

Supplementary Data

1. The longitudinal panel study data on household welfare, water resource management and governance in Kenya 2013-2016 upon which this research is based can be accessed at:
<https://dx.doi.org/10.5255/UKDA-SN-853667>
2. Table: S1: Variables used in data and their category

Category	Variable	coded_in_data
Water Services	Affordable	dry_affordable
	Close (distance to water source)	dry_close
	Reliable	dry_reliable
	Only source	dry_only_source
Water Infrastructure	Unprotected well	unprotected_Well
	Piped	pipemerge
Highest level of education	Primary	hieduprimary
	Post primary	hiedupostprimary
	Secondary	hiedusecondary
	College	hieducollege
	University	hieduuniversity
Energy	Electricity (national grid)	iv_electricity
	Solar panel	iv_solar_panel
Sanitation	Open defecation	iv_san_bush
	Cases of diarrhoea in last two weeks	iv_diarrhoea
Agriculture	Own livestock	iv_lvstk
	Own >2 acres land	iv_land_more_than_2_acres
Geographical Location	Coastal	coastal
	Inland	inland
Sex of Household head	Female headed household	fhhs
Age	Age of respondent	age
Household size	Size of the household	hh_size

3. Table S2: Results of Fixed Effects model

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Fixed-effects (within) regression               Number of obs   =    8415
Group variable: pid                           Number of groups =    3223

R-sq:  within = 0.1573                        Obs per group: min =     1
        between = 0.1883                        avg =           2.6
        overall = 0.1632                       max =           3

                                                F(21,5171)      =    45.96
corr(u_i, Xb) = -0.3978                      Prob > F        =    0.0000

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welfare_8var	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
dry_affordable	.0055225	.0096406	0.57	0.567	-.0133771	.0244221
dry_close	.0320768	.0061518	5.21	0.000	.0200167	.0441369
dry_reliable	.0100265	.0059939	1.67	0.094	-.0017241	.0217771
dry_only_source	.0114223	.0072032	1.59	0.113	-.002699	.0255435
unprotected_well	.0035363	.0108047	0.33	0.743	-.0176454	.024718
pipedmerge	.0145001	.009873	1.47	0.142	-.0048552	.0338554
hieduprimary	.0098321	.0151761	0.65	0.517	-.0199195	.0395836
hiedupostprimary	.0306966	.0263421	1.17	0.244	-.020945	.0823382
hiedusecondary	.0396522	.0164486	2.41	0.016	.007406	.0718984
hieducollege	.0372383	.0204203	1.82	0.068	-.0027941	.0772708
hieduuniversity	.0932544	.0272579	3.42	0.001	.0398174	.1466915
iv_electricity	.095083	.0121032	7.86	0.000	.0713555	.1188105
iv_solar_panel	.1026357	.0117834	8.71	0.000	.0795353	.1257361
iv_san_bush	-.1453454	.0070297	-20.68	0.000	-.1591266	-.1315642
iv_diarhoea	-.0237136	.0098229	-2.41	0.016	-.0429705	-.0044566
iv_lvstk	.0243358	.0065615	3.71	0.000	.0114724	.0371992
iv_land_more_than_2_acres	.041021	.006089	6.74	0.000	.029084	.052958
coastal	-.4860438	.1876665	-2.59	0.010	-.8539496	-.1181381
inland	-.5839212	.2484475	-2.35	0.019	-1.070983	-.0968589
fhhs	0	(omitted)				
age	.0000156	.0002701	0.06	0.954	-.0005139	.0005451
hh_size	.0067866	.001659	4.09	0.000	.0035342	.010039
_cons	.9330638	.1807832	5.16	0.000	.5786522	1.287475
sigma_u	.2286911					
sigma_e	.1873316					
rho	.59844347	(fraction of variance due to u_i)				

F test that all u_i=0: F(3222, 5171) = 2.04 Prob > F = 0.0000

4. Table S3: Results of Random Effects

Random-effects GLS regression	Number of obs	=	8415
Group variable: pid	Number of groups	=	3223
R-sq: within = 0.1504	Obs per group: min	=	1
between = 0.5043	avg	=	2.6
overall = 0.3716	max	=	3
	Wald chi2(22)	=	3806.05
corr(u i, X) = 0 (assumed)	Prob > chi2	=	0.0000

		theta		
min	5%	median	95%	max
0.1408	0.2351	0.3039	0.3039	0.3039

welfare_svar	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
dry_affordable	.01175	.0084508	1.39	0.164	-.0048133	.0283132
dry_close	.0389844	.0052346	7.45	0.000	.0287247	.0492441
dry_reliable	.0167419	.0052615	3.18	0.001	.0064295	.0270543
dry_only_source	.007851	.0061504	1.28	0.202	-.0042036	.0199055
unprotected_well	-.0140337	.0081497	-1.72	0.085	-.0300068	.0019394
pipedmerge	.0425677	.0071235	5.98	0.000	.028606	.0565295
hieduprimary	.0304035	.0125074	2.43	0.015	.0058894	.0549176
hiedupostprimary	.0917902	.0227641	4.03	0.000	.0471734	.1364071
hiedusecondary	.0964925	.0131759	7.32	0.000	.0706682	.1223168
hieducollege	.1125717	.0164617	6.84	0.000	.0803073	.144836
hieduuniversity	.181341	.0224067	8.09	0.000	.1374247	.2252573
iv_electricity	.1652137	.0090571	18.24	0.000	.1474622	.1829653
iv_solar_panel	.1436152	.0096937	14.82	0.000	.1246159	.1626145
iv_san_bush	-.202689	.0055182	-36.73	0.000	-.2135045	-.1918735
iv_diarhoea	-.0235729	.0086785	-2.72	0.007	-.0405825	-.0065633
iv_lvstk	.0190357	.0055859	3.41	0.001	.0080875	.029984
iv_land_more_than_2_acres	.0347577	.0051273	6.78	0.000	.0247083	.0448071
coastal	-.0420035	.0101293	-4.15	0.000	-.0618565	-.0221505
inland	-.0692946	.0108159	-6.41	0.000	-.0904933	-.0480958
fhhs	-.0113237	.0080113	-1.41	0.158	-.0270255	.0043781
age	.0001374	.000182	0.76	0.450	-.0002193	.0004941
hh_size	.0027503	.0012303	2.24	0.025	.0003389	.0051616
_cons	.4973129	.0186325	26.69	0.000	.4607939	.5338319
sigma_u	.11155228					
sigma_e	.1873316					
rho	.26177294	(fraction of variance due to u_i)				

5. Table S4: Hausman test for fixed versus random effects model

. hausman fixed random

	—— Coefficients ——		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fixed	(B) random		
dry_afford~e	.0053862	.0116391	-.0062529	.0046592
dry_close	.0327892	.0391857	-.0063964	.003221
dry_reliable	.009936	.0167058	-.0067698	.0028651
dry_only_s~e	.0118953	.0079693	.0039261	.0037301
unprotecte~l	.0052574	-.0135716	.018829	.0071048
pipedmerge	.0169112	.0426983	-.0257871	.0068112
hieduprimary	.0188627	.0337125	-.0148498	.0086193
hiedupostp~y	.036216	.0931651	-.0569491	.0130976
hiedusecon~y	.0542214	.1015969	-.0473755	.009682
hieducollege	.0547886	.1187534	-.0639648	.011868
hieduunive~y	.11536	.1890322	-.0736722	.0151892
iv_electri~y	.0950827	.165002	-.0699193	.0080104
iv_solar_p~l	.1047793	.1438597	-.0390804	.0066981
iv_san_bush	-.1458228	-.2028109	.056988	.0043375
iv_diarhoea	-.0191684	-.0214862	.0023179	.0045765
iv_lvstk	.027017	.0202367	.0067803	.0034299
iv_land_mo~s	.0429986	.0357598	.0072388	.0032954
coastal	-.4910504	-.0417878	-.4492626	.1878073
inland	-.5943585	-.0702812	-.5240772	.2487463

b = consistent under Ho and Ha; obtained from xtreg
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(19) = (b-B)'[(V_b-V_B)^(-1)](b-B)
 = 355.05
 Prob>chi2 = 0.0000

6. Table S5: The Questionnaire

Main Household Survey

This is the survey questionnaire conducted as part of a panel study in Kwale County, Kenya (2013-2016). The following information was recorded on electronic tablets by enumerators using the software doforms. The questionnaire has an in-built logic skipping certain sections based on previous responses. The survey instrument was provided in Swahili on doforms.

ENGLISH	SWAHILI
Enumerator Initials:	Mwandishi
Date:	Tarehe
District:	Wilaya
Location / Town / Village:	Kijiji
Handpump ID:	Nambari ya handpump(bomba la maji)
What is the functionality status of the handpump?:	Je bomba linafanya kazi?
☐ Functional	☐ Ndio, linafanya kazi
☐ Non-functional (less than 1 year)	☐ Halifanyi kazi (chini ya mwaka moja)
☐ Non-functional (more than 1 year)	☐ Halifanyi kazi (zaidi ya mwaka moja)
Name of previous respondent	Name of previous respondent
Household Number	Household Number
<i>"Good morning/afternoon, I am conducting a study on handpumps in Kwale with support from the Ministry of Water and the National Council of Science and Technology. My name is _____ and I am part of a research team led by Rural Focus Ltd, I would like to ask you about your handpump to help the Government of Kenya improve water service delivery.</i> <i>The information you gave us last time has been very helpful in strengthening the Kwale water supply. For example, a handpump repair project has recently been developed and supports many communities. We have come back for more information for enhancing the change and timing of fixing the handpumps. We are very thankful for your support and time.</i>	<i>Habari ya asubuhi/jioni, ninafanya utafiti kuhusu handpumps hapa Kwale nikiwa na ruhusa kutoka Wizara ya Maji na Baraza la kitaifa la Sayansi na Teknologia (National Council of Science and Technology). Jina langu ni _____ na mimi ni miongoni mwa watafiti wanaoongozwa na xxx.</i> <i>Maelezo uliyotupa wakati huo yanasaidia sana kuimarisha usambazaji wa maji Kwale. Kwa mfano, mradi wa kurekebisha bomba za maji (hand pumps) kwa haraka umeanzishwa na unasaidia jamii nyingi. Tumerudi tena ili tupate maelezo zaidi kwa ajili ya kuimarisha mabadiliko na mda wa kurekebisha bomba za maji zikiharibika. Tunashukuru sana kwa usaidizi na mda wako.</i> <i>Zoezi hili litachukua takriban dakika 30 na litatoa habari muhimu. Maelezo utakayonipa yatakuwa ya</i>

<i>The survey should take around 30minutes and will provide important information. All the information will be strictly confidential and remain anonymous. The data will be given to the Minister of Water or you can contact me for the results on (cell) xxxxxxxxxxxx."</i> <i>Participation in this survey is voluntary, and if we should come to any question you don't want to answer, just let me know and I will go on to the next question, or you can stop the interview at any time. However, we hope that you will participate in this survey since your views are important."</i>	<i>siri na hakuna yeyote atakaye jua majibu yako. Maarifa haya yatapelekwa kwa Wizara ya maji ama unaweza nipigia simu kujua matokeo kwa hii namba xxxxxxxxx.</i> <i>Kushiriki kwa hili zoezi ni kujitolea na kama kuna maswali hautataka kujibu nitayaruka ama pia unaweza simamisha zoezi zima wakati utataka lakini natumai utashiriki katika hili zoezi kwa sababu maoni yako ni ya muhimu mno.</i>
Is respondent over 18 years?:	Je, mhusika ana umri zaidi ya miaka 18?
☐ Yes	☐ Ndio,
☐ No	☐ La
<i>If 'no', end interview and thank him/her and move to the next person</i>	<i>Kama la, umshukuru na uende kwa mwingine</i>
Is respondent willing to participate?:	Je mhusika amekubali kushiriki?
☐ Yes	☐ Ndio
☐ No	☐ La
<i>If 'no', end interview and thank him/her and move to the next person</i>	<i>Kama la, umshukuru na uende kwa mwingine</i>
<i>"Now I'm going to ask a few questions about you":</i>	<i>Sasa ningependa kukuuliza maswali machache</i>
FULL NAME of respondent:	Majina kamili ya mhusika
GENDER of respondent:	Jinsia ya mhusika
☐ Male	☐ Mume
☐ Female	☐ Mke
AGE of the respondent in years:	Umri wa mhusika
What is the your current JOB STATUS?:	Je, unafanya kazi gani?
☐ Full time wage	☐ Ameajiriwa
☐ Part time wage	☐ Kibarua
☐ Self employed	☐ Amejajiri mwenyewe
☐ Study	☐ Anasoma
☐ No income	☐ Hana kazi

☐ Other	☐ Zinginezo
How do you generate income?:	Mhusika anajipatia mapato kwa njia gani?
☐ Fishing	☐ Uvuvi
☐ Farming	☐ Ukulima
☐ Small business	☐ Biashara ndogo ndogo
☐ Other	☐ Nyenginezo
What is the HIGHEST LEVEL of SCHOOL you have attended?:	Umefikia kiwango gani cha elimu?
☐ None	☐ Hakuna
☐ Nursery/Kindergarten	☐ Chekechea
☐ Primary	☐ Shule ya msingi
☐ Post primary, vocational	☐ Chuo cha Ufundi
☐ Secondary	☐ Shule ya upili
☐ College (middle level)	☐ Chuo cha mafunzo
☐ University	☐ Chuo kikuu
☐ Don't know	☐ Hajui
What is the highest class you completed?:	Ulifikia darasa la ngapi?
What is the highest form you completed?:	Ulifikia kidato cha ngapi?
"Now I'm going to ask you about other members of your household":	Ningependa kukuuliza kuhusu watu wengine wanaoishi katika nyumba yako
How many OTHER people live in your household?:	Je, ni watu wengine wangapi wanaoishi katika nyumba yako?
<i>Number should NOT include the respondent. Include all other people who eat or sleep in this household on a regular basis</i>	<i>Mhusika asiwe katika idadi ya wanaoishi katika hiyo nyumba. Jumlisha wote wanaokula ama wanaolala kwa hiyo nyumba</i>
<i>"Let's start with the oldest member of your household":</i>	<i>Tuanze na yule mkubwa ki umri</i>
First NAME of Person(1):	Jina la kwanza
Gender of [NAME](1):	Jinsia
Age of [NAME] in years(1):	Umri wake
What is [NAME'S] job status(1):	Anafanya kazi gani?
How does [NAME] generate income?(1):	Anajipatia mapato kwa njia gani?
What is the highest level of education [NAME] has attended?(1):	Amefikia kiwango gani cha elimu?
What is the highest class completed?(1):	Alifikia darasa la ngapi?
What is the highest form completed?(1):	Alifika kidato cha ngapi?
Did [NAME] attend school at any time during the 2013 school year?(1):	Je amehudhuria shule mwaka huu wa 2013?
Now I'm going to ask you about the health of [NAME](1):	Sasa nitakuuliza kuhusu hali yake ya afya

Has [NAME] had diarrhoea in the last 2 weeks?(1):	Je, amewahi kuharisha ndani ya wiki mbili zilizopita?
☐ Yes	☐ Ndio
☐ No	☐ La
☐ Don't know	☐ Sijui
Was there blood in the stools?(1):	Je, kulikuwa na damu kwenye kinyesi?
☐ Yes	☐ Ndio
☐ No	☐ La
☐ Don't know	☐ Sijui
Was [NAME] taken anywhere for treating the diarrhoea, such as a health centre, dispensary, or hospital?(1):	Je, alipelekwa popote kupata matibabu ya kuhara?
☐ No	☐ La
☐ Yes - Hospital	☐ Ndio-hospitali,
☐ Yes - Dispensary / Govt clinic	☐ Ndio-zahanati ya serikali
☐ Yes - Private clinic	☐ Ndio-zahanati ya kibinafsi
☐ Yes - Herbalist	☐ Ndio-matibabu ya miti shamba
☐ Yes - other	☐ Ndio-nyenginezo
☐ Don't know	☐ Sijui
Did [NAME] have schistosomiasis or blood in their urine during the last month?(1):	Je, amewahi kuwa na ugonjwa wa kisonono/kichocho ndani ya mwezi uliopita?
☐ Yes	☐ Ndio
☐ No	☐ La
☐ Don't know	☐ Sijui
Was [NAME] taken anywhere for treating the schistosomiasis, such as a health centre, dispensary, or hospital?(1):	Je alipelekwa popote kwa matibabu ya kisonono/kichocho?
☐ No	☐ La
☐ Yes - Hospital	☐ Ndio-hospitali,
☐ Yes - Dispensary / Govt clinic	☐ Ndio-zahanati ya serikali
☐ Yes - Private clinic	☐ Ndio-zahanati ya kibinafsi
☐ Yes - Herbalist	☐ Ndio-matibabu ya miti shamba
☐ Yes - other	☐ Ndio-nyenginezo
☐ Don't know	☐ Sijui
Has [NAME] had an illness with a cough at any time in the last 2 weeks?(1):	Je, amewahi kuwa na ugonjwa wa kukohoa ndani ya wiki mbili zilizopita?
☐ Yes	☐ Ndio
☐ No	☐ La
☐ Don't know	☐ Sijui

When [NAME] had an illness with a cough, did he/she breathe faster than usual with short, rapid breaths or have difficulty breathing?(1):	Alipokuwa na ugonjwa wa kukohoa je, alikuwa akipumua haraka kuliko kawaida au kupata ugumu wa kupumua?
☐ Yes	☐ Ndio
☐ No	☐ La
☐ Don't know	☐ Sijui
Was the fast or difficult breathing due to a problem in the chest or to a blocked or runny nose?(1):	Je, huo ugumu wa kupumua ulisababishwa na shida ya kifua ama kuziba kwa pua?
☐ Chest only	☐ Kifua pekee
☐ Nose only	☐ Pua pekee
☐ Both (chest and nose)	☐ zote mbili (kifua na pua)
☐ Other	☐ Nyenginezo
Was [NAME] taken anywhere for treating the cough, such as a health clinic, dispensary, or hospital?(1):	Je, alipelekwa popote kupata matibabu ya kukohoa?
☐ No	☐ La
☐ Yes - Hospital	☐ Ndio-hospitali,
☐ Yes - Dispensary / Govt clinic	☐ Ndio-zahanati ya serikali
☐ Yes - Private clinic	☐ Ndio-zahanati ya kibinafsi
☐ Yes - Herbalist	☐ Ndio-matibabu ya miti shamba
☐ Yes - other	☐ Ndio-nyenginezo
☐ Don't know	☐ Sijui
Does [NAME] currently have skin infections anywhere on their body?(1):	Je, ana ugonjwa wowote wa ngozi?
☐ Yes	☐ Ndio
☐ No	☐ La
☐ Don't know	☐ Sijui
Please specify name of health centre / dispensary / hospital that [NAME] has received treatment for any of these conditions(1):	Tafadhali, nieleze jina la hospitali au zahanati alipopata matibabu
Are there other household members? If so, now ask about the next oldest person in the household.	Kuna watu wengine? Kama ndio, uliza kuhusu anayefuata
☐ Yes	☐ Ndio
☐ No	☐ La
Full-time or part time employment in last month:	Kuajiriwa au kibarua kwa mwezi uliopita

<i>Please provide the details of all full-time and part-time employment that adults in this household have had in the last month</i>	<i>Tafadhali nieleze kuhusu ajira na mapato ya mwezi uliopita kwa wale wanaofanya kazi katika nyumba hii</i>
Adult	Mtu mzima
Employer	Muajiri
Time	Kiasi cha muda
Unit	Muda
Pay	Malipo
Pay unit	Kiasi cha malipo
"Suppose that the government could help your village with just THREE of these issues. Which would YOUR FAMILY choose?":	Iwapo Serikali ingependa kusaidia kijiji hiki, ni mambo yapi matatu familia yako ingependekeza yafanywe?
<i>Do NOT prompt. Tick only THREE</i>	<i>Usimuelekeze mhusika. Chagua majibu 3</i>
☐ Health	☐ Afya na huduma za afya
☐ Sanitation	☐ Usafi (vyoo na upitishaji wa maji machafu)
☐ Transport	☐ Usafiri na barabara
☐ Security	☐ Usalama na uhalifu
☐ Electricity	☐ Huduma za umeme
☐ Jobs and unemployment	☐ Kazi na ukosefu wa ajira
☐ Education	☐ elimu
☐ Agriculture	☐ Usaidizi wa kilimo
☐ Water services	☐ Huduma za usambazaji wa maji,
☐ Other	☐ Nyenginezo
What are your concerns regarding the WATER SUPPLY?:	Ni mambo gani yanakukera kuhusu hali ya usambazaji wa maji
<i>Do NOT prompt. Tick all mentioned</i>	<i>Usimuelekeze mhusika. Chagua yote yatakayotajwa</i>
☐ Water source is too far away	☐ Maji yanasambaziwa mbali sana
☐ Insufficient water for domestic use	☐ Maji hayatoshi kwa matumizi ya nyumbani
☐ Insufficient water for agricultural use	☐ maji hayatoshi kwa kilimo
☐ Insufficient water for livestock	☐ maji hayatoshi kwa mifugo
☐ Water is too expensive	☐ Usambazaji wa maji ni ghali
☐ Water is not safe to drink	☐ Maji si salama kwa kunywa
☐ Insufficient water storage in the home	☐ Hakuna mahali pa kuhifadhi maji nyumbani,
☐ Water is unreliable	☐ Usambazaji wa maji haitegemeeki

☐ Water is seasonal	☐ Maji ni ya msimu
☐ Queue for water is too long	☐ Mlolongo wa kupata maji ni mrefu sana
☐ Other	☐ Nyenginezo
Other concern relating to water supply:	Mambo mengine yanayokera kuhusu usambazaji wa maji
Does your household have any of the following items	Je, nyumba yako ina vitu vifuatavyo?
☐ Household assets	☐ Raslimali za nyumbani
☐ Electricity connection	☐ Umeme
☐ Solar panel	☐ Sola
☐ Television	☐ Televisheni/ Runinga
☐ Computer	☐ Kompyuta / Tarakilishi
☐ Radio	☐ Redio
☐ Bicycle	☐ Baiskeli
☐ Motorcycle	☐ Pikipiki
☐ Dhow	☐ Dhow
☐ Mobile phone	☐ Simu ya mkononi/ rununu
Does your household currently have the following items and foodstuffs	Je, nyumba yako ina vitu na vyakula vifuatavyo?
☐ Cooking oil	☐ Mafuta ya kupikia
☐ Sugar	☐ Sukari
☐ Flour	☐ Unga
☐ Tea leaves	☐ Majani chai
☐ Soap	☐ Sabuni
Have you or anyone in your household received or sent MONEY using a MOBILE PHONE in the last year?:	Je, kuna mtu yeyote wa nyumba hii amewahi tuma au kupokea pesa kutumia simu ya mkononi kwa mwaka uliopita?
☐ Yes	☐ Ndio
☐ No	☐ La
Which MOBILE MONEY PROVIDER(S) have you or other household members used in the last year?:	Je, ni mtandao gani uliotumia?
What type of fuel does your household mainly use for cooking?:	Unatumia nini kupikia?
☐ Electricity	☐ Umeme
☐ Natural gas	☐ Gesi
☐ Kerosene	☐ Mafuta ya taa
☐ Charcoal	☐ Makaa
☐ Wood	☐ Kuni
☐ Straw/Shrubs/Grass	☐ Nyasi

☐ Agricultural crop (e.g. maize)	☐ Mahunzi (Maguguta)
☐ Animal dung	☐ Mavi ya ngombe
☐ No food cooked in household	☐ Hatupiki
☐ Other	☐ Nyenginezo
What kind of toilet facility do members of your household usually use?:	Mnatumia choo cha aina gani?
☐ Flush to piped sewer system	☐ Choo cha kusukuma kwa kupitia bomba
☐ Flush to septic tank	☐ Choo cha kusukuma kwa kupitia tangi
☐ Flush to pit latrine	☐ Choo cha kusukuma hadi kwenye shimo
☐ VIP latrine	☐ Shimo la choo lenye hewa nzuri
☐ Pit latrine with slab	☐ Choo cha shimo kilichojengewa
☐ Bucket toilet	☐ Choo cha ndoo
☐ Composting toilet	☐ Choo cha kuhifadhi mbolea
☐ Hanging toilets/latrines	☐ Choo kando kando ya maji
☐ No facility/bush/field	☐ Hakuna choo/ Choo cha msituni/uwanjani
☐ Other	☐ Nyenginezo
If 'other' toilet facility, please specify::	Kama ni nyenginezo, tafadhali fafaua kwenye nafasi
Do you share this toilet facility with other households?:	Je, mantumia hiki choo pamoja na watu wengine?
☐ Yes	☐ Ndio
☐ No	☐ La
How many households use this facility?:	Kama ndio, mbali na nyumba yako, ni ngapi zingine zinatumia choo hiki?
<i>Type '-99' if not known, or '88' if no response</i>	<i>Andika '-99' kama mhusika hajui au '-88' asipojibu</i>
How many rooms in this household are used for sleeping?:	Mna vyumba vingapi vya kulala?
Does your household own the LAND on which the structure (house, flat, shack) sits?:	Je, mnamiliki ardhi ya nyumba hii?
☐ Owns	☐ Tunamiliki
☐ Pays rent	☐ Tumekodi ardhi
☐ Does not pay rent with consent of owner	☐ Hatukukodi-tumepewa kwa ridhaa
☐ Does not pay rent – squatting	☐ Hatukukodi-ni maskwata
☐ Don't know	☐ Sijui
How many acres of land (altogether) are owned by the members of this household?:	Mnamiliki hekari ngapi za shamba?
<i>If unknown, enter '-99'</i>	<i>Andika '-99' kama haijulikani</i>

Do any members of your household grow crops?:							Kuna yeyote anaelima?						
☐ Yes							☐ Ndio						
☐ No							☐ La						
Of the land you own, how many acres do you farm in the wet season?:							Ni hekari ngapi mnazolima wakati wa masika?						
Does your household grow any sugarcane for KISCOL?:							Je mnakuza miwa kwa ajili ya KISCOL?						
☐ Yes							☐ Ndio						
☐ No							☐ La						
How many acres of your farming land are under sugarcane?:							Ni hekari ngapi zilizopandwa miwa?						
<i>If unknown, enter -99</i>							<i>Andika '-99' kama haijulikani</i>						
Does this household own any livestock, herds, other farm animals or poultry?:							Je, mnamiliki mifugo wa aina yoyote?						
☐ Yes							☐ Ndio						
☐ No							☐ La						
How many indigenous cattle does your household own?:							Mna ng'ombe wa kienyeji wangapi?						
How many dairy cows does your household own?:							Mna ng'ombe wa maziwa wangapi?						
How many oxen does your household own?:							Mna ng'ombe wa kulima wangapi?						
"Now I would like to know how much money you spend on different things":							Sasa ningependa kukuuliza ni kiasi gani cha fedha unachotumia juu ya vitu tofauti						
Household expenditure in the last week or month - if no expenditure, enter '0':							Matumizi ya nyumbani kwa wiki/mwezi uliopita. Kama hakuna matumizi, andika 0 (sufuri)						
	Food	Transport	Health	School	Water	Energy		Chakula	Usafiri	Matibabu/Dawa	Shule	Maji	Matumizi kwa umeme na nguvu ya kupikia
Item:							Kitu:						
Amount:							Kiasi cha pesa:						
Unit:							Kiasi cha						

								mud a:									
In general, would you say that your family is well-off, average or not well off in terms of income and assets?:								Kwa ujumla, utasema familia yako ni tajiri, inajiweza au ni maskini?									
☐ Well-off								☐ Tajiri									
☐ Average								☐ Inajiweza									
☐ Maskini								☐ Maskini									
☐ Don't know								☐ Sijui									
<i>"Now I'm going to ask you about which water source(s) you normally use for drinking":</i>								<i>Sasa nitakuuliza njia unazotumia kupata maji ya KUNYWA</i>									
In the DRY season, what is the MAIN source of water your household uses for DRINKING?:								Wakati wa kiangazi, mnapata maji ya kunywa wapi?									
☐ Reference handpump								☐ Reference handpump									
☐ Other handpump								☐ Handpump nyengine									
☐ Submersible pump PUBLIC								☐ Mashine ya kupamp maji (ya umma)									
☐ Submersible pump PRIVATE								☐ Mashine ya kupamp maji (ya binafsi)									
☐ Protected well PUBLIC								☐ Kisima kilichofunikwa (cha umma)									
☐ Protected well PRIVATE								☐ Kisima kilichofunikwa (cha binafsi)									
☐ Unprotected well PUBLIC								☐ Kisima kilichowazi (cha umma)									
☐ Unprotected well PRIVATE								☐ Kisima kilichowazi (cha binafsi)									
☐ Surface water (river, stream, pond, dam, lake)								☐ Maji ya ardhini (mito, ziwa, kidimbwi, mito midogo, kishimo)									
☐ Piped to yard dwelling								☐ Maji ya mfereji nyumbani									
☐ Piped to neighbour's yard								☐ Maji ya mfereji kwa jirani									
☐ Public tap Kiosk								☐ Mfereji wa umma									
☐ Tanker truck								☐ Gari la maji									
☐ Cart bicycle with tanks drums jerricans								☐ Mkokoteni/baiskeli iliyo na madebe/mitungi									
☐ Rainwater collection								☐ Maji ya mvua									
☐ Bottled water								☐ Maji ya chupa									
☐ Other								☐ Nyenginezo									
If 'other' chosen, please specify:								Kama ni nyenginezo, tafadhali fafana kwenye nafasi									
What are the main reason(s) you choose this source as main DRINKING water source in the DRY season?:								Ni sababu gani zinazofanya uchague kupata maji ya kunywa kwa njia hiyo wakati wa kiangazi?									
<i>Do not prompt. Tick ALL that apply</i>								<i>Usimuelekeze mhusika. Chagua yote yatakayotajwa</i>									

☐ Close_to_home	☐ Iko karibu na nyumba						
☐ Taste	☐ Ladha ya maji						
☐ Colour	☐ Rangi ya maji						
☐ Smell	☐ Harufu ya maji						
☐ Safe to drink	☐ Usalama wa kunywa						
☐ Affordable	☐ Yananulika kwa bei nafuu						
☐ Free	☐ Ni bure						
☐ Reliable	☐ Yanategemeeka						
☐ Only source available	☐ Ndio njia ya pekee						
☐ Nyenginezo	☐ Nyenginezo						
If 'other' chosen, please specify:				Kama ni nyenginezo, tafadhali fafaua kwenye nafasi			
Do you think the water from this source in the DRY season is safe to drink?:				Wakati wa kiangazi, maji haya ni salama kwa kunywa?			
☐ Yes				☐ Ndio			
☐ No				☐ La			
☐ Don't know				☐ Sijui			
How would you rate the water quality from this source in the dry season?				Utasema vipi kuhusu hali ya maji wakati wa kiangazi?			
	Good	Average	Poor		Nzuri	Wastani	Mbaya
Taste:				Ladha:			
Colour:				Rangi:			
Smell:				Harufu:			
How much do you pay to use this main drinking water source in the DRY season?:				Unalipa pesa ngapi kutumia maji haya wakati wa kiangazi?			
Amount:				Kiasi cha pesa:			
Frequency:				Jinsi ya malipo:			
In the WET season, what is the MAIN source of water your household uses for DRINKING?:				Wakati wa masika, mnapata maji ya kunywa wapi?			
☐ Reference handpump				☐ Reference handpump			
☐ Other handpump				☐ Handpump nyengine			
☐ Submersible pump PUBLIC				☐ Mashine ya kupamp maji (ya umma)			
☐ Submersible pump PRIVATE				☐ Mashine ya kupamp maji (ya binafsi)			
☐ Protected well PUBLIC				☐ Kisima kilichofunikwa (cha umma)			
☐ Protected well PRIVATE				☐ Kisima kilichofunikwa (cha binafsi)			

☐ Unprotected well PUBLIC	☐ Kisima kilichowazi (cha umma)						
☐ Unprotected well PRIVATE	☐ Kisima kilichowazi (cha binafsi)						
☐ Surface water (river, stream, pond, dam, lake)	☐ Maji ya ardhini (mito, ziwa, kidimbwi, mito midogo, kishimo)						
☐ Piped to yard dwelling	☐ Maji ya mfereji nyumbani						
☐ Piped to neighbour's yard	☐ Maji ya mfereji kwa jirani						
☐ Public tap Kiosk	☐ Mfereji wa umma						
☐ Tanker truck	☐ Gari la maji						
☐ Cart bicycle with tanks drums jerricans	☐ Mkokoteni/baiskeli iliyo na madebe/ mitungi						
☐ Rainwater collection	☐ Maji ya mvua						
☐ Bottled water	☐ Maji ya chupa						
☐ Other	☐ Nyenginezo						
If 'other' chosen, please specify:	Kama ni nyenginezo, tafadhali fafania kwenye nafasi						
What are the main reason(s) you choose this source as main DRINKING water source in the WET season?:	Ni sababu gani zinazofanya uchague kupata maji ya kunywa kwa njia hiyo wakati wa masika?						
<i>Do not prompt. Tick ALL that apply</i>	<i>Usimuelekeze mhusika. Chagua yote yatakayotajwa</i>						
☐ Close_to_home	☐ Iko karibu na nyumba						
☐ Taste	☐ Ladha ya maji						
☐ Colour	☐ Rangi ya maji						
☐ Smell	☐ Harufu ya maji						
☐ Safe to drink	☐ Usalama wa kunywa						
☐ Affordable	☐ Yananulika kwa bei nafuu						
☐ Free	☐ Ni bure						
☐ Reliable	☐ Yanategemeeka						
☐ Only source available	☐ Ndio njia ya pekee						
☐ Nyenginezo	☐ Nyenginezo						
Do you think the water from this source in the WET season is safe to drink?:	Wakati wa masika, maji haya ni salama kwa kunywa?						
☐ Yes	☐ Ndio						
☐ No	☐ La						
☐ Don't know	☐ Sijui						
How would you rate the water quality from this source in the dry season?	Utasema vipi kuhusu hali ya maji wakati wa masika?						
	Good	Average	Poor		Nzuri	Wastani	Mbaya
Taste:				Ladha:			
Colour:				Rangi:			

Smell:				Harufu:			
How much do you pay to use this main drinking water source in the WET season?:				Unalipa pesa ngapi kutumia maji haya wakati wa masika?			
Amount:				Kiasi cha pesa			
Frequency:				Jinsi ya malipo			
In the last 12 months, what other water sources, if any have you used for drinking in the dry and/or wet season				Kwa mwaka uliopita, ni njia gani mbadala munayotumia kupata maji ya kunywa wakati wa kiangazi na wakati wa masika?			
☐ REFERENCE HANDPUMP				☐ Handpump iliyolengwa			
☐ Other handpump				☐ Handpump nyengine			
☐ Submersible pump (PUBLIC)				☐ Mashine ya kupamp maji (ya umma)			
☐ Submersible pump (PRIVATE)				☐ Mashine ya kupamp maji (ya binafsi)			
☐ Protected well (PUBLIC)				☐ Kisima kilichofunikwa (cha umma)			
☐ Protected well (PRIVATE)				☐ Kisima kilichofunikwa (cha binafsi)			
☐ Unprotected well (PUBLIC)				☐ Kisima kilichowazi (cha umma)			
☐ Unprotected well (PRIVATE)				☐ Kisima kilichowazi (cha binafsi)			
☐ Surface water				☐ Maji ya ardhini (mito, ziwa, kidimbwi, mito midogo, kishimo)			
☐ Piped to yard/dwelling				☐ Maji ya mfereji nyumbani			
☐ Piped to neighbour's yard/dwelling				☐ Maji ya mfereji kwa jirani			
☐ Public tap / kiosk				☐ Mfereji wa umma			
☐ Tanker truck				☐ Gari la maji			
☐ Cart/bicycle with tanks/drums/jerricans				☐ Mkokoteni/baiskeli iliyo na madebe/mitungi			
☐ Rainwater collection				☐ Maji ya mvua			
☐ Bottled water				☐ Maji ya chupa			
☐ Other				☐ Nyenginezo			
If 'other' chosen, please specify:				Kama ni nyenginezo, tafadhali fafania kwenye nafasi			
Does your household treat water before drinking?:				Je, huwa mnatibu maji kabla ya kunywa?			
☐ No				☐ La			
☐ Yes – Dry season only				☐ Ndio-wakati wa masika			
☐ Yes – Wet season only				☐ Ndio-wakati wa kiangazi			
☐ Yes – Both wet & dry season				☐ Ndio-nyakati zote			
☐ Don't know				☐ Sijui			
What method(s) does your household use to treat water before drinking?:				Ni njia gani mnayotumia kuyatibu maji ya kunywa?			

☐ Boil	☐ Kuchemsha
☐ Add bleach or chlorine (e.g. Waterguard)	☐ Kuongeza dawa,
☐ Strain through cloth	☐ Kuchuja na nguo
☐ Use water filter	☐ Kutumia kichungio cha maji
☐ Solar disinfection	☐ Kutumia miale ya jua
☐ Let it stand and settle	☐ Kuyaacha yatulie
☐ Other	☐ Nyenginezo
☐ Don't know	☐ Sijui
If 'Other', please specify:	Kama ni nyenginezo, tafadhali fafana kwenye nafasi
In the last month how much did you spend on bleach/chorine?:	Kwa mwezi uliopita, ulitumia pesa ngapi kununulia dawa za kutibu maji?
<i>If 'Don't know', enter '-99'</i>	<i>Andika '-99' kama mhusika hajui au '-88' asipojibu</i>
How many times per week is water boiled for drinking?	Je, unachemsha maji ya kunywa mara ngapi kwa wiki?
What fuel do you use to boil water for drinking?	Je, unatumia njia gani kuchemsha maji ya kunywa?
☐ Electricity	☐ Umeme
☐ Natural gas	☐ Gesi
☐ Kerosene	☐ Mafuta ya taa
☐ Charcoal	☐ Makaa
☐ Wood	☐ Kuni
☐ Straw, shrubs, grass	☐ Nyasi
☐ Agricultural crop (e.g. maiz cob)	☐ Mahunzi (Maguguta)
☐ Animal dung	☐ Mavi ya ngombe
☐ No food cooked in household	☐ Hatupiki
☐ Other	☐ Nyenginezo
Who is the main person in the household who collects water?:	Ni nani anayechota maji ya nyumbani?
☐ Adult female	☐ Mwanamke-mtu mzima
☐ Adult male	☐ Mwanamume-mtu mzima
☐ Female child (<15 years)	☐ Mtoto wa kike (<miaka 15)
☐ Male child (<15 years)	☐ Mtoto wa kiume (<miaka 15)
☐ Other	☐ Wengine
☐ N/A – Water source is located on premises	☐ Hakuna anayechota(maji yanaletwa mpaka nyumbani)
Who collects water at different times during a weekday	Ni nani huchota maji nyakati tofauti za wiki (Jumatatu hadi Ijumaa)

	Before 8am:	8am- 4pm:	After 4pm:		Kabla ya saa mbili asubuh i	Kati ya saa mbili asubuhi hadi saa kumi jioni	Baada ya saa kumi jioni
Adult female				Mwanamk e-mtu mzima			
Adult male				Mwanamu me-mtu mzima			
Female child (<15 years)				Mtoto wa kike (<miaka 15)			
Male child (<15 years)				Mtoto wa kiume (<miaka 15)			
Do you use water from the reference handpump for non drinking purposes? Tick all that apply				Je, mbali na kunywa, una matumizi yapi mengine ya maji kutoka kwenye handpump?			
	Dry	Wet		Kiangazi	Masika		
Cooking, washing, bathing:			Kupika, Kufua na kuoga				
Irrigation:			Kunyunyi zia mimea				
Livestock watering:			Kunywes ha				
<i>"Now I'm going to ask you about the water sources you use for drinking when the handpump BREAKS DOWN":</i>				<i>Sasa, nitakuuliza njia zingine unazotumia kupata maji ya kunywa handpump inapoharibika</i>			
When handpump breaks, what becomes your main source for DRINKING WATER in the DRY SEASON:				Handpump ikiharibika, ni njia gani kuu unayotumia kupata maji ya kunywa wakati wa kiangazi?			

☐ REFERENCE HANDPUMP	☐ Handpump iliyolengwa
☐ Other handpump	☐ Handpump nyengine
☐ Submersible pump (PUBLIC)	☐ Mashine ya kupamp maji (ya umma)
☐ Submersible pump (PRIVATE)	☐ Mashine ya kupamp maji (ya binafsi)
☐ Protected well (PUBLIC)	☐ Kisima kilichofunikwa (cha umma)
☐ Protected well (PRIVATE)	☐ Kisima kilichofunikwa (cha binafsi)
☐ Unprotected well (PUBLIC)	☐ Kisima kilichowazi (cha umma)
☐ Unprotected well (PRIVATE)	☐ Kisima kilichowazi (cha binafsi)
☐ Surface water	☐ Maji ya ardhini (mito, ziwa, kidimbwi, mito midogo, kishimo)
☐ Piped to yard/dwelling	☐ Maji ya mfereji nyumbani
☐ Piped to neighbour's yard/dwelling	☐ Maji ya mfereji kwa jirani
☐ Public tap / kiosk	☐ Mfereji wa umma
☐ Tanker truck	☐ Gari la maji
☐ Cart/bicycle with tanks/drums/jerricans	☐ Mkokoteni/baiskeli iliyo na madebe/mitungi
☐ Rainwater collection	☐ Maji ya mvua
☐ Bottled water	☐ Maji ya chupa
☐ Other	☐ Nyenginezo
If 'other', please specify:	Kama ni nyenginezo, tafadhali fafania kwenye nafasi
When handpump breaks, what becomes your main source for DRINKING WATER in the WET SEASON:	Handpump ikiharibika, ni njia gani kuu unayotumia kupata maji ya kunywa wakati wa masika?
☐ REFERENCE HANDPUMP	☐ Handpump iliyolengwa
☐ Other handpump	☐ Handpump nyengine
☐ Submersible pump (PUBLIC)	☐ Mashine ya kupamp maji (ya umma)
☐ Submersible pump (PRIVATE)	☐ Mashine ya kupamp maji (ya binafsi)
☐ Protected well (PUBLIC)	☐ Kisima kilichofunikwa (cha umma)
☐ Protected well (PRIVATE)	☐ Kisima kilichofunikwa (cha binafsi)
☐ Unprotected well (PUBLIC)	☐ Kisima kilichowazi (cha umma)
☐ Unprotected well (PRIVATE)	☐ Kisima kilichowazi (cha binafsi)
☐ Surface water	☐ Maji ya ardhini (mito, ziwa, kidimbwi, mito midogo, kishimo)
☐ Piped to yard/dwelling	☐ Maji ya mfereji nyumbani
☐ Piped to neighbour's yard/dwelling	☐ Maji ya mfereji kwa jirani
☐ Public tap / kiosk	☐ Mfereji wa umma
☐ Tanker truck	☐ Gari la maji
☐ Cart/bicycle with tanks/drums/jerricans	☐ Mkokoteni/baiskeli iliyo na madebe/mitungi

☐ Rainwater collection	☐ Maji ya mvua				
☐ Bottled water	☐ Maji ya chupa				
☐ Other	☐ Nyenginezo				
If 'other', please specify:	Kama ni nyenginezo, tafadhali fafania kwenye nafasi				
In DRY season, how many times per day does your household collect water from the handpump?:	Wakati wa kiangazi, mnachota maji mara ngapi kwa siku kutoka kwenye handpump?				
In the DRY season, how many jerricans/buckets of water does your household collect from the handpump EACH DAY?:	Mnachota mitungi mingapi kwa siku(wakati wa kiangazi)?				
In WET season, how many times per day does your household collect water from the handpump?:	Wakati wa masika, mnachota maji mara ngapi kwa siku kutoka kwenye handpump?				
In the WET season, how many jerricans/buckets of water does your household collect from the handpump EACH DAY?:	Mnachota mitungi mingapi kwa siku(wakati wa masika)?				
Do you think the water from the handpump is safe to drink in the DRY season?:	Je, unadhani maji kutoka kwa handpump ni salama kwa kunywa wakati wa kiangazi?				
☐ Yes	☐ Ndio				
☐ No	☐ La				
☐ Don't know	☐ Sijui				
Do you think the water from the handpump is safe to drink in the WET season?:	Je, unadhani maji kutoka kwa handpump ni salama kwa kunywa wakati wa masika?				
☐ Yes	☐ Ndio				
☐ No	☐ La				
☐ Don't know	☐ Sijui				
Does your household have to pay fees to use the handpump?:	Mnalipa ada yoyote kwa huduma ya handpump?				
☐ Yes – Regular payments	☐ Ndio - Malipo ya kila mara				
☐ Yes – Only when handpump breaks	☐ Ndio - Malipo handpump ikiharibika				
☐ La	☐ No				
☐ Don't know	☐ Sijui				
How much do you pay to use water from the handpump:	Mnalipa pesa ngapi kwa huduma ya handpump?				
	Dry	Wet		Dry	Wet
Amount			Amount		

Frequenc y	☐ Per bucket ☐ Per week ☐ Per month ☐ Per year ☐ Other_____	☐ Per bucket ☐ Per week ☐ Per month ☐ Per year ☐ Other____	Frequenc y	☐ Per bucket ☐ Per week ☐ Per month ☐ Per year ☐ Other_____	☐ Per bucket ☐ Per week ☐ Per month ☐ Per year ☐ Other_____
Who in your household is usually responsible for paying handpump user fees:			Ni nani katika nyumba hii anayehusika na kulipia huduma ya handpump?		
☐ Male adult			☐ Mwekahazina wa kamati ya maji		
☐ Female adult			☐ Mhudumu wa handpump		
☐ Male child (<15 years)			☐ Mwanakamati mwengine		
☐ Female child (<15 years)			☐ Mmiliki wa handpump		
☐ Other			☐ Wengine		
☐ Don't know			☐ Sijui		
Who usually collects the handpump user fees from your household?:			Ni nani anayechukua malipo ya huduma ya handpump?		
☐ Water committee treasurer			☐ Mwekahazina wa kamati ya maji		
☐ Handpump attendant/caretaker			☐ Mhudumu wa handpump		
☐ Other water committee member			☐ Mwanakamati mwengine		
☐ Owner of the handpump			☐ Mmiliki wa handpump		
☐ Other			☐ Wengine		
☐ Don't know			☐ Sijui		
Where are the funds for repairs usually stored?:			Malipo ya huduma ya handpump yanahifadhiwa wapi?		
☐ Home of the treasurer			☐ Nyumbani kwa mwekahazina		
☐ Home of other water committee member			☐ Nyumbani kwa mwanakamati mwengine		
☐ Home of handpump attendant caretaker			☐ Nyumbani kwa mhudumu		
☐ Home of handpump owner			☐ Nyumbani kwa mmiliki wa handpump		
☐ Bank account			☐ Kwa akaunti ya benki		
☐ Rotating savings and credit association			☐ Kwa chama cha hazina		
☐ Other			☐ Nyenginezo		
☐ Don't know			☐ Sijui		
If 'other', please specify:			Kama ni nyenginezo, tafadhali fafania kwenye nafasi		

When requested, how often do you contribute user fees for handpump repairs?:	Je, wakati umeitishwa pesa kwa ajili ya handpump, huwa unalipa?
☐ Always	☐ Kila wakati
☐ Often	☐ Mara kwa mara
☐ Sometimes	☐ Mara moja moja
☐ Rarely	☐ Kwa nadra
☐ Never	☐ Silipi
☐ Don't know	☐ Sijui
Why do you do NOT always contribute funds?:	Ni kwa nini haulipi kila wakati?
☐ Do NOT prompt. Tick ALL that apply	☐ Usimuelekeze mhusika. Chagua yote yatakayotajwa
☐ Don't trust that money will be used for repairs	☐ Siamini kuwa pesa zitatumika kwa marekebisho
☐ Do not have enough money	☐ Sina pesa za kutosha
☐ Can get away with not paying and still access the handpump	☐ Naweza kosa kulipa na bado nitatumia maji kutoka handpump
☐ Other users do not pay	☐ Watu wengine hawalipi
☐ Other	☐ Nyenginezo
☐ Don't know	☐ Sijui
If 'other', please specify:	Kama ni nyenginezo, tafadhali fafaua kwenye nafasi
Has the handpump been repaired in the last 12 months?:	Je, handpump imerekebishwa kwa mwaka mmoja uliopita?
☐ Yes	☐ Ndio
☐ No	☐ La
☐ Don't know	☐ Sijui
The last time the handpump was repaired, for how many DAYS was it broken down?:	Mara ya mwisho iliporekebishwa, ilikaa siku ngapi bila kuhudumu?
How much money did your household contribute to have the handpump repaired? (Kshs):	Mlichanga pesa ngapi kwa ajili ya urekebishaji wa handpump?
How satisfied are you with the current handpump repair arrangements?:	Je, umeridhika na mpangilio unaotumika kwa urekebishaji wa handpump?
☐ Very satisfied	☐ Nimeridhika sana
☐ Satisfied	☐ Nimeridhika
☐ Neither satisfied nor dissatisfied	☐ Naona kawaida
☐ Dissatisfied	☐ Sijaridhika

☐ Very dissatisfied	☐ Sijaridhika kabisa
☐ Don't know	☐ Sijui
If non-functional, for how long has the handpump been broken down?:	Handpump imeharibika kwa muda gani?
What is the main reason the HANDPUMP has not been repaired?:	Ni sababu gani kuu iliyofanya handpump isirekebishwe?
☐ No money raised	☐ Hakuna pesa iliyochangwa
☐ There is an acceptable alternative water source	☐ Kuna njia nyingine ya kupata maji
☐ There is now a better water source available	☐ Kuna njia nzuri zaidi ya kupata maji
☐ The water committee is inactive	☐ Kamati ya maji haiwajibiki
☐ Fundi charges too much	☐ Gharama ya ufundi ni ghali
☐ Not possible to repair	☐ Haiwezi rekebishwa
☐ Use a rope and bucket instead	☐ Tunatumia ndoo na kamba badala ya handpump
☐ Water quality is poor	☐ Hali ya maji ni mbaya
☐ Other	☐ Nyenginezo
☐ Don't know	☐ Sijui
If 'Other', please specify:	Kama ni nyenginezo, tafadhali fafania kwenye nafasi
Would you like the handpump repaired?:	Je, ungependa handpump irekebishwe?
☐ Yes	☐ Ndio
☐ No	☐ La
☐ Don't know	☐ Sijui
How much would your household be willing to pay for the handpump to be repaired (Kshs):	Nyumba yako iko tayari kulipia pesa kiasi gani kwa ajili ya marekebisho ya handpump?
If the HANDPUMP was repaired, would it be your main DRINKING water source?:	Handpump ikirekebishwa, je itakuwa ndio njia yako kuu ya kupata maji ya kunywa?
☐ No	☐ La
☐ Yes – wet season only	☐ Ndio – wakati wa masika
☐ Yes – dry season only	☐ Ndio – wakati wa kiangazi
☐ Yes – both wet and dry season	☐ Ndio – nyakati zote
☐ Don't know	☐ Sijui
If the handpump was repaired, would you use it for any of the following purposes	Ikiwa handpump itarekebishwa, utatumia maji kwa matumizi yafuatayo?

☐ Cooking, Bathing, Washing:	☐ Kupika, Kufua na kuoga
☐ Irrigation:	☐ Kunyunyizia mimea
☐ Livestock watering:	☐ Kunywesha mifugo
In the last 12 months have you been involved in managing the handpump?:	Kwa mwaka uliopita, umehusika kwa usimamizi wa handpump?
<i>Tick ALL that apply</i>	<i>Chagua yote yatakayotajwa</i>
☐ No, not at all	☐ La hapana
☐ Member of water committee	☐ Mimi ni mwanakamati
☐ Helped carry out repairs	☐ Nilisaidia kwa urekebishaji
☐ Helped collect funds from other users	☐ Nilisaidia kukusanya pesa
☐ Helped buy spare parts	☐ Nilinunua spare za handpump
☐ Helped enforce the rules of usage	☐ Nilihimiza sheria za kutumia handpump
☐ Held the key to the handpump	☐ Niliweka ufunguo wa handpump
☐ Other	☐ Nyenginezo
☐ Don't know	☐ Sijui
If 'other', please specify:	Kama ni nyenginezo, tafadhali fafania kwenye nafasi
When the handpump was originally installed, did someone from your household participate in the planning or construction? If so, how did they participate?:	Wakati handpump iliwekwa, kuna yeyote wa nyumba yako alihusika? Alihusika kwa njia gani?
<i>Tick ALL that apply</i>	<i>Chagua yote yatakayotajwa</i>
☐ No participation	☐ Hakuna aliyehusika
☐ Contributed labour	☐ Alichangia nguvu kazi
☐ Financial contribution	☐ Alichangia fedha
☐ Contributed materials	☐ Alichangia vifaa
☐ Helped choose the technology	☐ Alisaidia kuchagua ujuzi wa handpump
☐ Help decide on the payment rate	☐ Alisaidia kuchagua eneo la kujengea handpump
☐ Help decide the location of the handpump	☐ Alisaidia kuchagua ada ya malipo
☐ Contributed land	☐ Alipeana ardhi
☐ Other	☐ Nyinginezo
☐ Don't know	☐ Sijui
If 'other', please specify:	Kama ni nyenginezo, tafadhali fafania kwenye nafasi:
Does your family store drinking water in the house?:	Familia yako inahifadhi maji ya kunywa?:

☐ Yes			☐ Ndio		
☐ No			☐ La		
Containers used for used for storing DRINKING WATER in the house:			Chombo kinachohifadhi maji ya kunywa:		
Container	Volume	Number owned	Container	Kiasi	Idadi
1			1		
2			2		
3			3		
4			4		
5			5		
Are you aware of insurance products sold in this area?			Je, unajua aina yoyote ya bima?		
☐ Yes			☐ Ndio		
☐ No			☐ La		
Which insurance products are you aware of?			Kama ndio, muulize mhusika akueleze zile aina ya bima anazojua?		
<i>Tick ALL that apply. Do NOT prompt.</i>			<i>Usimuelekeze mhusika. Chagua yote yatakayotajwa</i>		
☐ Health insurance			☐ Bima ya afya		
☐ Life insurance			☐ Bima ya maisha		
☐ School fee insurance			☐ Bima ya elimu		
☐ Employment insurance			☐ Bima ya ajira		
☐ Property insurance			☐ Bima ya raslimali		
☐ Vehicle insurance			☐ Bima ya gari		
☐ Other			☐ Nyenginezo		
In the last 12 months have you or any other member of your household purchased any type of insurance product?:			Kwa mwaka uliopita, kuna yeyote wa familia yako aliyenunua aina yoyote ya BIMA?		
☐ Yes			☐ Ndio		
☐ No			☐ La		
☐ Don't know			☐ Sijui		
Why has your household not purchased any insurance product in the last 12 months?:			Ni kwa nini hamjanunua bima yoyote?		
<i>Do not prompt. Tick ALL that apply</i>			<i>Usimuelekeze mhusika. Chagua yote yatakayotajwa</i>		

☐ Too expensive	☐ Ni ghali
☐ Don't need it	☐ Hatuihitaji
☐ Don't trust insurance companies	☐ Hatuamini kampuni za bima
☐ Don't understand the products	☐ Hatuelewi bima inafanya kazi vipi
☐ Contract period too long	☐ Bima inahiyataji malipo kwa muda mrefu sana
☐ Poor value for money	☐ Bima haitoshelezi
☐ Friend_had_a_bad_experience	☐ Jirani alipitia mdua mveya alipokuwa akilipia bima
☐ Ni afadhali kutumia njia nyengine ya kuweka hazina	☐ Ni afadhali kutumia njia nyengine ya kuweka hazina
☐ Other	☐ Nyenginezo
☐ Don't know	☐ Sijui
Which type(s) of insurance product have other household members purchased in the last 12 months?:	Ni aina gani ya BIMA?
<i>Do not prompt. Tick ALL that apply</i>	<i>Usimuelekeze mhusika. Chagua yote yatakayotajwa</i>
☐ Health insurance	☐ Bima ya afya
☐ Life insurance	☐ Bima ya maisha
☐ School fee insurance	☐ Bima ya elimu
☐ Employment insurance	☐ Bima ya ajira
☐ Property insurance	☐ Bima ya raslimali
☐ Vehicle insurance	☐ Bima ya gari
☐ Other	☐ Nyinginezo
☐ Health insurance	☐ Sijui
If 'other', please specify:	Kama ni nyenginezo, tafadhali fafania kwenye nafasi
Who do you think is responsible for managing the water in the rivers, wells and springs?:	Ni nani ana jukumu la kutunza na kusimamia maji kwenye mito, visima na chemichemi?
<i>Do NOT prompt</i>	<i>Usimuelekeze mhusika.</i>
☐ Village_chairman	☐ Mzee wa kijiji
☐ Water_user_committee	☐ Kamati ya maji
☐ Water Resources Management Authority (WRMA)	☐ Water Resources Management Authority (WRMA)
☐ Water Resources Users Association (WRUA)	☐ Water Resources Users Association (WRUA)
☐ County government	☐ Serikali ya kaunti
☐ Village chief	☐ Chifu
☐ KWAWASCO	☐ KWAWASCO

☐ Other	☐ Nyenginezo
☐ Don't know	☐ Sijui
If 'other', please specify:	Kama ni nyenginezo, tafadhali fafana kwenye nafasi
Do you know what the local WRUA does?:	Je, unajua WRUA inafanya nini?
<i>To confirm, ask respondent to explain what they believe the local WRUA does</i>	
☐ Yes	☐ Ndio
☐ No	☐ La
Do you know any members of your WRUA?:	Je, unajua mwanachama yeyote wa WRUA?
☐ Yes	☐ Ndio
☐ No	☐ La
Have you ever attended a WRUA meeting?:	Umewahi kuhudhuria mkutano wa WRUA?
☐ Yes	☐ Ndio
☐ No	☐ La
Are you satisfied with the performance of your WRUA?:	Umeridhika na utendakazi wa WRUA?
☐ Very satisfied	☐ Nimeridhika sana
☐ Satisfied	☐ Nimeridhika
☐ Neither satisfied nor dissatisfied	☐ Naona kawaida
☐ Dissatisfied	☐ Sijaridhika
☐ Very dissatisfied	☐ Sijaridhika kabisa
☐ Don't know	☐ Sijui
Main material of the floor:	Vifaa husika kwa ajili ya sakafu
<i>Record observation</i>	
☐ Earth, sand	☐ Mchanga
☐ Dung	☐ Mavi ya ng'ombe
☐ Wood planks	☐ Mbao
☐ Palm, bamboo	☐ Bamboo
☐ Polished wood	☐ Mbao zilizopakwa rangi
☐ Vinyl or asphalt strips	☐ Vinyl or asphalt strips
☐ Ceramic tiles	☐ Vigae
☐ Cement	☐ Simiti
☐ Carpet	☐ Mpira
☐ Other	☐ Nyenginezo

If 'other', please specify:	Kama ni nyenginezo, tafadhali fafania kwenye nafasi
Main material of the roof:	Vifaa husika vya paa
<i>Record observation</i>	
☐ Thatch, grass	☐ Makuti
☐ Corrugated iron	☐ Mabati
☐ Tin cans	☐ Vikebe, Matope
☐ Dung, mud	☐ Mavi ya ng'ombe
☐ Asbestos sheet	☐ Asbestos
☐ Concrete	☐ Zege
☐ Tiles	☐ Vigae
☐ Other	☐ Nyenginezo
If 'other', please specify:	Kama ni nyenginezo, tafadhali fafania kwenye nafasi
Main materials of the walls:	Vifaa husika vya ukuta
☐ Stone with mud	☐ Mawe na udongo
☐ Stone with lime cement	☐ Mawe na simiti
☐ Concrete blocks	☐ Matofali ya zege
☐ Wood with mud	☐ Mbao na udongo
☐ Corrugated iron	☐ Mabati
☐ Reused wood	☐ Mbao za mtumba
☐ Thatch, grass	☐ Makuti
☐ Cement	☐ Simiti
☐ Cane, palm trunks	☐ Vipande vya miti
☐ Bricks	☐ Matofali
☐ Adobe mud bricks	☐ Matofali ya udongo
☐ Plywood	☐ Plaiwudi
☐ Cardboard	☐ Card board
☐ Wood planks, shingles	☐ Fito
☐ Dirt	☐ Takataka
☐ No walls	☐ Hakuna kuta
☐ Other	☐ Nyenginezo
Are the walls rendered?:	
☐ Yes	☐ Ndio
☐ No	☐ La
If 'other', please specify:	Kama ni nyenginezo, tafadhali fafania kwenye nafasi

Take a photo of the dwelling:	Chukua picha ya nyumba
<i>Explain that this will be needed in order to return to the dwelling in 12 months' time</i>	
GPS of Dwelling:	GPS ya nyumba
<i>Will automatically save when within 5m accuracy. To override accuracy threshold, press 'OK'</i>	
<i>This is the END of our interview. THANK YOU very much for your time. ***SMILE, answer any questions the respondent has, and MOVE AWAY from the household to complete a few additional questions. Great job!:</i>	<i>Huu ni mwisho wa mahojiano, asante sana kwa kunipa muda wako, tabasamu, jibu maswali yoyote utakayoulizwa ni mhusika na uondoke ili kukamilisha maswali. Kazi nzuri!</i>
Indicate how well you think the respondent(s) understood the questions asked:	Onyesha jinsi mhusika alivyoelewa maswali
☐ Good understanding	☐ Ufahamu mzuri
☐ Fair understanding	☐ Ufahamu wastani
☐ Poor understanding	☐ Ufahamu mbaya
Do you think the majority of responses were accurate and truthful?	Kwa maoni ya mwandishi, unadhani kwamba majibu uliyopewa na mhusika ni ya kweli na hakika?
☐ Strongly agree	☐ Nakubali sana
☐ Agree	☐ Nakubali
☐ Concerns	☐ Tashwishi juu ya baadhi ya maswali - (ELEZEA kupitia njia ya sauti)
What was the main language that the interview was conducted in?:	Je, mahojiano yalikuwa kwa lugha gani?
☐ Swahili	☐ Swahili
☐ Digo	☐ Digo
☐ Duruma	☐ Duruma
☐ Kamba	☐ Kamba
☐ Kingereza	☐ Kingereza
☐ Lugha nyenginezo	☐ Lugha nyenginezo
If 'other', please specify:	Kama ni nyenginezo, tafadhali fafania kwenye nafasi