint	[6]	
Death	[7]	
Other specify	[8]	

e. What is the probable cause of the negative reaction?

.....

4. d) Part E : Marketing of cassava and cassava products

1. What cassava products do you sell?

Product (you can tick more than 1)		To who? Consumer Retailer Bulkier Wholesale Others, specify	Selling Frequency : Daily (1) weekly (2) monthly (3) other (4)	Packaging	Sale Units Kg	Sale Price
Fresh roots	[1]					
Leaves	[2]					
Cuttings	[3]					
Dry chips	[4]					
Flour	[5]					
Animal Feed	[6]					
Other	[7]					
Specify						

WASTE MANAGEMENT

How do you manage cassava peels?

- Washing [1]
- Drying [2]
- Pressing [3]
- Milling [4]
- Other [5]
- specify

THANK YOU FOR PARTICIPATING