NATIONAL AGRICULTURAL SAMPLE CENSUS (NASC)

HOUSEHOLD LISTING FORM AND COMMUNITY QUESTIONNAIRE

INSTRUCTION MANUAL

2022

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1. Introduction

The agricultural sector among other relevant sectors is at the center of the Nigeria economy, providing the main source of livelihood for the majority of Nigerians. It is an essential activity with significant economic and social benefits to the nation. The sector is truly identified to provide the much needed employment opportunities and export earnings required for sustainable growth and development of the economy. It is therefore pertinent that adequate, timely and reliable statistics on agricultural sector are readily available for policy formulation, planning, monitoring and evaluation of programmes and projects.

The National Agricultural Sample Census (NASC) was last conducted in Nigeria in the year 1993/1994. Thus, Data production on Agricultural statistics in the Country has been weak. It is on this note that the National Bureau of Statistics (NBS) in collaboration with the World Bank, Food and Agriculture Organization of the United Nations (FAO), Federal Ministry of Agricultural and Rural Development and other stakeholders have acknowledged the need to conduct the National Agricultural Sample Census (NASC).

The National Agricultural Sample Census is designed to provide vital primary data on the structure and dynamics of agriculture in Nigeria. The NASC is made up of two components, namely; The listing component (Census) and the sample survey component. This Listing exercise is a component of National Agricultural Sample Census which is intended to collect information on agricultural activities at household level and provide a comprehensive frame for agricultural surveys.

This manual provides detailed instructions on how to implement this critical component of the National Agricultural Sample Census - the Household Listing as well as the administration of the Community Questionnaire. The manual is a dependable guide during data collection and therefore imperative for the field personnel to censoriously study it and make sure they understand every stripe of it.

1.1   Objectives of the Sample Census

- Provide basic data on structure of agricultural sector in Nigeria

- Provide a comprehensive frame for other subsequent agricultural surveys

- Provide data to help the government at different levels in formulating policies on agriculture aimed at attaining food security and poverty alleviation

- To provide data which will be useful for administrative purposes at the Local Government Area (LGA) level

1.2 Fieldwork Organization

The frame of the newly digitized list of enumeration areas (EAs) in the country will be used for the conduct of this census. Seven hundred and seventy-four (774) LGAs in the country will be canvassed and forty (40) EAs will be covered in each LGA. The number of EAs to be covered will vary by State and both urban and rural EAs will be covered. Thirty thousand nine hundred and sixty (30,960) EAs will be covered countrywide.

1.3 Survey Instruments/Equipment

The survey instruments/equipment to be utilized include:

- ➢ Computer Assisted Personal Interviewing Devices (CAPI)
- ➢ Digitized maps
- ➢ Sample List of the EAs to be visited
- ➢ Location Map Form

- ➢ Chalk/ Marker Etc.

1.4 Recruitment of Field Staff

Field Personnel will be recruited from:

- ➢ Permanent staff of National Bureau of Statistics (NBS)
- ➢ State Statistical Agencies (SSAs)
- ➢ State Agricultural Development Project (ADP)
- ➢ National Population Commission

The criteria for recruiting the field personnel include:

- ➢ A minimum Qualification of ND/NCE in related disciplines
- ➢ Fluency in local languages and
- ➢ Experience in HH Data collection as an added advantage

1.5 Training for Fieldwork

There will be two stages of training.

First stage will be the Training of Trainers (ToT), and participants include 164 Trainers/Monitors; 20 Coordinators; Stakeholders and Facilitators. Four training centers will be used and training will last for four (4) days.

Second stage will be Training of Field staff at eighty-two (82) centers across states. Participants include 3,096 Interviewers; 37 State Officers; 6 Zonal Controllers; 37 State Bureau of Statistics (SBS), SGs/Directors of SSA and Other Stakeholders. An average of forty trainees will be present in each venue. Training will last for four (4) days.

1.6 Teamwork Arrangement for Data Collection

Two teams of enumerators will be formed in each LGA. Each team will comprise of one team lead and one team mate. The two enumerators will have separate CAPI devices, both of them will serve as listers and mappers. Enumerators are to cover an EA for both household listing and administration of community questionnaires in three days. A team will cover twenty (20) EAs. The listing Field work will last for sixty (60) days.

1.7 Instruction to Enumerators

NOTE 1: ON ARRIVAL AT THE EA, THE ENUMERATORS ARE TO MEET WITH THE COMMUNITY HEAD(S) TO EXPLAIN THEIR MISSION. THEY ARE TO INFORM THE COMMUNITY HEAD(S) THAT THERE WILL BE INTERVIEW WITH SELECTED GROUP OF PEOPLE IN THE COMMUNITY AND ARRANGEMENT SHOULD BE MADE ON WHEN THE INTERVIEW WILL BE CONDUCTED. THIS IS TO ENABLE THE COMMUNITY HEAD(S) INFORM THE PEOPLE CONCERNED TO MAKE THEMSELVES AVAILABLE FOR THE INTERVIEW.

NOTE 2: TWO ENUMERATORS WILL FIRST DO THE NUMBERING OF ALL BUILDINGS WITHIN THE EA. THE BUILDING NUMBERS WILL BE WRITTEN ON THE BUILDINGS WITH CHALK OR MARKER, TO EASE THE LISTING EXERCISE. ONCE THE MAPPING IS DONE, THE ENUMERATORS ARE TO DIVIDE THE BUILDINGS EQUALLY BETWEEN THEMSELVES AND START DATA COLLECTION ON THE CAPI. EXAMPLE IF THE TOTAL NUMBER OF BUILDINGS IN AN EA MARKED IS 75, IT WILL BE 75/2 = 37.5, SO ONE ENUMERATOR WILL TAKE BUILDING 001-037 WHILE THE OTHER ENUMERATOR WILL COVER BUILDING 038-075.

ALSO, IN CASE OF ANY MISSING BUILDINGS DISCOVERED AT THE END OF THE LISTING IN THE EA, THE SECOND ENUMERATOR HAVING THE LAST BUILDING NUMBER WILL NUMBER THE MISSING BUILDING AS 076, 077 etc. AND ADD

1.8 Data Transmission

Information for this exercise will be captured with the use of CAPI Devices. There will be real-time, online data transmission and data monitoring.

2.0 Household listing procedures

The household listing operation requires the following steps: preparing for field work, locating each Enumeration Area (EA) correctly, identifying and listing all the buildings found in each EA, identifying and listing all the households residing in residential buildings, and acquiring information on agricultural activities of identified households. The different steps are discussed as follows.

Enumeration Area **(EA):** Enumeration Area (EA) is a compact area delineated out of a locality or group of small localities with well-defined and identifiable boundaries put together as one unit for the purpose of census administration or a sample survey.

2.1 Preparation

Preparing for fieldwork requires that the listing team:

- Obtain the list of EAs where the team will be working and all associated materials for the EAs (e.g., EA digitized maps).
- Become familiar with the enumeration area where the team will be working and determine the best arrangements for travel and accommodations
- Contact local authorities to inform them about the listing activity and the upcoming Sample Census, to gain their support and cooperation
- Obtain all supplies and equipment necessary for the team to complete its assigned work
- Obtain letters of introduction to be given to local, district, and regional officials providing sufficient authority to conduct the listing
- Arrange for telephone and email communications before leaving for the field. Daily contact by phone is required for support and supervision of the team by the central office staff.

Careful preparation by the listing team is essential to ensure successful implementation of the listing exercise.

2.2 Locating each EA correctly

The listing team will be provided with a digital map and probably paper maps showing the location and boundaries of the EA. The digital map will also be embedded in the CAPI device. The use of google maps and local knowledge of the terrain will also aid in locating the EA. It is a fundamental and crucial step for field teams to ensure that they locate the EA correctly. The teams must double and triple-check to make sure they arrive at the proper location of the EA to be listed. Now that the EA maps are fully digitized and georeferenced, this task should be inconsequential, nevertheless it requires special attention. During the pre-test there were two instances where the field teams did not list in the correct EA location. In the images below, you can see the EA boundary (in blue) and the listed buildings (in red). In both instances, the field teams clearly conducted the listing in the wrong location. If such a situation occurs in the main fieldwork, the team in question will be required to re-conduct the listing in the correct location, resulting in extra time and effort that could have been easily avoided with proper attention.

Figure 0.1 EAs improperly located
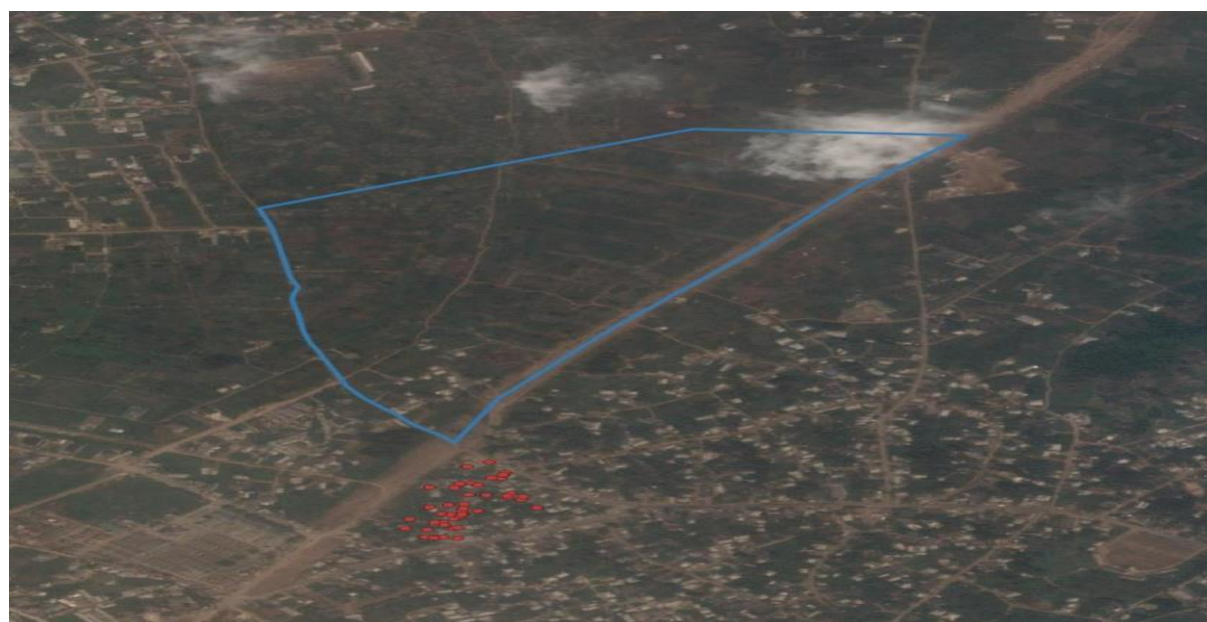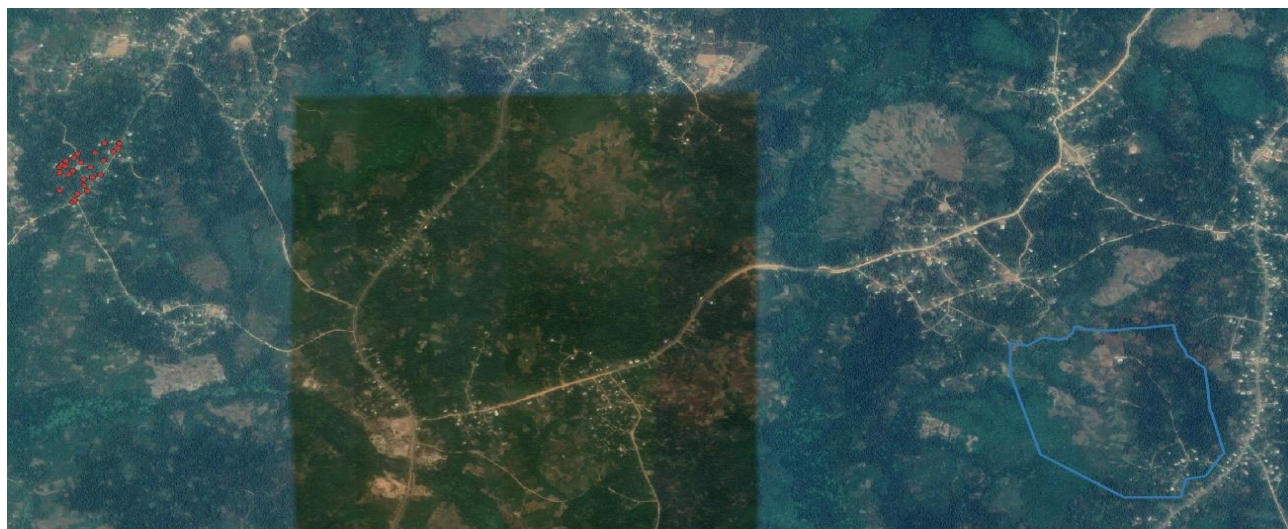
When the team arrives in the EA and has confirmed they are in the correct location, they will meet with the village head/chief and explain their objectives and aim of being in the village. They are to solicit for help from the head in identifying the boundaries of the EA. Enumerators should use the map to identify all of the boundaries of the EA. In most EAs, the boundaries follow easily recognizable natural features, such as streams or lakes, and constructed features, such as roads or rail tracks.

Some boundaries, however, may not be readily identifiable, especially in rural areas. In that case, the team should seek assistance from local authorities to identify the boundaries. Locating and determining these boundaries calls for some ingenuity, particularly in rural areas. The following procedure is suggested:

(1) Identify on the digitalized map the road that is used to reach the EA. When a listing team reaches what appears to be the EA boundary, this should be verified by checking the location of actual roads, terrain features, and landmarks against the location on the map. Boundaries can be streets, alleys, streams, power cables, walls, and rows of trees.

(2) Do not depend on one single feature to identify the EA; rather, use as many as possible. You can also check the general shape of the EA and sometimes there will be a written description of EA. It is important to locate all of the EA boundaries before you begin listing. For example, if the EA is a rectangular block, the names of three boundary streets are not enough to unequivocally identify the EA; check all the four boundary streets.

(3) It is usually possible to locate unnamed roads or imaginary lines by asking people living in the vicinity. In most cases, these people will know where the villages are and, by locating the villages, you can usually determine where the boundaries run. Local authorities may be helpful, as well as residents.

(4) While there are cases in which boundaries shown on the map no longer exist (for example, they have been demolished), or have changed location (for example, a road has been relocated or a river has changed course), do not be hasty in concluding the EA can no longer be identified. If you cannot identify all the boundaries of a EA, discuss this with the Listing Coordinator or the Fieldwork Director before going on to the next EA.

While it can sometimes be difficult to clearly identify the boundaries of the EA, the field teams **must give special care and attention to fully identify the boundaries before commencing with the listing of buildings**. During the pre-test, some teams were not so careful and ended up listing buildings outside of the EA boundaries. As shown in the figures below, the field teams in these two EAs listed some buildings that fall outside the boundaries of the EA. This must not be repeated. Take special care to identify the boundaries, particularly when the boundaries do not follow major geographic features (e.g. a main road or stream).

2.2.1 Locating an EA in Google Earth
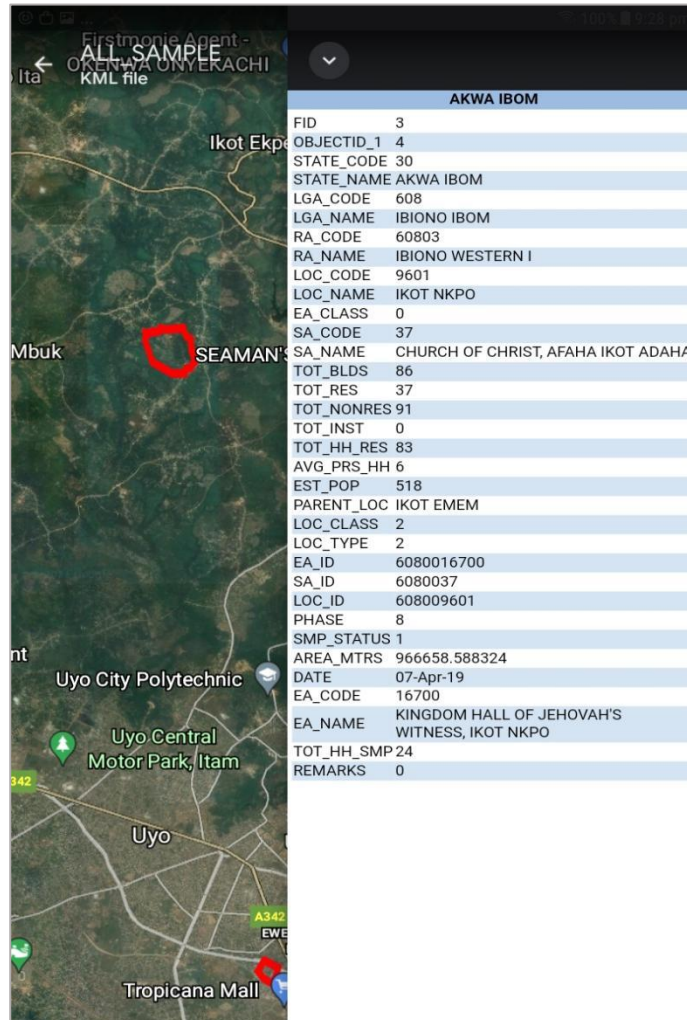
Each Enumeration Area has been digitized in each of the states. This has lessened the burden of the Enumerators in the sketching of EA map. As a result of the digitization, all the identifiers or particulars of the EAs are clearly visible. These include:

- The State
- LGA
- EA Name
- EA Code
- Locality Name, etc.

Available Files in the CAPI

- **EA Map in KMZ:** This file is by state and it contains the EAs in each of the state
- Survey Solution Interviewer Application

- Google Earth Application

Step by Step Approach in Launching Google Earth on CAPI
- To launch Google Earth, connect to the Internet.
- At the Home Page of the Tablet, locate Google Earth and load.
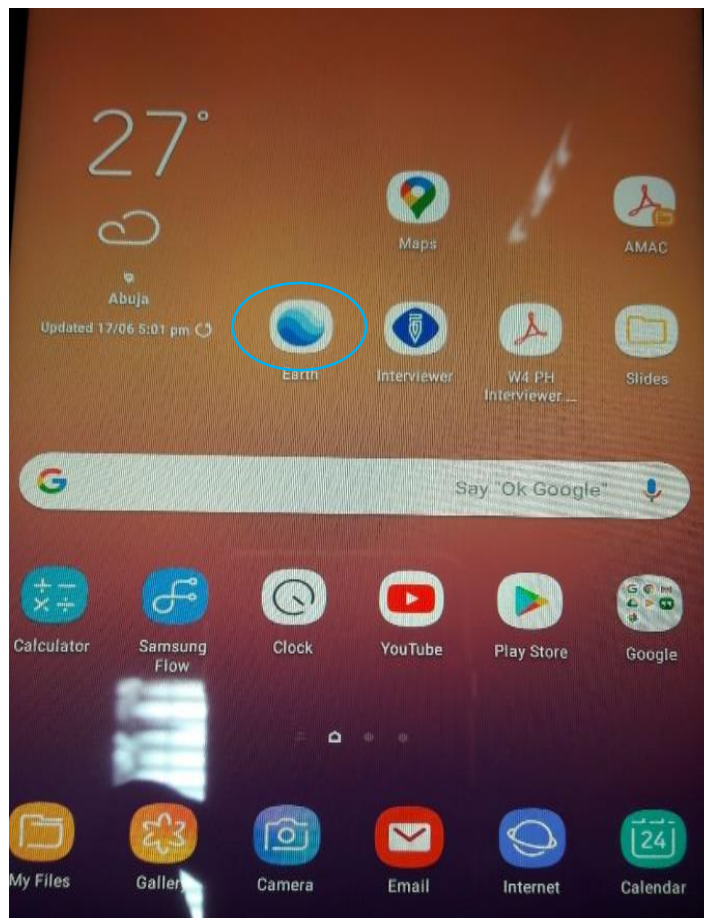
- Locate the 3 Lines at top left corner and click/tap to open

- From the dropdown menu, select Project
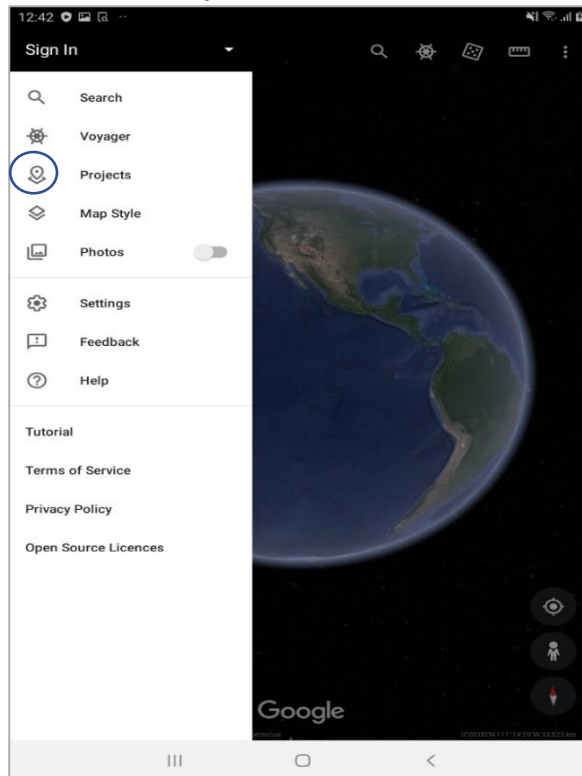
- At the top right, click on open and select "Import KML file"

Click to open
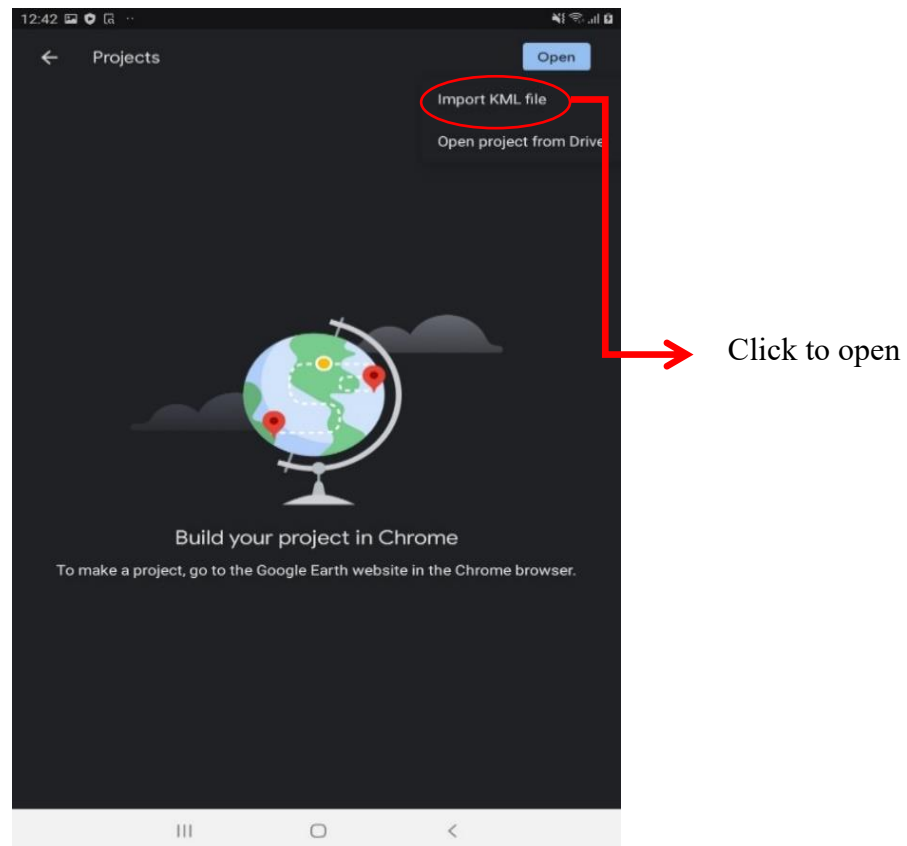
How to load EA (KMZ File)

- Locate Galaxy on the tablet and identify EA folder.
- Click on your state KMZ file.

> KMZ is a zipped file containing one or more compressed KML files. KML stands for Keyhole Markup Language.
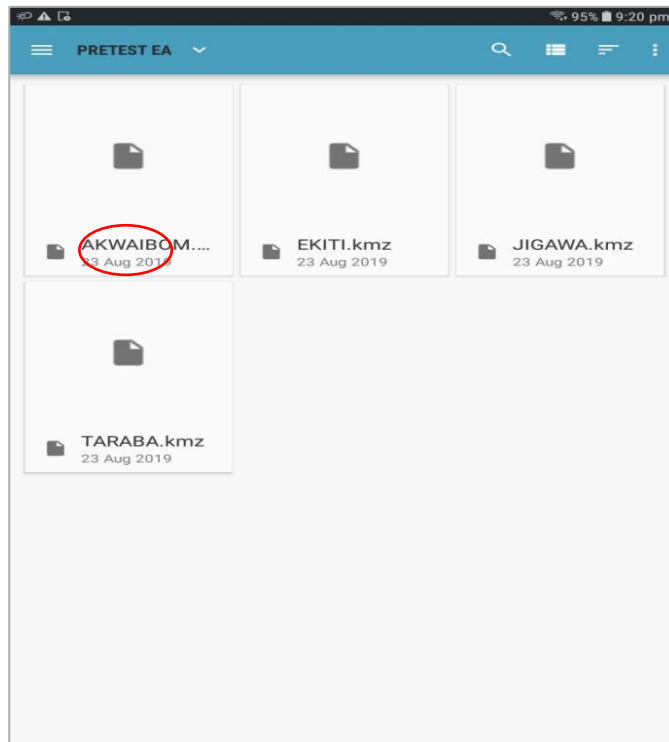
Note: *When you click on import KMZ file and nothing is displayed, go to the three dots to the right and select "show internal storage". After this is done you will be able to see GALAXY then you can identify the EA, then select your state.*

- At the opening of the KMZ, all available EAs in your state will be loaded on the map.
- Tap on a particular EA to display on the map. The boundaries and notable features will also be visible for easy identification.
- Repeat the same process for all the available EAs.
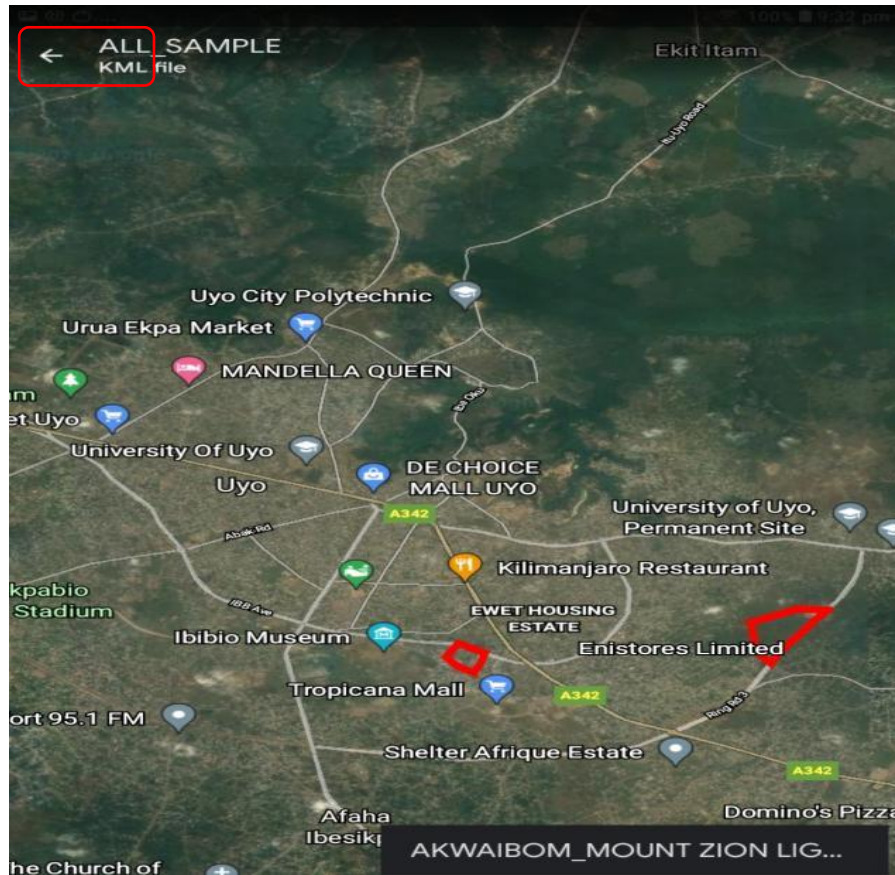
How to Activate Street, Towns, Rivers, etc. on map

- Click on the 3 white lines Icon at left top of the CAPI.
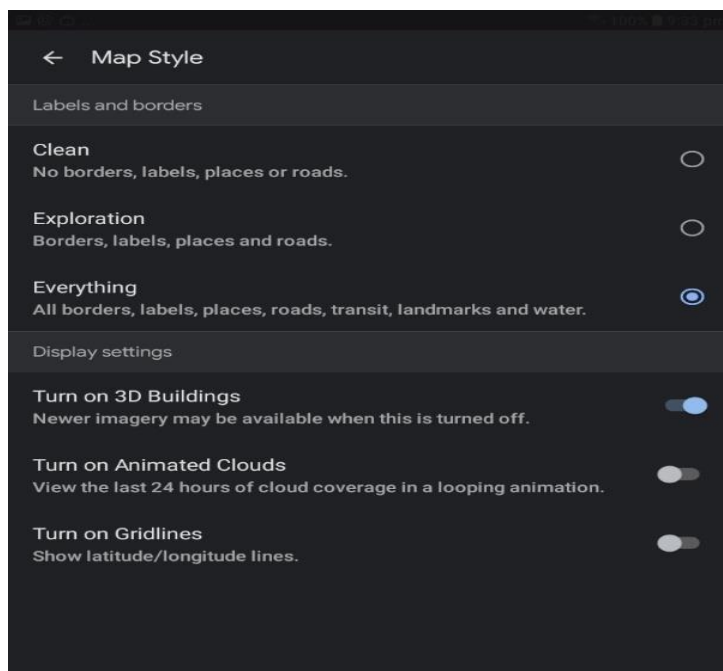
- Locate Map Style, click and activate "Everything (All borders, label, places, roads, transit, landmark and water)".

EA Label- The red line shows all the boundaries

Locating an EA

- You can use search option by typing in the latitude and longitude (Coordinates) of the EA. (Latitude must come first before longitude and separated with a comma sign (,) or space e.g 9.053611,7.483333 or 9.053611 7.483333 as coordinates for NBS HQ.

- Identify all the borders of the EA before you proceed to the field with all special features including the surrounding roads.

- Use Google map or local knowledge of the area to get to the EA.

How to Preview EA information

- Once you click on the EA name, all the details about the EA will pop up for you to see as displayed.
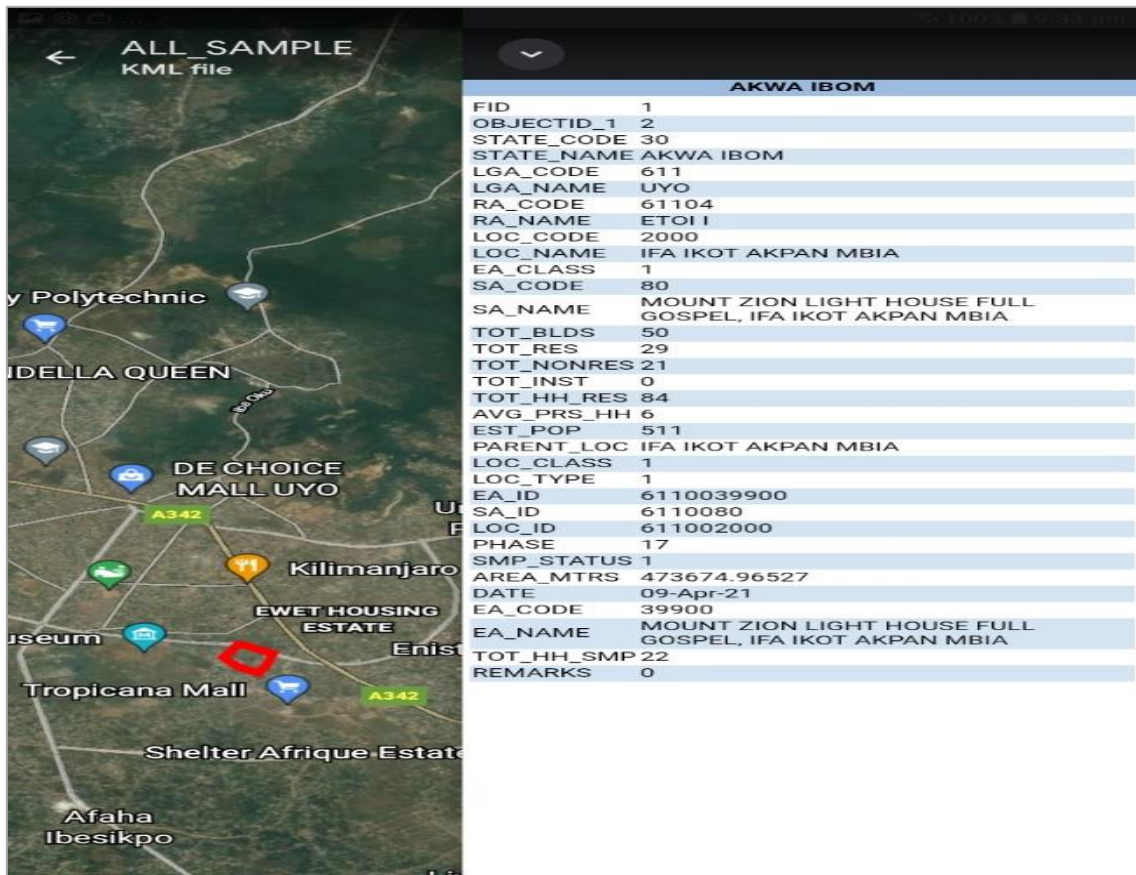
Note:

- *Proper identification of EA must be done before enumeration which could be done before getting to the EA.*

- *Importantly, there is need for agreement among the team members in order to avoid double counting.*

- *Before setting out to the EA, always load the EA on your device and zoom to the lowest resolution. This will help to preload the EA features in case of no network when you arrive at the EA.*

2.3 Identifying and listing all the buildings in the EA

After identifying all the boundaries in the EA as described in 2.2, the next step is to identify the **starting point** for the listing exercise as indicated on the EA map. The team should move in a clockwise direction until they return to the starting point.

At the starting point, tap to record the GPS of the starting point of the listing and tap again to record the starting time. Together, the team are to map the whole buildings in the EA by serially indicating on the buildings with the use of white chalk/marker NBS number (which is for example NBS/2022/NASC/001).

Once the numbering is done, the enumerators are to divide the buildings equally among themselves and start data collection on the CAPI. Example if the total number of structures numbered is 75, it will be 75/2 = 37.5, so one enumerator will take structures 1-37 while the other enumerator will cover structures 38-75.

On the CAPI device, one enumerator will start with 001 while the second will start with 038 and proceed in sequence which implies that as you encounter more buildings, add additional serial numbers in order to be able to enter the relevant information for new buildings.

NOTE: *All buildings in the EA are to be listed including residential, commercial, religious, institutional, hotel/restaurant, vacant buildings and buildings under construction, as well as buildings where the household members refuse to cooperate, or are not at home at the time of the listing.*

2.4 Identifying and listing all the households in the building

After identifying the building, the interviewer must then determine (1) if the building contains any households and (2) how many households reside in the building. It is important first define what constitutes a household and a family and understand that these terms are NOT always the same.

Household: A household consists of a person or a group of related or unrelated persons who live together in the same dwelling unit, who acknowledge one adult male or female as head of the household and share the same cooking arrangements

NOTE: *THAT YOU MAY FIND MORE THAN ONE HOUSEHOLD IN A DWELLING UNIT. IF YOU FIND OUT THAT THERE IS A PERSON OR PERSONS RESIDING IN A DWELLING UNIT WITH SEPARATE EATING ARRANGEMENTS FROM OTHER RESIDENTS OF THE SAME DWELLING UNIT, YOU SHOULD LIST THEM AS SEPARATE HOUSEHOLDS.*

IN SOME CASES, YOU MAY FIND A GROUP OF PEOPLE LIVING TOGETHER IN THE SAME HOUSE, BUT EACH PERSON HAS SEPARATE EATING ARRANGEMENTS (FOR EXAMPLE, A GROUP OF MIGRANT WORKERS WHO SHARE A DWELLING UNIT); THEY SHOULD BE COUNTED AS SEPARATE ONE-PERSON HOUSEHOLDS. HOWEVER, DWELLINGS INTENTIONALLY DESIGNED TO SHELTER UNRELATED GROUPS OF PEOPLE, SUCH AS ARMY CAMPS, SCHOOL DORMITORIES, REFUGEE CAMPS, OR PRISONS WILL NOT BE CONSIDERED HOUSEHOLDS FOR THIS SURVEY.

Nine household members (consisting of father, mother, children and a house help)

Four household members

Single household member

Head of household is the person who is acknowledged as such by members of the household and is usually responsible for the upkeep and maintenance of the household.

To determine if multiple households are living in a dwelling unit, the enumerator needs to talk to someone in the dwelling.

The interviewer may need to define what is meant by household, following the definition above. If more than one household is identified to be living in the same dwelling unit, then they should be listed separately.

NOTE: *IF AN ENUMERATOR ENTERS AN EA AND FINDS THAT THE FIRST BUILDING CONTAINS 5 HOUSEHOLDS, THE ENUMERATOR SHOULD RECORD THE BUILDING NUMBER AS 001 AND THE 5 HOUSEHOLDS SHOULD BE LISTED AS FOLLOWS:*

FIRST HH   001, SECOND HH   002, THIRD HH   003, FORTH HH 04 AND FIFTH HH 005

SAME APPLIES WHEN THE ENUMERATOR MOVES TO THE NEXT RESIDENTIAL BUILDING, THE BUILDING NUMBER WILL BE 002.

3.   Listing Form

This Listing Form is used to collect information on agricultural activities at household level and provide a comprehensive frame for agricultural surveys. The Household Listing Form consists of three Sections;

SECTION 0: ADMINISTRATIVE IDENTIFICATION

The identification section provides information on nine (9) different items to identify the EA to be listed.

Q1- 7: All information in this section is prefilled by the enumerators using the data provided by NPC on the EAs. Such information includes name of State, LGA name, EA Name, Locality name, Zone, EA Code, Sector, and Ward Name.

SECTION 1: BUILDING LISTING

- In this section, the enumerator will list all the buildings in the EA. Identify the starting point which should be from the boundary of the EA. The team should move in a clockwise direction till they return to the starting point.
  The team members are to map serially all buildings in the EA using white chalk/marker (for example, on the first building, NBS/NASC/2022/001, for the second building, NBS/NASC/2022/002…etc.).

IDENTIFICATION AND LISTING OF ALL STRUCTURES IN THE EA CONTD…

The image below shows the starting point of an EA

Exhibit 4-3.   Examples of Marking Clockwise Path of Travel

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National Bureau of Statistics

Travel Clockwise(Right hand)

- Travel the EA in a clockwise direction
- As you travel clockwise from the starting point, draw arrows on the map to indicate your path of travel
  - ✓ Marking your path helps you be sure to cover every street, mapping and listing structures on your right. The arrows help you to remain focused while you are in the field and help other survey staff later when they verify your path of travel for quality control purposes

Figure 3.5: **Examples of Starting Point Locations**

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Once the mapping is done, the enumerators are to divide the buildings equally between themselves and start data collection on the CAPI. Example if the total number of buildings an EA marked is 75, it will be 75/2 = 37.5, so one enumerator will take building 001-037 while the other enumerator will cover building 038-075.

For each building, tap to record the GPS and tap again to record the starting time

All structures in the EA are to be listed including residential, commercial, religious, institutional, residential/commercial, residential/institutional, residential/religious, hotel/restaurant, vacant buildings and buildings under construction

However, structures not to be listed are: Stand-alone Kitchen, toilet, storage shed and silos

Also, in case of any missing buildings discovered at the end of the listing in the EA, the second enumerator having the last building number should add the additional building

At this section, the CAPI screen should look like this
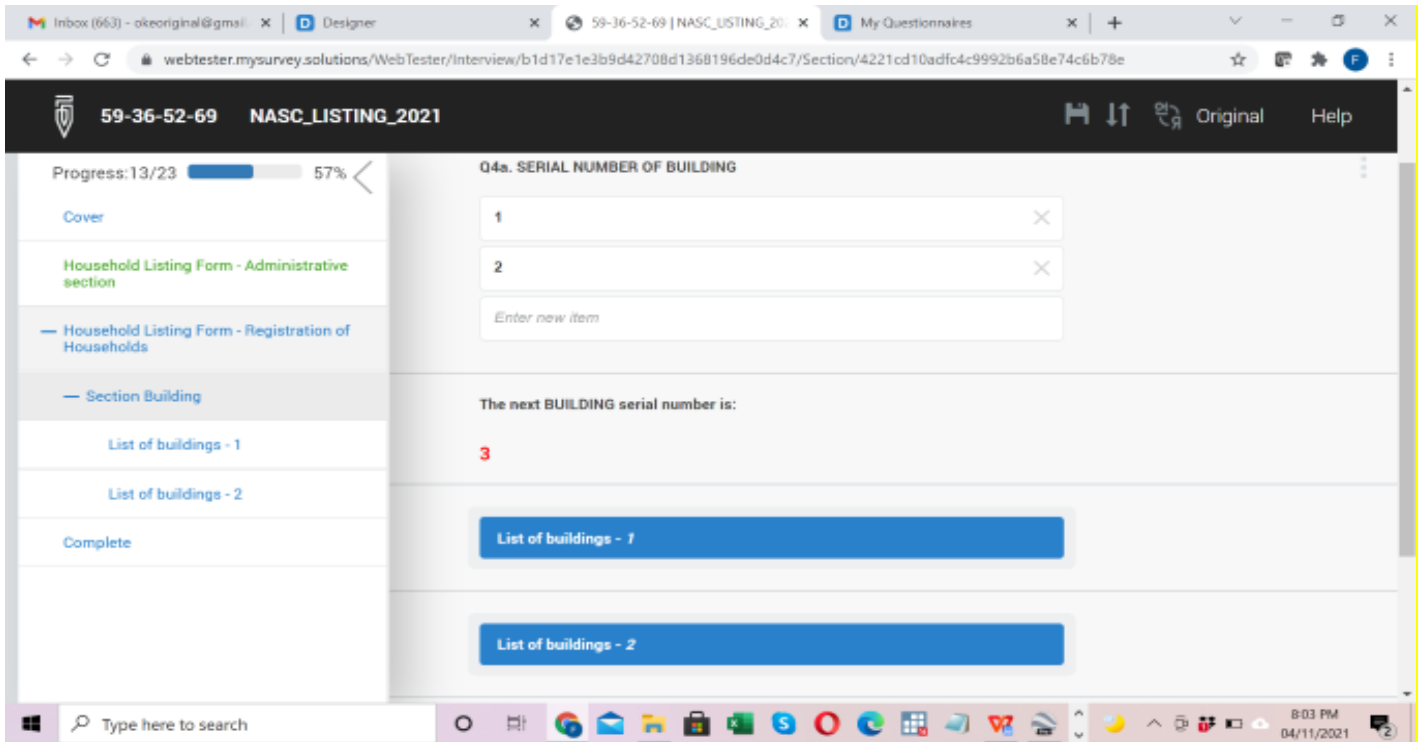
Here, you must enter the serial number for the buildings (which must be the same serial number that the mapper enters on the sketch). You must start with 001 and proceed in sequence. Tap the first cell and enter 001. This will enable a second line where you enter 002 for the second building. As you continue to add to this list, the text at the bottom will indicate what is the next BUILDING serial number that you should enter (see the screenshot above).

To enter relevant information for BUILDINGS, tap Section Building.

This will bring you back to the main building section page. Now there should be a series of bubbles for each building serial number you entered in the Section Building page. To enter information about the building, tap the bubble for the appropriate building serial number. For example, if you want to enter details for building #1, tap List of buildings – 1.

SECTION 1a: BUILDING INFORMATION

Building: It is a free-standing structure that can have one or more dwelling units for residential, institutional, religious, hotel/restaurant or commercial use.

The interviewer must answer all questions concerning each listed building sequentially. The following information is to be captured for every listed building in the EA:

Q1*:* The **NBS Number** should be recorded as described above in 2.3. It should be serial starting from 001.

Q2*:* The full and complete **address of the building** should be recorded. The address should be unique for the building and where there is no address, landmarks can be used. *The address should be specific enough so an interviewer who subsequently visits the building should be able to locate and identify this specific building.*

Q3: Capture the **GPS coordinates for that building**. You should capture the coordinates outside of the building (in front of the main gate) where the GPS signal will be strongest.

Q4: Record the **use of building.** The interviewer is expected to ask the eligible respondent the use of the building and select as appropriate according to the definitions below:

a. **Residential:** A structure considered residential is one that is used for dwelling purposes. It can have one dwelling unit, such as a concrete/mud/thatch house, or multiple dwelling units, such as an apartment building (block of flats). Where one household lives in a compound with multiple structures the compound should be collectively listed as one building.

b. **Commercial:** A structure is considered commercial if it contains commercial entities such as shops, factories, or similar entities with commercial purpose

c. **Religious:** A structure is considered religious if it is used religious activities such as church or mosque.

RELIGIOUS BUILDINGS

A place of worship and related religious activities such as churches or mosques, etc.

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d. **Institutional:** A structure that is used for academics, offices, etc.

- **Hotel and Restaurant:** Hotel is a building providing accommodation, meals and other services for people while Restaurant is a building where food and beverage are served and providing complete meals or drinks fit for immediate consumption

e. **Vacant:** A structure that is not inhabited by anyone. It includes dilapidated structures that no one is inhabiting (this was incorrectly listed under "others" during the pilot

f. **Uncompleted:** A structure that has not been completed for dwelling or living**.**

b. **Residential/Commercial:** Some buildings can be used for both residential and commercial purposes, such as an apartment building with shops on the first floor and dwelling units above. The commercial section of the building may be a shop, a factory or similar facilities.

c. **Residential/Religious:** Some buildings can be used for both residential and religious purposes, such as an apartment building with worship centers on the first floor and dwelling units above.

d. **Residential/Institutional:** Some buildings can be used for both residential, academic or any related purposes, such as an apartment building with schools on the first floor and dwelling units above.

NOTE: *IF THE BUILDING CONTAINS ANY RESIDENTIAL UNITS, THE ENUMERATOR IS EXPECTED TO LIST ALL THE HOUSEHOLDS IN THE BUILDING IN THE NEXT SECTION. ALSO NOTE THAT SOME BUILDINGS CAN BE VACANT AND UNCOMPLETED, WHICH MEANS THEY ARE UNINHABITED AS AT THE TIME OF THE LISTING. THE APPROPRIATE CODES SHOULD BE SELECTED.*

Survey Solutions CAPI

The CAPI is an interviewing tool or technique in which the interviewer uses a tablet or computer-based device—instead of paper and pen—to answer questions during 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 the 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 application. More on this in the Synchronization Section.

Survey Solutions enables better communication between the enumerators and supervisors, ensuring more reliable statistics due to checks performed during the interview and prompt statistics due to a reduced time lag between data collection and data analysis.

Getting Started in Survey Solutions Interviewer

Survey Solutions Interviewer has been installed on the tablets for this survey, 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 prevent 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 impossible for an unauthorized person to access the data recorded on the tablet.
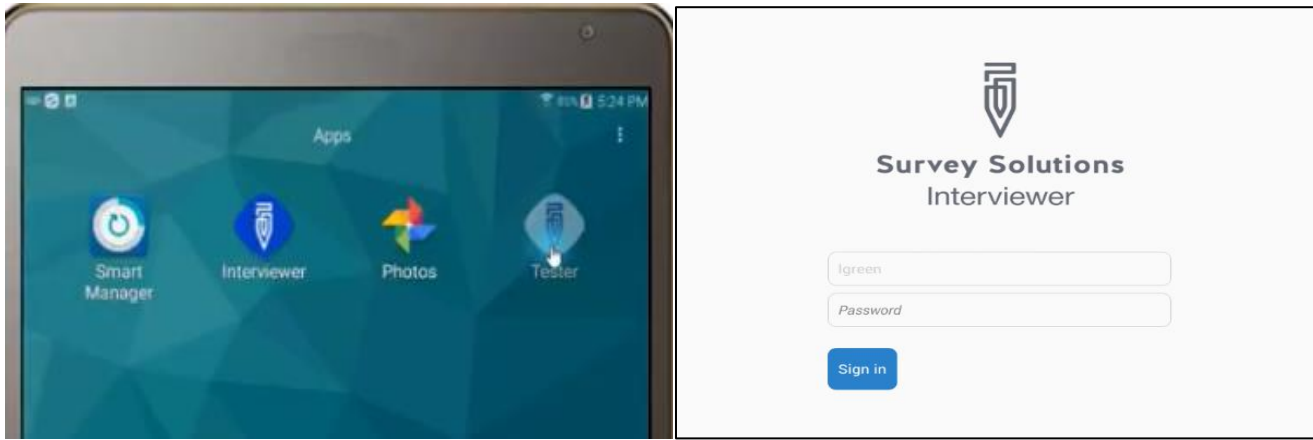
On resumption, you should enter your unique Login and Password to continue collecting, editing or submitting data for the assignments on your account.

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 will be 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 the number of interviews assigned to him/her, the number that have been started, completed or even those rejected by the supervisor after submitting the interview. The number to be reviewed by the interviewer are also displayed (see the figure below).
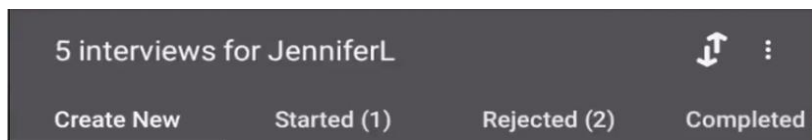
Each status on the dashboard is called a tab. To navigate between the different tabs, the interviewer can either tap on the tabs on top of the bar or swipe left or right, depending on desired movements. To help differentiate between the tabs, each tab is color coded as in the table below.

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. 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 have been 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 works will appear in the assignment.
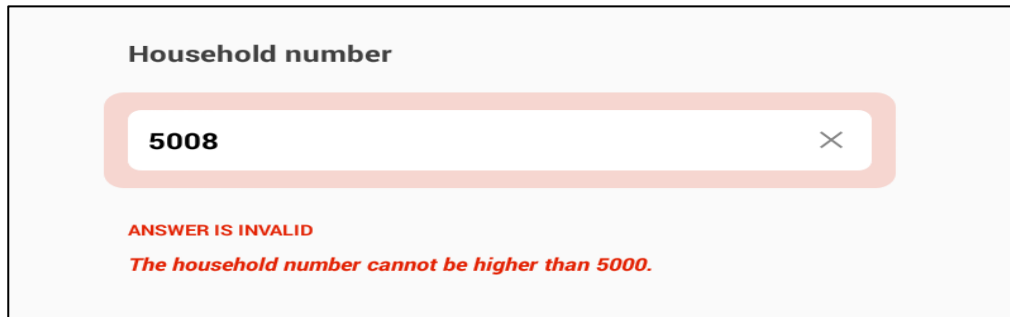
Note: *Survey Solutions automatically saves all work throughout the interview*

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 and 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 works will appear in the assignment.

Rejected Interviews (Red/Amber Tab) contains assignments that have been uploaded and which supervisors have found issues with after review and returned to enumerator 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 "VIEW ISSUES" bubble to open it.

Inside an Interview

Error and Warning Messages

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 (if the feature is enabled) and the question will be outlined in red. 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 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 has 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 a section is green before you move onto the next section.**
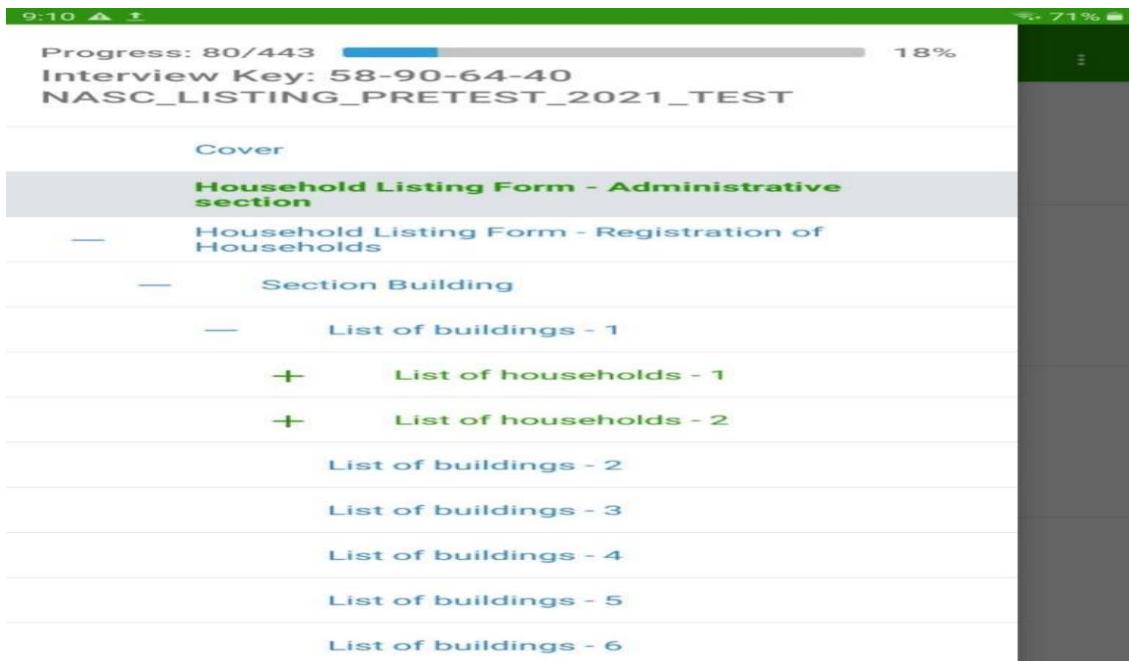
Navigate to the Complete Screen using the navigation pane. Once on that screen, the number of unanswered and invalid questions are displayed. You can identify the unanswered questions by looking for blue sections in the navigation pane.

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 for 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 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 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.

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.

i. Numeric Questions

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 that numeric answer can be entered. Use the decimal button to enter a decimal number as an answer. For example, 2.5.

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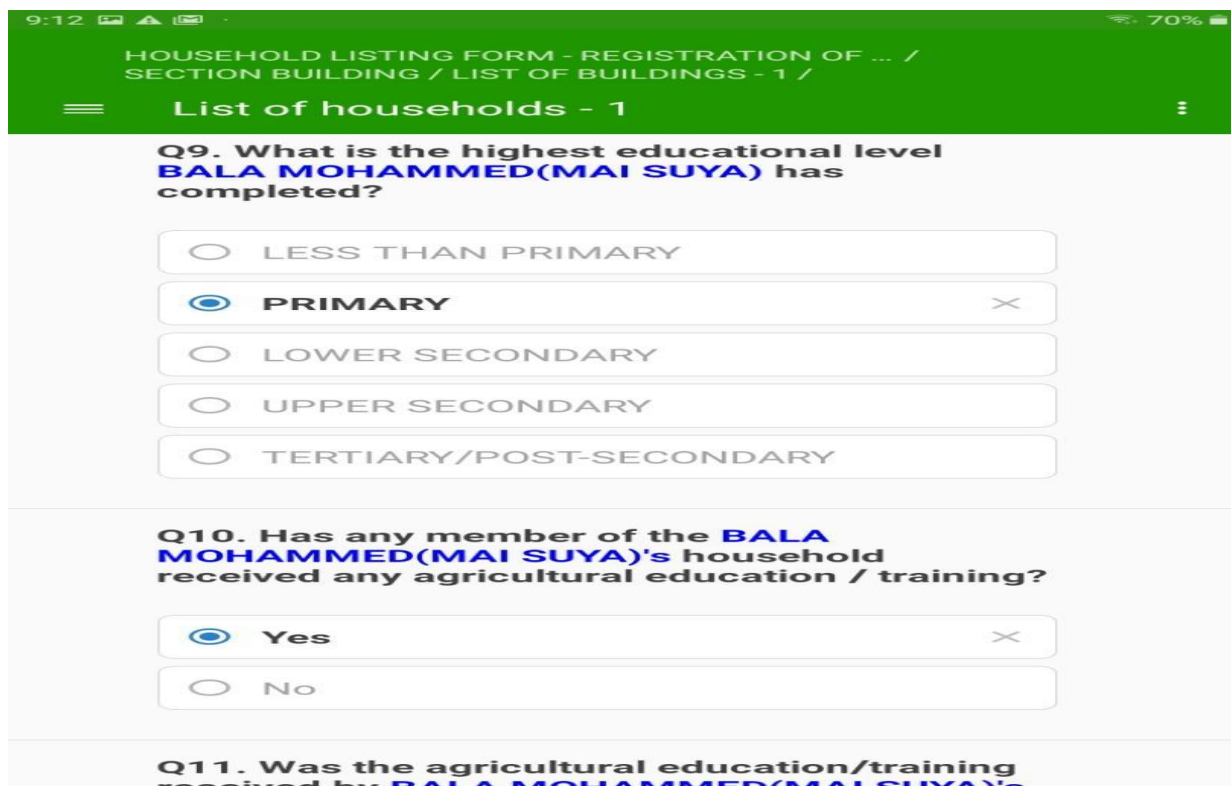
Text questions have a field for an open text response. When that field is tapped, the text keyboard appears so that the interviewer can enter a text answer.

iii. Single Select

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.

iv. Multiple Select

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.

v. Multiple Select, Yes/No Questions

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.

vi. List

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 that have been entered earlier if the elements of a list question are linked to a roster (e.g., names of household members, each of which has individual row in the household demographics roster).

vii. Date: Current Time
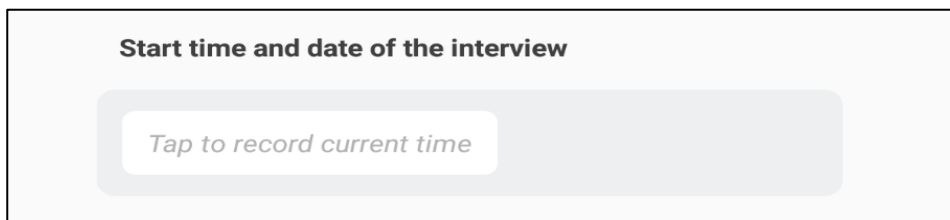
Tap once on the "Tap to record current time" button. Then, the current time on the tablet will automatically be recorded and displayed above the button. If you would like to record the time again, tap on the button again.

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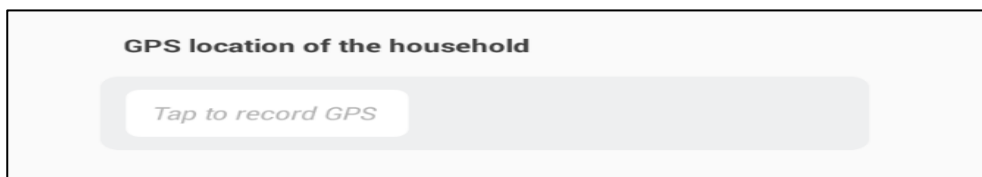
First, tap on the "record GPS" button. Then, the tablet automatically records the GPS coordinates. The GPS location is displayed immediately below the question text, showing the longitude, latitude, accuracy, and altitude.

GPS location of the household
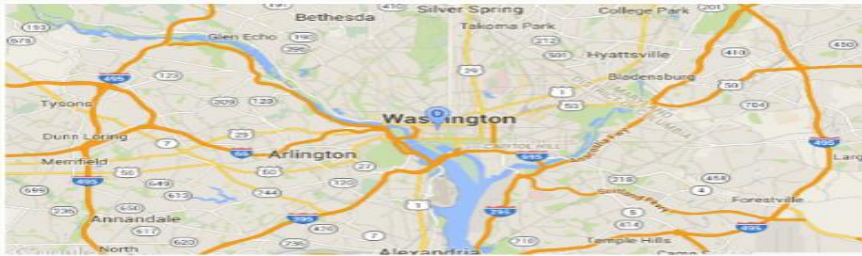
-77.0425279, 38.8983335

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.

SECTION 2: HOUSEHOLD LISTING

Once a building has been identified as being residential (either residential only or combined use), the interviewer must go about identifying and listing all of the households that reside in the building. Refer to Section 2.4 for the correct procedures for identifying households. The Enumerator must first identify a respondent that is ELIGIBLE to provide information on the household:

Eligible respondent: The head of household or any knowledgeable adult member aged 15 years and above. This is a person who is deemed by the listing team to be mature enough to respond to basic questions about the

household and its members. Note that there can be more than one responsible household member in a household.

<mark>NOTE: IN MANY CASES, EACH BUILDING WILL ONLY HAVE A SINGLE HOUSEHOLD. HOWEVER, THERE COULD BE MORE THAN ONE HOUSEHOLD IN A BUILDING. BE SURE THAT ALL HOUSEHOLDS WITHIN THE BUILDING ARE LISTED SEPARATELY. THE SERIAL NUMBER OF HHS IN THE SECOND BUILDING STARTS WITH 001 AND FOLLOWS SERIALLY TILL ALL HHS IN THE BUILDING ARE COVERED. AFTER ENTERING THE SERIAL NUMBERS FOR EACH HOUSEHOLD WITHIN THE BUILDING, A BUBBLE WILL APPEAR FOR EACH HOUSEHOLD BELOW WHERE THE SERIAL NUMBERS ARE ENTERED (SEE THE SCREENSHOT BELOW).</mark>
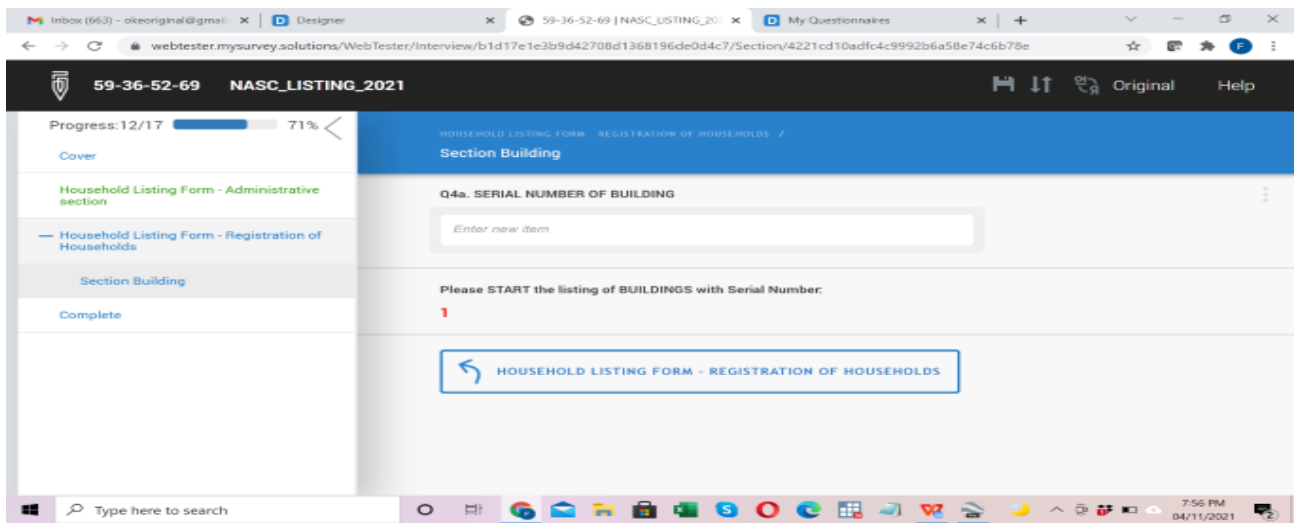
To enter relevant information about each household, select the appropriate bubble. For household #1 for example, tap List of households – *1*.

SECTION 3: HOUSEHOLD QUESTIONNAIRE

3.1 HOUSEHOLD DEMOGRAPHIC CHARACTERISTICS

Q1: The name of the head of household is required, this should consist of his/her surname and first name: e.g.

Adamu Rachael. *(If he/she has nickname please record the nickname in bracket).*

Q1a: Sex of the **head** of the household: Indicate whether the head of the household is a male (1) or female (2). It is important to ask for the sex of the head of household when information is being given to you by a third person. Do NOT assume the sex of the head simply based on the name

Q2-6: These questions help to identify the size and composition of the household. Q2 and Q3 captures the number of male and female members, 15 years and older, Q4 and Q5 capture children under 15 years old while Q6 captures the total number of persons in the household.

Q7: Age of the head of the household: This should be recorded in completed years. [This question should be asked in a FRIENDLY AND POLITE manner]. In case the respondent refuses to give an accurate figure, the interviewer should use intuition or historical/dated events such as Christmas, Salah, Easter, election dates, major disasters, festivals etc.

Q8: The interviewer should enquire politely if the head of the household has ever attended school. If response is No, interviewer should skip to Q10.

Q9: The interviewer should enquire politely the highest level of education *completed* by the head of household.

- **Less than primary** implies pre-nursery/nursery.

- **Primary** implies Pry 1-6.

- **Junior secondary** implies JS1-3.

- **Senior secondary** implies SS1-3.

- **Tertiary/Post-secondary** means University, Polytechnic, College of Education, etc.

Q10: The interviewer should ask if any member of the household including the head has attended any agricultural training. Agricultural training here refers to training received in a school environment where they are tutored. If response is No, interviewer should skip to Q12.

Q11: In cases where the answer of Q10 is YES, the interviewer should ask if the respondent's agricultural training was performed in formal school (e.g., university, monotechnic agricultural school, other technical schools) or in vocational school/center (e.g., short training courses by NGOs or other associations/groups).

3.2 HOUSEHOLD AGRICULTURAL ACTIVITIES

Q12: Interviewer should ask if the respondent or any member of the household engaged in any of the listed agricultural activity in the 2022/23season for their own account and NOT for someone else (as an employee, on contract basis or any other form of service). Interviewer should indicate YES or NO for each item in the list provided:

Crop Cultivation is the growing of crops such as cereals, root and tuber, legumes etc. either for home consumption or for commercial purpose. Cultivation of crops often involves initial tilling (or plowing) of the land, planting of seeds, watering them and making sure they grow properly.

Livestock Raising (excluding poultry): are domesticated animals (except aquatic animals) raised in an agricultural setting to produce labor and commodities such as meat, milk, fur, leather, and wool. A household is raising an animal if it has primary responsibility for looking after the animal on a long-term basis and making day-to-day decisions about its use. Most holders own and raise their own animals, but sometimes they raise animals belonging to someone else under some form of lease agreement.
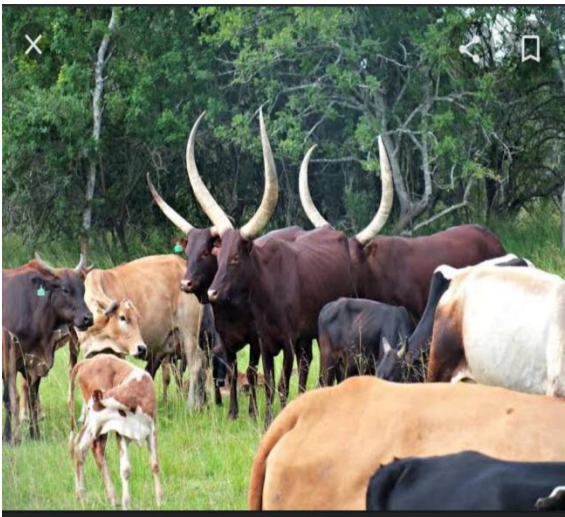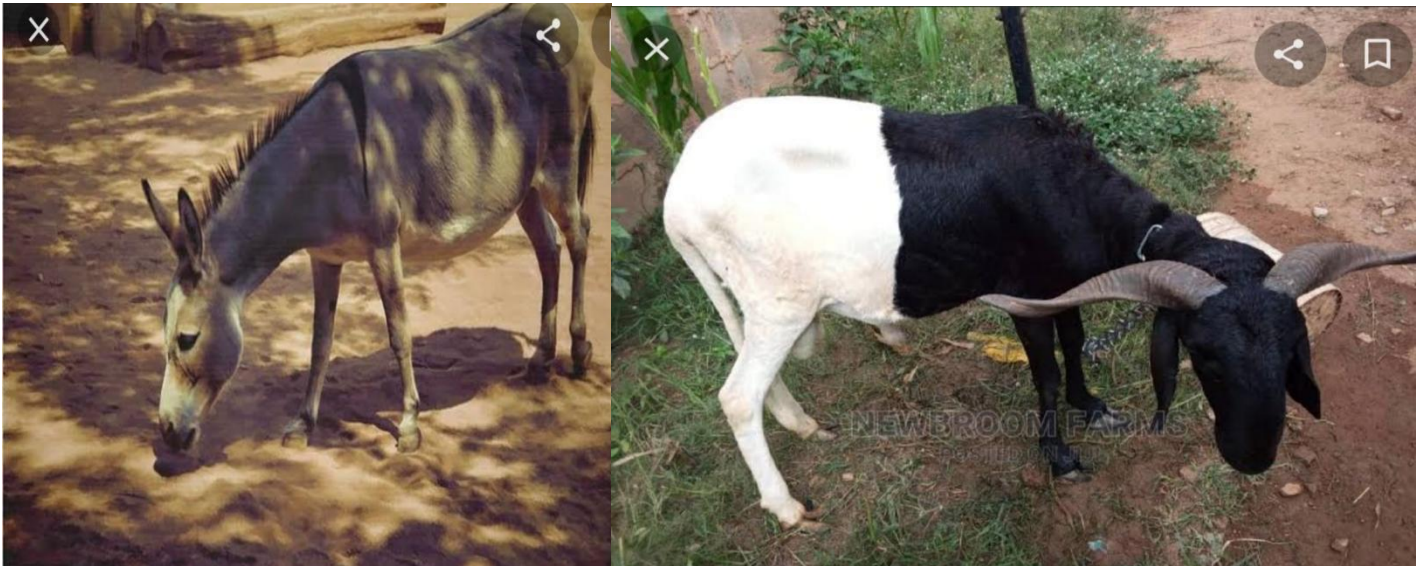
Domestic animals, such as cats and dogs, are excluded unless they are being raised for food or other agricultural purposes. In the NASC, for convenience purposes and in line with the usual practice in Nigeria, the terminology livestock will refer to all livestock except poultry.

Poultry Raising: Poultry can be defined as domestic fowls (of the species *Gallus domesticus*) including chickens, turkeys, geese, ducks and guinea fowls, raised for the production of meat or eggs. The word is also used for the flesh of these birds used as food. Raising of poultry refers to the keeping and breeding of these animals.

Fisheries*:* Fish farming or aquaculture means the enterprise of raising and harvesting fish and other aquatic life in a controlled environment while fish hunting or fish capture refers to harvesting of fish in the wild, either in freshwater bodies or the oceans.

Forestry: This consists of the cultivation and maintenance of forests, including natural forests and forest plantations. Forests are determined both by the presence of trees and the absence of other predominant land uses. The term includes forests used for purposes of production, protection, multiple-use or conservation but specifically *excludes* stands of trees established primarily for agricultural production, for example fruit tree plantations.

Agroforestry is a sustainable land management system in which forest species of trees and other wooded plants are purposely grown on the same land as agricultural crops or livestock, either concurrently or in rotation.

3.2.1 CROP CULTIVATION

Q13: If the respondent is engaged in crop cultivation in the previous question, interviewer should inquire how many **plots** (see definition below) of land are cultivated in the 2022/2023 season.

A Plot of land is a part or whole of a field on which a specific crop or crop mixture is cultivated or that which is fallow or is to be planted.

If respondent has a plot of land cultivated with maize and yam (if we cannot separate the area of maize and area of yam, i.e. the two crops are mixed)**; it implies the respondent has only 1 plot of land cultivated.** But if on a piece of land there is maize in the one half and yam next to it, but not into its fields, there are two separate plots. **Also, if a respondent has a plot of land cultivated with beans and rice and has another plot cultivated with guinea corn and millet, the respondent has 2 plots of cultivated land.**

NOTE: THE "PLOT" HERE DOES <u>NOT</u> REFER TO THE SIZE OF LAND, BUT RATHER THE NUMBER OF DISTINCT PIECES OF LAND CULTIVATED.

Q14-21: If the respondent indicated engagement in crop cultivation in the previous question, interviewer should further inquire what types of crops were cultivated in the 2021/2022 season.

Interviewer should READ OUT and tick ALL that APPLY across the VARIOUS types of crops by crop groups from CEREALS to STIMULANTS to OTHER crops sub sections. It is important to note that each crop cultivated should be included in the correct crop group as seen in the questionnaire. If the respondent did not cultivate any of the type of crop, then the interviewer should ONLY select the option "NONE" for that category.

3.2.2 LIVESTOCK

Q22: If respondent is engaged in livestock farming (excluding poultry), interviewer should further inquire what type of livestock are CURRENTLY raised ON THE DAY of interview. Interviewer should tick ALL that APPLY

Q23-30: Interviewer should further inquire the number of each of type of livestock that are CURRENTLY being raised by the household. This includes all varieties, sex, and age of the livestock that fall within the respective categories.

3.2.3 POULTRY

Q31: If respondent has birds raising in his list of farming activities, it should be enquired what types of birds are CURRENTLY in stock ON THE DAY of interview. Interviewer should tick ALL that APPLY

Q32-36: Interviewer should further inquire the number of each of the birds that are CURRENTLY being raised by the household. This includes all varieties, sex, and age of the poultry that fall within the respective categories.

3.2.4 FISHERY

Q37: The interviewer should inquire about the type of fisheries the household practiced in the past twelve months, the appropriate type practiced by the household should be selected. It is a multiple-choice question consisting of fish hunting/capture, fish farming/aquaculture or any other method practiced.

3.3 AGRICULTURAL ESTABLISHMENT

This series of questions seek to identify whether the household operated any agricultural establishment in the past 12 months.

Agricultural establishment means any farm, forest operation, or nursery engaged in outdoor or enclosed space production of agricultural plants, livestock, fishery or poultry primarily for commercial purposes. An establishment that is not primarily agricultural can be an agricultural establishment if it produces agricultural plants for transplant or use (in part or their entirety) in another location instead of purchasing the plants. The entity should maintain farm records of daily activities and have paid employees on full time basis.

Q38: The interviewer should enquire if the household has operated any agricultural establishment in the past 12 months. The interviewer should be careful to ensure any agricultural establishment of the household meets the definitional requirements described above. Note that small-holders almost exclusively do NOT qualify as operating an agricultural establishment. If **No**, skip to **Q40**.

Q39: For households that do operate an agricultural establishment, the interviewer should enquire the type of agricultural establishment(s) that are operated by the household. The appropriate option(s) should be selected in Q39.

    1. Agriculture, hunting and related service activities

    2. Forestry, logging and related service activities

    3. Fishing, operation of fish hatcheries and fish farms; service activities incidental to fishing

Hatchery is a facility where offspring are produced from fertilized eggs under artificial conditions especially those of fish, poultry or even turtles.

3.4 OTHER ENTERPRISE (NON-AGRICULTURAL ENTERPRISES)

The operational definition of establishment adopted for the NBSC is considered here. An establishment is supposed to have the following characteristics:

- Have a fixed structure location. This also includes some types of businesses that do not necessarily have a structure but nonetheless are in a fixed location. Sawmills, block industries and car sale lots are examples of such enterprises.

- The businesses should be able to be closed and locked up with keys when not in operation.

- For those in residential settings, the business should be in separate room with a different entrance and separated from the dwelling place by a closing door or gate.

- In a market setting, the shops to be listed should have locks and keys for safe storage of goods when not in operation.

Non-agricultural enterprises are enterprises that operated outside the agricultural sphere. That is, enterprises that do not have activities related to the cultivation of crops, raising of livestock, fishing, forestry, hunting, etc. During the pre-test some enumerators wrongly listed an external employment as an enterprise (e.g. civil servant). This mistake should not repeat itself.

Q40: The interviewer should enquire whether any member of the household operated a non-agricultural establishment in the past 12 months, according to the definition above. The establishment need not be currently in operation but must have been in operation in the past 12 months.

1. **Q41:** For households that did operate a non-agricultural establishment, the interviewer should ask what type(s) of non-agricultural establishments were operated by the household, according to the following categories: (note that civil servant, teacher, etc. are not considered establishments).**Wholesale and Retail Trade**: This includes wholesale and retail sale (i.e. sale without transformation) of any type of goods. e.g are wholesale/retail of household goods, wholesale/retail of textiles, clothing and footwear, wholesale/retail of food, beverages and tobacco, wholesale of machinery, equipment and supplies, Wholesales and retails of agricultural products etc.

2. **Manufacturing:** This includes the physical or chemical transformation of materials, substances, or components into new products. e.g Tailoring, welding of doors, windows, Production of animal feeds from slaughter waste or by-products, printing, leather converting, manufacture of furniture, processing of fruits and vegetables, manufacture of grain mill products

3. **Construction:** This includes the construction of buildings, stores etc., or the construction of roads, bridges, plumbing, installation of heating and air-conditioning systems, antennas, alarm systems and other electrical works. Also included are installation work (water, heat, sound) concrete work, brick laying, stone setting, scaffolding, roof covering.

4. **Other Personal Services:** This includes services such as, washing and (dry-)cleaning of textiles and fur products, hairdressing, barbing of hair and other beauty treatment, funeral services, shoe shiner, repairs of televisions, repairs of refrigerators repairs of cloths(obioma) etc

5. **Accommodation and Food Services:** This includes the provision of short-stay accommodation and the provision of complete meals and drinks fit for immediate consumption e.g. hotels, camping grounds, restaurants etc

3.5 CONTACT INFORMATION

Q42-45: Interviewer should RESPONSIBLY ask if respondent has a telephone number or a contact number belonging to any member of the household or a neighbour. If the respondent answered in the affirmative, he/she should be asked POLITELY to read it out. Note that all phone numbers MUST be recorded in the following format (including spaces): 0### ### ####. The CAPI will give you space to enter multiple numbers for the household head or other members (if more than one number is given). Each number should be recorded on a separate line.

3.6 COMPLETENESS OF INFORMATION

Q46: This question is for the interview and simply seeks to know if the information for the household has been provided in full or if it is partial. NOTE that partial information is completely valid and acceptable if the respondent refused to provide the information, or the interviewer was not able to otherwise acquire the information. UNDER NO CIRCUMSTANCES SHOULD INTERVIEWERS SELECT ANSWERS WITHOUT GATHERING THE INFORMATION FROM THE RESPONDENT.

Q47: In cases where the information collected is not fully complete, the interviewer is provided space to explain the reason why the information is not complete for this household. This will provide the necessary context to understand the reasons for the incomplete information which will be useful for the data quality monitoring team who are reviewing incoming cases.

5. Community Questionnaire

The objective of the community questionnaire is to elicit information on agricultural activities in the community.

GENERAL APPROACH IN ADMINISTERING THE COMMUNITY QUESTIONNAIRE

Community: A community is a group of people sharing a common understanding and often the same language, tradition and law living in the same geographical area. A village is a rural habitation of a size between a hamlet and a town. The community questionnaire is structured to elicit information on agricultural activities in the community.

Focus Group Members: From the community, a maximum of ten persons are to be selected to form the group of respondents for the community interview. The selected persons should

    I.   Include males and females.

    II.   have stayed in the community not less than five years.

    III.   cut across farmers involved in crop farming, fishery, livestock, forestry and poultry.

    IV.   belong to any of these classes: Village/ Community Head, Village/ Community Head, Spouse to Village/ Community Head, Government Workers(s)- Health Personnel, Head Teacher/Teacher, Agricultural Advisor, Police etc., Representative of Youth Organization, Representative of School Committee, Representative of Cultural Committee, Representative of Women Association, Agricultural Extension Officer, Veterinary, or Other Person Knowledgeable About Agriculture in the Community.

PROCEDURE

The team will visit the community before the actual interview, brief the community head on the purpose of the visit, explain the criteria for selecting eligible respondents that will participate in the community questionnaire, schedule a time and venue for the exercise. In addition to this criteria, the interviewers should also work with the community head to compile the list of potential focus group members.

On the day of data collection, the team should give a brief introduction of the questionnaire and proceed to administer the questionnaire accordingly. Any answer provided to complete the questionnaire should be unanimous (all respondents should agree). In other words, the team should allow the respondents to deliberate where necessary before giving their final response. This should be done without taking sides, but the interviewers also need to facilitate a bit of the discussion, to make sure the focus group doesn't spend too much time debating on the response to a single question.

. After administering the questionnaire, the team should capture the GPS of the community.

SECTION 1A: IDENTIFICATION

The information required in this section will be pre filled in the CAPI except the Community name and the Interviewer's name.

SECTION 1: RESPONDENT CHARACTERISTICS

Q1: The complete list of all individuals who are part of the group of informants is required. This should consist of their surname and first name: e.g. Ibrahim Musa (*if the selected individuals have nicknames, please record the nickname in bracket*)

Q2: Sex of respondent: The interviewer should indicate the sex of the respondent whether male or female.

Q3: Age of each respondent in the group should be recorded in **completed years**. In situations where respondent does not remember the exact date of birth, historical or natural events' occurrence could be used to estimate the age.

Q4: The interviewer should enquire which position is currently being held by each of the selected respondent within the community. The options are coded, maximum of two options are allowed. It should be clearly explained that the question is not about their occupations per se, but rather positions of authority or responsibility being held in the community especially as it relates to successful practice of agriculture.

Q4a: The interviewer should enquire if the respondent is engaged in any of the listed agricultural activities.

Q5: The interviewer should enquire how long the respondent has resided in the community in **cumulative years**. For individuals that travels a lot but still have household in the community, the length of stay of the resident household members should be taken.

Q6: The interviewer should enquire politely the highest educational level attained by the respondent and type the appropriate code that matches the last level of education. The question encompasses any level completed even if it doesn't come with certificate e.g a student leaving school at Primary 5 completed education to that level. This is the essence of having all classes for formal education at lower levels listed: **NONE refers to never attended school (never engage in any form of education even non-formal or religious education such as adult education or Qur'anic school);**

Q7: Interviewer should ask if the respondent have a phone number. Tick Yes = 1 or No = 2; If No, skip to next person.

Q8: The phone number should be read out by the respondent that possess telephone. Note that the leading 0 is automatically pre-filled and only the requisite number of digits may be entered comprising a Nigerian mobile phone number.

SECTION 2: AGRICULTURAL ACTIVITIES IN THE COMMUNITY

Q1: The interviewer should ask the respondents the cropping activities engaged in, by the community in the past 12 months and tick as applicable. The different cropping activities are described as follows:

Rain fed temporary crops (i.e. crops that you must re-plant after harvesting e.g. Maize, yam, beans). It is a type of farming that relies on rainfall for water instead of irrigation.

Permanent Crops (Mango, Cashew, Orange, cocoa, kola nut, oil palm etc.) & Cultivation of Forestry and Wooded land

Irrigation Farming is a farming system where water is applied to crops artificially either through a sprinkler, pump, or canal channeled to the farm.

Market gardening is a small-scale production of fruits, vegetables and flowers as means of getting income, directly selling them to the public. It is practiced on a small plot of land usually less than an acre which is used to grow varieties of vegetables, flowers and fruits. It involves the use of gardening techniques such as manual labour rather than machines. Examples of garden crops are green vegetables, tomatoes, pepper and okra.

Arboriculture refers to the cultivation, management and study of individual trees, shrubs, vines and other perennial wooden plants. The practice of arboriculture includes cultural techniques such as selection, planting, training, fertilization, pest and pathogen control, pruning, shaping and removal. That is, any activity that keep trees alive and healthy.

Forage crops are plants, annual or biennial, which are grown to be utilized for grazing or harvesting as a whole crop to feed animals. Examples are maize, sorghum, hay(grasses), legumes (beans), etc.

Wild Crop Foraging: The cultivation of forage crops that are only used to feed livestock e.g. Spear grass etc.

Q2: The interviewer should enquire from the respondents, the livestock production activities engaged by the community in the past 12 months. Apart from the common livestock types such as cattle, goats, sheep, poultry and swine; it is possible that some farmers engage in snail keeping, bee keeping and grasscutter farming. Though, the number of farmers in this category may be very small or even non-existent, the interviewer should not close his/her mind to this possibility and should be captured as 'Other (specify)'. *Domestic animals, such as cats and dogs, are excluded unless they are being raised for food or other agricultural purposes. In the NASC, for convenience purposes and in line with the usual practice in Nigeria, the terminology livestock will refer to all livestock except poultry.*

Q3: The interviewer should enquire from the respondents; the fishery activities engaged by the community in the past 12 months. The interviewer should briefly explain the key distinctive differences among the various categories.

Marine Industrial /Commercial Fishing: is the rearing of fish in sea water or saltwater. It refers to industrial fishing in seashore and offshore water of the seas.

Artisanal Fishing (fishing activities by canoe or boat) is the type of fishing consisting of small-scale practices with low technology and limited capital It is usually undertaken by individual fishing households.

Aquaculture (fish farming) is the rearing, breeding and harvesting of fish and other organism in all types of water in controlled aquatic environments for commercial or public purpose.

Q4: The interviewer should enquire from the respondents which of the following value chains or agro-processing activities are in practice in the community in the past 12 months. Select from the list provided.

Crop Processing refers to all transformative activities carried out on crops after harvesting e.g cassava processing, rice milling, etc.

Livestock Processing refers to all activities that livestock undergo before getting to the final consumer excluding the raising of livestock. It includes slaughtering, drying of beef/veal and all other similar activities.

Fish Processing refers to all activities associated with fish and fish products between the time fish are caught or harvested and the time the final product is delivered to the consumer.

Forest wood processing refers to all activities associated with lumbering, logging, sawing, etc.

Q5: The interviewer should enquire from the respondents which of the listed agricultural infrastructures/facilities are currently available in the community. The list should be exhaustively used i.e the enumerator should find the category to which the interviewee's answer belong. In case none of the options is applicable, 'Other (specify)' option should be used to enter the response.

Q6a-Q6b: The idea for these questions is to assess the presence and the working condition of electricity infrastructure in the community. **Q6b.** The interviewer should ask the sources of electricity as listed in the options available in the community. Interviewer should select all applicable options from the list provided.

Q7. The interviewer should ask the respondents if the sources of electricity selected in **Q6b** is in working order.

❖ **A mini grid** is an off-grid electricity distribution involving small scale generation not connected to national grid. e.g Julius berger company supplying electricity to its environs.

2.2 LAND CHARACTERISTICS AND IRRIGATION IN THE COMMUNITY

Q1-Q3: This set of questions pertain to the share of total farmland in the community that has been affected by land degradation, desertification or abandonment in the past 3 years; and the current situation compared to 3 years ago *vis* increase, decrease or stagnancy. While options for the share of land totally apply to all the three (3) situations, the options for current condition compared to previous years only apply fully to land degradation and land abandonment. The interviewers must therefore explain the options, with respect to desertification to the respondents, in practical terms (i.e for desertification, we will not be

referring to increase, decrease or stagnancy). It should be noted that the thrust of the questions is share of land affected, not quality of land. Therefore, the interviewer should tailor the questions appropriately.

Land degradation: refers to decrease in soil quality which affects its fertility. It could be as a result of deleterious human activities such as over cropping, overgrazing, excessive use of fertilizers and pesticides, deforestation etc.

Desertification is the process of land degradation whereby a piece of land becomes dry and unsuitable for normal crop production due to various factors including climatic variations, other natural events or intense human activities.

Water Salinity is the concentration of salt in a body of water.

Q4: Most important three (3) reasons for land abandonment in the community must be selected *in decreasing order of importance.*

Q5-Q7: The questions here ask about the presence of irrigation facilities in the community, the (two -2) main sources and whether they are in good condition or not.
Irrigation is the process of supplying water to land or crops through channels running from water bodies (rivers, lakes) or wells to help growth of crops.

2.3 MARKETS TO SELL AGRICULTURAL PRODUCTS

Q1-Q4: The questions are to enquire from the respondents the location of the nearest markets where farmers sell their products, distance of the markets from the center of the community and the means of transport to those identified markets. The options for the various forms of markets, suggested distance ranges and transport modes are supplied in the questionnaire. The definitions for the market types are given below.

Wholesale Markets: These are markets where goods are sold in large quantities to retailers or shop owners.

Weekly Markets: These are markets that operate on specific days of the week. There is the main market and the secondary market. The **main markets** operate on specific days of the week while the **secondary markets** operate a day before the main market day.

Daily Markets: These are markets that operate on daily basis.

2.4 ACCESS TO AGRICULTURAL INPUTS, SERVICES AND CREDIT IN THE COMMUNITY

Q1: For this question, an exhaustive list of input and technical support services is provided. This is to confirm the existence of such services within the community or outside, and the distance from the center of the community to such services.

Input supplier: Traders that provide fertilizers, seedlings, pesticide and planting materials to farmers.

Extension services: Extension is a service or system which assists farmers, through educational procedures to use improved farming methods and techniques in order to increase production efficiency and income.

Veterinary service: These are services rendered by veterinary doctors such as treatment of animal diseases, provision of vaccines and drugs.

Pharmacy service refers to animal drug stores.

Q2: The essence of this question is to know if the listed credit providers are available to members of the community. The question is not about credit sources *used* by community members, but rather the existence of the listed sources. Therefore, it DOES NOT include informal sources such as personal savings or loans from friends and family.

2.5 SOCIAL COHESION

Q1a&b: Interviewer should enquire from the respondents up to three main causes of conflict in the community in the past 3 years. If there was no conflict present in this community in the past 3 years, then select "No conflict in this community" For each cause of conflict, in Q1b the interviewer must enquire as to the severity the conflict associated with the cause of conflict. Is it experienced frequently (every week? every month? twice a month? etc.) or occasionally in the community?

2.6 DIFFICULTIES IN AGRICULTURAL ACTIVITIES

Q1: The interviewer should enquire from the selected respondents, the difficulties related to crop production in the community. The interviewer must read out and record the Yes or No response for each item listed.

Note that this question will only appear for communities where crop farming activities were reported in S2 Q1.

Q2: This question is on the difficulties related to livestock production being faced by livestock farmers in the community in the past 3 years. The interviewer must read out and record the Yes or No response for each item listed. Note that this question will only appear for communities where livestock raising activities were reported in S2 Q2.

Insemination is the introduction of semen into a female animal by natural or artificial means to elicit fertilization.

Q3: The interviewer should enquire from the selected respondents which of the following difficulties related to fishing and aquaculture were faced by the fish farmers in the community. The interviewer must read out and record the Yes or No response for each item listed. Note that this question will only appear for communities where fishing activities were reported in S2 Q3.

SECTION 3: LIVESTOCK PRODUCTION

Q1-Q10: The questions in this section center on different aspects of livestock practices from availability and types of vaccination campaigns in the community; knowledge of livestock farmers on traditional and modern ways of improving productivity and combating livestock diseases; seasonal availability of feed and water together with the challenges encountered therein; and the different disposal methods for animal carcasses. Instructions for each question on the number of options to be selected and the reference periods, should be strictly followed. Some keywords associated with the questions are described below. Interviewer should show pictures to the livestock farmers for diseases or other livestock conditions that couldn't be explained in the local language. The description of symptoms given below could also assist the Interviewer.

Q1. The interviewer should enquire from the selected respondents if there was any livestock or poultry vaccination campaigns by veterinary services provided or available to the community in the past 3 years. Interviewer should select the appropriate option. Yes=1; No=2, if No>>>Q3a

Q2. The interviewer should ask the respondents the types of livestock and poultry vaccination campaigns by veterinary services provided or available to the community in the past 3 years. Interviewer should select the appropriate option(s).

African swine fever (ASF): A fatal viral disease of pigs characterized by high fever, weakness, red or bluish skin discolorations, coughing and labored breathing with very high mortality rate. It is a big DNA virus problem and is noticeable in the eyes of a swine.

Bovine Brucellosis: Disease of cattle caused by the bacteria known as *Brucella abortus* and it causes abortion and infertility in cows. It's cattle, goats, sheep, pigs and dogs' disease caused by bacteria with symptoms including fever, sweating, headache, pain restlessness and fatigue. Antibiotics like doxycycline are used to treat the disease.

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Contagious Bovine Pleuro Pneumonia (CBPP): An infectious and highly contagious disease of cattle and water buffalos. Affected animals have difficulty in breathing due to damage to the LUNGS, emaciation and loss of

productivity. There are joint swellings rather than lung infection in young animals. Symptoms include cough, nasal discharge, fever and respiratory problems.

Fowl cholera: A contagious, bacterial disease of birds caused by *Pasteurella multocida*. It causes lameness, swollen wattles in chickens and pneumonia in turkeys together with torticollis. It is an asymptomatic disease-causing swelling in chickens and cold in turkey.

Fowl typhoid: This is a salmonella disease of chickens caused by Gram negative bacteria *Salmonella gallinarum*. It is a bacteria disease that affects the intestine of birds and is characterized by anorexia, diarrhoea, dehydration, weakness and high mortality. It easily spreads through food and water.

Haemorrhagic septicaemia (HS) is a bacterial disease that mainly affects cattle and water buffalo. It is caused by *Pasteurella multocida* and is an important cause of mortality in tropical regions of Asia, Africa and the Middle East. It reduces milk production in cattle and affected livestock experiences breathing and throat issues making the animals to produce unpleasant sound. Affected animal could die within 2 days.

Infectious Bursal Disease (IBD) is a highly contagious disease of young chickens and turkeys caused by infectious bursal disease virus (IBDV). It is characterized by immunosuppression and mortality generally at 3 – 6 weeks of age.

Newcastle Disease (ND): This is an infection of domestic poultry and other bird species with virulent Newcastle disease virus (NDV). The disease is characterized by acute respiratory distress, depression, nervous manifestations, greenish diarrhea, watering eyes, coughing, convulsion and paralysis, among other signs. It is a highly contagious poultry disease which reduces egg production in birds. Antibiotics can be used to treat the disease.

Peste des Petits Ruminants (PPR): Is a highly contagious viral disease of sheep and goats characterized by depression, fever, discharges from the eyes and nose, sores in the mouth, cough, foul smelling diarrhea and death. Control is by vaccination. It can also be called goat disease and it is a trans-boundary disease.

Rabies: This disease is found mainly in cats, dogs and horses. Symptoms include change in behavior towards human and other animals, madness, aggressiveness, hypersensitivity and loss of control.

Q3a. The interviewer should ask the respondents, if livestock farmers in the community commonly used antibiotics drugs to treat livestock in the past 12 months? Select 1= Yes; 2= No

Q3b. The interviewer should ask the respondents, if livestock farmers in the community commonly used hormones to boost livestock productivity in the past 12 months? Select 1= Yes; 2= No

Q4a. The interviewer should ask the respondents, if livestock farmers in the community commonly applied traditional medicine to treat sick livestock. Select 1= Yes; 2= No

Q4b. The interviewer should ask the respondents, if livestock farmers in the community apply traditional medicine to their livestock for some specific livestock breeding purposes, such as reproduction, health problems prevention, etc. (Select all that apply)

Fattening is the intensified feeding of animals to obtain the greatest quantity of high-quality meat. In cattle raising, several types of fattening are used to obtain dietetic veal, baby beef, etc. It causes or tends to cause an increase in body fat.

Q5. The interviewer should ask in the past 12 months, was there any time when insufficient livestock feed was available for livestock farmers in the community? (Select 1= Yes; 2= No; If No >> Q7)

Q6. The interviewer should ask the respondents, which months during the past 12 months was insufficient livestock feed available? (Select all that apply)

Q7. The interviewer should ask, what is the main source of water used for watering livestock in this community (Select only one option)

Q8a. The interviewer should ask, the respondents if problems were encountered in watering livestock in the community during the past 12 months? (Select 1= Yes; 2= No; If No >> Q10)

Q8b. The interviewer should ask the respondents in which months during the past 12 months were problems encountered in watering livestock. (Select all that apply)

Q9. The interviewer should ask what was the main problem encountered in watering livestock in the community in the past 12 months (Select only one option)

Q10. The interviewer should enquire, what is the main disposal method for dead animals practiced in the community? (Select only one option)

Incineration: The disposal of dead animals by burning.

Compost: The process of using dead animals as an ingredient to fertilize and improve the soil.

Off-farm Collection Service: Engagement of the services of people who specialize in the collection of dead animals.

Q11-Q15: The interviewer should enquire the type of pastoral or nomadic livestock activity practiced in the community, whether nomadic routing or trans-border movement occurred in the community.

Pastoralists are livestock farmers who feed animals mainly from grazing and the use of naturally occurring fodder resources. They can be sedentary (permanently settled), semi-nomadic or transhumant (not permanently settled, temporary/seasonal movements) or nomadic (always moving from one place to another

1. **Sedentary pastoralists** keep poultry and other livestock in one place according to culture, climate, environment, natural resources and geographical areas.

2 **Nomadic farming** is characterized by the continuous movement of the herdsman and his flock from one place to another in search of food and water. It can also be a movement away from areas of pest and disease infestation. **(ACROSS STATES)**

3. **Transhumance** is a type of pastoralism characterized by seasonal movements of livestock between fixed summer and winter pastures. **(ACROSS COUNTRIES)**

3.1 ENVIRONMENT

Q1-Q7: This block of questions focuses on the presence of agricultural activities within the protected area, practice of sustainable forest management and the challenges of environmental contamination and concerns in the community. Specific skips not applicable to some selections should be taken care of and instructions properly followed.

Q1. Interviewer should enquire from the selected respondents if there are agricultural areas in the community located partially or totally in an officially protected or preserved area? Interviewer should select as applicable. (Select 1= Yes; 2= No; If No >> Q3)

Q2. Interviewer should enquire from the selected respondents the type/name of the area if any exists in the community. (Interviewer should fill out the name/type).

Q3. Interviewer should enquire from the selected respondent if there are forest or other wooded land partially or totally under sustainable forest management? (Select 1= Yes; 2= No; If No >> Q5)

> **Sustainable Forest Management:** It is the practice of regulating forest resources to meet the needs of the society and industry while preserving forest's health.

Q4. The selected respondents are to Report the type/name of the area if any exist with the community. (Interviewer should fill out the name/type).

Q5. Interviewer should enquire from the selected respondent if there are sites in the community that suffer from environmental contamination? (Select 1= Yes; 2= No)

> **Environmental Contamination:** these are any physical, chemical, biological or radiological substance that an adverse effect on air, soil, water or living organisms. E.g. toxic waste dump, untreated sewage, etc.

Q6. Interviewer should enquire from the selected respondent in the community if there are organizations (cooperative, association, etc.) for environmental protection programs. (Select 1= Yes; 2= No)

Q7. Interviewer should ask the main area of environmental concern in the community. (Select only one option).

Q8. Interviewer should ask the most commonly used energy source for cooking in the community. (Select only one option).

Q9. Interviewer should ask the selected respondents what the 3 main sources of drinking water for the community are. (Interviewer should Select maximum of 3 options from the list provided).

SECTION 4: DISASTER AND SHOCKS

4.1 MIGRATION

Q1-Q8: These questions are on migration. While Questions 1-4 focus on outward migration (away from the community), Questions 5-8 are on inward migration (into the community). Virtually the same set of

questions related to reasons for movement, destination, duration; are asked in both cases. The reference period is 12 months.

4.2 DISASTERS

Q1a. The Interviewer should enquire from the selected respondents; did this community suffer from any natural extreme events or disasters in the past 3 years? Interviewer should tick any that applies; (Select 1= Yes; 2= No; If No >> **NEXT SECTION**)

Q1b. The Interviewer should enquire from the selected respondents, the number of times that disasters occurred in the community in the past 3 years. (Number of times each occurred should be recorded, IF NEVER OCCURRED, RECORD 0)

FOR ALL DISASTERS WITH >0 IN Q1B, ASK THE FOLLOWING QUESTIONS FOR EACH TYPE

Q2. The Interviewer should enquire from the selected respondents, which of the following were the human impacts on the community from the [DISASTER]? (Select all that applies)

Q3. The Interviewer should enquire from the selected respondents, which of the following economic impacts incurred by the community inhabitants was as a result of the DISASTER? (Select all that apply; If 0 that is No or little economic impact >> Q5)

Q4. The Interviewer should enquire from the selected respondents, how severe was the overall economic impact on the community related to the [DISASTER] encountered during the past 3 years? (Select only one option).

Q5. The Interviewer should enquire which of the following physical impacts incurred on the holdings of farmers in the community as a result of the [DISASTER] in the past 3 years. (Select all that apply; If 0, that is No physical impacts >> NEXT SECTION)

Q6. The Interviewer should enquire from the selected respondents, how severe were these physical losses in the community related to the [DISASTER] encountered during the past 3 years. (Select only one option).

SECTION 5: COMMUNITY INFRASTRUCTURE AND TRANSPORTATION

Q1. The Interviewer should enquire from the selected respondents if the listed infrastructures are available in this community. (Select Yes= (1) If yes>>Q3; No= (2); If NO.

Q2. If the response is No in Q1, the interviewer should enquire if the community have access to the infrastructure.

Q3. The interviewer should ask How many days per week do members of the community have access to the listed infrastructure (It includes both ability to physically travel to a facility and also that any facility is operating that day).

  (Write number of days).

Q4. The Interviewer should enquire from the selected respondents, how far is the closest INFRASTRUCTURE from the center of the community? Interviewer should select one circle only. Range in Kilometers

IF DON'T KNOW CLOSEST […], RECORD 999 AND >> NEXT SECTION

Q5. The Interviewer should enquire from the selected respondents what means of transportation is most frequently used to visit the infrastructure. (Select one only)

Q6. The Interviewer should enquire from the selected respondents; how much time does it take to go to the listed infrastructure using the means of transportation cited in Q5? (write the time in hours/minutes, eg 1 hour 30 minutes or 2 hours 5 minutes but if only in minute, you can enter 0 hour 55minutes and so on).

Q7. The interviewer should ask Does the listed infrastructure have electricity. (select as applicable).

SECTION 6: COMMUNITY ORGANISATIONS

This section collects information on community-based organizations that are currently active and operational in the community. If the organization used to be active and operational in the community, but has collapsed or is not operational, the response should be NO for that organization

Q1: For each organization answer YES if it exists in the community and NO if otherwise. Ensure that each item is answered with either a YES or NO. If the organization exists in other communities for which people of the community you are interviewing are members of, then the response should be NO since that organization does not exist in the community.

Q2: Ask for how many ORGANISATIONS exist in this specific community and record accordingly

Q3: Ask for the total number of individuals that are members of the ORGANIZATION and record accordingly. Ask them to estimate if they cannot give the actual number.

Q4. Interviewer should ask how *many members* the [GROUP] has in the community. If more than one [GROUP] exist, interviewer should ask about the [GROUP] with the largest number. Emphasis should be on overall membership of the [GROUP] and not only executive members. (Interviewer should write the number in figure).

Q5. Interviewer should ask, how many *female members* the [GROUP] has. If more than one [GROUP] exist, interviewer should ask about the [GROUP] with the largest number. Emphasis should be on overall membership of the [GROUP] and not only executive members. (Interviewer should write the number in figure).

Q6. Interviewer should ask, the number of *people under the age of 30* the [GROUP] has. If more than one [GROUP] exist, interviewer should ask about the [GROUP] with the largest number. Emphasis should be on overall membership of the [GROUP] and not only executive members. (Interviewer should write the number in figure).

SECTION 7: COMMUNITY RESOURCE MANAGEMENT

This section collects information on community resource management. A communal resource, also called common access resource is one that is owned by the community as a group, in which access to it by a member of the community or group is restricted by laid down rules or completely unrestricted. In this section, we want to know how the community have been making efforts to manage some of the natural resources such as arable land (land used mainly for crop farming), forest, pasture, water body (river, lake, ocean), and other natural endowments likely to be found in the community. We also want to know if there are community policies guarding the use of communal resources and how effective are the community policies at ensuring that people are complying with the laid down rules on the communal resources.

Q1. Interviewer should enquire from the selected respondents, if the community has any communal resource in the listed resource. Interviewer should select. (Select Yes= 1; No= 2; If NO >> **Next Resource**) *It should be emphasized that only resources that are open to the community should be considered, not resources belonging exclusively to private individuals.*

Area Under Water for Aquaculture (fish farming): These are designated areas for the rearing, breeding and harvesting of fish and other organism in all types of water in controlled aquatic environments for commercial or public purpose.

Q2. In a common access resource, access may be conditioned on laid down rules and regulations governing the resource's access. These rules are generally set by the group (in the case of community, the elders of the community can set the rules of access). In this question, we want to know if the community has been able to set rules of access to the RESOURCE independently, without having to rely on any external form of assistance to set these rules.

Q3. Besides the rules of access, is the RESOURCE recognized by the traditional authorities in the community? Do the traditional authorities in the community see the resource as a communal type resource, or belonging to a certain group of people in the community? Select YES if the REOURCE is recognized by the community, and NO otherwise.

Q4. To ensure that all members of the community, who are supposed to have access to the RESOURCE actually access it, some restrictions of rules are meant to be enforced. Thus, in this question, we want to know the type of restrictions the community has placed on its members regarding access to and using the RESOURCE. Select ALL that apply in order of importance. READ RESPONSES and LIST UP TO 3 IN ORDER OF IMPORTANCE.

Q5. For the set of rules governing access to the common RESOURCE in the community, this question seeks to know how the community ensures that members of the community comply with the rules of using the communal resource. Up to three responses are required in order of importance. LIST UP TO 3 IN ORDER OF IMPORTANCE

SECTION 8: LAND PRICES AND CREDIT

This section collects information on community land prices and credit acquisition. We want to know how individuals/households acquire access or rights to land. In addition, we want to know how land is being used in the village and information on the access that people in the village have to obtain credit. More specifically, the questions are asked for the women's rights to land and access to credit.

Q1a. Interviewer should enquire from the selected respondents in this community, how much does it cost to buy one acre of agricultural land where the household/individual would have formal rights (i.e. holding a Certificate of Occupancy-CoO, Right of Occupancy-RoO, or Community Certificate of Occupancy-CCoO) to the land? (NAIRA) Interviewer should write the amount in absolute value (NAIRA). Agricultural land with Certificate of Occupancy (C of O) is a legal document issued by the government that proves that a person owns land in Nigeria. Agricultural land is land devoted to agriculture, particularly the rearing of livestock and production of crops. It is also known as farmland or cropland, as well as pasture or rangeland which has (C of O)

Q1b. Interviewer should enquire from the selected respondents in this community, how much does it cost to buy one acre of agricultural land where the household/individual would have no formal rights (i.e. holding a Certificate of Occupancy- (C f O), Right of Occupancy- (R f O), or Community Certificate of Occupancy- (CCfO) to the land? (NAIRA)

Q1c. Interviewer should ask, in your community, how much does it cost to rent one acre of agricultural land for one year? (NAIRA). Interviewer should write the absolute figure (NAIRA)

Q1d. Interviewer should ask, in your community, what proportion of harvested crop is usually given to a landowner for sharecropping lands/plots? (The proportion should be expressed in percentage).

Q2. Seeks to know how households/individuals in the community acquire access or rights to lands they use, and the nature of these rights. For each item, indicate YES if individuals/households in the community have access to that. Otherwise, select NO. The different considered types of tenure are listed below:

A. …enjoy property rights to their own plots?

B…have plots that they practiced farming activities on for more than 10 years without any land title documents?

C …exploit plots that are owned in common by either the community or their family?

D … allow others to use their land for a fixed price or a certain percentage of the harvest?

E…rent land from others for a fixed price or a certain percentage of the harvest?

F …have the right to sell land?

G…typically inherit land and/or bequeath land when they die?

Note: Options A to G refers to questions Q2 to Q4.

Q3. If yes in Q2, interviewer should ask what is the proportion of households in the community who practice (Type of Tenure). (Select only one option)

Q4. If yes in Q2, interviewer should ask if women in the community practice (Type of Tenure). (Select only one option). Interviewer should select as provided Yes 1; No 2

Q5 Interviewer should ask if they have access to agricultural credit from the listed sources 5a to 5d? (Select all that apply; If No=2 ► **Next Item**). (these set of questions are referring to **use** of these types of credit by community members).

Q6 Interviewer should ask is collateral (an asset that a lender accepts as security for a loan) required for these loans in Q5. (Select as provided Yes= 1; No= 2).

Q7 Interviewer should ask do women have use to these loans. (Select as provided Yes 1; No 2).

SECTION 9: COMMUNITY KEY EVENTS

The objective of this section is to identify some key events that happened in the community that affected the livelihoods of people in the community positively. The section is also interested in the year in which the event occurred, as well as the proportion of the people in the community that were affected by the specific event.

INTERVIEWER must read out: Please describe important events that have taken place in this community since [THREE YEARS AGO?] including any events that have occurred this year. We are specifically interested in events that have changed the well-being of people in this community for better. Examples of events that may have made people better off are new schools or medical facilities, new employment opportunities, or the construction of a new road or other development projects.

Q1. Interviewer should enquire from the selected respondents, which of the following events have taken place in this community in the last three years? (Select as applicable; Yes= 1; No= 2; If NO ► **Next Event**)

Q2. Interviewer should enquire in which year(s) did this event occur.

Q3. Interviewer should enquire What proportion of the community was affected (In percentage %)

SECTION: 10. LABOUR

The purpose of this section is to collect information on the use of agricultural labour in the community. In the context of this survey, we seek to know whether individuals in the village hire labourers to work on their plots and the specific crop farming activities that hired labour perform. Distinction is made between male and female farmers hire of labour in the community. Emphasis is also placed on the daily wages received by men, women, and children. Given that some activities are crop-specific, information on planting, harvesting and processing labour are captured for the two main crops cultivated by the household. However, activities such

as land preparation, weeding, fertilizer application, etc. information is captured at the activity level. Reponses to this section should be given by the focus group members.

Q1m. Interviewer should enquire from the selected respondents if the male farmers in this community hire laborers to work in their fields? (Select as applicable; Yes= 1; No= 2; Farming not practiced in the community=91; If Yes, **Answer male module**.

Q1f. Interviewer should enquire if female farmers in this community hire laborers to work in their fields? (Select as applicable; Yes= 1; No= 2; Farming not practiced in the community=91; Women do not farm in the community=92; If Yes, **Answer female module**.

10.1 MALE FARMERS

Q2m. Interviewer should enquire if the workers hired by male farmers to work on their plots come from inside the community, outside the community, or both. (Select only one option).

Q3m. Interviewer should enquire What is the main crop cultivated by male farmers in this community? (Interviewer should record the highest response).

FOR AGRICULTURAL LABOUR, PREPARING FIELD AND APPLYING FERTILIZER, AND WEEDING ARE NOT CROP SPECIFIC, WHILE RESPONSES FOR PLANTING, HARVESTING AND PROCESSING ARE CROP SPECIFIC FOR THESE ACTIVITIES RECORD TO WHICH CROP THE LABOR PERTAINS.

Q4m. Interviewer should enquire if male farmers in the community hire men to engage them in the listed [crop activity]. (Interviewer should select as applicable. If No ▶Q6m)

Q5m. Interviewer should enquire how much is a man paid *per day* to engage them in the listed [crop activity] on the plots of male farmers. Interviewer should write in absolute figure in Naira

Q6m. Interviewer should enquire if male farmers in the community hire women to engage them in the listed [crop activity]. Interviewer should select as applicable. If No▶Q8m)

Q7m. Interviewer should enquire how much he paid *per day* to engage them in the listed [crop activity] on the plots of male farmers. Interviewer should write the value in absolute figure (Naira)

Q8m. Interviewer should enquire from the selected respondents do male farmers in the community hire children to engage them in the listed [crop activity]. If No▶ NEXT ACTIVITY)

Q9. Interviewer should enquire from the selected respondents how much is a child paid *per day* to engage them in the listed [crop Activity] on the plots of male farmer. Interviewer should write the value in absolute figure (Naira)

10.2 FEMALE FARMERS

Q2f. Interviewer should enquire from the selected respondents if the workers hired by female farmers to work on their plots come from inside the community, outside the community, or both. (Select only one option).

Q3f. Interviewer should enquire from the selected respondents What is the main crop cultivated by female farmers in this community? (Interviewer should record the highest response).

Q4f. Interviewer should enquire from the selected respondents if female farmers in the community hire men to engage them in the listed [crop activity]. (Select as applicable; If No ▶Q6f)

Q5f. Interviewer should enquire from the selected respondents how much is a man paid *per day* to engage them in the listed [crop activity]. (Interviewer should write the figure in absolute **Naira**)

Q6f. Interviewer should enquire from the selected respondents if female farmers in the community hire women to engage them in the listed [crop activity]. (Select as applicable; If No ▶Q8f)

Q7f. Interviewer should ask how much she paid *per day* to engage them in the listed [crop activity] on the plots of female farmers]. (Interviewer should write the figure in absolute **Naira**)

Q8f. Interviewer should enquire from the selected respondents if female farmers in the community hire children to engage them in the listed [crop activity]. Interviewer should select as applicable; If No▶ NEXT ACTIVITY)

Q9f. Interviewer should enquire from the selected respondents how much is a child paid *per day* to engage them in the listed [crop activity] on the plots of female farmers? (Interviewer should write the figure in absolute **Naira**)