

## SCREEN1:A. CONTROL

This screen MUST be filled in for EVERY interview file.

Throughout the entire questionnaire use the following response codes. For text and number questions write response code into question answer, for dropdown, radio button and tickbox questions write into comment.

-96 Other Specify

-97 Refused/no answer

-98 N/A (Does not apply)

-99 Don't Know

### A. CONTROL Q.1

This question is relevant for the control sample only and is enabled if the interview file is a replacement household, i.e. the village specific HHID is larger than 25, e.g. 1327. The DDM lists all the original households (HHID between 1 and 24). Select the household which is being replaced by this interview file.

All non-completed households MUST be replaced. A household CAN and MUST be replaced for the following reasons:

INCOMPLETE: if the interview could not be completed for any reason

HH UNAVAILABLE: if the household was unavailable in the long run or short run. LONG RUN means during the time of the visit in the village. You do not have to revisit if you know on your first visit already that the household is unavailable for the entire time of the visit, e.g. the household members having travelled to another village for several days. SHORT run means the household members are only temporarily unavailable, e.g. household members have gone to the shop or the shamba and are expected to be back later today. Try to get this household by revisiting at least once or, if possible, twice. Re-record the time and result for the second visit. If the household is short term unavailable you are only allowed to replace once the household has been revisited once and still is unavailable.

UNABLE TO TRACK HH: if the information provided to you was not enough to find or identify the household.

HH REFUSED: if a household refuses to participate in the endline survey.

HH NOT ELIGIBLE: The household is not eligible, i.e. cultivated less than 16 times 16 meters (around 250 square meters) or did not cultivate at all during the Masika season.

ANY OTHER REASON NOT INTERVIEWED: if you did not complete the interview for any other reason.

### A. CONTROL Q.4

Starting time second visit. This question is enabled if the result of the first visit (E. Q4) is 7 REVISIT.

### A. CONTROL Q.5

This question asks if you have been able to identify and find the household.

### A. CONTROL Q.6

This refers to the neighbourhood inside a village and should provide enough information for anybody to find the correct household without doubt. Write Kitongoji name and the area within the kitongoji and additional information.

**Example:** Close to the school, between the big mango tree and the path towards the main road.

### A. CONTROL Q.7

Copy the gps coordinates from the bluetooth GPS unit. Make sure to make a fresh reading and to not make any errors when copying the coordinates.

### A. CONTROL Q.8

This question is enabled if the gps coordinates are more than one hundred meters away from the coordinates we have recorded during the listing survey. One possible reason is that you are not in the correct household (maybe the household has a similar name) or dwelling. Make sure you are at the correct place and re-record the gps coordinates and copy them into this question.

## SCREEN2:B. FILTER

This tab is used to identify if a household has to be replaced or not. Answer for all interview files.

B. FILTER Q.1

Asks if a household is available to be interviewed, i.e. an eligible respondent must be available (household member of at least 18 years of age).

## SCREEN2.1:B1. CONSENT - REVISIT/PHONE HOUSEHOLDS

This is the consent note for all households that have previously been interviewed during the baseline, revisit and phone rounds. By now they will be very familiar with the project however they still need to be informed about the length of the endline interview and allowed time to answer any questions.

## SCREEN2.2:B2. CONSENT - NEW HOUSEHOLDS

This is the consent note for the control households who are now being visited for the very first time in this project. Make sure you read out the entire note and that the respondent understands it fully. Allow them time to ask any questions before agreeing to take part. If the respondent refuses, try to reiterate that all their responses will be kept fully confidential and that the survey is for research purposes only. If they still refuse to take part, accept politely and make sure that you replace the household using the correct protocols, and report this to your supervisor.

B. FILTER Q.3

This question will be enabled for control households only. The purpose of the question is to confirm the eligibility of the household to take part in the survey, which should have already been established. If the answer is 'No', the rest of the questionnaire will be disabled and the household should be replaced.

## START ROSTER 3.1.1:Roster

List all household members starting with the household head. Note that for households being revisited, the roster will be prepopulated with all the household members that have lived in the household since January even if they are no longer living in the household. For these households, make sure that you add any new household members to the list.

**Definition:** We consider a household a group of people who live together and eat at least one meal together per day, except for special days. The head of the household is the person responsible for keeping up the daily needs of the household, or whom the other household members consider the head.

Include anyone CURRENTLY eating and sleeping in the household, EXCLUDING visitors there for a short stay. Also include anyone who NORMALLY eats and sleeps in the household but is away for a short time (e.g. for a visit to relatives) or attending boarding school.

'NORMALLY' and 'SHORT STAY/TIME' should be defined by respondent. I.e. let the respondent decide who they would consider a household member, using the above definition as guidance.

After listing, read out the names to the household head to make sure that all household members are listed.

Roster Q.1

Record full name of the household member. We must be able to distinguish household members clearly when talking to any respondent in the future. Recording all names will help to distinguish the name. For prepopulated names, confirm each one with the respondent and make any corrections if necessary. If you make any changes you MUST include a comment with explanation, using the comment box functionality.

Roster Q.2

This is an important question for all household members. Do not determine the gender by names, because some names are used by both genders – for example, Tumain, Bahati and Happy can be both men and women. Even for children, you have to make sure of the gender, because sometimes boys can look like girls, and girls like boys. The interviewer should be careful, because wrong coding of the household members can distort the whole data.

### Roster Q.3

The AGE of the person on the day of the interview IN COMPLETED YEARS. If, for example, the respondent's 18th birthday falls the day after the interview, you must record 17 as the respondent's current age.

If the respondent DOES NOT KNOW the person's age, you must make an estimate by reference to the events that have taken place in his life or that of the community (village, town, district, region) or the world, such as the independence of Tanzania or the World wars. Intensive probing is required to obtain the complete date, month and year of birth. Often families will refer to events such as:

- Community events/weather conditions
- Religious occasions/holidays
- Public holidays e.g. Independence Day, Union Day, Idd-el-Fitr, Idd ul Hajj, Maulid Day, Christmas, Easter, New Years
- Regional disasters
- Birth intervals
- World events e.g. World War I, II
- The famine that occurred in Tanzania after World War II, in 1946 and 1947, which was called "ikambura mabati."

Events:

Start of First World War:1914

End of First World War: 1918

Start of British rule in Tanganyika: 1919

Start of Second World War: 1938

End of Second World War: 1945

Birth of TANU: 1954

Independence of Tanganyika: 1961

Zanzibar revolution and Zanzibar-Tanganyika Union: 1964

Arusha declaration: 1967

Birth of CCM: 1977

Kagera war: 1978 Retirement of Tanzania first president: 1985

Interviewers have suggested these additional questions in order to estimate the age of household members:

- Ask when the household member got married, then add the age of the oldest child to the age of the parent when s/he was married. (However, if the oldest child was born several years before or after the marriage, this method can lead to large errors.)
- Compare the age of the household's child with that of a neighbor's child, an age-mate, or playmate.
- Establish the dates of specific events in a given location where the interview takes place and ask how old the member was when the events occurred.

For prepopulated household members, confirm their age and make changes if necessary, leaving a comment in the comment box.

### Roster Q.4

Indicate from the list the person's relationship to the head of household, as if filling in the sentence: [NAME] is the Household Head's...?.

Always list the HOUSEHOLD HEAD in the FIRST ROW regardless of whether or not the head is present at the time of interview or is the most knowledgeable person in the household. Only one household head should be identified. Other members should be identified in the other categories listed.

The SPOUSE/ SENIOR WIFE is the married or unmarried partner of the head. GRANDCHILDREN includes step grandchildren, adoptive grandchildren etc.

Particular care must be taken in recording relationship information when the respondent is someone other than the head of the household; clarification must be made to the respondent that we are interested in the relationship of the person to the head of the household, not to the respondent.

### Roster Q.5

This question will be enabled for pre-populated household members in treatment households. For these households, it is important to identify whether each household member is still present in the household.

HH1A. Member Details Q.1	Ask the respondent in which months the member was not in the household for most of the month (meaning >15 days). Then add up these months and report that number.
HH1A. Member Details Q.2	Select the activity the respondent depends on the most for income. Use code 17, "TOO YOUNG" only for children that are less than 5 years old who are not in school. If the child is 6 years and older, and currently attending school, use code 14 "Student".
HH1A. Member Details Q.3	All the males in the household who are more than 12 years older than the current member will be displayed in the Dropdown menu. Select the applicable member if the member's biological father resides in the household. If he is outside the household select 97, if he is dead, code 98, and if the respondent does not know, use code -99.
HH1A. Member Details Q.4	All the females in the household who are more than 12 years older than the current member will be displayed in the Dropdown menu. Select the applicable member if the member's biological mother resides in the household. If she is outside the household select 97, if she is dead, code 98, and if the respondent does not know, use code -99.
HH1A. Member Details Q.5	MARITAL STATUS is the marital status on the day of the interview. You must read each category to the respondent; otherwise he/she will reply, for example, that he is a bachelor instead of divorced or separated. MARRIED includes all types of marriage (for example, civil, traditional or common law). INFORMAL UNION includes those who live as husband and wife but they are not legally recognized as husband and wife. DIVORCED should be selected for those who have signed the legal divorce paper and they do not live together anymore. SEPARATED includes all household members who have been living together as husband and wife, but they do not live together anymore due to some misunderstanding, but they have not signed the divorce papers. There is no term for widower (a man who has lost his wife) in Kiswahili. Both widows and widowers should be in a category MJANE.
HH1A. Member Details Q.7	Select the relevant household member from the Dropdown menu. Only members of the opposite sex and who are older than 11, will be displayed. For males with more than one wife/spouse, select the most senior spouse here.
HH1A. Member Details Q.8	This question is ONLY applicable for <b>men</b> who's marital status is 'Polygamous Married' or 'Living Together'. For males with more than one wife/spouse, select the second most senior spouse here.
HH1A. Member Details Q.9	This question is ONLY applicable for <b>men</b> who's marital status is 'Polygamous Married' or 'Living Together'. For males with more than one wife/spouse, select the third most senior spouse here.
HH1A. Member Details Q.10	This question is ONLY applicable for <b>men</b> who's marital status is 'Polygamous Married' or 'Living Together'. For males with more than one wife/spouse, select the forth most senior spouse here.

## SCREEN3.2:HH2. EDUCATION

This section aims to capture the education level and reading and writing ability of each eligible household member.

### START ROSTER 3.2.1:Education

Only household members who are 5 years or older will appear in this roster. However, household members who were absent for three or more months of the year, and who do not fall within the three exception categories, will be filtered out of this roster.

Education Q.1	Can NAME read and write? You have to identify who can read and write in Kiswahili, English, or any other language, without considering whether they have gone to school. All household members over age 5 should be asked this question. Select code 1 for Kiswahili only, 2 for English only, 3 for Kiswahili and English, and 4 for any other language. Select code 5 if the respondent cannot read or write in any language. If the respondent can read and write in Kiswahili and a language that is NOT English (ie Arabic), then select code 1.
Education Q.2	You need to get current information on if the respondent is going to school at the moment. Select YES if the person is currently enrolled in any form of education (even if they are also working). This includes university or adult education. For primary and secondary school this refers to the 2014 school year.
Education Q.3	Record the highest COMPLETED level of education.  VOCATIONAL: learnt a trade (with no formal school). ADULT: Learnt to read or write, but without formal education.  Someone who is still a STUDENT will only be considered as having the previous education level. For example, if the person studied up to standard 7 but did not complete standard 7 THEN you would record standard 6 as the highest grade COMPLETED.  ADULT and VOCATIONAL are reserved for someone who DID NOT go to formal school at all. Formal school completion takes predominance. (e.g. for someone who did up to grade 7 then went to adult education, we would put 'grade 7' NOT 'adult education').  A child who has only been to Nursery School is considered as have 'No education', as we are not interested in Nursery School education.

### SCREEN3.3:HH3. HEALTH

This section is about the health of the household members regardless their age. These questions should be asked to all household members 12 years and older, and the household member should respond for him or herself if possible.

#### START ROSTER 3.3.1:Health

Health Q.1	This is for the interviewer and should not be asked to the respondent. Select code 1 'Yes' if the household member answers the question himself and code 2 'No' if he/she is not answering him/herself.
Health Q.2	This question is asked to all household members without considering who was sick and who was not. Sometimes, some people go to the clinics to check their health even without being sick. The question refers to visits to any kind of health care provider in the last 4 weeks (i.e. from the day before the interview and counting back 4 weeks).
Health Q.3	For the last 12 months was NAME hospitalized or did NAME stay overnight in a medical facility? Find out if the household member in question spent at least one night at a medical facility.

#### SCREEN3.3.1.1:HH3A. Hospitalization

This section will be enabled if the answer to Q3 is 'Yes'.

HH3A. Hospitalization Q.1	The number of new stays is the the number of times that the individual was taken to the hospital and stayed at least one night, regardless of the total length of the stay.
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HH3A. Hospitalization Q.2

Add up the total number of nights spent in hospital across all new stays reported above. For example, if a household member was admitted to the hospital during the first week of the month for three nights, then during the third week of the month for one night, and finally in the last week of the month for four nights, the total number of new stays would be three, and the total number of nights would be eight.

## SCREEN3.4:HH4. LABOUR

This section is about the work activities which members of the household do in order to sustain their life. These questions should be asked to all household members 5 years and older. When possible, the household member should respond for him or herself.

Definitions:

Work /activities: Work is any lawful activity which a person engages in, in order to sustain his life.

Last 7 days: This is an international measure on work remembrance; it has been used for many years. In these questions, the past 7 days is used to mean the seven days prior to the date of the interview. This period is very important for recording ongoing activities.

Apprenticeship: This describes where a person works for a certain amount of time for an employer in exchange for training in a trade, art or profession. This work can be either paid or unpaid.

Household Non-farm business: Household non-agricultural income-generating businesses include those that produce or trade goods or services, including owning a shop or operated a trading business, no matter how small. Enterprises might include, for example, making mats, bricks, or charcoal; working as a mason or carpentry; firewood selling; etc.

## START ROSTER 3.4.1:Labour

Labour Q.1

This is for the interviewer and should not be asked to the respondent. Select code 1 'Yes' if the household member answers the question himself and code 2 'No' if he/she is not answering him/herself. It is best if everyone person can answer for himself or herself as they would have the best information about how they use their time.

Labour Q.2

Do not ask this question to the respondent. Select the household member who is answering on behalf of the current member.

HH4A. Labour Details Q.1

Ask if the household member has spent any time since 1st January 2014 doing any wage work for someone who is NOT a member of the household. Include ALL work that was PAID, including in-kind payments (i.e. paid in housing, food, goods, or other non-cash payments) as well as paid apprenticeships, domestic work or paid farm work. An apprenticeship is where a person works for a certain amount of time for an employer in exchange for training in a trade, art or profession. Do NOT include domestic work that was paid by someone from within the current household in question.

HH4A. Labour Details Q.2

Household Non-farm business: Household non-agricultural income-generating businesses include those that produce or trade goods or services, including owning a shop or operated a trading business, no matter how small. Enterprises might include, for example, making mats, bricks, or charcoal; working as a mason or carpentry; firewood selling; etc.

HH4A. Labour Details Q.3

Household Non-farm business: Household non-agricultural income-generating businesses include those that produce or trade goods or services, including owning a shop or operated a trading business, no matter how small. Enterprises might include, for example, making mats, bricks, or charcoal; working as a mason or carpentry; firewood selling; etc.

HH4A. Labour Details Q.4

This question refers to household agricultural and fishery activities only.

HH4A. Labour Details Q.5	Ask the respondent which of the different types of work does he/she spend the most time doing since 1st January 2014. If the respondent does a few different activities for work, record the one which they spend the most time doing. Note that a housewife could be considered an unpaid family worker (non-agric) or unpaid family worker (agric) depending on if she has done any work in the fields since January. Using the codes in the questionnaire, select the activity that the respondent spends the MOST amount of TIME doing since January under the 'PRIMARY' question.
HH4A. Labour Details Q.6	Record the activity that the respondent spends the second most amount of time doing since 1st January 2014. If the respondent only does one type of work, then select -95 from the 'SECONDARY' drop-down menu.
HH4A. Labour Details Q.7	Ask if the household member has spent any time in the last 7 days doing any wage work for someone who is NOT a member of the household. The last 7 days includes the day before the interview but does NOT include the current day. Include ALL work that was PAID, including in-kind payments (i.e. paid in housing, food, goods, or other non-cash payments) as well as paid apprenticeships, domestic work or paid farm work. An apprenticeship is where a person works for a certain amount of time for an employer in exchange for training in a trade, art or profession. Do NOT include domestic work that was paid by someone from within the current household in question.
HH4A. Labour Details Q.8	Household Non-farm business: Household non-agricultural income-generating businesses include those that produce or trade goods or services, including owning a shop or operated a trading business, no matter how small. Enterprises might include, for example, making mats, bricks, or charcoal; working as a mason or carpentry; firewood selling; etc. The last 7 days includes the day before the interview but does NOT include the current day.
HH4A. Labour Details Q.9	Household Non-farm business: Household non-agricultural income-generating businesses include those that produce or trade goods or services, including owning a shop or operated a trading business, no matter how small. Enterprises might include, for example, making mats, bricks, or charcoal; working as a mason or carpentry; firewood selling; etc. The last 7 days includes the day before the interview but does NOT include the current day.
HH4A. Labour Details Q.10	This question refers to household agricultural activities only. The last 7 days includes the day before the interview but does NOT include the current day.
HH4A. Labour Details Q.11	Ask the respondent which of the different types of work does he/she spend the most time doing in the last 7 days. If the respondent does a few different activities for work, record the one which they spend the most time doing. Note that a housewife could be considered an unpaid family worker (non-agric) or unpaid family worker (agric) depending on if she has done any work in the fields in the last 7 days. Using the codes in the questionnaire, select the activity that the respondent spends the MOST amount of TIME doing in the last 7 days under the 'PRIMARY' question.
HH4A. Labour Details Q.12	Record the activity that the respondent spent the second most amount of time doing in the last 7 days. If the respondent only does one type of work, then select -95 from the 'SECONDARY' drop-down menu.

### **SCREEN3.4.1.1.1:HH4A1. Wage Jobs/Paid Apprenticeships**

This sub-screen is only for household members who did any paid work in the last 7 days OR since January.

HH4A1. Wage Jobs/Paid Apprenticeships Q.1	This question is for household members who reported to have worked for a wage/payment since January AND in the last 7 days. Find out if the jobs reported were the same. If they are NOT the same, then ask the subsequent questions (Q2 - Q24) about the job in the last 7 days. Then ask about the job worked in since January under the next sub-screen - 'Secondary' wage jobs.
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- HH4A1. Wage Jobs/Paid Apprenticeships Q.3 What kind of work does the respondent usually do in this job? This question asks about the occupation of the respondent. Obtain a specific description of the respondent's occupation and then select the applicable TASCO codes that most accurately match the description of the occupation. First select the general occupational group code under TASCO CODE 1. The list under TASCO CODE 2 will then automatically filter down to a more detailed list of codes - select the most applicable secondary code.  
The main employed occupation is either an individual's only occupation OR the occupation that the respondent worked the most hours, if the respondent worked at more than one job. For individuals with two occupations with the same number of hours, the main employed occupation is the one that gives the largest income. If equal in number of hours and income, the one that the respondent considers as his or her main occupation should be noted.  
Occupation refers to the kind of work the person does or the kind of the work he/she did, when he/she was working for the first time. This question is to enquire specifically about the nature of the job he/she is doing most of the time. If the person uses vague answers such as Civil Servant, Businessman, or 'Labourer', ask him/her the exact type of job he/she did most of the time, and then select the occupation from the Dropdown lists. The occupation will best be described by such job titles as teacher, driver, cook etc. If a person has two or more occupations enter the one in which he/she spends most of his/her time. Try to get comprehensive answers, for example, it is not enough for a respondent to inform you that he/she is a teacher. Probe to find out if he/she is a primary or secondary school teacher etc.
- HH4A1. Wage Jobs/Paid Apprenticeships Q.5 This question is to determine the economic sector in which the respondent works. Find out the type of establishment where the respondent worked and select the ISIC sector codes that most accurately describe the industry. Select the sector group code first, and then select the more detailed description in Q6.  
Industry refers to the activity of the establishment in which an individual works at his or her occupation. An industry is usually identified on the basis of the nature of the goods and services produced. If the place where the person works produces more than 1 item (such as a factory that produces two different items) list the main/primary item produced. Example: A person may be an accounts clerk and employed by a dairy farmer. His occupation is 'Accounting Clerk' but his industry is 'dairy farming'.
- HH4A1. Wage Jobs/Paid Apprenticeships Q.7 This question intends to know the number of people who also work where the respondent works. If the respondent answers vaguely, for example "only a few" or "very many," probe to get a more accurate estimate. Record the number.
- HH4A1. Wage Jobs/Paid Apprenticeships Q.8 Record the time of going there or coming back, one way only. It does not depend on the method that the respondent uses to get to their job. 30 minutes walking, 30 minutes on a bicycle or 30 minutes in a dala dala should all be coded as 30 minutes. If the respondent uses different methods on different days, use the one that he/she takes the most often. Record the number of HOURS in Q8. If less than one hour, record '0' and answer in minutes only.
- HH4A1. Wage Jobs/Paid Apprenticeships Q.9 Record the number of minutes here if the respondent answers in hours and minutes, or in just minutes. If less than one hour, record minutes only.
- HH4A1. Wage Jobs/Paid Apprenticeships Q.10 If the respondent has not yet been paid, then indicate the amount that they expect to receive. Also indicate the time unit for which the payment covers using the drop-down menu in the next question. For example, if the respondent received 5000 TSH an hour write 5000 in Q12 and select response item 1 in Q13. If the respondent received 2,000,000 shillings a month, put 2,000,000 in Q12 and select response item 5 in Q13.
- HH4A1. Wage Jobs/Paid Apprenticeships Q.12 This question wants to know if the respondent is paid for his/her work with goods or any other form of payment (ie per diem), apart from his/her salary.

- HH4A1. Wage Jobs/Paid Apprenticeships Q.13 Ask the respondent to estimate the value of in-kind payments and record the value in TShillings. Also indicate the time unit for which the payment covers using the codes in the questionnaire. For example, if the respondent receives a pair of shoes worth approximately 50,000 TShillings every 6 months from his/her work, then record 50,000 in Q15 and select code 7 in Q16. Also include the total value of any per diems received by the respondent in this amount.
- HH4A1. Wage Jobs/Paid Apprenticeships Q.15 Record also paid leave and sick leave. Write the total in months. The maximum number of months will be dependent on when the interview is being conducted - e.g. if the interview is being conducted at the end of August, the maximum number of months will be 8.
- HH4A1. Wage Jobs/Paid Apprenticeships Q.16 For the months when the respondent worked in the job, write the average number of weeks the respondent usually works. The maximum number that can be recorded is 5 because there cannot be more than 5 weeks in a month.
- HH4A1. Wage Jobs/Paid Apprenticeships Q.17 For the weeks when the respondent worked in the job, write the average number of hours the respondent usually works. The maximum number that can be recorded is 168 because there are only 168 hours in a week.
- HH4A1. Wage Jobs/Paid Apprenticeships Q.18 Record also paid leave and sick leave. If the household member responds that he/she worked for two days, ask him/her to specify in hours. The maximum number that can be recorded is 168 because there are only 168 hours in 7 days. If the respondent did not work in the last 7 days, record 0. Remember, do not count the day of the interview.
- HH4A1. Wage Jobs/Paid Apprenticeships Q.19 Probe the respondent if his/her position had a pension or not. This INCLUDES lump sum pension payments. Freelance refers to people that are employed to perform certain tasks on a project, such as a journalist hired to write a specific article by a magazine. Own account refers to someone who is self-employed either with or without employees.
- HH4A1. Wage Jobs/Paid Apprenticeships Q.20 This refers to WRITTEN contracts only.
- HH4A1. Wage Jobs/Paid Apprenticeships Q.22 Find out if the household member has done any other wage work or paid apprenticeship, in addition to the one listed in the previous questions. If the household member used to work in a different job at some point since January but does not work there now, still list it here.

### **SCREEN3.4.1.1.1:HH4A1A. Wage Jobs/Paid Apprenticeships (Secondary)**

This sub-screen is enabled if the household member has had more than one form of wage employment or paid apprenticeship since January.

HH4A1A. Wage Jobs/Paid Apprenticeships  
(Secondary) Q.2

What kind of work does the respondent usually do in this job? This question asks about the occupation of the respondent. Obtain a specific description of the respondent's occupation and then select the applicable TASCO codes that most accurately match the description of the occupation. First select the general occupational group code under TASCO CODE 1. The list under TASCO CODE 2 will then automatically filter down to a more detailed list of codes - select the most applicable secondary code.

The main employed occupation is either an individual's only occupation OR the occupation that the respondent worked the most hours, if the respondent worked at more than one job. For individuals with two occupations with the same number of hours, the main employed occupation is the one that gives the largest income. If equal in number of hours and income, the one that the respondent considers as his or her main occupation should be noted.

Occupation refers to the kind of work the person does or the kind of the work he/she did, when he/she was working for the first time. This question is to enquire specifically about the nature of the job he/she is doing most of the time. If the person uses vague answers such as Civil Servant, Businessman, or 'Labourer', ask him/her the exact type of job he/she did most of the time, and then select the occupation from the Dropdown lists. The occupation will best be described by such job titles as teacher, driver, cook etc. If a person has two or more occupations enter the one in which he/she spends most of his/her time. Try to get comprehensive answers, for example, it is not enough for a respondent to inform you that he/she is a teacher. Probe to find out if he/she is a primary or secondary school teacher etc.

HH4A1A. Wage Jobs/Paid Apprenticeships  
(Secondary) Q.4

This question is to determine the economic sector in which the respondent works. Find out the type of establishment where the respondent worked and select the ISIC sector codes that most accurately describe the industry. Select the sector group code first, and then select the more detailed description in Q6.

Industry refers to the activity of the establishment in which an individual works at his or her occupation. An industry is usually identified on the basis of the nature of the goods and services produced. If the place where the person works produces more than 1 item (such as a factory that produces two different items) list the main/primary item produced. Example: A person may be an accounts clerk and employed by a dairy farmer. His occupation is 'Accounting Clerk' but his industry is 'dairy farming'.

HH4A1A. Wage Jobs/Paid Apprenticeships  
(Secondary) Q.6

This question intends to know the number of people who also work where the respondent works. If the respondent answers vaguely, for example "only a few" or "very many," probe to get a more accurate estimate. Record the number.

HH4A1A. Wage Jobs/Paid Apprenticeships  
(Secondary) Q.7

Record the time of going there or coming back, one way only. It does not depend on the method that the respondent uses to get to their job. 30 minutes walking, 30 minutes on a bicycle or 30 minutes in a dala dala should all be coded as 30 minutes. If the respondent uses different methods on different days, use the one that he/she takes the most often. Record the number of HOURS in Q8. If less than one hour, record '0' and answer in minutes only.

HH4A1A. Wage Jobs/Paid Apprenticeships  
(Secondary) Q.8

Record the number of minutes here if the respondent answers in hours and minutes, or in just minutes. If less than one hour, record minutes only.

HH4A1A. Wage Jobs/Paid Apprenticeships  
(Secondary) Q.9

Ask the respondent to estimate the value of in-kind payments and record the value in TShillings. Also indicate the time unit for which the payment covers using the codes in the questionnaire. For example, if the respondent receives a pair of shoes worth approximately 50,000 TShillings every 6 months from his/her work, then record 50,000 in Q15 and select code 7 in Q16. Also include the total value of any per diems received by the respondent in this amount.

HH4A1A. Wage Jobs/Paid Apprenticeships (Secondary) Q.14	Record also paid leave and sick leave. Write the total in months. The maximum number of months will be 6.
HH4A1A. Wage Jobs/Paid Apprenticeships (Secondary) Q.15	For the months when the respondent worked in the job, write the average number of weeks the respondent usually works. The maximum number that can be recorded is 5 because there cannot be more than 5 weeks in a month.
HH4A1A. Wage Jobs/Paid Apprenticeships (Secondary) Q.16	For the weeks when the respondent worked in the job, write the average number of hours the respondent usually works. The maximum number that can be recorded is 168 because there are only 168 hours in a week.
HH4A1A. Wage Jobs/Paid Apprenticeships (Secondary) Q.17	Record also paid leave and sick leave. If the household member responds that he/she worked for two days, ask him/her to specify in hours. The maximum number that can be recorded is 168 because there are only 168 hours in 7 days. If the respondent did not work in the last 7 days, record 0. Remember, do not count the day of the interview.
HH4A1A. Wage Jobs/Paid Apprenticeships (Secondary) Q.18	Probe the respondent if his/her position had a pension or not. Freelance refers to people that are employed to perform certain tasks on a project, such as a journalist hired to write a specific article by a magazine. Own account refers to someone who is self-employed either with or without employees.
HH4A. Labour Details Q.13	Record the amount of time, in hours and minutes, that the respondent spent yesterday collecting firewood or other fuel materials, including the time of going, collecting, and coming back. Add up all round trips if multiple trips. If none, fill in '0'.
HH4A. Labour Details Q.15	Record the amount of time, in hours and minutes, that the respondent spent yesterday fetching water, including the time of going, waiting, and coming back. Add up all round trips if multiple trips. If none, fill in '0'.
HH4A. Labour Details Q.17	Record the number of months since January that the respondent worked in any non-agriculture household business- whether or not they were paid for their work. Round up months if they worked greater than 15 days of the month.
HH4A. Labour Details Q.18	For months where the respondent worked, write the average number of weeks of work the respondent usually works. The maximum number that can be recorded is 4.
HH4A. Labour Details Q.19	For the weeks when the respondent worked, write the average number of hours the respondent usually works. The maximum number that can be recorded is 168 because there are only 168 hours in a week.

## SCREEN3.5:HH5. HOUSING, WATER, & SANITATION

This section is about the facilities that the household has in their home. It should be answered by the household member who is most knowledgeable on these subjects.

HH5. HOUSING, WATER, & SANITATION Q.1	This question is about the ownership of the building occupied by the household. The building can be the property of the household, rented (the whole building or a part of it), rented by employer etc.
HH5. HOUSING, WATER, & SANITATION Q.3	This question asks about the house rent, or how much the household pays a month for all buildings occupied by the household. If the house rent is paid by the employer, record the amount of money which the employer pays for house.

- HH5. HOUSING, WATER, & SANITATION Q.4 This question asks about the amount that the household could receive per month if it rented out its current residence. If the respondent is not sure, probe for an estimate.
- HH5. HOUSING, WATER, & SANITATION Q.5 Record the total amount of money paid to repair the residence in the past year. Repairs include such things as fixing leaks in the roof, damages in the walls, etc. Repairs that were funded by transfers to the household (e.g. funded by family member living outside the household) should be included. Record the amount in TSH.
- HH5. HOUSING, WATER, & SANITATION Q.6 Record the total amount of money paid to make improvements to the residence in the past year. Do not include any purchases already counted for in the question 5 to avoid double counting. If the household made improvements to the residence while repairing the damages to the residence, record the amount spent in this question. Improvements that were funded by transfers to the household (e.g. funded by family member living outside the household) should be included.
- HH5. HOUSING, WATER, & SANITATION Q.7 Here what is needed is the number of the rooms occupied by the household. Remember that the number of the rooms does not include stores, toilets, shower rooms, halls, and veranda. Include only the rooms being occupied by the household; including sitting rooms, dining rooms and the kitchen.
- HH5. HOUSING, WATER, & SANITATION Q.8 If there is a main house and secondary houses, separate the total number of rooms and record the total number of rooms in secondary houses here. If there are multiple secondary houses, sum the total number of rooms in the secondary houses.
- HH5. HOUSING, WATER, & SANITATION Q.9 Materials for building a wall include trees, wood, soil, soil and trees, and brick layering. If the respondent indicates a material that is not on the list, code it as "other" and write the material in letters. However, the interviewer should make an effort to use the existing codes, using other only if the response is truly not on the list. If the walls are made of multiple materials on the list, choose the main or predominant material.
- HH5. HOUSING, WATER, & SANITATION Q.10 This question asks building materials for the roof; these include; grass, bamboo, tiles as coded in the questionnaire. If the respondent indicates a material that is not on the list, code it as "other" and write it in letters. However, the interviewer should make an effort to use the existing codes, using other only if the response is truly not on the list. If the roof is made of multiple materials on the list, choose the main or predominant material.
- HH5. HOUSING, WATER, & SANITATION Q.11 Indicate the main building material for the floor of all houses occupied by the household, including soil, concrete, cement etc. If the respondent indicates a material that is not on the list, code it as "other" and write it in letters. However, the interviewer should make an effort to use the existing codes, using other only if the response is truly not on the list. If the floor is made of multiple materials on the list, choose the main or predominant material.
- HH5. HOUSING, WATER, & SANITATION Q.12 This is an environmental question. The aim is to know how they dispose their garbage. If the household uses a method that is not included on the list, select "Other" and record the method in words.  
 "4. Disposal within Compound" refers to organized disposal, burn barrel, burn heap, or pit, within the compound. "5. None or unauthorized heap" better translated to "no official dump" refers to disposal of rubbish loosely in common or public areas - trash heaps in rain gutters, on the side of roads, outside the gate of the compound or just dumped without organization or care for sanitation in general.

- HH5. HOUSING, WATER, & SANITATION Q.13 This question asks about the type of the toilet used by the household. 'No Toilet' refers to the use of bushes, grass/field and other open spaces as toilet facilities. 'Pit latrine without slab' uses a hole in the ground for excreta collection and does not have a squatting slab, platform or seat'. 'Pit latrine with slab (not washable)' is a dry pit latrine that uses a hole in the ground to collect the excreta and a squatting slab or platform that is firmly supported on all sides. The squatting slab is made of soil or other material that cannot be readily cleaned. 'Pit latrine with slab (washable)' is a dry pit latrine that uses a hole in the ground to collect the excreta and a squatting slab or platform that is firmly supported on all sides. The squatting slab is made of concrete or another material that easy to clean and raised above the surrounding ground level to prevent surface water from entering the pit. 'Flush toilet' refers to the type of toilet that is characterized by the draining of human excreta by rush of running water. 'Pour flush' is similar to a flush toilet, but the water must be manually poured. 'VIP (Ventilated Improved latrines)' is a ventilated pit latrine which is defined as an onsite means of human excreta disposal in a hygienic, low cost and more acceptable manner. The primary features of VIP latrines consist of an enclosed structure (roof and walls) with a large diameter (110mm), PVC vertical ventilation pipe running outside the structure from the pit of the latrine to vent above the roof. They often will have concrete slabs containing the latrine hole. 'Ecosan' toilets separate human excreta into solid and liquid components that can then be used for irrigation and fertilization.
- HH5. HOUSING, WATER, & SANITATION Q.16 This question will only be enabled for households with at least one child under the age of 5 in the household roster.
- HH5. HOUSING, WATER, & SANITATION Q.17 This question is about the main energy the household use to cook. Note that what is needed here is not the utensil but the energy used. If the household uses a type of energy that is not included on the list, indicate "Other" and record the type of energy in words.
- HH5. HOUSING, WATER, & SANITATION Q.18 This question is about the light in the household (during the night), and what type of energy is used to provide light. Use the codes listed in the questionnaire. If the household uses a source for lighting that is not included on the list, select "Other" and record the source in words.
- HH5. HOUSING, WATER, & SANITATION Q.20 This question identifies the main source of drinking water in the household during the RAINY season. If there are more than two sources, mention the one used most frequently by the household.
- HH5. HOUSING, WATER, & SANITATION Q.21 This question asks the time used by the household in the process of fetching water from the source to the household during the rainy season (mentioned in the previous question). Here, time includes three aspects: going to fetch water, waiting to fill the container at the source, and time spent coming back. If for example the household spends 1 hour and 35 minutes, record 95 minutes in the answer field. Do not record it as 135 minutes!
- HH5. HOUSING, WATER, & SANITATION Q.22 Read to the respondent the minutes mentioned in question 21, and ask him/her out of these minutes, how many are spent waiting to fetch water i.e. excluding the time spent travelling there and back. Waiting time includes the time from when they arrive at the source until they leave; it includes time waiting in a queue and time filling the container. If the respondent gives you the answer in hours, convert the answer to minutes.
- HH5. HOUSING, WATER, & SANITATION Q.23 This question identifies the main source of drinking water in the household during the DRY season. If there are more than two sources, mention the one used most frequently by the household.

- HH5. HOUSING, WATER, & SANITATION Q.24 This question asks the time used by the household in the process of fetching water from the source to the household during the dry season (mentioned in the previous question). Here, time includes three aspects: going to fetch water, waiting to fill the container at the source, and time spent coming back. If for example the household spends 1 hour and 35 minutes, record 95 minutes in the answer field. Do not record it as 135 minutes!
- HH5. HOUSING, WATER, & SANITATION Q.25 Read to the respondent the minutes mentioned in question 21, and ask him/her out of these minutes, how many are spent waiting to fetch water i.e. excluding the time spent travelling there and back. If the respondent gives you the answer in hours, convert the answer to minutes.
- HH5. HOUSING, WATER, & SANITATION Q.26 This question asks about the household member usually responsible for fetching the water for the household.
- HH5. HOUSING, WATER, & SANITATION Q.27 This question asks what type of treatment method the household usually uses to ensure their drinking water is safe. Record up to 2 answers for this question.
- HH5. HOUSING, WATER, & SANITATION Q.30 Record the main source of water used for other purposes, such as cooking and washing during both the rainy and the dry season. If there are more than two sources, mention the one used most frequently by the household.

## SCREEN 3.6: HH6. ASSETS

These questions ask about the ownership of the resources and other valuable permanent assets as it is stipulated in the questionnaire. It is possible that your respondent could be hesitant to respond to these questions because they are very sensitive; this is information that one would not like to share with a stranger. Try to use polite language to convince him/her of the confidentiality of the interview.

### START ROSTER 3.6.1: Household Assets

Read out to your respondent the list of the assets; ask him what they own and record the total number of the assets in Q1. If there is none, record "0" and skip to the next item. Be careful to record the number and not the value of the item. Households, no matter how wealthy, are unlikely to own 20,000,000 air conditioners.

For row 408: give the number of single chairs – do not state the number of "seti".

Row 411: 'Watches' should include all clocks.

Row 422: 'Complete music system' is a music system that plays multiple media and has high quality external speakers-amplifiers. Make sure that this does not overlap with 401 (Radio and Radio Cassette) or 421 (Record/cassette player, tape recorder).

Row 433: only include the value of the house, excluding the value of the land where the house is built.

- Household Assets Q.2 Record the age of the item owned by the household. If the household owns more than one of an item, record the average age of all the items. For example, if a household owns one mobile phone that is 5 years old, one that is 2 years old and one that is 1 years old, then the average age of 2.7 should be recorded in question 2.  $[(5+2+1)/3=2.667]$ .
- Household Assets Q.3 Record the price at which the item was bought. If the household owns more than one of an item, record the average price of all the items. For example, if a household bought one chair for 90,000 TSH and another one for 75,000 TSH, then 82,500 should be recorded in question 3 ->  $(90,000+75,000)/2=82,500$ . If for example chairs, sofas, and table were bought together and it is not possible for respondent to divide total cost between the items, then divide the total cost evenly between each category and included a comment inside the questionnaire.
- Household Assets Q.4 Record the price at which the household could sell the items for now. Do not record the amount paid for the item because that amount should be recorded in question 2. If the household owns more than one of an item, record the average value of all the items. For example, if the respondent estimates that it could sell a chair for 50,000 TSH and the other for 35,000 TSH, then 42,500 TSH should be recorded in question 4 ->  $(50,000+35,000)/2=42,500$ .

## SCREEN3.7:HH7. NON-FARM ENTERPRISE

Household business or enterprise is an organized commercial activity, a commercial establishment, owned and managed by household members. It can be very informal and have no hired labour or formal registration. For instance, non-agricultural one-man operations providing goods/services for various different non-household members/groups, i.e. working independently on their own-account, must be classified as household enterprises.

This module collects detailed information on the ownership and operation of any income-generating enterprises by the survey household that were in operation since January. The main criterion for an enterprise to be listed in this module is that it operated at some point since January, including those that operated but are closed temporarily or permanently as of the interview date, and those that may not have operated full-time since January. In fact, the module is interested in capturing seasonality in business activities, i.e. the fact that the nature of some businesses leads owners not to operate continuously.

Household non-agricultural income-generating enterprises include those that produce or trade goods or services, including owning a shop or operated a trading business, no matter how small. Enterprises might include, for example, making mats, bricks, or charcoal; working as a mason or carpentry; firewood selling; metalwork; tailoring; repair work; food processing, fish marketing, petty trading and so on. Examples of household enterprises to list in this section include:

- Tailor who repairs clothing and shoes at her stall in the market
- Business woman who goes abroad to buy clothing, and then brings it to Dar es Salaam to sell in the market
- Trader who buys maize from remote villages and transports it to the regional capital to sell
- Bricklayer who works for different stores/shops in town when they need repairs
- Individual makes charcoal and then carries it to sell along the road
- Individual owns his own car and uses it as a taxi
- Architect who designs roads and consults with many different firms and the government sometimes for different projects

HH7. NON-FARM ENTERPRISE Q.1

If the answer to this question is 'No' and NO household member answered 'Yes' to HH4A Q2 or Q3 (i.e. no household members were reported to have worked in a non-farm business for themselves or the household since January), then the rest of this section will be skipped.

### START ROSTER 3.7.1:Non-farm labour

### START ROSTER 3.7.2:Household Enterprises

Household Enterprises Q.2

Record information on the type of non-farm enterprise operated by the household in since January. Write the description of main goods or services provided by the household nonfarm enterprise in the left column, and select the applicable ISIC codes in the next 2 columns. Include enterprises that are currently permanently or temporarily closed but did operate since January. Record up to 5 household non-farm enterprises. You should list all the household enterprises owned or operated by household members before moving on to the next question.

HH7A. Enterprise Details Q.1

Select the household members that worked at any time since January in the household non-farm enterprise- whether the members were paid or not. Select up to 6 household members. If there are more than 6 household members that worked in the household non-farm enterprise, then record the 6 that spent the most time working in the enterprise.

HH7A. Enterprise Details Q.7

Select the household members that manage or are most familiar with the enterprise. Record up to two household members. If there are more than two, select the two that make the most decisions related to the enterprise.

HH7A. Enterprise Details Q.9

Select the household members that own the enterprise. Select up to 2 members if the business is owned by multiple people in the household.

HH7A. Enterprise Details Q.11

Where does the enterprise usually operate? Use the list in the questionnaire to identify the location. If the business has moved temporarily, inquire about the usual place of business. If the enterprise is mobile and does not have a fixed location, then select code 12.

HH7A. Enterprise Details Q.12	How long has this enterprise existed? Record the number of years and the number of months that the enterprise has existed – not the first year in which the enterprise opened. If the enterprise stopped its operations briefly and restarted, the date should refer to when the enterprise first started operating.
HH7A. Enterprise Details Q.14	<p>Physical capital stock includes fixed goods devoted to the production of other goods, the use of which does not prevent future use. You have to add the total value of the enterprise's current properties; even those in the store, in the farm, farm implements, buildings, land, cars etc. The total amount has to be filled in this question.</p> <p>NOTE: It is common for physical capital stock to overlap with household assets - e.g. A household that makes and sells food may use pots and other utensils from their own kitchen as fixed inputs into their food production. Thus the value of physical capital stock here may have already been captured in the Assets section. If this is the case, make sure that assets are NOT double counted. Assets should be listed only once - the asset should be reported where it is most often used (household or business). If it is the case that the asset is used mostly for the business, then record the value here and go back and change what was recorded in the Household Assets section.</p>
HH7A. Enterprise Details Q.15	Inputs or supplies are also used for producing other goods, but they diminish with use. 'Current stock' refers to any stock that they had OVERNIGHT. Record the value of inputs or supplies currently possessed (or had overnight) by the enterprise. This includes all materials that are kept on hand for making or producing goods.
HH7A. Enterprise Details Q.16	Finished merchandise or goods for sale are goods that are ready to be sold. 'Current stock' refers to any stock that they had OVERNIGHT. Record the value of the stock that the enterprise currently has in stock (i.e. had overnight) and are ready to be sold.

**Examples for Q14 - Q16:**

1. Tailor: His/her physical capital stock includes: tailoring machines, a pair of scissors, needle (question 14). He/she may also have a current stock of inputs such as pieces of cloth and thread (question 15) and current stock of finished merchandise such as readymade clothes like gowns, shirts etc. (question 16).
  
2. Selling water: In this case the business may have no capital (question 14) or inputs (question 15). However, he/she may have water in stock to sell (question 16).
  
3. Miller: The miller's physical capital stock includes the mill itself (question 14). Inputs or supplies include fuel to run the mill and any pre-milled maize the business may own (question 15). Finished goods for sale include milled maize (question 16).
  
4. Stationary store: A stationary store's physical capital includes computers, printers, and copy machines, and smaller items that the stationary store uses like staplers (question 14). Inputs or supplies include paper used for printing and ink or toner used in the machines (question 15). Finished goods include notebooks, pens, folders, or other items sold by the stationary store for customer use (question 16).
  
5. Bicycle rental service: A bicycle rental service capital includes the bicycle and any type of tools that household members use to repairs the bicycles (question 14). A bicycle rental service would have no input or supplies (question 15). If the bicycle rental service also sells tires and inner tubes, then those would be considered goods for sale (question 16). If the service only rents bicycles, then the enterprise would have no stock or goods for sale (question 16).
  
6. Selling eggs: Suppose the respondent says they sell eggs from their farm as a business. THIS SHOULD NOT BE ENTERED HERE. This activity should be entered in the agriculture section to avoid double counting.

HH7A. Enterprise Details Q.17	Gross income is before taking into account all business-related taxes and expenses.
HH7A. Enterprise Details Q.19	<p>Net income is the profit.</p> <p>Example 1: for a miller: Net income is the profit left over from gross income after paying for fuel or the electricity bill.</p> <p>Example 2: Stationary store: Gross income includes all money that comes from sales from goods or printing. Net income subtracts from gross income the amount of money spent on monthly wages and buying paper or other supplies wholesale.</p> <p>Example 3: Bicycle rental service: Gross income includes all the money that was received from renting the bicycles. Net income subtracts the amount of money spent on fixing and maintaining the bicycles.</p>
HH7A. Enterprise Details Q.21	Ask the respondent how many of the enterprise's employees who are not household members. Record the number. If there were none, write 0.
HH7A. Enterprise Details Q.26	Record the average profit for the months in which the business was functioning. This should be the total amount of money taken in minus the fixed and variable costs of operating the enterprise.
HH7A. Enterprise Details Q.30	If the enterprise is registered with another type of organization not listed (i.e. trade organization), then select 'Yes' and write the name of the organization in words in question 31 below.

## SCREEN3.8:HH8. SHOCKS

Ask this section to the household head or any household member who is well-informed about the welfare of the household.

### START ROSTER 3.8.1.1:Recent Shocks to Household Welfare

Recent Shocks to Household Welfare Q.1	This question intends to know whether the household encountered any disasters or events from those listed in the first column, at any point since January. Read the entire list of shocks (items 101 – 118) before moving on to the next section.
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### START ROSTER 3.8.2.1:Recent Shocks to Household Welfare - Details

Recent Shocks to Household Welfare - Details Q.1	Before answering this question, read out the list of shocks which the household indicated that it experienced in the past five years - these will all be filtered into the current roster. Ask the respondent which of these shocks had the most significant impact on their wellbeing, and then select code 1 for that shock. Then ask the household which shock had the second most significant impact, and select code 2. Similarly, code 3 for the third most significant shock. If the household indicates having only experienced two shocks in the past five years, only two ranking options will appear in the drop-down menu. If the respondent says that two shocks are equally significant, probe further to find out which shock was slightly more significant.
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#### SCREEN3.8.2.1.1:HH8A. Shock Details

This sub-screen will only be enabled for the three most significant shocks as indicated in Q1 of the roster.

HH8A. Shock Details Q.3

The start month should not be beyond the current month of interview.

HH8A. Shock Details Q.4

The next questions ask how the household dealt with the shock to try to regain their former welfare level. List up to three measures.

## SCREEN4.1:AG1. PLOT ROSTER

For treatment households who were visited during the baseline, and revisited or phoned during the follow-ups, this roster will be pre-populated with ALL plots that were ever reported on. Some of these may not actually have been cultivated during the Masika season - this will be confirmed in section AG2A. DETAILS. There will also be a number of revisit/phone household plots that will need to be measured during endline, as they could not be measured during the follow-up visits.

For control households, only plots that were cultivated during the masika season should be listed here, and ALL of these plots should be measured.

### START ROSTER 4.1.1:Plot Roster

Definition of Masika season: Anything planted before the end of April 2014, OR anything planting after April yet harvested by the end of July 2014.

FOR PHONE/REVISIT HOUSEHOLDS: All plots ever listed since baseline will appear here. However, there will only be a few which will still need GPS measurements. For each plot listed here, you need to verify the status with the respondent, as well as add any plots not listed but that were cultivated or owned during the Masika season.

FOR CONTROL HOUSEHOLDS: list all plots of which anyone in the household owned or cultivated during the Masika season. List all plots cultivated by the household - whether they are owned or not by the household (rented or cultivated freely).

**Definition of a plot:** A contiguous piece of land is a single plot in almost every case. However, if the farmer thinks of the plot as multiple separate plots and these plots have different tenure status you should treat them as separate plots.

If a plot is cultivated by different households (e.g. the household you are interviewing is cultivating bananas and coffee, but another household is cultivating beans on the same plot), the plot must be considered, because the household is growing crops on the plot.

**Example 1:** If the household owns four acres farmed primarily by the husband, and an adjoining acre farmed primarily by the wife, these should be treated as separate plots.

**Example 2:** If a farmer has two acres for which he has a title of some sort and also farms an adjacent two acres with no title these should also be treated as separate plots.

**Example 3:** On the other hand, if a farmer has 10 acres of land in one piece but farms only 2 of these acres, this is still one plot of 10 acres.

**Minimum size for a plot:** In rural areas the idea of a plot is usually clear. Most households will also grow something around the house (shamba la nyumbani) which should also be counted as a plot. In urban areas, households may have a few trees or plants around the house. Use the following rules when deciding whether to count these as a plot.

**mango, avocado, passion, guava, orange, mandarin, lime/lemon, jack fruit:** 2 trees

**Banana, papaya:** 10 trees

**tomatoes, carrots, cabbage, spinach, etc.:** 10 square meters (roughly a square of 3 meters, or a rectangle of 5 times 2 meters )

Be CAREFULL to list ALL the plots where members of this household worked on to cultivate crops for household consumption or for sale (profit going to the household). DO NOT list plots where members of the household worked for someone else, whether it was for free or for pay. INCLUDE plots which were only farmed by one household member, e.g. the head of household and the wife may have had their own plots which only they worked on by themselves, and which were not considered household plots but individual plots.

#### Plot Roster Q.1

All plots must be given unique names that are clearly understandable by all household members. We need to make sure that any household member who may be recontacted will be able to identify the plot based on the name given here.

**Example:** Name like, 'Maize farm' is not sufficient because the crops grown in the next season may not be the same. Write the name of the plot like 'Kiswaga Plot', 'Home plot', etc.

For TREATMENT households: this question will be pre-populated - do NOT edit under any circumstances. If a plot has been left off the roster then add a new row to record it.

#### Plot Roster Q.2

It is necessary to provide sufficient information on the plot locations to be readily able to identify them in subsequent years.

**Example:** The plot is located at Mahameni area, nearby the household, grazing areas etc.

For TREATMENT households: this question will be pre-populated - do NOT edit under any circumstances. If a plot has been left off the roster then add a new row to record it.

#### Plot Roster Q.3

This question is for TREATMENT households only. Make sure that you are extremely careful to select the correct answer here, as this will determine enablement rules in the rest of the section. For each plot listed in the roster, verify whether it was owned or cultivated by the household during the Masika season. If the plot was OWNED or CULTIVATED then select 'Yes'. Even if the plot was owned, but not cultivated, then you must select 'YES' - in the next section you will be able to specify whether the plot was actually cultivated or not. If the plot was neither owned nor cultivated during the Masika season then select 'NO' and make an appropriate comment as to why the plot may have been listed previously. For example, 'Plot was rented and was intended to be cultivated during Masika season but was then given back to owner before any cultivation took place'. If the respondent has no idea what the listed plot refers to then select 'CANNOT IDENTIFY'.

## SCREEN 4.2: AG2. PLOT DETAILS

For both Control and Treatment households, all plots cultivated and/or owned during the Masika season will automatically be displayed here. For CONTROL households, ALL plots listed in the previous Plot Roster should appear here. For TREATMENT households, all plots with Q3=YES in the previous roster will be displayed here.

### START ROSTER 4.2.1: Plot Details

#### Plot Details Q.1

Ask the respondent to estimate if they are unsure. If the primary residence is on the parcel in question the response should be 0. Enter 240 if time taken to walk to the parcel is 240 minutes or more.

The question seeks to capture an estimated time used to walk between the HH dwelling and the parcel/land in question. It is expected that the time walked - if the parcel is located within same village - will not exceed 4 hours (240 minutes); 240 minutes will be used for all distances walked beyond four hours.

#### Plot Details Q.2

This refers to closest MAIN road. The road to the village would usually split off from the closest main road. Ask the respondent to estimate the walking time if they are unsure.

#### Plot Details Q.3

This refers to nearest market where they usually go to sell their produce or, if they do not sell from a market, the market from which they buy crops (fruit, vegetables).

AG2A. DETAILS Q.1	<p>For BOTH treatment and control households, this response may vary. For treatment households, this should correspond with the plot status as displayed in the previous roster - double check the answer with the respondent if this is not consistent. If the displayed status in the roster is indeed incorrect, then please make a comment to confirm that it should be updated. Note that only plots marked as CULTIVATED will be included in the subsequent sections regarding labour and crop cultivation. And only cultivated plots need to be measured.</p> <p>The response 'GIVEN OUT' means the respondent's household allowed someone outside the household to use this plot for free, and received none of the crops from this land and no other payments (in cash or kind) from the person who cultivated it. If payments were received in cash or in kind, you should use the code for 'RENTED OUT' instead.</p>
AG2A. DETAILS Q.2	<p>This question will only be enabled for plots classified as 'RENTED OUT' in Q1 above. Help the respondent to add up all the income the household received/will receive, from renting out the plot during the Masika season. This should include all cash payments, the estimated cash value of in-kind payments, income in the form of crop output received, as well as future income or the cash value of payments they expect from their tenants even if those tenants have not yet paid. Make sure that all the income is related to the use of the plot during the Masika season (e.g. it SHOULD not include rental payments received for using the land for the next season).</p>
AG2A. DETAILS Q.3	<p>Indicate 'yes' if a portion of the rent paid for this plot by the tenants was in the form of goods (crops or other items) instead of in cash.</p>
AG2A. DETAILS Q.4	<p>When you calculated the total income from this plot in question 2, you counted both cash and in-kind contributions. Here you should indicate the percentage of that total income calculated in question 2 that was paid in kind. So if the total income was 125,000 TSH, of which 35,000 TSH was paid in cash and 90,000 TSH was delivered in the form of maize, then the percentage delivered in kind is <math>90,000/125,000</math> or 72%..</p>
AG2A. DETAILS Q.5	<p>Select the household member who was the main person responsible for deciding what to plant during the Masika season.</p>
AG2A. DETAILS Q.6	<p>Select the second most important household member who was responsible for deciding what to plant during the Masika season.</p>
AG2A. DETAILS Q.7	<p>Select the third most important household member who was responsible for deciding what to plant during the Masika season.</p>
AG2A. DETAILS Q.8	<p>Ask who made decisions related to inputs, such as what input to use, how much input to use, how the input should be applied to the plots etc. Select up to 3 ID codes from household roster.</p>
AG2A. DETAILS Q.11	<p>Soil texture is useful for understanding potentially how productive the plot might be in producing crops. Sandy soil is "light", whereas clay soil is "heavy". Clay soils are good for making bricks. Sandy soils are too loose to make good bricks. Loam soil is in between sandy and clay soil.</p>
AG2A. DETAILS Q.12	<p>The soil quality refers to the fertility of the soil. Good soils are fertile and can grow and sustain a large harvest. Bad soils are difficult to grow large harvests. Average soils rank in between good and bad soils.</p>

AG2A. DETAILS Q.13	Erosion refers to the loss of top soil from rain, wind, animals or people. Indicate yes if all or some of the plot suffered from erosion during the last long rainy season.
AG2A. DETAILS Q.14	<p>If the respondent does not understand what you mean by “erosion control / water harvesting facility,” explain by referring to the different methods/facilities as follows:</p> <p>Terraces: Terraces are similar to steps cut into the side of a sloped plot to provide flat growing areas and to prevent water run-off.</p> <p>Erosion Control Bunds: Bunds are built up by farmers, usually made out of stone or soil, to prevent run-off on steep slopes.</p> <p>Gabions / Sandbags: Gabions are structures, usually made of metal mesh, that are filled with earth and/or stone to built walls on slopes. Sandbags can similarly be used to prevent water or soil from running off the land.</p> <p>Vertiver Grass: Vetiver grass may be established as permanent vegetative barriers in the bed of the gully to slow down runoff. They also trap sediment and organic matter, which enhances regeneration of vegetation and terrace formation within the gully.</p> <p>Tree belts: Tree belts are line of trees planted to either break the wind or to stabilize erosion prone areas.</p> <p>Water Harvest Bunds: Water harvest bunds are built out of earth or stone to channel water into collection areas.</p> <p>Drainage Ditches: Drainage ditches are ditches built to collect runoff water. They are very commonly found on roadsides.</p> <p>Dam: A dam stops or slows the course of a river or stream to allow water to collect into a lake or pond.</p>
AG2A. DETAILS Q.15	If water does not readily drain from the plot, it is flat. Steep and hilly plots will be somewhat difficult to cultivate because of the slope.
AG2A. DETAILS Q.16	This question includes both mechanized and manual irrigation.
AG2A. DETAILS Q.17	<p>Sprinkler irrigation is a way of applying irrigation that is similar to natural rainfall. It can be used on many crops, soils and geographic conditions. Micro (drip) irrigation includes a number of technologies, where water is applied only to part of the field surface. It can save on water and improve crop yield. The costs of purchasing, operating and maintaining the equipment are high.</p> <p>Watering can or bucket irrigation is the simplest form of overhead irrigation, and is widely used by smallholder farmers. This method is best for small plots of land, such as vegetable gardens, that are close to various water sources.</p>
AG2A. DETAILS Q.18	Gravity is the appropriate response for any method that relies of water running down a channel or slope, either natural or man-made. Motorized pumps are water lifting devices that are propelled either by diesel, petrol or electricity. An example of a motor pump is the radial flow pump commonly known as centrifugal pump. If there were multiple methods of obtaining water, ask the respondent about the main method.
AG2A. DETAILS Q.19	POND/TANK (BWAWA/DIMBWI/ TENKI) refers to a pond or a tank that was built to accumulate water.
AG2A. DETAILS Q.20	Fallowing refers to leaving land empty, to rest for a season, usually to improve the soil quality. It can include both intentional and unintentional fallowing. Ask the most recent year the plot was left fallow (the year must be written in 4 digits, example 2005, 2009 etc). If never left fallow, write 0, and if the respondent does not know, write -99.
AG2A. DETAILS Q.21	Answers should be round to the nearest half year. 6 months = 0.5 years.

AG2A. DETAILS Q.22	“Owned” implies that the land cannot be taken without the household’s permission. Land that is “used free of charge” might be taken back by the owner or the village leaders at some time in the future.
AG2A. DETAILS Q.23	If the plot is co-owned, it is likely that they share all or part of the crops grown. Use the codes listed in the questionnaire to identify the household’s share of the output.
AG2A. DETAILS Q.25	List up to two owners in order of importance by selecting them from the drop-down menu. If the plot is owned by the entire household, list the 2 most senior members of the household.
AG2A. DETAILS Q.27	Include all payments relating to the use of the plot during the long rainy season 2014, including cash, payments in terms of crop harvests, other in-kind payments, payments that have not yet been made but are expected to be made in the future, and payments made a long time before but directly for the use of the plot during the long rainy season 2014.
AG2A. DETAILS Q.28	Question 27 listed an amount of money paid to rent the land. Question 28/29 asks whether this payment covered the whole year, only part of the year, multiple years, etc. For example, if the household paid 40,000 TSH in 2012 for the use of the plot in long rainy seasons in 2012, 2013 and 2014, then '40,000 TSH' should be entered in question 27, and in question 28, there should be a '3' for the number of units and a 'Years' should be selected in question 29.
AG2A. DETAILS Q.30	If the respondent farms a plot that is owned by someone else, he or she may pay the owner a portion of the crops from the land. This question asks how much of the crop was given to the owner. The interviewer should choose the code from the list closest to the actual amount provided by the respondent. Example: If the total amount of harvested rice is 30 kg and 10 kg was given to the owner, then the percentage is 10/30 or 33% and the response should be coded as 3. Alternatively, if the total value of the crop was 125,000 TSH, of which 35,000 TSH was paid to the owner, then the percentage is 90,000/125,000 or 72% and the response should be coded as 5.
AG2A. DETAILS Q.31	Organic fertilizers are fertilizers from animal waste products. If organic fertilizer was applied to ANY crop on this plot, answer yes, even if it was not applied to all crops on this plot.
AG2A. DETAILS Q.32	Ask the respondent the amount of organic fertilizer applied. Write weight in kilograms – converting from traditional or non-standard units as necessary.
AG2A. DETAILS Q.33	In many cases, the farmer will use organic fertilizer produced by his animals on his farm, or receive manure from neighboring farms free of charge. This question asks if he or she purchased any from a person or commercial provider.
AG2A. DETAILS Q.34	Ask the respondent the amount of organic fertilizer purchased. Write weight in kilograms – converting from traditional or non-standard units as necessary.
AG2A. DETAILS Q.35	Inorganic fertilizers are commercial fertilizers and include DAP, urea, etc. If inorganic fertilizer was applied to ANY crop on this plot, answer yes, even if it was not applied to all crops on this plot.
AG2A. DETAILS Q.36	Ask the respondent the first type of inorganic fertilizer that they used, using the codes listed in the questionnaire.

AG2A. DETAILS Q.37	Ask the respondent the amount of inorganic fertilizer purchased. Write weight in kilograms – converting from traditional or non-standard units as necessary.
AG2A. DETAILS Q.41	Pesticides are chemicals that are used to kill insects or other small animals that damage the crop or the harvest. Herbicides are chemicals that are used to kill weeds and other unwanted plants that grow on the plot. Fungicides are also included in this question and are used to kill fungus that might grow on plants.
AG2A. DETAILS Q.42	Ask the respondent the type of pesticide/herbicides that he or she used, and use the codes in the questionnaire. If the respondent used more than one type, chose the MAIN or most important type.
AG2A. DETAILS Q.43	Ask the respondent the amount of pesticide/herbicide used. If the respondent applied the herbicide/pesticide more than once, you should record the total amount of the applications taken together. Indicate the correct amount and select the applicable unit in question 44 below.

## SCREEN 4.2.1.2: AG2B. HOUSEHOLD LABOR

This section records each individual household member's labour on the household's plots during the Masika season, and is very important to this study as a whole. The section will ONLY be enabled for CONTROL households.

Control households will be randomly divided into 2 groups - one group will be administered Version 1 questions, and the other will be administered Version 2 questions. One of the sub-screens will be automatically enabled, so you will know which Version has been assigned to the household.

### START ROSTER 4.2.1.2.1.1: PLOT HOUSEHOLD LABOUR V1

This roster asks for labour time spent on individual activities (including "land preparation and planting," "weeding," "ridging, fertilizing and other non-harvest activities," and "harvesting") for each household member that worked on the plot during the Masika season.

PLOT HOUSEHOLD LABOUR V1 Q.1	Add a new row for each household member that carried out at least one of the activities ("land preparation and planting," "weeding," "ridging, fertilizing and other non-harvest activities," and "harvesting") during the Masika season. Only household members 5 years and older will appear in the drop-down menu, and each member can only be selected once in the roster.
PLOT HOUSEHOLD LABOUR V1 Q.2	This question asks on how many days MEMBER has worked on PLOT doing Land preparation and Planting. This does not refer to complete days, but just asks on how many days member has worked. Count ANY day member has worked on plot doing Land preparation and Planting, even if it was only for short time.
PLOT HOUSEHOLD LABOUR V1 Q.3	This question asks on how many days MEMBER has worked on PLOT doing Weeding. This does not refer to complete days, but just asks on how many days member has worked. Count ANY day member has worked on plot doing Weeding, even if it was only for short time.
PLOT HOUSEHOLD LABOUR V1 Q.4	This question asks on how many days MEMBER has worked on PLOT doing Ridging, Fertilizing, or Other Non-Harvest Activities. This does not refer to complete days, but just asks on how many days member has worked. Count ANY day member has worked on plot doing Ridging, Fertilizing, or Other Non-Harvest Activities, even if it was only for short time.

#### PLOT HOUSEHOLD LABOUR V1 Q.5

This question asks on how many days MEMBER has worked on PLOT doing Harvesting. This does not refer to complete days, but just asks on how many days member has worked. Count ANY day member has worked on plot doing Harvesting Activities, even if it was only for short time. NOTE: Harvesting refers to the activities involved in cutting the crops and taking them to the place of storage EVEN if the storage place is initially the plot itself. DO NOT count any activities associated with processing the crops. For example, a farmer may cut their maize and then leave the cobs on the plot for a week. After a week he/she may carry the cobs to a storage room where they may peel the cobs and perform further processing activities. In this scenario, the days spent cutting the maize should be counted; however, NEITHER the week in between cutting and transferring, NOR the days spent peeling and processing should be count.

#### AG2B1. VERSION 1 Q.6

Ask the respondent how many hours a day do the household members typically work on the plot on land preparation and planting. If different household members typically work different amount of hours per day, then average the amount of hours for all household members. For example, imagine Mr. Juma and his wife are the only two members of the household who work on this plot. If Mr Juma typically spends 1 hour a day on land preparation and planting and his wife typically spends 2 hours a day on land preparation and planting on the plot, then the interviewer would write  $1.5\left[\frac{(1+2)}{2}\right]=1.5$  as the response.

#### AG2B1. VERSION 1 Q.7

Ask the respondent how many hours a day do the household members typically work on the plot on weeding. If different household members typically work different amount of hours per day, then average the amount of hours for all household members. For example, imagine Mr. Juma and his wife are the only two members of the household who work on this plot. If Mr Juma typically spends 1 hour a day on weeding and his wife typically spends 2 hours a day on weeding on the plot, then the interviewer would write  $1.5\left[\frac{(1+2)}{2}\right]=1.5$  as the response.

#### AG2B1. VERSION 1 Q.8

Ask the respondent how many hours a day do the household members typically work on the plot on Ridging, Fertilizing, and Other Non-Harvest Activities. If different household members typically work different amount of hours per day, then average the amount of hours for all household members. For example, imagine Mr. Juma and his wife are the only two members of the household who work on this plot. If Mr Juma typically spends 1 hour a day on Ridging, Fertilizing, and Other Non-Harvest Activities, and his wife typically spends 2 hours a day on Ridging, Fertilizing, and Other Non-Harvest Activities on the plot, then the interviewer would write  $1.5\left[\frac{(1+2)}{2}\right]=1.5$  as the response.

#### AG2B1. VERSION 1 Q.9

Ask the respondent how many hours a day do the household members typically work on the plot on harvesting. If different household members typically work different amount of hours per day, then average the amount of hours for all household members. For example, imagine Mr. Juma and his wife are the only two members of the household who work on this plot. If Mr Juma typically spends 1 hour a day on harvesting, and his wife typically spends 2 hours a day on harvesting the plot, then the interviewer would write  $1.5\left[\frac{(1+2)}{2}\right]=1.5$  as the response. Remember, harvesting refers to the activities involved in cutting the crops and taking them to the place of storage EVEN if the storage place is initially the plot itself.

## START ROSTER 4.2.1.2.2.1:PLOT HOUSEHOLD LABOUR V2

This roster asks for labour time spent as a whole on any activity (including “land preparation and planting,” “weeding,” “ridging, fertilizing and other non-harvest activities,” and “harvesting”) for each household member that worked on the plot during the Masika season. It does not split up time by activity as in Version 1 of the labour questions.

#### PLOT HOUSEHOLD LABOUR V2 Q.1

Add a new row for each household member that carried out at least one of the activities (“land preparation and planting,” “weeding,” “ridging, fertilizing and other non-harvest activities,” and “harvesting”) during the Masika season. Only household members 5 years and older will appear in the drop-down menu, and each member can only be selected once in the roster.

PLOT HOUSEHOLD LABOUR V2 Q.2	This question asks on how many weeks MEMBER has worked on PLOT doing ANY activity during the Masika season. This does not refer to complete weeks, but just asks during how many weeks member has worked. Count ANY week member has worked on plot doing ANY activity, even if it was only for one day.
PLOT HOUSEHOLD LABOUR V2 Q.3	This question asks on how many days per week MEMBER has worked on PLOT doing ANY activity, during the weeks that they have just mentioned. This does not refer to complete days, but just asks on how many days member typically worked during those weeks that they worked. Count ANY day member worked on plot doing ANY activity, even if it was only for short time.
PLOT HOUSEHOLD LABOUR V2 Q.4	Ask the respondent how many hours per day the household member typically worked on the plot doing ANY activity, during the days that they worked.
Plot Details Q.4	This question will only be asked to CONTROL households. Ask the respondent if the household employed any person to work in the plots for payments during the long rainy season 2014. This should include anyone that worked on the plot from outside the household, even if they were not paid.

### SCREEN4.2.1.3:AG2C. HIRED LABOR

Ask the respondent during the long rainy season 2014, how many days did the household hire a person to work in the plot for the four listed activities, "land preparation and planting," "weeding," "ridging, fertilizing and other non-harvest activities," and "harvesting." This information is divided into categories, man days, woman days, child days, and total wages paid.

"Man days" equals the total number of men working multiplied by the number of days they worked.

Let the respondent decide whom she/he considers to be a child or a (wo)man.

Example: On PLOT suppose I hired 5 people to work to do land preparation and planting and that I paid each of them 2,000 per day per adult. I hired 2 men and 2 women and 1 child. Man A worked for 3 days, Man B worked for 2 days 6 hours each, Woman C and her child each worked for 7 days 4 hrs each, and Woman D worked for 1 day for 4 hrs also, then the following information should be entered:

Women: 32, Men: 30, Children: 28, The child was not paid. The total wage paid (Q2) was: Woman: 16,000, Men: 10,000, Children: 0.

AG2C. HIRED LABOR Q.4	Ask the respondent how many hours a day women, men and children typically worked on the plot doing land preparation and planting. If the number of hours varies between women, men and children, then average the amount of hours for the 3 groups.
AG2C. HIRED LABOR Q.9	Ask the respondent how many hours a day women, men and children typically worked on the plot doing weeding. If the number of hours varies between women, men and children, then average the amount of hours for the 3 groups.
AG2C. HIRED LABOR Q.14	Ask the respondent how many hours a day women, men and children typically worked on the plot doing ridging, fertilizing, and other non-harvest activities. If the number of hours varies between women, men and children, then average the amount of hours for the 3 groups.
AG2C. HIRED LABOR Q.19	Ask the respondent how many hours a day women, men and children typically worked on the plot doing harvesting. If the number of hours varies between women, men and children, then average the amount of hours for the 3 groups.

### SCREEN4.3:AG3. CROPS BY PLOT

NOTE: This section is about seasonal crops, NOT fruits, trees, cassava or any other perennial crops.

## START ROSTER 4.3.1:Crops by Plot

In this roster, one line refers to a specific crop on a specific plot. If the household grows multiple crops on the same plot, they should be listed separately (for example, maize and beans on the same plot will be on different lines). If the household grows the same crop on different plots (for example, cassava on two plots) these should be on different lines.

Crops by Plot Q.1	Select all plots that were cultivated during the Masika season. If multiple crops were grown on the same plot, the plot should be selected in multiple rows, but only once per different type of crop. Only plots that were indicated as being 'CULTIVATED' in section AG2A Q1, will be available in the Drop-down menu.
Crops by Plot Q.2	For each plot, select all the crops that were grown during the Masika season. If a crop was grown across multiple plots, then select this crop in multiple rows, for each applicable plot. Remember, only season crops will be available in the Dropdown menu, as permanent and fruit crops will be recording in the following sections.
AG3A. Crop Details Q.1	This question asks if the crop was planted on the entire plot, or if just in part.
AG3A. Crop Details Q.4	Intercropped means that two or more types of crops were grown mixed together in a single area of the plot.
AG3A. Crop Details Q.6	Ask the respondent about the main seed variety that was used for the crop on the plot. The main seed variety would be the one that the household used the most amount of to plant the crop on the plot. If the household mixed a few varieties of seeds together into a bucket to plant on a plot, then the main seed variety would be the one that had the largest amount in that mix.
AG3A. Crop Details Q.7	Ask the respondent about how many different varieties of seeds of this [CROP] was planted on the plot. This number should include the main seed variety that was listed in question 6. For example, if the household planted 4 different varieties of maize on their main plot, then the interviewer should record 4 for this question.
AG3A. Crop Details Q.8	RECYCLED seed includes seed that was purchased in previous season, but only used in season just past OR, seed that has been obtained from crops that were originally planted (in previous season) using improved seed.
AG3A. Crop Details Q.9	Record the quantity of seeds used in Q9 and the unit of measurement in Q10. For units, a small cup should be about a 250 ml cup and a large one about 500 ml. If the unit of measurement is not available on the code list, select 'OTHER (SPECIFY)' and write the unit type in words. Because the size of baskets varies so greatly, if the respondent reports a basket as the unit, probe further to try to get the respondent to estimate the weight of the seeds in kilograms.
AG3A. Crop Details Q.12	RECYCLED seed includes seed that was purchased in previous season, but only used in season just past OR, seed that has been obtained from crops that were originally planted (in previous season) using improved seed.
AG3A. Crop Details Q.13	Pre-harvest losses refer to any crops that were destroyed by disease, animals etc before they were harvested.
AG3A. Crop Details Q.14	Ask the respondent the main reason for such loss. Common reasons include pests, animals, theft, natural disasters etc.
AG3A. Crop Details Q.15	This question asks if any crop was harvested during the long rainy season 2014. Record yes even if the entire crop was destroyed after the harvest.

AG3A. Crop Details Q.16	'Not mine to harvest' would be the most appropriate response if the crop grown on this plot does not belong to the household, and therefore cannot be harvested by household members. 'Still in plot' would be the most appropriate response if the crop is still in the field and not yet ready to be harvested (however, in the endline survey, this is not likely).
AG3A. Crop Details Q.18	If the household suffered losses, the area harvested may be smaller than the area planted.
AG3A. Crop Details Q.20	Note: this does NOT refer to the start of the season (planting). It only refers to when the household started harvesting.
AG3A. Crop Details Q.21	If the household has not yet finished harvesting, write '0'. Even if the household were in the process of harvesting, it would not be considered complete until the entire crop from an individual plot has been harvested. Remember this is separated by crops and plots, so if the maize harvest is completed for one plot but not the other, the completed plot should be marked as complete and the other plot as incomplete. Similarly, if one crop is completely harvested from an individual plot but the other crops grown on this plot are still in the field, mark the completed crop complete, and the others as incomplete.
AG3A. Crop Details Q.22	This question should be asked for the individual crop on the individual plot. For example, the question could ask "how many more days do you expect the maize harvest to last on Shamba Nyumbani?"
AG3A. Crop Details Q.23	Ask the respondent to get the fraction in percentage, and express this percentage in two digits.
AG3A. Crop Details Q.24	This question asks the respondent for the quantity harvested from the individual crop on the individual plot. It is very important that this measure be expressed in kilograms. This means you must convert all local units into kilograms.
AG3A. Crop Details Q.25	Ask the respondent to estimate the value of the harvest recorded in question 24 at the time of that harvest. They should answer this question even if they did NOT sell any of this crop.
AG3A. Crop Details Q.26	Select the most important decision maker regarding the use of the harvested crop.
AG3A. Crop Details Q.27	Select the second most important decision maker regarding the use of the harvested crop.

## START ROSTER 4.4.1:SALES

This roster is at the CROP level (not the plot-crop level). All crops listed in the previous section (AG3. CROPS BY PLOT) will automatically be displayed here. Questions that follow should be answered for the crop in general, even if the crop is planted across multiple plots.

### SALES Q.1

For each crop grown during the long rainy season 2014, ask the respondent if any of the produce was sold. This refers to POST-HARVEST SALES only. For example, if the farmer sold their land with their crops still in it, do NOT count this as sales.

AG4A. Sales Details Q.1	Indicate the amount sold in kilograms. If the respondent gives a measure in local units, this measure must be converted into kilograms. The amount sold of each crop should not be greater than the amount harvested on all plots that was reported in question 24 in section AG3A.
AG4A. Sales Details Q.2	Write the amount of money received from sales in TSH.
AG4A. Sales Details Q.3	Ask the respondent the amount that he or she sold to the first buyer. Indicate the amount in kilograms. Customer #1 refers to the customer who bought the largest quantity of the crop.
AG4A. Sales Details Q.4	Indicate the total value of these sales (the price paid by the first buyer to the respondent) in TSH. Customer #1 refers to the customer who bought the largest quantity of the crop.
AG4A. Sales Details Q.5	Ask the respondent in what month most of the sales occurred. This may be easy (such as with a crop that is sold all at once), or very difficult (such as with tomatoes which can be sold many times throughout the year). You should probe to capture the best information from the respondent.
AG4A. Sales Details Q.6	This question asks the respondent which household members were predominantly responsible for negotiating sales to the customer. These would be the household members that the customer primarily dealt with when they were buying the crop. If the customer was a place, such as the local market, then it would be the household members that went to market to sell the crops. Select the household member most responsible for negotiating the sales.
AG4A. Sales Details Q.7	Select the SECOND most responsible household member for negotiating the sales.
AG4A. Sales Details Q.8	This question asks the respondent who in the household makes the decisions related to the amount earned from selling the crop (or the person who WILL decide what to do with the earnings, if they have not yet been received). Some household spending decisions are made as a joint decision from the head and spouse (therefore you should select them from the drop-downs), some decisions are made by the head only or the spouse only, or by another household member. The interviewer should select the two household members that had the most decision power.
AG4A. Sales Details Q.9	Select the household member who had the second most decision making power.
AG4A. Sales Details Q.10	Ask the respondent the amount that he or she sold to the SECOND buyer. Indicate the amount in kilograms. Customer #2 refers to the customer who bought the second largest quantity of the crop.
AG4A. Sales Details Q.11	Indicate the total value of these sales (the price paid by the second buyer to the respondent) in TSH. Customer #2 refers to the customer who bought the second largest quantity of the crop. If there was only one customer, put 0 for this question and go to next section.
AG4A. Sales Details Q.12	Ask the respondent in what month most of the sales occurred. This may be easy (such as with a crop that is sold all at once), or very difficult (such as with tomatoes which can be sold many times throughout the year). You should probe to capture the best information from the respondent.

AG4A. Sales Details Q.13	This question asks the respondent which household members were predominantly responsible for negotiating sales to the customer #2. These would be the household members that the customer primarily dealt with when they were buying the crop. If the customer was a place, such as the local market, then it would be the household members that went to market to sell the crops. Select the household member most responsible for negotiating the sales.
AG4A. Sales Details Q.14	Select the SECOND most responsible household member for negotiating the sales with customer #2.
AG4A. Sales Details Q.15	This question asks the respondent who in the household makes the decisions related to the amount earned from selling the crop to customer #2. Some household spending decisions are made as a joint decision from the head and spouse (therefore you should select them from the drop-downs), some decisions are made by the head only or the spouse only, or by another household member. The interviewer should select the two household members that had the most decision power.
AG4A. Sales Details Q.16	Select the household member who had the second most decision making power.

## SCREEN4.5:AG5. PERMANENT CROPS BY PLOT

This section is about any permanent or fruit crops, which have been cultivated since January. Note, these questions are at the PLOT level. If one type of fruit/permanent crop is planted on multiple plots, these should be reported on separately by plot. Refer to the Crop Groups PDF document for the full list of fruit and permanent crops.

AG5. PERMANENT CROPS BY PLOT Q.1	Ask the respondent if they cultivated any FRUIT crop since January. Common examples of fruit trees are passion fruit, banana, mango, papaya and oranges. The complete list of codes for fruit trees are listed in the Crops Groups pdf file. Be sure to probe carefully if the respondent gives you the name of a fruit not on this list. In many cases this is the local name for a fruit that is in fact on the list.
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## START ROSTER 4.5.1:FRUIT CROPS

In this roster, one line refers to a specific fruit crop on a specific plot. If the household grows multiple fruit crops on the same plot, they should be listed separately (for example, bananas and avocados grown on the same plot will be on different lines). If the household grows the same crop on different plots (for example, mango on two plots) these should be on different lines.

FRUIT CROPS Q.2	Select the relevant plot from the Dropdown list. The same plot should be selected multiple times if there is more than one fruit crop on the plot.
FRUIT CROPS Q.5	Record the year in 4 digits in which the fruit trees were planted. If the trees were planted at multiple times, record the year in which the largest portion was planted. If the trees were planted before the respondent was born or if the plot was bought with the trees already planted in it, then record -99 (Don't Know).
FRUIT CROPS Q.6	Ask about the number of fruit trees planted since January 2014. These are new trees only.
AG5A. Details Q.1	Ask if there is a plot in which intercropping was done in the past Masika season. Verify that the answers are consistent with what you have previously recorded in the questionnaire. For any plot with more than one crop listed, the answer should be yes. Note, this refers to intercropping with ANY other crop, including seasonal crops.

AG5A. Details Q.3	This question asks about the production cycle of the fruit. Indicate the month and year in which the last fruit season started (when the first fruits appeared) and the year and month in which the last fruit season ended (when the harvest was completed). If production is continuous, use the months since January to indicate the season. If ALL the trees on a plot were planted very recently and they are still too young to bear fruit, then write -98 for 'Year' (both Q3 and Q5).
AG5A. Details Q.7	This question asks about the household members that have the power to decide what is done with the harvested fruit (i.e. sell it). Select the household members from the Dropdown list. List up to two members in Q7 and Q8.
AG5A. Details Q.9	If the respondent is unsure of the amount in kilograms, help them to provide an estimate and convert from local units if necessary. For example, if they say they harvested 100 bunches of bananas, ask them to estimate the weight in Kg of 1 bunch. Then multiply this amount by 100 to get the total amount in kilograms. If there was no harvest since January, put 0.
AG5A. Details Q.10	Ask for the main reason why there was no harvest since January.
AG5A. Details Q.11	This includes only losses that occurred while the fruit was still on the trees.
AG5A. Details Q.12	Ask for the main reason for the losses.
AG5. PERMANENT CROPS BY PLOT Q.7	Ask the respondent if they cultivated any PERMANENT crops since January. Permanent crops are crops that grow continuously for many years and can be harvested many times. They do not need to be planted every year like annual crops. For example, cassava is considered an annual crop because it can be harvested every 6 to 12 months depending on the variety. Other examples of common permanent crops are pineapples, coconut, sugar cane, cashew nuts and pigeon peas.

## START ROSTER 4.5.2:PERMANENT CROPS

In this roster, one line refers to a specific permanent crop on a specific plot. If the household grows multiple permanent crops on the same plot, they should be listed separately (for example, coffee and cassava grown on the same plot will be on different lines). If the household grows the same crop on different plots (for example, cashew nut on two plots) these should be on different lines.

PERMANENT CROPS Q.11	Record the year in 4 digits in which the crop was planted. If the crop was planted at multiple times, record the year in which the largest portion was planted. If the trees were planted before the respondent was born or if the plot was bought with the trees already planted in it, then record -99 (Don't Know).
AG5B. Details Q.1	Ask if there is a plot in which intercropping was done in the past Masika season. Verify that the answers are consistent with what you have previously recorded in the questionnaire. For any plot with more than one crop listed, the answer should be yes. Note, this refers to intercropping with ANY other crop, including seasonal crops.
AG5B. Details Q.3	This question asks about the production cycle of the permanent crop. Indicate the month and year in which the last season started (when the first crops appeared) and the year and month in which the last season ended (when the harvest was completed). If production is continuous, use the months since January to indicate the season. If ALL the plants on a plot were planted very recently and they are still too young to be harvested, then write -98 for 'Year' (both Q3 and Q5).

AG5B. Details Q.7	This question asks about the household members that have the power to decide what is done with the harvested crop (i.e. sell it). Select the household members from the Dropdown list. List up to two members in Q7 and Q8.
AG5B. Details Q.9	If the respondent is unsure of the amount in kilograms, help them to provide an estimate and convert from local units if necessary. For example, if they say they harvested 100 bags of cashew nuts, ask them to estimate the weight in Kg of 1 bag. Then multiply this amount by 100 to get the total amount in kilograms. If there was no harvest since January, put 0.
AG5B. Details Q.10	Ask for the main reason why there was no harvest since January.
AG5B. Details Q.12	Ask for the main reason for the losses.

## SCREEN 4.6: AG6. PERMANENT CROPS - TOTAL

This section is at the CROP level.

### START ROSTER 4.6.1: FRUIT CROPS - TOTAL

All fruit crops that were listed in the previous section, and that have been harvested since January, will be displayed here. The questions in this roster are all at the FRUIT CROP level (not plot level).

#### FRUIT CROPS - TOTAL Q.1

This refers to POST-HARVEST SALES only. For example, if the farmer sold their land with their crops still in it, do NOT count this as sales.

#### AG6A. Details Q.1

Record the amount in kilograms – converting from local units if necessary.

#### AG6A. Details Q.2

Write the total value in TSH of FRUIT sold. In some cases the respondent may have sold the crop in small amounts over a long period of time. In this case he or she should estimate the total amount sold since January and record this amount in Tshillings.

#### AG6A. Details Q.3

This question asks the respondent which household members were predominantly responsible for negotiating the sale of the fruit. These would be the household members that the customer primarily dealt with when they were buying the fruit. If the customer was a place, such as the local market, then it would be the household members that went to market to sell the fruit. The interviewer should select the two household members that were the most responsible for negotiating the sales.

#### AG6A. Details Q.5

This question asks the respondent who in the household makes the decisions related to the amount earned from selling the fruit. Some household spending decisions are made as a joint decision from the head and spouse (therefore you should select them from the dropdown menu), some decisions are made by the head only (01) or the spouse only (02), or by another household member. The interviewer should select the two household members that had the most decision making power.

### START ROSTER 4.6.2: PERMANENT CROPS - TOTAL

All permanent crops that were listed in the previous section, and that have been harvested since January, will be displayed here. The questions in this roster are at the CROP level (not plot level).

## PERMANENT CROPS - TOTAL Q.2

This refers to POST-HARVEST SALES only. For example, if the farmer sold their land with their crops still in it, do NOT count this as sales.

AG6B. Details Q.1

Record the amount in kilograms – converting from local units if necessary.

AG6B. Details Q.2

Write the total value in TSH of CROP sold. In some cases the respondent may have sold the crop in small amounts over a long period of time. In this case he or she should estimate the total amount sold since January and record this amount in Tshillings.

AG6B. Details Q.3

This question asks the respondent which household members were predominantly responsible for negotiating the sale of the crop. These would be the household members that the customer primarily dealt with when they were buying the crop. If the customer was a place, such as the local market, then it would be the household members that went to market to sell the crop. The interviewer should select the two household members that were the most responsible for negotiating the sales.

AG6B. Details Q.5

This question asks the respondent who in the household makes the decisions related to the amount earned from selling the crop. Some household spending decisions are made as a joint decision from the head (1) and spouse (2) (therefore you should select them from the dropdown menu), some decisions are made by the head only (1) or the spouse only (2), or by another household member. The interviewer should select the two household members that had the most decision making power.

AG7. OUTGROWERS Q.1

If a large farmer gave or sold inputs to the respondent (seed, fertilizer, etc.), and promised to buy back their crops, this is contract farming. This is very common for certain commercial crops. Probe about any relationship the respondent may have had with nearby large farms.

## START ROSTER 4.7.1:OUTGROWER SCHEMES & CONTRACT FARMING

List each crop that was grown as part of an outgrower scheme during the Masika season 2014. There should be one row per crop.

AG7A. Outgrower Scheme Details Q.2

Ask for the respondent about any agreement with the buyer before planting. Answer for CROP SALE PRICE, AMOUNT PRODUCED, AREA PLANTED, QUALITY OF CROP, DATE OF HARVEST separately. For example, if the respondent agreed with a coffee buyer to produce 120 kilos of grade A robusto coffee at a price of 1500 TSH per kilo, then "CROP SALE PRICE," "AMOUNT PRODUCED," and "QUALITY OF CROP" are all valid. So you should select 'Yes' (1) for those questions and 'No' (2) for all the other questions. If the respondent indicates a term of the agreement that is not listed, select 'Yes' for Q7 (other) and write the response in words in the 'Specify other' field. Otherwise, select 'No' (2) for Q7.

AG7A. Outgrower Scheme Details Q.10

Ask the respondent if the buyer fulfilled the terms of the original agreement as understood by the respondent.

AG7A. Outgrower Scheme Details Q.13

Ask the respondent the main reason for breaching the contract.

## START ROSTER 4.8.1:FARM IMPLEMENTS

A watering can refers to a portable container used for watering plants and which has a handle and a spout.

FARM IMPLEMENTS Q.3	This question asks the respondent to estimate the worth of the [ITEM] now, not when the item was purchased. For example, if a household has owned an item for many years, it may be worth much less now than when the household bought it. This question asks the respondent to estimate the value of the item now if they sold it. If the household owns more than one implement (Q1>1), the value refers to the average value of one implement.
FARM IMPLEMENTS Q.4	This question asks, even if the household does not own [ITEM] now, did they own any during the year, since January. Some items may have been bought or sold during the year, but it is important to know if the household owned the item during the months since January (about which we have asked the agricultural production questions.)
FARM IMPLEMENTS Q.5	Similar to Question 4, this question asks if the household used the item. The household can own agricultural equipment but not use it, or the household may not own agricultural equipment but use them in agricultural activities. It is important to know whether the household had access to and used the item.
FARM IMPLEMENTS Q.9	Ask for the TOTAL amount of money that was spent for hiring the equipment since January. Include ALL rental arrangements - i.e. add up all payments made if multiple. If the respondent made in-kind payments for the use of this equipment, estimate value of these payments and record the total in Tshillings.

## START ROSTER 4.9.1:Extension - ADVICE

Extension - ADVICE Q.1	The question relates only to advice on agricultural and livestock activities. Do not include other types of training or information, such as women's health or child nutrition.
AGA. Extension Details Q.7	Ask the respondent which household members directly received advice from the source. Select up to 4 members.
AGA. Extension Details Q.11	Ask the respondent on his opinion about the quality of the advice he/she received.
AGA. Extension Details Q.14	Indicate the number of visits received from each [SOURCE] to the household since January. Do not include visits made to the village in general, or information sessions given for groups. Record 0 if the source never visited the household.

## START ROSTER 4.9.2:Extension - INFORMATION

Extension - INFORMATION Q.3	This question is the same as question 1 but refers specifically to price information.
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## SCREEN4.10:AG10. LIVESTOCK STOCK

This section is about taking a count of all the livestock owned by the household now and in the last 12 months. Include ALL animals owned by the household, regardless where they are kept. I.e. animals owned but kept outside of the household MUST be counted.

Note: There are many Muslim livestock owners/farmers that may find questions regarding pigs to be offensive. Muslim farmers generally do not farm and own pigs. Therefore interviewers should use religious and cultural sensitivity when asking about these subjects. To be cautious, the interviewer could apologize in advance for questions about pigs if there is any concern that the respondent may be offended.

## START ROSTER 4.10.1:Livestock Stock

Livestock Stock Q.2	Livestock or animals should include animals that are owned by the household <b>even if they are kept somewhere else</b> . The question refers to "ownership of assets", not to the physical location of the animals. Do NOT include animals kept at the household but owned by somebody else. Young animals/offspring should also be included (such as chicks in the chicken category, piglets in the pig category, kids in the goat category, etc.) The only exception to this is calves, which have their own categories.
AG10A. Livestock ownership & slaughtering Q.1	“Indigenous/local” refers to livestock of local breeds, i.e. the short-horn Zebu. This question will not be enabled for pigs or 'other' animals.
AG10A. Livestock ownership & slaughtering Q.2	“Exotic” refers to breeds introduced in the country from abroad, e.g. Holstein Friesian Cattle. “Improved” refers to crosses of exotic and indigenous breeds. This question will not be enabled for rabbits or donkeys.
AG10A. Livestock ownership & slaughtering Q.3	Include animals slaughtered both on the farm and outside of the farm (e.g. taken to slaughter in a public abattoir). Exclude those animals bought from the market and then slaughtered for preparation of meals and those animals brought into the household for only a short period to be fattened and slaughtered.
AG10A. Livestock ownership & slaughtering Q.4	Indicate the number of slaughtered animals by the household in the last 12 months. Include young or baby animals in the count as well.
AG10A. Livestock ownership & slaughtering Q.5	Ask the respondent to estimate the average deadweight of the [ANIMAL] that was slaughtered, and record the response in kilograms and not in local or traditional measurement units. This refers to the average weight of a SINGLE animal i.e. PER HEAD, not combined.
AG10A. Livestock ownership & slaughtering Q.6	This question refers only to animals slaughtered for sale, i.e. for which most parts have been sold. Do not include those that were slaughtered for other purposes (such as funerals, vocations, etc.). If none of the animals slaughtered were sold, record 0. Note: the answer to this question should not exceed the answer to Q4 (total number slaughtered).
AG10A. Livestock ownership & slaughtering Q.7	Record the TOTAL value of sales for each type of animal sold slaughtered in the previous 12 months in TSH.
AG10A. Livestock ownership & slaughtering Q.8	<p>This question asks the respondent who in the household makes the decisions related to use of the earnings from the sale of the animals: note that animals may be sold by one member of the households but some other member may decide what to do with the earnings. The information to be collected here is about the person(s) who decide what to do with the earnings.</p> <p>Consider the following example: Suppose that the household head has roster id 01 and the spouse has id 02. If the household spending decisions is made as a joint decision by the household head and the spouse, you should select them (code 01 and 02) from the drop-down menus in Q8 &amp; Q9 respectively. If the decision is made by the head only or the spouse only, select 01 or 02 respectively. If another household member makes the decision, select the appropriate roster codes.</p>

## SCREEN4.11:AG11. LIVESTOCK LABOUR

Note: Questions in this section are asked about broad animal groups i.e. Large Ruminants (Cattle and Pack animals), Small Ruminants (Goats, Sheep), Pigs, and Poultry (Chickens and Ducks) and not each animal.

## START ROSTER 4.11.1:Livestock Labour

This roster will automatically display all the animals that were reported to be owned by the household in the previous section (AG10)

AG11A. Livestock Labour Details Q.1

Ask the respondent who are the household members primarily responsible for the keeping of each type of animal. This refers to the amount of time spent to rear the animals (not on other considerations such as decisions taken on sales or earnings, which are investigated in other questions). This question asks about the (up to) two individuals who overall spend the longest time rearing [ANIMAL]. Select up to two household members in order of importance.

## SCREEN4.12:AG12. ANIMAL POWER

This section is asked for broad animal groups i.e. Large Ruminants (Cattle and Pack animals), Small Ruminants (Goats, Sheep), Pigs, and Poultry (Chickens and Ducks) and not for individual animals. Donkeys are added as a group in this section.

### START ROSTER 4.12.1:Animal Power

Animal Power Q.1

Do not include animals borrowed from others for ploughing of fields and only refer to fields cropped by the household.

## SCREEN4.13:AG13. OTHER LIVESTOCK PRODUCTS

This section should only record production from animals owned by the household: if the household buys e.g. skins or honey and resells it (with or without further processing) these activities should be recorded in the household enterprise module.

### START ROSTER 4.13.1:Livestock Products

Ask respondent if the household produced each of the items on the list IN THE LAST 12 MONTHS. Additional products of animal origin not appearing on the list should be added in row 5.

## START ROSTER 4.14.1:Fishery Household Labour

Fishery Household Labour Q.3

For each member of the household, ask the respondent to estimate the total number of months they were engaged in fishing-related activities (fishing, fish processing, or fish trading) during the last 12 months. Add the total number of months in which fishing, fish trading or fish processing was done by the household member. For example, if the member did fishing for 4 months, and only sold fish caught by others for an additional two months, the response to this question should be 6. Note that the answer should never be more than 12 however for some members it may be 0.

### SCREEN4.14.1.1:AG14A. Fishery - HH Labour Details

If the answer to Q1 in the roster is 'Yes' then this screen will be enabled. At least one answer to Q1, Q4 or Q7 should be greater than zero.

AG14A. Fishery - HH Labour Details Q.1

This question refers to fishing specifically. If the member was engaged in fish trading or fish processing, but did not do any fishing themselves, then record zero here. This question is similar to those in the labour section of the household questionnaire for estimating the amount of time a household member spends engaged in fishing. You should use common sense and estimation techniques to ensure that the respondent correctly understands the question. For example, if the respondent indicated that they engaged in fishing activities for 5 months, it cannot be that a household member works 50 weeks during the last 12 months. By using these estimation checks, you can collect better data by ensuring the respondent understands well. Record the labour for both the fulltime and the part-time fishers in the household.

AG14A. Fishery - HH Labour Details Q.2

If the answer to Q1>0 then ask for the number of days per week the hh member spent fishing since January. Note that the answer should never be more than 7 days but should be at least 1 if Q1>0.

AG14A. Fishery - HH Labour Details Q.3

If the answer to Q1>0 then ask for the number of hours per day the hh member spent fishing since January. Note that the answer should never be more than 24 but should be at least 1 if Q1>0.

AG14A. Fishery - HH Labour Details Q.4

Use definitions of fish processing and fish trading that are written in the questionnaire and that should be explained to the respondent before this question is answered. The most important distinction between these two categories is that fish processing refers to fish caught directly by household members or by people directly employed by the household while fishing trading refers to fish caught by people outside the household but sold by household members. Note that households can engage in both of these activities if, for example, a household member has a place in the market and sells both the household's own catch and fish caught by a neighbour.

How many total weeks did [NAME] engage in fish processing during the last 12 months? During those weeks, approximately how many days per week did [NAME] process fish? During those days, approximately how many hours per day did [NAME] process fish? Ask the interviewee to estimate the number of WEEKS, DAYS PER WEEK, and HOURS PER DAY the household member did fish processing work since January. Record the total number of weeks, the number of days in one week, and the number of hours in one day spent processing fish spent by each HH member. Note that fish processing is defined as selling directly to consumers or fish traders: (i) fresh fish caught by the household and/or (ii) processed fish caught by the household, which may have been subject to techniques such as smoking, sun-drying, and salting. If the HH member did not engage in fish processing during the last 12 months, write ZERO in Q4. Note that the answer should never be more than 52 weeks a year, 7 days a week or 24 hours a day.

AG14A. Fishery - HH Labour Details Q.7

How many total weeks did [NAME] engage in fish trading during the last 12 months? During those weeks, approximately how many days per week did [NAME] trade fish? During those days, approximately how many hours per day did [NAME] trade fish? Ask the interviewee to estimate the number of WEEKS, DAYS PER WEEK, and HOURS PER DAY the household member traded fish during the last 12 months. Record the total number of weeks, the number of days in one week, and the number of hours in one day spent trading fish. Note that fish trading is defined as selling (in wholesale or retail) fresh or processed fish bought from other fishers or fish processors. Selling fish caught by the household should not be considered as fish trading but as fish processing. If the HH member did not engage in fish trading during the last season, write ZERO in Q7. Note that the answer should never be more than 52 weeks a year, 7 days a week or 24 hours a day.

## START ROSTER 4.15.1:FISH / SPECIES

FISH / SPECIES Q.2

Ask the interviewee which species of fish their household has caught since January and record up to five of these, prioritizing the main species. Add up to 5 rows to the roster.

## START ROSTER 6.1:Plot GPS Measurements

For CONTROL households: only plots that were CULTIVATED during the Masika season will appear here.

For TREATMENT households: only plots that were CULTIVATED during the Masika season and were not measured during baseline or revisit rounds will appear here. Most of these plots will be assigned to your supervisor to measure, however you may need to measure a few yourself. The roster will automatically display any that you will be required to measure yourself. Speak to your supervisor if you are unsure.

## **SCREEN6.1.1:F1. GPS**

This screen will be enabled for ALL CONTROL HOUSEHOLD plots. However, it will only be enabled for a few PHONE/REVISIT household plots that were not measured during baseline or the revisit/phone rounds, but were cultivated.

We are measuring the plot size by recording the GPS coordinates of every corner of the plot. Start by finding a good corner from which you can see the next corners of the plot in both directions in straight lines. Move in ONE DIRECTION, i.e. either clockwise or counter clockwise, and record the gps coordinates in each corner. Make sure that the gps unit is at the corner itself when recording, i.e. not too far from the plot and not inside the plot. You may want to give the unit to the respondent and ask the respondent to stand in the corner when recording the coordinates. At each corner make sure you can see the next corner in a straight line. If in doubt record more corners rather than fewer corners. Record all corners around the plot, the last corner should be the first corner where you started. If the plot is enclosing another plot or area, record the outside corners, followed by the inside corners and record in a comment which is the first corner of the inside boundaries.

When recording the plot size with the farmer, make sure that you're measuring the correct plot.

You may not be able to measure all plots on the same day of the interview as some plots may be really far away. Try to measure all nearby plots on the same day as the interview, and make appointment to measure the more distant plots on another day, but before leaving the village.

## **START ROSTER 6.1.1.1:ADD ONE ROW PER CORNER AND COPY THE COORDINATES**

Add one row per corner, record the gps coordinates using the bluetooth gps unit and copy them into Q1. Make sure to make a NEW READING at every corner. Record as many corners as you need to accurately describe the shape of the plot.