

**GlobE Wetlands in East Africa Project
Household Survey**

“We are part of a team at the University of Dar Es Salaam and the University of Bonn and other collaborators, who are studying aspects on how communities interact with and benefit from wetlands in Kilombero and Ulanga Districts. You have been randomly selected to take part in this survey and therefore your participation in answering these questions is very much appreciated, but purely voluntary and free to withdraw anytime during the interview. Your responses will be **COMPLETELY CONFIDENTIAL**. Your responses will be added to those of 300 other households and analysed together. If you indicate your voluntary consent by participating in this interview, may we begin? If you have any questions or comments about this survey, you may contact Bisrat Haile on mobile phone no. ***** or email:- *****

SECTION A: PRELIMINARIES

Survey Date: (dd/mm/yy) SURDATE [_____]		HHID [_____]
HH Name [_____] HHNAME	Cell phone number	CELLPH [_____]
Respondents name[_____] RESPO		MEM [_____]

(Enumerator Instruction: Record the member number of the Respondent from the demography table on **section K** after the survey is completed.)

Identifying Variables:		
Supervisor: [_____]		SNUM [_____]
Enumerator: [_____]		ENUM [_____]
District[_____]		DIST [_____]
Ward: [_____]		SCONT [_____]
Village: [_____]		VIL [_____]

GPS coordinates:		
	(1=North 2=South) NS _____	Northing : _____' _____ dd)
	East _	Eastings : _____' _____ dd)
		Alt : Altitude m. a.s.l (_____)

SECTION B: WETLAND UTILIZATION

B1. When did you start using the wetland (year)? **wetstart** [_____]

B2. Which time of the day do you usually spend in wetlands? **wetime** [_____]

1=Morning (before 11 am) 2=Noon (11am-2pm) 3=Afternoon (2-6 Pm) 4=Evening(after 6 pm)

B3. For the different ways in which you use the wetland, please answer the following questions

(**ENUME**: First probe for all uses then ask the questions that follow)

Wetland use	Do you usually use the wetland for this purpose? (<i>Enume</i> : Include cases where the farmer was using and stopped) 1= Yes; No=2	Which year did you start using the wetland for this purpose?	Which Months of the Year is this activity mostly intensive in the wetland? 1=Jan,.....12=Dec 13=All months (Use coma to separate multiple responses)	Why do you prefer using the wetland for this purpose? (ENUME : List the first two in order of importance)		Other than the wetland, do you usually obtain these products/service from elsewhere? 1= Yes; No=2	If othersrc =1, what are the alternative sources (atmost 2)	
Wetuse	Wetused	Yearstart	useint	Prefere1	Prefere2	othersrc	altesrc1	altesrc2
1=Crop Production								
2=Livestock grazing								
3=Domestic Water								
4=Medicinal plants								
5=Fuel (firewood, charcoal.)								
6=Weaving and Basketry								
7=Building poles								
8=Roofing materials								
9=Cut and Curry fodder								
10=Brick making								
11=Irrigation water								
12=Fishing (natural)								
13=Fish ponds								
14=Other (specify)_____								

Codes:

prefer1-2 1=the only source 2=Conducive environment 3=Its a public resource 4=It's my land 5=Its close to my home 6=Quality fodder 7=Land is scarce 8=Scarcity of fodder

9=Other(specify)_____

altsrc: 1=Government land 2=Own farm-upland 3=Hired land -upland 4= River 5=Communal land 6=Other(specify)_____

ENUME: If Brick Making was one of the activities reported under B3, follow up with questions B4-B7.

B4. What is the land size where you have been producing bricks especially in the last 12 months?

brickland[_____]

B5. Approximately how many bricks did you make in the last 12 months? **bricknumb**[_____]

B6. How many of these did you sell? **bricksale**[_____]

B7. What was the average sales price for one brick (Tshs)? **brickprice**[_____]

B8: Indicate your opinion on the following statements, indicating to what extent you either agree or disagree

	Statement	1=Strongly Agree	2=Agree	3=Neutral /Don't know	4=Disagree	5=Strongly disagree
1	Compared to the past, the use of the wetlands for crop production in this area has increased					
	Reason:					
2	Compared to the past, the use of wetlands for material collection (fuels, building, e.t.c) has increased					
	Reason:					
3	Compared to the past, the level of fertility in the wetland has declined					
4	People in this community would support efforts to conserve the wetland(s)					
5	Compared to 10 years ago, the amount of water in the wetlands in this area has declined					
6	Compared to the last 10 years, fishing activities in the wetland have increased					
	Reason:					
7	People in this area feel that they own the wetland					
8	People in this area care about public natural resources					
9	I have witnessed some form of conflict over wetland resources in the past					
10	Government officials are effective in protecting the wetland					
11	It is safe to leave my home unattended because no one can steal anything					
12	People in this area feel generally secure when dealing with outsiders					
13	If I drop my wallet/purse somewhere within this village, I am likely to get it back					
14	People in this area have strong traditional attachment to wetlands					
15	Most of my neighbours have lost some assets or livestock to thieves within the last five years					
16	Farm sizes in my village have declined compared to the past					
17	The population in my village has increased currently compared to 10 years ago					
18	In the past 5 years, I have noticed an increase in the amount of income I generate from the Wetland					
19	My family's economic situation has improved compared with 5 years ago					

SECTION C: CROP PRODUCTION

RAIN-FED CROP PRODUCTION:MAIN SEASON 2016 (Feb-July2016)

C1. Did this household have any cropping activity in **wetland fields** during the **MAIN CROP Season 2016**? (1= yes; no=2) **MAINCROPWET** [_____]

C2. Did this household have any cropping activity in **upland fields** during the **MAIN CROP Season 2016**? (1= yes; no=2) **MAINCROPUP** [_____]

C3. If C1=1 and/or C2 =1, go to Table below; Otherwise move to the short season crop.

[illegible]

RAIN-FED CROP PRODUCTION SHORT SEASON 2016 (August-December 2016)C4. Did this household have any cropping activity in **wetland fields**during**theSHORT CROP Season 2016?**(1= yes; no=2)**SRTCROPWET**[_____]C5. Did this household have any cropping activity in **upland fields**during**theshort CROP Season 2016?**(1= yes; no=2)**SRTCROPUP**[_____]

C6. If C4=1 and/or C5 =1, go to Table below; Otherwise move to the Irrigated crops Table .

Crop code	Parcel No.	Field No.	Field Locatio n 1=Wetl and 2=Upla nd	Size of the field (Acres)	Have you or anyone else ever made bricks on this field? 1=Yes 2=No	Tenure	Fertility status: 1=poor 2=fertil e 3=very fertile	Main land prep type 0=none 1=manua l 2=oxen 3=tractor	Hired land prep cost (Tsh)	Reason for growing the crop (Use codes below)	Planting/ Seed Type	Quantity of seed used & cost, if purchased this season			1 st Fertilizer used			2 nd Fertilizer used			3 rd Fertilizer used			Harvest -777=not yet harvested		Sales		For the largest Sale			Quantity that spoiled after harvest (Use harvest units)	Reasons for spoilage	
												Qty	Unit	Cost per unit	Type	Qty	Unit	Type	Qty	Unit	Type	Qty	Unit	Sold? 1=yes 2=No	Quantity sold (Use harvest units)	Month 1= Jan. 12=Dec	Price received per unit	Buyer type	Km to point of sale	postharv			spoilrea
Crop	parc	field	Fldloc	Acres	bricks	tenure	ferts	landprep	lpcost	resgrow	Sdtype	sqt	sunit	scost	ft1	fq1	fu1	ft2	fq2	fu2	ft3	fq3	fu3	hvt	Hunit	sold	Sqty	month	price	buyer	Km	postharv	spoilrea

CROP PRODUCTION:IRRIGATEDCROPS

C7. Did this household have any irrigated cropping activity in **wetland fields** in the last cropping year (2016)? (1= yes; no=2) **IRRCROPWET**[_____]

C8: If yes, what is the main method of irrigation used? 1=Drip 2=Furrow 3=Sprinkler/overhead 4=Bucket 5= Other (specify)_____ **IRRMTDUP**[_____]

C9. Did this household have any irrigated cropping activity in **upland fields** in the last cropping year (2016)? (1= yes; no=2) **IRRCROPUP**[_____]

C10: If yes, what is the main method of irrigation used? 1=Drip 2=Furrow 3=Sprinkler 4=Bucket 5=Other specify)_____ **IRRMTDUP**[_____]

C11: What is are the main ways through which you **abstract (draw) irrigation water**? 1=Water pump 2=Gravity 3=Bucket 4=other specify_____ **WATERAB**[_____]

C12. If C7=1 and/or C8 1, go to **Table** below;

Crop code	Parcel No.	Field No.	Field Location 1=Wetland 2=Upland	Size of the field (Acres)	Have you or anyone else ever made bricks on this field? 1=Yes 2=No	Tenure	Fertility status: 1=poor 2=fertile 3=very fertile	Main land prep type 0=none 1=manual 2=oxen 3=tractor	Hired land prep cost (Tsh)	Reason for growing the crop (Use codes below)	Planting/Seed Type	Quantity of seed used & cost, if purchased this season			1 st Fertilizer used			2 nd Fertilizer used			3 rd Fertilizer used			Harvest -777=not yet harvested		Sales		For the largest Sale				Quantity that spoiled after harvest (Use harvest units)	Reasons for spoilage
												Qty	Unit	Cost per unit	Type	Qty	Unit	Type	Qty	Unit	Type	Qty	Unit	Qty	Unit	Sold? 1=yes 2=No	Quantity sold (Use harvest units)	Month 1= Jan. 12=Dec	Price received per unit	Buyer type	Km to point of sale		
Crop	parc	field	Fidloc	Acres	bricks	tenure	ferts	landprep	lpcost	resgrow	Sdtype	sqt	sunit	scost	ft1	fq1	fu1	ft2	fq2	fu2	ft3	fq3	fu3	hvt	Hunit	sold	Sqty	month	price	buyer	Km	postharv	spoilrea

RAIN-FED CROP PRODUCTION:MAIN SEASON 2017 (Feb-July2017)

C1. Did this household have any cropping activity in **wetland fields** during the **MAIN CROP Season 2017**?(1= yes; no=2) **MAINCROPWET** [_____]

C2. Did this household have any cropping activity in **upland fields** during the **MAIN CROP Season 2017**?(1= yes; no=2) **MAINCROPUP** [_____]

C3. If C1=1 and/or C2 =1, go to Table below; Otherwise move to the short season crop.

Crop code	Parcel No.	Field No.	Field Location 1=Wetland 2=Upland	Size of the field (Acres)	Have you or anyone else ever made bricks on this field? 1=Yes 2=No	Tenure	Fertility status: 1=poor 2=fertile 3=very fertile	Main land prep type 0=none 1=manual 2=oxen 3=tractor	Hired land prep cost (Tsh)	Reason for growing the crop (Use codes below)	Planting/Seed Type	Quantity of seed used & cost, if purchased this season			1 st Fertilizer used			2 nd Fertilizer used			3 rd Fertilizer used			Harvest -777=not yet harvested		Sales		For the largest Sale			Quantity that spoiled after harvest (Use harvest units)	Reasons for spoilage	
												Qty	Unit	Cost per unit	Type	Qty	Unit	Type	Qty	Unit	Type	Qty	Unit	Qty	Unit	Sold? 1=yes 2=No	Quantity sold (Use harvest units)	Month 1= Jan. 12= Dec	Price received per unit	Buyer type	Km to point of sale		postharv
Crop	parc	field	Fidloc	Acres	bricks	tenure	ferts	landprep	lpcost	resgrow	Sdtype	sgt	sunif	scostr	ft1	fq1	fu1	ft2	fq2	fu2	ft3	fq3	fu3	hvt	Hunit	solid	Sqty	month	price	buyer	Km	postharv	spoilrea

Planting/ Seed Type 1=Purch /New Hybrid, 2=Retained Hybrid , 3=OPV, 4=local var, 5=local seedling/cuttings/splits, 6=improved seedling /cuttings /splits, 7=hybrid& local var , 8=hybrid purc+retained Reasons for spoilage 1=pests 2=floods 3=animal destruction 4=Rains 5=Moulds 6=No market 7=Other)specify									
Unit codes: 1=100 kg bag 11=50 kg bag 2=Kgs 3=Litre 4=crates 5=numbers 6=bunches(bananas 9=Gorogoro	10=tonnes 12=Debe 13=grams 14=wheelbarrow 15=cart 16=canter 17=pickup 18=2kg packet(seed) 19=bale 20=10kg bag 21=25kg bag	Reasons for growing crop: 1=High productivity 2=Plot not suitable for other crops 3=Safe/not risky 4=Traditional crop 5=Higher price/demand 6 =Other(specify)_____ _____	Fertilizer codes: 0=None 1=DAP 2=MAP 3=TSP 4=SSP 5=NPK (20:20:0) 6=NPK (17:17:0) 7=NPK (25:5:+5S) 8=CAN (26:0:0)	9=ASN (26:0:0) 10=UREA (46:0:0) 11=SA (21:0:0) 12=Other (specify)____ 13=manure 14=foliar feeds 15=NPK (23:23:23)	16=NPK (20:10:10) 17=DAP + CAN 18=compost 19=magmax lime 20=DSP 21=NPK(23:23:0) 22=NPK(17:17:17) 23=NPK(18:14:12) 24=NPK(15:15:15)	25=Mavuno-basal 26=Kero green 27=rock-phosphate 28=NPK 14:14:20 29=Mijingu 1100 30=UREA+CAN 31=Mavuno-top dress 32=Blended fertilizers	Buyer type codes: 1=small trader 2=large trader 3=coffee coop 4=NFRA 5=miller 6=other coop 7=NGO	9=consumer 10=Exporter 11=processor 12=supermarket 13=cereal bank 14=pyrethrum board 15=Institutions 16=Other -specify 17=NGR	Tenure codes 1=owned w/ deed 2=owned w/o deed 3=rented in 4=owned by parent/ relative 5=government/co mmunal/co-operative/road reserves 6=Leasehold 7=Other(specify)_____ _____

CROP CODES

Code	Crop	Code	Crop	Code	Crop	Code	Crop	Code	Crop
119	Apple	19	cowpeas leaves	47	macadamia, tc	65	pepper, bell	3	Tamarind
44	Arrowroots	125	Cucumber	1	maize, dry	141	pigeon peas	189	Tangawizi
201	Artemesia	182	dhania grains	2	maize, green	133	Pineapples	136	Tangerine
97	Avocado	192	Dates	4	maize (fodder)	121	Plums	12	Tea
50	avocado (grafted)	183	Dhania	73	mangoes	178	pomegranate	29	tobacco
18	Babycorn	164	dry peas	45	mangoes, tc	76	pumpkin	63	tomatoes
10	Bananas			120	matomoko	172	pumpkin leaves	162	tree tomato
202	bananas, tc	71	Eggplant	9	Millet	17	pyrethrum	53	trees (multi purpose), tc
60	Barley			148	Miraa	35	Poyo	161	Turnips
7	Beans	20	Flowers	197	mkunga	211	Ravaya	5	trees, commercial
221	Beetroot	25	french beans	196	Mkuyu	31	Rice		
129	brinjals /biriganya			220	mulberry	86	rosemary	205	vanilla
169	bulrush millet	138	garlic onion	222	medicinal plants	171	runner beans	69	Watermelon
93	Cabbage	179	Grapes	80	nappier /elephant grass	36	Saina	13	Wheat
200	Chamomile	34	green grams	165	nathi (goose berry)	40	simsim (drought resistant)	41	wheat (drought resistant)
67	capsicum /sweet peppers	167	green peas	147	njahi (dolichos)	78	simsim	163	white suppoise
94	Carrots	33	Groundnuts	37	njugumawe(bambara bean)	16	Sisal	149	wild berries
24	cashew nuts	72	Guava	204	mangoes (grafted)	90	snow peas		
28	Cassava			83	Oats	8	sorghum	95	yellow passion fruit(mero)
48	cassava, tc	139	indigenous grains	77	Okra	39	sorghum (drought resistant)	81	Yams
146	castor oil	140	indig veg/amaranthus	96	Onions	160	soyabeans		
175	Cauliflower	27	Irish potatoes	61	orange (grafted)	66	spinach	174	Zambarao
26	Chickpeas			75	oranges	124	squash	223	Jack fruit(Vanessa)
131	chillie peppers	210	Karela	22	other fodder leaves	190	stefali	224	Other specify
42	citrus, tc	62	Gourds	184	other leaves (bean,njahi)	206	stinging nettle	225	Other specify
23	Coconuts	84	lemon (grafted)			177	strawberries	226	Palm Oil
194	coconuts, copra	207	lemon grass	59	passion (grafted)	187	sugar beets		
193	coconuts, green	74	Lemons	137	passion fruit	15	sugarcane		
6	coffee, cherries	173	Lettuce	46	passion fruits, tc	170	sugarcane, chewing		
176	coffee, churned	32	Lucerne	85	pasture (not eleph/napier)	64	sukuma wiki		
11	coffee, mbuni	118	Lugard	58	pawpaw(grafted)	30	sunflower		
168	corn flower			70	pawpaws	68	sweet melon		
14	Cotton			166	Peaches	43	sweet potatoes		
21	Cowpeas	135	macadamia nuts	134	Pears	49	sweet potatoes, tc		

C13. ENUME: For each of the parcels in the **MAIN SEASON**, make a follow up with the following questions.

Parcel ID	Do you experience problems with any of the following conditions on this parcel?	What kind of soil and water conservation technologies have you implemented on the parcel?	When did your household acquire this land?	How did your household acquire this land?	What is the distance in Km from [Parcel ID] to your homestead?
	Probcond	Swconserv	Year	Landacqr	disthome
	1=Gullies 2=Dry land 3=Low-lying land 4=Sedimentation 5=Landslide 6=Stony soils/clay 7=flooding 8=Other (specify)_____ 9=No problem	1=Terraces 2=Erosion control bunds 3=Gabions / sandbags 4=Vetiver grass 5=Tree belts 6=Water harvest bunds 7=Drainage ditches 8=Dam 9=none	Landacqr 1=Ceded by traditional authorities 2=Ceded by the government 3=Ceded by relatives 4=Rented 5=Borrowed 6=Occupied 7=Purchased 8=Inherited 9=Others		

C14. Have you cleared any forest / bushland to create a new crop land in the past five years? 1=Yes 2=No **clearland**[_____]

C15. If Yes, what size of forest/bushland did you clear in acres **clearacres**[_____]

C16. Do you plan to clear any forest / bushland to expand your crop land in future? 1=Yes 2=No **expaland**[_____]

C17. If Yes, what size of land are you planning to expand **expandacres**[_____]

C18. Are you planning to leave any part of your land fallow within the next one year? 1=Yes 2=No **fallowyear**[_____]

C19. If Yes, how many acres of your land are you planning to leave fallow? **fallowacres**[_____]

C20. Do you think you will still be able to use your current land for all of the next 5 years? 1=Yes 2=No **landusefut**[_____]

C21. If No, why do you think are the reasons for not being able to use the current land for all of the next 5 years **nouse1**[_____] **nouse2**[_____]

1 = No land certificate 2 = I only have temporary access 3 = The land is rented 4 = The rights over land can be revoked at any time 5 = The government may limit use 6 = Competition among villagers 7 = Competition with neighboring villages 8 = Competition with private investors 9 = Infrastructure development 9 = Other (Specify)_____

SECTION D: CROP INPUTS

D1. Indicate the following details for CROP INPUTS purchased/hired in CASH/CREDIT in 2016 cropping year for the LARGEST fields (ENUM: Probe for both the largest field in the wetland and the largest field upland.

[illegible]

D2. What is the total land owned by your household in the wetland area in **ACRES**?

wetlandown[_____]

D3. What is the total land owned by your household in the upland area in **ACRES**?

uplandown[_____]

D4. What is the **rental price** (Tsh) for an **acre of land** in the wetland annually? Rentalwet[_____]

D5. What is the **purchase price** (Tsh) for an **acre of land** in the wetland in this village? wlandprice[_____]

D6. What is the **rental price** (Tsh) for the **sameacre** in the upland annually rentalup[_____]

D7. What is the **purchase price**(Tsh) for **one acre** of land in a non-wetland area in this village? uplandprice[_____]

D8. For the largest fields in the wetland and upland, indicate the following historical details for the last 5 years

	Year	What was the MAIN crop that was grown on the field in these years (Use crop codes on Page 7)		What were the reasons for the choice of this crop?		Did you plant both short and main season on this field		Did you apply organic fertilizers on this field? 1=yes 2=no		Did you apply inorganic fertilizers on this field? 1=yes 2=no		Did you rent-in any land within the wetland in the year? 1=yes 2=no		If yes, what was the size of land rented-in (acres)?	
		Wetland field	Upland Field	Wetland field	Upland Field	Wetland field	Upland Field	Wetland field	Upland Field	Wetland field	Upland Field	Wetland field	Upland Field	Wetland field	Upland Field
		wetcrop	upcrop	Wetchoice	upchoic	Wetseas	upseas	orgwet	Upwet	inorgwet	Inorgup	rentwet	rentup	sizewet	Sizeup
1	2017														
2	2016														
3	2015														
4	2014														
5	2013														
6	2012														

Reasons for growing crop:

1=High productivity 2=Plot not suitable for other crops 3=Safe/not risky 4=Traditional crop 5=Higher price/ demand 6 =Other(specify)_____

D9. ACCESS IMPROVED RICE SEEDLINGS

D9a. Did you buy improved rice seeds/seedlings in the last 12 months?_____ Yes1 → D9e; No...2

D9b. Did you try to buy improved rice seeds/seedlings in the last 12 months? Yes ...1; No....2>>D9d

D9c. [As you wanted but could not buy improved seeds/seedlings,] What was the main reason for not being able to buy improved rice seeds/seedlings? _____ I was unable to find them...1; The quality of improved seedlings is not good...2; Gave up because the hassle/transactions costs were too much...3; Improved seedlings are too expensive....4; I lacked the money at the time of need...5; It is difficult to sell rice from improved seed....; Other, specify:_____...6

D9d [As you did not try to buy improved seeds/seedlings,] what was the main reason for not trying to buy improved rice seeds/seedlings? _____ 1=The quality of improved seedlings is not good; 2=There is too much hassle/transactions costs to obtain improved seedlings; 3=Improved seeds are too expensive; 4= I lacked the money at the time of need; 5=I am happy with the traditional seedlings; 6= I did not plan to plant new trees this year; 7= Other, specify:_____ >>next section

D9e if you use improved rice variety what are the main reason? res1[_____]res2[_____]res3[_____]

1=High yield 2=Early maturity 3=Good taste 4=Resistance to draught 5=Resistance to diseases and pests 6=Easy to harvest

D9f What type of improved seeds/seedlings did you buy?_____ 1=flood-resistant varieties (CPI varieties);2= hybrid; 4= Do not know

D9g [As you used improved seeds/seedlings,] Were you able to buy as much improved rice seeds/seedlings as you desired?_____ Yes ...1 → D9h; No...2

D9h What was the main reason for not buying as much rice seeds/seedlings as you desired? _____ 1=I was unable to find more; 2=There is too much hassle/transactions costs to get improved seedlings; 3=I lacked the money at the time of purchase ; 4=Other, specify:_____

D9i Whom did you buy improved seeds/seedlings from? _____ 1= Bureau of agriculture (village); 2=Cooperative; 3=trader; 4=Development Agent ; 5=Research center;6= NGO; 7=Commercial farm; 8=Other, specify:_____

D9j. In what form did you buy the improved varieties? _____ 1= As seeds; 2=As seedlings; 3=Both

D10 Fertilizer Access**D10a** In main or short season of 2016), did your household buy or get for free any chemical fertilizer?1 Yes 2 No [if no, >> **D10h**] [_____]**D10b** [If **D10a**=yes] What is the main reason your household used chemical fertilizer on your crops?

1. To increase crop yields
2. Because DA recommended using fertilizer
3. Because DA pressured household to buy fertilizer
4. In order to have access to cooperative services
5. In order to have access to other services
6. Other (specify) [_____]

D10c Who did you purchase the fertilizer from?

Main source [_____] second [_____] third [_____]

1. Cooperative
2. Friend or neighbour
3. Trader or input supplier
4. NGO or project
5. Other (specify) [_____]

D10d Was the fertilizer available at the time you need it in both seasons ? **fertavai**[_____]

1 Yes 2 No

D10e Were you able to buy as much fertilizer you needed and could pay for? **Fertavai2**[_____]

1 Yes 2 No

D10f How long did it take (in minutes) to get to the main place where you obtained**fertime**[_____] minutes**D10g** How many times did you have to go to the place of sale to get the quantity you wanted**Fertime2**[_____] times**D10h** [if no] What are your reasons for not using fertilizer in both seasons in 2016

- | | |
|---|--|
| 1. Fertilizer too expensive 1 Yes 2 No [_____] | 2. Fertilizer supplier too far away 1 Yes 2 No [_____] |
| 3. Not a member of a cooperative 1 Yes 2 No [_____] | 4. Crops do not need fertilizer 1 Yes 2 No [_____] |
| 5. Soil is fertile so no need for fertilizer 1 Yes 2 No [_____] | 6. Used organic fertilizer instead 1 Yes 2 No [_____] |
| 7. Don't trust quality of fertilizer 1 Yes 2 No [_____] | 8. Fertilizer not available on time 1 Yes 2 No [_____] |
| 9. Minimum amount was too much 1 Yes 2 No [_____] | 10. Other, specify [_____] |

D 11 Multi-Cropping

D11a Did you grow crops in both short and main seasons during 2016? 1 Yes 2 No [_____]	D11b If yes why did you plant both seasons? 1. Need more income 2. Need more food 3. I don't have anything to do 4. My plot is suitable to produce in both seasons 5. Other specify, _____	D11c If No , why didn't you plant both seasons? 1. Plot not suitable for short season farming 2. I don't have enough labour 3. I have enough food or income 4. Not enough rain/ water 5. Other specify, _____
D11b If yes , did you plant the same crop or different crops ? 1. Short- season [_____] crop 2. Main- season [_____] crop		

D 12 Irrigation Use**D12a** Do you irrigate your plot either during the short or main season?

1. Main season 1 Yes 2 No [_____]
2. Short season 1 Yes 2 No [_____]

D12b If no, why don't you irrigate your plot ? notirrgate[_____]

1=No water/river available around my plot 2= I don't have the tools for irrigation 3= I don't have enough labour to irrigate 4= My plot doesn't need irrigation as there is enough water 5= Other specify, _____

D13. Intensification and Social network

	Do you know any one in these village who uses[.....]? 1 Yes 2 No	How many farmers do you know? (Numbers)	Do you plan to use [.....] in the future 1 Yes 2 No
Inorganic Fertilizer			
Irrigation			

Improved seed			
Crops both main and short season			

SECTION E: LIVESTOCK PRODUCTION

E1: Did the household own any livestock in 2016(1= yes; no=2)**liveown** [_____]

E2: If Yes in E1 above, answer the following questions

Type of livestock owned	Average no. owned	System of rearing	If extensive system, where do you normally graze
Livetype	Avno	Prodsyst	Grazefld
1=Cattle			
2=Goats			
3=Sheep			
4=Camels			
5=Chicken			
6=Other (specify)_____			

Codes: **Prodsyst:** 1=Free Grazing-Pastoralist 2=Free grazing-Non Pastoralist 3=Paddocking 4=Strictly zero grazing/intensive system 5=Semi-zero grazing 6=Other, specify ____

Grazefld: 1=Own land-upland 2=Own land-wetland 3=School compound 4=Communal grazing land-upland 5=Public wetland 6=Public upland 7=Other, specify _____

LIVESTOCK PRODUCTS

E10: On average, how much milk, does this household consumeper day , whether from own production, purchases or receipts ?	MLKCON _____
E11: Did this household produce any cow milk during Dec 2015 to Nov. 2016? (1=yes; 2=no, go to Q12c1)	MLKPRD _____

		Avg No of animals producing milk	Total Quantity produced and sold in each month (in litres) Between December 2015 and November 2016												Buyer type of largest sale 1=Cooperative societies 2=Government processor 3=Private processors /traders 4=Hawker /informal trader 5=Institutions/Hotels 6=Consumer /Neighbor /Farmer 7=Other , specify_____	What was the most common price you received? Tsh/litre	Km to point of sale for largest buyer
Product	Milk		Jan16	Feb16	Mar16	Apr16	May16	Jun16	Jul16	Aug16	Sep16	Oct16	Nov16	Dec16	Buyer	Price	km
Cow milk produced	1																
Fresh cow milk sold	2																
Sour cow milk sold	3																

E12: Other livestock products produced during the period December 2015 to November 2016

Livestock Product	Average number of animals producing over the year	Number of months of production per year	Average Quantity production/ month	Unit of Production. 2=Kgs 3=Litres 22=Trays 5=Numbers 1=100kg bag 14=Wheelbarrow 15=Cart	Number of months of sales per year	Average quantity sold per month	Price received per Unit (Kshs) on the largest sale	Buyer type of largest sale 1=Cooperative societies 2=Govt. processor. 3=Private processors /traders 4=Hawker /informal trader 5=Institutions/Hotels 6=Consumer /Neighbor /Farmer 7=Honey refinery 8=Other, specify_____
-------------------	---	---	------------------------------------	---	------------------------------------	---------------------------------	--	---

				16=Canter 17=pickup				
Liveprod	animprod	Mnthprod	Avgprod	unit	mnthsold	qtysold	Price	Buyer
Goat milk	1							
Camel milk	2							
Honey	3							
Eggs (if not	4							
Hides and skin	5							
Fish (if have fish	6							
Wool	7							
Manure (only if	10							
Other,	9							

SECTION F: LABOUR INPUTS

F1: Did you have a **salaried** employee (s) during the last one year? **Dec 2015 -Nov2016** (1=yes; 2=No; (If NO, skip to F4) **salary** [_____]

F2: If Yes, how many **salaried** employees did you have in your farm? **Semploy**[_____]

F2: If yes, what was your total **monthly expenditure** on salaried employees in Tsh **salexp** [_____]

F3: How many months cumulatively between **Dec 2015 and November 2016** did the salaried employees work on the **Wetland largest field?** **salmon** [_____]

F4: What is the daily wage rate for farm work in this area in Tsh? **Wage**[_____]

F5: For all the family, hired and unpaid labour that was used in your **WETLAND LARGEST** field in the **main season**, indicate the following details

Activity name	Code	Hired Labour				Family Labour (adults)						Family Labour (children)			Other Labour (ONLY if unpaid)		
		N _Q hired	N _Q of days per person	Tshs per person per day	Total TSh by contract	N _Q of males	Total N _Q of days worked by ALL	Average number of hours worked per person per day	N _Q of females	Total N _Q of days worked by ALL	Average number of hours worked per person per day	N _Q of children <15 yrs	Total N _Q of hours each	Total Hours for all days worked	N _Q of workers	N _Q of days worked each	N _Q of hours per day each (on average)
	ACTIV	LB01	LB02	LB03	LB04	LB05	LB06	LB07	LB08	LB09	LB10	LB11	LB12	LB13	LB14	LB15	LB16
1 st Ploughing	1																
2 nd Ploughing	2																
Digging planting holes	3																
Harrowing	4																
Planting	5																
Basal fertilizer	6																
Manure application	7																
1 st Weeding	8																
Top-dressing	9																
2 nd Weeding	10																
Field Dusting	11																
Harvesting	12																
Transport	13																
Drying	14																
Digging drainage canals	15																
Other (specify)_____	16																

F6: Relative to the labour input in the **wetland largest field**, how much labour was applied on the **upland largest field?** **uplabour**[_____]

1= about the same 2=approx. 50% less 3= approx.50 % more 4=approx. 25% more 5=approx. 25% less 6=Other,specify_____

F7: Relative to the labour input in the **wetland largest field in the main season**, how much labour was applied during short season?

shortlabour[_____]

1= about the same 2=approx. 50% less 3= approx.50 % more 4=approx. 25% more 5=approx. 25% less 6=Other,specify_____

F8 : Labour use on rice and maize

In growing maize and rice how many labour man days were used ?

Season	Crop	Parcel No	Tilling		Manure and organic input use		Sowing and fertilizer use		Weeding		Pesticide and herbicide application		Harvesting		Transporting	
			Family	Hired	Family	Hired	Family	Hired	Family	Hired	Family	Hired	Family	Hired	Family	Hired
			labour	labour	labour	labour	labour	labour	labour	labour	labour	labour	labour	labour	labour	labour
Main Season	Rice															
	Maize															
Short season	Rice															
	Maize															

SECTION G: WETLAND CONSERVATION ACTIVITIES AND CHALLENGES

G1: Are there any conservation or protection initiatives on the Wetland that have been going on in the past one year? (1=yes 2=No –Move to G3)

wetconserve [____]

G2: If Yes, indicate the details on such conservation initiatives

Type of Conservation Initiative See codes below	In which Year was this activity initiated? (-77=Can't remember)	Who initiated the conservation activities? (See codes below)	Have you or any member of your household been involved in this conservation activity? 1=yes; 2=No	If no, give reasons why you have not been participating? See codes below
Consact	Consyear	Consinit	Conspart	resnupart

Codes:

Consact: 1=Boundary pegging 2=Stopping of farming in wetland 3=Fencing of wetland area 4=Removal of buildings from the wetland 5=other(specify)_____

Consinit: 1=Government organization 2=NGO 3=Community organization 4=Self 5=Other (specify)_____

Resnupart: 1=Not involved by theorganizers 2=Not interested 3=the wetland doesn't belong to us 4=Other (specify)_____

G3: Do you face **challenges** when using the wetland?1=yes 2=No

wetchall[_____]

G4: If Yes in G3 above, what are the **three major** challenges?

Wetchall1 [____] Wetchall2 [____]Wetchall3 [____]

1=Restricted access 2=Danger of wild animals 3=Risk of contracting diseases 4=Floods 5=Conflicts with other users 6=Drought 7=Other, specify_____

G5: What are the **four most serious challenges** you face in **wetland crop** productioncropchall1[____] cropchall2[____] cropchall3[____] cropchall4[____]

1=Pests 2=Diseases 3=Low soil fertility 4=Soil acidity/alkalinity 5=Wild animals 6=water logging 7=Weeds 8=Floods 9=Other, specify_____

G6: What are the **four most serious challenges** you face in **upland crop** productioncropchall1 [____] cropchall2 [____] cropchall3[____] cropchall4[____]

1=Pests 2=Diseases 3=Low soil fertility 4=Soil acidity/alkalinity 5=Wild animals 6=water logging 7=Weeds 8=Drought 9=Other, specify_____

SECTION J: HOUSEHOLD ASSETS (PROMPT for each item as listed below)**At present, how much/many of the following does this household own that are usable/repairable?****(Enumerator Instructions: For value per unit, ask for the current purchase price of the asset AS IT IS or the current market value of the asset AS IT IS.)**

		Quantity	Current value per Unit (TSh)	If Value/Unit not known ask for Total Value			Quantity	Current value per Unit (TSh)	If Value/Unit not known ask for Total Value
CODE	ASSET	QTY	VALUE	TOTVAL	CODE	ASSET	QTY	VALUE	TOTVAL
1	Houses (residential)				31	Trailer			
2	Stores/barns				32	Ploughs for tractor			
3	Poultry houses				33	Harrow/tiller			
4	Piggery houses				34	Ridger/weeder			
5	Zero-grazing units				35	Planter			
6	Wheel barrow				36	Boom sprayer			
7	Chaff cutter				37	Sheller			
8	Radio				38	Combine harvester			
9	TV				39	Generator			
10	Solar panels				40	Power saw			
11	Battery				41	Grinder			
13	Mobile Phone				42	Jaggery unit			
14	Weighing machine				43	Cane crusher			
15	Pestle and mortar				44	Donkey			
16	Water tanks				45	Oxen			
17	Beehive				46	Animal traction plough			
18	Water pump				47	Cart			
19	Borehole				48	Posho mill			
20	Dam				49	Sewing/knitting machine			
21	Well				50	Fridge			
22	Irrigation equipment				51	Stove			
23	Cattle dip				52	Panga			
24	Spray pump				53	Jembe			
25	Water trough				54	Other, specify			
26	Bicycle				55	Other, specify			
27	Motorcycle				56	Other, specify			
28	Car				57	Other, specify			
29	Truck				58	Other, specify			
30	Tractor				59	Other, specify			

SECTION K: HOUSEHOLD DEMOGRAPHIC INFORMATIONK1: Indicate the following details for **all the household members** who were home for at least one month within the last one year (Dec2015-Nov 2016).

ID	Name	In which year was this person born?	Gender 1=male 2=female	Relationship to current head <i>See codes below</i>	Marital Status <i>See codes below</i>	Is.... Currently attending school? 1 = Yes 2 = No	What is the highest level of education completed? <i>See codes below</i>	How many months in the period Dec2014 to Nov2015 has this person been living at home?	Is this person still considered a member of this household? 1 = Yes 2 = No	If this person is not a member of this household, why? <i>See codes below</i>	Did this person receive cash from informal employment/ business / kibarua / dividends Between Dec2015 & Nov2016? 1=Yes 2=No	If YES, monthly income estimate (TSh) for the months in which informal income was earned	Number of months in the past year in which this informal income was earned	Did this person receive cash or payment in kind from salaried employment/ remittances or pensions ? 1=Yes 2=No	If YES, monthly income estimate (TSh)	Number of months in the past year in which this salaried income was earned
MEM	NAME	DA01	DA02	DA03	DA04	DA05	DA06	DA07	DA08	DA09	DA10	DA11	DA12	DA13	DA13	DA14
1.																
2.																
3.																
4.																
5.																
6.																
7.																
8.																
9.																
10.																
11.																

Relation to head (DA03)		Marital Status (DA04)	Education levels (DA06)			Reason for absence (DA09)	
1= head	9= grandchild	1 = single	-99=don't know	9= form1		1=left to find a job	9= Left to attend school
2= spouse	10=other relative	2 = married-monogamous	-9=None	...	20=univ 2	3=married away	10= Other, specify__
3= own child	11=unrelated	3 = married-polygamous	0=pre school	14=form 6	21=univ 3	4=deceased	
4= step child	12=brother /sister- In-law	4 = divorced	1=std 1	15= college 1	22=univ 4	5=divorced /separated	
5= parent	13=parent-in-law	5 = widowed	23=univ 5	6=living with other relatives	
6= brother /sister	14=worker	6 = separated	8=std 8	18= college 4	24=postgrad	7=another household	
7= nephew /niece	15=Other specify	7 = other, specify ____		19= univ 1		8=went missing	
8= son/daughter-in-law							

INCOME FROM OTHER SOURCES

K2: Did any member of the household earn some **income from formal and informal activities** Dec2015 and Nov 2016?(1=yes, 2=no) **Otherinc**[_____]

K3: If yes, indicate the total amount earned within the period in the table below.

Other income activity	Code	In the past 12 months, have members of your household received income from [activity]?	Ask for each activity for which I2=yes		
			Which member of the family is responsible for managing this activity?	How many MONTHS out of the past 12 months did members of this household receive income from [activity]?	For each of these months that you were involved in [activity], how much income did you take home to your family in EACH MONTH?
		1. Yes 2. No	Use one or two member ID	[range 1 - 12]	
	Activity	K3a	K3b	K3c	K3d
Firewood gathering	101				
Charcoal trading	102				
Agricultural trading	103				
Other trading	104				
Rice milling	105				
Food processing business	106				
Brick making and sell	107				
shop business	108				
Other business	109				
Agricultural wages	110				
Non-agricultural wages	111				
Rent (exclude agricultural land)	124				
Pension	112				
Remittances from family in same region	114				
Remittances from family in other regions	115				
Remittances from family in other countries	116				
Productive Safety Net Programme	121				
Other 24ssistance programs	122				
Salried employment	123				
Other __	124				

SECTION L: GROUP MEMBERSHIP, INFORMATION AND NETWORKING AND CREDIT ACCESS

K4. Is there a member of the household who is a member of any organized group in the community? 1=yes; 2=no -If NO, go toK5

GROUPMEM[_____]

Household member ID from demog Table	Major group activities (up to 2) (<i>See codes below</i>)		What do you think are the main benefits from joining this group? LIST TWO MOST IMPORTANT		Number of active members in the group	What is your position within this group?	Are members mostly of the same ethnic origin? 1=yes 2=no	Frequency of meetings (<i>See codes below</i>)	How does this group usually make decisions?	Are members of this group drawn from the same occupation? 1=yes 2=no
MEMID	GRUPACT1	GRUPACT2	GRUPB EN1	GRUPB EN2	GROUPSZ	POSITION	ORIGIN	MEETNG	GRUPDESION	
Activities: 1=Collective labor (soil and water conservation); 2= Collective labor (other farm activities); 3=Collective crop marketing; 4=Savings and credit services; 5=Bee keeping; 6= Collective training on farming activities; 7=Collective learning on soil and water conservation; 8=Merry-go-round; 9=Other(specify)_____					GRUPBENEFIT: 1=Benefits the community 2=Economic benefits 3=Social status and relations 4Entertainment 5=Health benefits 6=Increase knowledge 7=No benefit 8=other__		Position in Group 1=Leader 2=Secretary 3=Member	Frequency: 1=Weekly; 2=Fortnightly; 3=Monthly; 4=Quarterly; 5=Semi-annually; 6=Annually; 7=When need arises; 8=Other (specify)_____		GRUPDESION 1. <i>Leader decides and informs the other group members</i> 2. <i>Leader asks group members what they think and then decides</i> 3. <i>All group members discuss and decide together</i> 4. <i>Other specify</i> _____

K5. Credit

K5. During the past 12 months, did anyone in this household apply for credit or ask for a loan of at least 10000 Tsh? [*For each cash loan requested or applied for, fill in one line below, whether or not they received the loan*]

1. Yes 2 . No accredit [_____]

			If K8 = "yes", complete K6 through K10						
Request nbr.	Who did you ask for a loan or credit?	Did the household receive a loan?	What was the amount borrowed ?	How long was the loan for?	What was the interest rate on this loan?		What was the main way the money was used?	Which member was responsible for the loan?	Were you able to repay the loan?
	1 Relatives	1 Yes	Tsh	Months	Percent	1. Per week	1 Seed 2 Fertilizer		

	2 Friends 3 Money lender 4 Cooperative 5 Bank 6 SACCO 7 VICOBA	2 No			-88 = Don't know -99 = NA	2 Per month 3 Per crop season 4 Per year	3 Labor 4 Other inputs 5 Livestock 6 Non-ag bus. 7 Health costs 8 Education 9 Food purchase 10 Loan repayment 11 Other	Use one or two Household member ID from demog Table	1 Yes, all 2 Only part 3 Not at all 4 Not yet due
K6	K7	K8	K9	K10	K11a	K11b	K12	K13	K14
1					%				
2					%				
3					%				

Enumerator: For each crop input or equipment received on credit, fill in one line

If K16 = "yes", complete K17 through K23									
	Did your household obtain [input type] on credit in the past 12 months?		Who offered you these goods on credit?	What was the value of these inputs?	What crop was the input used on?	How much time is the credit for?	Did you agree to sell a portion of your harvest to the lender?	Was the repayment in cash or in kind?	Were you able to repay the credit?
		1 Yes 2 No	1 Input supplier 2 Trader 3 Processor 4 Cooperative 5 Farmer 6 Min of Agric. 7 NGO 8 Input voucher scheme 9 Other	Tsch	Use product codes	Months	1 Yes 2 No	1 In cash 2 In kind 3 Both in cash and in kind	1 Yes, all 2 Only part 3 None of it 4 Not yet due
K15		K16	K17	K18	K19a K19b K19c	K20	K21	K22	K23
1	Seed								
2	Fertilizer								
3	Other chemical inputs								
4	Agricultural tools, equipment								

L1. Which sources of information are important for you, regarding the following issues: list up to three for each issue.

	<i>SRC1</i>	<i>SRC2</i>	<i>SRC3</i>
Agricultural production and extension			
Sources of credit and insurance			
Government policy changes			
Market information – such prices of goods or crops			

Information Sources

1 = Relatives, friends and neighbours 2 = Community bulletin board 3 = Community loud speakers 4 = Local market 5 = Newspaper 6 = Radio 7 = Television 8 = Extension agents 9 = Other groups or mass organizations 10 = Business or work associates 11 = Mobile phone 12 = Internet 13 = Other(Specify)_____

PART J: ACCESS TO AGRICULTURAL SERVICES: AGRICULTURAL EXTENSION & TECHNOLOGY

	Man
1. In the past 12 months, have you or anybody from your household received a visit from or have you visited an agricultural extension agent/DA? Yes.....1; No.....2 → Q4	_____
2. What type of organization provided the service (mainly)? NGO.....1 GOVERNMENT...2 COOPERATIVE....3 PRIVATE.....4 OTHER5	_____
3. How often in the last 12 months did you talk to extension agents/DA's individually ?	__Times
4. If no, how often in the last 12 months did you or anybody in your household talk to a model farmer individually production issues? Number of times	__Times
6. How often in the last 12 months did you or anybody in your household participate in a community meeting/field day held to discuss production related issues? Number of times	__Times
7. In the last 12 months, did you or anybody in your household visit a demonstration plot of rice, DA or a research station? Yes.....1 ; No.....2	—
8. In the last 12 months, did you or anybody in your household visit a government office of agriculture and discussed production related issues? Yes.....1 ; No.....2	—

L2. Shocks: - Have you or any member of your household faced any of the following shocks in the last five years

	Shock type	Shock experienced in the last 5 years? 1=Yes 2=No	Time when shock experienced		Estimated value of loss due to shock (Tshs)	What did you do to cope with the shock? LIST THE TWO MOST IMPORTANT MEASURES		To what extent have you recovered from the shock? 1. Completely 2. Partly recovered 3. Still suffering badly
	Shocktype	Shock	Month	Year	valueshock			
1	Floods							
2	Droughts							
3	landslides							
4	Crop Pests/diseases							
5	Change in crop price							
6	Input Shortage							
7	input prices Increase							
8	Increase in food prices							
9	Loss of job							
10	Unsuccessful investment							
11	Loss of land							
13	Crime (robbery, theft)							
14	Divorce							
15	Serious illness							
15	Death of hh member							
16	Other (specify)							

Coping

strategies

1 = Nothing 2 = Reduced consumption 3 = Sold land 4 = Sold livestock 5 = Sold other assets 6 = Got assistance from relatives or friends 7 = Got assistance from Government 8 = Got assistance from NGO

9 = Borrowed money from bank 10 = Borrowed from others 11 = Postponed payment of loans

13 = Work more 14 = Took children out of school/Sent children to work 15 = Use savings

16. Other(Specify) _____

Section M. Consumption - Food

[illegible]

Section M2. Consumption - Food

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			Ask these questions for each food item in which L2 = yes								
During the last seven days , has anyone in your household consumed any [...]?			What was the total quantity of [food] consumed over the last seven days?		Of the [...] that your household consumed this week, what was the quantity that came from your own production?		Of the [...] that your household consumed in the last week, what was the quantity that came from purchases?		What was the average price paid for this [...] per unit?	Of the [...] that your household consumed this week, what was the quantity that came from gifts, loans, barter, or wages in kind?	
		1. Yes 2. No	Quantity	Unit (see unit codes)	Quantity	Unit (see unit codes)	Quantity	Unit (see unit codes)	Price (birr per unit in L4u)	Quantity	Unit (see unit codes)
		L2	L2q	L2u	L3q	L3u	L4q	L4u	L5	L6q	L6u
61	Avocado										
62	Banana										
63	Orange										
64	Papaya										
65	Beles (cactus)										
69	Other fruit										
121	Sesame										
122	Niger seed										
123	Other oilseeds										
71	Beef										
72	Mutton/goat meat										
73	Chicken										
78	Fish										
74	Milk										
75	Butter/cheese										
76	Eggs										
77	Other animal products										
81	Cooking oil										
82	Berbere										
83	Spices/condiments										
84	Salt										
85	Honey										
91	Soft drinks										
92	Local brew										
93	Coffee/tea										
94	Beer										
99	Other beverages										
111	Other food in house										
112	Food outside house										

Section M2. Consumption - Non-Food

During the past ONE MONTH , has anyone in your household purchased or obtained any of the following items? [do not include items listed in the other table on this page]		What is the total value of the [...] bought or obtained in the past one month ?	
		1. Yes 2. No	Tsh
M3		M3a	M3b
131	Soap, detergent, and cleaning supplies		
132	Toilet paper, razor, lotion, other personal care		
133	Baskets, buckets, other small household items		
141	Bus and train fare (not for work)		
142	Other transportation costs (bicycle, carts, etc)		
143	Mobile phone card, postage, phone calls		
151	Firewood, charcoal, kerosene, batteries, etc		
191	Cigarettes and tobacco		
192	Repair, tailor, barber, other services		
193	Toys, sports, events, other entertainment		
194	Domestic worker (do not count ag workers)		
181	Rent paid for housing		
182	Milling service fee		
183	Water, electricity, phone service, etc		
201	Other small purchases (less than 10000 Tsh)		
121	Clothing for men		
122	Clothing for women		
123	Clothing for children <15		
124	Shoes, hats, umbrellas		
131	Dishes, pots, pans, etc for kitchen		
132	Blankets, sheets, mattress, etc.		
161	School fees		
162	School books, uniforms, etc		
163	Money & food sent to students & others		
171	Medicine (modern and traditional)		
172	Clinic fees, hospital, traditional healer		
182	Repairs and maintenance of house		
195	Funerals, weddings, religious expenses		
201	Contribution to community projects		

SECTION O: INFRASTRUCTURE

01: What is the **distance** from your home to the nearest **shopping centre** in Km? distshop[___]

02: What is the **distance** from your home to the nearest **tarmac road** in Km? disttmk[___]

03: What is the **distance** from your home to the nearest **health centre** in Km? disthc[___]

04: What is the **distance** from your home to where you can **tap electricity** in Km? dstele [___]

05: What is the **distance** from your home to where you can get **pipd water** in Km? dstpipe[___]

06: What is the **distance** from your home to **public/private extension services** in Km? stext[___]

07: What is the **distance** from your home to **the nearest river/stream** in Km? dsrver[___]

08: What is the **distance** from your home to the **Kilombero wetland** in Km? dswet[___]

Thank you for participating in this survey