

Cross-cultural study of household water insecurity
Questions and Rationales

Topic	Brief Description	Rationale
<i>Socio-demography</i>	Household size (# of adults & # of kids)	Participants characteristics
	Gender of Household head/respondent	Participants characteristics
	Age of Household head/respondent	Participants characteristics
	Who is responsible for collecting water in the household?	Participants characteristics
<i>Water Insecurity Access Scale (WIAS)</i>	Our 32-item scale on household water insecurity	Scale
<i>Water Quality</i>	Source of primary drinking water (WHO categories for improved & unimproved sources)	Variation between groups
	Source of primary non-drinking water (WHO categories for improved & unimproved sources)	Variation between groups
	Assessment of drinking water to be safe or unsafe	Variation between groups
	Participants treating their water	Variation between groups
<i>Water Accessibility</i>	The amount of money spent by the household in water collection	Convergent validity
	Estimate the time spent in collecting water from water source	Convergent validity
	Frequency of water collection	Convergent validity
<i>Water Quantity</i>	Amount of drinking water stored in household (L)	Convergent validity
	Amount of non-drinking water stored in household (L)	Convergent validity
<i>Water Utility</i>	Amount of water drank in a day (L)	Discriminant validity
<i>Water Stability/Reliability</i>	Which of the months in a year do households experience water insecurity?	Variation between groups
	Which times of day do households experience water insecurity?	Variation between groups
<i>Food Insecurity</i>	9-item estimate via Household Food Insecurity Access Scale (HFIAS). <i>Coates, Swindale, & Bilinsky. (2007). Household Food Insecurity Access Scale (HFIAS) for measurement of food access: indicator guide.</i>	Predictive validity of scale
<i>Perceived Stress</i>	4-item Estimate via Cohen's Perceived Stress Scale. <i>Cohen, Kamarck, & Mermelstein. (1994). Perceived stress scale.</i>	Predictive validity of scale
<i>Infant Feeding</i>	1 open-ended question on perceptions of how water insecurity may affect infant & young child feeding	Formative, establish relationship
<i>Socio-Economic Status</i>	Open-ended question about job/work	Predictive validity of scale
	A ladder showing the degree of participants socio-economic status (scaled 1 to 10, with 1 being the best off, most educated, most money, and the most respected job; at the bottom participants with less money, education, least respected jobs)	Predictive validity of scale
	Estimate socioeconomic status via income of participants or household	Predictive validity of scale
<i>Data Quality</i>	4-items on interviewer-assessed quality of responses	Data quality

Cross-cultural study of household water insecurity

Interviewer _____	Date _____
Time at start of interview _____	Time at end of interview _____
Country _____	Region/District _____
Participant ID: _____	Language of interview: _____
Participant gender: (0) Male (1) Female	
Participant place of residence: (0) Rural (2) Peri-urban (3) Urban	
Participant ethnicity:	
<i>Participant ID should start with 1st two letters of country, eg. BA, NE, GU, GH...</i>	

1. Screening Questions		
Code Name	Questions	Coding Classification
SQ1a	Mi a`i fizu ama be e`yo oniza `di ma alea ra ya? Do you agree to participate in this survey?	0...No 1...Yes
SQ2	Mi eli 16 kaniku drile niale ru ya? Are you 16 years of age or older?	0...No 1...Yes
SQ3	I `du mi `ba vataa be yi ma esuta azini ayuta mi vile aku ma alea ri le ya? Would you consider yourself knowledgeable about water acquisition and use within your household?	0...No 1...Yes
SQ4	Ka adri `dinile ku, a`di ni vataa be angiri yi ma esuta azini ayuta be mi vile akua ni? Ma eco di e`yo nze a`di be? If no, who is most knowledgeable about water acquisition and use within your household? Who should I talk to?	

2. Socio Demographic Questions		
SD1	Azi mi vile aku di ma alia ri: Mi aku drile ni omve mi a`duni ya? Role in household: What is your relationship to the head of your household?	1...Self 2...Spouse/partner 3...Adult child 4...Other
SD2	A ku drile ni oku ni kani agupi ni? What is the gender of household head?	0...Male 1...Female
SD3	Mi eli si? How old are you?	

SD4	A `di ni tutuni ne kini yi ca aku `di ma alea ra ri ni? Who is primarily responsible for making sure there is enough water in the house? <i>If primary responsibility is shared, choose (5) and then also circle the two categories of people who share the responsibility.</i>	1...Self 2...Spouse/partner 3...Children 4...Other family members 5...Shared responsibility
SD5	Anzi nyiri eli be 16 si vale `di yi mi vile akua `dia si ya? How many children (≤ 16 years) live in your household?	
SD6	`Ba mba `ba `bo eli be 16 ma drilea le ru mi pie woro `di yi akua `dia si ya? How many adults (>16 years) including yourself live in your household?	

3. Household Water Insecurity Access Scale (32 items)

Sawa `disi ma di mu mi zi mima vataa yi dria ri ma dria.

Now I'm going to ask you about your own personal experiences with water. For each of the items, please indicate how many times within the past 4 weeks or 30 days. Interviewer, please mark the response that best corresponds with the coding classification. For example, if participants says 15 times, you need to mark/circle code 3

Code name	Question	Coding Classification
WIAS1	Sabiti agapi 4 `bo `di ma lea, pa le si, mi i kaniku `ba oa pi mi vile akua `di yi eca orisi yi ngani ca emini woro ayuza ru akua `dia ku? In the last 4 weeks, how frequently did you or anyone in your household worry you would not have enough water for all of your household needs?	A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this
WIAS2	Sabiti agapi 4 `bo `di ma alea, pa le si, mi i kaniku `ba azi mi vile akua `dia ni eca orisi `ba mu pi yi eji pi emini akua `dia ri ma edri dria? <i>Ma ni `yo ri ma efi, erini mu zu yi nde esuzu azini eri ni dri edazu yi nde be ria.</i> In the last 4 weeks, how frequently have you or anyone in your household worried about the safety of the person getting water for your household? <i>By getting, I mean: traveling to, collecting the water, and returning with the water.</i>	A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this

WIAS3	<p>Sabiti agapi 4 `bo `di ma alea, pa le si, mi kaniku `ba azi mi vi le akua dia ni ega e`yo angu `di ku zu [angu ma ru] a`disi ku ni yi angu nde ma alea yo?</p> <p>In the last 4 weeks, how frequently have you or anyone in your household thought of leaving [<i>name of town</i>] because there was no water there?</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA....Not applicable/I don't have this</p>
WIAS4	<p>Sabiti agapi 4 `bo `di ma alea, pa le si ge ri angiri mini yi esuzu akua ri ebi oa ewaru?</p> <p>In the last 4 weeks, how frequently has your household water supply from your main water source been interrupted?</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this</p>
WIAS5	<p>Sabiti agapi 4 `bo `di ma alea, pa le si, yi cani mi vile akua osuza ru amvua, nyaka dria azini pati efi yi ma dria ku ?</p> <p>In the last 4 weeks, how frequently has your household not had enough water for your garden, crops, or fruit trees?</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this</p>
WIAS6	<p>Sabiti agapi 4 `bo `di ma alea, pa le si, yi cani ku fezaru anyapa azini aria ta mba le akua `di yi ni?</p> <p>In the last 4 weeks, how frequently has your household not had enough water to give to your animals and poultry?</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this</p>
WIAS7	<p>Sabiti agapi 4 `bo `di ma alea, pa le si sawa emini ayu yi ejizu ri atri mi kani ku `ba mi vile akua `di ma azi ni robia esuzu ra ya (ekile azi `ba ni ofele ofe ri, lonyi esuza pile `diyi)?</p> <p>In the last 4 weeks, how frequently has the time spent getting water prevented you or anyone in your household from earning money (e.g. engaging in paid work, economic activities)?</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this</p>
WIAS8	<p>Sabiti agapi 4 `bo `di ma alea, pa le si, mi i kaniku `ba mi vile akua ni vu sende ebi adri yo ta ecozu yi jezu ya?</p> <p>In the last 4 weeks, how frequently have you or anyone in your household lacked money needed to buy water?</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this</p>
WIAS9	<p>Sabiti agapi 4 `bo `di ma alea, pa le si, mi i</p>	<p>A....Never (0 times in the last 4 weeks)</p>

	<p>kaniku `ba mivile akua ni le yi je te angu azi ecozu yi jezu ni yo ?</p> <p>In the last 4 weeks, how frequently did you or anyone in your household want to buy water but there was nowhere to buy it from?</p>	<p>B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this</p>
WIAS10	<p>Sabiti agapi 4 `bo `di ma alea, pa le si sawa mini ayu yi ejizu ri atri mi kaniku `ba azi mivi le akua ni anzi nyiri ta mbazu mi vile akua ra ya?</p> <p>In the last 4 weeks, how frequently has the time spent getting water prevented you or anyone in your household from caring for children in the household?</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this</p>
WIAS11	<p>Sabiti agapi 4 `bo `di ma alea, pa le si sawa mini ayu yi ejizu ri atri mi kaniku `ba azi mivi le akua ni, azi aku alea `di yi nga zu ra ya?(ekile afa a`di zu, nyaka otuzu, bongo ojiza pie, etc)</p> <p>In the last 4 weeks, how frequently has the time spent getting water prevented you or anyone in your household from doing household chores (such as cooking, preparing food, washing clothes, etc.)?</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this</p>
WIAS12	<p>Sabiti agapi 4 `bo `di ma alea, pa le si anzi nyiri mivile le akua `di yi ma azi ece sukulu a`disiku ni mu ki yi ejiria ra ya?</p> <p>In the last 4 weeks, how frequently did the children in your household miss school because they were getting water?</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this</p>
WIAS13	<p>Sabiti agapi 4 `bo `di ma alea, pa le si yi caniku mi vile akua bongo oji zu?</p> <p>In the last 4 weeks, how frequently has there not been enough water in the household to wash clothes?</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this</p>
WIAS14	<p>Sabiti agapi 4 `bo `di ma alea, pa le si mi kaniku `ba azi mi vile akua ni oja afa `ba ni ta le mu nya ni a`disi ku yi ni cazu ku ri si ra (nyaka ojizu, a`dizu, etc)?</p> <p>In the last 4 weeks, how frequently have you or anyone in your household had to change what was being eaten because there wasn't enough water (e.g. for washing foods,</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this</p>

	cooking, etc.)?	
WIAS15	<p>Sabiti agapi 4 `bo `di ma alea, pa le si mi kaniku `ba azi mi vile akua `di ma azi oji dri ku azi ondini ngazu `bo ri ma vutia ? (ekile, azakoza vutia kaniku mva vuti edezu `boria, anyapa ize edezu `bo ria) a`di si ku ni yi ni cazu ku ri si ya?</p> <p>In the last 4 weeks, how frequently have you or anyone in your household had to go without washing hands after dirty activities (e.g., defecating or changing diapers, cleaning animal dung) because you didn't have enough water?</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this</p>
WIAS16	<p>Sabiti agapi 4 `bo `di ma alea, pa le si mi i kaniku `ba azi mi vile akua ni dri yi ca ni ku andreti oji zu azini anzi nyiri mi vile akua `di yi ma dri ojizu?</p> <p>In the last 4 weeks, how frequently have you or anyone in your household not had enough water to wash the faces and hands of children in your household?</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this</p>
WIAS17	<p>Sabiti agapi 4 `bo `di ma alea, pa le si mi i ka ni ku `ba azi mi vile akua ni a wi i oji kuye yi ni cale ku ri si ?</p> <p>In the last 4 weeks, how frequently have you or anyone in your household had to go without washing their body because there wasn't enough water?</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this</p>
WIAS18	<p>Sabiti agapi 4 `bo `di ma alea, pa le si mi kani ku `ba mi vile akua ri ma azi ma o`du eza i te yi mi vile akua ri ma e`yo si Ekile yi esuzu kaniku awazu akua ogogo ri si?</p> <p>In the last 4 weeks, how frequently have you or anyone in your household's day been interrupted by your water situation, including getting or distributing water within the household?</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this</p>
WIAS19	<p>Sabiti agapi 4 `bo `di ma alea, pa le si, e`yo ewaru yi be ni atri mi kani ku `ba azi mi vile akua ni muzu e`yo o`bi ni ma alea ya (ekile kanisa, dra, o`bi ma e`yo etc)?</p> <p>In the last 4 weeks, how frequently have problems with water prevented you or anyone</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know</p>

	in your household from attending social events (i.e. church, funerals, community gatherings, etc.)?	NA...Not applicable/I don't have this
WIAS20	<p>Sabiti agapi 4 `bo `di ma alea, pa le si mi kani ku `ba azi mi vile akua ni le yi emi vile ri `ba alaa ru te econi ku ? `ba zu alaa ru ri ma efi, yia`adizu, aro `be zu yi alia kaniku geri azi ndu yi `ba zu alaaruru ayuza ru kani ku mvuza ru ri i.</p> <p>In the last 4 weeks, how frequently did you or anyone in your household want to treat your water, but couldn't? By treat, I mean boiling, using chemicals to treat, or other ways you make your water safe to use or drink.</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this</p>
WIAS21	<p>Sabiti agapi 4 `bo `di ma alea, pa le si mi kani ku `ba azi mi le akua ni mvu yi i `bi pi onzi ni ra ya?</p> <p>In the last 4 weeks, how frequently have you or anyone in your household drank water that tasted bad?</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this</p>
WIAS22	<p>Sabiti agapi 4 `bo `di ma alea, pa le si, mi i kaniku `ba azi mi vile akua ni mvu yi mini ega ovuni ni muke ni ku ni ra ya?</p> <p>In the last 4 weeks, how frequently have you or anyone in your household actually drank water that you thought was unsafe?</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this</p>
WIAS23	<p>Sabiti agapi 4 `bo `di ma alea, pa le si, mi i kani ku `ba azi mi vile akua ni ai yi engazu `ba azi ovu pi mi vile akua ku ni vu ra ya?</p> <p>In the last 4 weeks, how frequently have you or anyone in your household asked to borrow water from other people?</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this</p>
WIAS23a	<p>Enga zu a `di vu?</p> <p>From whom?</p>	_____
WIAS23b	<p>Afa `ba ni ega mi ma ofe pari nia ri a`duni?</p> <p>What were you expected to give in return?</p>	
WIAS24	<p>Sabiti agapi 4 `bo `di ma alea, pa le si, mi kani ku `ba azi mi vile akua ni fe yi mari ru `ba azini dri ?</p> <p>In the last 4 weeks, how frequently have you</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks)</p>

	or anyone in your household loaned water to anyone?	DK....Don't know NA...Not applicable/I don't have this
WIAS25	Sabiti agapi 4 `bo `di ma alea, pa le si mi i kani ku `ba azi ni mi vile akua ni esu e`yo yi dria jo ejele pie ka ni ku `ba azi emi vile ongulumua ni pie ra ? In the last 4 weeks, how frequently did you or anyone in your household have problems with water that caused difficulties with neighbors or others in the community?	A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this
WIAS26	Sabiti agapi 4 `bo `di ma alea, pa le si mi i, kani ku `ba azi mi vile akua ni esu e`yo yi dria ani e`yo aku ma alea ri eca ewaru ra ya? In the last 4 weeks, how frequently did you or anyone in your household have problems with water that caused difficulties within your household ?	A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this
WIAS27	Sabiti agapi 4 `bo `di ma alea, pa le si, mi i kani ku `ba azi mi vile akua ni ovu candisi yi ma e`yo mi vi le akua ri si ya? In the last 4 weeks, how frequently did you or anyone in your household feel upset about your water situation?	A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this
WIAS28	Sabiti agapi 4 `bo `di ma alea, pa le si yi mvuza ca ni mi ni ta le ri le ku mini kaniku `ba mi vi le akua `di yini ra ya? In the last 4 weeks, how frequently has there not been as much water to drink, as you would like for you or anyone in your household?	A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this
WIAS29	Sabiti agapi 4 `bo `di ma alea, pa le si mi i kani ku `ba azi mi vile akua `di yi ni yi cani ku aro ki zu ra ya? In the last 4 weeks, how frequently have you or anyone in your household not had enough water to take medications ?	A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this
WIAS30	Sabiti agapi 4 `bo `di ma alea, pa le si mi i kani ku `ba azi mi vile akua ni esu ni yi ku pari ta mini egale ria a`disiku ni mi azoru tu kani ku okpo koko ru yi ebe zu? In the last 4 weeks, how frequently have you or anyone in your household not gotten water	A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this

	where you wanted to because you were too sick or weak to get water?	
WIAS31	<p>Sabiti agapi 4 `bo `di ma alea, pa le si mi i kani ku `ba azi ni mi vile akua ni mu i la o`dua yi ava be ra ya?</p> <p>In the last 4 weeks, how frequently have you or anyone in your household gone to sleep thirsty?</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this</p>
WIAS32	<p>Sabiti agapi 4 `bo `di ma alea, pa le si yi ni oa zu tua yo mi vile akua?</p> <p>In the last 4 weeks, how frequently has there been no water whatsoever in your household?</p>	<p>A....Never (0 times in the last 4 weeks) B....Rarely (1–2 times in the last 4 weeks) C....Sometimes (3–10 times in the last 4 weeks) D....Often (11-20 times in the last 4 weeks) E....Always (More than 20 times in the last 4 weeks) DK....Don't know NA...Not applicable/I don't have this</p>

4. Water Access

Curu`do ale di e`yo oni mi yi esu ngoniru azini ngoa ya ri ma dria.

Now I would like to learn how and where you acquire water.

Wat1	<p>Saa `di si ria, yi mvuza mi vile akua ri tu ni `ba esu ngoa? (I pe lu alu)</p> <p>What is currently the primary source of drinking water for your household? (Choose only ONE)</p>	<p>1...Piped water 2...Stand pipe 3...Borehole/tubewell 4...Protected dug well 5...Unprotected dug well 6...Protected spring 7...Unprotected spring 8...Rainwater collection 9...Small water vendor 10...Tanker truck 11...Bottled water 12...Bagged/sachet water 13...Surface water (pond, river, lake) 14...Other person _____ 15...Other _____</p>
Wat2	<p>Saa `disi ria, yi mvule ku mi vile akua ri tu ni emi esu ngoa ya? (I pe lu alu)</p> <p>What is currently the primary source of non-drinking water for your household? (Choose only ONE)</p>	<p>1...Piped water 2...Stand pipe 3...Borehole/tubewell 4...Protected dug well 5...Unprotected dug well 6...Protected spring 7...Unprotected spring 8...Rainwater collection 9...Small water vendor 10...Tanker truck 11...Bottled water 12...Bagged/sachet water 13...Surface water (pond, river, lake) 14...Other person _____ 15...Other _____</p>
Wat3	<p>Eri dakika `du si, mini muzu yia, yi ebezu azini ego zu vile (sawa te zu ri pie)?</p> <p>How long (in minutes) does it take to go to the water source, get water and come back (including wait time)? <i>(If water source is in household/compound, record 00 minutes)</i></p>	_____ minutes
Wat4	<p>Wo ro ria, sabiti a lu ma alea, emi aci angu `di ma alea pa le ko si?</p> <p>How many trips in total are made to this site per week (not including household/compound)?</p>	_____ trips
Wat4a	Have you ever been injured while fetching water?	0...No 1...Yes
Wat4b	If so, how?	
Wat5	Sabiti agapi 4 `bo `di ma alea, mini ega ri si emi ayu ca sende si bo yi ebezu aku mi vile ri ni?	Units: _____ Amount: _____

	In the past 4 weeks, approximately how much money did you spend on getting water for your household?	
Wat6	Sabiti agapi 4 `bo `di ma alea, yi mvuza ru mi vi le akua ri, `ba ayu geri azini eri `ba zu ala ru mvuza ru ra ya? In the past 4 weeks, was drinking water for your household typically treated in any way to make it safer?	0...No 1...Yes DK...Don't know
Wat7	Geriko tutu ni aku mi vile ri ni ayu yi mvuza `ba zu alaru ri ngo i ya? What is the primary way that your household treats your drinking water?	1...Do not treat it 2...Boil 3...Filter 4...Add chemicals 5...Other (Specify):
Wat8	Sabiti agapi 4 `bo `di ma alea, mi ayu sende/robia si yi `ba zu alaru (sende/robia mini ayu aro je zu yi `ba zu alaru ri pie) In the past 4 weeks, how much money did you spend to treat water (including money for chemicals to treat water)?	Units: _____ Amount: _____

5. Water Quantity, Utility and Stability

Sawa `disi, ale di mu mi zi yi ma omgbo mi vile akua ri, azini yi mini mvuri ngopia ri ma dria.

Now I would like to ask you questions on the quantity of water you have in your household and the amount you drink

Wat9	Mini ega ri si, yi mvuza ma omgbo sawa `di si `ba ni ta mba mi vile akua ri ngo pi? What is the estimate of the current amount of drinking water (liters) stored in your household?	_____ Liters
Wat10	Mini ega ri si, yi mvule ku ri ma omgbo sawa `disi `ba ni ta mba mi vile akua ri ngo pi? What is the estimate of the current amount of non-drinking water (liters) stored in your household?	_____ Liters
Wat11	Emba ngo yi eli ma alea, mi vi le aku ri ni tutu ni dri ci zu yi ni ca zu ku ri si ri? Which of the months in the year does your household mostly experience water shortage (circle all months)?	1...January 7...July 2...February 8...August 3...March 9...September 4...April 10...October 5...May 11...November 6...June 12...December
Wat12	Mi vile akua, emba eli ma alea, yi ni ovuzu mi vile akua angiri tu ri ngo yi ? Which of the months in the year does your household have lots of water (tick the specific months)?	1...January 7...July 2...February 8...August 3...March 9...September 4...April 10...October 5...May 11...November 6...June 12...December

Wat13	O`du alu ri ma alea, sawa yi ni cazu mivile akua ku ri ngo i ya? What times of day does your household experience water shortages?	0...Morning (Sunrise (6:00am) to 11:59am) 1...Afternoon (12:00 – 5:00pm) 2...Evening (5:01 – 8:00pm) 3...Night (8:01pm – 5:59am)
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6. Food Insecurity (HFIAS)

Curu`do, ma di mu mi ozi e`yo emini ali zu aleania si nyaka esuza ma dria sabiti agapi 4 `bo `di ma alearia. Ma mu zi pale si, emi ni ali zu e`yo dinile ri ma alea si ri ma dria, azini ale mi ece mani ebiru ede `dile paleko si sabiti agapi su `bo `di ma alea.

Now I'm going to ask you about your experiences with access to food in the last four weeks. I will ask you about the frequencies that you have experienced a few situations, and I want you to tell me how frequently it has happened in the last four weeks.

Code Name	Questions	Coding Classification
FI1	Sabiti agapi 4 `bo `di ma alea, pa le si, mi ebi ovu ori si aku mi vile ri ni nyaka ngani ca ku? In the past four weeks, how frequently did you worry that your household would not have enough food?	A...Never (0 times in the last 4 weeks) B...Rarely (1 – 2 times in the last 4 weeks) C...Sometimes (3 – 10 times in the last 4 weeks) D...Often (More than 10 times in the last 4 weeks) DK...Don't know
FI2	Sabiti agapi 4 `bo `di ma alea, pa le si, mi i kani ku `ba azi mi vile akua ni ebi nyaka esele mi ni le `diyi nyaku a`disiku ni mi econi yi esuku afa ako si (ekile sende, tujara, nyaku, kaniku afa azi mini eco ta ayu nyaka esele azi `di esuzu `di yi) In the past four weeks, how frequently were you or any household member not able to eat foods you preferred because you couldn't obtain them because of a lack of resources (such as money, business, land, or any other thing that you would require to help you obtain other types of food)?	A...Never (0 times in the last 4 weeks) B...Rarely (1 – 2 times in the last 4 weeks) C...Sometimes (3 – 10 times in the last 4 weeks) D...Often (More than 10 times in the last 4 weeks) DK...Don't know
FI3	Sabiti agapi 4 `bo `di ma alea, pa le si, mi i kani ku `ba azi mi vile akua ni nya nyaka esele were afa ako si (ekile sende, tujara, nyaku kaniku afa azi mini eco ta ayu nyaka esele azi `di esuzu `di yi) In the past four weeks, how frequently did you or any household member have to eat a limited variety of food due to lack of resources (such as money, business, land, or any other thing that you would require to help you obtain other types of food)?	A...Never (0 times in the last 4 weeks) B...Rarely (1 – 2 times in the last 4 weeks) C...Sometimes (3 – 10 times in the last 4 weeks) D...Often (More than 10 times in the last 4 weeks) DK...Don't know
FI4	Sabiti agapi 4 `bo `di ma alea, pa le si, mi kani ku `ba azi mi vi le akua ni nya nyaka esele azi emini ta le nyale ku ni afa ako eco zu nyaka esele a zi `di yi esuzu ri sir a ya? In the past four weeks, how frequently did you	A...Never (0 times in the last 4 weeks) B...Rarely (1 – 2 times in the last 4 weeks) C...Sometimes (3 – 10 times in the last 4 weeks) D...Often (More than 10 times in the last 4 weeks) DK...Don't know

	or any household member have to eat some foods that you really did not want to eat because of a lack of resources to obtain other types of food?	
FI5	<p>Sabiti agapi 4 `bo `di ma alea, pa le si, mi i kaniku `ba azi mi vile akua ni nya nyaka werea tu aga mini ta le ri ma vutia le ru, e fini, nyaka were ru, mini trazu/api zu ku, a`disikuni nyaka ni ovule were ri sir a ya?</p> <p>In the past four weeks, how frequently did you or any household member have to eat a smaller meal than you felt you needed, meaning a little amount of food that did not satisfy you, because there was not enough food?</p>	<p>A...Never (0 times in the last 4 weeks) B...Rarely (1 – 2 times in the last 4 weeks) C...Sometimes (3 – 10 times in the last 4 weeks) D...Often (More than 10 times in the last 4 weeks) DK...Don't know</p>
FI6	<p>Mini ega ri si, le ta mima nya nyaka o`du alu ri ma alea paleko si?</p> <p>How many meals do you think you should eat in a day?</p>	
FI7	<p>Sabiti agapi 4 `bo `di ma alea, pa le si mi i azi ni `ba azi mi vile akua ni nya nyaka paleko were o`du alu ri ma alea nyaka ako si ra ya?</p> <p>In the past four weeks, how frequently did you or anyone in your household have to eat fewer meals in a day because there was not enough food?</p>	<p>A...Never (0 times in the last 4 weeks) B...Rarely (1 – 2 times in the last 4 weeks) C...Sometimes (3 – 10 times in the last 4 weeks) D...Often (More than 10 times in the last 4 weeks) DK...Don't know</p>
FI8	<p>Sabiti agapi 4 `bo `di ma alea, pa le si, nyaka ni ovuzu tua yo nyazaru mi vile akua afako nyaka esuzu ri si ya?</p> <p>In the past four weeks, how frequently was there ever no food to eat of any kind in your household because of lack of resources to get food?</p>	<p>A...Never (0 times in the last 4 weeks) B...Rarely (1 – 2 times in the last 4 weeks) C...Sometimes (3 – 10 times in the last 4 weeks) D...Often (More than 10 times in the last 4 weeks) DK...Don't know</p>
FI9	<p>Sabiti agapi 4 `bo `di ma alea, pa le si, mi i azi ni `ba mivile akua ni la abiri si a`disi ku ni nyaka ni cazu kuri si ra ya?</p> <p>In the past four weeks, how frequently did you or any household member go to sleep at night hungry because there was not enough food?</p>	<p>A...Never (0 times in the last 4 weeks) B...Rarely (1 – 2 times in the last 4 weeks) C...Sometimes (3 – 10 times in the last 4 weeks) D...Often (More than 10 times in the last 4 weeks) DK...Don't know</p>
FI10	<p>Sabiti agapi 4 `bo `di ma alea, pa le si, mi i kaniku `ba azi mi vile akua ni oa abirisi etu zu azi ni eni ra nyaka ni cazu akua ku ri si ra ya?</p> <p>In the past four weeks, how frequently did you or any household member go hungry for a whole day and night because of limited food in the house?</p>	<p>A...Never (0 times in the last 4 weeks) B...Rarely (1 – 2 times in the last 4 weeks) C...Sometimes (3 – 10 times in the last 4 weeks) D...Often (More than 10 times in the last 4 weeks) DK...Don't know</p>

7. Perceived Stress Scale

Zitaa azi `di yi e `yo mini amale azini egale mba alipi alu `bo `di ma alea `di yi. Esele alu alu ma alea, mi e `da mi etrumu mi ngoni kaniku mi ega ngoni ya?

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, indicate how often you felt or thought a certain way.

PS1	<p>Mba aga pi `di ma alea, pale ko si mi etrumu/ama mi kani ku mi ega mi econi eyo okporu i edepi mi ma edri ma alea ri ma dri atri ku?</p> <p>In the last month, how often have you felt that you were unable to control the important things in your life?</p>	<p>A...Never (0 times in the last 4 weeks) B...Almost Never (1-2 times in the last 4 weeks) C...Sometimes (3-10 times in the last 4 weeks) D...Fairly Often (11-20 times in the last 4 weeks) E...Very Often (More than 20 times in the last 4 weeks)</p>
PS2	<p>Mba agapi `di ma alea, pale ko si mini mi etrumu/ama zu kini mi ecora e `yo ewaru mi ma edri ma alea ri si ?</p> <p>In the last month, how often have you felt confident about your ability to handle your personal problems?</p>	<p>A...Never (0 times in the last 4 weeks) B...Almost Never (1-2 times in the last 4 weeks) C...Sometimes (3-10 times in the last 4 weeks) D...Fairly Often (11-20 times in the last 4 weeks) E...Very Often (More than 20 times in the last 4 weeks)</p>
PS3	<p>Mba agapi `di ma alea, pale ko si mi etrumu /ama mi kini e `yo yi aci mini egale ri le?</p> <p>In the last month, how often have you felt that things were going your way? (Reverse)</p>	<p>A...Never (0 times in the last 4 weeks) B...Almost Never (1-2 times in the last 4 weeks) C...Sometimes (3-10 times in the last 4 weeks) D...Fairly Often (11-20 times in the last 4 weeks) E...Very Often (More than 20 times in the last 4 weeks)</p>
PS4	<p>Mba agapi `di ma alea, pale ko si, mini etrumu/ama mi e `yo ewaru yi ezu angiri, ani mi econi eyi si ku ?</p> <p>In the last month, how often have felt difficulties were piling up so high that you could not overcome them?</p>	<p>A...Never (0 times in the last 4 weeks) B...Almost Never (1-2 times in the last 4 weeks) C...Sometimes (3-10 times in the last 4 weeks) D...Fairly Often (11-20 times in the last 4 weeks) E...Very Often (More than 20 times in the last 4 weeks)</p>

8. Infant feeding

Zitaa `di ni nga mi zi nyaka feza anzi nyiri ni ri ma dria azini yi ma e`yo emi vile angua ri ni e`yon de ma azi o`ba ni ya?

This question will ask you about infant feeding and how it can be impacted by the water situation in your area.

BF1	<p>Mi eco mani lu geriko azi bi pi ru yi ma e`yo angu `dia ri be ni eci ki ru anzi nyiri (mba 12 ma vutia le ru `di yi) ma nyakafe za be ra ya?</p> <p>Can you tell me some ways that the water situation here affects how infants (under 12 months of age) are fed? (Interviewer, prompt for three ways.)</p>	<p>1.</p> <p>2.</p> <p>3.</p>
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2a. Socio Demographic Questions (continued)

Ama di mu mi zi zitaa azi 3 asizu `di yi si, mi ongulumu emi vile ri ma alea a`dunia ri ma dria. We are now going to ask you three final questions about your standing in your community.

SD6	<p>Mi a`di azi nga kaniku mi sende esu ngoniru?</p> <p>What is your current occupation or how do you earn money?</p>	
SD8	<p>`Di e`da madala ni. Kirikirisi, mi ma ega nga madala di ri `ba emi vile ongulumua `di ma oa ta azi ni lonyi ma omgbo ece. Madala ma dria e`dozu oru ri, `ba cika ndeni `di yi ki; yi vu sende/lonyi angiri ndeni, laa ki sukulu angiri, yi azi enzile angiri `di yi nga. Vu ti nia ele `di yi, `ba sende/lonyi be werea `di yi, laa ki sukulu were azini yi azi ele `di yi nga. Madala `di ma dria, mi mi `ba ngoleru? Mi elo pari mi ni ovu zu ri.</p> <p>Here is a picture of a ladder. Please think of this ladder as representing the socioeconomic standing of people in your community. At the top of the ladder are those who are best off; they have the most money, the most education, the most respected jobs. At the bottom are people who have the least money, least education, and least jobs. Where would you place yourself on this ladder? Please touch the rung/step.</p> <p>Interviewer, write the corresponding number here:</p>	
SD9	<p>Sende mini esu emba alu alu si ri ngo pi?</p> <p>What is your primary monthly income? (/month)</p>	<p>Units _____ Amount _____</p>

Zitaa asizu ri: E`yo azi ndu mini le ece mani e`yo mini alizu aleaniasi yi mi vile akuri ni ri ma dria azini e`yo eri ni `ye mi edri ma alea ni ci ya?

Wrap-up Question: Is there anything else you would like to share about your experiences with water for your household and how this affects your life?

*Zi taa azi mini le zi ama tia ni ci ya? Awadifo mini pari `duzu onitaa `di ma alea ri si. Do you have any questions for us? **Thank you** for participating in this survey.*

Data Quality: For the interviewer to complete		
<i>Please give your assessment on the quality and reliability of the data you have collected in this survey.</i>		
DQ01	Did the respondent show any of the following? <i>(check all that apply):</i>	<input type="checkbox"/> Mistrust of you or the study <input type="checkbox"/> Dishonesty, lying, or inventing responses that didn't seem true <input type="checkbox"/> Fear of you or the study <input type="checkbox"/> Hostility, anger or resentment <input type="checkbox"/> Evasion or trying to avoid answering
DQ02	Were there any interruptions or distractions?	0...No 1...Yes, but I don't think it influenced responses 2...Yes, and I think it influenced the answers
DQ03	What is your overall assessment of the quality of the data in this survey?	0... Excellent. The respondent understood the survey and was engaged and there were no interruptions 1... Just okay. The participant may not have understood all or part of the survey well or there were some interruptions. 2... Suspect. The participant misunderstood the survey or did participate well or there were many interruptions.
DQ04	The quality of the data from this interview is really important to us. Please explain your answers above, in terms of how the data may have been affected. Is there anything else we need to know?	