

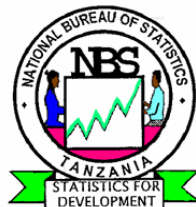
THE UNITED REPUBLIC OF TANZANIA



ANNUAL AGRICULTURAL

SAMPLE SURVEY

2014/2015



ENUMERATOR'S MANUAL

A WORD TO THE ENUMERATOR

This Manual is your Guide

Read and understand its contents in planning your work

Read it during and in between interviews

Read it at home

This manual has been prepared for your use as an enumerator during the enumeration of the Annual Agricultural Sample Survey. It presents the fundamental concepts that you should know about Annual Agricultural Sample Survey undertaking, practical approaches to field enumeration, and the guidelines on how to obtain accurate, complete, reasonable and consistent data from the respondents. You should therefore be familiar with all the instructions as well as the practical applications discussed herein.

This manual cannot present in detail all the problems that you will encounter in the field. However, it is hoped that the instructions given by your supervisor as well as knowledge of your duties and responsibilities as embodied in this manual will enable you to perform your work in the field thoroughly and efficiently.

The significance of your role in this undertaking, should serve to inspire you to do your best in discharging your duties and responsibilities as an enumerator.

Let your work be a credit to yourself and to your country.

Dr. Albina A. Chuwa;
Director General;
National Bureau of Statistics;
November, 2015.

TABLE OF CONTENTS

A WORD TO THE ENUMERATOR.....	1
CHAPTER 1: INTRODUCTION	3
1.1 Background.....	3
1.2 Purpose of the Survey	3
1.3 Strata and Sample.....	5
1.4 Timeframe and Dates	5
CHAPTER 2: TERMS AND DEFINITIONS	6
CHAPTER 3: STANDARD SURVEY MATERIALS AND PROCEDURES.....	12
3.1 Materials	Error! Bookmark not defined.
3.2 Supervision and Quality Control	12
3.3 Interview	Error! Bookmark not defined.
3.4 Refusals	Error! Bookmark not defined.
3.5 Questionnaire Procedures	15
CHAPTER 4: LOCATING THE SAMPLE POINT & THE OPERATOR.....	16
CHAPTER 5: COMPLETING THE QUESTIONNAIRE.....	25
SECTION A: Identification Block	25
SECTION 1: Point Details	26
SECTION 2: Farm Operator Details	27
SECTION 3: Farm Area.....	29
SECTION 4: Crops During Long (Masika) Rainy Season of 2012/2013 Agriculture Year.....	Error! Bookmark not defined.
SECTION 5: Crop During Short (Vuli) Rainy Season of 2012/2013 Agriculture Year	34
SECTION 6: Animals Raised.....	34
SECTION 7: Conclusion.....	44

CHAPTER 1: INTRODUCTION

1.1 Background

In response to many challenges of meeting user needs for agricultural statistics in developing countries, a Global Strategy for Improving Agricultural and Rural Statistics was introduced and endorsed in February 2010 by the United Nations Statistical Commission (UNSC). The purpose of the Global Strategy is to provide a framework and methodology that will help improve the availability and quality of national and international food and agricultural statistics, to guide policy analysis and decision making in the 21st century. The Global Strategy is based on three pillars, namely:

- i. The establishment of a minimum set of core data that countries will provide to meet their current and emerging demands;
- ii. The integration of agriculture into their national statistical systems (NSSs) to ensure that the data will be comparable across countries and over time;
- iii. Ensuring the sustainability of the National Agricultural Statistical System (NASS) through governance and statistical capacity building.

In the framework of the implementation of the *Global Strategy to Improve Agricultural and Rural Statistics*, the Government of Tanzania in collaboration with the Food and Agriculture Organization of the United Nations (FAO), United States Department of Agriculture (USDA) and African Development Bank (AfDB) initiated the process of improving the agricultural statistics system of the country through Strengthening Agricultural Statistics Program. The main aim of the program is to:

- i. Develop sampling frames and sample designs appropriate for generating agricultural statistics;
- ii. Design and implement an annual agricultural survey;
- iii. Capacity development through upgrading skills on national staff.

1.2 Purpose of the Survey

The purpose of the Annual Agricultural Sample Survey is to provide more timely and accurate estimates of area and production for major crops and livestock in the URT regions. As you know, the size of the crops

and numbers of animals are crucial information needed by many people involved in agriculture. Estimates derived from this survey will supply basic information needed by farmers, agribusinesses and government policy makers to make decisions for both short term and long-range planning.

These estimates might influence a farmer to:

- Increase or reduce production.
- Plant or harvest a particular crop.

A respondent surveyed has the right to know:

- Under what Authority information is collected.
- The purpose for the information collected.
- How information about their operation will be used

Confidentiality

The information collected from a farm operator is strictly confidential as required by law and is not to be disclosed to any person except those who are involved in the survey. Information from individual operator will be combined and processed to make a statistical report to be used for planning purposes. It is very essential for the respondent to be assured that each of his/her information will be retained as confidential and be used for statistical activities only.

1.2 Sample Frame

At the onset of planning for the implementation of the AASS, a need for a reliable sampling frame was identified as information on farm operators were not readily available for consistent monitoring or sampling. The point sample area frame will provide a quicker and easier way to select a statistically sound sample of farm operators than the household-based sampling methods currently used. Points will be randomly located on the ground using handheld GPS units. Operators of the land at these points will be interviewed, and data about their farm land and animals will be obtained. NBS and OCGS GIS staff were trained on Sample Point Selection using the ArcGIS tools. The Regional Center of Mapping Resources for Development (<http://rcmrd.org/>) land cover product will be used. The RCMRD land cover product is available without cost for the entire country of Tanzania (mainland and Zanzibar).

1.3 Strata Description

The land cover has already been stratified by land type.

The land type and definitions are as follows:

- **Forestland:** woody vegetation, minimum 10% tree cover;
- **Cropland:** rice fields and agro forestry systems (timber and orchard), flower crops, includes fallow land not cultivated within 5 years;
- **Grassland:** pasture, pasture among trees (savanna);
- **Wetlands:** covered in water for all or part of year, peat area;
- **Settlement:** urban, roads, houses, transportation.

An error assessment was conducted by the creators of the RCMRD land cover product (a collaboration in which US-AID and NASA are named partners) to determine the accuracy of the RCMRD. A total of 2,169 points were sampled of which an 80% accuracy of land classification was determined. The grassland and cropland strata were the two stratum with the most probability of misclassification (i.e. cropland for grassland or grassland for cropland).

Sample

The Annual Agricultural Sample Survey will be conducted on a point sample basis from an area frame. All land for the is stratified based on the definitions above. Points are sampled to target agricultural production.

1.4 Timeframe and Dates

You will collect data for this survey from 16 November 2015 to 16 December 2015, after the 2014/15 growing season.

<u>Activity</u>	<u>Begin Date</u>	<u>Target End Date</u>	<u>Responsibility</u>
Enumerator Training Workshops	November 5, 2015	November 11, 2015	National Team
Distribute Blank Questionnaires to Enumerators and Supervisors		November 11, 2015	National Team
Data Collection Materials Sent	September 28, 2015	November 2, 2015	National Team
Data Collection Begins	November 16, 2015		National Team & Enumerators
25% Mailed in to NBS 50% Mailed in to NBS 75% Mailed in to NBS		November 23, 2015 December 4, 2015 December 11, 2015	Team Supervisors and Enumerators
Data Collection Ends		December 16, 2015	
100% at NBS		December 21, 2015	

CHAPTER 2: CONCEPTS AND DEFINITIONS

This manual presents a general description of the statistical framework of the Annual Agricultural Sample Survey (AASS).. It also discusses the concepts and definitions used in AASS regarding the survey coverage and the various elements of the agricultural statistics. Therefore, this part defines the various AASS terminologies used for survey, crop, and animals raised.

- **Reference Period (Agricultural year)**

In Tanzania agricultural year begins on 1st October and goes to 30th September of the following year. For this particular survey, the reference period is 1 October 2014 to 30 September 2015.

- **Point**

Is a randomly generated coordinate of X and Y chosen based on strata.

- **Farm Operator**

Is an individual that makes the day to day decisions for the farming operation.

- **Farm Area**

Is a land including its building used for growing crops and/or raising animals

The total land may include land owned and rented, either formally or informally from others, but excludes land rented to others formally or informally.

- **Short Rainy Season**

The short rainy Season in Tanzania begins in October up to January of the following year.

- **Long Rainy Season**

The long rainy season in Tanzania begins in March up to May of the same year.

- **Crop Area**

This is a piece of land planted with crops on the farming operation.

- **Field**

This is a continuous piece of land cultivated as one by operator even if planted with different crops. An individual operator may consist of one or more such fields

- **Plot**

Refers to a portion of a field planted with one specific crop. For example, maize or sorghum, or a crop mixture, for example, Maize/beans mixture.

- **Irrigation**

Is the process of supplying water to crop land using different means eg river or streams etc. in order to facilitate nourishment of crops

- **Sources of water for irrigation**

Sources of water for irrigations includes rivers, tap water, wells, dams, lakes, etc.

- **An irrigated field**

Is an area planted with crops and being irrigated from different sources of water

- **Methods of irrigation**

This is a mechanism by which water is extracted from the source for irrigation. The Farm operators uses Gravity, Bucket, Hand pump, Water Pump, Sprinklers, and other methods for irrigation.

- **Area Planted**

Is the total area in acres that has been planted with crops

- **Area harvested**

Refers to the total area from which the crop is gathered. Area harvested, therefore, excludes the area from which, although sown or planted, there was no harvest due to damage, failure, etc.

- **Cassava**

The information required on cassava is only for fresh cassava and not dry cassava or soaked

- **Waypoint**

Storage terminology for sample point coordinates and name. Within the GPS sample points will be referred to as Waypoints

Results of Interview

- **Complete Interview** – The operator answered all the questions successfully
- **Refusal and break off** - the respondent did not want to complete the questionnaire
- **Point not accessible**-The enumerator was not able to locate the point due to various reasons such as distance, impassable roads ect.
- **Operator is not accessible**- The enumerator was not able to locate the farm operator to conduct the interview.
- **Non- Agriculture** – The point falls in the area where no agriculture activities are taking place.

Cattle Categories

- **Bull**

Male cattle, with sexual organs intact and capable of reproduction.

- **Oxen**

Mature castrated male cattle used for farming/transport

- **Cow**

Female cattle (2 years of age and over) mainly for milk production.

- **Steer**

Male cattle that are castrated before sexual maturity, especially one raised for beef.

- **Heifer**

A young cow over one year old that has not produced a calf (including in calf).

- **Male calf**

The young male cattle (less than 1 year of age).

- **Female calf**

The young female cattle (less than 1 year of age).

GENERAL ISSUES ABOUT INTERVIEWING

How to approach a Farm Operator for the first time Your behaviour and attitude is vital

As an interviewer, your first responsibility is to establish a good rapport with a respondent. At the beginning of an interview, you and the respondent are strangers to each other. The respondent's first impression of you will influence their willingness to cooperate with the survey. Be sure that your manner is friendly as you introduce yourself. Before you start to work in an area, your supervisor will have informed the local leaders. You will also be given a letter and an identification card that indicates that you are working with NBS/OCGS.

Remember to put on respectable clothes. Women are to have khanga or kitenge for protecting them when supposed to sit down as not all farm operators are having chairs.

Roles of Enumerators

As it is in any other surveys the enumerators play the leading role in the survey. The field enumerator's duty is to collect the required data and the quality of their work is determined by the quality of the collected data. So, the fate of the survey depends on how well an enumerator does his/her work. The enumerator should follow carefully the instructions provided.

- Create a friendly atmosphere with the respondent with the objective of getting the most unbiased response. Wearing an atmosphere of confidence can do this, familiarize with culture and habits of the community the enumerator will be working with.
- The appearance and the first thing the enumerator do and say are of vital importance in gaining the respondent's cooperation.
- Enumerators should convince the respondents that they are knowledgeable enough on what they are doing and they are doing the whole exercise for the benefit of the community. Never mention (promise) immediate benefit from the survey, as this may prejudice the response.
- The enumerator should mention the confidentiality nature of the survey. The interviews should be conducted between the enumerator and the respondent only.
- Make the interviews short and clear but do not hurry the respondent.
- The enumerator should note that in an interview, unlike normal conversations, one person is asking all questions and the other is answering them, hence he/she must refrain from giving his/her opinion. Never react in any way to what the respondent tells and show him/her disapproval, always remain neutral.

- If the respondent is reluctant or unwilling to answer a question try to overcome that reluctance, explain once again the confidential nature of the information. Do not push too hard for an answer. **Remember** the respondent cannot be forced to give answers.
- Follow strictly the sequence of questions that must be asked and be in control of the situation, i.e. maintain the interest of the respondent throughout the interview. If a respondent is giving irrelevant or elaborative answers do not stop him/her abruptly or rudely, but listen to what he/she has to say, then try to steer him/her gently back to the original question.
- Always make prior appointments with respondents; try to go by the time they say is convenient to them.

The results gathered from surveys where stronger attempts are made to convince people to take place in the survey are more representative than surveys where only willing respondents are interviewed. The sample points have been randomly selected therefore cannot be replaced with any other points.

Remember: The above are general roles of the enumerators; the duties and steps for the AASS as well as other Agriculture surveys.

2.3 End

- Try at your level best to get the correct information.
- Try to build good relationship with the farm operators
- Try to be faithful to them always and show honest trustful.
- If you have an appointment with the farm operator try to be there at the agreed time.

CHAPTER 3: STANDARD SURVEY MATERIALS AND PROCEDURES

3.1 Materials

The survey instruments, field equipment, and supplies needed for the Annual Agricultural Sample Survey are listed below. Your supervisor will provide all supplies and equipment. You are responsible for the proper use and care of all items provided. If your supplies run low or equipment becomes unusable, notify your supervisor. After all field work has been completed return all equipment and supplies to your supervisor.

Survey Instruments:

- Enumerator's Manual
- Questionnaires for each assigned sample point
- Maps showing locations of assigned points
- Road maps showing the passage to the point
- Envelopes to send questionnaires

Field Equipment:

- GPS device & spare batteries
- Clipboard
- Pencils, erasers, & sharpener
- Bag for equipment & supplies
- Rain coat and/or other protective clothing
- Rain boot

3.2 Supervision and Quality Control

The quality control program is designed to aid in the supervision of enumerators, detect faulty equipment, and to assure that proper survey procedures are followed. A good quality control program will improve the results of the Annual Agricultural Sample Survey.

Your supervisor will provide much of the “on site” field training. Your supervisor will also spend several hours with you during the first few days of the survey, as well as after you have completed samples on your own.

3.3 Interview

Important: Interview the farm operator. Information collected from persons other than the operator often turns out to be less accurate.

Generally, you can contact the operator and complete the interview on the first attempt, but occasionally you may need to make one or more visits. Plan each follow-up attempt to arrive at a different time of day. The following instructions are a guide:

1. **First Attempt:** Drive around the Point if possible.

If the farm operator is not present but is expected shortly, wait for the interview. If the operator is not available or is extremely busy, set up an appointment. It is very important to keep the appointment or call back, if not then inform the farm operator immediately.

Make notes on the questionnaire of observations or any information learned while trying to contact the operator. This information will be useful if you are unable to contact the operator on a later visit.

If the operator will not be available until after the survey is over, interview a well-informed person such as the spouse, partner, child, or hired person. Try to interview the person most knowledgeable about the farming operation.

2. **Subsequent Attempts**

If subsequent attempts are required, try again to interview the operator. Try to set up an appointment. If the operation has little or no agriculture, interview a well-informed person associated with the operation or complete the questionnaire by observation.

3. Final Attempt

If, after all previous attempts, the operator is not available, interview a well-informed person about the operation. At the very least, try to find out the name of the person or operation named of the location. Write notes on the questionnaire to explain unusual circumstances.

Important: Do not attempt to interview a neighbour or anyone else if the farm operator refuses to complete an interview for this survey, as this promotes distrust among other operators.

3.4 Refusals

Most people you contact cooperate and furnish the needed information. However, there are always a few people who are reluctant to provide information. Some respondents may refuse to provide any information. It is important to be courteous and friendly. Make a diligent effort to obtain the respondent's cooperation by explaining the purpose of the survey, confidentiality of the data, and the need for accurate agricultural statistics.

If the respondent refuses to report, you should:

1. Seek assistance from the local leader of that area.
2. Seek assistance from the Supervisor
3. Conclude the interview with a friendly attitude and always leave the respondent with a positive impression of you as a professional interviewer.
4. Do not become discouraged.
5. Make observations of the farm by being aware of what is around you.

Important: Do not spy or deceptively try to obtain data. Do not try to interview hired workers or other family members if the operator has already refused.

Observations from you can provide an up to date verification of information which can greatly improve the quality of the survey results.

Examples of valuable observations include:

- Presence of livestock on operation and size/type of livestock facilities.
- Specific types of machinery which would indicate a presence of crops.

On your next interview, continue to meet people with ease and friendliness.

3.5 Questionnaire Procedures

This section provides general instructions on how to complete the questionnaire, as well as procedures to follow under certain conditions.

Make all entries clear and easy to read. Use a black lead pencil.

1. Boxes or Entry Cells: Answers must be written entirely within the box or space provided (including YES and NO tick boxes). If the answer to a question is NONE, enter a dash (-) instead of a zero. A zero may be mistaken for a 6. Similarly, write all numbers clearly so a 3 and 5 are not confused, or a 1 and a 7.
2. Enumerator Instructions:
 - a. Statements sometimes used at the beginning of a section include definitions and instructions about the next questions. The respondent must be made aware of this information. Read statements and questions exactly as written.
 - b. Always ask the next question, unless instructed to do otherwise with a skip instruction.
 - c. Make notes about answers outside of expected ranges. Do not write notes or make unnecessary entries in the answer cell. Use margins and other white space near the answer

cell to explain the situation. Your note provides an explanation to the reviewer when the questionnaire is edited prior to data capture.

The questionnaire will be mailed to NBS in accordance with the benchmark calendar dates described in the survey calendar. The mobile team will also be collecting completed questionnaires while doing quality control.

Review your work for each sample before turning in to team supervisor. Be sure that all required data are entered. Make notes explaining problems and unusual situations.

Keep a record of all items you send or turn over to your Supervisor. You should record place, date, time of mailing and identification number of Area Sampling Frame segment kits, questionnaires, and maps sent. This information will help the Office locate delayed questionnaires and survey materials.

For Team Supervisors only:

After reviewing enumerator work, Supervisors should send completed work from the largest town along the route in accordance with benchmark calendar dates. Use the envelopes provided by the Office. If you have any doubt about the last completed survey materials reaching the Office before the final due date, call a member of the National Team for handling instructions.

Maps for completed segments should be mailed to the Office. Mailing instructions will be furnished by the Office. When your team has completed the last assigned segment and sent all questionnaires, put all remaining maps and any unused materials in a photo mailing box, tape the box securely, and send the box to the Office. GPS units will be collected from team supervisors by National Team members.

CHAPTER 4: LOCATING THE SAMPLE POINT & THE OPERATOR

These instructions assume basic familiarity with the Garmin etrex 10 GPS unit.

Be sure to notify the village leader of the nearest village prior to looking for the sample point. Show him the map of where you are going, and ask if he knows who might be controlling the land in that area. This could provide a starting point for locating the operator of the land at the point.

Use the GPS and maps you have been provided to navigate to the sample point. When you get to the point, record the information requested in Section1 of the questionnaire. It might be helpful to draw a sketch of the general vicinity around the point to aid in locating the operator. Then look for nearby houses or businesses to find someone who can tell you who operates the land at the point.

Using the etrex10 GPS

There are 6 buttons on the GPS unit:

Up and Down arrows are used to zoom in and zoom out on the *Map* page.

Light is used to turn the GPS on and off and adjust light to the display.

Menu is used to show your options on any page.

Back button is used to go back to the previous page.

The *joystick* is used to select pages. Use the joystick to navigate within the GPS screen. Do this by pressing the joystick in the direction of the page you want to select in the GPS, then clicking the joystick directly to the center to select a page.

GPS setup

Check the position format setup of the GPS unit before you begin. Turn unit on and select Setup>Position Format. Samples are provided in Decimal Degrees coordinates with WGS 84 Datum and Spheroid. All settings in the Position Format page should be set as follows:

Position format – hddd.ddddd°

Map Datum - WGS 84

Map Spheroid - WGS 84

Using GPS to locate points

Each enumerator team will be given a specific GPS on which all sample points for the region have been loaded. You are responsible for finding these points using the GPS unit in conjunction with paper maps. To conserve batteries, turn off the GPS when driving long distances. Do not attempt to read the GPS while driving.

Overview map: This is a map of all assigned points to the enumerator team. Choose the point you want to find. Determine the best highway route between your current location and the chosen sample point. Use this map to familiarize yourself with your assigned sample points, choose the best route to reach the points, and get your team close to the point you are ready to enumerate.

Sample Point Map: You have received one Sample point map per sample. This map is zoomed in and only displays the local area around the point. Use this map to locate a path between the highway and the point, using any local landmarks on the map to assist navigation. Turn the GPS back on when you think you have driven close to the sample point and take a bearing. Go to the Compass page for a constant bearing between your current location and the sample point.

Please read through the entire directions before attempting to locate your first point. Look on your overview map to familiarize yourself with the locations of all your sample points. Use the overview maps to get an idea of where the samples are in relation to the main highway. Once you have chosen the point you are ready to locate and have an idea of that point in relation to the highway, find the sample map associated with that point and familiarize yourself with any smaller roads or footpaths might get you closer to the point.

1. Use the overview map to choose the highway that will take you closest to your chosen point and begin driving there. In order to conserve batteries, turn off the GPS while driving long distances. Turn the GPS back on to see your location relative to the sample point once you get close.
2. Turn the GPS on by holding down the *light* button for a few seconds. The GPS screen turns on. The GPS unit will initialize and begin locating satellites. After 3 satellites are located you will be able to read your position. Use the *joystick* to navigate to the satellite page to see when the GPS finds satellites. On the satellite page you can see a visual of how many satellites you are connected to and the estimated positional accuracy. 3m is excellent accuracy.
3. When the GPS has located your position, click the back button to take you to the main page menu and select the Where to? Page, and then select Waypoints. You will see a maximum of 19 samples listed, with the closest sample to your current position at the top of the list. Choose the point you want to locate and select it with the joystick. The map opens. Highlight the word Go at the bottom of the map page and select it. You are now locked on that point.

4. You will now see the location in decimal degrees – e.g. S 06.86183 and E 039.22284. You will also see Dist. To Dest. And Time to Next at the top of the map.
5. Hit back to the main menu and scroll to the *Compass* page. Walk a few steps in the direction the arrow is pointing. Notice that the *Dist to Next* gets smaller. As you walk in the direction of your sample point, this will tell you how close you are. The *Compass* will not work if you have not selected a waypoint with either the Map or Where to? Pages.
6. If you do not receive a distance to next on the compass page or the Destination field does not display the sample point you intended, repeat Step 3 and 4 then return to the compass page.
7. As you drive closer to the sample point, look carefully at the sample maps to locate potential footpaths that may take you close to the point. Once you have driven as close as you think you can, find a safe place to park the car step out and find your position on the GPS.
8. Walk towards the point while looking at the Dist to Next field until your location matches the target location. As you get closer the distance will get smaller, though you will probably not be able to walk in a straight line to your sample point. Scout for potential footpaths to get you closer, and look at the *Dist to Next* field on the *Compass* page to see if you are getting closer to your point. Be sure to check the coordinates located on your sample map versus the GPS location. When these match, you have found your point. You may also compare the Dist. To next screen with the accuracy screen. Ideally, you will have GPS positional accuracy of 3m. When your distance to travel field is = 3m, congratulations, you have found your sample point.

NOTE: It is possible to move or delete sample waypoints in the GPS unit. If this happens, you must edit or recreate the sample waypoint in the GPS to fix it. Please read through all these steps before editing a waypoint.

Waypoint Accidentally Moved

Caution: When you are in the Map Page, if you select the waypoint while the arrow is exactly on top of a waypoint, you should see a small warning that says “Move” underneath the point. If you drag the white arrow, you will drag the waypoint. If you accidentally move a waypoint in this fashion, you will need to manually edit its location in the GPS.

1. Locate the correct GPS coordinates on the sample point map or the questionnaire label. On the GPS, go to the Waypoint manager and select the waypoint you want to fix. Check the waypoint ID number listed in the top left of the page, e.g. KA_022. **Be sure this is the waypoint you want to edit.**

2. Look at the Location field in the middle of your selected Waypoint page and check this against the correct GPS coordinates. Use the joystick to choose the location and select it. This will open a numeric keypad.

3. Select the right or left arrow in the keypad, and click to move to the specific number you want to edit. As you click while the right arrow is selected, notice that different numerals in the Location field are highlighted. Select the numeral you need to edit in this fashion, then choose the correct number in the numeric keypad. The numeral changes.

4. When you finish the S-coordinate, select the right arrow in the numeric keypad and click it until you notice the E-coordinate highlighted.

Edit the E-coordinate in the same fashion. When you are through, choose Done on the numeric keypad. Be sure to double check that the edited location coordinates now match those on the map.

Waypoint Accidentally Deleted

If you accidentally delete a waypoint you will need to manually re-enter its location in the GPS.

1. Click the Mark Waypoint page in the main menu. This will open a Waypoint page for the point you just created. Highlight the waypoint name and select it, then change the name of the point to the name of the point you deleted, e.g. KA_044.

2. The location data will be your current location which will most likely be incorrect. Follow the steps shown above for *Waypoint Accidentally Moved* to edit the location for the point you just created.

Results Coding:

Completed Interviews

The following items must be coded for Complete Interviews:

Question 9=1, Page 1	Results Of Interview
Question 1.1=1, Page 2	Point Details
Question 1.2=blank, Page 2	Point Details
Sections 2-8 Completed and section screening questions completed.	

Refusals and Inaccessible

The following items must be coded for Refusals and Break Off:

Question 9=2, Page 1	Results Of Interview
Question 1.1=1 or 2, Page 2	Point Details
*If Question 1.1=1, complete Section 2, Question 2.1 and Section 8	
**If Question 1.1=2 change Results to code 3 or 5, then complete Question 1.2 and Section 8	

The following items must be coded for Point is not accessible:

Question 9=3, Page 1	Results Of Interview
Question 1.1=3, Page 2	Point Details
Section 8 Completed	

The following items must be coded for Operator is not accessible:

Question 9=4, Page 1	Results Of Interview
Question 1.1=1 or 2, Page 2	Point Details
*If Question 1.1=1, complete Section 2, Question 2.1 and Section 8	
**If Question 1.1=2 change Results to code 3 or 5, then complete Question 1.2 and Section 8	

Non-Agriculture

The following items must be coded for Non-Agriculture:

Question 9=5, Page 1	Results Of Interview
Question 1.1=2, Page 2	Point Details
Complete Question 1.2 and Section 8	

Rules for special situations

1. The point falls exactly on the boundary between two or more different farming operations, or between a farming operation and a non-agricultural land use.

Stand at the point and face north. If the land immediately in front of you is a unique farming operation or a unique non-agricultural land use, complete the questionnaire for that operation or land use. If not, then slowly turn in a clockwise direction until you see a unique farming operation or a unique non-agricultural land use, and complete the questionnaire for that operation or land use.

2. The point falls on a public road, or other public or private non-agricultural area (lake, cemetery, church, store, etc.) Complete question 9 (results code) on the front page using code 5 (non-agriculture). Also complete the appropriate non-agricultural screening questions in Section 1 then complete Section 8.

3. The point falls on a multiple family dwelling.

Assign a number to each family in the dwelling. Obtain a random number between 1 and the total number of families. Choose the family that was assigned that random number. If someone in the chosen family has a farming operation, complete the questionnaire for that operation. If no one in the chosen family has a farming operation then select another random number. Continue the process until a family is selected with a farming operation. If no family within the dwelling has a farm then code the point as non-agriculture, Section 1, question 1.2, code 4 or 5.

4. The point falls on a non-agricultural business (sawmill, processing plant, etc.), but the operator of that business also has a farming operation.

The operation must be coded as a non-agriculture land use. To qualify for the survey the point must fall on a farm or farm residence. Points cannot be replaced, there is no substitution allowed for this survey.

5. The operator lives outside of the local area.

Identify a person on the farm knowledgeable of the day to day decisions for the operation.

If a knowledgeable person cannot be found and detailed information on the operator's location is obtained, pass the information on to team supervisor.

If detailed information on the operator's location cannot be obtained the point should be coded as operator inaccessible.

Supervisors only: If operator is located outside of team enumeration area and detailed information on the operator's location is obtained, contact a member of National Team.

6. More than one point falls on the same farm. **(Especially important for large scale farms)**

After point-specific data are recorded, conduct one interview to obtain data for the farming operation and transfer to other questionnaires.

7. The operator refuses to answer questions. Code report as *refusal*.

8. The enumerator cannot determine who operates the land at the point. Code report as *refusal*.

9. The enumerator cannot locate or contact the operator.

If another person **on the farm** is knowledgeable of the day to day decisions regarding the farm, obtain data from that person.

If no other person is available, code the questionnaire as *inaccessible*.

10. The operator lives some distance from the point and cannot verify the point falls on his land.

The enumerator should draw a sketch with sufficient detail to show the location of the point for the operator to review.

11. The operator is also in the sample for an operational survey of agriculture.

The enumerator should explain that this is a National survey conducted by the National Bureau of Statistics and explain the purpose of the Annual Agriculture Sample Survey.

12. The farming operation is operated by partners.

If more than one person makes day-to-day decisions about the farming operation, the operator is the person accepted by the partners.

CHAPTER 5: COMPLETING THE QUESTIONNAIRE

The Annual Agricultural Sample Survey questionnaire must be completed for each of the sample points selected.

The office will provide the sample point ID and the GPS coordinates X and Y.

SECTION A: Identification Block

The Identification section is divided into two parts. Part one covers (items 1-7), which will be provided by the NBS/OCGS based on administrative codes for Region, District, Ward, Village/Shehia, Enumeration Area, Strata and sample point . Part two (items 8-9), you will need to collect the name of the local leader and complete the results of the interview based on the codes provided. If code 2-5 is given, you will need to give comments in the area provided on the front page of the questionnaire. Definitions for Result of interview are provided in Chapter 2: Terms and Definitions.

9.RESULTS OF INTERVIEW:		
Complete Interview.....	1	IF CODE 2-5 GIVE COMMENTS: <div style="border: 1px solid black; height: 100px; width: 100%;"></div>
Refusal and break off.....	2	
Point is not accessible.....	3	
Operator is not accessible.....	4	
Non-Agriculture.....	5	

You can write comments or notes to help you when you edit the questionnaire later. Example: When code 2 is used, the reason may be “the point fell in Open land no agriculture/livestock practice take place or may be water body etc.

SECTION 1.0: Point Details

Question 1: Is the land on which this point falls part of a farming operation (a farm) or a farmer's residence?

This question is important to gather if the point is farming/farmer's residence or not, if not farming what is the land use of the area.

Answer: Select appropriate code and fill in the box.

- If the answer is **"Yes"** use code 1 and skip to section 2.
- If the answer is **"No"** use code 2 and continue to question 1.2.
- If the answer is **"Point is not accessible"** use code 3 (Explain, then skip to Section 8)

Question 1.2: Point did not find a farm: What is the land-use at this point? [Tick one.]

This question is only asked if Question 1 was answered with a No response and code 2. It is important to provide details and explain where required. If a description is not provided in the codes 1-8, write the description in 9 for other [Specify:] [Skip to Section 8.]

Answer: Observe the area and tick one appropriate answer.

- The code should be 1 to 9.
- If code=9, write the description in designated area
Then skip to SECTION 8: CONCLUSION.

SECTION 2.0: Farm Operator Details

Question 2.1: Do you make or are you knowledgeable of the day-to-day decisions regarding the land on which this point falls? [Tick one.]

This question wants to know the status of the respondent interviewed. It is important to find the person who makes the day-to-day decisions regarding the land on which the point falls. If not available, it is important to see if there is a knowledgeable person available that can answer the questions regarding the land. If unable to speak with knowledgeable source, try again at a later date and time. Tick the appropriate answer.

Answer: If the selected answer is **code 1** continue to ask question number 2.1a.
If the selected answer is **code 2 skip to section 8 for conclusion.** " This should only be coded after numerous attempts to contact the operator.

Question 2.1a: Who is the respondent? [Tick one.]

This question aims to identify the respondent. Select only one of the five options provided. If not the farmer or spouse, make sure to ask additional questions regarding their full name and relationship to the land.

Answer: Either: **Code 1:** Farmer/decision-maker
Code 2: Spouse of farmer/decision-maker
Code 3: Accountant/bookkeeper
Code 4: Permanent Farm worker
Code 5: Other person [Name & relation:]

Question 2.2: What are your (the farm operator's) contact details?

This question is asking for the contact details of the farm operation name, operator's name, postal address, telephone, email, and fax. This information can be used for follow-ups or future contact.

Answer: Each item of the farm operator's contact information will need to be completed here. If the operation does not have a farm name, leave blank. Collect the operator's full name, postal address, telephone, email, and fax. If the operator does not have an e-mail address or fax, leave blank.

Contact Details

Operation name: Example Farm
Operator name: First Last
Postal Address: Box ##; Town, Region
Telephone: 0999-999999
E-mail: example farm@
Fax: 0999-999999

2.3: Type of Agricultural Operators

This question what to get informations on the type of agriculture activities of the farm operator. For the purpose of this survey the type of agriculture activities includes:-

- 1 Crops only
- 2 Crops and Livestock
- 3 Livestock only

Crops only: A Farm operator is referred to be a crops only operator if he/she has cultivated a piece of land equal or exceeding 25 sq. Meter. This also applies to all farm operators owning or have kept livestock whose number does not qualify such operator to be an agricultural holding (No cattle, less than 5 goats/sheep/pigs, less than 50 chickens/turkeys/ducks/rabbits)

Livestock only: A farm operators is referred to be a Livestock only he/she has exercised Livestock husbandry only during the reference agricultural year. The number of livestock has to be at least 1 head of cattle, 5 goats/sheep/pigs or 50 chickens/turkeys/ducks/rabbits. This also applies to all operators owning or have cultivated a piece of land less than 25 sq. meter, which does not qualify such operator be an agricultural holding.

Crops and livestock: A farm operator is referred to be a both crops and livestock if it has cultivated a piece of land equal or exceeding 25 sq. meter and if such operator is owning or have kept livestock whose number qualify such operator be an agricultural holding.

Question 2.3: Is this farm registered/certificate of ownership? (A land on which this point falls)

This question is focused to know if the farm is already registered or not.

Answer: Use code 1 for Yes or code 2 for No as the relevant answer.

SECTION 3.0: Farm Area

Question 3.1: What is the land-use at the point? [Tick all that apply.]

Answer: Identify all crops planted in the area where point falls; provide a tick for each crop planted /livestock. If crop(s)/Livestock are not listed, write in other crop or land use: [Specify:] [continue to question 3.2.] This question is only for crops/livestock in the field where the point fell, not for the entire operation.

Question 3.2: In this field where the point fell, how many acres have been planted with the crop(s), used for raising Livestock or other land use as indicated in Question 3.1?

This question wants to know the total area of the farm land planted with the crop(s) or used for raising livestock as indicated in question 3.1. This is only for the field where the point fell.

Answer: Provide the number of acres that this field planted with the crop(s) and/ or livestock as indication in Question 3.1 for this field only. This should only account the land once. For example: If operator plants the same land in both short and long rainy seasons, you only include the area once.

Now I would like to ask about the total area of this farming operation as of the last Agriculture year (1 October 2014 - 30 September 2015)

In this section, you will record the total area of the farming operation during the last Agriculture season. This is a period from 1 October 2014 to 30 September 2015. The total area for this farming operation includes land owned and rented from others, either formally or informally minus land rented to others formally or informally. Land controlled by the farming operation includes land under farm structures, crop land, fallow land, pasture land, wasteland, dams, etc. It is important that the respondent understands that you are asking about all land operated by this operation.

Question 3.3a: how many acres did this farming operation cover?

Answer: Provide total number of acres for the entire farming operation.

i) Owned?

ii) Rented from others?

iii) Rented to others?

From the total acres of the entire farming operation;

Answer:

- i) Provide the number of acres this farming operation owned during the last Agriculture season (1st October 2014 to 30th September 2015).
- ii) Provide the number of acres this operation rented from others informally or formally during the last Agriculture season. (1st October 2014 to 30th September 2015).
- iii) Provide the number of acres this operation rented to others informally or formerly during the last Agriculture season. (1st October 2014 to 30th September 2015).

3.3b: Total area of the farming operation = 3.3a (i) + 3.3a (ii) - 3.3a (iii)

So the total area of this farming operation was:

--	--	--	--	--	--

This statement is used to verify that the total area recorded is correct and that it includes all land under farm structures, crop land, fallow land, pasture land, wasteland, and any other land controlled by the farm operator.

Answer: If the total is the same with question 3.3a continue.

If NO, make corrections to 3.3a, 3.3a (i), 3.3a (ii) and/or 3.3a (iii) , then continue.

Question 3.3c: Does the total in question 3.3b include land under farm structures, cropland, fallow land, pasture, wasteland, dams, etc.?

Answer: Provide YES, if the respondent states total includes farm structures, cropland, fallow land, pasture, wasteland, dams, etc

If NO, make corrections to 3.3a, 3.3a (i), 3.3a (ii) and/or 3.3a (iii), then continue.

NOTE: The total acres in question 3.3a should include farm structures, cropland, fallow land, pasture, wasteland, dams, etc

The total farming area is obtained by the following formula: Items 3.3a(i) + 3.3a(ii) - 3.3a(iii)

3.3d How was this answer obtained? [Tick one.]

This question wants to know the method used to obtain the answer in question 3.3a, 3.3a ((i),(ii), (iii)), .
Provide a tick for the appropriate answer.

Answer: If reported by respondent, tick 1

If estimated by respondent, tick 2

If respondent does not know and cannot estimate, tick 3.

3.4 What is the total number of fields operated for crops / livestock?

Ask the respondent the total number of fields operated and then record the answer in the appropriate box.

The total number of fields should reference the land owned and rented from others. Land rented to others should not be included here.

Then draw a sketch of the farming operation, showing the approximate location of all fields planted for harvest during the previous agriculture year and area that livestock are located, where applicable. Make sure to designate where the point (GPS coordinates) fall on the sketch. Assign a number from the largest to smallest for each field and record areas in acres and note the types of crops planted.

SECTION 4.0: Crops during Short (Vuli) Rainy Season of 2014/2015 Agriculture Year

In this section, you will obtain information on total area in acres of crops cultivated during the short rainy season on the entire farming operation. It is important that the correct information is collected properly to reflect all of the field(s) that the farmer operates. Make sure all crops on each field are accounted for and should match the sketch of the operation in Question 3.4. Each field's total area needs to be accounted for in Acres.

4.1 Did you cultivate crops during the short (Vuli) rainy season?

This question aims to know if the farm operator cultivated crops during the short rainy season.

If the answer is YES use code 1 and complete the table for short rain season. If the answer is NO use code 2 then skip to section 5. ;

For each field, Ask total field area, use of irrigation, the area planted, area harvested, production quantity, unit of production, weight for each crop in the plot.

Field	Total Field Area (Acres)	Plot	Crop code	Crop name	Irrigation	Source of water	Methods of Irrigation	Irrigated area(acres)	Area Planted (acres)	Area Harvested(acres) If not harvested go to column 10	Quantity Harvested	Unit	KG/Unit	Total KG	Quantity sold	Average price /unit	Reasons for not Harvesting
					Yes...1	Rivers.....1	Gravity.....1					Bags.....1					crops not harvested yet..1
					No.....2 -> col 10	Tape water.....2	Bucket.....2					Bunch.....2					drought.....2
						Well.....3	Hand pump.....3					Tins/ Bucket...3					Rain/flood damage.....3
						Dams.....4	Water pump.....4					Number...4					fire damage.....4
						Lake.....5	other specify..... 5										pest damage.....5
						Other specify 9											Animal damage.....6
																	Theft.....7
																	Not applicable.....9
(col 1)	(col 2)	(col 3)	(col 4)	(col 5)	(col 6)	(col 7)	(col 8)	(col 9)	(col 10)	(col 11)	(col 12)	(col 13)	(col 14)	(col 15)	(col 16)	(col 17)	(Col 18)

Column 1: Record the number for each field (as it is shown in the sketch of farming operation in question 3.4)

Column 2: write the total area in acres for each field.

Column 3: Record the number of a plot in which the crop was grown.

Columns 4&5: Record the crop code and name of crop (codes for crops are listed in the last page of questionnaire.)

Column 6: Ask the farm operator whether irrigation was used, this question aims to know if a particular crop was irrigated or not

If the answer is YES in column 6 use code 1, then use appropriate code in column 7 sources of water (rivers, tape water, well, dams, lake , and other specify) and the method of irrigation in column 8, (gravity, bucket, hand pump, water pump, and other specify) which the operator normally use in the farming activities.

If the answer is NO; in column 6 use code 2 then skip to column 10 (area planted)

Column 9: Area irrigated – Ask the farm operator the crop area in acres under irrigation

Columns 10 & 11: Area planted and harvested: In these columns record the area planted and harvested for each crop in acres. If the area planted with crop is not known, estimate by using proportion of the total planted area. .

The total area of plots in one field must be equal to field area (column2); for example a field of 10 acres, the farm operator might plant 80 percent of the field with beans and 20 percent with banana. The area planted with beans will be 8 acres and 2 acres with banana

Column 12: quantity harvested will be reported in bags, bunch, tins/bucket and bundle

Columns 13, 14 & 15: The quantity harvested should be reported in bags, bunch, tins/bucket and bundles use the appropriate code and fill in the space provided. Provide equivalent weight in kilogram in column 14 for each unit used in column 13 then calculate the total kilogram and record in column 15.

Columns 16 & 17: The quantity sold and average price per unit should be recorded in column 16 and 17 respectively. Use the unit reported in column 13 for reporting sells in column 16

Column 18: If the crop was not harvested in column11 , give reason for not harvesting and use the appropriate code (crop not harvested yet.....1, drought ...2 ,rain/flood damage...3, fire damage...4, pest damage.....5, animal damage....6, theft.....7, other.....8, not applicable....9).

Repeat the same procedure for each crop cultivated

SECTION 5.0 Crop during Long (Masika) Rainy Season of 2014/2015 Agriculture Year

In this section, you will obtain information for crops cultivated during the Long (Masika) rainy season on the total farm operation. Refer to Section 4 (above, previous section) for detailed information of filling out this section.

SECTION 6.0: LIVESTOCK

The main objective of this section is to be able to obtain the total number of livestock and total production for different products.

It is important to remember this section includes both inventory of animal types on 1 October 2014; and livestock products produced and sold by the farming operation during the last 12 months, between 1 October 2014 to 30 September 2015. The enumerator should remember that livestock inventory is only to account animals that the operator raises or manage. When communicating with cattle farmers, it is important that you understand this survey has nothing to do with previous Cattle taxes (do not mention, unless the operator has concerns).

6.1 CATTLE

Did the farm operator own, raise or manage any CATTLE during the last 12 month? (1 Oct 2014 - 30 Sep 2015)?

Answer: *If the answer is YES, use code 1 in the box provided and complete the table.*

If the answer is NO use code 2 in the box provided then skip to question 6.3

Cattle Population as of 1st October 2015

The number of cattle required here are those owned or raised by the farm operator as of October 1, 2015. This question wants to know the number of each mentioned CATTLE in table 6.1. Record the correct number as mentioned by the farm operator. Note that cattle are categorized into 7 classifications. Probe to get the inventory by category of cattle. This is very important because different cattle category need different treatment as well as type of products produced. It is very difficult and can be a big error for operator to report milk production without having milk cows. Definitions of each category are listed below for reference.

Cattle Population as of 1st October 2015

	Number of		Number of Improved		Total
Cattle type	Indigenous		Beef	Dairy	
(1)	(2)		(3)	(4)	(5)
Castrated Bulls (Oxen)					
Uncastrated Bulls					
Cows					
Steers					
Heifers					
Male Calves					
Female Calves					
Grand Total					

Type of Cattle

- Bull: The male cattle with sexual organs intact and capable of reproduction.
- Oxen: Mature castrated male cattle used for farming/transport
- Cow: Female cattle (2 years of age and over) mainly for milk production.
- Steer: A male cattle that is castrated before sexual maturity, especially one raised for beef.
- Heifer: A young cow over one year old that has not produced a calf.
- Male calf: The young male cattle (less than 1 year of age).
- Female calf: The young female cattle (less than 1 year of age).

Column 2 - 5

For each type of cattle in column 1, record the number according to their categories in column 2-4 and then record the total in column 5.

Note: Column 5 refers to the total number of type of cattle recorded in column 2, 3 and 4

6.2 MILK PRODUCTION

This question aims at getting the production of cattle milk for wet and dry season in the 2014/15 Agriculture year.

If the answer is YES, use code 1 in the box provided and complete the table.

If the answer is NO use code 2 in the box provided then skip to question 6.3

Season	Cattle type	Number of milked cows	Average milk production per cow per day (Litres)	Average number of days for cows were milked	Average price per litre (Tshs)
(1)	(2)	(3)	(4)	(5)	(6)
Wet Season	Improved Dairy		<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		
	Indigenous		<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		
Dry Season	Improved Dairy		<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		
	Indigenous		<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		

Record the number of cattle milked (Improved and Dairy) for both wet and dry season in **column 3**. Average production of milk per day should be recorded in **column 4**; average number of days a cow milked should be recorded in **column 5** and the average Price per litre in **column 6**

6.3 GOAT

Did the farm operators own, raise or manage any GOATS during the last 12 months?

This question wants to know if a farm operator own raise or manage GOAT in the last 12 months.

Answer:

If the answer is YES, use code 1 in the box provided and complete the table.

If the answer is NO use code 2 in the box provided then skip to question 6.5

The number of GOAT required here are those owned or raised by the farm operator as of October 1, 2015
This question wants to know the number of each mentioned GOAT in question 6.3. Record the correct number as mentioned by the farm operator. Note that goat is categorized into 5 classifications probe to get the inventory by category of goat. This is very important because different goat category need different treatment as well as type of products produced. It is very difficult and can be a big error for operator to report milk production without having she goat. Definitions of each category are listed below for reference.

Goat Population as of 1st October 2015

	Number of	Number Improved of		Total
Goat type	Indigenous	for meat	Dairy	
(1)	(2)	(3)	(4)	(5)
Billy Goat				
Castrated Goat				
She Goat				
Male Kid				
She Kid				
Grand Total				

Type of Goat

Billy Goat (he-goat): Mature Uncastrated male goat used for breeding

Castrated goat: Male goat that has been castrated.

She Goat: Mature female goat over 9 months of age

Kid: Young goat under 9 months of age

6.4 MILK PRODUCTION (GOAT)

Did the farm operator produce any milk during the last 12 months?

This question wants to know if the farm operator produces any goat milk during the last 12 months.

Answer:

If the answer is YES, use code 1 in the box provided and complete the table.

If the answer is NO use code 2 in the box provided then skip to question 6.5

Milk Production

Season	Number of milked goat	Average milk production per goat per day (Litres)	Average number of days for goats on milked	Average price per litre (Tshs)
(1)	(2)	(3)	(4)	(5)
Wet Season		<input type="text"/> <input type="text"/> <input type="text"/>		
Dry Season		<input type="text"/> <input type="text"/> <input type="text"/>		

Column 2: Record the number of goat milked in both season

Column 3: The average milk production of goat per day should be recorded in litres

Column 4: Ask the operator to provide the average number of days goat milked and record the reported number of days in column 4.

Column 5: The operator should provide the average price per litre for each season.

6.5 SHEEP

Did the farm operators own, raise or manage any SHEEP during the last 12 months?

This question wants to know if a farm operator own raise or manage SHEEP in the last 12 months.

Answer:

If the answer is YES, use code 1 in the box provided and complete the table.

If the answer is NO use code 2 in the box provided then skip to question 6.6

The number of SHEEP required here are those owned or raised by the farm operator as of October 1, 2015

This question wants to know the number of each mentioned SHEEP in table 6.5. Record the correct number as mentioned by the farm operator. Note that sheep are categorized into 5 classifications probe to get the inventory by category of sheep. Definitions of each category are listed below for reference.

Sheep Population as of 1st October 2015

		Number of	Number of Improved		Total
S/N	Sheep type	Indigenous	for Mutton	Dairy	
	(1)	(2)	(3)	(4)	(5)
6.5.1	Ram				
6.5.2	Castrated Sheep				
6.5.3	She Sheep				
6.5.4	Male lamb				
6.5.5	She lamb				
Grand Total					

Type of Sheep

- Ram: Uncastrated male sheep used for breeding
- Castrated sheep: Male sheep that has been castrated.
- She Sheep: Mature female sheep over 9 months of age
- Male lamb: Young male sheep under 9 months of age
- She lamb: Young female sheep under 9 months of age

6.6 PIG

Did the farm operators own, raise or manage any PIG during the last 12 months?

This question wants to know if a farm operator own raise or manage PIG in the last 12 months.

Answer:

If the answer is YES, use code 1 in the box provided and complete the table.

If the answer is NO use code 2 in the box provided then skip to question 6.7

The number of PIG required here are those owned or raised by the farm operator as of October 1, 2015

This question wants to know the number of each mentioned PIG in table 6.6. Record the correct number as mentioned by the farm operator. Note that pigs are categorized into 5 classifications probe to get the inventory by category of pigs. Definitions of each category are listed below for reference.

Pig Population as of 1st October 2015

S/N	Pig type	Number
	(1)	(2)
6.6.1	Boar	
6.6.2	Castrated male	
6.6.3	Sow/Gilt	
6.6.4	Male piglet	
6.6.5	She piglet	
	Grand Total	

Type of Pigs

Boar: Mature uncastrated male pig used for breeding

Castrated Pig: Male pig that has been castrated.

Sow: Mature female pig that has given birth to at least one litter of pigs.

Gilt: Female pig of 9 months up to the first farrowing.

Male Piglet: Young male pig under 3 months of age.

Female Piglet: Young female pig under 3 months of age.

6.7 OTHER LIVESTOCK

Did the farm operators own, raise or manage any OTHER livestock during the last 12 months?

This question wants to know if a farm operator own, raise or manage any OTHER livestock in the last 12 months.

Answer:

If the answer is YES, use code 1 in the box provided and complete the table.

If the answer is NO use code 2 in the box provided then skip to section 7

This question wants to know the number of other livestock in question 6.7. Record the correct number as mentioned by the farm operator. Also note that the number of these livestock required here are those owned or raised by the farm operator as of October 1, 2015.

Population as of 1st October 2015

	Animal type	Current Number	Number of eggs during the last 12 months		Animal type	Current Number
	(1)	(2)	(3)		(1)	(2)
6.7.1	Indigenous Chicken			6.7.6	Turkeys	
6.7.2	Layer			6.7.7	Rabbits	
6.7.3	Broiler			6.7.8	Donkeys	
6.7.4	Ducks			6.7.9	Horses	
6.7.5	Guinea pigs			6.7.10	Dogs	

Broiler: Improved variety of chicken for meat only

Layer: Improved variety of chicken for egg laying only

SECTION 7: FISH FARMING

Question 7.1: *Was fish farming carried out by this farm operation during the 2014/2015 agricultural year (1 Oct 2014 - 30 Sep 2015).*

This Question aims at knowing whether the farm operator was practicing aquaculture during the agricultural year 2014/2015.

Answer: If the answer is YES, use code 1, then continue to row 1, otherwise use code 2, then skip to Section 8.

Question 7.2: Specify details of fish farming practices

This involves fish farming and production. This activity is different from fish catching as it involves keeping and raising of fish in ponds, generally referred as aquaculture. Information required here includes ponds owned by farm operators and not those owned by government.

Column 1: Production unit:

Each production unit number is prefilled for a maximum of three units. Record information in the following columns for the three most important units. The farmer should decide the three most important units to be recorded. Only one unit should be recorded per line.

Column 2: Fish farming system

Fish farming system is a system which involves raising of fish in natural pond, dug out pond, water reservoir. Adoption of these system depend on farm operators localities.

The enumerator must ask the farm operator about the type of fish farming system he/she manages, these may be natural pond, dug out pond, water reservoir, or other and choose the appropriate code from the list.

<u>Farming system</u>	
Natural pond.....	1
Dug out pond.....	2
Water reservoir.....	3
Other.....	9

Column 3: Size of unit/pond

This refers to the size of the unit/pond in meter square, ask the farm operator the size of pond in meter square , if he/she can not give the actual size, ask him/her to estimate.

Column 4: Source of fingerlings.

Ask the farm operator where he/she gets the fingerling for fish farming and then record the appropriate code. If operator lists source as "Other" record the type of source.

<u>Source of fingerlings</u>	
Own pond.....	1
Neighbour.....	2
Government institution.....	3
Private trade.....	4
NGO/Project.....	5
Natural pond.....	6
Other.....	9

Column 5: Frequency of stocking

Ask the farm operator how many times he/she stocked fingerling during Agriculture year 2014/2015

Number of Stocked Fish: Columns 6 and 7

Column 6: Type of Fish

In this question we will like to obtain information about the type of fish the operator raised. Record only one type of fish per line. Ask the operator for the majority type of fish raised within the production unit/pond. Use the appropriate code from the list provided.

<u>Type of Fish</u>	
Prawns.....1	Milkfish.....2
Crabs.....3	Sea cucumber.....4
Trout.....5	Mullet.....6
Tilapia.....7	Claries/Catfish.....8
Others.....9	

Column 7: Number of fish raised

In this column we would like to obtain total number of fish recorded in column 6 raised by farm operator. Ask the operator the total number of fish raised in the agricultural year 2014/15. If the fingerlings stocked multiple times in a year, the total sum of all stockings should be recorded in column 7.

For example, if an operator stocked:

- 1st stocking: 100 fingerlings
- 2nd stocking: 40 fingerlings
- 3rd stocking: 60 fingerlings
- The total to be recorded in column 7 is: $100+40+60 = 200$

It is important to ask the farmer that number of fish raised refer to the type of fish recorded in column 6 and include all stockings.

Column 8: Number of fish harvested

In this column we would like to obtain the number of fish harvested from each pond during the agricultural year 2014/15. Ask the farm operator about the total number of fish harvested in the crop year. **The number of fish harvested must be the type of fish recorded in column 6.** Write the number in the provided space in column 8. . Write 0 if there was no harvest during that period.

Weight of Fish

Column 9: Weight of fish harvested

Ask the farm operator about the total weight (kg) of fish harvested in each pond during the agricultural year 2014/15. **The weight of fish harvested must be the weight of the fish recorded in column 8.** Write the weight of harvested fish in the space provided in column 9. If there was no harvest then the columns 9-11 for this row should be blank.

Column 10: Weight of fish sold

Ask the farm operator about the total weight (kg) of fish sold in each pond during the agricultural year 2014/15. Write the weight of fish sold in the space provided in column 10. **Weight of fish sold should not be more than weight of fish harvested recorded in column 9. Only record weight of fish sold as identified in column 6.**

Column 11: Price per Kg

Ask the farm operator the average price of fish sold per kg for each pond, **according to type listed in column 6. Only record fish sold during the 2014/2015 crop year.** Record this price in the space provide in column 11.

SECTION 8: Conclusion

It is important that before concluding the interview that you cross check that the questionnaire is completed.

Then write your name and date you completed the questionnaire.

Next, go back to the results of interview in the front page and write an appropriate code (1 – 5) on how the questionnaire was completed according to the Results Coding section.

Enumerator notes/comments

It is important to provide all comments regarding the survey for the operation and any issues that need to be provided to the office. In addition to comments about the operation/questionnaire, it is very important to provide comments about the survey and issues that need to be addressed. These issues could cover the following items such as how to improve the questionnaire, documentation, enumerator training, survey materials, and other topics. In order to make sure the process is a success, it is important to make improvements and without comments or feedback, this will not happen.

This section will be completed following data collection (interviewer should leave the following area blank):

Supervisor's Name: _____

Date questionnaire reviewed: _____

Editor's Name: _____

Date edited: _____

Data entry's Name: _____

Date entered: _____

Supervisors only:

Supervisors should enter their name and date that the questionnaire was reviewed.