

LESOTHO CENSUS OF AGRICULTURE 2019/2020

Enumerators Instruction Manual

SEPTEMBER, 2019

Contents

1.1	Introduction.....	4
1.2.	Objectives of the Census of Agriculture	4
1.3.	Legal Basis.....	5
1.4.	Confidentiality	5
1.5.	Scope and Coverage.....	5
1.6.	The Census Organization.....	6
1.7.	Data Collection Method.....	7
1.8.	Census Period.....	7
1.9.	Content of Questionnaire	7
	CHAPTER 2: FIELD OPERATIONS	8
	GENERAL INSTRUCTIONS	8
2.1.	Conditions of Service.....	8
2.2.	TRAINING	8
2.3.	Role of Enumerator.....	9
2.4.	Safety and Security Precautions.....	9
2.5.	Identification	9
2.6.	Interviewing Techniques.....	9
2.7.	Refusal and Difficult Cases.....	11
2.8.	Equipment.....	11
2.9.	Careful Handling of Materials	12
2.10.	Primary Sampling Unit (PSU)	12
2.11.	Preparation of Itinerary	13
2.12.	Enumeration Documents.....	Error! Bookmark not defined.
2.13.	Enumerators Record of Visits (Enumerators Control Form)	13
2.14.	Retrieval and Delivery Forms	13
2.15.	Eligibility for Interview	13
2.16.	Consistency of answers.....	14
2.17.	Dealing with Non-response.....	14
2.18.	Call Backs	14
	CHAPTER 3: CONCEPTS AND DEFINITIONS	14
	CHAPTER 4 INSTRUCTIONS FOR COMPLETING THE VARIOUS INSTRUMENTS.....	21
	PART I: AGRICULTURAL CENSUS LISTING FORM.....	21
2.1.1	Listing.....	22

PART II: HOUSEHOLD QUESTIONNAIRE	23
SECTION A: IDENTIFICATION.....	23
SECTION B: DEMOGRAPHIC AND SOCIAL CHARACTERISTICS (THEME 1 and THEME 8)	24
SECTION C: LAND USE AND CROPS (THEME 2 AND THEME 4)	29
Ci: Land Use during 2019/2020 Agricultural Year (ask for Each field).....	29
Cii: Land Use Under Temporary Crops during 2019/2020 Agricultural Year (<i>ask for Each field</i>)	32
Ciii: Land under Permanent Crops during 2019/2020 Agricultural Year	33
Civ: Production and disposition of crop products.....	34
SECTION D: AGRICULTURAL PRACTICES (THEME 6).....	36
SECTION E: IRRIGATION SYSTEM (THEME 3).....	38
SECTION F: SERVICES FOR AGRICULTURE (THEME 7)	39
SECTION G: FARM IMPLEMENT AND ASSETS	44
SECTION H. Non- Residential Buildings	45
SECTION J: LABOUR INPUT (WORK ON THE HOLDING) (THEME 9).....	46
SECTION K: LIVESTOCK (Holding level).....	48
PART III: COMMERCIAL FARMS.....	52
GLOSSARY OF TERMS.....	54

1.1 Introduction

Census of agriculture is a statistical operation for collecting, processing and disseminating data on the structure of agriculture, covering the whole or a significant part of a country. Typical structural data collected in a census of agriculture are size of holding, land tenure, land use, crop areas, irrigation, livestock numbers, labour and other agricultural inputs. In an agricultural census, data are collected at the holding level and some community-level data will be collected.

The 2019/20 Agricultural Census (AC) will be conducted as part of FAO World Programme for the Census of Agriculture 2020 (WCA 2020). According to WCA 2020, census of agriculture is a statistical operation for collecting, processing and disseminating data on the structure of agriculture, covering the whole or a significant part of a country. Typical structural data collected in a census of agriculture are household information, land use, input use, irrigation, livestock, extension services, farm investment, farm labour and agricultural services (like credit and extension services). These data will be collected at the holding level.

Lesotho has been undertaking Agricultural Census since 1949/50 under the Ministry of Agriculture. The 1959/60 Agricultural Census was the second to be conducted in Lesotho by the Ministry of Agriculture. After the establishment of the Bureau of Statistics (BOS) in 1965, decennial Agriculture Censuses have been conducted. The 1969/70 Agricultural Census and subsequent ones have been conducted by the Bureau of Statistics under the mandate of Statistics Act of 1965, which was later repealed and replaced by Statistics Act of 2001. In between the censuses, BOS is conducting annual Agriculture Production Survey (APS) to provide updates on the key agricultural variables that change frequently. The last Agricultural Census was conducted in 2009/10 as part of the Food and Agriculture Organization of the United Nations (FAO) 2010 World Census of Agriculture. The 2019/20 census will be conducted in 2020 as part of FAO WCA 2020 round of agriculture censuses.

The 1999/00 and 2009/10 censuses were different from the first five in that the last two included urban areas. However, the 2019/20 census will cover rural areas and commercial farming in line with the Strategic Objectives of the National Strategic Development Plan (NSDP II) while emphasizing on the synergies of the “Global Strategy to Improve Agricultural and Rural Statistics” (2010).

1.2. Objectives of the Census of Agriculture

The overall objective of the AC is to provide data on the structure of agricultural holdings, with attention given to small administrative units; Agricultural census provides benchmarks to improve current agricultural statistics; and Agricultural census provides sample frames for agricultural sample surveys.

The overall objective of the AC is to provide data on the structure of agricultural holdings, with attention given to small administrative units; Agricultural census provides benchmarks to improve current agricultural statistics; and Agricultural census provides sample frames for agricultural sample surveys.

Specifically, the 2019/20 Census is designed to:

- Provide data on size of holding, land tenure, land use, and crop area;
- Provide data on irrigation;
- Provide data on livestock numbers;
- Provide data on labour and use of machinery;
- Provide data on gender-disaggregated agricultural statistics on key agricultural activities;
- Provide data on indicators for monitoring the sustainable development goals (SDGs), Malabo Declaration etc; and
- Above all, provide data on indicators for MAFS to lead and monitor trends in food security in line with the NSDP II strategic objectives.

1.3. Legal Basis

The Statistics Act of 2001 authorizes the Bureau of Statistics (BOS) to collect information in relation to Agricultural Census as directed by the Ministry of Development Planning. According to the act, every person shall to the best of his/her knowledge and belief answer, when so required, all questions asked. The Statistics Act therefore provides the legal authority for the agricultural census. The Act also provides penalties in a form of fine, imprisonment or both if either enumerator or members of the public fail in their duties in the provision of agricultural statistics.

1.4. Confidentiality

All information obtained from persons and households will be in strict confidence as required by the law (Statistics Act, 2001). All information will be used and made available to other persons in the aggregate form only. No individual information (Or questionnaire) will be released to anyone except to the personnel of the Bureau of Statistics for the compilation of the required statistics.

Staff is not permitted to discuss information obtained, or show records to anyone who is not an authorized officer in the census organization. They are also not to leave their census tools lying around where an unauthorized person may have access to it.

1.5. Scope and Coverage

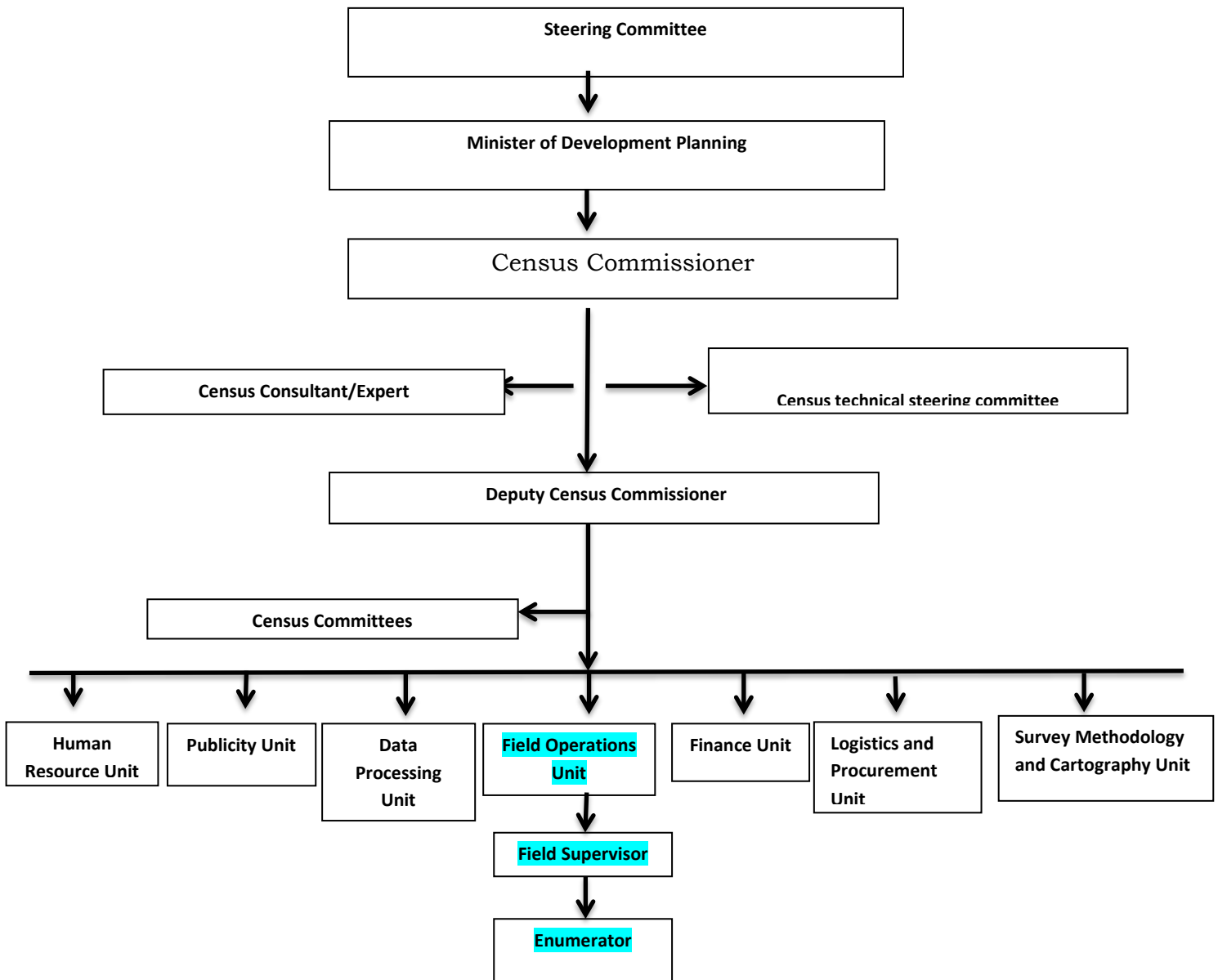
The Agricultural Census will cover agricultural activities (Crops – temporary and permanent; Livestock and Aquaculture in line with the NSDP II) on both households and commercial farms under different systems of land tenure in the administrative districts, type of settlement (Peri-urban and Rural) as well as the four (4) ecological zones in the country. All fields regardless of area will be covered i.e. there will be no cut-off threshold for field size. However, households with no fields, no cattle and less than:

three sheep or three mixed herd of sheep /goats; two pigs; or five (5) poultry would be excluded in the farming households sampling frame.

The reference period for the Agricultural Census is 2019/2020 agricultural year for crops and for livestock, it is the enumeration day. It will also cover both permanent and temporary crops grown in the fields and the kitchen gardens.

1.6. The Census Organization

The Director of the Bureau of Statistics who is the Census Commissioner is responsible to the Lesotho Government for undertaking censuses.



You are one of several field staff recruited to collect the census data. The organizational structure of the field work is as follows: Central Office Staff, Teams Supervisors and Field Enumerators.

There will be 50 teams. Each team will be made up of:

Team Supervisor	1
<u>Enumerators</u>	<u>5</u>
Total	6

1.7. Data Collection Method

The survey will use a face to face interview method but it will deviate from the traditional Paper and Pencil Personal Interview (PAPI) process to a newer approach of Computer Assisted Personal Interview (CAPI) method. Each enumerator will have a tablet with the questionnaire installed on it. The interviewer will record the responses from the respondent directly on to the tablet using drop down menus in the application. The skip patterns and certain consistency checks are already programmed into the application and those will guide the interviewing process.

The agricultural holdings and the agricultural holder (as defined) will be identified and data relevant to the holding will be collected from the holder. Area and production measurements will be by holder's estimates.

1.8. Census Period

The Agricultural Census will be conducted in January 2021 and is planned to last for 30 days. However, the Listing exercise will take place in October 2020 and will take 10 days. The time reference period is Lesotho's agricultural year which starts from 1st August 2019 to 31st July 2020.

1.9. Content of Questionnaire

The questionnaire is categorized into 10 main sections:

SECTION A: IDENTIFICATION

SECTION B: DEMOGRAPHIC AND SOCIAL CHARACTERISTICS (THEME 1 and THEME 8)

SECTION C: LAND USE AND CROPS (THEME 2 AND THEME 4))

Ci: Land Use during 2019/2020 Agricultural Year (*for Each field*)

Cii: Land Use Under Temporary Crops during 2019/2020 Agricultural Year (*for Each field*)

Ciii: Land under Permanent Crops during 2019/2020 Agricultural Year (*for Each field*)

Civ: Production and disposition of crops and crops products

SECTION D: AGRICULTURAL PRACTICES (THEME 6) (HH Level)

SECTION E: IRRIGATION SYSTEM (THEME 3) (household level)

SECTION F: SERVICES FOR AGRICULTURE

SECTION G: FARM INVESTMENT

SECTION H. Non- Residential Buildings (Storage facility)

SECTION J LABOUR INPUT (WORK ON THE HOLDING) (THEME 9) (Household Level)

SECTION K: LIVESTOCK (THEME 5) (Holding Level)

CHAPTER 2: FIELD OPERATIONS

GENERAL INSTRUCTIONS

2.1. Conditions of Service

1. You will be trained for a period of three weeks.
2. You will also be working irregular hours starting your interviews very early in the morning. Remember it is you who has to find the household members at their homes at those times, which are convenient to them. They have no obligation to await your arrival. **DURING THE FIELDWORK, YOU WILL BE EXPECTED TO WORK EVERYDAY INCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS. IT IS IMPORTANT TO UNDERSTAND THIS, AS THERE WILL BE NO EXCEPTIONS.**
3. If your area of work necessarily far, transport will in all cases be provided by the Bureau of Statistics Office. In hard to reach areas, your supervisor will authorize you to hire horses to take you to your areas whenever this should be necessary. However, as soon as you reach your area of work, you will have to travel on foot from village to village, household to household and so forth.
4. On reaching your area of work, you have to seek and find your own accommodation in one of the villages, preferably one that is centrally situated within the area. In this connection you will find most village headmen very helpful.
5. You have to provide your own food and clothing.

2.2. TRAINING

1. You have been recruited as enumerators for the 2019/20 AC. Before you actually go out to the field you will undergo an intensive three-weeks training.
2. The training will include reading of the manual paragraph by paragraph, giving examples, discussions, tests and practicals.
3. Engagement will be offered to those who satisfy the standards set at the training course in both theoretical as well as practical work.

2.3. Role of Enumerator

Your job is to ENUMERATE EVERY HOUSEHOLD IN A PSU.

It is to ask questions and to record the answers that are required. It is the most important single job in the census. You must make an effort to obtain complete and accurate answers and to record them correctly. Do not think that a few households that are not counted will be of no importance. If each enumerator does think the same, a few omitted by all the enumerators individually could sum up to a considerable number.

The success of the census depends mainly on good enumeration. Bad enumeration may only mean that a lot of resources would have been spent on worthless information, which can only lead to wrong decisions making.

2.4. Safety and Security Precautions

Your personal safety and security are extremely important. Remember:

1. Do not go into an area and /or buildings/house if you have not been given a permission to enter.
2. Be very careful of dogs
3. Wear comfortable walking shoes
4. Wear decent clothing preferably the survey t-shirt
5. Wear your survey identification card where it will be clearly visible. Under no circumstances should a survey official carry firearms or weapons of any kind while conducting the survey.
6. When entering an unsafe areas, inform your supervisor who will make arrangements for the police to escort you into the areas.
7. **Always wear a mask when visiting a household and use sanitizer frequently.**

2.5. Identification

1. Wear your ID card at all times. The ID has some security features that will help the public to be sure that you are a genuine employee of MAFS.
2. Always present your ID card for inspection by households and relevant authorities (in particular, be sure to give elderly people ample time to examine it)
3. The ID card is a matter of personal responsibility. Any damage or loss is for the employees account. If you lose your ID card you must report it at once to your supervisors.
4. You will be issued with a survey t-shirt, cap and a bag. Please wear them all the times while on duty. These will further help to identify you as a fieldworker in the field.
5. Return your ID card to your supervisor upon completion of fieldwork.

2.6. Interviewing Techniques

1. Initially, when approaching a household for interview, gain the confidence of the respondent to secure his/her willingness to answer your questions.

2. The first impression and the first things you do or say are of vital importance in gaining the cooperation and confidence of the respondent. Start by introducing yourself, stating your name (if you are not known to the respondent) that you are an employee of the Bureau of Statistics and what your visit is all about. The following example may be followed.

**“ Good morning. I am (your name) working
for the Bureau of Statistics. My visit today is
part of the nation-wide census...”**

3. As far as possible the questions on individuals should be answered by the person concerned that is himself/herself. Emphasize the confidentiality of the data being sought and explain that no individual's name will be used and that information pooled will be made to public only in the form of statistical aggregates.
4. It is important that you remain absolutely neutral as you administer the questionnaire. Do not lead the respondents to certain answers; do not show surprise, approval of the responses by your tone of voice or facial expression.
5. Ask questions correctly. Don't paraphrase using your own words.
6. Listen carefully to what the respondent is saying.
7. During the interview let the respondents take their time, never put answers in their mouths. It may happen that the respondent's answer to a question be incomplete or irrelevant, or that he/she has not been able to understand the question. If that happens, you will need to obtain complete or relevant answers by asking some additional questions. This is called **probing**. It may take the form of repeating or explaining the question. **But** again make sure that you do not suggest answers to the respondent.

Examples of Probing

Bad Probe

Interviewer: All together how many acres of farmland have you planted?

Holder: Oh I don't know

Interviewer: You must have planted about two acres. Is that about right?

Holder: Yes, I guess so.

Good Probe

Interviewer: All together how may acres of farmland have you planted?

Holder: Oh, I don't know.

Interviewer: Could you give me description of the boundaries and how the total areas compare with the cleared areas of your field?

Holder: Yes, my field planting areas cover about one-half of the cleared areas.

In the “bad probe” example, the interviewer suggests an amount, which the respondent accepts, but in the “good probe” example, the respondent stated in his own words that, the size of the areas he thought was in his planted land areas. A good probe is non-directive and if made in a pleasant way will usually cause the respondent to give careful thought to the answer. Enumerators frequently use bad probing because they want to help the respondent by putting words in his mouth.

8. Review your work before leaving the household.
9. When leaving the household and or village remember to thank the people for their cooperation.

2.7. Refusal and Difficult Cases

1. Should you come across someone who refuses to answer questions, continue to be courteous? Point out the importance of the census to the national development. Inform him/her that the operation is not being undertaken in connection with the political activities, such as elections or for tax collection purposes. Also information about individual persons will be treated with utmost confidentiality. Should the person still be uncooperative, report the matter to the village headman first and, if still necessary, to your supervisor.
2. Inform the respondents that the individual names listed on the questionnaire are purely to make sure that every household member’s information relates to that particular person. It also helps to ensure complete coverage and good quality information, and that it will never appear anywhere again in an individual form.
3. Should it also happen that an entire village refuses to cooperate, you must report back this matter to the headman and your supervisor at the earliest opportunity, either on his next visit to you or when you have completed the enumeration of the other villages in the PSU, despite the refusals continue with enumeration.

2.8. Equipment

When you have completed your training you will be supplied with a bag containing the following: -

- (a) Questionnaires
- (b) Tablet and charger
- (b) Hand held devices, solar chargers and accessories
 - (i) Tablet and charger
- (c) PSU Map
- (d) Enumerators’ Manual
- (e) Calendar of events

- (f) Identity cards
- (g) Letters of introduction
- (h) Pen
- (i) Household stickers
- (j) Village lists
- (k) Pencil
- (l) Pencil sharpener
- (m) Eraser

The enumerator must bear in mind that if an equipment is lost or damaged, he/she will have the cost deducted from his/her salary.

2.9. Careful Handling of Materials

1. When you receive your field material you have to check the equipment and make sure that it is complete before you sign for it. You are solely responsible for equipment until you have completed the assignment and handed everything to your supervisor who will in turn record the number of items received.
2. In the case where a paper questionnaire has been used, capture the questionnaire as soon as possible into the tablet.
3. You should handle the census documents and other materials carefully. You should never destroy any document. At the completion of your work, all census documents unused or canceled questionnaires should be returned to your supervisor.

2.10. Primary Sampling Unit (PSU)

1. You will be allocated 2 PSUs, and you are required to visit every dwelling unit in the area and complete the questionnaire relating to all persons in each unit.
2. PSU is a well-defined boundary and may be an enumeration area or a group of enumeration areas.
3. You will be provided with a PSU boundary description and a list of villages within your PSU. Your supervisor will accompany you to your PSU and show you its boundaries. Make sure that you are familiar with your PSU and its boundaries before you record particulars of the households.
4. You are expected to complete your work within an allocated time. This will be possible if you work conscientiously every day of the week of enumeration. You should however not stop work in the area until all households have been covered. If you realize that you may not be able to

complete the work within an allocated time, you should inform your supervisor as soon as such an eminent delay is apparent.

5. All PSU's have been assigned a numerical code with 7 digits. The first two specify the district, the second two show the constituency, the third digit indicates the zone and the last two digit indicates the PSU number.
6. This PSU code is very important for identifying the location of any cluster of villages; it is the principal guide for the office in directing all enumerators to their respective areas of work.
7. On reaching their PSU's there is a possibility that enumerators may find that in a few cases names of villages have been mis-spelt or village names misplaced. It is therefore very important that, on reaching their respective areas, all enumerators should ascertain that the villages listed for each PSU are actually located in the area. Check with the village headman and make the necessary corrections.
8. Should it happen that a listed village is not known in the neighborhood, or existing village has not been listed, the enumerator must report this to his/her supervisor during the first visit.

2.11. Preparation of Itinerary

1. Once you are familiar with your PSU and its boundaries, prepare an itinerary in an orderly fashion.
2. You should use whatever means at your disposal to advise and warn villagers about the approximate time you should expect to enumerate their villages. This will greatly facilitate your work in a large number of cases.

2.12. Enumerators Record of Visits (Enumerators Control Form)

1. At the end of village enumeration, before you move to the next village, complete the control form.
2. Write the District, PSU number; village name, relevant page numbers of that village and whether enumeration was completed, and if it was not completed give reasons (DESIGN CONTROL FORM).

2.13. Retrieval and Delivery Forms

For all material supplied, the enumerator has to acknowledge the receipt with signature. Similarly when he/she returns the material after completing the assignment, the enumerator has to make sure that the receipt is acknowledged with signature by the supervisor.

2.14. Eligibility for Interview

Remember that the households you visit and interview must be only those selected. Never should another household be substituted for the one selected for the interview.

2.15. Consistency of answers

It is very important during an interview to make sure that the answers given to various questions are consistent with Each other. This applies in particular to the information on ages. If inconsistent answers are produced, it is very difficult after you have left the household to find out which, if any, of these is correct. You should check **during the interview itself** that the information you are getting is consistent. This requires a thorough familiarity with the questionnaires. It also requires presence of mind during the interview.

2.16. Dealing with Non-response

Non-response means failure to obtain a complete interview. This could happen in different ways. Some common ways are that the selected household refuses to participate in the survey or temporarily gone somewhere.

In the case of refusing households, you should try to convince the household about the importance of taking part in the survey. If they still refuse then bring it to the attention of the team supervisor (TS). Team supervisor should visit the household and try to convince them. If she / he also fails then the matter need to be taken to the District supervisor. The District supervisor will in turn engage the assistance of the traditional authorities, councilors and District governors. Head office through the project manager also needs to be informed. Such cases need to be tackled carefully since the tendency is there for it to spread to other households if one case is allowed without taking any action.

If the selected household has gone somewhere temporarily after the listing and cannot be contacted (non-contact) then you need to follow it up at regular intervals (call backs) until such time that you have completed all other tasks of the PSUs. When you are ready to leave to the next selected PSUs and this household is still not there then you need to consider it as a non-responding household (non-contact). When your team is in the next sampled PSUs, you may still follow this up if the distance allows.

2.17. Call Backs

Each time you come to a household where no one is home or the head of household is not available or there has been a refusal, you must plan to make a callback. That is, you must make a return visit to obtain the required information within the days you are in the enumeration areas. It is very important that every household selected be counted. Your work will not be considered finished until you have completed all call-backs. A notebook has been provided to help you in recording all call-backs. Make them as soon as possible after your first visit, on the same day or the next day.

Work on call-backs everyday along with your regular work while you are in the same areas. All call-backs must be completed by keeping them up-to-date, you will save time and avoid unnecessary travel. In your oath of office as a survey employee, you promised that you will “well and faithfully discharge the duties of your office” Keeping up with all call-backs and obtaining the names of all heads of households are two of your most important duties.

CHAPTER 3: CONCEPTS AND DEFINITIONS

Agricultural censuses are mainly concerned with data on the basic organizational structure of agricultural holdings, such as size of holding, land tenure, land use, crop areas, irrigation, livestock numbers, labour, use of machinery and other agricultural inputs.

Historically, the census of agriculture has aimed to provide data on the structure of agricultural holdings, with attention given to providing data for small administrative units. Agricultural censuses have also been used to provide benchmarks to improve current crop and livestock statistics and to provide sampling frames for follow-up agricultural sample surveys. Previous agricultural censuses have focused on the activities of agricultural production units – that is, holdings or other units operating land or keeping livestock.

For WCA 2020, the objectives of the agricultural census are:

- To provide data on the structure of agriculture, especially for small administrative units, and to enable detailed cross-tabulations;
- To provide data to use as benchmarks for and reconciliation of current agricultural statistics;
- To provide frames for agricultural sample surveys.

1. What is a census of agriculture?

A census of agriculture is a statistical operation for collecting, processing and disseminating data on the structure of agriculture, covering the whole or a significant part of a country. Typical structural data collected in a census of agriculture are size of holding, land tenure, land use, crop areas, irrigation, livestock numbers, labour and other agricultural inputs. In an agricultural census, data are collected at the holding level, but some community-level data may also be collected.

2. Primary Sampling Unit (PSU)

This is an element or group of elements of a population, which is convenient for selecting samples. A sampling unit can be a group of persons, households or administrative are PSUs. The PSUs are sampled from a frame of agricultural PSUs. The boundaries of the PSUs are defined on a map. A description of the boundary of the PSUs and a locality list will be supplied as far as they are available.

You will be responsible for visiting every household in your PSUs and recording the particulars of all persons in those PSUs. Do not miss out any household nor count any person or household twice.

3. Locality

A *locality* is any place with one or more dwellings, either a compact settlement or scattered houses.

4. Household

“The concept of household is based on the arrangements made by persons, individually or in groups, for providing themselves with food or other essentials for living. A household may be either (a) a one person household, that is to say, a person who makes provision for his or her own food or other essentials for living without combining with any other person to form part of a multi-person household, or (b) a multi-person household, that is to say, a group of two or more persons living together who make common provision for food or other essentials for living. The persons in the group may pool their resources and may have a common budget; they may be related or unrelated persons, or constitute a combination of persons both related and unrelated” (UN, 2015b, paragraph 2.33). A person who lives alone and caters for himself/herself forms a one person household.

5. Household Head

Person who is considered by the household to take full responsibility in the household, such a person does not necessarily need to be an elderly person in the household.

6. Statistical unit

The statistical unit for a data collection is the basic unit for which data are collected. In previous agricultural census programmes, the statistical unit used has been the agricultural holding and this is used again in WCA 2020.

7. Agricultural holding

“An *agricultural holding* is an economic unit of agricultural production under single management comprising all livestock kept and all land used wholly or partly for agricultural production purposes, without regard to title, legal form or size. Single management may be exercised by an individual or household, jointly by two or more individuals or households, by a clan or tribe, or by a juridical person such as a corporation, cooperative or government agency. The holding’s land may consist of one or more parcels, located in one or more separate areas or in one or more territorial or administrative divisions, providing the parcels share the same production means, such as labour, farm buildings, machinery or draught animals.”

8. Agricultural holder

The agricultural holder is defined as the civil or juridical person who makes the major decisions regarding resource use and exercises management control over the agricultural holding operation. The agricultural holder has technical and economic responsibility for the holding and may undertake all responsibilities directly, or delegate responsibilities related to day-to-day work management to a hired manager.

By definition, the agricultural holding is under single management, and therefore there cannot be more than one agricultural holder for an agricultural holding. *However, there may be more than one joint holder in a holding.*

The agricultural holder in the household sector is often, but not always, the household **head**. The agricultural holder may do other work in addition to being a holder; being a “farmer” may not even be his/her main occupation. A distinction should be made between an agricultural holder and a hired manager. The *hired manager* of the holding is the person who manages an agricultural holding on behalf of the agricultural holder and is responsible for the normal daily financial and production routines of running the holding. The hired manager is a paid employee.

“For the household sector, there is usually a one-to-one correspondence between an agricultural holding and a household with *own-account agricultural production* activities (either for sale or for own use); in other words, all the own-account agricultural production activities by members of a given household are usually undertaken under single management. Managing agricultural production activities usually goes hand-in-hand with making common arrangements for food and other essentials, pooling incomes, and having a common budget. It is unusual for different household members to operate agricultural land or livestock completely independently, but to pool their incomes. It is also unusual for household members to operate land or livestock as a single unit, but to have independent household budgets. Even if there is a degree of independence in the agricultural activities of individual household members, the income or produce generated by different household members is usually pooled. Often, different members of the same household own land, but usually the agricultural operations in the household are carried out as a single unit” (WCA2020).

Usually, there is little difference between an agricultural holding and a household with own-account agricultural production. Countries see several benefits to equating the agricultural holding and household units.

9. Field: An area of land used for cultivating crops.

Area fallow: Agricultural land that was uncultivated with crops during the census period

FARM—A continuous piece of land on which a unique crop or a mixture of crops is grown, under a uniform, consistent crop management system. It must be continuous and should not be split by an obstruction (eg. River or Path etc.) of more than one meter in width. Farm boundaries are defined according to crops grown and the operator.

Farmhouse

A farm house is a house attached to a farm, especially the main house in which the farmer lives.

Commercial Farmer: production of crops and farm animal for sale usually with the use of modern technology.

Subsistence Farmer: farming whose products are intended to provide for the basic needs of the farmer, with little surplus for marketing.

Economic Activity: economic activities undertaken by the household linked to the premises of the agricultural holding or in close vicinity other than agricultural production on the holding.

Wooded Land: natural non-productive trees at the holding including shrubs and roads between trees respective of canopy and height

Aquaculture: fish farming at household level.

Irrigation: an action of purposely providing land with water other rain.

Extension services: provision of agricultural advice and information to crops and livestock producers.

1. Land tenure

Land tenure refers to the current status of the land operated by the holding. The collection of data should relate specifically to that land. Land rented out to others should be excluded. The reference period for land tenure data is usually the day of enumeration.

2. Land Use

Land use refers to activities – such as growing crops, raising livestock or cultivating fish – carried out on the land making up the holding with the intention of obtaining products and /or benefits.

3. Areas of holding according to land use types

Land use refers to activities – such as growing crops, raising livestock or cultivating fish – carried out on the land making up the holding with the intention of obtaining products and/or benefits.

Land use should be distinguished from “land cover”, which describes the physical characteristics of the land, such as grassland or forest. In the agricultural survey, the areas of the holding is classified according to its main land use.

Land under temporary meadows and pastures include land temporarily cultivated with herbaceous forage crops for mowing or pasture. A period of less than five years is used to differentiate between temporary and permanent meadows.

4. Land temporarily fallow

Land temporarily fallow is arable land at prolonged rest before re-cultivation. This may be part of the holding’s crop rotation system or because the normal crop cannot be planted because of flood damage, lack of water, unavailability of inputs, or other reasons.

Land is not considered temporarily fallow unless it has been, or is expected to be, kept at rest for at least one agricultural year.

Fallow land temporarily used for grazing should be classified as “fallow” if the land is normally used for growing temporary crops.

5. Land under permanent crops

Land under permanent crops refers to: land cultivated with long-term crops which do not have to be replanted for several years; land under trees and shrubs producing flowers, such as roses and jasmine; and nurseries (except those for forest trees, which should be classified under “forest or other wooded land”). Permanent meadows and pastures are excluded.

This group includes the growing of perennial crops – i.e. plants that last for more than two growing seasons, either dying back after each season or growing continuously. Included is the growing of these plants for the purpose of seed production. The group consists of:

- ❖ Growing of grapes;
- ❖ Growing of tropical and sub-tropical fruits;
- ❖ Growing of citrus fruits;
- ❖ Growing of pome fruits and stone fruits;
- ❖ Growing of other tree and bush fruits and nuts;
- ❖ Growing of oleaginous fruits;
- ❖ Growing of beverage crops;
- ❖ Growing of spices, aromatic, drug and pharmaceutical crops;
- ❖ Growing of other perennial crops.

6. Land under temporary crops

This includes all land used for crops with a less than one year growing cycle; that is, they must be newly sown or planted for further production after the harvest. In fact, this includes growing non-perennial crops – i.e. plants that do not last more than two growing seasons. Included is the growing of these plants for the purpose of seed production. For instance, crops that remain in the field for more than one year may also be considered as temporary crops. It consists of:

- ❖ Growing of cereals (except rice), leguminous crops and oil seeds;
- ❖ Growing of rice;
- ❖ Growing of vegetables and melons, roots and tubers;
- ❖ Growing of sugar cane;
- ❖ Growing of tobacco;
- ❖ Growing of fiber crops;
- ❖ Growing of other non-perennial crops; and also

- ❖ Growing of mushrooms and truffles;
- ❖ Growing of flowers, including production of cut flowers and flower buds;
- ❖ Growing of flower seeds.

(WCA2020, p.158).

7. Number of years since cleared (for each parcel)

The purpose of this item is to better understand the extent of recent land clearances, especially where shifting cultivation is present or where deforestation is a concern. Usually, it will only be necessary to collect data in broad ranges, such as: in the last one year; 1–3 years ago; 4 or more years ago.

Where different parts of the parcel are cleared at different times, the time when most of the land was cleared should be reported. If land is re-cleared after being left uncultivated for a long time, the most recent land clearance should be taken.

8. Irrigation

Irrigation refers to purposely providing land with water, other than rain, for improving pastures or crop production. Irrigation usually implies the existence of infrastructure and equipment for applying water to crops, such as irrigation canals, pumps, sprinklers or localized watering systems. However, it also includes manual watering of plants using buckets, watering cans or other devices. Uncontrolled land flooding by overflowing of rivers or streams is not considered irrigation.

9. Temporary crops

Temporary crops are those with a less than one year growing cycle. Some countries may wish to include only the major crops; however, it should be borne in mind that, because it is based on complete enumeration, the core survey module may provide the only means of getting reliable data for the minor crops.

10. Permanent crops

Permanent crops are crops with a more than one year growing cycle. Permanent crops may be grown in a compact plantation or as scattered trees/plants and both should be included.

11. Areas harvested

Area harvested refers to the total areas from which the crop is gathered. Thus, areas destroyed because of drought, flooding, pest attack or any other reason is excluded. In this regard, a certain percentage loss criterion – for example, yield is less than 20 of what it normally is – is used to determine if a crop is destroyed. Crop that is damaged but not destroyed is included in the areas harvested. If possible, the areas harvested should exclude uncultivated patches, footpaths, ditches, headlands, shoulders and shelterbelts.

12. Arable land

Arable land is land that is used in most years for growing temporary crops. It includes land used for growing temporary crops in a twelve month reference period, as well as land that would normally be so used but is lying fallow or has not been sown due to unforeseen circumstances.

13. Cropland

Cropland is the total of arable land and land under permanent crops.

14. Agricultural land

Agricultural land is the total of cropland and permanent meadows and pastures.

15. Land under temporary pastures

Land under Temporal pastures includes land temporarily cultivated with herbaceous forage crops for mowing or pastures. A period of less than five years is used to differentiate between temporally and permanent meadows.

16. Land under permanent pastures

Land under Permanent Pastures include land used permanently (for five years or more) to grow herbaceous forage crops, through cultivation or natural (wild prairie or grazing land).

17. Forest land

Forest Land refers to land with crown cover of more than 10 percent trees able to reach a mature height of 5 metres or more. It includes natural plantation forest areas that are temporarily not under trees but are expected to revert to forest are included.

18. Wooded land

Wooded Land refers to land with crown cover of 5-10 percent for trees able to reach a mature height of 5 metres or more at maturity; or crown that cover of more than 10 percent for trees not able to reach a height of 5 metres at maturity or bush cover of more than 10 percent.

19. Total areas of holding

Total areas of holding is the areas of all the land making up the agricultural holding. It includes all land operated by the holding without regard to title or legal form. Thus, land owned by members of a household but rented to others should not be included in the areas of the holding.

Conversely, land not owned by members of a household but rented from others for agricultural production purposes should be included in the holding areas.

The areas of holding may be zero, such as where the holding keeps livestock but has no land; this is called a landless holding.

20. Mixed or Associated Cropping.

Mixed cropping, also called *associated and inter-planted cropping*, refers to the situation when two or more different temporary or permanent crops are grown simultaneously on the same field or plot. This way of cultivation is widely used, particularly in developing countries, not only for temporary crops such as beans and maize but also for permanent crops, e.g., apples/pasture, grapes/beans, bananas/citrus, coconuts/pasture, bananas/cocoa/nutmeg.

It can happen that the area covered by crops grown in association with others is reported to be about the same as if the crops were sown alone.

In this case the entire areas of the plot could be attributed to each of the crops grown in association. Otherwise, it is recommended that areas for each one of the associated crops be estimated in such a way that figures relate to that part of the areas the particular crop would have covered if it had been grown alone.

The criteria for areas allocation to specific crops in mixed cropping are, inter alia, quantities of seed used, plant density, yield obtained, eye estimates. When this allocation is not possible, it was suggested that countries should report separately for crops grown alone and for crops grown associated with others.

21. Soil degradation

Soil degradation is the decline in soil quality caused by natural processes or, more commonly, improper use by humans. Its consequences include: loss of organic matter; decline in soil fertility; decline in structural condition; erosion; adverse changes in salinity, acidity or alkalinity; and the effects of toxic chemicals, pollutants or excessive flooding.

22. Soil erosion

Soil erosion is the displacement of soil material by running water, rainfall, wind or other factors, resulting in a decline of arable layers. Chemical degradation refers to deterioration in the chemical make-up of the soil because of loss of nutrients and/or organic matters, salination, acidification or pollution. Physical degradation refers to the physical deterioration of the soil, such as compaction, crusting and sealing, water-logging, and subsidence.

23. Bodies of water

Bodies of water refers to large accumulations of water, such as oceans, seas, and lakes, but it includes smaller pools of water such as ponds, wetlands, or more rarely, puddles. A body of water does not have to be still or contained; Rivers, streams, canals, and other geographical features where water moves from one place to another are also considered bodies of water.

24. Kitchen garden

A kitchen garden is a garden in which vegetables, fruits, and herbs are grown for household consumption.

25. Aquaculture is the farming of aquatic organisms such as fish, crustaceans, molluscs and plants, as opposed to other forms of aquatic exploitation such as capture fisheries.

The aquaculture holding's aquaculture facilities are located in one or more separate areas or in one or more territorial or administrative divisions, providing the facilities share the same production means, such as labour, buildings and machinery.”

CHAPTER 4 INSTRUCTIONS FOR COMPLETING THE VARIOUS INSTRUMENTS

PART I: AGRICULTURAL CENSUS LISTING FORM

This form is used for listing all households within the selected PSU. The main purpose of the form is to enable the second stage of sampling (i.e. selection of households, which are to be the Agricultural Census target).

2.1.1 Listing

On entering a PSU, listing of households will be carried out by the Enumerator under the guidance of the supervisor. She / he (Supervisor) will also be responsible to locate the selected sample agricultural households for the enumerators during the main census field work.

Identifying Agricultural Households

- First, ask questions about crops and livestock needed to identify all agricultural production units, regardless of size. Collect some basic information for those units.
- Second, ask some additional questions to identify those agricultural production units above the minimum size limit. Proceed to ask the more detailed questions for those units.

The census has two main reference periods – namely, the *census reference year* and the *census reference day*. The census reference year is a period of twelve months, usually either a calendar year or an agricultural year, generally encompassing the various time reference dates or periods of data collection for individual census items. Use of the agricultural year has the advantage that respondents often think of their activities in seasonal terms and thus find recall easier for this reference period. The census reference day is a point in time used for livestock numbers and other inventory items.

From the listed households, a list of agricultural households will be prepared by the Office from which 15 agricultural households will be systematically drawn.

Identification particulars: fill in as explained below.

Identification Information: Write down the name of the District, Constituency, Community Council, Zone and their codes, together with PSU code as supplied by the supervisor. Write down the name of the village supplied by the household and the code, if it is the first village you are enumerating, write the code as 01.

Population: Write down the total number of Males and Females listed in the form and add both totals. Also write down the total number of all households listed in the form.

Staff Details: Write down your name in full as an enumerator and date of interview.

Column 1: **Structure Number (ST no.):** Structure refers to buildings in the holding compound be it residential or non-residential. Write down the structure number of each structure/building. If a household has an optaka, a hut and a temporary structure, it has 3 structures. The structure numbers will be numbered 01, the second 02, the third 03 in two digits.

Column 2: **Household Number (HH no):** write down the household number of each household in the order they are visited, i.e. the household number of the first household will be number 001, the second 002, the third 003, etc in three digits.

Column 3: **Type of use:** write **R** if the structure of the household is used for residential purpose, **B** if it is used for both residential and business purposes and **N** if it is non-residential. Please note that business is non-residential is then coded **N**.

Column 4: **Name of Head of household:** write down the name and the surname of the household head as supplied by the household head or any other member of the household who is 18 years of age and above. This name should be commonly known by villagers.

Column 5: **Sex:** state whether the household head is male or female by writing **1** for male and **2** for female.

Column 6-7: **No. of Persons:** State the number of Males under and number of females respectively number of persons in household.

Column 8: **Did your household own/operate fields in the last Agricultural season? (Crops)** Write down **1** if yes and **2** if no, these are fields belonging to the household, excluding kitchen gardens (less 0.03ha). It should be clear that the fields belonging to the household are those belonging to any member of the household. It should also be noted that fields that are rented out are included in the count. Fields that belong to the household but are share-cropped should be included. Similarly write down the number of fields that are presently rented in and those not owned but fully operated by the household.

Column 9: **Did your household own livestock in the last Agricultural season?** Write down **1** if yes and **2** if no livestock is kept.

Column 10-12: **Leave columns 10-12 blank. These are for Office use.**

PART II: HOUSEHOLD QUESTIONNAIRE

SECTION A: IDENTIFICATION

In each structure, enumerators should identify eligible household (s) engaged in any of the agricultural activities within the PSUs i.e. Crop farming, Livestock and aquaculture. Ensure that before beginning the interview the enumerator should ensure that Section A of the questionnaire is completed. From the drop down menu, select the codes for District, Constituency, etc.

Identification: Select the appropriate codes for District, District and Primary Sampling Unit (PSUs) variables from the drop down menu. Select also the Structure Number and the Household Number (HH) from the drop down list before you continue with the interviews.

SECTION B: DEMOGRAPHIC AND SOCIAL CHARACTERISTICS (THEME 1 and THEME 8)

This section deals with the demographic characteristics and economic Status of the agricultural household members. It provides information on each individual person in the household.

Household member ID is a serial number which is already given in column 1.

B1: *List of Household (HH) members (start with head of Household):* Ask for and type in the *name* of each household member that lives in the household. Start with the head of HH as the first entry. A HH member must have lived in the household continuously for **at least six months** or has intention of staying with the household **beyond six months**.

B2: *Relationship with the head of HH:* Ask for each household member, the relationship to the Head of Household. *Select the applicable response from the drop down list.*

- 01 = Head of Household
- 02 =Spouse
- 03 =Partner (Cohabiting)
- 04 =Son/Daughter
- 05 =Son/Daughter-in-law
- 06 =Step Child
- 07 =Sibling
- 08 =Own Parent
- 09 =Step Parent
- 10 =Parent-in-law
- 11 =Grand Parent
- 12 =Great/Grandchild
- 13 =Other Relative
- 14 = Not Related

B3: *Sex. Ask the sex of each member of the HH.* Select the appropriate response either “Male” or Female” from the drop down list.

B4: *Age. Ask the age of each HH member.* Age refers to the age in completed years at the time of the survey (*i.e. Age at last birthday*). Using historic events, enumerator should assist respondents who do not know their age to estimate. Type in the applicable response. If age is less than 1 year write 00.

B5: *Marital Status. Ask the marital status of Each HH member 12 years and above.* If person is *less* than 12 years old, leave it **blank**. Select the applicable response from the drop-down list.

- 00 Never Married
- 01 Monogamously Married
- 02 Polygamously Married
- 03 Cohabiting
- 04 Separated
- 05 Divorced
- 06 Widowed
- 07 Don't know

B6: What is (name's) highest educational level? Only consider persons **three years and** older for this question. *Select the applicable response from the list.* If a person is *less* than three years old, leave it blank. *Check if B4<3 years, Next member.*

- 00 Pre-school
- (01-07) Std 1-7
- (11-15) Form 1-5
- 18 None
- 19 Non Formal Education
- 20 Diploma/Certificate after Primary
- 21 Vocational and Technical after Primary
- 22 Diploma/Certificate after Secondary
- 23 Vocational Technical after Secondary
- 24 Diploma/Certificate after High School
- 25 Vocational and Technical after High School
- 26 Graduate
- 27 Post Graduate Diploma /Honours
- 28 Masters
- 29 PHD
- 30 Other (Specify).....
- 99 Don't Know

B7: What is (Name's) Main Activity? This refers to **any** activity that the member carries out or is involved in. This refers to activity during the 2019/2020 agricultural year. Ask the MAIN *activity* that each Household member **10 years and above** is engaged in. If a person is *less than 10 years*, leave it blank. *Select the applicable response from the drop-down list. If B7= 15 skip to next member*

- 1=Crop production
- 2= Livestock
- 3= Crop production & Livestock
- 4= Fisheries
- 5= Forestry
- 6=Aquaculture
- 7=Trader
- 8= Artisan
- 9= Agricultural paid job outside holding
- 10 = Non agriculture paid job
- 11= No activity- looking for work
- 12= No activity - not looking for work
- 13 = Student
- 14 = Household work
- 15= Too young/ old

B8: Status of main activity. Ask the status of the MAIN activity for eligible household member in **relation to B7?** *Select the applicable response from the drop down list.*

- 1= Employee
- 2= Employer
- 3 = Own-account worker
- 4= Contributing family worker
- 5= Member of producers' cooperative
- 11= Other (specify)

An *employer* is a person who, working on his or her own account or with one or a few partners, holds a self-employment job and, in this capacity, has engaged on a continuous basis (including the reference period) one or more persons to work for him/her as employees. He/she makes the operational decisions that affect the enterprise, or delegates such decisions while retaining responsibility for the welfare of the enterprise.

A *self-employed* person is one who works in a job for which the remuneration is directly dependent upon the profits (or the potential for profits) derived through market transactions from the goods and services produced.

An *own-account worker* is a person who, working on his/her own account or with one or a few partners, holds a self-employment job in a market-oriented establishment and has not engaged any employees on a continuous basis during the reference period. However, during the reference period an own-account worker may have engaged one or more employees on a short-term and non-continuous basis.

A *member of a producers' cooperative* is a person who holds a self-employment job in an establishment organized as a cooperative, in which each member takes part on an equal footing with other members in determining the organization of production, sales and/or other work, investments and the distribution of proceeds among the members.

B9: *Does the Household member operate field/livestock?* Ask whether the HH member *operate* field/livestock. Select either “Yes” or “No” from the drop-down list.

B10a: *Is (Name) a decision maker on fields/livestock?* Ask whether the HH member *take decision on the field/livestock owned or operated/kept*. Select either “Yes” or “No” from the drop-down list.

B10b. *Kind of decision does (name) make?* Select from the drop-down list appropriate response.

1= Complete decision

2= Partial (in consultation)

B10c. *Is (name) a holder?* Select the appropriate response from the drop down list. *Check if B9=1 and*

B10a=1 then is a holder

1=Yes

2=No (Skip to next household member)

B11: What is holder's agricultural activity? Ask holder's MAIN agricultural activity. Select from the drop-down list.

1= Mainly crop production (*Copy the ID of member to Section C and applicable Sections*)

2=Mainly livestock production (*Copy the ID of member to Section K and applicable Sections*)

3=Mixed (*Copy the ID of member to Section C and applicable Sections*)

B12: Agricultural training/ education of holder. Ask for Each HH member **10 years and above** whether they have had any Agricultural training. Select from the drop-down list the appropriate response.

00= None

01= Informal learning in agriculture

02=Non-formal education in agriculture

03=Secondary education in agriculture

04= Tertiary education in agriculture

- ❖ **None** – no practical training/education, no ad hoc courses in agriculture and no training at secondary/tertiary education;
- ❖ **Informal learning in agriculture** – refers to practical agricultural training/education, i.e. experience acquired through practical work (field tours, etc);
- ❖ **Non-formal education in agriculture** – refers to short-term, ad hoc courses in agriculture, completed at or provided by a government institution, international organization or any specialized institution in agriculture;
- ❖ **Secondary education in agriculture** – refers to any education in agriculture completed at the secondary education level;
- ❖ **Tertiary education in agriculture** – refers to high level education training, acquired at the tertiary education level.

B14. What is the main purpose of production of the holding? Ask respondent the main purpose of production and select from the drop-down list the appropriate response.

1. Producing only for sale
2. Producing mainly for sale with some own consumption
3. Producing mainly for own consumption with some sales
4. Producing mainly for own consumption

B15. Apart from agricultural production, what were the other economic activities of the household?

The interviewer has to explain the question to the respondent and he/she should make sure that the respondent understood it. Apart from the agricultural production activities that are happening in this holding are there other economic activities that contribute or support this household. Some of the other common activities involves; hunting, fishing, and selling of goods and services.

Other economic activities are economic activities undertaken by the household linked to the premises of the agricultural holding, or in the close vicinity, other than agricultural production on the holding. This may include fishing, collecting forestry products, craft activities and operating a family business. It does not include paid work as an employee in an agricultural or non-agricultural capacity on the holding itself or for a business not associated with the holding.

Are there other Economic Activities on the holding? Ask the respondent whether there are any other economic activities performed on the holding other than agricultural activity. Select for the CAPI drop down list either “Yes” or “No” as per household response. If the response is “No”, enter 00.

Economic activity: The interviewer has to read all the option to the respondent so that the respondent will choose the options that apply to him/her after explaining what are the other likely economic activities. The list will be provided from the drop down menu in CAPI.

- A. Support agriculture and post-harvest crop activities
- B. Hunting, trapping, game propagation and related service activities
- C. Forestry and logging
- D. Fishing and aquaculture
- E. Manufacturing - Processing of agricultural products (agroprocessing)
Handicrafts
- F. Wholesale and retail trade, Repair of motor vehicles and motorcycles
- G. Hotels and restaurants (excluding agrotourism)
- H. Agrotourism
- Q. None
- X. Other

Animal trapping, or simply trapping, is the use of a device to remotely catch an animal. Animals may be trapped for a variety of purposes, including food, wildlife

Logging is the cutting, skidding, on-site processing, and loading of trees or logs onto trucks or skeleton cars.

Agrotourism - the practice of touring agricultural areas to see farms and often to participate in farm activities.

The last category, Other, covers all other economic production activities including activities related to construction and transportation.

B16: What is the main source of income for the household? Ask respondent the main source of income for the household and select from the drop-down list the appropriate response.

The interviewer has to explain the question to the respondent and he/she should make sure that the respondent understood. The household should indicate if they are having any other source of income apart from the agricultural production activities that this household is engaged in. In most cases, there are employed individuals who are earning wages or salary, or old age pension and other remittances. From the drop down list select the appropriate response.

- 01=Subsistence Farming
- 02= Cash Crop
- 03= Livestock
- 04 = Livestock Products
- 05= Remittance/Transfers

- 06 = Wage/Salary
- 09= Social Grant
- 13 Other (Specify).....

B17. How much is the contribution of agriculture to the total household income? Ask respondent the main purpose of production and select from the drop-down list the appropriate response.

- 1. Less than a quarter
- 2. A quarter to less than a half
- 3. A half to less than three-quarters
- 4. Three-quarters to less than all
- 5. All income

SECTION C: LAND USE AND CROPS (THEME 2 AND THEME 4)

Introduction

Identification: Check to see if CAPI has automatically transferred the Holder Number (B11) to Ci and insert the appropriate Field Number in C1_2 before you continue with the interviews for each holder.

In column 1 and column 3 of this Section Ci, spaces are provided to write Holder number and Field number, respectively. The interviewer should be able to correctly give field number to each household's/holder's holding based on the definition of field.

Ci: Land Use during 2019/2020 Agricultural Year (ask for Each field)

C1_1. How many fields does (Holder) operate? (If B11=1 or 3). Ask each holder the number of fields he/she operates in the reference year and record.

C1_2. Field No. Record the first field number and proceed to administer C1-C21. If Holder has more than one fields, go to the second field until all fields are covered.

C1: Where is the field located? Ask holder where the field is located. Select from the drop down menu the appropriate response.

- 1= Within PSU
- 2= Outside PSU but within District

C2: What is the Land use (LU) type for this field? Ask holder the land use and select from the drop down menu.

- 01= Land under temporary crops
- 02= Land under temporary meadows and pastures
- 03= Land temporary fallow
- 04= Land under permanent crops
- 05= Land under permanent meadows and pastures
- 06= Land under farm buildings and farmyards

- 07= Forest and other wooded land
- 08=areas used for aquaculture (including inland and coastal waters if part of the holding)
- 09= Land under temporary and permanent crops
- 13= Other areas not elsewhere classified

C3: What is the area of the field by land use in acres? Ask the respondent for an estimate of the areas planted to each crop indicated. Record the holder estimate for the area of the field by crop use type.

Note:

Land owned by members of a household but rented to others should **NOT** be included in the area of the holding. Conversely, land not owned by members of a household but rented from others for agricultural production purposes **SHOULD BE** included in the holding area.

C4: What is the tenure of the land? Ask how the holding acquired the specific field? Select the applicable response from the drop-down list.

- 1= Inherited
- 2= Purchased
- 3= Community land
- 4= Use right from local authority
- 5= Sharecropping
- 6= Borrowed
- 7= Rented
- 11=Other

Broad classification of Land Tenure Systems

Legal ownership or legal owner-like possession	<ul style="list-style-type: none"> • Inherited • Purchased
Non-legal ownership or non-legal owner-like possession	<ul style="list-style-type: none"> • Community land • Use right from local authority • Sharecropping
Rented or borrowed from someone else	<ul style="list-style-type: none"> • Borrowed • Rented
Other types of land tenure	

Legal ownership or legal owner-like possession describes land rights that provide statutory security of tenure. The following types of tenure arrangements may be included under this heading:

- The holder or members of the holder’s household possess title of ownership, which gives the holder the right to determine the nature and extent of the use of the land.
- The land is held under conditions that enable it to be operated as if legally owned by the holder or members of the holder’s household. A common type of legal owner-like possession is where land is operated under hereditary tenure, perpetual lease or long-term lease, with nominal or no rent.

- The land is held under a tribal or traditional form of tenure, which is legally recognized by the state. Such arrangements usually involve land being held on a tribal, village, kindred or clan basis, with land ownership being communal in character but with certain individual rights being held by virtue of membership in the social unit. Such arrangements can be formalized through the establishment of legal procedures to identify the community's land and to manage the land rights of community members.

Non-legal ownership or non-legal owner-like possession describes a variety of informal land tenure arrangements, which do not provide security of tenure, and where circumstances could arise in which the holder may be dispossessed of the land. The following types of tenure arrangements may be included under this heading:

- The holder or members of the holder's household have operated the land without interruption for a long period without any form of legal ownership, title, long-term lease or payment of rent.
- The land is operated under a system in which a rent free plot of tribal or other communal land is received and retained as long as it is kept under cultivation by the recipient's personal and household labour, but which cannot be sold or mortgaged.
- The holder is operating land owned by the state, without any legal rights.
- The land operated by the holder is held under a tribal or traditional form of tenure, which is not recognized by the state and is outside the realm of the law.

Rented land from someone else means land that is rented or leased by the holding from other persons, usually for a limited time period. Rental arrangements can take different forms.

- Land rented for ***an agreed sum of money and/or produce*** is usually the result of a straightforward transaction between the owner of the land and the holder, who takes responsibility for managing and operating the land.
- ***Share of the produce***, either in kind or in equivalent amount of money, covers the situation in which a share amount is agreed upon by the owner and the holder depending on local conditions and the type of agriculture involved. Technical responsibility for management is usually exclusively with the holder, but is sometimes shared, to a limited degree, with the owner. Here, the owner may contribute tools, fertilizers or other aids, and may also share the economic risks.
- ***Exchange for services*** refers to arrangements in which the holder is granted use of the land in return for services. Often, it is in lieu of wages, such as when an agricultural labourer operates a piece of land in return for which he/she must work, unpaid, for the landlord for a certain number of days. Another example is when a holder is granted use of land in partial payment for services to government, religious organization or other institution.
- ***Other rental arrangements*** include land granted rent-free, perhaps under stipulated conditions such as growing certain crops.

Borrowed. In this situation, holder borrows land from someone without payment but will have to return the land to the owner when required.

C5: What were the soil conservation measures used in the field? Ask holder the soil conservation measures used in the field. Select the all that apply from the drop down menu (*Multiple responses*).

- A= Terraces/contour
- B= Cover Cropping
- C= Crop Rotation
- Q=None

X= Other (Specify...)

C6. Check for the responses to C2, select from the drop down list and continue to appropriate Sub-Sections in Section C.

1. Temporary crops only, continue to Cii;
2. Permanent crops only, skip to Ciii;
3. Both temporary and permanent crops, continue to Cii.

Cii: Land Use Under Temporary Crops during 2019/2020 Agricultural Year (*ask for Each field*)

Complete the two columns of this Section Cii for the Holder number and Field number, respectively.

C7_1: Is this (field) pure stand (Compact) or mixed? Select from the drop down list whether field is “Pure stand or Mixed”

C7. What type of crop is planted on the field? List all the Temporary crops cultivated in the reference period. From the drop down menu, enter the code of the temporary crop.

C8.

C9:

What proportion of the area was planted to temporary crops? Ask respondent to estimate the proportion of the area planted to temporary crops. Select from the drop down menu the appropriate response.

- 01= $\frac{1}{4}$ of field
- 02= $\frac{1}{2}$ of field
- 03= $\frac{3}{4}$ of field
- 04= Whole field

C10: What proportion of the field was harvested? Ask respondent for the proportion planted areas harvested. Selected from the drop down menu the appropriate response.

- 00= None
- 01= $\frac{1}{4}$ of field
- 02= $\frac{1}{2}$ of field
- 03= $\frac{3}{4}$ of field
- 04= Whole field

C11: What was the purpose for harvested crop? Ask holder the areas of temporary crop harvested by purpose. Select from the drop down menu the appropriate response (Multiple response).

- A= Food for human consumption
- B= Feed for animals
- C= Biofuels
- X= Other uses (specify...)

C12. Was the area harvested fertilized? Ask respondent and select from the drop down menu (If No skip to C14_1).

1=Yes

2=No

C13. What type of fertilizer was used? Ask respondent the type of fertilizer used and select from the drop down menu (See Glossary).

1= Mineral fertilizers (Inorganic fertilizer)

2=Organo-mineral fertilizers

3= Organic fertilizer

4=Biofertilizers

5=Manure

11=Other organic materials to enhance plant growth

Ciii: Land under Permanent Crops during 2019/2020 Agricultural Year

C14_1. ? Is this field Scattered or Compact? Select from the drop down list whether field is “Scattered or Compact” (state the major one)

1= Scattered

2= Compact

C14: What was the type of tree planted on the field? From the drop down menu select the appropriate response. Check if C14_1=1 ask C15-C20. However, if C14_1=2, Skip to C21

A= Apple

B= Peach

C= Grape

D= Pear

E= Apricot

F= Plum

G= Quince

H= Orange

I= Pomegranate

J=Nectarines

K= Cherry

L= Blueberries

M=Raspberry

N=Fig

O= Chest Nuts

P= Lemon

Q= Olives

R= Prickle pears

X= Other (Specify)

C15: What was the total number of trees in compact plantations? Number of trees (for permanent crops): Ask the respondent for the number of trees on the field under permanent crops indicated.

C16: What proportion of the area was planted to compact plantations?

01= ¼ of field

02= ½ of field

03= ¾ of field

04= Whole field

C17. Was the area planted fertilized? Ask respondent and select from the drop down menu (**If No skip to C19**). **1= Yes**

2= No

C18. What type of fertilizer was used? Ask respondent the type of fertilizer used and select from the drop down menu (**see Glossary**).

1= Mineral fertilizers (Inorganic fertilizer)

2=Organo-mineral fertilizers

3= Organic fertilizer

4=Biofertilizers

5=Manure

11=Other organic materials to enhance plant growth

C19: What was the total number of bearing trees in compact plantations? Ask the respondent the total number of trees bearing fruits and record the answer.

C20: . What was the purpose of bearing trees in compact plantations? Ask holder the areas of bearing trees in compact plantations by purpose. Select from the drop down menu the appropriate response (Multiple responses).

01=Food for human consumption

02=Feed for animals

03=Biofuels

05=Other uses (Specify)

C21. What was the total number of trees in scattered plantations? Ask holder the total number of trees scattered plantations and record the answer.

Civ: Production and disposition of crop products

The aim of this section is to get a broad indicator of the extent to which agricultural holdings are participating in the market economy.

For Each crop that was grown during the reference year, the following information will be recorded: Holder ID and Crop Code.

C22: Crop Code. After listing the different crops that were entered in Sections Cii-Ciii, the CAPI will transfer all the crops and codes to this section automatically. Therefore, this field will already have the required information and it is imperative that the listing of the fields is done correctly in order to have accurate information. Crop names and codes are provided in the appendix.

C23: What was the quantity harvested? Ask the respondent the total number of units harvested and record in Kg.

The quantity harvested includes those consumed before harvest.

C24:

C25: What quantity of unprocessed crop harvested was sold?? Ask the respondent the quantity sold. (If no sale, record 00 and skip to C27)

C26: To whom was quantity MOSTLY sold to? Ask the respondent and select the applicable response from the drop down menu to whom the production was mainly sold?

1. Government organizations (through auction sales)
2. Parastatals
3. Private trader local market village
4. Private trader district market
5. Private trader at farm gate
6. Development Partners
7. NGOs
8. Neighbor/Relative
11. Other

QUANTITIES WHICH WERE USED FOR OTHER PURPOSES

C27: What quantity was processed for sale? Ask the respondent the quantity (in unit) that was used or set aside as sale. **(if none record 00).**

C28: What quantity was processed for animal feed? Ask the respondent the quantity (in unit) was used or set aside as animal feed. **(if none record 00).**

C29: What quantity was given to landlord/proprietor or to others? Ask the quantities (in unit) given to landlord/proprietor or to others. .

- A. Land lord/proprietor

- B. For labour
- C. Friends/relatives
- D. Exchange for other goods
- Q. None
- X. Others (specify)

Landlord/proprietor is one that owns and rents land, building, or Structure.

C30: What quantity was consumed by household including that before harvest or set aside for home consumption? Ask the quantity (in unit) used/set aside for home consumption by the farm household.

C31: What quantity was set aside as seed? What quantity was used/set aside for seeds? Inquire and enter the quantity (in unit) of seed used or set aside for future use. **(if none record 00).**

C32: How much quantity stored or currently in storage? Ask the respondent the number of quantity stored in the household. Inquire and enter the quantity (in unit). **(if none record 00).**

C33: How much was lost after harvest (%)? Enter the percentage lost after harvest due to damage/wasted, insects, rodents, rotting etc. Record holder's estimate in percentage.

C34: Where did MOST losses happen? Ask the respondent where most of the product losses happened and select the appropriate response from the drop down list.

- 1= On the field
- 2= During the storage
- 3 = During the transport
- 4=Loss at Processing
- 5=Loss at Packaging
- 6=Loss at Sales
- 8 = Others

SECTION D: AGRICULTURAL PRACTICES (THEME 6)

D1: Which of the following seed inputs did (holder) use? Ask the respondent whether any of the seed inputs was used on the farm. Select from the dropdown list select **ALL** the appropriate agricultural inputs as given by the respondent.

- A. Self Production
- B. Local seeds
- C. Improved seeds
- D. Hybrid seeds
- E. Genetically modified (GM) seeds

Self Production – includes local seeds from household production

Local seeds –non hybrid seeds which is open pollinated and is collected for future planting.

Improved seeds-that are higher in yielding, more nutritious, and both drought and climate resilient, they are normally used 2 to3 times.

Hybrid seeds –hybrids seeds cannot be collected for future planting as they will not germinate or grow

Genetically Modified (GM) crops are grown from GM seeds, which are proprietary and developed by the private sector and which possess a novel combination of genetic material obtained through the use of modern biotechnology

D2: What was the Main Source of seeds? Ask the holder where they get their supply of input from. From the dropdown list select the application response of the source as provided by the respondent.

- 1=Own
- 2=Exchanges within community
- 3=Local markets
- 4=Seed company
- 5=Donation
- 6=Cooperatives
- 7=Government
- 8=NGOs

D3: Which fertilizer inputs did (holder) use? Ask the holder if any type of fertilizer was used during the reference period. Select the appropriate response from the drop down menu. *If none skip to D5.*

- A= Mineral fertilizers (Inorganic fertilizer)
- B=Organo-mineral fertilizers
- C= Organic fertilizer
- D=Biofertilizers
- E=Manure
- Q = None
- 11=Other organic materials to enhance plant growth

D4: What is the Main Source of Fertilizer? Ask the holder where they get their supply of fertilizer input from. From the dropdown list select the application response of the source as provided by the respondent.

- 1=own
- 2=markets
- 3=cooperatives
- 4=government
- 5=NGOs

D5: Which of the following Pesticides inputs did (holder) use? Ask the holder if any type of Pesticides **inputs** was used during the past twelve months. Select the appropriate response from the drop down menu. *If none skip to Section E.*

- A. Insecticides
- B. Herbicides
- C. Fungicides
- D. Rodenticides
- Q. None
- X. Other pesticides

Definitions

Pesticides (sometimes called “agricultural chemicals”) are materials intended to mitigate, control or eliminate pests in plants or animals, or to control the behaviour or physiology of pests or crops during production or storage. They are mostly synthetic chemicals produced in concentrated form, which are diluted for application with various substances such as water, talc, clays or kerosene. These can be categorized as shown above.

Insecticides are substances used to kill or repel insects.

Herbicides are substances used to destroy or inhibit the growth of plants, such as weeds.

Fungicides are substances that destroy or inhibit the growth of fungi.

Rodenticides are substances that kill, repel or control rodents.

D6: What was Main Source of Pesticides? Ask the holder where they get their supply of pesticides input from. From the dropdown list select the application response of the source as provided by the respondent.

1=own

2=markets

3=cooperatives

4=government

5=NGOs

SECTION E: IRRIGATION SYSTEM (THEME 3)

Irrigation refers to purposely providing land with water, other than rain, for improving pastures or crop production. Irrigation includes any process under which water is moved from a water source to apply to an agricultural crop.

This item refers to the physical areas of land irrigated, not the total areas of crops irrigated.

-Land irrigated for successive crops in different seasons within the reference period is only counted once in computing the areas of land irrigated and shown under multiple-irrigated crops.

-Land under temporary crops with single-irrigated crop refers to land with single irrigated crop during the reference period, or land with successive crops with irrigation being used for only one of the crops during the reference year.

From the dropdown; select the Household number (HH), Holder number and Farm/parcel number.

In the first two columns the CAPI will transfer the listed crop fields from Section 3.

E1: Was any of the holding's field irrigated during 2019/2020 Agricultural Year? Ask the holder if any type of irrigation was used during the reference period. Select the appropriate response from either "Yes" and Skip to E3 or if "No" continue to E2.

E2: What was the main reason for not irrigating? Ask the holder why irrigation was not used in the reference year. From the drop down menu select the appropriate response **and skip to Next Section.**

01 No irrigation System

02 Inadequate Water

03 Adequate rains (no need)

09 Other (Specify)

This item relates to the actual use of irrigation, not whether the holding is equipped for irrigation.

If there was irrigation on the holding, give details on the main source, main method of obtaining and applying water.

E3: What was the main source of irrigating water? Ask the holder to find out what the water source is for that is used for irrigation. From the dropdown menu select the appropriate response against the source of irrigation that the respondent has given you.

- 1= Surface water River /Lake/Pond/Mountain (by gravity))
- 2= Surface water (River /Lake/Pond (pump))
- 3= Dam /Reservoir /earth dam (Manual watering (buckets/cans)
- 4=Dam /Reservoir /earth dam (pump)
- 5= Ground water (Deep Well/Tube well) (Motor Pump)
- 6= Ground water (Shallow well) Dam /Reservoir /earth dam (Manual watering (buckets/cans)
- 7=Mixed surface water and groundwater
- 8= Municipal/Town Council Water supply
- 9= Harvested
- 10 = Borehole (manual)
- 11 = Borehole (mechanized)
- 12 = Treated Waste water/untreated
- 13 = Rural Water Supply
- 15= Other Canal

E4: What was the main method of irrigation used? Ask the holder the main method of irrigation system used. From the drop down menu select the appropriate response.

- 01 Gravity
- 02 Hand Pump
- 03 Motor Pump
- 04 Manual watering (buckets/cans)
- 07 Other (Specify) (for each field)

E5: What area was irrigated (acres)? Ask the holder the area of field irrigated (in acres) and record the response.

SECTION F: SERVICES FOR AGRICULTURE (THEME 7)

Extension services and Credit

Fi: Extension Services and agriculture information

Agriculture extension refers to the provision of agricultural advice and information on crop and livestock producers etc. Extension services may be provided by government institutions, non-government organizations, farmer organizations, educational institutions, informal grassroots organizations and others. Extension services may cover advice to farmers in areas such as: farm management; selection of crop varieties; use of inputs such as fertilizers; credit; farm mechanization; animal health; plant protection; sustainable development; and marketing. Extension services may also be used by governments to distribute inputs, disseminate market information and promote the production of particular commodities or crop varieties.

There are many different methods of implementing extension services. Often, extension workers visit farmers to provide on-the-spot advice. Demonstrations of new farming practices or technologies are

sometimes arranged for small groups of farmers, or more formal training programmes may be organized for larger groups of farmers. Sometimes, study tours are arranged for farmers to observe agricultural practices in other places. Usually, agricultural extension is free of cost to the farmer; sometimes, it is not.

Extension service topics

Farm Management
 Selection of crop
 Input use
 Credit
 Farm mechanization
 Livestock husbandry
 Plant Protection
 Environmental conservation
 Marketing
 Water irrigation and drainage
 Other Specify

Information topics

Weather
 Crop varieties
 New agricultural practices
 Farm machinery
 Credit facilities
 Plant diseases and pests
 Marketing
 Range land management
 Livestock husbandry & diseases
 Agronomic practices
 Water and irrigation
 Fish farming
 HIV/AIDS
 Others

F1: Did the holding receive extension services during 2019/2020 Agricultural Year? The interviewer should ask each eligible respondent whether the holding has ever received any extension service. From the drop-down list select the appropriate response either “Yes” or “No”. If the response is “Yes” then F2-F4 should not be blank and if the respondent answers “No” then **(IF NO, skip to F5)**.

F2. Which of the following extension service providers did holding interact with? Select all that apply.

- A. MAFS veterinary staff
- B. MAFS agricultural extension officer
- C. Farmers' unions
- D. CDA (Cooperative Devt. Agency)
- E. Local/INGO
- F. Fisheries
- G. Forestry
- H. Private sector Dealers
- I. EPA (Environmental Protection Agency)
- X. Other

F3: Which of the following extension services did holding receive? Ask of the type of extension services received by the farm. From the drop-down menu select all the appropriate responses.

- A. Farm management
- B. Selection of crop
- C. Input use
- D. Credit
- E. Farm mechanization
- F. Livestock husbandry
- G. Plant protection
- H. Environmental conservation
- I. Marketing
- J. Water irrigation and drainage
- K. Nutrition

X. Other

F4: Which of the following extension service providers' best satisfied the holding's need? Ask the farmer which of the extension services he / she is satisfied with. Select all the appropriate responses from the drop-down list.

This is Multiple response but *if NONE is selected, there cannot be any other choice.*

- A. None
- B. MAFS veterinary staff
- C. MAFS agricultural extension officer
- D. Farmers' unions
- E. Local/INGO
- F. Fisheries
- G. Forestry
- H. Private sector Dealers
- I. Environmental Protection Agency
- X. Other

F5: Did the holding receive any agricultural related information? Select the appropriate responses either "Yes" or "No" from the drop-down list. If the response is "None" then skip to F8.

F6: What type of information did holding receive? Ask the respondent which of the topic was received and choose the appropriate responses from the drop-down list.

- A. Weather
- B Crop varieties
- C. New agricultural practices
- D. Farm machinery
- E. Credit facilities
- F. Plant diseases and pests
- G. Marketing
- H. Livestock husbandry & diseases
- I. Agronomic practices
- J. Water & Irrigation
- K. Fish farming
- L. HIV/AIDS
- M. Nutrition
- X. Other

F7: What was the Main source of information? Refers to where the holder received information to help manage the agricultural holding. Ask the respondent the main sources of extension's services received. Select the appropriate response from the drop-down menu.

- 01= Radio
- 02= Television
- 03= Internet
- 04= Newspaper
- 05= Agric. Magazines/Bulletins
- 06= Extension officers
- 07= Farmer to farmer
- 08= Farmers' associations

09= Agric show/exhibitions

10= Neighbour

15= Other

Fii: Access to Credit/ Loan

Definition of Credit/LOAN: Credit/Loan for agricultural purposes refers to any type of credit received for purposes related to the operations of the agricultural holding. This includes credit for purchasing crop and livestock inputs, constructing farm buildings, and purchasing farm machinery. Credit not related to agricultural operations, such as for construction of the holder's house, for other family businesses, or for consumption expenditure, should be excluded.

Source of Credit refers to who provided the credit. The specific source classes will depend on the institutional arrangements for credit in the country. Examples of source are Farmers' Union; money lender; etc.

Period of credit/loan refers to the period over which the credit/loan is to be paid off, as agreed at the time the credit/loan was received.

If credit was received more than once during the reference year, the period should be reported for the last credit/loan.

Normally, the **period** of credit/loan is reported in ranges to reflect the likely reasons for using credit, such as for short-term (for the current crop) or long-term (for major capital outlays). Typical groupings are: Less than 12 months, 12–36 months, , more than 36 months.

Collateral is defined as assets pledged as security for a credit/loan of money, which means that if the borrower defaults on the terms of the credit/loan, the collateral may be sold and the proceeds used to pay off the loan. For the purpose of the agricultural census, collateral is used in a wider sense to also cover guarantee provided for the purchase of goods and services.

Inappropriate purpose of credit/loan refers to situation where the purpose did not meet the requirements for the credit/loan.

F8: *Did this holding apply for a credit/loan for agricultural purposes in the last 5 years?* Ask whether the holder applied for a credit/loan in the last five years. Select from the drop-down list the appropriate response which is either "Yes" or "No". If the response is "No" then skip to F15.

F9: *Was the credit/loan granted?* Ask the respondent whether the loan which was applied for was granted. ***If more than one loan applied for in F8, ask of the last credit/loan.*** Select from the drop-down list the appropriate response which is either "Yes" or "No". If the response is "No" then skip to F14 and if the response is "Yes" continue to ask F10 to F13.

F10: What was the MAIN Source of Credit/Loan received during last 5 years? Select the appropriate response from the drop-down list of loan provider.

01= Commercial Banks

02= Micro finances institutions

03= Farmers' Union

04=Input supplier

05= Money lenders

06= Self-help group

- 07= Government
- 08 = Cooperatives
- 09= NGO
- 10= Family and friends
- 15= Other

F11: What was the credit/Loan Period? : Ask the holder how long it takes to pay the loan off. From the dropdown menu select the appropriate response.

- 1 = Less than 12 months
- 2 = Between 12 and 36 months
- 3 = More than 36 months
- 4 = Others

F12: What was the MAIN purpose for the credit/Loan? Ask the holder why the loan was needed. From the dropdown menu select appropriate response given by the holder.

- 01= Agriculture labour
- 02= Seeds
- 03= Fertilizer
- 04= Agro chemicals
- 05= Farm implements and machinery
- 06= Irrigation structures
- 07= Livestock
- 08= Aquaculture (marine resources and fisheries)
- 09= Trading agricultural produce
- 10= Tractor
- 11= Borehole
- 12= De-bushing (clearing of land)
- 13= Threshing
- 18= Other agricultural purpose

F13: What was the MAIN Type collateral security? Ask the holder if there was any security for the loan provided. Select the appropriate response from the drop-down list.

- 0= No collateral
- 1= Land title
- 2= Crops
- 3= Livestock
- 4= Salary
- 5= Third party
- 6= Property (Moveable/immoveable)
- 7=Investment
- 11= Other

F14: For those who were not granted loan. Why was the credit/loan not granted? Ask the holder why the loan was not granted. From the dropdown menu select the appropriate response.

- 1= Lack collateral security
- 2= Not profitable
- 3= Income too low
- 4= Previous debt problems
- 5=Could not get a guarantor

- 6= Amount applied for too high
- 7=Inappropriate purpose of loan
- 8=Did not meet requirements
- 9= Late application
- 12=Other

F15: For those who did not seek credit/loan. **What were the reasons for not seeking credit/loan?** Ask the respondent why the holding did not apply for credit/loan. From the dropdown menu select the appropriate response.

- 01 No need for credit
- 02 Unavailability of lending facilities
- 03 Interest too high
- 04 Negative Past experience
- 05 Unaware of the service
- 09 Other (specify)

SECTION G: FARM IMPLEMENT AND ASSETS

Identification: Select the appropriate codes for District, and Primary Sampling Unit (PSUS) variables from the drop down menu. Select the Household Number (HH) from the drop down list before you continue with the interviews.

This section comprises machinery, implements and other facilities used on the holding solely or partly for agricultural production during the last 12 months.

Note: Machinery, implements and other facilities used solely for agricultural purpose, in working order at some point during the last 12 months should be reported.

TYPE OF MACHINERY/EQUIPMENT

From the drop down menu of machinery, implements and facilities, for Each of them find out whether it was used during the past 12 months or not.

G1: Did the holding use (Name of Equipment) during the past 12 months? Ask respondent the types of equipment used by the holding during the reference period. For each of the equipment, select 1=Yes, 2=No. (*If no, go to next equipment*).

Type of Equipment

- 01=Forage Harvester
- 02=Combine Harvester
- 03= Truck/Other Vehicles
- 04= Generator
- 05=Sprayer
- 06= Incubator
- 07=Ridger
- 08=Scotch

- 09=Tractor Seed Planter
- 10=Tractor
- 11= Tractor Plough
- 12Thresher
- 13=Power Tiler
- 14=Milking Machine
- 15=Disks Harrow
- 16=Water Pump (Pompi)
- 17=Honey Extractor
- 18=Drip Irrigation
- 19=Other (specify).....

Manual

- 20=Hoe
- 21=Digging fork
- 22=Rake
- 23=Spade
- 24=Hand Pump and other hand irrigation device
- 25=Transplanter
- 26=Sprayer (Knap Sack)
- 27=Ox-Plough
- 28=Seed Planter
- 29=Scotch Cart
- 30=Disk Harrower
- 31=Cultivator
- 32=Cultivator (Sekofolo)
- 33=Yoke Other (specify)

G2: What was the source of ownership?

Source of the machinery/equipment refers to the means by which the holder obtained the right to use the specific item. Select from the drop down menu the appropriate response.

- 1 = Owned solely by the holder or members of the holder’s household
- 2 =Owned by the household jointly with other households
- 3 =Provided by the landlord
- 4 =Provided by other private holders (excluding cooperatives)
- 5 =Provided by a cooperative (Farmers’ Union)
- 6 =Provided by a private agricultural service establishment
- 7 =Provided by a government agency
- 8 = Rented
- 9 =Borrowed
- 14 = other

SECTION H. Non- Residential Buildings

H1: Did the holding use non-residential building for agricultural purposes during 2019/2020

Agricultural Year? From the drop down men select either 01= Yes or 02= No (Skip to Section J)

H2: What was the purpose of the non-residential building? From the drop down men select appropriate response.

- 1=For keeping livestock other than poultry
- 2=For keeping poultry

3=For storing agricultural products

4=For mixed or other purposes

H3: What was the area in meters for each type purpose of the non-residential building? Record the area for each type of non-residential building used.

H4: What was the tenure of the building? Select the appropriate response from the drop down menu.

01=Owned

02=Rented

03=Borrowed

07=Other, specify

SECTION J: LABOUR INPUT (WORK ON THE HOLDING) (THEME 9)

This section applies to people aged 10 years and above. This Section deals with work on the holding and covers the two types of work inputs on the agricultural holding (i) work provided by household members and (ii) work provided by outside workers.

Questions J1-J6 refer only to household members who worked on the holding.

Household member ID. Record the ID of household Member from Section B.

J1. Did any member of the household work on this holding in the past agricultural year? Ask any member of the household worked in the holding during the agricultural reference year. If any member worked for the holding record 1 for Yes and if No, record 2 and skip to J7.

J2: Names of Household Member: Copy name of eligible household member from B1.

J3. Was (*name*) male or female? Copy sex of household member “Male” or Female” from B3.

01=Male

02=Female

J4. What was (*name*'s) age? Age refers to the age in completed years at the time of the survey (*i.e. Age at last birthday*). Copy age of household member from B4.

J5. Did (*name*) work on the holding during the past agricultural year? Ask if member of household worked on the holding during the last agricultural reference year.

J6. What was (*name*'s) working time on the holding? Ask respondent the household member's working time on the holding and select from the dropdown menu (see J12 for codes).

01= Full-time work for less than 1 month in a Year

02=Full-time work 1-3 months in a Year

03=Full-time work 4-6 months in a Year

04= Full-time work 7+ months in a Year

05= Part-time work for the less than 1 month in a Year

06 = Part-time work 1-3 months in a Year

07= Part-time work 4-6 months in a Year

08= Part-time work 7 + months in a Year

Full-time – for those working full time in the field from the start till the end.

Part-time- for those helping out after doing their activities.

J7-J15 relate to work provided by outside workers (i.e. employees).

An **employee** is a person who works in a job for which an explicit or implicit contract provides remuneration not directly dependent on the revenue of the unit for which the person works. In other words, employees hold paid employment jobs. Typically, an employee receives wages and salaries for the time worked.

However, remuneration may also be in the form of in-kind payments, such as food, or on a commission or piece-rate basis.

Employees can be grouped together according to a short or long duration of their implicit or explicit contracts (e.g. regular employees, seasonal, short-term and casual workers).

J7: Did the holding have farm employee(s) during the last agricultural reference year? Ask if the holding had any employees during the agricultural reference year. If the holding had employees, record 1 for Yes and if No, record 2 and skip to K1.

J8: Names of Employees: List the names of all employees.

J9. Was (*name*) male or female? Select the appropriate response either “Male” or Female” from the drop down list.

01=Male

02=Female

J10.What was (*name’s*) age? Age refers to the age in completed years at the time of the survey (*i.e. Age at last birthday*).

J11. What was (*name’s*) terms (nature) of employment? Ask the respondent the nature of the employment and select the appropriate response from the drop down menu.

01= Temporary

02= Permanent

J12. What was (*name’s*) working time on the holding? From the drop down menu select the appropriate response.

01= Full-time work for less than 1 month in a Year

02= Full-time work 1-3 months in a Year

03= Full-time work 4-6 months in a Year

04= Full-time work 7+ months in a Year

05= Part-time work for the less than 1 month in a Year

06 =Part-time work 1-3 months in a Year

07= Part-time work 4-6 months in a Year

08= Part-time work 7 + months in a Year

Working time covers the time spent by outside workers and household members in jobs and work activities on the agricultural holding during the twelve-month reference period.

Note that a full-time work regardless of the duration is a permanent job whereas the part-time work is temporary job.

J13. What types of services were provided by (name)? Ask respondent type of services rendered by the employee and select all that apply. **(Multiple response)**

01=Tree pruning

02= Crop harvesting

03= Weeding

04= Planting

05= Applying pesticides

06= Herding

07= Sheep/goat Shearing

08= Farm Administrations

11= Other (Specify)

J14. Did (name) work for pay? Select ask respondent whether employee worked for pay or not and select the appropriate response. ***If No, Next employee.***

01=Yes

02= No

J15.What was the form of payment? Ask respondent the form of payment used by the holding. Select from the list all that apply.

01= Money

02= Farm produce

03= Exchange of Labour

05= Other forms of in kind labour

Form of payment refers to the form or forms of payment used on the holding during the reference year.

SECTION K: LIVESTOCK (Holding level)

Livestock refers to all animals, birds and insect kept or reared in captivity mainly for agricultural purposes. This includes cattle, sheep, goat and pigs, as well as poultry. ***Domestic animals, such as cats and dogs, are excluded unless they are being raised for food.***

Note that the reference period for the livestock is the day of enumeration

The number of animal is the animal population on the holding at a specific point of time, the day of enumeration. These refer to number of animals being raised by the holding on the day of enumeration, regardless of ownership. Animals raised include those present on the holding, as well as those being grazed on communal grazing land or transit at the time of enumeration, except livestock belonging to another holding moved temporarily for sanitary or other reasons (sanitary cleaning, etc.). The latter should be reported by the other holding.

Grazing system is characterized by ruminants (e.g. cattle, sheep, goats and camels) grazing mainly on grasses and other herbaceous plants, often on communal or open-access areas and often in a mobile fashion. In this system more than 90 percent of the dry matter fed to animals comes from grazed grasses and other herbaceous plants. The following categories can be considered:

- **Nomadic or totally pastoral** refers to livestock raised in a situation where the agricultural holder has no permanent place of residence and does not practise regular cultivation. Livestock moves from place to place with the agricultural holder and his/her household, depending on the season and the availability of feed or water.
- **Semi-nomadic, semi-pastoral or transhumant** refers to livestock raised by holders who live a semi-nomadic life. Typically, the holder has a permanent residence to which he/she returns for several months of the year according to seasonal factors. For semi-nomadic and semi-pastoral systems, the holder establishes a semi-permanent home for several months or years and may cultivate crops as a supplementary food source. Herds are moved on transhumance to assure forage and water.
- **Sedentary pastoral** refers to livestock raised by holders who have a permanent residence.

Ranching refers to large-scale livestock activities carried out on large areas of land set aside for extensive grazing, where livestock graze mainly on grasses and other herbaceous plants. In recent years, the numbers of nomadic and semi-nomadic holdings are declining and the majority of holdings within the grazing system are sedentary pastoral.

Mixed system describes the largest and the most heterogeneous livestock system, in which cropping and livestock-rearing are linked activities. It is defined as a system in which grazing may be largely practised but more than 10 percent of the dry matter fed to animals comes from crop or crop by-products or stubble; and less than 90 percent of the dry matter of the animal feed is off-farm produced.

Industrial system refers to intensive livestock-raising methods in which (at least 90 percent of the dry matter) of the animal feed is off-farm produced. It often consists of a single species (beef cattle, pigs or poultry) fed in feedlots or other in-house systems of feeding.

Identification: Select the appropriate Holders Number from the drop down list before you continue with the interviews.

K1: Does the holding keep/rear any of the following livestock? Enter Yes or No for the respective livestock from the drop down menu.

01= Yes

02= No

Type of Livestock

01=cattle

02=Sheep

- 03=Goats
- 04=Horses
- 05=Donkeys
- 06=Mules
- 07=Pigs
- 08=rabbits
- 09=Chicken
- 10=Duck
- 11=Geese
- 12=Turkey

K2. What is the main type of livestock system for the household? Select the appropriate response from the drop down menu.

(If K1= 01-06)

- 01= Grazing System
- 02= Industrial System
- 03= Mixed System

K3a-K3f. How many heads of each cattle does holding have? From the drop down list select the livestock (exotic and indigenous) and enter number per type of animal. *Also indicate for each type the number owned by female holders.*

CATTLE

Type of Cattle

1. Females Calves under 1 Year
2. Female Calves 1 Year but less than 2 Years
3. Males Calves under 1 Year
4. Male Calves 1 Year but less than 2 Years
5. Bulls (2 years and over)

Cows (2 years and over)

K4. How many cattle are kept mainly for meat/milk/breeding/draught Power? For each of the purpose record the total number kept.

- 1=Meat
- 2=Diary
- 3=Breeding
- 4=Draught Power

SHEEP

K5a-K5f. How many of the following sheep does holding have? From the drop down list select the livestock (exotic and indigenous) and enter number per type of animal. *Also indicate for each type the number owned by female holders.*

Type of Sheep

1. Females Sheep under 1 Year
2. Female Sheep 1 Year and above

3. Males Sheep under 1 Year
4. Male Sheep 1 Year and above

K6. How many sheep are kept mainly for meat/wool/breeding? Enter the number for each type of animal.

GOATS

K7a-K7f. How many of the following Goat does holding have? From the drop down list select the livestock (exotic and indigenous) and enter number per type of animal. *Also indicate for each type the number owned by female holders.*

Type of Goat

1. Females Kids under 1 Year
2. Female Goats 1 Year and above
3. Male Kids under 1 Year
4. Male Goats 1 Year and above

K8. How many Goat are kept mainly for meat/mohair//breeding? Enter the number for each type of animal.

OTHER LIVESTOCK

K9a-K9f. Total Number of pigs. From the drop down list select the livestock (exotic and indigenous) and enter number per type of animal. *Also indicate for each type the number owned by female holders.*

Type of Pigs

1. Piglet less than 3 months
2. Pigs Over 9 months
3. Pigs 3months to 9 months

K10. How many pigs are kept mainly for meat/breeding? Enter the number for each type of animal.

EQUINES

K11. How many male/female equines does the household own, raise or manage?

1. Horses
2. Donkeys
3. Mules

K12. How many of each equines are owned by female holders? *Indicate for each type the number owned by female holders.*

K13. How many equines are kept mainly for transport/draught power/breeding? From the drop down list select the livestock and enter number per type of animal.

POULTRY

K14. What is the number of poultry kept by the holding? Enter the number for each type of poultry.

1. Improved Chicken
2. Indigenous Chicken
3. Ducks
4. Geese
5. Turkeys

K15. How many are owed by female holders? For each type enter the number owned by female holders.

K16. How many are kept mainly for meat/eggs/ breeding. For each type of poultry enter the number.

K17-K18. How many male/female improved rabbits does the household own, raise or manage? Enter the number of male/female rabbits owed by the holding. Also for each type enter the number owned by female holders.

K19. What is the type of feeding for each type of livestock? For each type of livestock either improved or unimproved indicate the feeding type. (*multiple response*)

Type of livestock

- 01=cattle
- 02=Sheep
- 03=Goats
- 04=Pigs
- 05=Horses
- 06=Donkeys
- 07=Mules
- 08=Poultry
- 08=rabbits

Type of Feeding

- 01 Forages/Roughages
- 02 Agro-industrial by-products
- 03 Swill/Household Waste
- 04 Supplements/Additives
- 05 N/A
- 09 Other (Specify)

PART III: COMMERCIAL FARMS

Before beginning the interview the enumerator should ensure that Section A of the questionnaire is completed. From the drop down menu, select the codes for District, Constituency, etc.

Identification: Select the appropriate codes for District, District and Primary Sampling Unit (PSUs) variables from the drop down menu and complete all relevant fields.

Note that there is no Section B (Household information). However, Sections C to K will be completed the same way as in the Household Questionnaire.

GLOSSARY OF TERMS

Additional items: one of the three categories of census items which are provided for countries wishing to collect more in-depth (supplementary) data on specific themes. They can be collected using either the classical or modular approach.

Aggregated results: data grouped into classes according to various classification criteria.

Agricultural holder: civil person, group of civil persons or juridical person who makes the major decisions regarding resource use and exercises management control over the agricultural holding operation.

Agricultural holding: economic unit of agricultural production under single management comprising all livestock kept and all land used wholly or partly for agricultural production purposes, without regard to title, legal form or size.

Agricultural land: total of cropland and permanent meadows and pastures.

Agroforestry: 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.

Aquacultural census: collection of structural data from all aquacultural production units.

Aquacultural holding: economic unit of aquacultural production under single management comprising all aquaculture facilities without regard to title, legal form or size.

Aquaculture: farming of aquatic organisms such as fish, crustaceans, molluscs and plants, as opposed to other forms of aquatic exploitation such as capture fisheries.

Arable land: land used in most years for growing temporary crops.

Archiving: a means of ensuring long-term preservation of data including ensuring its understandability by users.

Associated crop: a temporary crop grown in a compact plantation of permanent crops.

Biofertilizers: products containing living or dormant micro-organisms, such as bacteria and fungi, which provide nutrients to enhance plant growth.

Biofuel: fuel, such as biogas or biodiesel, which is produced from renewable resources, especially plant biomass, vegetable oils or treated municipal and industrial wastes.

Census: statistical collection involving the enumeration of all units (large sample-based collections are sometimes also referred to as censuses).

Census classical approach: a census conducted as a single one-off operation in which all the census information is recorded.

Census core module: the primary agricultural census collection in the modular approach, carried out on a complete enumeration basis to provide key structural data.

Census coverage: geographical regions of the country covered by census activities. Sometimes, countries omit certain areas of the country – such as urban areas, remote areas or areas with security problems – for operational reasons.

Census modular approach: approach to census data collection that consists of a clearly distinguishable core module and supplementary sample-based module(s), which use information collected in the core module as the frame for the supplementary module(s).

Census of agriculture and aquaculture: an agricultural census and an aquacultural census conducted as a combined field enumeration system.

Census of agriculture: statistical operation for collecting, processing and disseminating data on the structure of agriculture, covering the whole or a significant part of a country.

Census reference day: point in time used for data collection on livestock numbers and other inventory items.

Census reference year: period of twelve months, either a calendar year or an agricultural year, generally encompassing the various time reference dates or periods of data collection for individual census items.

Census scope: types of agricultural production activities included in the agricultural census. The scope of the agricultural production industry could be interpreted very broadly to cover not only crop and livestock production activities but also forestry and fisheries production activities, as well as other food and agriculture-related activities.

Census supplementary module: sample-based module undertaken in the modular approach in association with the core census module to provide more in-depth data.

Classification variables: characteristics used for the classification of data.

Common pasture: land not belonging directly to the agricultural holding, but on which common rights apply. In general terms, common pasture is agricultural area owned by a public authority (state, parish, etc.) over which another person is entitled to exercise rights of common; these rights are generally exercisable in common with others.

Community-level data: data collected at community level, such as community infrastructure and services, communal grazing land, area of communal forest, area equipped for irrigation, etc.

Compact plantation: plants, trees and shrubs planted in a regular and systematic manner, such as in an orchard.

Complete enumeration: collection of data from all units, rather than from just a sample of units.

Compost: organic materials of animal, plant or human origin, partially decomposed through fermentation, used to improve soil structure and provide nutrients.

Computer-Assisted Personal Interview (CAPI): interviewing method whereby the enumerator records responses using an electronic questionnaire on mobile devices such as personal digital assistants, tablets, laptops or smartphones.

Computer-Assisted Self Interviewing (CASI): collects data using questionnaires placed on the Internet using secure methods and completed by a knowledgeable respondent.

Computer-Assisted Telephone Interview (CATI): collects data from the holdings by telephone, with the operator located at central level reading and completing the questionnaire on the computer.

Conservation agriculture: combination of use of crop rotations, zero or no tillage, and presence of permanent soil cover.

Crop residues: straw, stubble or other plant parts leaving good mulch that remain from the previous harvest.

Crop rotation: technique of growing alternating species or families of crops in a specific field in a planned pattern or sequence.

Cropland: total of arable land and land under permanent crops.

Cross-tabulations: tables showing statistical data classified by two different items simultaneously.

Current agricultural statistics: ongoing agricultural statistics on such things as production and prices, as opposed to structural data collected in the agricultural census.

Cut-off threshold: minimum size limit for inclusion of agricultural units in the census.

Digester (biogas reactor): a reactor in which animal excreta, with or without straw and/or other materials such as wood shavings, sawdust, etc., are collected and anaerobically digested in a large containment vessel or covered lagoon.

Double-cropping: see *successive crops*.

Drainage: artificial removal of excess surface water or groundwater, together with dissolved substances, to enhance agricultural production.

Educational attainment: highest grade of formal education completed or attended by a person.

Employee: person who holds a paid employment job.

Employer: person who, working on his or her own account or with one or a few partners, holds a self-employment job and, in this capacity, has engaged on a continuous basis one or more persons to work for him/her as employees.

Enterprise: economic unit of production, under single management, that independently directs and manages all the functions needed to carry out production activities.

Enumeration area: small geographical unit defined for census enumeration purposes.

Essential items: items that are imperative for national purposes and international comparability, which all countries are recommended to collect, regardless of their approach to the census.

Establishment: an enterprise or part of an enterprise situated in a single location and primarily engaged in a single type of production activity.

Fertilizers: mineral or organic substances, natural or manufactured, which are applied to soil, irrigation water or a hydroponic medium, to supply plants with nutrients or to enhance plant growth.

Field: piece of land in a parcel separated from the rest of the parcel by easily recognizable demarcation lines, such as paths, cadastral boundaries, fences, waterways or hedges.

Food Insecurity Experience Scale (FIES): scale designed to yield a quantitative measure of the severity of a household's food insecurity condition, the latter intended as a description of the combined effect of the resource constraints people face when accessing food. The indicators resulting from the use of the FIES standard can be compared across countries and over time.

Forest: land spanning more than 0.5 ha with trees higher than 5 metres and a canopy cover of more than 10 percent, or trees able to reach these thresholds *in situ*.

Frame items: items related primarily to the modular approach; those items collected in the core module and deemed necessary for the establishment of frames for supplementary census modules or follow-up surveys.

Frame: the basis used for identifying all the statistical units to be enumerated in a statistical collection.

Genetically modified seeds: seeds possessing a combination of genetic material obtained through the use of modern biotechnology.

Global Positioning System (GPS): system that makes it possible to find the geographic position of a point on the earth's surface by longitude and latitude. GPS allows geo-referencing of the holding, the household and the land to the appropriate administrative areas. GPS devices enable much more rapid measurement of areas than traditional objective methods for area measurement.

Gross cropped area: sum of areas of all temporary crops grown.

Hired manager: person who manages an agricultural holding on behalf of the agricultural holder.

Holder: see *agricultural holder*.

Holding: see *agricultural holding*.

Holdings in the household sector: holdings that are operated by household members.

Holdings in the non-household sector: holdings that are in sectors other than the household sector, such as corporations and cooperatives.

Household food security: situation in which all members of a household at all times are consuming enough safe and nutritious food for normal growth and development, and for an active and healthy life.

Household: arrangements made by persons, individually or in groups, for providing themselves with food or other essentials for living.

Interplanted crops: plot or field in which one crop is planted between rows of another crop.

Irrigation: action of purposely providing land with water, other than rain, for improving pastures or crop production.

Joint holder: person making the major decisions regarding resource use and exercising management control over the agricultural holding operations, in conjunction with another person.

Labour force status: one of three mutually exclusive categories in which a person may appear: in employment; in unemployment; or outside the labour force.

Land tenure: arrangements or rights under which the holder operates the land making up the holding.

Land under farm buildings and farmyards: surfaces occupied by operating farm buildings, buildings for animal production and farmyards.

Land use classification: classification of land according to the activity undertaken on the land.

Land used for agriculture: total of "agricultural land" and "land under farm buildings and farmyards".

Legal status of the holder: juridical aspects under which an agricultural holding is operated.

Liquid manure: urine from domestic animals, possibly including a small amount of excrement and/or water.

Livestock: all animals, birds and insects kept or reared in captivity mainly for agricultural purposes.

Manure: fertilizer prepared from organic material. Manures contribute to the fertility of the soil by adding organic matter and nutrients, such as nitrogen, that are trapped by bacteria in the soil. The manure (animal manure) has three main forms: solid/farmyard, liquid and slurry. Solid/farmyard manure is a mixture of solid excreta of domestic animals with or without litter used for their bedding, possibly including a small amount of urine. Liquid manure is urine from domestic animals, possibly including a small amount of excrement and/or water. Slurry is manure in liquid form, a mixture of liquid and solid animal excreta, with or without dilution with water and/or small amount of litter.

Metadata: information that helps users to understand what the data are measuring and how they have been created. This information helps to prevent users misunderstanding the data and helps to promote appropriate use of the data. Metadata can also help users to understand the quality of data by providing information about the data collection process.

Microdata: data recorded on the unit of enumeration – the holding or household – when an agriculture census is conducted. Each set of information about a unit represents a microdata record.

Mineral fertilizers (inorganic): fertilizers prepared from inorganic materials manufactured through an industrial process.

Mixed crops: more than one crop grown unsystematically in a plot or field.

Net cropped area: physical area of land on which temporary crops are grown.

Nursery: area where young plants, trees or vines are propagated for the purpose of transplanting.

Organic agriculture: holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles and soil biological activity.

Organic fertilizers: fertilizers prepared from processed plant or animal material and/or unprocessed mineral materials (such as lime, rock or phosphate) containing at least 5 percent combined plant nutrients. Organic fertilizers include some organic materials of animal origin, such as guano, bone meal, fish meal, leather meal and blood.

Organo-mineral fertilizers: materials obtained through blending or processing organic materials with mineral fertilizers to enhance their nutrient content and fertilizing value. This includes green manure, compost and sewage sludge, lime, gypsum, sawdust, crop residue and synthetic soil conditioners.

Other wooded land: land spanning more than 0.5 ha² with: (i) trees higher than 5 metres and a canopy cover of 510 percent or trees able to reach these thresholds *in situ*; (ii) trees not able to reach a height of 5 metres *in situ* but with a canopy cover of more than 10 percent; or (iii) combined cover of shrubs, bushes and trees of more than 10 percent.

Own-account worker: person who, working on his/her own account or with one or a few partners, holds a self-employment job, and has not engaged any employees on a continuous basis during the reference period.

Own-use production work: form of work comprising production of goods and services for own final use (an unpaid form of work).

Paper and Pen Interview (PAPI): traditional interviewing method whereby enumerators interview the respondents and data is collected by the enumerators using paper questionnaires.

Parcel: any piece of land of one land tenure type, entirely surrounded by other land, water, road, forest or other features not forming part of the holding or forming part of the holding under a different land tenure type.

Permanent crops: crops with a more than one-year growing cycle.

Persons in employment: persons of working age who, during the reference period, were engaged in any activity to produce goods or provide services for pay or profit.

Persons in own-use production work of goods: persons of working age who, during a short reference period, performed any activity to produce goods for own final use for a cumulative total of at least one hour.

Persons in unemployment: persons of working age who: (i) were not in employment; (ii) carried out activities to seek employment during a specified recent period; and (iii) were currently available to take up employment given a job opportunity.

Persons outside the labour force: persons of working age who were neither in employment nor in unemployment during the reference period.

Pesticides: materials intended to mitigate, control or eliminate pests in plants or animals, or to control the behaviour or physiology of pests or crops during production or storage.

Plot: part or whole of a field on which a specific crop or crop mixture is cultivated.

Population census: the total process of planning, collecting, compiling, evaluating, disseminating and analyzing demographic, economic and social data at the smallest geographical level pertaining, at a specified time, to all persons in a country or in a well-delimited part of a country.

Production: actual quantity of produce, after drying and processing, ready for sale or consumption.

Protective cover: roof of glass, plastic or other material over a permanent structure, used for protecting crops against the weather, pests or diseases.

Quality assurance: measurement of relevance, accuracy, reliability, timeliness and punctuality, accessibility and clarity, comparability and coherence of the data.

Reference group: group of holdings to be tabulated for the item in a tabulation; for example, the item “area irrigated” is only meaningful for land holdings.

Rural households: households living in areas designated as rural areas, usually defined by the population census.

Sample enumeration: sampling of the whole or part of the target population for the census.

Sample survey: collection of data from a sample of units, rather than all units, as in a census.

Sampling errors: errors in statistics obtained from a sample survey because data are collected from only sample units.

Sampling frame: list of units to be sampled.

Scattered plants: plants or trees planted in such a manner that it is not possible to estimate the area (often around the holding).

Shifting cultivation: farming practice whereby a particular piece of land is cultivated for some years and then abandoned for a period sufficient to restore its fertility by natural vegetative growth before being recultivated.

Single-stage sampling: sampling scheme in which the sample is selected directly from a list of units covered by the survey.

Slurry: manure in liquid form – a mixture of excrements and urine of domestic animals, possibly including water and/or a small amount of litter.

Soil conservation practices: sustainable practices to prevent and reverse the degradation of soil through appropriate land use and management practices.

Soil degradation: decline in soil quality caused by natural processes or, more commonly, improper use by humans.

Solid/farm manure: excrement (with or without litter) of domestic animals, possibly including a small amount of urine.

Statistical unit: the basic unit for which data are collected. The statistical unit for the census of agriculture is the agricultural holding.

Status in employment: classification of jobs held by persons, or of persons in employment.

Structural data: data on the basic organizational structures of agricultural holdings that do not change quickly over time, such as farm size and land use.

Successive crops: temporary crops grown more than once on the same land in the same agricultural year.

Sustainable agricultural practices: improved agricultural practices and structural changes that increase and improve the provision of goods and services in agriculture in a sustainable manner.

Table: primary form of presentation of statistical data, involving the summarizing of the results.

Tabulation programme: for an agricultural census, the set of statistical tables prepared to present the main census results.

Temporary crops: crops with a less than one-year growing cycle.

Theme: the broad subject heading describing the content of a census supplementary module or an agricultural survey.

Tillage: any physical loosening of the soil carried out in a range of cultivation operations, either by hand or mechanized.

Widened agricultural census: census collecting limited additional data on households that are not agricultural holdings, used when there are few other opportunities for data collection. It is not limited to the structure of crop and livestock production activities carried out by agricultural holding.