



Federal Republic of Nigeria
National Bureau of Statistics Abuja, Nigeria

GENERAL HOUSEHOLD SURVEY - PANEL POST PLANTING (4th WAVE)

INTERVIEWER
INSTRUCTION MANUAL

JULY 2018

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Introduction

Over the last few decades, Nigeria has experienced substantial gaps in producing adequate and timely data to inform policy making. In particular, the country is lagging behind in the production of sufficient and accurate agricultural production statistics. Except for the Harmonized National Living Standard Survey (HNLSS), which covers multiple topics in a single survey, all other household and farm surveys conducted by the NBS, which also cover a wide range of sectors do so in separate surveys; none of which is conducted as a panel. As part of the efforts to continue to improve data collection and usability, the NBS plans to streamline two of its current surveys into one panel survey that covers multiple sectors with a focus to improve data from the agriculture sector. In 2010, the NBS implemented the post-planting round of the first wave of the Nigerian General Household Panel Survey (NGHPS). The post-harvest round of the first wave of the survey was conducted between February and April 2011. Post-planting and post-harvest visits were also conducted in 2012/13 and 2015/16. The post-planting visit of wave 4 will be conducted between July and September 2018.

Focused on the goal of improving agricultural statistics, the World Bank, through funding from the Bill and Melinda Gates Foundation (BMGF), has been supporting seven countries in Sub-Saharan Africa in strengthening the production of household-level data on agriculture. The overarching objective of the LSMS-ISA program is to improve our understanding of agriculture in Sub-Saharan Africa – specifically, its role in poverty reduction and how innovation and efficiency can be fostered in the sector. This goal will be achieved by developing and implementing an innovative model for collecting agricultural data in the region.

OBJECTIVES

- To allow welfare levels to be produced at the state level using small area estimation techniques resulting in state-level poverty figures
- To create opportunities to conduct more comprehensive analysis of poverty indicators and socio-economic characteristics by integrating the longitudinal panel survey with GHS
- To support the development and implementation of a Computer Assisted Personal Interview (CAPI) application for the paperless collection of GHS
- To develop an innovating model for collecting agricultural data
- To build capacity and develop sustainable systems for producing accurate and timely information on agricultural households in Nigeria.
- To actively disseminate agriculture statistics

COVERAGE

- The survey will cover all the 36 states and the Federal Capital Territory (FCT)
- Both urban and rural enumeration areas (EAs) will be canvassed

Sample Design

The GHS sample from 2010 has consisted of 500 EA with 10 households selected in each EA giving a sample of 5,000 households. However, over time the sample has reduced due to attrition of some households that refused to continue or moved and could not be located. This attrition means the sample is less representative of the current makeup of the country. Therefore, in wave 4, the sample will be partially refreshed. Therefore, there will be two separate samples that make up the total wave 4 sample.

First, 160 EAs comprising about 1,504 households will be retained from the old sample. That is, households that have been visited in waves 1, 2, and 3 of the GHS-Panel. This portion of the sample is distributed across all 36 states plus FCT. The distribution of the old panel sample is presented in Table 1. The sample also includes some households that were tracked previously and thus have moved from their original location

The second portion of the sample will consist of fresh households that have never been visited before. This sample will consist of 360 EAs consisting of 3,600 households. Each Zone will have 60 EAs and 600 households spread across all states within the zone. The distribution of households and EAs are displayed in Table 1. A fresh listing was conducted in May for within the 360 EAs and subsequently 10 households were randomly selected in the EA.

Training for Fieldwork

- **Two levels of training will be mounted**
 - 1st level training at the NBS Headquarters, Abuja (TOT)
 - 2nd level training at the two designated zonal training centres
- **1st level training for trainers (TOT)**
 - Participants to be trained will include:
 - 24 Senior staff of NBS from headquarters
 - 9 Coordinators comprising of Directorate staff members of NBS
 - Training will last for six days
- **2nd level training will take place in the two designated zonal training centres**
 - Participants to be trained will include:
 - Zonal Controllers
 - State officers
 - Supervisors
 - Interviewers
 - Data editors
 - Field staff will be trained for data collection and CAPI
 - Training will last for 10 days

Zone	State	OLD PANEL		REFRESH		TOTAL		# of interviewers	# of extra interviewers	# of supervisors	# of fieldwork days
		# of HH	# of EA	# of HH	# of EA	# of HH	# of EA				
North Central	Plateau	31	3	60	6	91	9	3	1	1	24
	Kwara	34	4	160	16	194	20	6	1	2	26
	Niger	52	5	70	7	122	12	4	1	1	24
	Kogi	41	4	70	7	111	11	4	1	1	22
	Benue	59	7	130	13	189	20	6	1	2	25
	Nasarawa	12	1	10	1	22	2	1	1	1	18
	FCT Abuja	27	3	100	10	127	13	4	1	1	25
	Sub- Total	256	27	600	60	856	87	28	7	9	
North East	Borno	28	3	20	2	48	5	2	1	1	19
	Yobe	10	1	60	6	70	7	2	1	1	28
	Bauchi	69	7	160	16	229	23	8	1	2	23
	Gombe	46	5	90	9	136	14	4	1	1	27
	Taraba	31	3	80	8	111	11	4	1	1	22
	Adamawa	47	5	190	19	237	24	8	1	2	24
	Sub- Total	231	24	600	60	831	84	28	6	8	
North West	Kaduna	38	4	180	18	218	22	8	1	2	22
	Jigawa	20	2	90	9	110	11	4	1	1	22
	Katsina	48	5	110	11	158	16	6	1	2	21
	Kano	70	7	80	8	150	15	4	1	1	30
	Kebbi	29	3	60	6	89	9	3	1	1	24
	Sokoto	30	3	40	4	70	7	2	1	1	28
	Zamfara	40	4	40	4	80	8	3	1	1	21
	Sub- Total	275	28	600	60	875	88	30	7	9	
South East	Enugu	55	6	120	12	175	18	6	1	2	23
	Anambra	28	3	90	9	118	12	4	1	1	24
	Ebonyi	60	6	60	6	120	12	4	1	1	24
	Abia	64	7	200	20	264	27	8	1	2	26
	Imo	41	4	130	13	171	17	6	1	2	23
	Sub-Total	248	26	600	60	848	86	28	5	8	
South South	Cross River	37	4	70	7	107	11	3	1	1	29
	Akwa-Ibom	71	7	150	15	221	22	6	1	2	29
	Rivers	33	4	80	8	113	12	4	1	1	23
	Bayelsa	35	4	40	4	75	8	3	1	1	20
	Edo	37	4	130	13	167	17	6	1	2	22
	Delta	27	3	130	13	157	16	6	1	2	21
	Sub- Total	240	26	600	60	840	86	28	6	9	

Zone	State	OLD PANEL		REFRESH		TOTAL		# of interviewers	# of extra interviewers	# of supervisors	# of fieldwork days
		# of HH	# of EA	# of HH	# of EA	# of HH	# of EA				
South West	Oyo	50	6	100	10	150	16	4	1	1	30
	Osun	56	6	30	3	86	9	3	1	1	23
	Ogun	55	6	90	9	145	15	4	1	1	29
	Lagos	48	5	200	20	248	25	8	1	2	25
	Ekiti	24	3	110	11	134	14	4	1	1	27
	Ondo	21	3	70	7	91	10	3	1	1	24
	Sub-Total	254	29	600	60	854	89	26	6	7	
Total		1504	160	3600	360	5104	520	168	37	50	

Field Procedures

FIELD SUPERVISION

The supervisor will manage all initial interactions with the community include meeting with the community leader or chief. The supervisor will also assist the interviewers with locating the assigned households and obtaining cooperation and consent from the households. Supervisors will be in touch with the interviewers regularly to observe them while conducting the interviews and ensure that it was properly done while still carrying out data collection on community questionnaire. The supervisor should take note of any issues observed during the course of an interview and discuss them with the team so the issue can be rectified. Any serious issues with an interviewer should be reported to the State Officer and HQ so appropriate action can be taken.

MONITORING OF FIELD WORK

To ensure that good quality data is collected, a monitoring exercise will be mounted. One monitor will be assigned to 2-3 states and all states and FCT, Abuja will be covered. There will be 3 levels of monitoring, the first and third by the state officers and zonal controllers while the second level would be carried out by the technical team comprising National Bureau of Statistics (NBS) headquarters staff, and the World Bank

The monitors will ensure proper compliance with the laid down procedures as contained in the manual, effect necessary corrections and tackle any problems that may arise. The monitoring exercise will be arranged such that the first level would take off during the commencement of the fieldwork, and the third one not later than a week to the end of the data collection exercise. In between these two, the technical team will embark on another round of monitoring throughout the country. While the state officer will monitor in his/her own state, the zonal controller will mount it in at least 2 states (the zonal headquarters state and one other state of the same zone).

The first-round monitoring by State Officers/Zonal Controllers/Coordinators will last for six (6) days. Following this, the second-round monitoring which will be done by the technical team/coordinators will last for six (6) days as 2-4 states will be covered at a time by an officer. Finally, the third round of monitoring by State Officers/Zonal Controllers/Coordinators exercise will last for four (4) days. Monitoring instruments will be developed and discussed during training of trainers.

COORDINATION

- Directorate members of staff of NBS will coordinate the survey
- Activities to be coordinated will include:
 - Zonal Training
 - Fieldwork
- Coordination will last for five (5) days

RETRIEVAL OF RECORDS

- All completed and edited questionnaires by each team will remain in the custody of the field supervisor even after the data has been captured by data entry operators
- The supervisor will submit the completed and edited questionnaires to the NBS state officer. He /she will coordinate the forwarding of all completed questionnaires, softcopy records, laptops and printers to the NBS Headquarters in Abuja.

S/No	Activity	Duration/ Period
1	Training of Trainers	June 25 – June 30
2	Training of Enumerators	July 3 – July 12
3	Fieldwork – Post-Planting	July 16 – varies
4	1st Monitoring (HQs Monitors/ Coordinators)	July 16 – July 21
5	2 nd Monitoring (Zonal Controllers)	July 23 – July 27
6	3 rd Monitoring (HQs Monitors)	August 1 – August 6
7	Data Processing and Analysis	September & October
8	2 nd Visit: Fieldwork – Post Harvest	January – February 2019

Conducting an Interview

Successful interviewing is an art and not a mechanical process and each interview is a new source of information to be made interesting and exciting. Although the art of interviewing develops with practice, there are basic principles e.g. on how to build rapport, conducting interviews etc., which are followed. It is essential for enumerators to develop the correct attitude in carrying out interviews. Some of the essential and necessary attributes of a good enumerator or enumerator are: *politeness*, *patience* and *perseverance*. These terms are defined in more detail in subsequent paragraphs.

ESTABLISHING RAPPORT WITH THE RESPONDENT

The enumerator and the respondent are strangers to each other and one of the main task is to establish rapport. The first impression a respondent has of you is formed through your appearance. The way you dress, your voice, gender and age may determine whether your interview is successful or not. The enumerator's demographic characteristics i.e. gender and age play a role, in combination with similar respondent characteristics and the survey topic. Several refusals in a row might affect an enumerator's ability to approach the next household. So, the respondent and enumerator interaction determines the decision of the respondent to cooperate or refuse. Dress neatly and simply. A positive attitude enhances the chances of gaining cooperation from respondents. The enumerator should assess each situation and tailor his or her approach based on prior information, perhaps obtained at the initial contact.

Always carry your official identification card with you so the respondent knows you are coming from NBS and be comfortable that you are authorized.

APPROACHING THE DWELLING

Use a direction that appears to be well used as an entrance. Do not straddle fences or any other property boundaries. Ask locals or neighbours your way to the next dwelling unit when in doubt. Try not to arrive at the selected household at an inconvenient time of the day, such as mealtimes, or too late or too early in the morning. Try to arrive when the respondents will not be too busy to answer questions.

Make a good first impression

Always do your best to make the respondent feel at ease on your first visit. With a few well-chosen words you can put the respondent in the right frame of mind for the interview. Open the interview with a smile and greetings and then proceed with your introduction as specified on your questionnaire. A good introduction of yourself, the organization you are representing, the purpose of your visit and what sort of demands you are going to place on the respondent should all be briefly articulated to the respondent. You must be well versed in the local traditional forms of greetings (especially in rural settings). Avoid mumbling and waffling. By the end of this training session it is hoped that these equally important aspects would have been covered fully.

Make sure that the respondents do not confuse you with others who might be visiting households for other reasons; for instance, malaria campaign.

If the respondents refuse to be interviewed, note the reasons on the questionnaire and inform your team leader who will take an appropriate decision. In such a circumstance, remain calm and polite at all times. Prior to declaring a household a total refusal, the enumerator must have applied the three Ps which stand for *Politeness*, *Patience*, and *Perseverance*.

- *Politeness* is best expressed as the practical application of good manners. The goal of politeness is to make all parties relaxed and comfortable with one another. It is a cultural phenomenon and therefore what is considered polite in one culture can sometimes be quite rude in another culture. Politeness must therefore seek to establish a positive relationship between parties.
- *Patience* is the state of enduring under difficult circumstances which can mean perseverance in the face of delay or provocation without acting on annoyance in a negative way, especially when faced with difficulties.
- *Perseverance* is the maintenance of effort in spite of difficulties encountered, it implies steadfastness, unremitting continuance in spite of problems or challenges faced.

Always adopt a positive approach

Never be apologetic and do not use words like, "*Are you too busy?*" "*Would you spare a few minutes?*" or "*Would you mind answering some questions?*" Such questions obviously invite refusals before you start. "*I would like to ask you a few questions*" or "*I would like to talk to you for a few minutes*" Such statements may mislead the respondent to think that your mission is unimportant and invite refusal. You can proceed as follows:

"Hello, I am (Name) from the National Bureau of Statistics (NBS) and I am here to collect data on General Household Survey (GHS). All the data collected in the Survey is strictly confidential and will be published in aggregated form where personal information of the individual such as names and addresses will not be recognized."

Note again that, a positive attitude increases the chances of gaining cooperation from respondents.

- It is essential that you stress the confidentiality of all responses. You should never mention other interviews or show completed questionnaires to other enumerators or supervisors in front of a respondent or any other person.
- Avoid the presence of persons other than members of the household during the interview.

The presence of third parties during the interview may prevent you from getting honest and frank responses from the respondent. It also violates the rule of confidentiality. It is necessary that the

interview is conducted as privately as is possible. A tactful attempt should be made to excuse third parties.

Answer any questions from the respondent frankly

The respondent may ask a few questions before agreeing to be interviewed. Be direct and pleasant and display your knowledge and understanding of all aspects of the questionnaire and the survey.

TIPS ON CONDUCTING THE INTERVIEW

Be neutral throughout the interview.

People are generally polite and may give answers they think you want to hear. Never allow the respondent to think that s(he) has given a right or wrong answer by an expression on your face or tone of your voice. Never appear to approve or disapprove any of the respondent's answers. Refer any questions raised by the respondent to the end of the interview. Note that questions are carefully worded to be neutral and do not suggest that one answer is more likely or preferable to another. Failing to read the complete question may destroy that neutrality. If an ambiguous answer is given, try to probe in a neutral way by asking like this: *"Can you explain a little more, I did not quite get you, could you please repeat what you said again?"*

- a) *Never ever suggest answers to the respondents.* For example, *"I suppose you mean that - -----, is that right?"* Rather probe, that is, asking questions in such a manner that the respondent comes up with the relevant answer.
- b) *Do not change the wording or sequence of questions.* The wording and sequence of the questions must be maintained. If the question has been misunderstood, repeat it slowly and clearly. If it is not clear, you may reword the question but without altering the meaning of the original question.
- c) *Handle hesitant respondents tactfully.* A respondent may simply say, *"I don't know"*, or may give an irrelevant answer or may act bored or detached or may contradict themselves or may refuse to answer. Try to instill interest of the respondent by spending a few moments talking about things unrelated to the interview. In doing so, please avoid engaging in potentially controversial topics or subjects such as politics, football, religion, etc. Confine your conversation to neutral topics such as the weather, agriculture and livestock, comments on the garden, etc. Do not interrupt the respondent or show any signs of impatience (*remember the 3 Ps*) when the respondent is giving irrelevant or elaborate answers. Listen to what she or he has to say and try to steer her or him back to the original question. Listening is an essential part of a two-way communication.
- d) *Do not form expectations.* You must not form expectations as to what is supposed to be the agricultural activities of the households. Also remember that differences between you and the respondent can influence the interviewee.

- e) *Do not hurry the interview.* Hurrying the interview may lead to errors in recording responses. You may also not get the correct and accurate answers from the respondent as he or she might not have fully understood or digested your question(s).

LANGUAGE OF INTERVIEW

The questionnaire for the GHS is only available in English. It is therefore imperative, that each team works out translations that fit the local dialects and culture where possible. It is very important not to change the meaning of the questions when you rephrase or interpret them. These additional translations should be done during the training and before the commencement of field work. State teams should discuss the questionnaire as a group to agree on appropriate translation of each question into the local language.

Computer-Assisted Personal Interview (CAPI): Survey Solutions

CAPI is an interviewing tool or technique in which the interviewer uses a computer—instead of paper and pen—to answer the questions during the interview. Survey Solutions is a CAPI software developed by the World Bank to assist governments, statistical offices and non-governmental organizations in conducting complex surveys with dynamic structures using tablet devices. Survey Solutions has two parts: The Designer and Interviewer. In the Designer, the administrator creates a questionnaire; design skips and specify quality controls. The Interviewer application is where the survey interviews are conducted in the field and completed interviews are sent to the survey server. Multiple communications will take place between the interviewers and their supervisors in the Interviewer. More on this in the Synchronization Section.

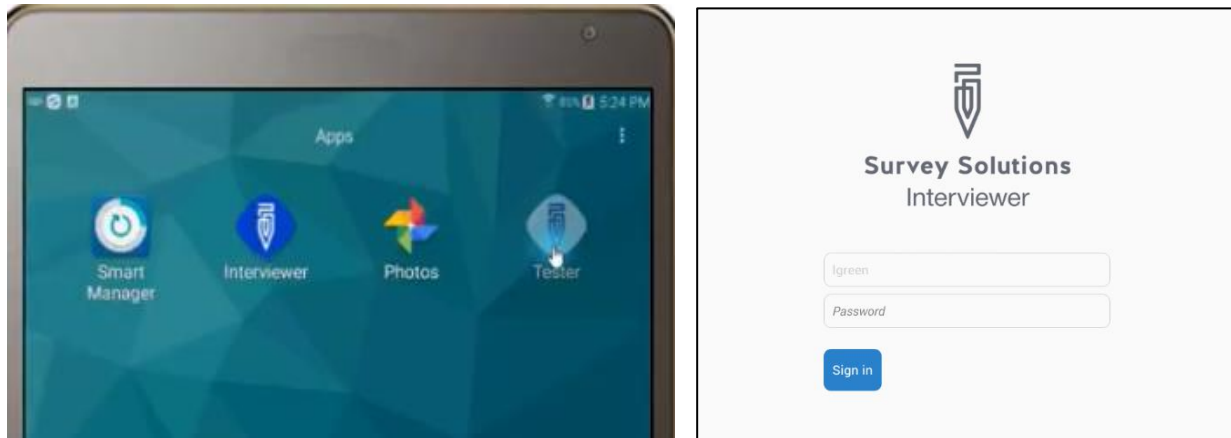
GETTING STARTED IN SURVEY SOLUTIONS INTERVIEWER

Survey Solutions Interviewer has been installed on the tablets for these surveys (Baseline and HFV), otherwise, you will need to download and install the application on your device. To get started, simply find the Survey Solutions Interviewer icon on your home screen or in the apps page of the Android device. Tap (equivalent of click on a computer) this icon to start Survey Solutions Interviewer. Once you open the Interviewer application, you will see a login screen.

LOGIN/LOGOUT

On the login page (shown in the figure on the right below), use your unique login and password to log in to see all your interviews. The login and password prevents others, particularly people outside of the survey, from accessing the sensitive data recorded on the device. At the end of the day, or whenever you are not using the tablet for an extended period, you should click on the menu button in the upper left-hand corner of the screen and select Sign out. This will make it so that no one can see the data recorded on the tablet.

To start work again, you should enter your unique Login and Password to continue collecting, editing or submitting data for the assignments on your account.



SYNCHRONIZATION: RECEIVING NEW INTERVIEWS AND SENDING COMPLETED ONES

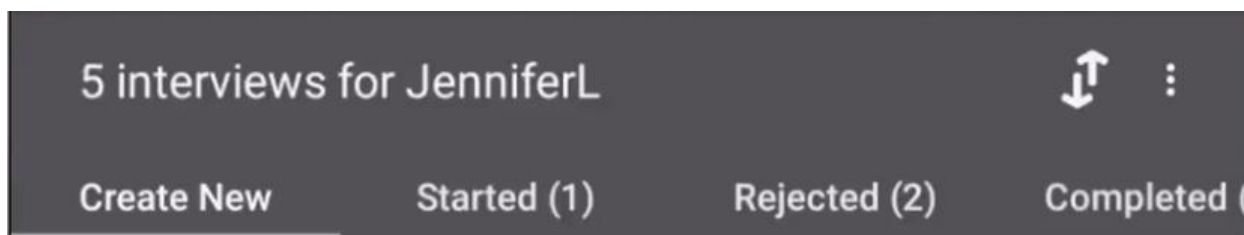
The Interviewer application is used for sending and receiving new interviews in Survey Solutions. This process is through Synchronization. Tapping the **Synchronization** button (shown in the figure below) at the upper right of your screen initiates communication between your tablet (device) and the survey server (called **Supervisor**). Synchronizing (“Synching”) will send completed interviews to the survey server and will download new assignments and all rejected interviews. It also removes all assignments that have been assigned to another interviewer off your tablet. Upon completion of synchronization, the number of completed interviews uploaded, number of interviews deleted, number of rejected interviews returned, and the number of new assignments downloaded are clearly displayed in a status box.



Note: Please note that the whole synchronization process requires a form of wireless network access. If you are unable to synchronize or synchronization is unsuccessful, please follow the instructions given in the error message or contact your field supervisor for further assistance.

DASHBOARD: MANAGING WORKLOAD

The Interviewer dashboard offers a functional overview of the interviewer’s assignments and their status. At the top of the dashboard, you will find four possible statuses: *Create New*, *Started*, *Rejected* and *Completed*. That is, on the dashboard, the interviewer can see how many interviews assigned to him/her, how many have been started, completed or even rejected (by the supervisor after submitting the interview) to be reviewed by the interviewer (see the figure below).



Each status on the dashboard is called a tab. To navigate between the different tabs, the interviewer can either tap on the tabs on top of the bar or swipe left or right, depending on desired movements. To help differentiate between the tabs, each tab is color coded as in the table below.

Dashboard Tabs:	Create New	Started	Rejected	Completed
Color Coding:	Gray	Blue	Red/Amber	Green

CREATE NEW INTERVIEWS (GRAY TAB)

Lists all assignments that you need to start. Each assignment has a unique number and title of the questionnaire assigned by Supervisor/Headquarters. To open a new interview, simply tap on “START NEW INTERVIEW”, a blue rectangular bubble, to open a new interview for that assignment.

STARTED INTERVIEWS (BLUE TAB)

Contains interviews that you have started, but not marked as completed. To resume an assignment or interview, navigate to the “Started” tab on the dashboard and find the assignment you would like to resume. Tap on this assignment to expand it and tap the blue “OPEN” bubble to open it. All your previous work will appear in the assignment.

Note: *Survey Solutions automatically saves all work throughout the interview*

COMPLETED INTERVIEWS (GREEN TAB)

Contains interviews that you have marked as completed. Each completed interview is listed under the Completed tab until the interviewer synchronizes to upload it. To open a completed assignment, navigate to the “Completed” tab on the dashboard, find the assignment you wish to open. Tap once to expand the assignment card and tap the green “REOPEN” bubble to open it. All your previous work will appear in the assignment.

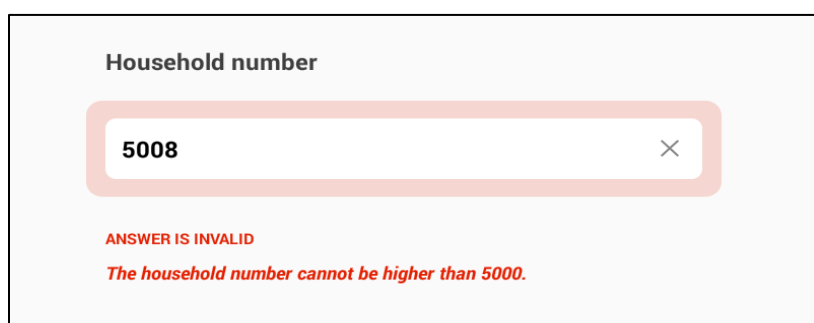
REJECTED INTERVIEWS (RED/AMBER TAB)

Contains assignments that you have uploaded (through synchronization), and supervisors have reviewed, found issues, and returned to you for corrections or clarifications. To open a rejected assignment, navigate to the “Rejected” tab on the dashboard, find the assignment you would like to open and tap the red/amber “VIEWISSUES” bubble to open it.

INSIDE AN INTERVIEW

ERROR AND WARNING MESSAGES

HOW TO KNOW IF YOU HAVE MADE A MISTAKE

A screenshot of a digital form titled "Household number". It features a text input field containing the number "5008". The input field is highlighted with a thick red border, and a small "x" icon is visible in the top right corner of the field. Below the input field, there is a red error message that reads: "ANSWER IS INVALID" followed by "The household number cannot be higher than 5000." in a smaller red font.

After an answer is recorded, the Interviewer application automatically assesses whether the answer is consistent with other answers in the questionnaire or plausible based on what is known about the survey population. If an answer is inconsistent or implausible, that answer is considered invalid. If an answer is invalid, the tablet will vibrate and the questions will be outlined in red (The tablet will also vibrate if the feature is enabled). An error message will appear to describe the problem (as shown above). **You should try to correct all errors as soon as they arise.**

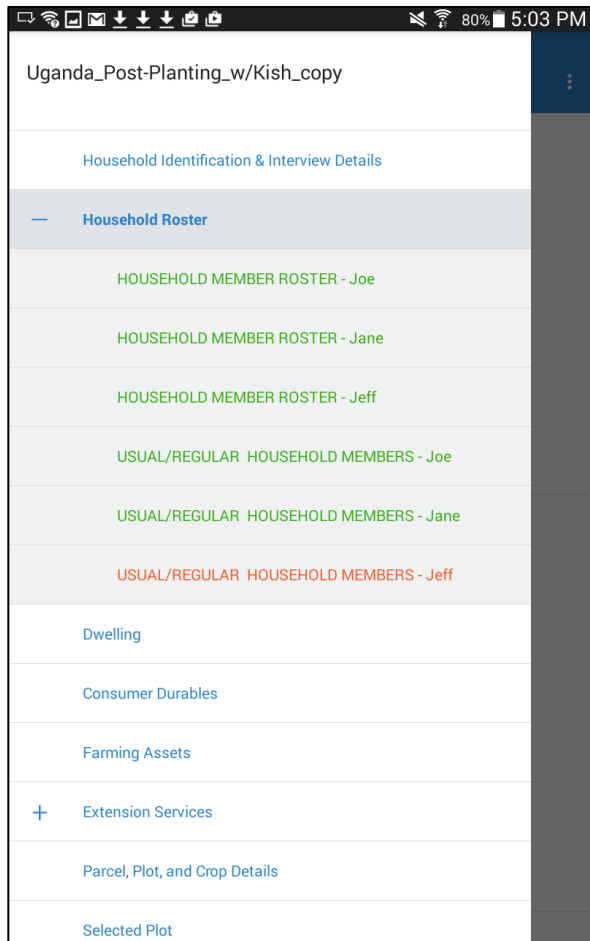
Please note that an invalid answer does not necessarily mean that the answer is incorrect. If an invalid answer is indeed a wrong answer, check your work and correct the issue. Sometimes, you will need to probe the respondent further to correct the invalid answer. If the invalid answer is the correct answer, then please leave an explanatory comment for your supervisor and headquarter staff. (Please see the Comments section on how to leave comments for your supervisor.

CHECKING WHETHER ALL QUESTIONS HAVE BEEN ANSWERED

You should always try to answer all the questions. There are several options on how to check if you have answered all the questions in the questionnaire.

A section will turn **green** when all questions have been answered and none have invalid answers. **Blue** means that there are unanswered questions. **Red** indicates that one or more questions in

the answer have an invalid answer. **Ensure that the section is green before you move onto the next section.**



Navigate to the Complete Screen using the navigation pane. Once on that screen, the number of unanswered and invalid questions are displayed. You can identify the unanswered questions by looking for blue sections in the navigation pane.

CHECKING THAT ALL ANSWERS ARE VALID

In addition to showing you the number of questions that are unanswered, the complete screen will also show you the number of questions that have errors. You can navigate to errors flagged by pressing on it in the list. **You should correct as many answers as you can before marking the interview as complete.**

LEAVING COMMENTS THE FOR SUPERVISOR/DATA EDITOR

Comments can be left on any question. They may be useful to explain answers that you have confirmed with the respondent but that may appear strange or wrong to anyone that will be checking the data from your interview. To leave a comment, press for a few seconds on the question you would like to leave a comment for. After a few seconds, a comment field will appear, into which you can type any arbitrary long comment.

Alternatively, your supervisor or data editor can also leave comments on questions for you. These comments will likely be questions about the answers you have recorded. The comments will appear next to commented questions. To find the comments, simply navigate to the question with comments.

Your supervisor/data editor can also leave a comment for the whole questionnaire. Any comment left on the whole questionnaire will appear on the card for that household in the Dashboard.

The screenshot shows a mobile application interface for data entry. It contains two questions:

- B2_3. How many rooms does your household use for sleeping?**
Below the question is a text input field containing the number "5".
- YOUR COMMENT**
Below the comment label is a text input field containing the text "This is a large house".
- B2_4. What type of material is mainly used for construction of the roof?**

A virtual keyboard is overlaid on the bottom half of the screen, featuring a standard QWERTY layout with additional function keys like "Ctrl", "Sym", "English(US)", and navigation arrows.

QUESTION TYPES

The questionnaire will have several different types of questions: numeric, text, single-select, multiple select, list, and date. As an interviewer, you must know how to answer each of them. To help you with that text, each question type is briefly explained below with visual aids.

NUMERIC QUESTIONS

B05. During the past 12 months, how many months did joe live here?

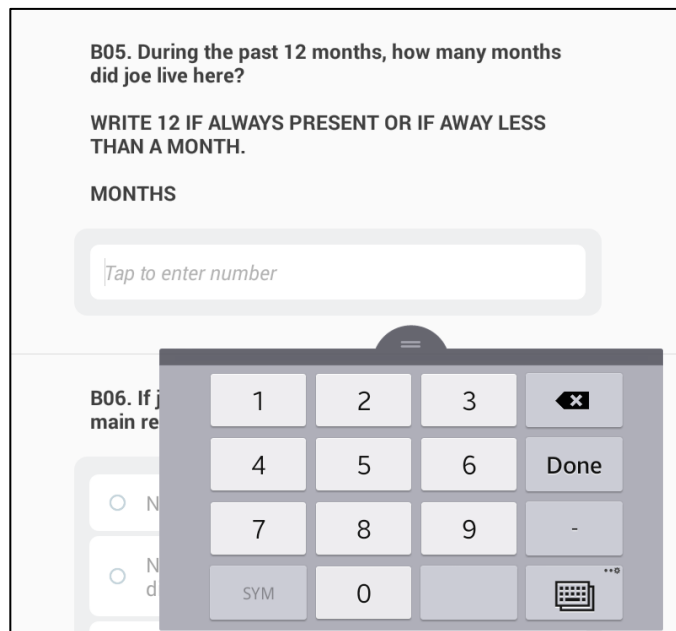
WRITE 12 IF ALWAYS PRESENT OR IF AWAY LESS THAN A MONTH.

MONTHS

Tap to enter number

**B06. If j
main re**

☐ N
☐ N
d

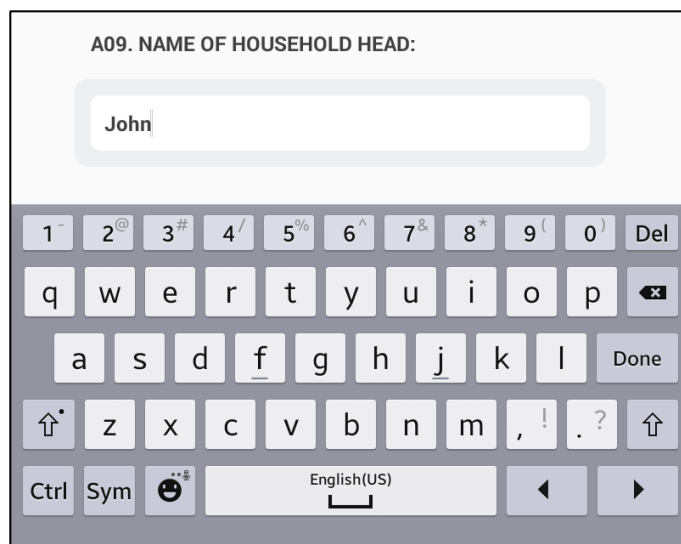
A screenshot of a mobile application interface for a survey. It shows a question B05 asking for the number of months Joe lived in a house. Below the question is a text input field with the placeholder 'Tap to enter number'. A numeric keypad is overlaid on the screen, showing digits 0-9, a decimal point, a backspace button, and a 'Done' button. The keypad also includes a 'SYM' button and a button with a keyboard icon. Below the numeric keypad, the start of question B06 is visible, along with two radio button options.

Questions that take a numeric response have a field for an open numeric answer. When that field is tapped, the numeric keyboard will appear so you can enter the numeric answer. Use the decimal button to enter a decimal number as an answer. For example, 2.5.

TEXT

A09. NAME OF HOUSEHOLD HEAD:

John

A screenshot of a mobile application interface for a survey. It shows a question A09 asking for the name of the household head. Below the question is a text input field containing the name 'John'. A full QWERTY keyboard is overlaid on the screen, including letters, numbers, punctuation, and control keys. The keyboard also shows a 'Done' button and a language indicator for 'English(US)'.

Text questions have a field for an open text response. When that field is tapped, the text keyboard appears so that the interviewer can enter a text answer.

SINGLE SELECT

B04. What is the residential status of joe?

- ☒ **USUAL MEMBER PRESENT**
- ☐ USUAL MEMBER ABSENT
- ☐ REGULAR MEMBER PRESENT
- ☐ REGULAR MEMBER ABSENT
- ☐ GUEST
- ☐ USUAL MEMBER WHO LEFT HOUSEHOLD MORE THAN 6 MONTHS AGO
- ☐ LEFT PERMANENTLY/DIED

Single-select categorical questions have answer options with round buttons. This type of question allows you to select only one option as an answer. To answer this type of question, you should select the button next to the answer that you want to choose.

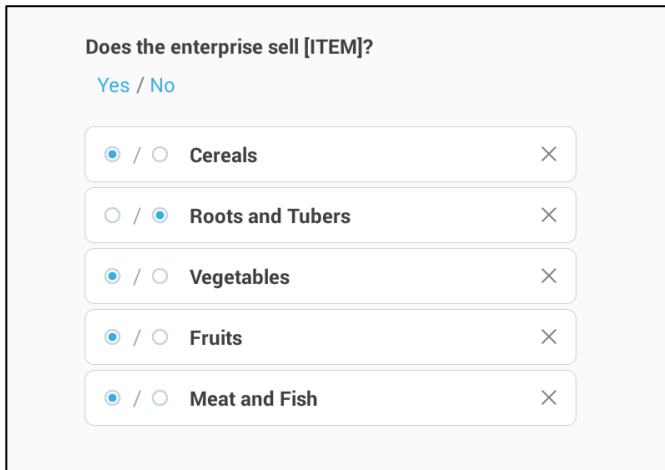
MULTIPLE SELECT

I03. What was the advice from NATIONAL AGRICULTURAL ADVISORY SERVICES (NAADS) about?

- ☒ **Agricultural production**
- ☐ Agricultural prices
- ☒ **Agro-processing**
- ☒ **Crop Marketing**
- ☐ Livestock Marketing
- ☐ Fishing production
- ☐ Livestock production: Meat
- ☐ Livestock production: Milk
- ☐ Prevention of Livestock diseases

Multi-select questions have answer options with check boxes. This question allows you to select many options as an answer. To answer this type of question, you should select the check box next to the answer that you want to choose. Follow the interviewer instructions to know how many options you can select. If there are no instructions, then select all the options corresponding to what the respondent answers.

MULTIPLE SELECT, YES/NO QUESTIONS



The screenshot shows a user interface for a survey question. At the top, the text "Does the enterprise sell [ITEM]?" is displayed in a dark font. Below this, the words "Yes / No" are shown in a light blue color. The main part of the interface consists of five vertically stacked, rounded rectangular boxes. Each box contains two radio buttons followed by a category name and a close button (an 'X' in a circle). The categories are "Cereals", "Roots and Tubers", "Vegetables", "Fruits", and "Meat and Fish". In each row, the first radio button (representing "Yes") is selected, indicated by a blue dot in the center of the circle.

Multi-select categorical questions in yes/no mode have two radio buttons for each item—the left one that denotes “Yes” and the right one that denotes “No”. To answer this type of question, the interviewer taps the radio button associated with Yes or No for every item to answer the question.

LIST

Household Roster

IN ORDER TO MAKE A COMPREHENSIVE LIST OF INDIVIDUALS CONNECTED TO THE HOUSEHOLD, USE THE FOLLOWING PROBE QUESTIONS:

Just to make sure that I have a complete listing:

a) Are there any other persons such as small children or infants that we have not listed?

b) Are there any other people who may not be members of your family such as domestic servants, lodgers or friends who usually live here?

c) Are there any guests or temporary visitors staying here, or anyone else who stayed here last night, who have not been listed? IF YES, what are their names?

B01. NAME

MAKE A COMPLETE LIST OF HOUSEHOLD MEMBERS IN THE LAST 12 MONTHS INCLUDING GUESTS WHO SLEPT HERE LAST NIGHT AND THOSE THAT LEFT THE HOUSEHOLD PERMANENTLY

Joe X

Jane X

Jeff X

Tap to enter new item

Tap on the empty text box and use the keyboard to input an answer. Additional elements can be added to the list until the maximum allowable number of items is reached.

To delete elements from the list, tap on the X mark. **Be careful:** Tapping on the X will delete data if the elements of a list question are linked to a roster (e.g., names of household members, each of which has their own row in the household demographics roster).

DATE: CURRENT TIME

Start time and date of the interview

Tap to record current time

Tap once on the “Tap to record current time” button. Then, the current time on the tablet will automatically be recorded and displayed above the button. If you would like to record the time again, tap on the button again.


GPS

GPS location of the household

Tap to record GPS

First, tap on the “record GPS” button. Then, the tablet automatically records the GPS coordinates. The GPS location is displayed immediately below the question text, showing the longitude, latitude, accuracy, and altitude.

GPS location of the household


-77.0425279, 38.8983335

Tap to record GPS

If GPS reading is not accurate enough, you may tap on the “record GPS” textbox again. Doing so will replace the old GPS reading with the new GPS reading. You can continue in this fashion until you obtain an adequately precise GPS reading.

The Questionnaire

DEFINITIONS

By the **PAST 7 DAYS** we mean the 7 days prior to the day of the interview. For example, if the interview takes place on Wednesday, consider the time between the morning of Wednesday one week earlier until the evening of Tuesday, the day before the interview.

By the **PAST 30 DAYS** we mean the month prior to the day of the interview. For example, if the interview takes place on 20th August, consider any item bought or paid for between the morning of 20th July until the evening of 19th August, the day before the interview.

By the **PAST 3 MONTHS** we mean the period from the same day of the month three months ago until the day before the interview. For example, if the interview takes place on 20th August 2018, consider the period between the morning of 20th May 2018 until the evening of 19th August 2018, the day before the interview.

By the **PAST 6 MONTHS** we mean the period from the same day of the month six months ago until the day before the interview. For example, if the interview takes place on 20th August 2018, consider the period between the morning of 20th February 2018 until the evening of 19th August 2018, the day before the interview.

By the **PAST 12 MONTHS** we mean the period from the same day and month one year ago until the day before the interview. For example, if the interview takes place on 20th August 2018, consider the period between the morning of 20th August 2017 until the evening of 19th August 2018, the day before the interview.

With the **AGRICULTURAL SEASON 2018/19** we mean the time from when the household started preparing their plots before the rainy season. Depending on the part of Nigeria this time should be around April 2018 and February 2019.

By **HOUSEHOLD** we mean a group of people who USUALLY SLEEP in the same dwelling and taken their MEALS TOGETHER, and either have been part of the household for at least 6 of the 12 months preceding the interview or are currently members and are expected to still be household members 6 months after the interview.

A **PLOT** is a continuous piece of land on which a unique crop or a mixture of crops is grown, under a uniform, consistent crop management system. It MUST be a continuous piece of land and MUST NOT be split by a river or a path of more than one metre in width. Plot boundaries are defined according to the crops grown and the operator.

COVER

Instructions: The Cover is first “section” in the questionnaires that you will see after creating an interview file for your assignment. It serves as a control step for you to verify that you have

selected the correct assignment for the household. You do not have to fill in anything. ONCE you have cross check that you have selected the correct assignment, click START. If you have not selected the correct household, click on the 3 dots on the top right and go back to the dashboard.

HHID	The unique household identifier. It is composed of the state code and the serial number of household in the LGA for OLD PANEL HOUSEHOLDS. For new PANEL households, it is a combination of several identifiers starting with state code.
STATE	The state where the household is located
LGA	The name of the LGA
EA CODE	The code of the enumeration area
EA NAME	The name of the enumeration area
STRUCTURE ID	The number of the structure in the EA from the listing. THIS IS ONLY PROVIDED FOR NEW PANEL EAs.
HOUSEHOLD ID	The number of the household within the structure. THIS IS ONLY PROVIDED FOR NEW PANEL EAs
HEAD NAME	The name of the household head recorded during the listing exercise or the previous wave.
LOCALITY	Name of the village or town
ADDRESS	The address or location of the household in the area. This should help you to find the rough area where the household lives. You will have to ask around for using the name of the head.
PHONE	The phone number of the head of household previously provided. If not available, the number will show as 0000 000 0000.

SECTION 5: START

Description: The section is composed of interviewer questions about the tracking status, the consent and the agricultural identification questions that will trigger the agricultural module.

2. Select NO if you have been unable to identify the household, i.e. you could not find the house and nobody in the area has heard of the household name. Before you select it MAKE SURE that you are in the correct area, that you have asked local leaders and knowledgeable persons and that you have tried looking for the household using the names from the household member flap. For OLD PANEL HOUSEHOLDS, if you selected NO, proceed to question 3. For NEW PANEL HOUSEHOLDS, complete RESULTS OF INTERVIEW section and inform your supervisor that you were not able to locate the household. They will communicate with headquarters for replacement.
3. For OLD PANEL HOUSEHOLDS that could not be identified, select MOVED AWAY FROM LOCALITY if the household has moved away from the original location to somewhere OUTSIDE the locality, i.e. away from the village or part of town to a location that would

require you to get motorized transport. The section TRACKING will open and require you to get tracking information. If the household has moved WITHIN the locality, i.e. somewhere close to the original location, select MOVED WITHIN LOCALITY, and record the new address/ description of location. For households that have MOVED WITHIN LOCALITY, proceed to the new address and conduct the interview normally. Select YES if the household has stayed in the same dwelling as in previous waves or the listing.

4. Record the GPS in front of the household's dwelling. You have to be OUTSIDE the dwelling to capture GPS. MAKE SURE that LOCATION is turned ON in the shortcut menu of the tablet. Repeat if the tablet does not record the coordinates. If the tablet continues to not capture GPS, check in Android Settings/Location Services that the Mode is set to USE GPS ONLY, and that Access to my location is ON.
5. Select NO if after **at least 5 independent attempts** to visit the household you have never encountered an eligible respondent to be interviewed, despite the household not having moved away. ONLY select once you have tried making appointments using the household's phone number collected from the neighbors, and or have left a note. ONLY SELECT AS A LAST RESORT. Eligible respondent is an adult household member that is knowledgeable about the economic circumstances of the household. If you selected NO, complete the RESULTS OF INTERVIEW section. If the household is a NEW PANEL HOUSEHOLD, the household will be replaced. Replacement will be monitored.
6. Read out the consent statement to the respondent, select YES if they have accepted to be interviewed, and record the name of the member that gave consent. If the household refused, try to CONVINCED them. Do NOT FORCE them to participate. Ask your supervisor or state officer to help you talk to the household. It is very important that we interview the selected households. ONLY SELECT AS A LAST RESORT. If you selected NO, complete the RESULTS OF INTERVIEW section. If the household is a NEW PANEL HOUSEHOLD, the household will be replaced. Replacement will be monitored.
- AG1. Read out to the respondent. Select YES if **SINCE THE BEGINNING OF THE 2018/19 AGRICULTURAL SEASON**, the household cultivated any crops on any plots used by the household (whether owned, rented, used for free, etc.). This INCLUDES tree crops, such as mango, cashew or cassava. Do NOT consider agricultural labor done for others for pay or for free, i.e. on land that is not used by the household.
- AG2. Select YES if the household owned or used any land the **SINCE THE BEGINNING OF THE 2018/19 AGRICULTURAL SEASON** that was not cultivated by the household. This may be land that was rented out, left fallow, a dwelling plot, pastureland, forest, or business/commercial plots. This includes pieces of land that the household does not own such as land rented or used for free by the household.
- AG3. Select YES if in the **PAST 12 MONTHS** the household kept any livestock or owned any livestock that was kept elsewhere. This INCLUDES any type of livestock, such as camels, cows, goats or poultry.

SECTION T: TRACKING

Description: This section opens if the household has moved away from the current location. In this case the household needs to be tracked, and you need to provide as good as possible information about the new whereabouts of the household and contact information. The information will be used by your colleagues to find the household in the new location.

Attrition of the panel households is expected and it is recognized that, if not addressed, this attrition will increase over time. Some of the common reasons for the attrition of households are:

- Household moves from its original location and failure to track the household to the new location
- Household members move to another household thus altering the composition of household originally sampled
- Household refuses to continue to participate
- Death of household member(s)

In the GHS-Panel survey, efforts will be made to prevent attrition that could potentially arise through households moving from one location to another. These efforts will include:

- Collecting tracking information when interviewers visit households during the survey and discover that they have moved. Household relocation could present as one of two possible scenarios:
 - All members of the household moved together from the original location to a new location
 - All members of the household did not move to the same new location (i.e. household moved and split)
- Tracking of households to their new location
- Reintegration of tracked households into the sample for the following visit

WHEN TO ADMINISTER THE TRACKING QUESTIONNAIRE

The tracking questionnaire will only be administered to OLD PANEL HOUSEHOLDS. It should be administered when the household is no longer located at the address where it was found in the previous visit (i.e. Post-Harvest, 2016). In cases where some members are still present in the household, but some individuals have left the household, this information will be captured in the household questionnaire.

There are a number of scenarios that could be encountered which could be clear indications that the household has moved from its original location. These are:

1. The dwelling that was occupied by the household in the previous survey is now vacant
2. The dwelling is now occupied by a completely different household
3. The dwelling previously housing the household no longer exists (i.e. demolished, converted to a business, etc.)

In any of these circumstances, the interviewer should report to the supervisor that it appears that the household has relocated. The interviewer, under the guidance of the supervisor should make efforts to confirm that the household has moved. These efforts will include enquiring from:

- Neighbors, community members or the leadership of the community – in that order
- The new occupant of the household, in cases where the dwelling is occupied by a completely new household. If information is not available from the occupant of the dwelling, then persons identified in the categories above should be approached
- Neighbors, community members or the leadership of the community – in that order – in the case where the dwelling previously occupied by the household no longer exists

The information received about the relocation of the household should be ideally confirmed from alternate sources in the community.

NOTE: If the household has moved to a location within the same compound or EA, then the household should be found and the questionnaire administered. For such cases, in section “[S] START” on the CAPI, you should response “MOVED WITHIN LOCALITY” in Q3. Then, the new location/address should be provided in the prompt following Q3.

If the supervisors and interviewer are satisfied that the household has moved or moved and split, then:

1. This should be indicated by providing the appropriate response in Q3 on the CAPI in section “[S] START”. In Q3 the response should be “MOVED OUTSIDE LOCALITY”
2. The tracking form, section “[T] TRACKING” in CAPI”, will automatically be enabled and must be completed according to protocols described in the next section.

THE TRACKING FORM

Respondent: Any number of neighbours, relatives, friends, colleagues, community leaders or knowledgeable person who can provide information on the new whereabouts and contact details for the household. You might have to talk to different persons in the locality to obtain all information. It is VERY IMPORTANT to obtain as good information as possible to facilitate the tracking of the household in the new locality.

1a/1b. Select the MONTH and YEAR when the household moved away from the old locality. Estimate if necessary. Select DON’T KNOW if you cannot establish at all the time they moved.

2. Select YES if the household is not expected to move back to the old location, and NO if the household is expected to move back to the old location within the next 12 months.
- 3a/3b. Select the MONTH and YEAR when the household is expected to return. Select DON'T KNOW if you cannot establish the month or year.
4. If all household members have moved together to the new location, select YES. If the household has split (not all moving to the same location), then select NO. If you are unable to determine whether all members moved to the same location, select DON'T KNOW.
7. List the name of the village, town, part of town or locality of ALL the places where members of the household have moved to. If the household has moved together, you only have to list one location. If they have moved to different locations, list them ALL. If parts of the household have moved to a new location and part have stayed, ONLY record the new location.

LOCATIONS

One sub section for each new location of the original household.

9. Select the state of LOCATION by typing the first few letters and select of the filtered options. Select OUTSIDE NIGERIA if the household has moved abroad.
10. Select the LGA. The list of answer options is filtered by the state selected in question 9.
11. Write an as detailed as possible description of the new locality of the household, including if available they address, street name, part of village, landmarks or reference points, names of persons who can be contacted. You can write ANYTHING that helps finding the household in the new location.
14. Select all household members who have moved to the location. Only select those who you know have moved. Do not select if you are not sure. Leave unselected if you don't know.
- 15./16. Record phone numbers of the household members or other persons at the new locality through which household members can be reached. If you cannot get the number for anyone at the new locality record the phone number of anyone who knows about the new location of the household.

SECTION 1A – HOUSEHOLD FLAP

Description: This section serves to make a full list of all current household members and account for the household members pre-filled during Wave 3.

Respondent: This person should preferably be the head of the household. If the head is absent, then a responsible and knowledgeable adult, preferably the spouse of the household head should be interviewed. This person must be a member of the household and must be capable of providing all the necessary information on each household member. You may have to ask a few

questions to be able to identify a suitable respondent. The respondent may be helped by other members for this section.

Definition: In this survey, a HOUSEHOLD will be defined as a group of people who USUALLY SLEEP in the same dwelling and take their MEALS TOGETHER, and either have been part of the household for at least 6 of the 12 months preceding the interview or are currently members and are expected to still be household members 6 months after the interview.

At the beginning of the interview it is IMPORTANT that the RESPONDENT UNDERSTANDS who we consider a household member and who not. FAMILY and HOUSEHOLD ARE NOT NECESSARILY THE SAME. The household may include NON-RELATIVES such as live-in workers. If you change respondents during the interview, MAKE SURE they understand who you are talking about when you say household. MAKE SURE ALL conditions hold.

INCLUDE

- persons that are identified as head but did not spend 6 of the past 12 months in the household
- new-borns, persons that have just married or moved into the household, e.g. adopted children, new live in worker
- Students and seasonal workers who did not spend 6 of the past 12 months in the household and did NOT live as part of another household

EXCLUDE

- Guests, even if relatives, who are staying for a few days, weeks, or months (under 6), normally live in another household and are expected to return to a different household after a while
- Family members that maybe stay in the same dwelling or compound, but do not normally eat with the household

EXAMPLE: In a FAMILY, you come to interview the household of Ajo, who is married to two wives, each with 2 children, who all live in the same compound. The oldest son of the first wife, Bema is already married and him and his wife normally cook and eat separately. Ajo has adopted the children of his brother after he passed away 2 months ago. With the household lives Dayo who works for the household but is not a relative. Include: Ajo, his wives and children, except Bema, the adopted children and Dayo. Exclude Bema and his wife. MAKE SURE AJO UNDERSTANDS WHO YOU ARE TALKING ABOUT WHEN YOU SAY HOUSEHOLD, IT IS DIFFERENT TO HIS FAMILY.

Instructions: For some of the households the section will be pre-filled with household members identified and recorded in Wave 3 (2016). In the households that have not been visited yet, the section will be empty. The aim of the section is to create a COMPLETE LIST of all CURRENT household members AND (if pre-filled members exists) to account for all the PRE-FILLED members, i.e. recorded if they are still household members and if their details are correct. You will do this in 3 steps:

1. For all PRE-FILLED members, ask if they are currently household members (question 4) and if their details are correct (question 4a) in the MEMBER FLAP sub sections.
 2. Identify CURRENT household members that were not on the list of pre-filled members and record their names in question 1.
 3. ONCE you have listed ALL members that were not on the list yet, you fill in their details in the MEMBER FLAP sub section.
1. In some households the question will be prefilled with all the names of household members that were identified during our previous visit in Wave 3 (2016). Record the NAMES of ALL household members that are not already on the list. Before recording new members, DOUBLE CHECK that they are not already on the list but are spelled differently. You can delete names of NEWLY ADDED members (e.g. if you accidentally recorded a person who does not meet the member condition), but you CANNOT delete PRE-FILLED MEMBERS. Answer question 4 NO to say that a person is no longer a household member. Once this section is complete you MUST have ALL CURRENT household member listed, and you MAY have PRE-FILLED MEMBERS in the list that are no longer household member. They will be filtered out in all other sections.
- You must give a UNIQUE name to every household member. Record name and surname, and if this is not enough to distinguish members also a called name and/or Sr./Jr. to distinguish persons.

HOUSEHOLD FLAP

One subsection for ALL PRE-FILLED and NEWLY ADDED household members.

4. The question is only open for PRE-FILLED members. Record if MEMBER is CURRENTLY a member of the household, i.e. normally eats and sleeps with the household. There are different reasons why MEMBER may no longer be a member of the household: MEMBER may have moved to another household for various reasons, may be absent for a long time for various reasons, might have passed away, or has been recorded by accident in any of the previous waves. Select NO in any of those cases.
- 4a. The PRE-FILLED information for that member will be listed at the top of the screen. Review that information with the respondent to see if the information is correct. Select YES if name, age and sex of MEMBER are correct. You DO NOT have to update the name for typos but add names e.g. nick names if it was not easy to identify MEMBER. MAKE SURE you are talking about the same person when making updates.
- 4b. If some of the pre-filled information is not correct, indicate what information is incorrect. If multiple items are incorrect, select all that are incorrect.
2. Record the sex of MEMBER. Do NOT try to guess the sex of the household member from the name provided to you. This can lead to mistakes. Even in cases where you think that the name would most likely be a male's or a female's name, let the respondent CONFIRM the sex.

3. Record the relationship to the HOUSEHOLD HEAD. If the respondent is not the head of the household, make sure that you record the relationship of MEMBER to the household head, NOT the relationship to the respondent.

HEAD - The member who makes key decisions in the household and whose authority is acknowledged by other members. NOTE the key decision maker may not necessarily be the oldest member.

SPOUSE - formally married or partner by mutual consent

OWN CHILD - biological child of head (can be from another spouse)

STEP CHILD - biological child of spouse from a previous union/marriage

ADOPTED CHILD - children that are not biological children of either head or spouse

BROTHER/SISTER - person with at least one parent shared with the head

BROTHER/SISTER-IN-LAW - formally married or partner by mutual consent of the brother or sister of the spouse

PARENT-IN-LAW - parent of the spouse

DOMESTIC HELP (RESIDENT) - person that works for the household (e.g. servant, guard, cook, baby-sitter, etc.) and eats and lives with the household

- 6./7. Record the age of MEMBER in COMPLETED YEARS and their year of birth. Record FIRST what the respondent remembers better. Survey Solutions will calculate the other variable for you that you HAVE TO cross check with the respondent and then record. Age and year of birth must be consistent, but sequence in which you record it does NOT matter. *EXAMPLE: The respondent remembers Tony was born in 2005, enter 2005 in Q7 and check with the respondent if Tony is 12 or 13 years old and record the age in Q6.*

Age in COMPLETED YEARS is the age at the time of the LAST birthday. *EXAMPLE: If MEMBER will turn 30 2 days AFTER the interview, the age at the LAST birthday was 29, so you have to record 29.* For infants that are not yet one year old, record 0.

If the respondent does not know, ESTIMATE with the respondent using key events:

1. Ask of any historical event (national or local) which occurred around the time of birth or childhood.
2. Ask how old respondent was when that event occurred or how many years elapsed before his/her birth.
3. Then use the information obtained to calculate the age. For example, if MEMBER was 15 when Nigeria obtained independence, record $1960-15=1945$ as year of birth in Q7.
4. Only if you cannot estimate the age using key events, estimate on physical appearance.

Do NOT record a code for DON'T KNOW.

8. Record how many months MEMBER has been living in this household in the past 12 months. If less than 1 month, record ZERO. You should record the number of accumulated months, not calendar months. For example, if the member was living with the households for 1 week in each of the past 4 months, then they have been living with the household for 4 weeks total, or about 1 month.

ATTRITION

This sub section is only asked if MEMBER is no longer a member of this household.

29. Record the reason why MEMBER is no longer a member of this household. Select the MAIN reason if there are more than one. Select STAYED WITH ORIGINAL HOUSEHOLD if you are interviewing a split household in a new location for all the members that stayed in the original household. NEVER BEEN A MEMBER / RECORDED WRONGLY IN WAVE 3 for people who are not recognized by the household (make sure they do not have another name that is listed).
30. Select the MONTH and the YEAR when MEMBER left the household. MEMBER should have left after February 2016 (the last wave of the survey). If the respondent states an earlier date CONFIRM with them.
- 32b. If MEMBER resides in Nigeria, select the STATE. Select by start typing the state name and selecting it of the dropdown.
- 32a. If MEMBER resides in Nigeria, select the LGA. Select by start typing the LGA name and selecting it of the dropdown. The list of LGAs is filtered by the state selected in the previous question.
34. If MEMBER resides outside Nigeria, record the number of months MEMBER has been living abroad the MOST RECENT time s/he has left. Round up or down and record in full months.

SECTION 1B: MEMBER DETAILS

Description: This section asks demographic details for the CURRENT household members.

Respondent: The head or another knowledgeable adult household member. The respondent may be helped by other members.

MEMBERS

Here, there will be one sub section for every CURRENT HOUSEHOLD MEMBER, that is, all PRE-FILLED members that still are household members, and all NEWLY ADDED members.

NOTE THAT PRE-FILLED MEMBERS WHO ARE NO LONGER IN THE HOUSEHOLD ARE NO LONGER LISTED ANYWHERE IN THE QUESTIONNAIRE FROM THIS POINT ONWARD.

7. Record the MONTH and YEAR when MEMBER was born. Month and year must match the recorded age recorded in Section 1A. Double check with the respondent if they do not match. Record whichever the respondent REMEMBERS BETTER, cross check the calculated value of Survey Solutions with the respondent and fill in the other.
8. Select the PRESENT marital status of MEMBER.

MARRIED (MONOGAMOUS): includes all types of marriages e.g. civil, traditional and common law to only one person.

MARRIED (POLYGAMOUS): includes all types of marriages e.g. civil, traditional and common law to more than one person. A woman whose husband is married to multiple women should have a marital status of MONOGAMOUS.

INFORMAL/LOOSE UNION: refers to a relationship contracted by two adults living together without civil or traditional recognition. Such people may report that they are married, PROBE carefully and sensitively to find out the actual marriage contract.

DIVORCED: if a marriage has been legally dissolved

SEPARATED: if man and woman no longer live together but either they were never legally married or the marriage has not been legally dissolved as husband

WIDOWED: spouse has died

NEVER MARRIED: single and has never been married nor lived in a union
13. Select ALL spouses of MEMBER who live in the household. The members in the answer list are filtered by relevant age and sex. If person does not appear in the list make sure they are listed and check age and sex for the person.
- 13a-c. Record the year when MEMBER got married to the first/second/third spouse. The questions open according to the number of spouses selected. If the respondent does not know, calculate based on the age of spouse or MEMBER at marriage.
16. The question is only asked for NEWLY ADDED MEMBERS. Record the MONTH and YEAR when MEMBER joined the household. If MEMBER joined and left several times, record the LAST time.
17. Select the reason why MEMBER joined the household since our last visit. Check with the respondent and select the most appropriate response. Select MISTAKENLY NOT REPORTED OR FORGOTTEN LAST VISIT if MEMBER was already a household member during wave 3 (August-Nov 2015), but has not been recorded for any reason, FLED PROBLEM AREAS/ INTERNALLY DISPLACED PERSONS/CRISIS if MEMBER relocated to the household for any reasons concerning security or crisis, such as a terrorist attack.
18. Record the MEMBER's religion. Only for NEWLY ADDED MEMBERS, if head or spouse of the head.
19. Select YES ONLY if the BIOLOGICAL father of MEMBER lives in the household.

- 20.** Select the father. The answer options are filtered by sex and age. If the person does not appear as an option, ensure that the person is recorded as a member and has the correct age and sex filled in.
- 21.** Only asked if the biological father is not a household member. Select YES if he is still alive.
- 22.** Only asked if the biological father is not a household member. Select the HIGHEST educational level father COMPLETED. Do NOT consider levels attended that were not completed. *EXAMPLE: Someone who dropped out of school in P6, has only completed P5, so P5 must be recorded.*

NONE: never completed any type of education, quaranic school or adult education.

N1 – N2: Nursery 1 to 2

P1-6 - Primary School 1 to 6

JS1-3 - Junior Secondary School 1 to 3

SS1-3 - Senior Secondary School 1 to 3

LOWER 6 - old education system,

UPPER 6 - old education system,

TEACHER TRAINING: training school for teachers

VOCATIONAL/TECHNICAL - certificate obtained after going through craft training e.g. mechanic, tailoring etc.

MODERN SCHOOL – post-primary school intended for students who could not gain admission to secondary or technical schools.

NCE - National Certificate of Education is a certificate obtained after completion of three years in college of education

POLY/PROF - Polytechnic or professional degree obtained from polytechnic university

1ST DEGREE - Bachelor/undergraduate degree obtained after 3 to 4 years of university

HIGHER DEGREE - master's degree or doctorate (PhD) obtained from university

QUARANIC - only select if the ONLY form of education

INTEGRATED QUARANIC - quaranic school that has been integrated into the formal education system of Nigeria covering the basic curriculum mandated by the government. Select if the ONLY formal education

ADULT EDUCATION - any form of other adult education, only select if the ONLY formal education

- 23.** Only asked if the biological father is not a household member. Select the industry in which the father MAINLY worked, independent of the employment type. *EXAMPLE: Select AGRICULTURE if the father is a farmer or works on other farms as a labourer.*

- 24.-28.** See questions 19.-23.

SECTION 3: LABOUR

Description: This section asks about INCOME GENERATING activities of all household members that are 5 years or older.

Respondent: Household members should answer for themselves. For children under 12, the parents or adult member of the household should answer on their behalf.

Instructions: If some household members are absent, proceed with the interview for all those present and make the necessary arrangements to call back and continue the interview with absent members after ascertaining the appropriate time that they would be available. Only if it is not possible to interview a member directly, a proxy response is possible.

MEMBERS

One sub section for all current household members that are 5 years or older.

2. Do NOT read out the question. Select YES if you are interviewing MEMBER him/herself and NO if the information is being provided in proxy.
3. Do NOT read out the question. If response is given by proxy, select the respondent who is answering on behalf of MEMBER. MEMBER is filtered of the list of answer options.
4. Select YES if MEMBER has done any form of paid work in the **PAST 7 DAYS** that was not for a household member, even if only for one hour, paid in cash or in-kind or with deferred payment.

4/5/6/7b. Record the TOTAL number of hours the household member worked in ALL paid activities combined in the **PAST 7 DAYS**. EXCLUDE hours worked on the day of the interview. Record the hours MEMBER ACTUALLY worked in the past 7 days, not would have worked normally. EXCLUDE the time GOING TO AND FROM WORK. INCLUDE break times.

ONLY include the time when the work was the member's MAIN ACTIVITY at the time.
EXAMPLE 1: Onu sells firewood that he has in front of his house. He normally does other things, but when a customer comes, he sells wood. Transactions typically take 15 minutes, he had around 20 transactions in the past 7 days. Record $20 \times 0.25 = 5$ hrs.

EXAMPLE 2: Dayo has a shop and opens the shop from 9 am to 5 pm. During the time customers come and go, but her main activity is keeping the shop. She works on 5 days, so record $8 \times 5 = 40$ hrs.

EXAMPLE 3: Denis worked on the field Tuesdays and Thursdays. He usually left his house at 7 am and came back at 4pm. It takes him 30 minutes to get to the field and 30 minutes to get back. Record $2 \times 8 = 16$ hrs per week.

5. Select YES if in the **PAST 7 DAYS** MEMBER has done any AGRICULTURE related work on land rented, owned or rented by members of this household, or any LIVESTOCK related work with animals owned by members of the household or gone FISHING or done any

fish farming related type of work. Do NOT select YES if MEMBER only worked for payment or free on land cultivated by others (e.g. helping the neighbour harvest) or was looking after other people's animals (e.g. work for payment as a herder).

- 5c. Select the answer that applies best.
- 6. Select YES if in the **PAST 7 DAYS** MEMBER worked in any self-employed activity (e.g. as craftsman, hairdresser, shopkeeper, making and selling of food, medical practice, etc.) or for a business enterprise owned by a member of the household (e.g. working in the family restaurant or shop) independent of MEMBER getting paid or not for this work.
- 7. Asks if MEMBER worked as a trainee or apprentice of any career-oriented skill in the **PAST 7 DAYS**, i.e. worked as part of a scheme where he/she works with experts of a craft or a trade for a set period of time to learn their skills. The activity could be paid or paid-for. Select FORMAL if MEMBER is following a structured course or programme in an institution or business, e.g. hotel management course, and INFORMAL if MEMBER is working for a craftsman to learn their trade, e.g. carpenter or mechanic.
- 7c. Select all that ways in which the training/apprenticeship was financed.

TEMPORARY ABSENCE

- 8a. Asked if MEMBER did not do any income generating activity other than agricultural activities in the past 7 days, i.e. the answers to Q4 and Q6 were no. Select YES if MEMBER normally or regularly works in a job, as self-employed, for a family business or in agricultural and livestock activities for the household and is expected to return to the activities in the near future.
- 8b. If the MEMBER is temporarily absent from their normal work, record the MAIN reason why.
- 8c. If the MEMBER is temporarily absent from their normal work, record whether the activity they will return to is household farming, livestock rearing, or fishing.
- 8d. If the type of work the MEMBER is temporarily absent from is in agriculture, record the main use of the products obtained from that activity.

JOB SEARCH

- 8. Only asked if MEMBER has no income generating activity to come back to, i.e. Q8a is NO. Select YES if MEMBER has taken any ACTUAL action in the past 4 weeks to find work or start an income generating activity, such as actively asked around for work, applied for jobs, worked towards setting up a business or starting a self-employed activity. Do NOT select YES if MEMBER only wanted to get work but did not actively do anything towards it or had asked for work prior to 4 weeks ago and was only waiting to hear back.
- 9. Select the MAIN reason.
- 9a. Record the MAIN action that MEMBER took in the past 4 weeks to find a job or start a business.

10. Select YES if MEMBER was available work in the past 4 weeks, i.e. would have had the time and capacity to work in any form if any possibility had arisen. Select NO if MEMBER had no time to work (e.g. student, household chores) or was physically or mentally unable to work (e.g. too young or old, long illness, disability) or unable for any other reason.
11. If MEMBER was not available for work in the past 4 weeks, record the MAIN reason why MEMBER was not available.
- 11a. Record whether the MEMBER would **want to start working** if a job or business opportunity became available.
- 11b. Record whether the MEMBER would be **available to start working** if a job or business opportunity became available.

MAIN WAGE JOB

The sub section opens if MEMBER worked in a paid job in the **PAST 7 DAYS** (Q4 is YES). If MEMBER engaged in more than one wage/salaried job in the past 7 days, the following questions are about the wage/salary activity the respondent considers as the main activity during the past 7 days. Make sure the respondent understands that you are talking about the main activity MEMBER did for pay for anyone or any organisation outside the household. Do NOT include activities for self-employment, household enterprises or household agriculture or livestock.

13. Give a detailed description of the activity in MEMBER's main wage job, including the position, and type of industry and workplace, e.g. "cook a restaurant", "managing a restaurant", "assistant in a pharmacy", etc. Do NOT just write "restaurant".
15. If in doubt, probe to make sure you select the correct employer type. If the respondent works for the government, check which level of government. Government includes teachers and police force.
- 15b. Select YES if MEMBER's main wage job is an apprenticeship job i.e MEMBER worked as part of a scheme where he/she works with experts of a craft or a trade for a set period of time to learn their skills and was paid for the activity. It does NOT matter if the internship is formal or informal.
- 15c. Ask respondent to estimate if DK.
- 15c1. The National Housing Fund is a common fund managed by the government and collected from the salary of workers. The fund can be used by contributors to obtain loans used to build, purchase, or renovate a home.
- 15d. ONLY select YES if MEMBER is enrolled into a pension scheme for the MAIN wage job. NOTE that MEMBER might be enrolled in pension plans for different jobs. PROBE to make sure you get the correct answer. Record NO if MEMBER is not enrolled into a pension plan or is enrolled into a pension plan as part of other jobs.
- 15e. Select YES if MEMBER has any written contract/agreement or letter of appointment for the MAIN wage job. Consider any written document that qualifies MEMBER to be an

employee of that entity, including short term contracts. Select NO if MEMBER only has a verbal agreement or has not yet received the contract.

- 15f.** Select YES if the employer of the MAIN wage job is PROVIDING health insurance coverage partially or fully to MEMBER. Select YES if MEMBER has a health insurance to which the employer is contributing. Select NO if MEMBER has a health insurance to which the employer is NOT contributing. Note that the question is NOT asking if MEMBER is insured.
- 15g.** Select YES if a trade union exists in the workplace of the MAIN wage job, even if MEMBER is not a member of the union.
- 16.** Select ALL months ON which MEMBER worked in the MAIN wage job. MEMBER does NOT have to work the complete month or work fully time, CONSIDER months partially worked or worked part time, e.g. if member only works 1 week in a month or only on Tuesdays the month should be selected. The answer options are filtered to display all months in the past 12 months. Select ALL YEAR if MEMBER worked on every month of the year.
- 17.** Record the TOTAL number of WEEKS on which MEMBER worked in ALL MONTHS together in the MAIN wage job, even if MEMBER worked part time or not the full week. If MEMBER worked most of the year, ask how many weeks s/he did not work and subtract it from 52. Calculate 4 weeks for every complete month worked.
- EXAMPLE: Denis worked Tuesdays and Thursday as a guard. He worked every month, apart from December. Record $52-4=48$ weeks. Oke worked from June until August every morning apart from Sunday. Record $3*4=12$ weeks.*
- 18.** Record the TOTAL number of hours normally worked PER WEEK in the MAIN wage job. INCLUDE break time and EXCLUDE the time it takes to get to the work place and back home unless it is a clear part of the working activity. *EXAMPLE: Denis who worked Tuesdays and Thursdays usually left his house at 7 am and came back at 4pm. It takes him 30 minutes to get to work and 30 minutes to get back. Record $2*8=16$ hrs per week and exclude commute time.*
- 21.** Record the amount MEMBER received in their LAST CASH payment for the MAIN wage job. EXCLUDE any IN-KIND payment, this is recorded in 23. If MEMBER has not yet been paid, ask how much they expect. Record the full amount in Naira. Do NOT forget to record the 000s for thousands of Naira. Record the corresponding period in 21b.
- 22.** Select up to two household member who decide on the earnings of the MAIN wage job of MEMBER.
- 23.** Select YES if MEMBER received an IN-KIND payment or an allowance beside the normal cash payment/salary/wage, e.g. having been paid with parts of the harvest for working as harvest helper for the neighbour, or a food allowance that is paid beside the salary.
- 24a.** Record the amount MEMBER received in their LAST CASH payment for the MAIN wage job. EXCLUDE the payment recorded in 21. ESTIMATE the EQUIVALENT in Naira for any

in-kind payment. If MEMBER has not yet been paid, ask how much they expect. Record the full amount in Naira. Do NOT forget to record the 000s for thousands of Naira.

- 38.** Asked for the whole household. The National Health Insurance Scheme (NHIS) is the public health insurance scheme of Nigeria. Participants that contribute to the scheme can draw on the common pool of funds to cover some or all of their healthcare expenses. Select YES if ANY member contributed to the NHIS in the **PAST 12 MONTHS**.

SECTION 3B: TIME USE

Description: This section asks about the time use for activities that are NOT PAID of all household members that are 5 years or older.

Respondent: Household members should answer for themselves. For children under 12, the parents or adult member of the household should answer on their behalf.

Instructions: For each member you interview, ask this section directly after Section 3 Labour. If some household members are absent, proceed with the interview for all those present and make the necessary arrangements to call back and continue the interview with absent members after ascertaining the appropriate time that they would be available. Only if it is not possible to interview a member directly, a proxy response is possible.

MEMBERS

One sub section for all current household members that are 5 years or older.

- 2.** Select YES if you are interviewing MEMBER him/herself and NO if the information is being provided in proxy. Do NOT read out the question.
- 3.** If response is given by proxy, select the respondent who is answering on behalf of MEMBER. MEMBER is filtered of the list of answer options. Do NOT read out the question.
- 4.** Read out the question text and the answer options one by one. For each answer option check with the respondent if MEMBER did the activity in the **PAST 7 DAYS** for the household WITHOUT pay and record YES or NO. Make sure to NOT SKIP any of the answer options. Select NO if the activity was done for commercial purposes AND make sure the economic activity is correctly recorded in Section 3 LABOUR. E.g. select NO if MEMBER collected firewood to sell.
- 5-15.** For each activity selected, record the TOTAL number of hours MEMBER spent on the activity in the **PAST 7 DAYS**. Add up the hours if the activity was done on several days. Record 0.25 for 15 minutes, 0.5 for half an hour and 0.75 for 3 quarters of an hour. EXCLUDE hours spent on the activity on the day of the interview. If the total number of hours of all activities is unrealistically large, an error message will appear. This means the respondent has worked so much they would not have time to rest. If this is the case cross check with the respondent and probe for the number of hours for ALL activities, not just the last or largest ones. People have a tendency to over report certain types of

work. Make sure the respondent gives you the ACTUAL hours for the past 7 days, not how much they normally do, or planned to but then did not get around to do.

SECTION 4A: SAVINGS & INSURANCE

Description: This section asks about the savings and insurance practices of household members that are 15 years or older.

Respondent: Household members should answer for themselves.

Instructions: For each member you interview, ask this section directly after Section 3B Time Use. If some household members are absent, proceed with the interview for all those present and make the necessary arrangements to call back and continue the interview with absent members after ascertaining the appropriate time that they would be available. Only if it is not possible to interview a member directly, a proxy response is possible.

MEMBERS

One sub section for all current household members that are 15 years or older.

1. Select YES if MEMBER has a bank account with ANY BANK OR MICROFINANCE INSTITUTION in the country. Only consider if MEMBER is registered as one of the account holders. Do NOT consider if MEMBER only has access to someone else's account. Select YES if MEMBER is one of the registered holders of a shared account.
2. Select up to 3 banks in which MEMBER has at least one account. If MEMBER has accounts with more than 3 banks, select the banks they use most.
- 3a. If MEMBER has more than one account or accounts with more than one bank ask Q3-Q6 for the MAIN bank account only. For shared accounts, select YES if MEMBER was one of the persons opening the account.
3. Select YES if MEMBER searched or received information from at least two sources, e.g. from the bank itself and through recommendation of a friend. Select NO if MEMBER only looked for/received information from only one source.
4. Select YES if MEMBER also looked at/received information from/thought about other banks when opening their account. ONLY select YES if from more than one other bank.
5. Select YES if MEMBER checked the Terms and Conditions of the bank account BEFORE or DURING the process of registering, even if it was only briefly. Select NO if MEMBER only looked at the Terms and Conditions while being a customer already.
6. Select CHECKED CAREFULLY if MEMBER reviewed most the Terms and Conditions of the bank account. Select CHECKED TO HAVE A ROUGH IDEA if MEMBER only looked at a summary, or parts of the Terms and Conditions of the bank account.
7. This question is asked independent of MEMBER having their own bank account. Select YES if there is anybody either in the household or outside of the household who allows

MEMBER to use their bank accounts to make banking transactions such as cashing check, transfer funds, etc. ONLY consider bank accounts in which MEMBER is not one of the registered account holders.

8. Select YES if MEMBER has paid money to/deposited money with a FORMAL savings organization in LAST 12 MONTHS, including commercial banks, cooperative societies, savings associations, or micro-finance institutions, even if the money has been withdrawn already. Select NO if MEMBER has accounts with a formal organization but has not paid/deposited any money in the past 12 months.
9. Select all organizations that MEMBER has used in the past 12 months to save money. MAKE SURE the organizations given by the respondent are formal institutions. If not, change the answer to Q8 if necessary and record under Q10.
10. Select YES if MEMBER has paid/deposited/contributed money to an informal savings group such as Adashi/Esusu/Ajo in the LAST 12 MONTHS. Select NO if MEMBER has saved/paid/contributed in the past, but not in the past 12 months.
16. Asked at the household level. Select YES if ANY MEMBER has been covered by ANY type of insurance company for any type of insurance, including health, death, household goods, house, vehicle, etc.
- 17a. Select ALL types of insurance coverage received by any MEMBER of the household.
- 17b. If any MEMBER was covered by health insurance, indicate which MEMBER(S) were covered.
- 17c. If any MEMBER was covered by life insurance, indicate which MEMBER(S) were covered.

SECTION 4B – ICT

Description: This section asks about mobile phone and internet usage of household members that are 10 years or older.

Respondent: Household members should answer for themselves. For children under 12, the parents or adult member of the household should answer on their behalf.

Instructions: For each member you interview, ask this section directly after Section 4A Savings. If some household members are absent, proceed with the interview for all those present and make the necessary arrangements to call back and continue the interview with absent members after ascertaining the appropriate time that they would be available. Only if it is not possible to interview a member directly, a proxy response is possible.

MEMBERS

One sub section for all current household members that are 10 years or older.

8. Select YES if MEMBER can use a mobile phone if he/she needs to, even if this mobile phone belongs to somebody else. It does not matter if the mobile phone is a smart phone or not.
9. Select the MAIN source of access of mobile, i.e. the mobile phone that MEMBER uses or would use if they needed to do a phone call. Select OWN if MEMBER owns a mobile phone, even if he/she might use someone else's mobile phone more. Select PAID FOR USE if MEMBER uses/would use the mobile phone of somebody else for payment, e.g. of a street vender.
14. Select if MEMBER can use the internet if he/she needs to. This INCLUDES internet on any phone or any other mobile device as well as laptops or desktop computers, even if the device or internet connection belong to somebody else.
15. Select the MAIN source of internet access, i.e. how MEMBER would access the internet if s/he needed. NOTE that we are not asking about the type of device, but to whom the device/and or connection belongs. Select CYBER CAFÉ for any type of place that lets you use computers and get online for payment.

SECTION 4C – CREDIT

Description: This section asks about the use of loans and credits in the household overall (not by individual members).

Respondent: The household head or a knowledgeable adult member

1. Select YES if ANY member of the household has attempted to borrow money or applied for a loan from any source (banks, cooperative societies, savings associations, micro-finance institutions, money lenders, etc.) in the LAST 12 MONTHS, independent of the application outcome, or the pay-out and repayment status. Do NOT consider loans that were applied for PRIOR TO 12 MONTHS ago but were still repaid in the past 12 months. Consider loan applications at formal institutions and businesses, as well as borrowing money from family, friends or other individuals. *EXAMPLE: Select YES if 2 months ago, the spouse of the respondent unsuccessfully asked his family to borrow money.*
- 2a. Make a list of ALL the institutions and persons from whom members of the household applied for or requested a loan, even if not successful. If members applied for/borrowed from the same institution more than once in the past 12 months, list one row for every time they applied. Use loan names that make it clear for the respondent about which loan you are asking questions. LIST all loans FIRST, before continuing with the details of each loan.

EXAMPLE: If in the last 12 months, Tunde tried to get a loan from a bank but was refused, and then borrowed from a money lender, and Dayo borrowed from the neighbours some 2 years ago but is still repaying, you should list the bank (applied in last 12 months, unsuccessful), the money lender (applied in last 12 months, successful), but not the neighbours (applied before 12 months ago).

LOANS

Asked for each LOAN listed in Q2a. Answer one sub section at a time. The questions are phrased for loan applications from banks, etc. If LOAN was borrowed from individuals you should rephrase the question text a bit, e.g. instead of saying “for applying for the loan” say “asked to borrow money”.

- 2b.** Double check with respondent to make sure you get the correct type of institution.
- 3.** Select the household members who borrowed/applied for the LOAN, i.e. in who’s name the loan application was and who is responsible for repaying it.
- 4.** Select the MAIN reason why the household applied for the loan initially, even if the money was then spent on something else. Record the reason why the HH applied, NOT any reason they mentioned when borrowing/applying for the loan.
- 6.** Record IN NAIRA the amount that was REQUESTED/ASKED FOR. Note that this may be different to the amount the HH actually received.
- 5.** Select LOAN APPROVED AND RECEIVED if the borrowing attempt/application was successful and the HH has already received the money (also if they have already spent it or repaid it), LOAN APPROVED AND PENDING DISBURSEMENT if the HH was already told that they will receive the loan, but have not received it yet, LOAN NOT APPROVED/GIVEN if the HH has already been told that they will not receive the loan, and AWAITING DECISION ON APPLICATION if the HH has not yet heard back yet if they will receive the loan or not.
- 5a./5b.** Record the time it took for the HH to hear if they will receive the loan or not after they applied/asked to borrow money and select the TIME UNIT in 5b. Record 0 if it was IMMEDIATE, i.e. on the same day.
- 6b./6b1.** Record the time it took for the HH to receive the money after they submitted all documentation required for the loan and select the TIME UNIT in 6b1. Record 0 if it was IMMEDIATE, i.e. on the same day. If no documentation was needed or submitted record the time from the application.
- 6c.** Record IN NAIRA the amount that was RECEIVED. Note that this may be different to the amount the HH requested or asked for. This amount is sometimes called principal.
- 15.** If the loan application was REFUSED, select the reasons the HH was told why the loan application was refused. If they were not told any reasons ask the reasons the respondent THINKS. Do NOT lead the respondent or select on their behalf. Select DON’T KNOW if they do not know why the loan application was refused. Select in ORDER OF IMPORTANCE, i.e. the most important reason first, followed by the second, etc.
- 7.** Select YES if the amount received was sufficient to pay for the main reason the loan was taken. Also select YES if the loan has not yet been spent but will be sufficient to pay.
- 8.** Select the month in which the money was RECEIVED. The answer options list the past 12 months based on the interview start date.

9. Select YES if the loan has been FULLY repaid. This includes the amount borrowed (principal) and normally interests.
 - 10a./10b. Select the month and record the year when the HH expects to repay the loan. Ask the respondents to estimate if they do not know.
 11. In question 11 give the total cost of the LOAN at completion of repayment. The total cost of the loan is the principal (how much was borrowed) plus the interest (additional charge on the principal by the lender). The interviewer should help the respondent estimate this total cost. The figure should be written in Naira. There might be instances where the respondent will quote the interest in percentages. In this case, the interviewer should calculate the percent value of the interest and add to the principal to give the total repayment amount. For example if the household borrowed 2000 Naira from NBS cooperative at 20 percent interest, then the total repayment amount is $2000 + (0.2 \times 2000) = 2400$.
- QUESTION 16 – 17** are asked to households that made no borrowing attempt in the last 12 months. First, in *question 16* we establish if the household needed a loan in the last 12 months. Indeed, there should be a need of a loan for someone to make borrowing attempt. If the household had no need of a loan, skip to the next section. For those who had a need of a loan in the last 12 months, we want to know in *question 17* why they did not attempt to borrow. Up to two reasons are allowed and the interviewer should write the codes corresponding to the stated reasons in the space provided.

SECTION 5: HOUSEHOLD ASSETS

Description: This section asks about the durable goods currently possessed by the household.

Respondent: Most knowledgeable adult member

Instructions: The section may feel repetitive for the respondent. Try to ENGAGE the respondent.

- 1a. Read out the question text and the answer options one by one, recording for each option if the household owns at least one of the items or not. ONLY consider items in good working condition. Answer this question for all items FIRST before answering the details in the ASSET screen. MAKE SURE to not forget items.

ASSETS

One sub section for every ASSET category selected in 1a.

1. Record the TOTAL number of FUNCTIONING items owned by the household for this asset category. The items may be owned by individual household members, or jointly by (parts of) the household. Do NOT count items that are not in good working condition. *EXAMPLE: If Babatunde, Dayo and Femi each own one mobile phone, but Femi's is currently not working, record 2.*

Furniture (3/4 piece sofa set) - is the three or four piece settee with or without coffee tables. This has the long arm chair and two single seats or a love seat.

Furniture (chairs) - just regular chairs, not the sofa type.

Gas cooker - is a combination of stove that has both burners and oven i.e. a range with gas rings/burner which can have 4 or 6 burners and an oven for cooking/baking with gas. It is also known as a gas range or gas stove

Stove gas (table) - is the stove that has the burners only. It is the table top kind of stove and has no oven.

Radio - is the simple small transmitter type as well as just a basic radio

Hi-Fi - is the radio combination with cassette and/or CD player that possesses high fidelity

- 2a. Read out the answer options. If there is more than one item and they are owned differently, select what applies for more items or members.
2. If the item is owned by individual household members, select up to two household members of the list who own the item.
3. Record when the ITEM was acquired. If more than one item, refer to the NEWEST item (the one acquired most recently).
4. Ask the respondent to estimate how much they could receive if they wanted to sell one of the ITEMS. If more than one item, refer to the NEWEST. Make sure that the amount recorded is the value of ONLY ONE ITEM.

SECTION 7A: MEALS AWAY FROM HOME

Description: This section asks about the expenditures on all the meals, food stuffs and drinks that were produced outside the household, bought by household members in the past 7 days, and usually consumed outside the household.

Respondent: Most knowledgeable adult member of the household.

1. Read out the question text and the answer options one by one, recording for each option if ANY household member has consumed the meal or drink away from home in the **PAST 7 DAYS**. Answer this question for all items FIRST before answering the details in the MEALS AWAY screen. MAKE SURE to not skip items.

Consider ANY meal or drink that was produced outside the household and bought by a household member or given for free, even if the meal or drink was consumed back home in the household (e.g. take away food). Make sure to INCLUDE meals or drinks consumed in eateries, restaurants, canteens (e.g. Mama put, Bukatarian, Canteen) and meals and drinks to which household members have been invited to. Do NOT consider food that was produced in the household and then consumed elsewhere outside the household.

The first three answer options refer to FULL MEALS consumed (e.g. rice and stew, pounded yam and egusi, tuwo, garri and draw soup, etc) and depend on the hour of the day consumed, breakfast in the morning, lunch in the early afternoon and dinner in the evening or at night. If no entire meal was consumed, consider it under the other options.

MAKE SURE the respondent understands it is for ALL household members. There is a tendency for respondents to only think about the items they have consumed.

2. Record the TOTAL amount spent by ALL household members on the meal or drink category in the **PAST 7 DAYS**. If the meal or drink was for free, ask the respondent to estimate how much such a meal or drink would have costs in a normal place.

Do NOT DOUBLE COUNT amounts for meal or drink consumed, e.g. if you are not sure if a few snacks bought constitute a full meal, record the expenses ONCE in the more appropriate meal or drink category.

Give the respondent enough TIME to identify the individual meals and remember or estimate the price. HELP the respondent if need to come up with the total amount, by first identifying which household members consumed the meal how many times in the past 7 days and getting the respective costs. Take notes of the individual cost on your notepad or calculator, sum them up and record the total.

Sense check the answers given to you by the respondent and probe if necessary.

*EXAMPLE: In the past 7 days, Mr. Lawal ate lunch at his office twice which cost ₦550 each time (consider). The rest of the week he brought lunch from home to eat at work (do not consider). Mrs. Lawal ate lunch at her parents place once (consider as not produced in household, estimated to would have cost her ₦400 in an eatery), and bought Akara and Pap for breakfast for the family which cost her ₦500 and which they ate back home (consider as produced outside the household). The totals are: lunch: $2 * ₦550 + ₦400 = ₦1,500$; breakfast: ₦500*

SECTION 7B1: FOOD EXPENDITURES (PART 1)

Description: This section asks about the household's consumption on various food items in the past 7 days. The food items are organized by food categories.

Respondent: Adult household member responsible for food preparations or food purchases made by the household in the past 7 days.

Instructions: Answer questions from the top to the bottom, making sure that an answer has been recorded for all food items. Proceed to Section 7B2 ONLY ONCE all questions have been answered and the section turned green. MAKE SURE the respondent does NOT see the screen of the tablet, so they cannot see how many questions are left.

- 1a-1h.** For each question, read out the question text and the answer options one by one, recording for each option if ANY household member ate or drank the food item in the **PAST 7 DAYS WITHIN THE HOUSEHOLD**. Answer all question in this section FIRST before moving to the next section. MAKE SURE to not skip questions or answer options.

Do NOT consider meals or drinks that were consumed by household members OUTSIDE the household (they should have been recorded in section 7A Meals Away from Household), UNLESS they were cooked/prepared inside the household and taken outside to be consumed elsewhere (e.g. lunch/snack brought from the household to work).

SECTION 7B2: FOOD EXPENDITURES (PART 2)

Description: This section is a continuation of the previous section 7B1. It asks details about the household's consumption and expenditure on ALL the food items selected in 7B1. The food items are organized by food categories.

Respondent: Adult household member responsible for food preparations or food purchases made by the household in the past 7 days.

Instructions: ONLY answer once 7B1 is been completed. Answer questions from the top to the bottom. This section is typically very repetitive and tiring to the respondent. ENGAGE the respondent.

FOOD CATEGORIES

One sub section for every food items selected in 7B1. The food

2a/2b. Record the QUANTITY of ITEM that members of the household CONSUMED in the **PAST 7 DAYS**. Record the QUANTITY in 2a, and select the corresponding UNIT in 2b, e.g. if the household consumed 3 KG of rice, record 3 in 2a, and select KG in 2b. Sense check that the quantity unit combination makes sense and is in the area of the possible, probe with the respondent if necessary. E.g. if the respondent in a household of 5 members tells you that they have eaten 30kg of rice (which is very unlikely), double check with them if unit and quantity are correct.

Do NOT consider meals or drinks that were consumed by household members OUTSIDE the household (they should have been recorded in section 7A Meals Away from Household), UNLESS they were cooked/prepared inside the household and taken outside to be consumed elsewhere (e.g. lunch/snack brought from the household to work).

The list of units is FILTERED and depends on the ITEM. If the respondent uses a unit that is not listed, select OTHER (SPECIFY) and record the details.

CONVERT milliliters to LITRES or CENTILITRES. 1L=100CL=1000ML. *EXAMPLE: 500ml is 50cl, 710ml is 71cl, 325ml is 32.5cl.*

When recording from SACHETS, TINS, PACKETS etc., use the SAME unit as it appears on the package, e.g. bornvita 450g, butter 250g, etc. Do NOT record sachet, tins, packets as other unit.

Do NOT confuse KILOGRAMS and GRAMS. 1000 GRAMS=1 KILOGRAM. *EXAMPLE 0.900G is different from 0.900KG (900G) and is incorrect.*

2c. For some units such as a HEAP or CONGO you will be asked to specify the size of the unit. Show the pictures in the reference booklet to the respondent to find out what size of the unit they have consumed.

5.-7. Record how much of the ITEM that the household consumed in the **PAST 7 DAYS** came from purchase, own production and gift. Record the quantity in the SAME unit as the unit selected in 2b. The total quantity of all 3 sources must NOT EXCEED the total quantity consumed. If the total exceeds the quantity consumed, double check with the respondent ALL sources. Do NOT just correct the last or the largest source. Write 0 if ITEM consumed did not come from one of the sources. NOTE, the household may have OBTAINED ITEM EARLIER THAN 7 days ago but only consumed (part of) it in the past 7 days.

5. FROM PURCHASE: Record quantity of ITEM consumed that was purchased for cash or in-kind.

6. FROM OWNED PRODUCTION: The quantity of ITEM consumed that came from plants cultivated on land rented, owned or sharecropped by members of this household, or from animals owned by members of the household.

7. GIFTS AND OTHER SOURCES: The quantity of ITEM consumed that the household received for free or from any other source.

3. Record whether the household purchases any of ITEM in the **PAST 30 DAYS**. Note that the recall period is different here from the previous questions in this section.

3a/3b. Record the QUANTITY of ITEM that members of the household PURCHASED in the **MOST RECENT PURCHASE** in **THE PAST 30 DAYS**. If the household purchased the ITEM two weeks ago and then also purchased the ITEM yesterday, you will only record information on the purchase made yesterday in this case. Record the QUANTITY in 3a, and select the corresponding UNIT in 3b, e.g. if the household purchased 3 KG of rice, record 3 in 3a, and select KG in 3b. Sense check that the quantity unit combination makes sense and is in the area of the possible, probe with the respondent if necessary.

NOTE that the quantity of ITEM PURCHASED in the past 30 days is INDEPENDENT of the quantity of ITEM CONSUMED in the past 7 days (Q2a.) and the quantity consumed that came from purchase (Q5.). The quantity purchased in the past 30 days may be 0 (e.g. if the household had purchased it before 30 days ago) or may be larger than the quantity consumed (e.g. if the household shopped in bulk).

The list of units is FILTERED and depends on the ITEM. If the respondent uses a unit that is not listed, select OTHER (SPECIFY) and record the details.

3c. For some units such as a heap or a Congo you will be asked to specify the size of the unit. Show the pictures in the reference booklet to the respondent to find out what size of the unit they have consumed.

4. Record the TOTAL amount in NAIRA spent on ITEM purchased in the **MOST RECENT PURCHASE IN THE PAST 30 DAYS** (Q3a/3b).

SECTION 8: NON-FOOD EXPENDITURES

Description: This section asks about the household expenditures on non-food items. The section is divided into three sub sections, each with a different reference period. Items that are purchased very frequently are asked with a 7 days reference period, items that are purchased regularly with 30 days reference period, and items that are more infrequently purchased with a 12 months reference period.

Respondent: Adult household member responsible for purchases.

- 1./3./5. For each question, read out the question text and the answer options one by one, recording for each option if ANY household member purchased or pay for ITEM in the respective REFERENCE PERIOD. For each subsection, answer all answer options FIRST before moving to the detail subsections below the question. MAKE SURE to not skip answer options. MAKE SURE the respondent understands the CORRECT reference period for each question, which varies from **PAST 7 DAYS**, **PAST 30 DAYS**, and **PAST 6 MONTHS**.

Consider ITEMS that were bought or paid for during the reference period, even if they were received before the reference period or have not been received yet at the time of the interview.

- 2./4./6. For each ITEM any household member bought or paid for in the reference period, record the TOTAL amount in NAIRA spent on ITEM during the reference period. NO DECIMALS are allowed, round up or down to reach an integer amount in Naira, e.g. if an item cost ₦1,500.40 record ₦1,500.

SECTION 9 – FOOD SECURITY

Description: This section asks about the availability of food in the past 30 days. More broadly it is meant to capture how well the household is able to fulfil its food needs.

Instruction: This section is SUBJECTIVE and therefore you MUST rely on the responses provided by the RESPONDENT. You must never question a response provided by a respondent in this section, even if from the surroundings and other questions you think their response is inconsistent.

Respondent: Senior female or member most knowledgeable about food consumption.

- 1a.-1j. Select YES if the statement of the question was true AT LEAST ONCE in the **PAST 30 DAYS**, for ANY household member. Note that the event did not have to happen regularly, just once is enough, e.g. if a household skipped only one meal in the past 30 days, select YES.

The questions ask if the household reduced/changed their food intake BECAUSE OF LACK OF MONEY OR OTHER RESOURCES. Do NOT consider reduced/changed food intakes

because of religious (e.g. fasting), medical, or any other reasons. Having forgotten to bring money e.g. to work and not being able to buy the normal lunch is NOT considered a lack of money.

- 2a.** Record the number of MEALS taken by ADULT household members on a NORMAL DAY. By MEAL we mean any of the regular occasions in a day when a reasonably large amount of food is eaten. Do NOT include snacks eaten between meals. By ADULTS we mean household members of 15 years or older.
- 2b1.** Record the number of MEALS taken by child MEMBERS between 5 and 15 years of age on a NORMAL DAY. The question is closed if the household does not have any household members in this age range. Consider BREASTFEEDING as a meal.
- 2b.** Record the number of MEALS taken by 6-59 MONTHS OLD household members on a NORMAL DAY. The question is closed if the household does not have any household members in this age range. Consider BREASTFEEDING as a meal.
- 4.** Select YES if in the **PAST 12 MONTHS** there was a moment when there was not enough food available in the household to feed the household. NOTE that the reference period is DIFFERENT to the questions asked earlier in the section.
- 5.** Select ALL months in which the household did not have enough food to feed the household members. The month are filtered and depend on the day of the interview.
- 6.** Select ALL causes in ORDER OF IMPORTANCE, starting with the most important one to the least important one. Mark the most underlying reason as the most important, e.g. if a household had a low harvest because of a drought that also drove up food prices at the market, but the household normally eat the food they produce themselves, select INADEQUAT STOCKS DUE TO DROUGHT/POOR RAINS first, and FOOD IN THE MARKET WAS VERY EXPENSIVE as second. If the household says they had little food saved/harvested, etc., probe to understand the underlying reason (drought/pest damage/lack of land/lack of inputs) and select the corresponding option.

SECTION 11: HOUSING

Description: This section asks about the characteristics, cost and ownership of the housing occupied by the household, and the access to infrastructure like water and sanitation.

Respondent: head of the household or a knowledgeable adult household member

1. DWELLING

- 1b.** Interviewer OBSERVATION question, do NOT read out. If you are unsure if other households live in the same dwelling, double check with the respondent. NOTE, relatives living in the same dwelling/compound are considered a separate household if they do not eat from the same pot and share the same resources.

A DWELLING includes all types of structures occupied by members of a household. It may consist of room(s) inside a house, a group of houses, a multi-storeyed house, and a

hut or group of huts. A dwelling has a separate, independent entrance to the outside world and often a separate cooking facility.

SEPARATE HOUSE (BUNGALOW) – A standalone house that contains a single household, does not share a wall with any other household, and has a separate entrance.

SEMI-DETACHED HOUSE – A dwelling that occupies part of a single building but has a separate entrance from outside. You cannot pass between households in the building without stepping outside (unlike a flat/apartment).

FLAT/APARTMENT – A dwelling in a building with multiple other dwellings. The dwelling is a flat/apartment if it is self-contained and does not share any facilities (e.g. bathroom, kitchen, etc) with other households in the same building. A flat has a private entrance within the building, but uses a shared entrance into the building.

COMPOUND HOUSE (SEPARATE ROOMS, SHARING FACILITIES) – Similar to a flat/apartment, but where multiple households share facilities (bathroom, kitchen, etc.). For example “face me, I face you”.

HUTS/BUILDINGS (SHARED COMPOUND) – Multiple **SEPARATE HOUSEHOLDS** in different buildings but sharing the same compound.

HUTS/BUILDINGS (PRIVATE COMPOUND) – Multiple buildings in the same compound but **occupied by A SINGLE HOUSEHOLD**.

TENTS – A shelter consisting of sheets of fabric or other material draped over, attached to a frame of poles or attached to a supporting rope.

IMPROVISED HOME (KIOSK, CONTAINER) – This can be a structure or object that is not intended to serve as a dwelling.

LIVING QUARTERS ATTACHED TO OFFICE/SHOP – A dwelling that is attached to or at the back of an office or shop. This does not include flats/apartments that are in the building that also contains shops or offices.

UNCOMPLETED BUILDING – A building where construction was not completed or is in serious disrepair.

1. Select OWNED if the dwelling was built personally or purchased by the household; FREE, AUTHORIZED if the household lives in the dwelling with full permission of the owner of the dwelling without paying rent; FREE, NOT AUTHORIZED if the household lives in the dwelling without the permission of the owner of the dwelling and without paying rent, the owner of the dwelling can eject the household any time without any legal implication; RENTED if the household pays an agreed amount to the owner of the dwelling regularly based on the terms agreed on, either yearly, quarterly, or monthly.
2. Only asked if the dwelling is owned by the household. The question tries to find the current market value of the dwelling. The amount may be difficult for the respondent to estimate if houses/flats are rarely sold in the area. Help the respondent by asking how

much it would cost them to buy or build a similar type of dwelling in the area, or how much they would sell it for to a good friend or family. NOTE, the question does NOT ask how much they WOULD like to sell it for (likely higher), but how much they COULD sell it for. Record the amount in full Naira. Do NOT forget to record the 000s for thousands of Naira.

- 3a./3b.** Only asked if the dwelling is USED FOR FREE (either authorised or unauthorised). The question tries to find the current rental market value of the dwelling. The amount may be difficult for the respondent to estimate if houses/flats are rarely rented in the area. Help the respondent by asking how much it would cost them to rent a similar type of dwelling in the area, or how much they would receive per year or month from a good friend or family to rent the place. NOTE, the question does NOT ask how much they WOULD like to rent it for (likely higher), but how much they COULD rent it out for. Record the amount in full Naira. Do NOT forget to record the 000s for thousands of Naira. In 3b. select the time period corresponding to the amount in 3a.
- 4a./4b.** Only asked if dwelling is rented. Record the monthly or annual rental amount in full Naira. Do NOT forget to record the 000s for thousands of Naira. In 4b. select the time period corresponding to the amount in 4a.
- 5a.** Only asked if owned, rented, or used for free and authorized. Select CERTIFICATE OF OCCUPANCY if , LEASEHOLD if, FREEHOLD if, TENANCY AGREEMENT if, RECEIPT OF PAYMENT if, and OTHER (SPECIFY) if the household has any other documentation to prove the occupancy status Select NONE if the household has no document to prove the status. The answer options will be filtered based on the response in Q1.
- 5.** Record in 4 digits the year the dwelling was built, e.g. 1975. If the dwelling was built in phases, record the year in which the dwelling was COMPLETED.
- 6.** Interviewer OBSERVATION question, do NOT read out. If the dwelling consists of more buildings, record the OUTER WALL material of the MAIN dwelling. If it is unclear what the main dwelling is take the one the household head lives and sleeps in. Record the MAIN material of the OUTER wall. If the outer wall is made of more materials, e.g. mud and wood, select the one the material that predominantly makes up the wall. Select MUD for mud as well as mud (unburnt) bricks; CEMENT OR CONCRETE for walls made out of bricks/blocks made from cement as well as walls made directly out of concrete
- **Mud** includes all materials such as wet clay used for the outer wall of a dwelling.
 - **Unburnt Brick** is the local mud bricks or blocks that is not smoked or fired.
 - **Burnt Bricks** is the block or mud that was smoked or fired.
 - **Concrete** is the block made of cement as well as wall made of pre-fabricated concrete panel.
 - **Wood or bamboo** includes timber, cardboard and plank wall.
 - **Iron sheets** are processed or galvanized iron or steel sheets.
- 7.** Interviewer OBSERVATION question, do NOT read out. If the dwelling consists of more buildings, record the ROOF material of the MAIN dwelling, see 6. Do NOT consider the material of the structure carrying the roof (e.g. wooden beams) but the material

covering the roof, i.e. what protects the dwelling from rain coming in. If the roof material is made up of different material, select the one it is predominantly making up the roof. Select THATCH for grass, straw or any other form of plant-based roofing material; CORRUGATED IRON SHEETS for any type of iron, steel or aluminium sheets, normally galvanized;

- *Clay tiles are the type of roofing using wood/bamboo first before covered it with blocks.*
- *Concrete roofing is roofing done with cement and stone.*
- *Plastic Sheeting is the type of modern day roofing that is transparent in nature.*
- *Asbestos sheets/tiles are roofing sheets that are made from cement and other materials. When made into solid sheets, they become good protection or insulation against fire and heat. They are also used for industrial purposes as protection against perishable things.*
- *Other includes cardboard, etc.*

8. Interviewer OBSERVATION question, do NOT read out. If the dwelling consists of more buildings, record the FLOORING material of the MAIN dwelling, see 6. Select SAND/DIRT/STRAW for the type of floor made of different materials such as straw or palm fronds mixed together with sand to smoothen it, commonly found among nomadic dwellings; SMOOTHED MUD for mud floor smoothened without concrete on top; etc.
9. Record the TOTAL number of rooms the household occupies in the dwelling, EXCLUDING BATHROOMS, TOILETS, STOREROOMS OR GARAGES. Only record the number of rooms OCCUPIED by the household. If they rent out some of the rooms, do NOT count them. Only consider HABITABLE rooms.

2. COOKING

10. Select the MAIN cookstove used by the household. Select 3-STONE/OPEN FIRE STOVE for any open fire with or without 3 stones, independent of the fuel material, SELF-BUILT BIOMASS STOVE (CHARCOAL, WOOD, CROP RESIDUE, ETC.) for any self-built stove burning charcoal, wood, crop residue; MANUFACTURED BIOMASS STOVE (CHARCOAL, WOOD, CROP RESIDUE, ETC.) if the stove was professionally manufactured, LPG/NATURAL GAS STOVE for any gas-fired stove, independent of the number of burners, KEROSENE STOVE for any kerosene-fired stove, independent of the number of burners; ELECTRIC STOVE for electric stoves, independent of the number of burners.
11. Select where members of the household NORMALLY cook. If they cook in several places, select the place where they cook most frequently. If they cook inside, check if the sleeping area of ANY household member is separated by a door and closed during cooking. If yes, select IN DWELLING, NOT A SLEEPING AREA, if it is not separated by a door or if the door is usually open while cooking, select IN DWELLING, IN A SLEEPING AREA. If they cook inside in a separate kitchen building select IN A SEPARATE DWELLING, if they cook outside in a protected area with a roof and at least 2 sides open, select IN A VERANDA (ROOFED PLATFORM WITH AT LEAST TWO OPEN SIDES), if they cook outside without protection select OUTDOORS.

12. Only asked for certain stove types. Select YES if they use any type of system that channels most of the smoke/fumes from the stove to the outside.
13. Record UP TO TWO different types of FUELS used for the primary cookstove. This question will only be asked for certain cookstoves which allow for different fuel types (3-stone/open fire and biomass).
- 14a/14b. For the fuel(s) specified in Q13, record the amount spent on FUEL for the primary cookstove in the **LAST MONTH**. If the household did not use the cookstove in the past month, then ask for the amount spent in a **TYPICAL MONTH WHEN THE STOVE IS USED**.
- 15a. Record whether any MEMBER of the household suffered any injury as a result of the cookstove.
15. If any MEMBER suffered injury, record which MEMBER(S).

3. ENERGY

16. Select YES if the household normally has electricity in the dwelling, independent of the source, and even if electricity is not available at all times.
17. Select ALL sources of electricity that the household uses MOST OF THE TIME, i.e. on a regular basis, not just once or twice. Select PHCN/NEPA if the household is connected to the main national grid, independent of whether the connection is official and paid for or unofficially connected; LOCAL MINI GRID for a connection to a local grid that is not connected to the national main grid, e.g. a generator supplying the entire village; GENERATOR if the household uses their own or shared generator; SOLAR HOME SYSTEM if the solar panel has the ability to use/charge other electrical appliances; SOLAR LANTERN/ LIGHTING SYSTEM if the solar panel system is for lighting only and does not allow using/charging of electrical appliances; RECHARGEABLE BATTERY for batteries such as a car battery.

Some households may have MORE THAN ONE source, e.g. connection to the main grid and a generator. Probe to ensure you select all sources.

18. Of the sources selected in 17., select the MAIN source of electricity, i.e. the one the household uses MOST of the time.
19. Record the AVERAGE number of hours during which electricity was available PER DAY from the MAIN SOURCE selected in 18 during the **PAST 7 DAYS**. IGNORE any other sources. Record the hours electricity is AVAILABLE, not the hours of power cuts. Record 0 if there was a total power outage every day in the past 7 days and 24 if electricity was uninterrupted every day during the past 7 days. If the number of hours with electricity available differs from day to day, record the AVERAGE.

You can record two decimal digits. Record 0.25 for 15 minutes, 0.5 for half an hour and 0.75 for 45 minutes. Use the calculator if necessary.

20. The question functions as question 19, only that it focuses on the time FROM 6PM (18.00) TO 10PM (22.00). Record 0 if there was a total power outage every evening in

the past 7 days from 6pm to 10pm and 4 if electricity was uninterrupted every evening from 6pm to 10pm during the **PAST 7 DAYS**.

- 21. Only asked if the main source is a connection to the main grid (PHCN/NEPA) or a local grid (LOCAL MINI GRID). Record the TOTAL number of power outages in the **PAST 7 DAYS**.
- 22. Record the duration in HOURS of ONE power cut on a normal day in the **PAST 7 DAYS**. If the duration differs, record the AVERAGE. You can record two decimal digits. Record 0.08 for 5 minutes, 0.25 for 15 minutes, 0.5 for half an hour and 0.75 for 45 minutes. Use the calculator if necessary. EXAMPLE: The household experienced 2 power cuts per day, one of 1 hr and a one of half an hour. Record $(0.5+1)/2=0.75$.
- 23. Select YES if in the **PAST 12 MONTHS** at least one of the household's electrical appliances was damaged or it's usability reduced because of the voltage going up and down. EXAMPLE: The battery life of the mobile phone is now very short because of the voltage.

4. WATER

- 33. Record the MAIN source of DRINKING water for the household during the rainy season. If more than one source is used, ***only the main one should be recorded in the space provided.***
- 34a. Select which organization/entity is responsible for the provision of the water source in 33. This should be the organization/entity that manages the water source. This question is only asked for piped water, wells, standpipes, and tanker truck.
- 34b. Record the location of the rainy season water source, whether IN OWN DWELLING, IN OWN YARD/PLOT, or ELSEWHERE. Only asked for sources in 33 that do not already specify a location.
- 34a1/34a2. Record how long it will take to walk to the rainy season source of water (**ONE WAY**) from the dwelling. If the respondent had to wait to collect the water, include the wait time. Only asked for water sources that are not in the dwelling or yard/plot. Record the time quantity in 34a1 and the time unit in 34a2.
- 35. Record how many trips PER WEEK the household makes on average to collect water from the rainy season water source.
- 36a. Select whether the household's drinking water source for the dry season is different from the rainy season water source.
- 36b. – 36f. See 34a. to 35.
- 36g. Ask the respondent if there was any time in the PAST 30 DAYS when the household did not have sufficient water.
- 36j. Select whether the household does anything to treat the water that they drink. Probe and select all of the applicable options.
- 36h. Record the main source of water that is not used for drinking but for other purposes. The water source options are the same as in 33.

- 36i.** Record the total cost of **drinking water** for the household in the PAST 30 DAYS. The total cost must be estimated and recorded the naira amount recorded in the space provided. The interviewer should enter '0' zero if there is none i.e. if the household did not spend money on drinking water last month. Be sure to include any and all fees associated with this water source.

5. SANITATION

- 36.** Select the MAIN type of toilet household members use. If the respondent says flush toilet, PROBE where the toilet flushes to.

FLUSH TOILET uses either a cistern or holding tank or water poured by hand for flushing water, and a water seal (a U-shaped pipe below the seat or squatting pan) that prevents the passage of flies and odours.

FLUSH TO PIPED SEWAGE SYSTEM is a system of sewer pipes, that collects human excreta and waste water and remove them from the household environment.

FLUSH TO SEPTIC TANK is an excreta collection device consisting of a water-tight settling tank, which is normally located underground, away from the house or toilet.

FLUSH TO PIT LATRINE refers to a system that flushes excreta to a hole in the ground or leaching pit (protected, covered).

FLUSH TO OPEN DRAIN refers to a system that flushes excreta to an open sewer, ditch, or drainage way.

FLUSH TO SOMEWHERE ELSE refers to excreta being deposited in or nearby the household environment (not into the above). Excreta may be flushed to the street, yard/plot, etc.

VENTILATED IMPROVED LATRINE (VIP) is a dry pit latrine ventilated by a pipe that extends above the latrine roof. The open end of the vent pipe is covered with gauze mesh or fly-proof netting and the inside of the superstructure is kept dark.

PIT LATRINE WITH SLAB 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, easy to clean and raised above the surrounding ground level to prevent surface water from entering the pit. The platform has a squatting hole or is fitted with a seat.

PIT LATRINE W/O SLAB uses a hole in the ground for excreta collection and does not have a squatting slab, platform or seat. An OPEN PIT is a rudimentary hole in the ground where excreta is collected.

COMPOSTING TOILET is a dry toilet into which carbon-rich material (vegetable wastes, straw, grass, sawdust, ash) are added to the excreta and special conditions maintained to produce inoffensive compost.

BUCKET refers to the use of a bucket or other container for the retention of faeces (and sometimes urine and anal cleaning material), which are periodically removed for treatment, disposal, or use as fertilizer.

HANGING TOILET/ HANGING LATRINE is a toilet built over the sea, a river, or other body of water, into which excreta drops directly.

NO FACILITIES, BUSH, OR FIELD includes defecation in the bush or field or ditch; excreta deposited on the ground and covered with a layer of earth (cat method); excreta wrapped and thrown into garbage; and defecation into surface water (drainage channel, beach, river, stream or sea).

37a. Only asked if the main toilet facility has a pit or septic tank. Select YES if the pit/tank has EVER been emptied, even if not by members of the household. Also select YES if a new pit was dug and the latrine moved.

37b. Select the pit/tank has been emptied to the LAST time it was emptied.

REMOVED USING A TRUCK/TANKER refers to the latrine content being driven away on motorised truck or tanker, independent of the final disposal destination.

REMOVED USING A NON-MOTORIZED VEHICLE refers to the latrine content being driven away on non-motorised, hand or animal-drawn cart.

BURIED IN A COVERED PIT refers to the pit content being either put into another pit and completely covered (earth, cement) or if a new pit is being used for the latrine.

AN UNCOVERED PIT, OPEN GROUND, WATER BODY OR ELSEWHERE if the pit content was emptied into none of the above.

37d. Select YES if the toilet facility is normally also being used by people who are not members of this household.

37e. Record the number of HOUSEHOLDS with which the toilet facility is shared. Do NOT include the household itself.

38. Record the method in which the household disposes of its refuse, garbage, rubbish. If a household uses more than one methods of disposal, ask for the MOST COMMONLY used method.

COLLECTED BY GOV refers to the refuse being collected from the household dwelling or compound by a service provided by the government i.e. local council for free or against payment.

COLLECTED BY PRIVATE FIRM refers to the refuse being collected from the household dwelling or compound by a service provided by a firm against payment.

GOVT BIN refers to publicly accessible bins provided for and emptied by the government, i.e. local council.

DISPOSAL WITHIN COMPOUND (INCL BURNING) refers to refuse disposal in the compound, such as burning it, treating it chemically or disposing it in a pit.

INFORMAL DISPOSAL (BUSH, STREET, WATER) refers to any other informal method used to dispose the refuse.

39a./b. Asked for formal refuse disposal methods only. Record the amount in Naira the household pays for refusal collection and select the respective time period in 39b. If the

household does not pay anything, record 0. FORTHNIGHTLY refers to two weeks, i.e. the amount indicated in 39a. is for two weeks.

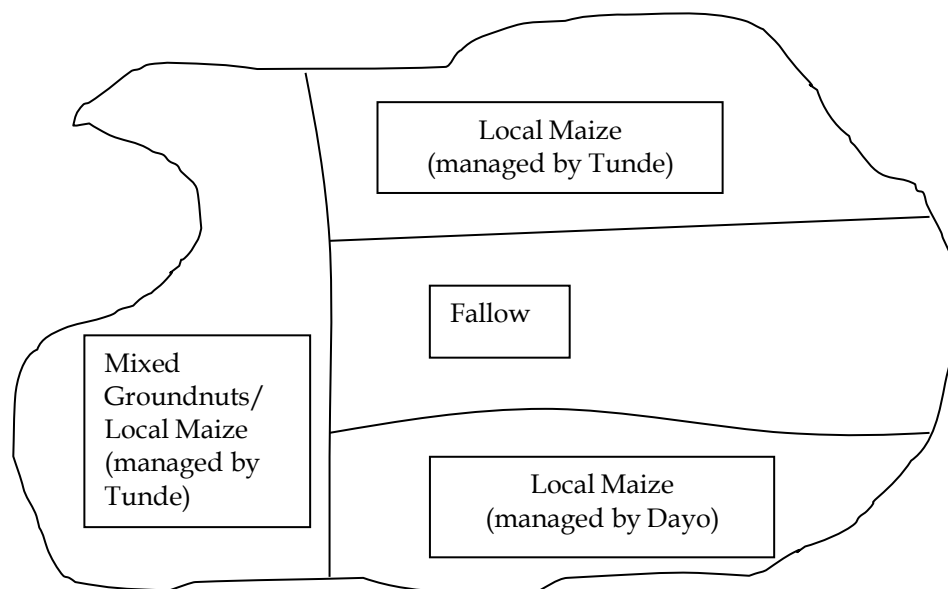
SECTION 11A – PLOT ROSTER

Description: This section collects information on household's access to land, including lands used for crop cultivation, whether or not the land is owned by the household, fallow lands, lands that the household rented in or out, sharecropped in or out, land owned by the household that has dwelling units built on it, land rented for non-farm enterprises, etc. It must be emphasised that if the household rented the dwelling unit, the land on which that dwelling unit is situated must not be listed. The reference period for this section is the agricultural season 2018/2019. Lands used for agricultural purposes should be listed using the definition of a PLOT given below.

Respondent: Ideally, the manager of each PLOT should be the respondent for their respective PLOTS. The most knowledgeable household member regarding the household farm operations, can respond in the absence of the manager of each PLOT.

Definition: For the purpose of this survey we understand an agricultural PLOT as a continuous piece of land on which a unique crop or a mixture of crops is grown, under a UNIFORM, consistent CROP MANAGEMENT SYSTEM. It must be a CONTINUOUS piece of land and MUST NOT be SPLIT by a river or path of more than one metre in width. Plot boundaries are defined according to the crops grown and the operator.

Example 1: One continuous piece of land cultivated by a household that is divided into four PLOTS:



Example 2: A piece of land has an area of 3.0 acres and is planted only with local maize. The land is divided into two equal portions by a river that is 2 meters in width. Both sides are managed by Femi, the son to the head of household.

Explanation: First, we recognise that the land is managed by a single operator – hence, the management system is UNIFORM and CONSISTENT throughout this piece of land. The piece of land is also pure-stand, planted only with local maize. Hence, the SAME cropping arrangement is seen throughout. However, the land is split by a river into two parts and is hence NOT CONTINUOUS. It is therefore split into TWO PLOTS.

Example 3: The piece of land has an area of 1.0 acre, and is divided by a path 0.5 meters in width. It is mixed-stand, intercropped with hybrid maize and beans in its entirety, and managed only by Elizabeth.

Explanation: The piece of land is managed by a single operator – hence, the management system is UNIFORM and CONSISTENT throughout this piece of land. The piece of land is mixed stand, with hybrid maize intercropped with beans. The SAME cropping arrangement is seen throughout the piece of land which can also be considered CONTINUOUS, as it is divided by a path that is only 0.5 meters in width, i.e. LESS than 1 meter. Hence, there is only ONE PLOT in this case.

Example 4: The piece of land has an area of 1,000 square meters, is undivided, and managed by Oke. Approximately $\frac{1}{2}$ of the land is mixed-stand, intercropped with hybrid maize and beans with pumpkin planted along the edges. The remaining portion of the land is covered with cashew nut trees.

Explanation: The land is managed by a SINGLE operator – hence, the management system is UNIFORM and CONSISTENT throughout this piece of land. It is also CONTINUOUS. So far, these features would qualify the land as a single plot. However, the cropping arrangement is NOT CONSISTENT throughout; $\frac{1}{2}$ is cropped with hybrid maize, beans and pumpkins, whereas the other half is cultivated with cashew nuts. Since there are two unique mixture of crops planted in different halves of the land, we can conclude that it is made up of TWO PLOTS.

Example 5: The land has an area of one hectare, and is pure-stand, planted only with groundnuts. Approximately $\frac{1}{4}$ of the parcel is managed by Tambe, while the rest is managed by Rose.

Explanation: The land can be assumed to be CONTINUOUS, and the SAME cropping arrangement (pure-stand groundnuts) is witnessed throughout. So far, these features would qualify the land as a single plot. However, there are TWO DIFFERENT managers on two different portions of the land. Hence, the management system is NOT UNIFORM and consistent throughout, implying that the land is made up of TWO PLOTS.

Instructions: Before administering this section, you MUST have a DETAILED conversation with the farmer(s) concerning the organization of the household farm(s), using the SKETCH page and relying on drawings concerning locations and boundaries of their farm land, and the definitions/boundaries of the PLOTS. THE FARMER(S) AND YOU NEED TO BE ON THE SAME PAGE WHEN IDENTIFYING AND SPEAKING ABOUT INDIVIDUAL PLOTS. NOTE that our definition of a

PLOT is not necessarily the same way farmers think about their plots, e.g. there is a tendency to refer to a continuous piece of land as a plot, or refer to a plot as a unit of area measurement. MAKE SURE you and the respondent understand one another and follow the PLOT definition explained above.

- 3a.** Make a list of ALL the PLOTS the household had access to, OWNS or CULTIVATED **THIS AGRICULTURAL SEASON 2018/2019**. ALL plots that the household owned or used for any purpose since the beginning of the agricultural season 2018/2019 should be listed. Be sure to list all plots whether owned, rented, or used for free including cultivated, dwelling, pastureland, forest, and business/commercial plots.

Provide a UNIQUE name for each PLOT, including the use, the crop, manager and location. The name must be precise enough that any of your colleagues can talk to another household member in 2 years' time about this PLOT and will be understood.

Note that for all households in the agricultural labour survey of the GHS, their plots will be prefilled, but the enumerator must update this list of plots using the same convention as the household roster. The enumerator must ask the respondent if his/her has owned, cultivated, rented, or accessed any new plots since the last interview. If the respondent responds yes, then the names of these new plots should be solicited and listed accordingly.

PLOTS

One sub section for every PLOT listed in question 3a. Answer one subsection at a time. Make corrections to the list of plots if you notice that plots have not been correctly identified.

- 3b.** Provide a written description and the location of PLOT. The description should be detailed, such that it would be easier for you and the household to identify and distinguish each PLOT in the future. Use landmarks and physical demarcations, crop name or operator where possible.

- 4a/4b.** Record the RESPONDENT'S ESTIMATION of the area of the PLOT and the corresponding area unit. The respondent can choose the appropriate area unit to report the area of the PLOT. ENCOURAGE them to estimate the area in acres, hectares, or square meters, if possible. MAKE SURE to select the correct area and unit combination.

AREA can be recorded with two decimal places. If the farmer reports one acre, enter 1 in 4a, and select ACRES in 4b. Many smallholders are likely to report areas in acres and/or fractions of acres, and probably not more detailed than $\frac{3}{4}$, $\frac{1}{2}$ or $\frac{1}{4}$ of an acre. CONVERT the fractions to decimals as follows: $\frac{3}{4} = 0.75$, $\frac{1}{2} = 0.50$, $\frac{1}{4} = 0.25$, and fill in the areas with two decimals. MAKE SURE that the decimals are correctly entered.

If the respondent does not know, HELP them ESTIMATE THE AREA. Use the following guidelines:

1 ACRE is a measure of an area of approximately 70 yard x 70 yard (100 steps by 100 steps) or $\frac{3}{4}$ of a standard football field;

0.25 ACRE or ¼ acre is a square of 35 yard x 35 yard (50 steps by 50 steps);

0.1 ACRE is 22 yard x 22 yard (31 steps by 31 steps);

0.05 ACRE is 16 yard x 16 yard (23 steps by 23 steps)

If the respondent cannot estimate in standard units, choose any of the non-standard units, which will be converted into standard units during analysis.

Note the following conversions and use them where appropriate:

- 1 acre \cong 4000 m² \cong 0.4 hectares
- 1 hectare \cong 10,000 m² \cong 2.5 acres

Please note that PLOTS (unit code 4), is also one of the local units of measuring crop farm area. Fifteen PLOTS (unit measure) is equivalent to one HECTARE.

27. Select Yes if the household indicated that the PLOT was cultivated by any member of the household since the beginning of the agricultural season 2018/2019.
6. This question will be asked if the PLOT was cultivated by the household at any time during the agricultural season 2018/2019. Record ALL members who are DECISION MAKERS for the plot. Decision makers are those who take decisions on how to use the plot, what crops to grow, when to plant and harvest, and what inputs to use. Note, the decision maker might not necessarily be the owner of the plot.

SECTION 11B1: LAND INVENTORY

Description: This section asks about how the PLOTS were obtained and their current use, plot characteristics, irrigation, conservation practices that are currently present and the technology used for land preparation

Respondent: The most knowledgeable household member regarding the household farm operations, who may be assisted by other farm managers and labourers within the household. In the absence of someone knowledgeable about the household farming operations, the manager of each PLOT should respond for their respective PLOTS.

PLOTS

The sub section for every PLOT listed. Answer one subsection at a time.

2. Only members of at least 10 years of age are listed. Make sure to select a suitable and knowledgeable respondent.
3. Record the year PLOT was acquired by the household in 4 DIGITS. EXAMPLE: If the PLOT was acquired in 1997, write 1997 and NOT 97. By acquired we mean when the household obtained the right to use PLOT, e.g. by inheritance, purchase, renting or allocation. If the

household uses PLOT for free, consider the year the household started using PLOT. For dwelling plots, ask for the year in which the land was acquired, but not when the structure was built on the plot. For plots that are used for non-farm enterprises, ask for the year that the household rented that plot.

4. If PLOT was acquired by more than one means, select the main. NOTE that the question asks about the way the plot was acquired, do NOT confuse with main use of plots such as rented OUT, sharecropped OUT, etc.

OWNED

- 5 This question is asked for plots that the household acquired through outright purchase (code 1 for question 4). In this case the total amount (Naira) paid for each specific PLOT must be given. This must include both cash and in-kind payment i.e. payment in-kind must be converted and valued in Naira. For example, cash (₦ 275, 000) plus **50 bags** of Millet (₦ 200,000). The total amount paid will be 475,000 (275,000 + 200,000) which should be recorded accordingly.
- 6 For plots that the household acquired through outright purchase, the name ALL the person that own that PLOT must be selected from the list of household members displayed on the screen.
- 7 Record Yes if at least one member of the household This is to find out whether at least one household member had obtained LEGAL TITLE of occupancy to this PLOT. Some of the
- 8 This question seeks for the type of legal title acquired for the PLOT. A list of possible response is provided.

CERTIFICATE OF OCCUPANCY (C of O) is a certificate issued to a plot owner as a legal right of ownership of the plot either signed by Minister of Federal Capital Territory (FCT) or Governor of a state in Nigeria

RIGHT OF OCCUPANCY (R OF O) is a certificate issued to a plot owner as a legal right of ownership of the plot signed by Chairman of a Local Government in Nigeria

CUSTOMARY CERTIFICATE OF OCCUPANCY (CC of O) is a document issued to a plot owner as a legal right of ownership of the plot signed by traditional Rulers of a Locality or a Community in Nigeria.

TITLE DEED is a written document for the transfer of land or other real property from one person to another. A writing or instrument under seal, containing some contract or agreement, and which has been delivered by the parties.

- 8a. ask for the total payment made to obtain the legal title for this plot. The amount should be recorded in Naira. Note that this is not the cost of the land, but rather the cost of the title only.
- 8b. For each selected legal title to the land selected in 8a above, indicate the persons in the household whose names are written on that title. Ask for the title if available and the household is willing to show it, and record the names.
- 9. This question will be activated if the response to 7 is NO. Ask for the reason why the household has not acquired legal title for PLOT. Probe and select all that apply.
- 9a This is to find out whether there is any OTHER ownership document to PLOT apart from the options listed in question 8. The question is asked whether or not the response to 7. is Yes.
- 10 Make further enquiry on the other types of ownership documents that the household has that grants them ownership to the PLOT. Probe and select all that apply

USED FOR FREE

- 10c. Though the household uses the PLOT for free, ask if the household has any written agreement with the land owner for using that PLOT.
- 10d. If the household has a written agreement with the land owner for using the PLOT for FREE, ask if names of any member of the household has been written on this written agreement.
- 10e. Select the names of household members whose names appear on the written agreement for the PLOT that the household uses for free.

RENTING IN

- 13 The question is on the amount of money paid in cash by any household member for *renting in* PLOT since the beginning of the agricultural season 2018/2019. Write the total amount (Naira) paid in cash for *renting in* each PLOT. If the household rented in one hectare of land for 20,000 and that land is divided into 4 different plots, then 5,000 should be recorded here, but not 20,000.
- 14 Payment in-kind for renting in each PLOT must be converted and valued in Naira. For example **950 tubers of Yam valued at ₦ 150,000**, then 150,000 should be recorded here.
- 17. Ask for how the contract for the rented in PLOT was established between the household and the landowner. A contract can be written and registered (with a lawyer), or written but not registered, or can be oral with or without a witness. Select the applicable option.
- 16a. If the contract for the rented in PLOT was a written type (registered or unregistered), solicit for the household members whose names appear on this written contract for the rented in PLOT.

16. The persons in the household whose names appear on this written contract for the rented in PLOT must be selected from the list of household members. Probe and select all that apply.

SHARECROPPED IN

Share crop out refers to when plot owner (the household) agrees to give out his/her land to a farmer or another household for farming operations, on the basis of sharing the proceeds from the farm with the farmer after the harvest. The proceeds can be shared in percentage or absolute terms. The reverse is true for SHARECROP IN where the household takes land from another household for farming operations and the proceeds shared in either percentage or absolute terms.

- 14a. Ask for how many the sharecropping was done or agreed to be undertaken. If the response is provided in absolute terms, then percentage is irrelevant and vice versa. Note that 14a takes only percentage values, and the value recorded cannot be more than 100.
- 14b. This is about the total value of the proceeds that have been made to the landowner. Probe and help the respondent to estimate the value.

USE RIGHTS

19. This question is directed to the respondent, whether or not he/she has the right to sell the PLOT. If the respondent says he/she will not sell the PLOT, pose a hypothetical scenario to him/her if the PLOT were to be sold, does he/she have the right to sell it.
- 19a. Ask if the respondent has ever used the PLOT as collateral security. *COLLATERAL SECURITY* refers to something of value given or pledged as surety for payment of a loan, a negotiation, bond etc. if there would be disappointment in fulfilment. E.g. a loan of 1.5 million naira obtained from a deposit bank and submitted the C of O of your plot as collateral security in case the loan could not be repaid as agreed.
20. This is to find out if the respondent has the right to use the PLOT as collateral security. This will be asked only if the respondent indicates that he/she does not have the right to use the PLOT as collateral in 19a above.
21. This is to find out whether any other member(s) in the household have right to sell PLOT or use it as collateral security.
22. Probe and select the other members of the household who have the right to sell PLOT or use it as collateral security.
- 23a. This is a filter to establish whether the PLOT will be inherited by a current member of the household, persons outside the household or both.

INHERIT PLOT means take over the ownership of the PLOT in the absence of the present owner as a result of death. BEQUEATH means to hand down or pass on or enlist personal property (plot) as will to a person before dying in a legal form. WILL means to transfer the ownership of the

plot to anyone else in writing in the presence of a lawyer so that when the present owner dies, the ownership of the plot automatically goes to the person whose name is written in the WILL.

- 23b.** If the PLOT will be inherited by a current member of the household or both a current household and persons outside the household, then this question asks for the persons in the household who will inherit the PLOT. Select the names of household members who will inherit the PLOT from the list displayed.
- 23c.** Select the non-household members that will inherit PLOT.
- 24.** Ask if the respondent or any other members of the household have the right to bequeath PLOT.
- 25a.** If the household has the right to bequeath the PLOT, ask for the persons in the household that have the right to bequeath the PLOT.
- 25.** If the response to 24 is NO, then this question asks for whose approval the household needs in order to bequeath PLOT. Probe and select the main one.
- 26a.** This is a subjective and sensitive question that has to be innovatively asked and with care. It is a Likert scale question that establishes the likelihood of the household losing their use and ownership rights to PLOT involuntarily within the next 5 years. Use body language and facial expressions, and tone of voice to aid in selecting the appropriate option.

VALUE & USE

- 26.** This question seeks for the current value of the plot by posing the question “if the [PLOT] were to be sold today, how much could it be sold for?” Ask for the current value even if the PLOT cannot be sold
- 28.** Ask about the main use of PLOT since the beginning of the agricultural season 2018/2019. A list of possible uses is provided and the interviewer should record the MAIN use of the PLOT.
- 28a.** If the PLOT has been left fallow, ask for the number of years in which the PLOT has been left fallow, including the current year. Note that we are talking about consecutive years, including the current agricultural season 2018/2019

RENTED OUT

- 29a.** The number of consecutive years, including the current year, in which PLOT has been *rented out* to other households.
- 31.** This question asks for the total rental value of the plot to the household. Therefore make enquiry for the amount received in cash for renting out PLOT in Naira e.g. **356,000**.

32. Ask for the period that the payment in 31 covered. Only one response is allowed for each plot from the listed options. For **option 5 (other specify)** the response must be written out detailly, but concise.
33. Ask for the payment received in-kind for the renting out of this [PLOT]. Convert the amount received in kind to cash equivalent (Naira) e.g. **20 bags** of Groundnuts (₦ 120,000). This estimated amount (₦ 120,000) should be written for this question accordingly.
34. Inquire for the period that the payment in-kind in 33 covered. Only one response is allowed for each plot from the listed options. For **option 5 (other specify)**, the response must be written out detailly, but concise.
- 35a. Ask for whether the household has a written or oral contract for the rented out PLOT
- 35b. If the contract for the *rented out* PLOT is oral, then this question asks for whether there was a witness for this oral contract or not.
35. question seeks to know the duration of the contract in 33 in years. For less than one year and don't know, select from the options, otherwise, type the number of years.

SHARECROPPED OUT

36. This question asks about the person who joined either as a partner or a tenant for the sharecropping out.
- 37a. Establish if the household has either a written or oral contract for this sharecropping out PLOT with the partner.
- 37b. If the contract for the sharecrop out is oral, ask if there was a witness for establishing this contract.

CHARACTERISTICS

39. Select YES if PLOT was irrigated at any point during the **AGRICULTURAL SEASON 2018/19**, even if only for some of the time. Irrigation is the artificial supply of water to an agricultural field, usually by means of a channel. The channel/system used can be advanced as in drip and sprinkler irrigation to a less sophisticated types such as hand pump.
40. If there is more than one water source, select the main.
41. Select ALL irrigation systems that are used on PLOT.
TREADLE PUMP is a low-cost, simple manual pump. It has two pistons placed side by side and a chain or rope which passes over a pulley that connects the two pistons

together so that when one piston is pushed down, the other comes up. Each piston is connected to a treadle. A suction or intake pipe connects the pump to the water source. At the end of this pipe is a non-return valve that only allows water to enter the pipe and stops it from flowing back.

MOTOR PUMPS are water lifting devices that are propelled by either diesel, petrol or electricity. An example of a motor pump is the radial flow pump commonly known as centrifugal pump.

SPRINKLER is a way of applying irrigation that is similar to natural rainfall. It can be used on many crops, soils and geographic conditions.

42. Select SEASONAL if PLOT is only irrigated in certain times of the year, and YEAR ROUND if it is irrigated in every time of the year.
43. Select the group of persons managing the irrigation system for PLOT, including the source of water. By managing we mean deciding on the frequency and amount of water used, deciding and organising its construction, maintenance and extension. Select SELF MANAGED if the irrigation system is owned and managed by the household, FARMER COMMUNITY if the system is owned by a farmer cooperative with which someone in the household is a member of the cooperative and therefore benefits from such an irrigation structure, AGENCY MANAGED if the system is managed by an organization or agency of any kind, sometimes for a fee, and COMMUNITY MANAGED if the system is owned and managed by the community, in which members of the community have access to that facility at low or no cost, an example of a common access resource.
44. READ OUT the question and answer options, wait for a response and select the predominant soil type on for PLOT. EXPLAIN to the farmer if they don't know the soil types.

Sandy - the soil is very porous to water with color brown having tiny granite.

Clay Soil – the soil is heavy, muddy and thick when wet. It also looks brown/red in color having capacity of retaining water. But the soil is very hard to dig during dry season.

Mainly mixture of sand and clay – the soil looks brownish in a mixture of sand and clay soil colors.

Forest Soil (rich clayey loam) – the soil is commonly found where forest grows.

Loam – the soil looks blackish in nature which is very fertile for agriculture. It is a mixture of sand, clayey and silt with organic composition.

45. READ OUT the question and answer options and wait for a response. Fair means the soil is neither good nor bad but OK.
46. READ OUT the question and answer options and wait for a response. 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.
47. Select YES if there were any problems with erosion on PLOT at any point during the LAST completed agricultural season. Soil erosion is the wearing away of a field's top soil by

the natural physical forces of water, wind or through forces associated with farming activities such as tillage and animal grazing.

- 48. If there was more than one cause of erosion select the main factor directly causing it.
- 49. Select YES if on PLOT there is any form of an erosion control/water harvesting facility, independent of when they were installed/planted/constructed. Also select YES if they only cover/affect part of the plot. Erosion controls, such as tree belts or stone walls break the wind to reduce wind erosion, water harvesting facilities prevent running water from washing away the top soil, such as terraces (by making the plot flat) or channels or dams, by stopping it from running.
- 50. Select ALL erosion control/water harvesting facilities currently in place on PLOT. Gabions are structures made from metal bar or wire that are filled with stones or earth. Bunds are stones or earth piled or arranged into a wall like structure.
- 51. Select when the facility selected in 50. was installed/planted/constructed. If there is more than one, consider the most RECENT.
- 11. Select YES if tractors were used for the land preparation on PLOT during **THIS AGRICULTURAL SEASON**. A tractor has to be motorized.
- 12. Select the MAIN reason why tractors were not used for the land preparation. Select TRACTORS NOT AVAILABLE if there are no tractors in the area that one could hire or buy, TOO EXPENSIVE if there are tractors available in the area for hire or buy but they are too expensive, PLOT NOT SUITABLE/ACCESSIBLE if the plot cannot be reached or cultivated by tractor because of terrain or vegetation.

SECTION 11C1: HOUSEHOLD LABOUR

Description: This section asks about the work household members have done on the cultivated PLOTS since the beginning of the agricultural season 2018/2019.

Respondent: The most knowledgeable household member regarding the household farm operations, who may be assisted by other farm managers and labourers within the household. In the absence of someone knowledgeable about the household farming operations, the manager of each PLOT should respond for their respective PLOTS.

PLOT

One sub section for every PLOT cultivated by the household since the beginning of the agricultural season 2018/2019.

HH MEMBER

In each PLOT there is a subsection for all current household members aged 5 years or older. Answer the questions member by member for each plot.

- 1a.** Select YES if MEMBER has worked on PLOT since the household started preparing the PLOT for **THIS AGRICULTURAL SEASON**, independent of the agricultural activity performed, and even if it was only for one hour. NOTE that question and follow-up questions are asking about PLOT ONLY, IGNORE work on any other plot.
- 1b.** Record the TOTAL number of days ON which MEMBER worked on PLOT since the household started preparing PLOT for **THIS AGRICULTURAL SEASON**, independent of the agricultural activity performed, and even if it was only for one hour. CONSIDER ALL days on which MEMBER worked, even if it was only for a short time. *EXAMPLE: Tunde worked on the maize plot for one hour on Tuesday afternoon and for 3 hours on Wednesday. The answer is 2 (Tuesday and Wednesday).*
- 1c.** Record the typical number of hours MEMBER worked PER DAY on PLOT. *EXAMPLE: In our example above, Tunde typically works either 1 or 3 hours*
- 1d.** Select ALL activities that MEMBER has performed on PLOT during the days recorded in 1b. Select LAND PREPARATION AND PLANTING for any preparation and planting related activity, WEEDING for weeding, HARVESTING for any harvesting related activity, SUPERVISION if MEMBER did not work themselves but supervised other household members or non-household workers, and RIDGING, FERTILIZING, OTHER NON-HARVEST ACTIVITIES for any other non-harvesting, non-planting activity, such as ridging or fertilizing.

SECTION 11C1: HIRED AND EXCHANGE LABOUR

Description: This section asks about the labour the household hired or received for free to cultivate their PLOTS during this agricultural season.

Respondent: The most knowledgeable household member regarding the household farm operations, who may be assisted by other farm managers and labourers within the household. In the absence of someone knowledgeable about the household farming operations, the manager of each PLOT should respond for their respective PLOTS.

- 2.** Read out the question text for each person type and select YES or NO. Select YES if any individual from PERSON TYPE has been HIRED to work on PLOT since the household started preparing land for **THIS AGRICULTURAL SEASON**, independent of the agricultural activity performed, and even if it was only for one hour.

By hired we mean the person-type worked for PAYMENT in cash or in-kind. Do NOT consider person-type that have worked for free. It does NOT matter who in the household hired the persons. Do NOT consider as payment the food given during the day of work.

NOTE that question and follow-up questions are asking about PLOT ONLY, IGNORE work on any other plot.

Men – all MALE persons, not household members and aged 15 years or older

Women - all FEMALE persons, not household members and aged 15 years or older

Children - all persons under 15 years independent of sex, not household members

HIRED LABOUR

Asked for every PERSON TYPE selected under 2.

3. Record the TOTAL number of PERSON TYPE (i.e. men, women or children) that have been HIRED to work on PLOT since the beginning of **THIS AGRICULTURAL SEASON**. Note that the persons did not have to work on PLOT at the same time. *EXAMPLE: if one woman was hired in February, and two other women were hired in April, record the total 3.*
4. Record the number of days ON which a TYPICAL person worked on PLOT since the household started preparing land for **THIS AGRICULTURAL SEASON**. NOTE that the question is asking for ONE (typical) PERSON ONLY, not the total. If persons were hired for different lengths of time, record the number of hours each PERSON normally work on PLOT per day. CONSIDER ALL days on which a typical person worked, even if it was only for a short time. *EXAMPLE: In above example, if the woman in February was hired for 6 days and the two women in April for 3 days, record either 6 or 3.*
5. Record the typical number of hours ONE PERSON TYPE worked PER DAY on PLOT. *EXAMPLE: In our example above, if each woman worked around 6 hrs per day, record 6.*
6. Record the TOTAL AMOUNT paid on average to EACH PERSON TYPE PER DAY. Estimate the Naira equivalent for in-kind payments. NOTE that the question asks per person. If the payment was paid to a group, calculate how much was paid for one individual.
7. Select ALL activities that all individuals from PERSON TYPE have performed on PLOT. Select LAND PREPARATION AND PLANTING for any preparation and planting related activity, WEEDING for weeding, HARVESTING for any harvesting related activity, and RIDGING, FERTILIZING, OTHER NON-HARVEST ACTIVITIES for any other non-harvesting, non-planting activity, such as ridging or fertilizing.
8. Asked for every PLOT. Read out the question text for each PERSON TYPE and select YES or NO. Select YES if any individual from PERSON TYPE has worked on PLOT WITHOUT PAYMENT since the household started preparing PLOT for **THIS AGRICULTURAL SEASON**, independent of the agricultural activity performed, and even if it was only for one hour.

Working without payment includes working as exchange labourer (e.g. if neighbours help each other harvesting) or for nothing in return (e.g. if a relative who is not a household member helps with the harvest but gets nothing in return). Do NOT consider as payment the food given during the day of work.

NOTE that question and follow-up questions are asking about PLOT ONLY, IGNORE work on any other plot.

Men – all MALE persons, not household members and aged 15 years or older

Women - all FEMALE persons, not household members and aged 15 years or older

Children - all persons under 15 years independent of sex, not household members

EXCHANGE/FREE LABOUR

Asked for every PERSON TYPE selected under 8.

9. Record the TOTAL number of PERSON TYPE (i.e. men, women or children) that have worked WITHOUT PAYMENT on PLOT since the beginning of **THIS AGRICULTURAL SEASON**. NOTE that the persons did not have to work on PLOT at the same time. *EXAMPLE: if the father of the household head (who lives in another household) helped with PLOT preparation in February, and 4 male neighbours helped harvesting in May (and our respondent helped them in return), record the total 5.*
10. Record the number of days ON which a TYPICAL person worked on PLOT since the household started preparing land for **THIS AGRICULTURAL SEASON**. NOTE that the question is asking for ONE (typical) PERSON ONLY, not the total. If persons worked for different lengths of time, record the average. CONSIDER ALL days on which a typical person worked, even if it was only for a short time.
EXAMPLE: In above example, if the father helped in February for 7 days and the five neighbours in May for half a day, record either one or 7 days. Even though the neighbours only worked half a day, they have worked ON that day, so we count it as one.
11. Record the number of hours that ONE PERSON TYPE normally work PER DAY on PLOT. *EXAMPLE: In our example above, if the father worked 6 hrs per day and the neighbours worked 3 hrs per day, record the*
12. Select ALL activities that all individuals from PERSON TYPE have performed on PLOT. Select LAND PREPARATION AND PLANTING for any preparation and planting related activity, WEEDING for weeding, HARVESTING for any harvesting related activity, and RIDGING, FERTILIZING, OTHER NON-HARVEST ACTIVITIES for any other non-harvesting, non-planting activity, such as ridging or fertilizing.

SECTION 11F: PLANTED CROPS

Description: This section asks about the crops the household is cultivating on their PLOTS during this agricultural season.

Respondent: The most knowledgeable household member regarding the household farm operations, who may be assisted by other farm managers and labourers within the household. In the absence of someone knowledgeable about the household farming operations, the manager of each PLOT should respond for their respective PLOTS.

PLOT

One sub section is displayed for each PLOT that is cultivated in the current agricultural season. Plots that are used differently (e.g. left fallow or rented out) are not listed.

- 1a. Select ALL field and tree crops that the members of the household have cultivated since the beginning of **THIS AGRICULTURAL SEASON**, and the tree crops on PLOT. NOTE that

sometimes more than one crop is cultivated/grown on one plot. PROBE and make sure to include ALL crops grown, even if there are only a few on PLOT. Include crops grown on the boundaries of the plot, such as cassava.

CROPS

One sub section for each crop selected in 1a. We distinguish between two different types of crops, depending on the crop type, different questions are opened in the sub section:

Field crops – crops that are usually planted and harvested within one season (with some exceptions), including cereals (e.g. maize, rice, wheat, etc), roots and tubers (e.g. cassava, potatoes, yam, etc), vegetables (e.g. okra, carrot, cabbage, etc), pulses and some nuts (e.g. beans, peas, ground nut).

Tree crops – crops from plants (trees or bushes) that take several seasons to produce fruits/seeds/leaves that can be harvested, and are usually harvested over many seasons, e.g. mango, cashew, banana & plantain, pineapple, etc. Tree crops can last for many years and sometimes be inherited from generation to generation.

MAKE SURE the respondent understands that all questions are ONLY for CROP on PLOT.

1. For each CROP that the household planted on PLOT, record the percentage of the PLOT area that is planted with CROP **THIS AGRICULTURAL SEASON**. Either record the percentage of the PLOT planted with CROP or choose from the options listed.
2. Select the cropping method for CROP on PLOT.

MONO-CROPPING: is the agricultural practice of growing the same crop year after year on the same piece of land, without crop rotation through other crops which allow specialization in equipment and crop production e.g. a maize farm.

INTER-CROPPING: as the name implies is the most basic form in which the component crops are totally mixed in the available land space. This pattern can be in form of two or more crops planted on the same piece of land. i.e. a PLOT has Maize, Yam and Melon grown together. Examples of inter-cropping include mixed cropping, relay cropping, alley cropping and strip cropping.

INTER-CROPPING: is the practice of sowing a fast-growing crop with a slow growing crop so that the fast-growing crop is harvested before the slow growing crop starts to mature e.g. Yam and Plantain. RELAY CROPPING: refer to the agricultural practice of cultivating two crops where the second crop is planted following harvest of the first crop to get more benefits i.e. having harvested Melon, Yam is planted. ALLEY CROPPING: also known as row cropping involves the crops arranged in alternate rows e.g. in a ridge where Groundnut is planted in alternate rows with Melon. STRIP CROPPING: A variation of row cropping is strip cropping - where multiple rows (or a strip) of one crop are alternated with multiple rows of another crop. This design can provide shade (reducing water loss from evaporation), ensures retention of soil

moisture, and can also produce fruit, fuel wood, fodder, or trimmings to be made into mulch e.g. a Yam farm having tree crops.

- 3d.** Record the TOTAL quantity of seeds/tubers/stems planted for CROP on PLOT **THIS AGRICULTURAL SEASON**. The question text is automatically updated so that the seed-type (seeds/tubers/stems) matches the crop. The question is composed of up to three question fields, the QUANTITY, the UNIT, and depending on the unit the SIZE of the unit. Record under QUANTITY how many of units have been planted, select under UNIT the corresponding unit. For some of the traditional units, SIZE will open and ask you to specify the size of the unit, e.g. if it was small, large or extra large dericas. Check with the respondent by showing them the photo album. MAKE SURE to record the right quantity and unit combination. If the unit is not listed, ask the respondent to estimate in one of the listed units, and if not possible, record as another unit, under other specify.
- 3b.** Read out the question text and answer options. If the respondent does not know, check how they obtained the seeds/tubers/stems, and explain the categories.

Improved seeds are seeds that have some better qualities/traits added to it by a farmer or a plant breeder. They may or may not have been certified. These new traits can be high yielding, drought resistant, or pest resistant.

Traditional/local seeds are those not from improved varieties, typically have been grown in the area for some time and are usually either self-produced or obtained from other farmers or merchants who obtained them locally.

- 3a.** For improved seeds, read out the question text and answer options. Select YES if the seeds have been approved for sale and planting by the appropriate seed certification authority such as the Ministry of Agriculture.
- 3b.** For improved seeds, record the name of the seed type. Write “DK” if they do not know.
- 3.** Select the month in which the household started planting CROP on PLOT. The answer options list the past 12 months based on the interview start date.
- 4.** This question refers to tree crops. Record the percentage of the PLOT area that is planted with CROP plants **THIS AGRICULTURAL SEASON** or choose from the list of options.
- 5.** Record the TOTAL number of TREE CROP plants on PLOT. If the respondent does not know, ask them to estimate. ONLY select DON’T KNOW if the respondent cannot estimate.
- 6.** Record the year in 4 digits (e.g. 2005) in which MOST TREE CROP plants were planted on PLOT. If the trees were planted in different years, record the year in which most of them were planted. If trees are continuously planted, i.e. every year more or less the same number, select
- 7.** Record the TOTAL number of TREE CROP plants that were planted on PLOT since the beginning of **THIS AGRICULTURAL SEASON**. If no TREE CROP plants were planted on PLOT this agricultural season, select NONE.

- 7a.** For TREE CROP plants planted during **THIS AGRICULTURAL SEASON**, Read out the question text and answer options. If the respondent does not know, check how they obtained the trees/plants/seeds, and explain the categories.
- Improved* are trees/plants/seeds that have some better qualities/traits added to it by a plant breeder. They may or may not have been certified. These new traits can be high yielding, drought resistant, or pest resistant.
- Traditional/local* are from not improved varieties, typically have been grown in the area for some time and are usually either self-produced or obtained from other farmers or merchants who obtained them locally.
- 8a.** Select YES if TREE CROP has EVER been harvested on PLOT, also if this was before **THIS AGRICULTURAL SEASON**.
- 8.** Record the start and end month and year of the last COMPLETED production/harvest period. Record the year in 4 digits, e.g. 2005. By production/harvest period we mean the period in which fruits/nuts/leaves are harvested from TREE CROP. If the interview is happening during the production/harvest period select the dates of the period before the current one. *EXAMPLE: you interview in August during mango season, so you have to ask for the LAST COMPLETED mango harvesting period, which was from July-August 2017. Select July (a) and record 2017 (b) as start date, and select August (c) and 2017 (d) as end date.*
- 9.** Select YES, if prior to the LAST COMPLETED production/harvest period there were any losses of CROP on PLOT of ANY type, i.e. that the household did not harvest as much as they had expected or hoped for at the beginning of the agricultural season. NOTE that the question is NOT asking about the current, but the LAST COMPLETED season.
- 10.** Select the main cause of the losses of CROP in the LAST COMPLETED production/harvest period.
- 11.** Record the TOTAL quantity of CROP harvested in the LAST COMPLETED production/harvest period. The question is composed of up to four question fields, depending on the crop the CONDITION/TYPE, the QUANTITY, the UNIT, and depending on the unit the SIZE of the unit. Record under QUANTITY how many of units have been harvested, select under UNIT the corresponding unit.
- For some of the traditional units, SIZE will open and ask you to specify the size of the unit, e.g. if it was small, large or extra large dericas. Check with the respondent by showing them the photo album.
- For some CROPS, CONDITION/TYPE will open and ask you select the applicable condition.
- MAKE SURE to record the right quantity and unit combination. If the unit is not listed, ask the respondent to estimate in one of the listed units, and if not possible, record as another unit.
- 12.** Record the TOTAL quantity of CROP the household expects to harvest during **THIS AGRICULTURAL SEASON** from PLOT. If the respondent does not know ask them to

estimate by comparing to previous seasons. The question functions as question 11 above.

- 13.** Select YES if the household is PLANNING to sell any of CROP they expect to harvest from PLOT during **THIS AGRICULTURAL SEASON**. NOTE that the question is asking about their plans now and is assuming that they will be able to harvest the quantity stated in 12. NOTE also that this is a hypothetical question, the response of which will not necessarily translate to the actual future decisions of the household.
- 14.** Record how much of the expected harvest the household is planning to sell. You can EITHER report this as a SHARE in PERCENT of the overall expected harvest, or as an ABSOLUTE QUANTITY. Record in the way the respondent reports. If the respondent does not know, ask them to think how much of the e.g. 5 baskets of mango they expect to harvest, they are planning to sell.
- If you record it as a SHARE, record the PERCENT in 14a. and 14b will close. Record 100 for all, 50 for half, 33 for a third, 25 for a quarter, 0 for none.
- If you record it as QUANTITY, select RECORDING AMOUNT IN QUANTITY in 14a. and record the quantity in 14b. The quantity has to be in the SAME UNIT, SIZE and CONDITION as the expected harvest recorded in 12.
- NOTE also that this is a hypothetical question, the response of which will not necessarily translate to the actual future decisions of the household.
- 15.** Record the TOTAL amount in NAIRA the household expects to receive from selling the quantity or share of CROP specified in 14. Ask the respondent for a REALISTIC estimate based on their experiences, NOT the price they would like to sell for. NOTE also that this is a hypothetical question, the response of which will not necessarily be able to receive that amount in the future.

SECTION 11E: SEED ACQUISITION

Description: This section asks about the acquisition of the seeds that were used to plant the crops cultivated on the household PLOTS during this agricultural season. Information is captured at the SEED TYPE level – improved or traditional/local.

Respondent: The most knowledgeable household member regarding the household farm operations, who may be assisted by other farm managers and labourers within the household. In the absence of someone knowledgeable about the household farming operations, the manager of each PLOT should respond for their respective PLOTS.

SEEDS

One sub-section is displayed for every seed type that was planted by the household on ANY of their plots. For field crops, seeds are distinguished between improved and traditional seeds/tubers/stems. For tree crops there is no such distinction and the sub-section is only asked

if any plants were planted during **THIS AGRICULTURAL SEASON**. MAKE SURE the respondent understands that all questions are asked about the seed type used across ALL their plots.

1. If there is more than one reason why they used SEED, select the MAIN.
2. Select YES if any of SEED used during **THIS AGRICULTURAL SEASON** was left over from ANY previous season. This includes CARRY OVER seeds, i.e. seeds that were not planted in previous seasons and were still good to plant, as well as seeds produced in PREVIOUS HARVESTS. NOTE that the question is not limited to the previous season only but includes ANY previous season.

INCLUDE stems produced from existing plants, e.g. cassava stems.
3. Record the TOTAL quantity of SEED used during **THIS AGRICULTURAL SEASON** that came from previous seasons. The question is composed of up to three question fields, the QUANTITY, the UNIT, and depending on the unit the SIZE of the unit. Record under QUANTITY how many of units came from previous seasons, select under UNIT the corresponding unit. For some of the traditional units, SIZE will open and ask you to specify the size of the unit, e.g. if it was small, large or extra-large dericas. Check with the respondent by showing them the photo album. MAKE SURE to record the right quantity and unit combination. If the unit is not listed, ask the respondent to estimate in one of the listed units, and if not possible, record as another unit.
4. Select YES if the household received for free any of SEED used during **THIS AGRICULTURAL SEASON**. EXCLUDE seeds that are self-produced by the household in previous harvests or were carry over seeds, they must be recorded under 2. and 3. INCLUDE any seeds received from outside the household for which the household did not have to pay in cash or in-kind, e.g. gifts from friends and family, or donations from the government or organisations. If seeds were received for free PRIOR to the planting of the LAST season, record them as seeds from PREVIOUS SEASONS.
5. Record the TOTAL quantity of SEED used during **THIS AGRICULTURAL SEASON** that the household received for free. The question functions as question 3. You can record using a different unit than reported in question 3.
6. Select from whom the household received for free the SEED used during **THIS AGRICULTURAL SEASON**. If there is more than one source, select the source from which the household has received most SEED.
7. Record the TOTAL amount in NAIRA the household spent on transportation to acquire and transport back to the farm the SEED received for free. SUM the costs of ALL trips, include the return trip. ONLY consider trips whose main purpose was to acquire or transport back the seeds. Record NONE if the household did not incur any transportation cost to acquire SEED.
8. Select the MAIN mode of transport used to transport back SEED received for free to the farm. If the household received SEEDS at their farm, select no transport cost.
9. Select YES if the household purchased any of SEED used during **THIS AGRICULTURAL SEASON**. INCLUDE any seeds the household purchased in cash or in-kind. If seeds were

purchased PRIOR to the planting of the LAST season, record them as seeds from PREVIOUS SEASONS.

10. Select ALL household members who purchased SEED. By purchase we mean who paid for them, NOT who physically bought them. All current household members of 5 years of age or older are listed as answer options.
11. Select from whom the household purchased the SEED used during **THIS AGRICULTURAL SEASON**. If there is more than one source, select the source from which the household has purchased most SEED.
12. Record the TOTAL quantity of SEED used during **THIS AGRICULTURAL SEASON** that came from the quantity that the household purchased. The question functions as question 3. You can record using a different unit than reported in question 3.
13. Record the TOTAL amount in NAIRA the household spent to purchase the SEED used during **THIS AGRICULTURAL SEASON**. EXCLUDE transport cost.
14. Record in KM the ONE-WAY distance travelled to the main source specified in 11. Help the respondent estimate if they do not know.
15. Select the MAIN mode of transport used to transport back the purchased SEED to the farm. If the purchased SEED was delivered to the household's farm, select delivered at the farm.
16. Select YES if ANY of the SEED purchased were paid for with money from a credit taken elsewhere to purchase the seeds, or if credit was given by the source (trader, organisation), i.e. they were paid for at a later moment. Also select YES if only parts of SEED were purchased on credit.

SECTION 11I: ANIMAL HOLDINGS

Description: This section asks about the animals the household owned or kept during the past 12 months.

Respondent: Owner or caretaker of animals

1. Read out the question text and the answer options one by one, recording for each option if the household raised or owned any animal type in the **PAST 12 MONTHS**. CONSIDER animals that are owned by the household but are raised elsewhere, and animals that are NOT owned by the household but raised by the household. Also select YES if the household raised the animal type at some point in the past 12 months, but currently does not. It does not matter who in the household raises the animal type.

CALF - a young cow or bull.

HEIFER - a young cow that has not yet given birth to a calf.

COW - an adult female cow for producing milk, meat and calf.

STEER - a young male cow whose sex organs have been removed (castrated).

BULL - adult male cattle.

CHICKEN-LAYER – chickens that lay eggs and not necessarily used for meat.

CHICKEN-LOCAL – local variety of chicken

CHICKEN-BROILER – chickens that are raised for meat (not egg production).

CHICKEN-COCKERY – male chicken used for breeding

Answer all options first before moving on the sub sections.

ANIMAL

One sub section opens for every ANIMAL selected in question 1. MAKE SURE the respondent understands that the questions are about ANIMAL only.

KEPT/OWNED

- 2a.** Record the TOTAL number of ANIMALS that are CURRENTLY kept by the household, independent of who they belong to. INCLUDE animals that are NOT owned by the household but raised by the household. EXCLUDE animals owned by the household but are raised elsewhere.
- 2b.** Select YES if ALL ANIMALS kept by the household are owned by the household. Select NO if at one or more ANIMALS kept by the household that belongs to someone outside the household.
- 2.** Record the TOTAL number of ANIMALS KEPT, that are OWNED by the household. EXCLUDE animals owned by the household but are raised elsewhere.
- 4.** Select ALL household members who OWN some of the ANIMALS KEPT by the household. All current household members of 5 years of age or older are listed as answer options. NOTE the question asks about ownership, NOT about keeping/managing the animals.
- 5.** Select ALL household members who KEEPS/MANAGES the ANIMALS KEPT by the household. This INCLUDES ANIMAL not owned by the household. All current household members of 5 years of age or older are listed as answer options.
- 3.** Record the amount in NAIRA the household would receive for ONE animal. MAKE SURE the respondent understands that it is for ONE ANIMAL ONLY. Ask for a REALISTIC value that buyers would also be willing to pay. If ANIMALS have different ages and sizes and would result in a different prize, record the AVERAGE.
- 6a.** Select YES if the household owns ANIMALS that are raised elsewhere, i.e. managed and looked after by non-household members. The household may or may not pay for the service, e.g. pay a herder or borrow out a cow.
- 6b.** Record the TOTAL number of ANIMALS that are OWNED by the household and kept elsewhere. EXCLUDE animals kept by the household.

- 6c. Select ALL household members who OWN some of the ANIMALS kept ELSEWHERE. All current household members of 5 years of age or older are listed as answer options.
- 6d. If there is more than one reason, select the MAIN reason why household keeps ANIMALS.
- 6. Record the TOTAL number of ANIMALS that were kept by the household 12 MONTHS/3 MONTHS AGO, independent of who they belonged to. INCLUDE animals that were NOT owned by the household but raised by the household. EXCLUDE animals that were owned by the household but raised elsewhere. MAKE SURE to use the CORRECT REFERENCE PERIOD. For all POULTRY types (chicken, ducks, turkey, etc) we ask 3 MONTHS AGO, i.e. the same day of the month 3 month ago, for all other types we ask 12 MONTHS AGO, i.e. the same day and month one year ago.

IN/OUT

The reference period for all questions in this sub section depend on the ANIMAL TYPE. MAKE SURE to read the question text with the correct reference period, and that the respondent has understood the difference. For all POULTRY types (chicken, ducks, turkey, etc) we ask the questions for the **PAST 3 MONTHS**, for all other types we ask for the **PAST 12 MONTHS**, i.e. the same day and month one year ago.

- 7. Record the TOTAL number of ANIMALS that were BORN in the **PAST 3 MONTHS/PAST 12 MONTHS**, independent of where they are kept. Select NONE if no animal was born in the reference period.
- 8. Record the TOTAL number of ANIMALS that were RECEIVED as a GIFT by the household in the **PAST 3 MONTHS/PAST 12 MONTHS**, independent of where they are kept. By gift we mean that the household did not pay anything in cash or kind or had to provide a service in return when the animal was received. Include ANIMALS that were given to the household by a programme where the household had to pay back or give away ANIMAL in the future. Select NONE if no animal was received as a gift by the household in the reference period.
- 9. Record the TOTAL number of ANIMALS that were RECEIVED as PAYMENT for services rendered by your household in the **PAST 3 MONTHS/PAST 12 MONTHS**, independent of where they are kept. *EXAMPLE: In return for keeping a cow, the household was given the calf that was born.* Select NONE if no animal was received as payment in the reference period.
- 10. Record the TOTAL number of ANIMALS that were PURCHASED by the household in the **PAST 3 MONTHS/PAST 12 MONTHS**, independent of where they are kept. EXCLUDE ANIMAL bought for immediate slaughter. Select NONE if no animal was purchased to raise by the household in the reference period.
- 11. Record the TOTAL amount in NAIRA that the household paid for ALL ANIMALS PURCHASED in the **PAST 3 MONTHS/PAST 12 MONTHS**. Estimate the values of in-kind payments. NOTE that the question is NOT asking for the PER animal price, but the total.

12. If the household purchased ANIMALS from different sources, select the one from which they have purchased MOST.
13. Record the TOTAL number of ANIMALS that were given out as a GIFT to anyone outside the household in the **PAST 3 MONTHS/PAST 12 MONTHS**. Select NONE if no animal was given out as a gift in the reference period.
14. Record the TOTAL number of ANIMALS that were given out as PAYMENT for services received in the **PAST 3 MONTHS/PAST 12 MONTHS**. Select NONE if no animal was given out as payment in the reference period. Include ANIMALS that were given away as payment that was agreed when ANIMALS was gifted to the household.
15. Record the TOTAL number of ANIMALS that were LOST or STOLEN in the **PAST 3 MONTHS/PAST 12 MONTHS**. INCLUDE all ANIMALS that escaped, disappeared, were killed by predators or were involuntarily taken from the household. EXCLUDE animals that died due to pests. Select NONE if no animal was lost or stolen in the reference period.
16. Record the TOTAL number of ANIMALS that the household sold ALIVE in the **PAST 3 MONTHS/PAST 12 MONTHS**. Select NONE if no animal was sold alive in the reference period.
17. Record the TOTAL amount in NAIRA that the household received for ALL ANIMALS sold ALIVE in the **PAST 3 MONTHS/PAST 12 MONTHS**. Estimate the values of in-kind payments. NOTE that the question is NOT asking for the PER animal price, but the total.
18. If the household sold ANIMALS to different buyers, select the one to which they sold MOST.
- 19a. Record the TOTAL number of ANIMALS that the household SLAUGHTERED for sale in the **PAST 3 MONTHS/PAST 12 MONTHS**. EXCLUDE ANIMALS slaughtered for household consumption. Select NONE if no animal was slaughtered for sale in the reference period.
- 19b. Record the TOTAL amount in NAIRA that the household received for ALL SLAUGHTERED ANIMALS sold in the **PAST 3 MONTHS/PAST 12 MONTHS**. Estimate the values of in-kind payments. NOTE that the question is NOT asking for the PER animal price, but the total.
- 19c. Record the TOTAL number of ANIMALS that the household slaughtered for HOUSEHOLD CONSUMPTION in the **PAST 3 MONTHS/PAST 12 MONTHS**. EXCLUDE ANIMALS slaughtered for sale. Select NONE if no animal was slaughtered for sale in the reference period.

SECTION 11J: ANIMAL COSTS

Description: This section only opens if the household has kept or owned animals in the past 12 months and asks about the costs the household incurred from keeping animals.

Respondent: Owner or caretaker of animals

ANIMAL TYPE

One sub section will be opened for every ANIMAL TYPE kept or owned in the **PAST 12 MONTHS**. All questions in the subsection refer to ALL animals of the ANIMAL TYPE that are kept or owned by the household. The ANIMAL TYPES are defined as follows:

LARGE RUMINANTS - calf, heifers, steers, cows, bulls, oxen

EQUINES - horses and donkeys

SMALL RUMINANTS - sheep and goats

POULTRY - chicken (all types), turkeys, ducks, guinea fowls

EXAMPLE: If the household has kept cows and calf in the past 12 months, the subsection LARGE RUMINANTS will open and all questions in this subsection refer to BOTH cows and calf.

1. Select YES if any animal of ANIMAL TYPE suffered from ANY disease in the **PAST 12 MONTHS**, independent of whether any animal died of the disease or not.
2. Select ALL the disease any animal of ANIMAL TYPE suffered from in the **PAST 12 MONTHS**. If the disease is not listed record under OTHER (SPECIFY). The list of disease is filtered by ANIMAL TYPE.
3. Record the TOTAL number of animals from ANIMAL TYPE that died due to ANY disease in the **PAST 12 MONTHS**. EXCLUDE animals that died because of injuries. Select NONE if no animal died due to disease in the reference period.
4. Select YES if any animal of ANIMAL TYPE was vaccinated in the **PAST 12 MONTHS**, independent of who vaccinated the animal, and whether it was part of a programme.
5. Select ALL the disease any animal of ANIMAL TYPE was vaccinated against in the **PAST 12 MONTHS**. If the disease is not listed record under OTHER (SPECIFY). The list of disease is filtered by ANIMAL TYPE.
6. Record the TOTAL amount in NAIRA that the household spent on vaccinating animals of ANIMAL TYPE in the **PAST 12 MONTHS**. Estimate the values of in-kind payments. NOTE that the question is NOT asking for the PER animal price, but the total.
7. Select YES if any animal of ANIMAL TYPE received ANY other veterinary service in the **PAST 12 MONTHS** apart from vaccination. ONLY consider service from professional veterinarians. CONSIDER advice/medication given to the household without the veterinarian seeing the animals.
8. Record the TOTAL amount in NAIRA that the household spent on veterinarian services other than vaccinating for animals of ANIMAL TYPE in the **PAST 12 MONTHS**. Estimate the values of in-kind payments. NOTE that the question is NOT asking for the PER animal price, but the total.

9. Select YES if the household paid anything in cash or in kind towards the BREEDING of ANIMAL TYPE, e.g. insemination of cows. NOTE that the question is asking if any COSTS was incurred, NOT if the household was breeding ANIMAL TYPE in general.
10. Record the TOTAL amount in NAIRA that the household spent on breeding animals of ANIMAL TYPE in the **PAST 12 MONTHS**. Estimate the values of in-kind payments. NOTE that the question is NOT asking for the PER animal price, but the total.
11. Select the housing system used to keep animals of ANIMAL TYPE. If different systems are used for different animals, select the one in which MOST animals are kept. Select NONE if animals are kept outside without paddock or fences ALL of the time, CONFINED IN SHEDS if they are some of the time kept inside a shed, CONFINED IN PADDOCKS if they are some of the time kept inside a paddock (a fence made from wood, branches, metal that is encircling an area that does not change), CONFINED IN FENCES if they are some of the time kept inside fences (made of any material and can be changed from time to time to encircle a different area), CAGE/BASKET if they are usually kept in cages/baskets, INSIDE THE HOUSE if they are kept some of the time inside a structure that is also inhabited by members of the household.
12. Select YES if the household paid anything in cash or in kind in the **PAST 12 MONTHS** towards the WATER given to the animals of ANIMAL TYPE. INCLUDE costs incurred for installations (pipes, wells, boreholes) made to provide water to the animals.
13. Record the TOTAL amount in NAIRA that the household spent towards the water for animals of ANIMAL TYPE in the **PAST 12 MONTHS**. Estimate the values of in-kind payments.
14. Ask the respondent the question text, do NOT read out the answer options and select the MOST APPROPRIATE answer option. Probe with the respondent if the feeding method changes throughout the year. FEEDING refers to the household purchasing or producing the food that is given to the animals, GRAZING/SCAVENGING refers to the animals searching their own food, e.g. by eating grass, seeds, worms, insects.
15. Select ALL household members who were responsible for the feeding of animals of ANIMAL TYPE in the **PAST 12 MONTHS**. By responsible we mean they contributed to purchasing, preparing and providing the food to the animals.
16. Select YES if in the **PAST 12 MONTHS** the household purchased any of the feed for ANIMAL TYPE for cash or in kind. Select NO if ALL feed was self-produced by the household.
17. Record the TOTAL amount in NAIRA that the household spent towards feed for animals of ANIMAL TYPE in the **PAST 12 MONTHS**. Estimate the values of in-kind payments. INCLUDE any transport costs.
18. Select YES if in the **PAST 12 MONTHS** the household paid for anyone outside the household in cash or in kind to help with keeping animals of ANIMAL TYPE, independent if the hired labour helped the keeping of animals on the household farm (e.g. labourer paid to help milking cows), or if the household paid for animals to be kept off farm (e.g. paid a herder to keep animals elsewhere).

19. Record the TOTAL amount in NAIRA that the household spent to HIRE LABOUR for the keeping of animals of ANIMAL TYPE in the **PAST 12 MONTHS**. Estimate the values of in-kind payments.
20. Select YES if in the **PAST 12 MONTHS** the household had to pay cash or anything in-kind to any other farmer/household for any damage caused by animals of ANIMAL TYPE, even if the damage was not directly caused by the household. *EXAMPLE, include the wheat household gave to another household because their cows destroyed the wheat field of the other household.*
21. Record the TOTAL amount in NAIRA that the household spent to compensate other farmer/households for damage caused by their animals of ANIMAL TYPE in the **PAST 12 MONTHS**. Estimate the values of in-kind payments.
22. Select YES if in the **PAST 12 MONTHS** the household incurred any other costs relating the keeping of animals of ANIMAL TYPE that were NOT for vaccination, veterinarian serviced, breeding, water, feeding, or for hiring labour. Do NOT consider forgone income due to animal loss or death.
23. Record the TOTAL amount in NAIRA of the other costs that the household occurred in the **PAST 12 MONTHS** that are related to the keeping of ANIMAL TYPE. Estimate the values of in-kind payments.

SECTION 11K1: ANIMAL POWER AND DUNG SALES

Description: This section only opens if the household has kept or owned animals in the past 12 months and asks about the sale of animal power and dung.

Respondent: Owner or caretaker of animals

ANIMAL TYPE

One sub section will be opened for every ANIMAL TYPE kept or owned in the **PAST 12 MONTHS**. All questions in the subsection refer to ALL animals of the ANIMAL TYPE that are kept or owned by the household. The ANIMAL TYPES are defined as follows:

EXAMPLE: If the household has kept cows and calf in the past 12 months, the subsection LARGE RUMINANTS will open and all questions in this subsection refer to BOTH cows and calf.

The questions opened depending on ANIMAL TYPE.

1. Select YES if in the **PAST 12 MONTHS** the household has used any animal of ANIMAL TYPE to provide ANY service to others that involved animal power, independent of whether they were paid for it or not. Services include but are not limited to animal drawn transport and ploughing. INCLUDE services provided to anyone, including households, businesses or agencies.

2. Record the TOTAL amount in NAIRA that the household received in the **PAST 12 MONTHS** from serviced provided to others using animals of ANIMAL TYPE. Estimate the values of in-kind payments.
3. Select YES if in the **PAST 12 MONTHS** the household sold for cash or in kind any dung produced by animals of ANIMAL TYPE to others. If the dung sold cannot be distinguished between ANIMAL TYPE select YES for every ANIMAL TYPE that produced the dung.
4. Record the TOTAL amount in NAIRA that the household received in cash or in kind in the **PAST 12 MONTHS** from selling dung produced by animals of ANIMAL TYPE. Estimate the values of in-kind payments. If the dung sold cannot be distinguished between ANIMAL TYPE, record an estimate of the share of the amount. *EXAMPLE: a household keeps 3 pigs and 1 cow together in a shed and sold the dung produced. In total they earned 2000 Naira. Record 1 quarter (500 Naira under large ruminants, and 3 quarters (1,500 Naira) under pigs.*

SECTION 11K2: MILK PRODUCTION

Description: This section only opens if the household has kept or owned in the **PAST 12 MONTHS** any milk producing animals, i.e. cows, goats, sheep or camels. It asks about milking and the use of milk.

Respondent: Owner or caretaker of animals

1. Read out the question text and the answer options one by one, recording for each option if any household member has milked any ANIMAL kept or owned by the household in the **PAST 12 MONTHS**. It does not matter if the animal was milked for household consumption or for sale. The list of answer options is filtered by the ANIMALS kept or owned in the past 12 months.

ANIMAL

2. Record the AVERAGE number of months in which ANIMALS were milked in the **PAST 12 MONTHS**. If more than one ANIMAL was milked take the AVERAGE value. If it was only during less than one month, record 1. It does not matter if the ANIMALS were milked at the same time. *EXAMPLE: Household A milked goats during different times of the year, one from Jan-Mar (3 months), one from Jun-Jul (2 months) and a third one from Sep-Dec (3 months). Record $(3+2+3)/3=2.66=3$ months. Household B milked 5 cows, all from Mar-Jun (4 months), record 4 months.*
3. Record the AVERAGE number of DAYS PER MONTH on which ANIMALS were milked during those months. NOTE that ANIMAL might be milked more than once per day. Record 60 for TWICE PER DAY, 30 for EVERY DAY, $4*4=16$ for 4 TIMES PER WEEK, $2*4=8$ for TIMES PER WEEK, etc.
4. Record the AVERAGE number of ANIMALS that were milked in the month specified in 2. NOTE that if the ANIMALS were milked in different periods and the average number of

months was recorded in 2, you MUST count ALL animals milked, not just the animal milked at any given months. *EXAMPLE: In above example for household A you must record 1, as they milked one goats on average for each month.*

5. Record the AVERAGE number of LITRES of milk milked PER DAY from ALL ANIMALS on any of the days they were milked. If ANIMALS were milked in DIFFERENT periods, you have to add the daily quantities of the individual periods during the day. *EXAMPLE: in household A, if 1 litre was milked from each goat on a normal day, record 3.*
6. Select ALL household members who mainly milked ANIMAL TYPE in the **PAST 12 MONTHS**. The answer options are filtered by current household members.
7. Select the MAIN use of the milk from ANIMAL TYPE milked in the **PAST 12 MONTHS**. Select HOUSEHOLD CONSUMPTION if the milk was mainly consumed by household members in from of milk, SALES if the milk was mainly sold in the form of milk, and PROCESSING if the milk was mainly processed into dairy products (such as cheese, yoghurt, etc) for own household consumption or sales.
8. Record the answer in LITRES PER WEEK. EXCLUDE milk that was purchased.
10. Record the answer in LITRES PER WEEK
11. Record in NAIRA the TOTAL amount the household earned PER WEEK from selling the milk. EXCLUDE money received from sales of dairy products.

SECTION 11K3: EGG PRODUCTION

Description: This section only opens if the household has kept or owned in the **PAST 12 MONTHS** any egg laying animals, i.e. chicken (layer or local), turkey, duck, guinea or fowls. It asks about egg production and the sale of eggs.

Respondent: Owner or caretaker of animals

1. Read out the question text and the answer options one by one, recording for each option if any POULTRY in the household produced any eggs in the **PAST 12 MONTHS**. It does not matter if the eggs were for household consumption or for sale. The list of answer options is filtered by the POULTRY kept or owned in the past 12 months.

POULTRY

One sub section for every poultry type that has laid eggs in the past 12 months. MAKE SURE the respondent understands the questions are asked about one poultry type at a time ONLY.

2. Record the TOTAL number of clutching periods POULTRY had in the **PAST 12 MONTHS**. If the animals had different number of clutching periods, record the AVERAGE. Clutching period is the period during which birds lay eggs. The number and frequency of eggs laid per clutch differs between bird types.

3. Record the TOTAL AVERAGE number of eggs laid PER ANIMAL in the LAST CLUTCHING PERIOD.
4. Record the TOTAL number of POULTRY that had their clutching period in the **PAST 3 MONTHS**. MAKE SURE the respondent has understood the reference has changed. CONSIDER animals that had only part of their clutching period in the past 3 months (i.e. started earlier, or not yet finished).
5. Select YES if the household sold for cash or in-kind any POULTRY eggs from their animals in the **PAST 3 MONTHS**. ONLY include eggs from animals kept by the household.
6. Record the TOTAL number of POULTRY eggs the household sold for cash or in kind in the **PAST 3 MONTHS**. NOTE that we ask for the TOTAL over 3 months, not a weekly or monthly number.
7. Record ALL household members who were responsible for the sale of POULTRY eggs in the **PAST 3 MONTHS**. By responsible we mean conducting the sale and managing the income earned from the sales.
8. Record in NAIRA the TOTAL amount the household has earned from selling POULTRY eggs of their animals in the **PAST 3 MONTHS**. Estimate the values of in-kind payments.

SECTION 11L1: EXTENSION SERVICES

Description: This section only opens for agricultural households and asks about agriculture related information and trainings the household has received in the **PAST 12 MONTHS**.

RESPONDENT: Knowledgeable adult household member.

1. Read out the question text and the answer options one by one, recording for each option if anyone in the household received advice on TOPIC from outside the household in the **PAST 12 MONTHS**. Receiving advice here includes both receiving shared information and receiving training on TOPIC. It does not matter from whom the household received advice on TOPIC. Also, households can have received advice from the same source on several TOPICS.

TOPICS

One sub section for every TOPIC the members of the household received advice on in the **PAST 12 MONTHS**.

2. Record the MAIN source of advice on TOPIC. If the household received information on TOPIC from several sources, record the one from which they received most information or training. PROBE with the respondent and ensure you have selected the correct category.

AGRICULTURAL EXTENSION SERVICE - technical assistance, advice or a demonstration of new agricultural techniques given to a farmer or group of farmers to improve productivity, it can be given by the government, or private organizations, such as companies demonstrating their equipment. MAKE sure to select the correct provider.

AGRICULTURAL COOP/FARMERS' ASSOC - any form of farmer/producer cooperative or association centered around agricultural production, a member could (but does not have to) be a member of

FISHING COOP - same as above centered around fishing

FARMER FIELD DAYS/FIELD SCHOOL - a day that both the extension worker and a group of farmers agree for training and practicing new farming procedures

VILLAGE AGRICULTURAL EXTENSION MEETING – This a meeting between a group of farmers and an agricultural extension officer, which usually takes place in the village.

AGRICULTURAL EXTENSION COURSE – A course in agriculture that can be for a short time or extended time. It may or may not be formal, but structured.

LEAD FARMER - a farmer who is the most active in growing certain crop or who has the largest plot of a certain crop or an outstanding farmer in a community that most farmers look up to. They might also be the first to try a new agricultural technology.

PEER FARMER (NEIGHBOR/RELATIVE) - any other farmer usually in the same community, and growing the same or similar crops

ELECTRONIC MEDIA (TV, RADIO, ETC.) - including the internet

PAPER MEDIA (HANDOUTS / FLYERS) - only select the option if the print media was the primary source of information. If they received print media on the farmer day, but the farmer day was the main source of information, select FARMER DAY.

SECTION 11L2: EXTENSION SOURCES

Description: This section is a continuation of the previous section 11L1 and asks details about the sources from whom the household has received information and trainings.

RESPONDENT: Knowledgeable adult household member.

SOURCES

One sub section for every SOURCE of advice selected in Section 11L1. Each selected SOURCE will only be displayed ONCE, even if information on more topics or in several instances was received from SOURCE. All questions in this sub section ask about ALL the times that ANY member of this household has received advice on ANY topic from this SOURCE.

2. Select ALL household members who received advice on ANY topic in the **PAST 12 MONTHS**. ONLY select members that DIRECTLY received advice from SOURCE, not indirectly via the members received it directly.

3. The question is only asked for some SOURCES. Record the TOTAL number of times anybody from SOURCE visited any household members farm in the **PAST 12 MONTHS**. ONLY consider visits to either the dwelling or plots of any of the household members. The visit does NOT have to be EXCLUSIVE to the household. EXCLUDE general visits to the community in which the household was not specifically visited. Consider visits of any length, and independent on what was done during the visit. Select NONE if the household was never visited by SOURCE.
4. Record the TOTAL number of the visits recorded in 3. that the household explicitly asked for, either directly to the SOURCE or via community leaders. Select NONE if the household did not explicitly ask for any visit.
5. The question is only asked for some SOURCES. Record the TOTAL number of times ANY household member went to visit or meet with SOURCE in the **PAST 12 MONTHS**.. ONLY consider visits AWAY from the dwelling or plots of any of the household members. The visit does NOT have to be EXCLUSIVE, i.e. other farmers or households may have visited at the same time. Count each visit ONLY ONCE, even if more than one household member visited SOURCE. Select NONE if no household members visited SOURCE.
6. The question is only asked for some SOURCES. Record the TOTAL number of times ANY household member went to attend a meeting of SOURCE in the **PAST 12 MONTHS**. Meetings are normally not EXCLUSIVE, i.e. other farmers or households also attend the same meeting. Count each meeting ONLY ONCE, even if more than one household member attended the meeting. Select NONE if no household members attended a meeting by SOURCE.
7. Select YES if ANY household member paid anything in cash or in kind to receive advice from SOURCE in the **PAST 12 MONTHS**. INCLUDE any costs from SOURCE, such as a consultancy, entry, subscription fee, books, brochures, etc. EXCLUDE transportation costs to SOURCE or meetings, as well as costs for radio, internet and mobile phone, unless they were specifically purchased to receive advice from SOURCE.
8. Record in NAIRA the TOTAL amount paid to receive advice from SOURCE. Estimate any in-kind payments.
9. Do NOT read out the answer options. PROBE with the respondent to find the most appropriate answer option. *EXAMPLE: If the respondent says USEFUL, check if it was VERY USEFUL OR SOMEWHAT USEFUL.*

SECTION 11M: GPS MEASUREMENT

Description: The section opens if a plot has been listed in Section 11a. As part of the survey ALL PLOTS of the sampled households have to be measured using GPS.

Respondent: The section is directed to the enumerator and MUST NOT be asked to the respondent. Ask the respondent to take you to each plot, identify and walk with you around the boundaries, and start the measurement.

Instructions: GPS measurement should be taken at a time that is convenient to the respondent and the field worker and that does NOT DISTURB or INTERRUPT the interview of the rest of the questionnaire. Often this will be after you have completed the interview, but it can also be at different times, e.g. if you conduct part of the interview at one of their plots and then shift with the respondents elsewhere, or if you revisit the household to measure the plots.

GPS measurement is a key measure of the survey, so particular effort must be made to measure ALL plots. Sufficient time and resources have been allocated for you to be able to do so. When measuring, it is VERY important that you CLOSELY FOLLOW the PROTOCOLS as described in detail in **APPENDIX A: AREA MEASUREMENT USING A GPS.**

PLOTS

One sub section for every PLOT listed. All questions are interviewer questions and MUST NOT be read out.

- 4a1.** Answer AFTER you have attempted measuring the PLOT area with GPS. Select NO if you have not been able to measure the plot area for ANY reason. You are expected to be able to measure almost ALL plots. ONLY use as a LAST resort. Area measurement will be MONITORED.
- 4b1.** Select the reason why you have not been able to measure the plot area.
- TOO FAR - is only an acceptable reason if going to PLOT would have severely interrupted field work procedures. This option should be selected only in exceptional circumstances and will be followed up by HQ.
- THE FIELD IS OUT OF LGA - these plots are not measured
- UNWILLINGNESS OF THE HOLDER - select ONLY if the respondent refused to take you to the plot.
- 4c.** Record the measured area as displayed in the GPS UNIT in SQUARE METERS (m²). DOUBLE CHECK that the GPS units is displaying the area in m², if not CHANGE the UNIT of the GPS unit to m². RECORD the number as displayed on the unit, INCLUDING decimal places. Make sure to correctly record the decimal point.
- 5.** Record the coordinates at the CENTRE of PLOT using the tablet. Be careful when walking to the centre point, do NOT destroy any of the plants cultivated on plot. You do NOT need the GPS unit for this. MAKE SURE that LOCATION is turned ON in the shortcut menu of the tablet. Repeat if the tablet does not record the coordinates. If the tablet continues to not capture GPS, check in Android Settings/Location Services that the Mode is set to USE GPS ONLY, and that Access to my location is ON.

SECTION R: RESULT OF THE INTERVIEW

Description: Needs to be completed for EVERY interview file at the end of the interview or the interview attempt to record the FINAL status. All questions are interviewer options and are NOT to be read out to the respondent.

1. Record the FINAL result of the interview. The list of answer options is filtered based on the answers in Section START. For interviews where you were given consent, select COMPLETE for interviews that were completed normally, i.e. you managed to answer all questions and sections.

PARTIALLY COMPLETE (REFUSED) if started an interview, but the respondent(s) refused during the interview and you could not complete it. The interview will contain unanswered questions.

PARTIALLY COMPLETE (UNAVAILABLE) if started an interview, but in all your revisits no respondent was available to complete it. ONLY SELECT AS A LAST RESORT. The interview will contain unanswered questions.
2. Specify the reasons why the questionnaire is partially completed and your attempts you have made to complete it.
3. If you have not been able to interview the household, specify the reasons and what you have done to interview the household.
- 4./5. If you have not been able to interview the household, provide the phone number and name and relationship/position of a LOCAL reference person that can verify the status and your attempts. Do NOT put yourself or team members. This can be e.g. the respondent themselves if they refused, the neighbors if they have moved away, the local leader who can confirm that such a household does not exist.

COMPLETE

Description: The “section” Complete is a Survey Solutions generated section that allows you to verify and submit the interview. BEFORE submitting the interview, first VERIFY that you have completed all sections and questions that needed to be completed and that there are no errors that can be fixed. Under the header QUESTION STATUS, you find three numbers in different colors that help you do that.

On the left, in blue you find the total number of questions that have been answered in the interview file. You will see that the number differs between interviews, and depends on how many members, consumption items, plots, etc. a household had.

In the MIDDLE, in BLACK you see the number of UNANSWERED questions. At the end of an interview the number should normally be 0, meaning you have answered all questions. There are however circumstances where it is OK to submit interview files with missing questions, for example if the respondent refused half way through the interview. To FIND the unanswered questions, click on the navigation menu on the left and look for sections that are marked in BLUE, they are the sections that have unanswered questions or subsections. After you have answered all questions on one section, the section will turn green and the questions will not be counted as unanswered in the Complete screen.

On the RIGHT, in RED you see the count of questions with outstanding ERROR(s). BEFORE submitting and interview file, MAKE SURE you have **ADDRESSED ALL ERRORS**, by looking at the

error message and the answer(s) given, making sure the answer(s) have been recorded correctly, and checking with the respondent that the answer(s) given are correct. If the error still persists after going through the steps, you **MUST LEAVE** a **COMMENT** to confirm and/or explain more details about the answer. After having addressed all outstanding questions with errors, they should either not display an error message or have a comment.

You can **FIND** questions with outstanding errors in two ways: First, they are listed under the heading **ENTITIES WITH ERRORS**. Clicking at each item will take you to the question with an error. Second, you can click on the navigation menu on the left and look for sections that are marked in **RED**. Whenever a section or subsection contains at least one questions with an error message the section or subsection will turn **RED** in the navigation menu and in the header.

You can report any irregularities with the interview in the field **NOTE FOR SUPERVISOR**. This is optional. Report anything that might be of interest to the supervisor and data verifier, e.g. that the interview was conducted late in the evening, or that the respondent was not very cooperative.

AFTER you have verified that **ALL** required questions are answered and have addressed all errors you can **SUBMIT** the interview file by marking it as **COMPLETE**. You do this by clicking at the **COMPLETE** button. After having clicked, Survey Solutions will take you back to the dashboard and the file will be listed in the **COMPLETE** tab. **NOTE** that this complete button is **DIFFERENT** to the complete **STATUS** in the Section Result of Interview. To submit **ANY** interview file you have to click on the complete button, including interviews that were refused, unable to track, etc.

Appendix 1: List of Occupations and Codes

S/N	International Standard Classification of Occupations	Code
1	Legislators	1110
2	Senior Government Officials	1120
3	Traditional Chiefs & Head of Villages	1130
4	Senior Officials of Political Party Organization	1141
5	Senior Official of Employers, workers and other Economic Interest Organizations	1142
6	Senior Officials of Humanitarian and other Special-Interest Organizations	1143
7	Directors & Chief Executives	1210
8	Production & Operations Managers	1221
9	Finance and Administration Managers	1222
10	Personnel and Industrial Relations Managers	1223
11	Sales and Marketing Managers	1224
12	Advertising and Public Relations Managers	1225
13	Supply and distribution Managers	1226
14	Computing Services Managers	1227
15	Research and Development Managers	1228
16	Other Specialized Managers	1229
17	General Managers in Agriculture	1311
18	General Managers in Manufacturing	1312
19	General Managers in Construction	1313
20	General Managers in Retail & Wholesale Trade	1314
21	General Managers in Restaurants and Hotels	1315
22	General Managers in Transportation	1316
23	General Managers in Business Services Firms	1317
24	General Managers in Personnel Care, Cleaning Repairs and Related Services	1318
25	Physicists and Astronomers	2111
26	Meteorologists	2112
27	Chemists	2113
28	Geologists and Geophysicists	2114
29	Mathematicians and Related Professionals	2121
30	Statisticians	2122
31	System Designers and Analysts	2131
32	Computer Programmers	2133
33	Other Computing Professionals	2139
34	Architects, Town and Traffic Planners	2141
35	Civil Engineers	2142
36	Electrical Engineers	2143
37	Electronic and Telecommunications Engineers	2144
38	Mechanical Engineers	2145
39	Chemical Engineers	2146
40	Mining Engineers, Metallurgists and Related Professionals	2147
41	Cartographers and Surveyors	2148

S/N	International Standard Classification of Occupations	Code
42	Other Architects, Engineers and Related Professionals	2149
43	Biologists, Botanists, Zoologists & Related Professionals	2211
44	Bacteriologists, Pharmacologists & Related Professionals	2212
45	Agronomists and Related Professionals	2213
46	Medical Doctors	2221
47	Dentists	2222
48	Veterinarians	2223
49	Pharmacists	2224
50	Other Health Professionals (Except Nursing)	2229
51	Nursing and Midwifery Professionals	2230
52	Colleges, University & Higher Education Teaching Professional	2310
53	Secondary Education Teaching Professionals	2320
54	Primary Education Teaching Professionals	2331
55	Pre-primary Education Teaching Professionals	2332
56	Special Education Teaching Professionals	2340
57	Education Methods Specialists	2351
58	School Inspectors	2352
59	Other Teaching Professionals not Elsewhere Classified	2359
60	Accountants	2411
61	Personnel and Careers Professionals	2412
62	Other Business Professionals	2419
63	Lawyers	2421
64	Judges	2422
65	Other Legal Professionals	2429
66	Archivists and Curators	2431
67	Librarians and Related Professionals	2432
68	Economists	2441
69	Sociologists, Anthropologist & Related Professionals	2442
70	Psychologist	2445
71	Social Work Professionals	2446
72	Authors, Journalist & Other Writers	2451
73	Sculptors, Painters & Related Artists	2452
74	Composers, Musicians & Singers	2453
75	Choreographers and Dancers	2454
76	Film, Stage and Related Actors and Directors	2455
77	Religion Professionals	2460
78	Chemical & Physical Science Technicians	3111
79	Civil Engineering Technicians	3112
80	Electrical Engineering Technicians	3113
81	Mechanical Engineering Technicians	3114
82	Chemical Engineering Technicians	3116
83	Mining and Metallurgical Technicians	3117
84	Other Physical Science & Engineering Technicians	3118

S/N	International Standard Classification of Occupations	Code
85	Computer Assistants	3121
86	Computer Equipment Controllers	3122
87	Photographers & Image & Sound-Recording Equipment Controllers	3131
88	Broadcasting and Telecommunications-Equipment Controllers	3132
89	Medical Equipment Controllers	3133
90	Other Optical & Electronics Equipment Controllers not elsewhere classified	3139
91	Ships' Engineers	3141
92	Ships' Deck Officers & Pilots	3142
93	Aircraft Pilot & Related Workers	3143
94	Air Traffic Controllers	3144
95	Air Traffic Safety Technicians	3145
96	Building & Fire Inspectors	3151
97	Safety, Health & Quality Inspectors (Vehicles, Processes & Products)	3152
98	Life Science Technicians	3211
99	Agronomy & Forestry Technicians	3212
100	Farming & Forestry Advisers	3213
101	Medical Assistants	3221
102	Sanitarian	3222
103	Dieticians and Nutritionists	3223
104	Optometrists & Opticians	3224
105	Dental Assistants	3225
106	Physiotherapists and Related Workers	3226
107	Veterinary Assistants	3227
108	Pharmaceutical Assistants	3228
109	Other Health Associate Professionals (Except Nursing)	3229
110	Primary Education Teaching Associate Professionals	3310
111	Pre-Primary Education Teaching Associate Professionals	3320
112	Special Education Teaching Associate Professionals	3330
113	Other Teaching Associate Professionals	3340
114	Securities, Finance Dealers & Brokers	3411
115	Insurance Representatives	3412
116	Estate Agents	3413
117	Travel Consultants Organizers	3414
118	Technical & Commercial Sales Representatives	3415
119	Buyers	3416
120	Appraisers & Valuers	3417
121	Auctioneers	3418
122	Other Finance & Sales Associate Professionals	3419
123	Trade Brokers	3421
124	Clearing & Forwarding Agents	3422
125	Labour Contractors & Equipment Agents	3423
126	Other Business Services Agent & Trade Brokers	3429
127	Administrative & Related Associate Professionals	3431

S/N	International Standard Classification of Occupations	Code
128	Legal & Related Business Associate Professionals	3432
129	Other Administrative Associate Professionals	3439
130	Custom & Border Professionals	3441
131	Government Tax & Excise Officials	3442
132	Government Welfare & Pension Officials	3443
133	Government Licensing Officials	3444
134	Commissioned Police Officers & Detectives	3445
135	Other Government Associate Professionals	3449
136	Social Work Associate Professionals	3450
137	Decorators & Commercial Designers	3461
138	Radio, Television & Other Announcers	3462
139	Street, Night Club & Related Musicians, Singers & Dancers	3463
140	Clowns, Magicians, Acrobats & Related Workers	3464
141	Athletes & Related Workers	3465
142	Non-Ordained Religion Associate Professionnels	3470
143	Statistical & Finance Clerks	4122
144	Stock Clerks	4131
145	Production Clerks	4132
146	Transport Clerks	4133
147	Library & Filing Clerks	4141
148	Mail Carriers & Sorting Clerks	4142
149	Coding, Proof-Reading & Related Clerks	4143
150	Scribes	4144
151	Flight Attendants & Travel Stewards	5111
152	Transport Conductors	5112
153	Travel Guides and Ground Hosts	5113
154	House Stewards and House Keepers	5121
155	Waiters and Bartenders	5122
156	Institution-based Personal Care Workers	5131
157	Home-Based Personal Care Workers	5133
158	Other Personal Care Workers	5139
159	Hairdressers, Barbers, Beauticians & Related Workers	5141
160	Companions and Valets	5142
161	Undertakers and Embalmers	5143
162	Other Personal Services Workers not Elsewhere Classified	5149
163	Fashion and Other Models	5210
164	Shop Sales Persons & Demonstrators	5220
165	Stall and Market Salespersons	5230
166	Field Crops & Vegetable Growers	6111
167	Tree Shrub Crop Growers	6112
168	Gardeners, Horticultural; Nursery Growers	6113
169	Mixed Crop Growers	6114
170	Dairy & Livestock Producers	6121

S/N	International Standard Classification of Occupations	Code
171	Poultry Products	6122
172	Mixed Animal Producers	6123
173	Market Oriented Crop & Animal Producers	6130
174	Forestry Worker and Loggers	6141
175	Charcoal Burners & Related Workers	6142
176	Aquatic Liege Cultivation Workers	6151
177	Inland & Coastal Waters Fishery Workers	6152
178	Deep-Sea Fishery Workers	6153
179	Hunters and Trappers	6154
180	Subsistence Agricultural and Fishery Workers	6210
181	Miners & Quarry Workers	7111
182	Short Fires and Blasters	7112
183	Stone-Splitters, Cutters and Carvers	7113
184	Builders Traditional Materials	7121
185	Bricklayers, Stonemason & Tile Setters	7122
186	Concrete Placers, Concrete Finishers and Terrazzo-Workers	7123
187	Carpenter and Joiners	7124
188	Other Building Frames and Related Workers	7129
189	Roofers	7131
190	Plasterers	7132
191	Insulators	7133
192	Glaziers	7134
193	Plumbers and Pipe Fitters	7135
194	Building and Related Electricians	7136
195	Painters and Paperhangers	7141
196	Metal Moulds and Core Makers	7211
197	Welders and Flame-Cutters	7212
198	Sheet-Metal Workers	7213
199	Structural Metal Prepares and Erector	7214
200	Riggers and Cable Splices	7215
201	Under-Water Workers	7216
202	Blacksmiths, Hammersmith's, Forging-Press Workers	7221
203	Tool Maker, Metal Patter Makers and Metal Makers	7222
204	Machine Tool Setter Operators	7223
205	Metal Grinder, Polishers and Tool Sharpeners	7224
206	Motor Vehicle Mechanics and Filters	7231
207	Air Craft Engine Mechanics and Fitters	7232
208	Electrical Mechanics and Fitters	7241
209	Electronic Fitters and Services	7242
210	Radio and Television Service	7243
211	Telegraph and Telephone Installers	7244
212	Electrical Line Installers Repairs & Cable Jointers	7245
213	Precision Instrument Makers Repairs	7311

S/N	International Standard Classification of Occupations	Code
214	Acoustical Musical Instrument	7312
215	Jewelry and Precious metal Trade Workers	7313
216	Potters and Related Clay and Abrasive Formers	7321
217	Glass Formers, Cutters Grinder and Finishers	7322
218	Glass Engrave and Etchers	7323
219	Glass and Ceramic Painters and Decorators	7324
220	Handicraft Workers in Wood and Related Materials	7331
221	Handicraft Workers in Textile, Leather and Related Materials	7332
222	Compositors and Type Setters	7341
223	Stereotypes and Electrotypers	7342
224	Bookbinders and Related Workers	7344
225	Silk Screen, Block and Textile Printers	7345
226	Meat and Fish Butchers and Preparers	7411
227	Bakers, Pastry Cooks and Confectionery Makers	7412
228	Food Beverage Testers and Graders	7413
229	Tobacco Preparers and Tobacco Products Markers	7414
230	Wood Treaters	7421
231	Cabinet Makers & Related Workers	7422
232	Wood Working Machine Setter Operators	7423
233	Basketry Weavers, Brush Markers and Related Workers	7424
234	Fibre Preparers	7431
235	Weavers, Knitters and Other Hand Textile Products Makers	7432
236	Tailors, Dress Makers and Hatters	7433
237	Fur Tailor and Related Workers	7434
238	Textile Patternmakers and Cutters	7435
239	Sewers, Embroiderers and Related Workers	7436
240	Upholsterers and Related Workers	7437
241	Pelt Dressers, Tanners and Fell mongers	7441
242	Shoe Makers and Related Good Workers	7442
243	Mining plant Operators	8111
244	Mineral Ore and Stone-Treating Plant Operators	8112
245	Well Drillers and Borers and Related Workers	8113
246	Ore Smelting Metal Converting and Refining Furnace Operators	8121
247	Metal Melters, Casters and Rolling-mill Operators	8122
248	Metal Heat - Treating Plant Operators	8123
249	Metal Drawers and Extruders	8124
250	Glass and Ceramic Kiln Operators	8131
251	Other Glass & Ceramic Plant Operators	8132
252	Sawmill, Wood Panel and Related Wood-Processing Plant Operators	8141
253	Paper Pulp Preparation Plant Operators	8142
254	Paper Making Plant Operators	8143
255	Crushing Mixing & Grinding Equipment Operators	8151
256	Cooking, Roosting & Related Heat - Treating Plant Operators	8152

S/N	International Standard Classification of Occupations	Code
257	Filtering and Separating Equipment Operators	8153
258	Still Reactor Operators	8154
259	Petroleum Refining Plant Operators	8155
260	Other Chemical-Processing Plant Operators	8159
261	Power-Generating Plant Operators	8161
262	Steam Turbine, Boiler & Engine Operators	8162
263	Other Power Generating & Related Operators	8169
264	Automated Assembly-Line Operators	8171
265	Industrial Robot Operators	8172
266	Cement and Other Mineral Processing Machine Operators	812
267	Pharmaceutical & Toiletry Products Machine Operators	8221
268	Ammunition and Explosive Products Machine Operators	8222
269	Metal Finishers, Plasters and Coaters	8223
270	Photographic Products Machine Operators	8224
271	Other Chemical Products Machine Operators	8229
272	Type Making & Vulcanizing Machine Operators	8231
273	Other Rubber and Plastics Machine Operators	8239
274	Wood Products Machine Operators	8240
275	Printing Machine Operators	8251
276	Binding Machine Operators	8252
277	Paper and Paperboard Product Machine Operators	8253
278	Spinning and Winding Machine Operators	8261
279	Weaving and Knitting Machine Operators	8262
280	Sewing and Knitting Machine Operators	8263
281	Textile Bleaching, Dyeing & Cleaning Machine Operators	8264
282	Other Textile Product Machine Operators	8269
283	Meat & Fish Processing Machine Operators	8271
284	Dairy Products Machine Operators	8272
285	Baked Goods Producing & Cereals Processing Machine Operators	8275
286	Sugar Processing and Refining Machine Operators	8276
287	Tea Coffee Cocoa & Chocolate Preparing & Producing machine Operators	8277
288	Tobacco Products Processing Machine Operators	8278
289	Brewers, Wine & Other Beverage Machine Operators	8279
290	Electrical Machinery Assemblers	8282
291	Metal, Rubber & Plastic Products Assemblers	8284
292	Wood Related Materials Products Assemblers	8285
293	Other Stationery Machine Operators & Assemblers	8290
294	Railway Engine Driver	8311
295	Railway Barkers, Signalers & Shutters	8312
296	Motorcycle Drivers	8321
297	Cart, Taxi & Light Van Drivers	8322
298	Bus & Train Drivers	8323
299	Heavy Truck Drivers	8324

S/N	International Standard Classification of Occupations	Code
300	Motorized Farm & Forestry Machinery Operators	8331
301	Earth-Moving & Related Machinery Operators	8332
302	Crane, Hoist & Related Material Moving Equipment Operators	8333
303	Lifting -Truck Operators	8334
304	Ship's Deck Crews & Related recruits	8340
305	Street Foods Vendors	9111
306	Street Vendors, Other Products	9112
307	Door-to-Door & Telephone Sales Persons	9113
308	Shoe Cleaning & Other Street Services	9120
309	Domestic helpers and Cleaners	9131
310	Helpers and Cleaners in Offices & Hotels & Related Workers	9132
311	Hand Launderers and Pressers	9133
312	Building Caretakers	9141
313	Windows Cleaners	9142
314	Messengers Package & Luggage	9151
315	Watchers and Doorkeepers	9152
316	Private Security Guards	9153
317	Vending Machine Money Collectors and Meter Readers	9154
318	Garbage Collectors	9161
319	Sweepers and Related Labourers	9162
320	Farmland & Labourers	9211
321	Forestry Labourers	9212
322	Fishery, Hunting & Tapping Labourers	9213
323	Mining & Related Labourers	9311
324	Construction & Maintenance Labourers Road, Dams & Similar Constructions	9312
325	Building Construction Labourers	313
326	Assembling Labourers	9321
327	Hand Packers and Other Manufacturing Labourers	9322
328	Freight Handlers	9331
329	Hand and Pedal Vehicle Drivers	9332
330	Drivers and Operators of Animal-Drawn Vehicles and Machinery	9333

Appendix 2: International Standard for Industrial Classification

INTERNATIONAL STANDARD INDUSTRIAL CLASSIFICATION OF ALL ECONOMIC ACTIVITIES (ISIC)

Notes: This is the International Standard Industrial Classification of Economic Activities (ISIC) Rev. 3.1. This classification becomes final after being approved by the Statistical Commission.

A - Agriculture, forestry and fishing

- 01 - Crop and animal production, hunting and related service activities
- 02 - Forestry and logging
- 03 - Fishing and aquaculture

B - Mining and quarrying

- 05 - Mining of coal and lignite
- 06 - Extraction of crude petroleum and natural gas
- 07 - Mining of metal ores
- 08 - Other mining and quarrying
- 09 - Mining support service activities

C - Manufacturing

- 10 - Manufacture of food products
- 11 - Manufacture of beverages
- 12 - Manufacture of tobacco products
- 13 - Manufacture of textiles
- 14 - Manufacture of wearing apparel
- 15 - Manufacture of leather and related products
- 16 - Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
- 17 - Manufacture of paper and paper products
- 18 - Printing and reproduction of recorded media
- 19 - Manufacture of coke and refined petroleum products
- 20 - Manufacture of chemicals and chemical products
- 21 - Manufacture of basic pharmaceutical products and pharmaceutical preparations
- 22 - Manufacture of rubber and plastics products
- 23 - Manufacture of other non-metallic mineral products
- 24 - Manufacture of basic metals
- 25 - Manufacture of fabricated metal products, except machinery and equipment
- 26 - Manufacture of computer, electronic and optical products
- 27 - Manufacture of electrical equipment
- 28 - Manufacture of machinery and equipment
- 29 - Manufacture of motor vehicles, trailers and semi-trailers
- 30 - Manufacture of other transport equipment
- 31 - Manufacture of furniture

- 32 - Other manufacturing
- 33 - Repair and installation of machinery and equipment
- D - Electricity, gas, steam and air conditioning supply**
- 35 - Electricity, gas, steam and air conditioning supply
- E - Water supply; sewerage, waste management and remediation activities**
- 36 - Water collection, treatment and supply
- 37 - Sewerage
- 38 - Waste collection, treatment and disposal activities; materials recovery
- 39 - Remediation activities and other waste management services
- F - Construction**
- 41 - Construction of buildings
- 42 - Civil engineering
- 43 - Specialized construction activities
- G - Wholesale and retail trade; repair of motor vehicles and motorcycles**
- 45 - Wholesale and retail trade and repair of motor vehicles and motorcycles
- 46 - Wholesale trade, except of motor vehicles and motorcycles
- 47 - Retail trade, except of motor vehicles and motor cycles
- H - Transportation and storage**
- 49 - Land transport and transport via pipe lines
- 50 - Water transport
- 51 - Air transport
- 52 - Warehousing and support activities for transportation
- 53 - Postal and courier activities
- I - Accommodation and food service activities**
- 55 - Accommodation
- 56 - Food and beverage service activities
- J - Information and communication**
- 58 - Publishing activities
- 59 - Motion picture, video and television programme production, sound recording and music publishing activities
- 60 - Programming and broadcasting activities
- 61 - Telecommunications
- 62 - Computer programming, consultancy and related activities
- 63 - Information service activities
- K - Financial and insurance activities**
- 64 - Financial service activities, except insurance and pension funding
- 65 - Insurance, reinsurance and pension funding, except compulsory social security
- 66 - Activities auxiliary to financial service and insurance activities
- L - Real estate activities**
- 68 - Real estate activities
- M - Professional, scientific and technical activities**

- 69 - Legal and accounting activities
- 70 - Activities of head offices; management consultancy activities
- 71 - Architectural and engineering activities; technical testing and analysis
- 72 - Scientific research and development
- 73 - Advertising and market research
- 74 - Other professional, scientific and technical activities
- 75 - Veterinary activities

N - Administrative and support service activities

- 77 - Rental and leasing activities
- 78 - Employment activities
- 79 - Travel agency, tour operator, reservation service and related activities
- 80 - Security and investigation activities
- 81 - Services to buildings and landscape activities
- 82 - Office administrative, office support and other business support activities

O - Public administration and defense; compulsory social security

- 84 - Public administration and defense; compulsory social security

P - Education

- 85 - Education

Q - Human health and social work activities

- 86 - Human health activities
- 87 - Residential care activities
- 88 - Social work activities without accommodation

R - Arts, entertainment and recreation

- 90 - Creative, arts and entertainment activities
- 91 - Libraries, archives, museums and other cultural activities
- 92 - Gambling and betting activities
- 93 - Sports activities and amusement and recreation activities

S - Other service activities

- 94 - Activities of membership organizations
- 95 - Repair of computers and personal and household goods
- 96 - Other personal service activities

T - Activities of households as employers; undifferentiated goods and Services – producing activities of household for own use

- 97 - Activities of households as employers of domestic personnel
- 98 - Undifferentiated goods - and services -producing activities of private households for own use

U - Activities of extraterritorial organizations and bodies

- 99 - Activities of extraterritorial organizations and bodies

The Classifications registry keeps updated information on Statistical Classifications maintained by the United Nations Statistics Division (UNSD).

APPENDIX A: AREA MEASUREMENT USING A GPS

When the plots are identified and a sketch map is drawn where possible, the plots are to be measured using a GPS, named Garmin eTrex 30x. For each plot to be measured, you MUST use the sketch map for orientation. You MUST mark your starting point with a stick and walk clockwise along the perimeter (outline) of each plot with the GPS activated for area measurement. When you return to the starting point and tell the GPS to stop the area measurement, the GPS will display the area measurement directly in SQUARE METERS. You should then record the results in the questionnaire with TWO decimals.

A GPS uses the information from satellites to find the geographical position on the earth surface by longitude and latitude. The position is found by a continuous measurement of the time a satellite signal takes to reach your GPS from a satellite in the sky. With clear signals from at least four satellites, the GPS is able to calculate the geographical position with sufficient accuracy. The better sight to a large part of the sky a GPS has, the more signals and clearer signals are received. Shadows of buildings and even large trees should be avoided while using the GPS in the field. You should also make sure to stretch your hand holding the GPS forward when you do area measurement to avoid that your own body shadows for the satellite.

Batteries and buttons

The GPS uses two AA batteries. Each enumerator will get two sets of batteries. You MUST take the batteries out of the GPS when it is not in use. Make sure to put in the batteries in opposite direction, just as marked at the bottom of the battery compartment. You open the battery compartment by using the small triangle as handle and turn it anti-clockwise $\frac{1}{4}$ round (= 90°) and carefully removing the rubber-lid. You close it by turning the handle clockwise $\frac{1}{4}$ round.

The GPS has five buttons, including one double button. We are mostly going to use only four of them. The GPS has two buttons on the right side, the START button, marked with a light bulb and the BACK button, located above the light button.

In addition, the GPS has three buttons on the left side, one of these is the DOUBLE button, marked with arrowheads pointing up and down, used for zooming (in/out). The other is the MENU button, located below the zooming-in button. On the front side of the unit, there is the round, rubber THUMB STICK button. The THUMB STICK button can be pressed in or moved around to left, right, up and down. All other buttons are only to be pressed in.

Instructions for using the GPS for finding the geographical coordinates of a plot

- Proceed to the starting point (North Western corner), which should be the starting corner of the plot you will measure.
- Switch on the GPS by pushing and holding the START (left lower button) for up to 2-3 seconds or until you hear a beep or see a GARMIN picture on the screen.
- Make sure you are on the main MENU screen.

- Use the THUMB STICK button to move between the various menu-icons to the MARK-WAYPOINT and push the THUMB STICK button in to open the Mark Waypoint page. There, you will be able to read your location in south and east coordinates.
- Record the south coordinate and east coordinate on the appropriate plot roster. Write down all digits given on the screen. The south coordinate will start with an S and comprise degrees, minutes and seconds, all together 7 digits. The east coordinate will start with E 0 and again be followed by 7 digits. Write down these 7 digits.

Saving the coordinates of the PLOTS

After recording the coordinates of the starting point of the PLOT, you MUST save these coordinates using the “HHID-ParcelID-PlotID” combinations. For example, if the HHID of the household is 123 and the PARCEL ID is 01 and the PLOT number on parcel 01 is 03, then save the coordinates as 123-01-03. Follow these steps to save the coordinates of the starting point of the plot:

- Stand at the NW Corner (starting point) of the PLOT
- Check that you have enough satellites!!
- Go to Main Menu
- Select Mark Waypoint
- Go to the top field and press the Thumb Stick
- Enter the HHID-ParcelID-PlotID
- Record the GPS Coordinates in the questionnaire.
- Select “DONE”

Viewing the saved coordinates of the PLOTS

To view the saved coordinates of the PLOT, use the following simple steps:

- From the Main Menu, select WAYPOINT MANAGER
- Highlight the track name you would like to review and press the THUMB STICK
- The coordinates and other information on the starting point of the saved PLOT is displayed here
- Press the MENU button twice to arrive back at the main menu and ready to do other tasks

Instructions for using the GPS for measuring the area of a plot

You may measure the area just after taking the location.

- Go to the starting point which should be the North Western corner of the plot you will measure and mark the starting point by fixing a stick in the ground.
- Switch on the GPS by pushing and holding the LIGHT key for up to 2-3 seconds or until you see a screen picture.
- Make sure you are on the main MENU screen.
- Use the THUMB STICK button to move between the various menu-icons to the AREA CALCULATION and push the THUMB STICK button in to open the AREA CALCULATION page.
- You will now see a sketch map on the screen and at the bottom of the screen you will see the text: Start highlighted green (this means start area calculation). This DOES NOT mean the GPS has started the area calculation, but only that the GPS is READY to start the area calculation.
- You start the area calculation by pressing the THUMB STICK button. Subsequently, the text at the bottom of the screen will read Calculate. This DOES NOT mean the area calculation has stopped, but only that the GPS is READY to stop the area calculation. In fact, the GPS has just started the area calculation.
- You are to start the area measurement by walking slowly clockwise around the perimeter of the plot. You should hold the GPS flat in your hand and stretch the hand slightly forward. You MUST walk on the edge of the field (NOT a meter outside or inside the field). At every corner, you MUST stop for 5 seconds (counting slowly 1001, 1002, 1003, 1004, and 1005) and then continue walking. You MUST walk all the way around the plot or parcel until you have returned to the location of the marking stick, with the GPS facing the direction in which it started the area calculation.
- Check that the text below the screen still reads Calculate. If the text does read Start, it means that you failed to push the THUMB STICK button properly when you started. If you read Save Calculated Track, it means that you pushed in the THUMB STICK button while you were walking. In both cases you will need to repeat the measurement by starting over again.
- If the screen reads Calculate, you may stop the measurement by pushing in the THUMB STICK button and the screen will now display the area at the second line from the bottom. It is NOW time to write down the area measure on the appropriate plot roster. RECORD THE AREA IN SQUARE METERS AS IT APPEARS AT THE BOTTOM OF THE GPS.
- The second to last line on this screen has the text – Save Track, and you will be able to save the area measurement by pushing the THUMB STICK button. After selecting Save Track, delete the default track name (will be the date and time). Enter the track name as

the “HHID-ParcelID-PlotID”. For example if the HHID of the household is 123 and the PARCEL ID is 02 and the PLOT number on parcel 02 is 03, then save the measure area as 123-02-03

It is recommended that you measure the area of each plot with the GPS at least twice to get a consistent value and confirm that the rotation around the plot has been completed properly.

If you lose the right position with the GPS system/menu, you are always able to back track to the main menu by pressing the MENU button twice. Once there, you can use the THUMB STICK button to select the AREA CALCULATION-icon, and repeat area measurement-related steps specified above.

You switch off the GPS by pressing and holding the START button for at least 2-3 seconds or until the screen light disappears.

Instructions for other GPS functions needed from time to time

You may also want to use the GPS for other purposes as well, such as for the following tasks:

- Having a look of the track you have recorded and area measured.
- Cleaning the stored tracks. The GPS storage will only be able to store 50 tracks and areas and hence you will need to clean the storage when you have finished an EA.
- Making sure to set the screen to low light in order to save batteries.

Having a look at the map (perimeter) of the area measured

Go to the main menu by pressing the MENU button twice. Move to the TRACK MANAGER-icon and push in the THUMB STICK button.

You will then open the Track Manager Page. Use the THUMB STICK button to move to the saved track you want to open and push in the THUMB STICK button. Now select the View Map icon using the THUMB STICK. The map of the selected track will be displayed on the screen.

Move back to the main menu by pressing the MENU button twice.

Retrieving saved track/plot measurement

In situations where you save the track but forgot to record the calculated area on the questionnaire, you use the following easy steps to retrieve the measured area.

- From the Main Menu, select TRACK MANAGER
- Highlight the track name you would like to review and press the THUMB STICK
- Select VIEW MAP

- Now press the MENU button once
- From the three displayed options, select Review Track using the THUMB STICK. The displayed screen contains the area measured as the second line item

Cleaning the storage of tracks

Go to the main menu by pressing the MENU button twice. Move to the TRACK MANAGER-icon and push in the THUMB STICK button.

You will then open the Saved Tracks Log Page. Use the THUMB STICK button to move to the Saved Track that you want to delete. Move the THUMB STICK down until you see Delete and then press the THUMB STICK to delete the selected track. Next, move the THUMB STICK to select Yes option, and then press the THUMB STICK button to confirm deletion of the saved track. Repeat this procedure for all saved track in this EA.

PLEASE NOTE: DO NOT DELETE THE SAVED TRACKS OR WAYPOINTS UNTIL ALL THE SAVED FILES HAVE BEEN UPLOADED UNTO THE TEAM'S LAPTOP BY THE DATA ENTRY PERSON.

Move back to the main menu by pressing the MENU button twice.

Set screen light to low in order to save battery

Switch on the GPS by pressing the LIGHT button. While the GPS is locating the satellites, press the LIGHT button once more and a light meter will appear. Press the LIGHT button again for the light to get brighter and the light meter to go one step up. Press the LIGHT button several times until the light meter goes down to the lowest level. Leave the GPS alone for one minute and the light meter will disappear. The light is now at the lowest level to save battery capacity.